

MCZ



USE AND MAINTENANCE MANUAL

STAR - EGO _ mod.Air





MCZ S.p.A. - Via G.Oberdan 86, I - 33074 Vigonovo (PN) Italy.



EN 14785 - 2006



Art. 15a B-VG - VKF AEA1

Regensburger und Münchener BStV erfüllt.

EGO AIR / STAR AIR

Potencia nominal: Potência nominal: Nominal heat output: Brændværdi:	Max 8,0 kW Min 2,4 kW
Emisión CO (al 13% de O2): Emissão CO (13% de O2): CO emission (at 13% O2) CO emission (ved 13% O2):	P max 0,014% P min 0,025%
Eficiencia: Eficiência: Efficiency: Virkningsgrad:	P max 91,7% P min 94,1%
Temperadura humos: Temperatura dos fumos: Flue gas temperature: Røggastemperatur:	170 °C
Asorbimiento eléctrico max: Potência eléctrica absorbida: Max. electrical power supply: Max. elektrisk effekt:	420 W (Med. 80 W)
Tensión de funcionamiento: Tensão eléctrica funcionamento: Rated voltage: Netspænding:	230 V - 50 Hz.
Distancias de seguridad (retro): Distância de segurança (trasiera): Safety clearance distance (back): Sikkerhedsafstand (bag):	50 mm
Distancias de seguridad (laterales): Distância de segurança (lateral): Safety clearance distance (side): Sikkerhedsafstand (side):	100 mm

Producto conforme a la instalación de tubos múltiples. Produto conforme para instalação em condutas multiplas. Appliance suitable for installation in a shared flue. Apparatet kan bruges i en røggassamleledning.

Utilizar sólo con combustibles adaptados. Utilizar somente combustível adequado. Use only recommended fuels. Anvend kun anbefalede brændsler.

Leer y seguir las instrucciones! Leia atentamente e siga as instruções! Leggere e seguire le istruzioni! Read and follow the operating instructions! Følg fabrikantens brugervejledning!

INTRODUCTION	5
1. WARNINGS AND GUARANTEE CONDITIONS.....	6
1.1. SAFETY INSTRUCTIONS	6
1.2. OPERATING WARNINGS	7
1.3. GUARANTEE CONDITIONS	8
1.3.1. Limitations	8
1.3.2. Exclusions	8
2. THEORETICAL NOTIONS FOR INSTALLATION	10
2.1. Pellets	10
2.2. PRECAUTIONS FOR INSTALLATION	11
2.3. OPERATING AREA	11
2.4. CONNECTION TO THE EXTERNAL AIR INTAKE	12
2.5. CONNECTION OF SMOKE DISCHARGE PIPE	13
2.6. CONNECTION TO THE FLUE PIPE	14
2.7. CONNECTION TO AN EXTERNAL FLUE WITH INSULATED OR DOUBLE-WALL PIPE	14
2.8. CONNECTION TO THE FLUE PIPE	14
2.9. OPERATING PROBLEMS CAUSED BY DRAUGHT DEFECTS IN THE FLUE	15
3. INSTALLATION AND ASSEMBLY	16
3.1. DRAWINGS AND TECHNICAL CHARACTERISTICS	16
3.1.1. STAR Air	16
3.1.2. EGO Air	16
3.1.3. Technical characteristics	17
3.2. PREPARATION AND UNPACKING	18
3.3. LATERAL CLADDING ASSEMBLY	20
3.4. INSTALLATION OF AIR FILTER	22
3.5. MAKING THE ELECTRICAL CONNECTIONS	22
4. OPERATION	23
4.1. PRE-LIGHTING WARNINGS	23
4.2. PRE-LIGHTING CHECK	24
4.3. LOADING THE PELLETS	24
4.4. CONTROL PANEL/REMOTE CONTROL DISPLAY (accessory)	25
4.4.1. Control panel logic	25
4.4.2. Remote control (accessory)	27
4.4.3. General characteristics of the LCD remote control	28
4.4.4. Type of batteries and replacement	28
4.5. SETTINGS TO CARRY OUT BEFORE FIRST LIGHTING	28
4.5.1. Setting current day and time	29
4.5.2. Setting the language	31
4.6. FIRST LIGHTING	32
4.6.1. ON/OFF from the control panel or remote control (if purchased)	32
4.6.2. Note on first ignition	32
4.7. OPERATING MODE	32
4.7.1. Manual and automatic	32
4.7.1.1. <i>Changing from manual to automatic mode</i>	33
4.7.2. Manual mode	33
4.7.3. Automatic mode	33
4.7.3.1. Room sensor	34
4.7.3.2. External environment thermostat connection	34
It is possible to connect the stove to an external thermostat. To make this connection it is necessary to acquire the interface D (optional) that is connected to the motherboard (E) of the stove on the manifold (F) as indicated in the diagram below and in pag.53 par.7.	
4.7.4. Automatic mode with AUTO-ECO	35
4.7.4.1. <i>Activation /de-activation of AUTO-ECO mode</i>	36

4.8.	HOT AIR VENTILATION	37
4.9.	SLEEP FUNCTION	38
4.10.	TIMER	38
4.10.1.	Current date and clock	38
4.10.2.	TIMER activation and selection of a programme.	39
4.10.3.	TIMER de-activation.	40
4.11.	PRE-SET WEEKLY AND DAILY PROGRAMMES.....	40
4.11.1.	Weekly programmes.....	40
4.11.2.	Daily programmes.....	42
4.12.	PRACTICAL EXAMPLE OF DAILY PROGRAMMING.....	43
4.12.1.	Setting of a daily programme	43
4.13.	SAFETY DEVICES.....	43
4.14.	ALARM SIGNALLING	44
4.15.	Exiting alarm condition.....	46
4.15.1.	Shutdown of the stove	46
5.	MAINTENANCE AND CLEANING	47
5.1.	DAILY AND WEEKLY CLEANING BY THE USER.....	47
5.1.1.	Before each lighting.....	47
5.1.2.	Check every 2/3 days	47
5.1.3.	Cleaning the glass	48
5.1.4.	Cleaning of the air filter	48
5.2.	PERIODIC CLEANING BY A SPECIALISED TECHNICIAN	49
5.2.1.	Cleaning of the heat exchanger	49
5.2.2.	Shutting the stove down (end of season)	50
5.2.3.	Check of internal components	50
6.	PROBLEMS / CAUSES / SOLUTIONS	51
7.	ELECTRICAL DIAGRAMS.....	53

INTRODUCTION

Dear Customer,

We wish to thank you for choosing an MCZ product, specifically a stove of the MCZ pellet line.

In order to get the best performance from your stove and to enjoy to the full the warmth and the sense of well-being which the flame will diffuse through the home, we recommend that you read this booklet carefully before lighting the stove for the first time.

While thanking you again, may we remind you that the stove **MUST NOT** be used by children, and that they must always be kept at a safe distance from it!



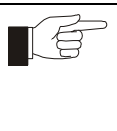

Revisions to the publication

In order to improve the product, to keep this publication up to date the manufacturer reserves the right to make modifications without any advance notice. Any reproduction, even in part, of this manual without the consent of the manufacturer is prohibited.

Care of the manual and how to consult it

- Take good care of this manual and keep it in a place which can easily and quickly be reached.
- If this manual should be lost or destroyed, or if it is in poor condition, ask for a copy from your retailer or directly from the manufacturer, providing product identification data.
- Information which is essential or that requires special attention is shown in **bold text**.
- *Italic text* is used to call your attention to other paragraphs in the manual or for any additional clarifications.

SYMBOLS USED IN THE MANUAL

	<p>ATTENTION</p> <p>This warning sign indicates that the message to which it refers should be carefully read and understood, because failure to comply with what these notices say can cause serious damage to the stove and put the user's safety at risk.</p>
	<p>INFORMATION</p> <p>This symbol is used to highlight information which is important for proper stove operation. Failure to comply with these provisions will compromise use of the stove and its operation will not be satisfactory.</p>
	<p>OPERATING SEQUENCES:</p> <p>Indicates a sequence of buttons to be pushed to access menus or to make adjustments.</p>
	<p>MANUAL</p> <p>Indicates that you should carefully read this manual or the related instructions.</p>

1. WARNINGS AND GUARANTEE CONDITIONS

1.1. SAFETY INSTRUCTIONS



- **Installation of the stove, making the electrical connections, checking its operation, and maintenance are all tasks which should be carried out by qualified and authorised personnel.**
- **Install the stove in accordance with the regulations in force in your local area, region and country.**
- For the correct use of the stove and of the electronic apparatus connected to it, and to prevent accidents, the instructions given in this booklet must always be followed.
- Use, adjustment and programming must be carried out by adults. Errors or incorrect settings may cause hazardous conditions and/or poor operation.
- Before beginning any operation, the user, or whoever is preparing to operate on the stove, must have read and understood the entire contents of this instruction booklet.
- The stove is to be used only for its intended purpose. Any other use is to be considered improper and therefore hazardous.
- Do not use the stove for standing on or as any kind of support.
- Do not put clothes to dry on the stove. Any clothes hangers and suchlike must be kept a suitable distance from the stove. **Danger of fire.**
- All responsibility for improper use is taken entirely by the user and such use relieves MCZ of any civil or criminal responsibility.
- Any kind of tampering or unauthorised substitution of non-original spare parts can be hazardous for the safety of the operator and relieves MCZ of any civil or criminal responsibility.
- Most of the surfaces of the stove are extremely hot (the door, the handle, the glass, smoke discharge pipes etc.). Avoid coming into contact with these parts, therefore, without adequate protective clothing or suitable implements, such as gloves with thermal protection or implements which keep the hands cool.
- Carefully explain this hazard to elderly people, disabled people and particularly to all children, keeping them away from the stove while it is running.
- **Under no circumstances should the stove be run with the door open or the glass broken.**
- Do not touch the stove with wet hands, in view of the fact that it is an electrical appliance. Always disconnect the supply cable before doing anything to the unit.
- Before carrying out any cleaning or maintenance operation, make sure in advance that the stove is disconnected from the mains electricity supply, by

turning off the main switch located on the back of the stove, or by unplugging the supply cable.

- The stove must be connected to an electrical system which is equipped with an earth conductor, as laid down in directives 73/23 EEC and 93/98 EEC.
- The system must be of adequate rated capacity for the stated electrical power of the stove.
- Incorrect installation or faulty maintenance (not conforming to the requirements set out in this booklet) can cause harm to people, animals or property. In such cases MCZ is absolved from any civil or criminal responsibility.

1.2. OPERATING WARNINGS



- Shut the stove down in the event of a breakdown or bad running.
- Pellets must not be fed manually into the burner.
- Accumulated unburnt pellets in the burner after repeated failed ignitions must be removed before lighting.
- Do not wash the inside of the stove with water.
- Do not wash the stove with water. The water could get inside the unit and damage the electrical insulation and cause electric shocks.
- Do not expose your own body to hot air for extended periods. Do not overheat the room you are in and where the stove is installed. This could cause injuries and health problems.
- Do not expose plants or animals directly to a current of hot air. Both plants and animals could be harmed by it.
- Do not put any fuels in the hopper but wood pellets.
- Install the stove in a location which is suitable for firefighting, and equipped with all services such as air and electricity supply and provision for discharging combustion gases.
- If there is a fire in the flue pipe, extinguish the stove, disconnect it from the power supply and never open the door. Then contact the competent authorities.
- If the stove and the ceramic cladding are in storage, it should be in a place that is free of damp, and they should not be exposed to extremes of temperature.
- It is inadvisable to base the stove directly on the floor, and if the floor is made of flammable material, it must be suitably insulated.
- Do not light the stove with flammable materials if the ignition system breaks down.



INFORMATION

- In case of any problems, get in touch with your dealer, or a qualified engineer authorised by MCZ, and if a repair is necessary, insist on the use of original spare parts.
- Use only the fuel recommended by MCZ (for Italy pellets

with a diameter of 6 mm and for other European countries with a diameter of 6-8 mm) and provided only with an automatic supply system.

- Periodically check and clean the smoke outlet ducts (connection to the flue pipe).
- Accumulated unburnt pellets in the burner after repeated failed ignitions must be removed before lighting.
- The pellet stove is not a cooking appliance.
- Always keep the cover of the fuel hopper closed.
- Keep this instruction manual carefully because it must stay with the stove throughout its working life. If the stove is sold or transferred to another user, always make sure that the booklet goes with the product.
- If it gets lost, ask MCZ or your authorised dealer for another copy.

1.3. GUARANTEE CONDITIONS



MCZ guarantees the stove, **excluding the components which are subject to normal**, for a period of two years from the date of purchase, as proved by a supporting document which gives the name of the vendor and the date on which the sale took place. The guarantee is conditional on the guarantee certificate being filled in and returned within 8 days, and requires that the product be installed and tested by a specialised installer, according to the detailed instructions given in the instruction booklet supplied with the product.

The term 'guarantee' is to be understood to denote the free-of-charge replacement or repair of **parts recognised to have been defective at the start by reason of manufacturing defects.**

1.3.1. Limitations

The above guarantee does not cover components relating to electrical and electronic parts, or fans, on which the guarantee period is 1 year from the purchase of the product, documented as specified above. The guarantee does not cover parts subject to normal wear such as gaskets, glass, and any parts which can be removed from the firebox.

The replacement parts will be guaranteed for the remainder of the guarantee period starting from the date of purchase of the product.

1.3.2. Exclusions

Variations in colour in the painted or ceramic parts, and crackling of the glaze on the ceramics, do not constitute grounds for a claim under the guarantee, as they are natural characteristics of the material and of the use of the product.

The guarantee does not cover any parts which may be found to be faulty as a result of negligence or carelessness in use, or of incorrect maintenance, or of installation not complying with MCZ's specification (see the relevant chapters in this user manual).

MCZ refuses to accept any responsibility for any damage which may be caused, directly or indirectly, by persons, animals or things in consequence of the failure to observe all the prescriptions laid down in

the instruction booklet, especially those concerning warnings on the subject of installation, use and maintenance of the appliance.

If the product does not perform correctly, contact your local retailer and/or importer.

Damage caused by transport and/or handling is excluded from the guarantee.

For installation and use of the product, reference must be made exclusively to the booklet supplied.

The guarantee will be invalidated in the event of damage caused by tampering with the appliance, atmospheric agents, natural disasters, electrical discharges, fire, defects in the electrical system, and caused by lack of, or incorrect, maintenance in terms of the manufacturer's instructions.



CLAIMS UNDER THE GUARANTEE

the request for action under the guarantee must be addressed to the retailer, who will forward the claim to MCZ's technical assistance service.

MCZ DECLARES THAT THE STOVE WHICH YOU HAVE PURCHASED COMPLIES WITH EEC DIRECTIVE 89/336 and 72/23 and SUCCESSIVE AMENDMENTS



MCZ refuses to accept any responsibility in the event that the stove or any other accessory have been improperly used or modified without authorisation.

For all replacement of parts, only original MCZ spare parts must be used.

2. Theoretical notions for installation

2.1. Pellets

Wood pellets are manufactured by hot-extruding compressed sawdust which is produced during the working of natural dried wood. The compactness of the material comes from the lignin which is contained in the wood itself, and allows the production of pellets without the use of glues or binders.

The market offers different types of pellet with characteristics which vary depending on what mixture of woods is used. The diameter varies between 6 mm and 8 mm, with a standard length in the range 5 mm to 30 mm. Good quality pellets have a density which varies between 600 kg/m³ and 750 kg/m³, with a moisture content which varies from 5% to 8% by weight.

Besides being an ecological fuel (exploiting timber residues to the maximum and achieving cleaner combustion than is possible with fossil fuels), pellets also have technical advantages. While good-quality timber has a calorific power of 4.4 kW/kg (with 15% moisture, therefore after about 18 months' seasoning), the equivalent figure for pellets is 4,9 kW/kg.

To ensure good combustion, the pellets must be stored in an area that is free of humidity and protected from dirt. The pellets are usually supplied in 15 kg. sacks, so storing them is very convenient.

Good quality pellets ensure good combustion, thus lowering the emission of harmful agents into the atmosphere.



Fuel pellets



15 Kg sack of fuel



The poorer the quality of the fuel, the more frequently will intervention be necessary for cleaning the internal parts, such as the grate and the combustion chamber.

The main certifications of quality for pellets in the European market are **DINplus** and **Ö-Norm M7135**; these ensure respect of:

- ✓ Calorific power: 4.9 kW/kg
- ✓ Water content: max 10% of weight
- ✓ Percentage of ashes: max 0,5% of weight
- ✓ Diameter: 5 – 6mm
- ✓ Length: max 30mm
- ✓ Contents: 100% untreated wood, with no added bonding substances (bark percentage 5% max)
- ✓ Packaging: in sacks made from ecologically compatible or biologically decomposing material



MCZ strongly recommends using certified fuel in its stoves (DINplus e Ö-Norm M7135).

The use of fuel of inferior quality or not conforming to the specification given above compromises the running of your stove and can therefore lead to the termination of the guarantee and of the manufacturer's responsibility for the product.

MCZ pellet stoves run exclusively on pellets with a diameter of 6 mm (only for Italy) and 6-8 mm (European countries) with lengths that go from 5 mm to 30 mm.

2.2. PRECAUTIONS FOR INSTALLATION



IMPORTANT!

Installation and assembly of the stove must be carried out by qualified personnel.

The stove must be installed in a suitable position to allow the normal operations of opening and ordinary maintenance.

The site must be:

- capable of providing the environmental conditions for operation
- equipped with power supply 230V 50 Hz (EN73-23)
- capable of taking an adequate system for smoke discharge
- provided with external ventilation
- provided with an earth connection complying with CEI 64-8

The stove must be connected to a flue pipe or an internal or external vertical duct conforming to current standards UNI 7129 - 7131 9615.

The stove must be positioned in such a way that the electrical plug is accessible.



IMPORTANT!

The stove must be connected to a flue pipe or a vertical duct which can discharge the fumes at the highest point of the building.

The fumes are however derived from the combustion of wood products, and if they come into contact with or close to walls, they can make dirty marks.

Also take care because the fumes are very hot but almost invisible, and can cause burns on contact.

The holes for the passage of the smoke pipe and for the intake of air from outside should be made before positioning the stove unit.

2.3. OPERATING AREA

For proper functioning and a good temperature distribution, the stove should be positioned in a location where it is able to take in the air necessary for combustion of the pellets (about 40 m³/h must be

available), as laid down in the standard governing the installation and in accordance with local national standards.

The volume of the room must not be less than 30 m³.

The air must come in through permanent openings made in walls (in proximity to the stove) which give onto the outside, with a minimum cross-section area of 100 cm².

These openings must be made in such a way that it is not possible for them to be obstructed in any way.

Alternatively, the air can be taken from rooms adjacent to the one which needs ventilating, as long as they are provided with an air intake from the outside, and are not used as bedrooms or bathrooms, and provided there is no fire risk such as there is for example in garages, woodsheds, and storerooms, with particular reference to what is laid down in current standards.



It is not permissible to install the stove in bedrooms, bathrooms, or in a room where another heating appliance is installed (fireplace, stove etc.) which does not have its own independent air intake.

Locating the stove in a room with an explosive atmosphere is prohibited.

The floor of the room where the stove is to be installed must be strong enough to take its weight.

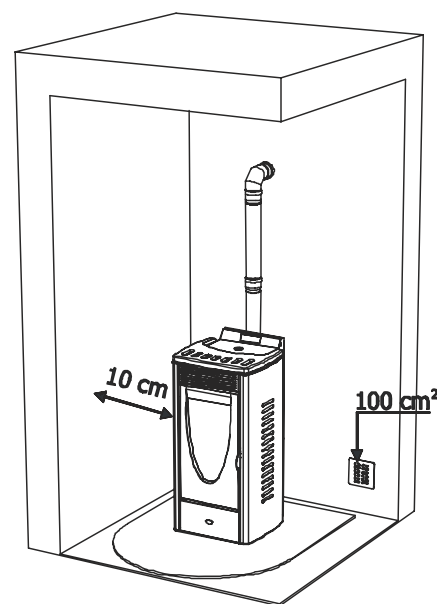
If the walls are not flammable, position the stove with a clearance to the rear of at least 10 cm.

For flammable walls, keep a minimum distance of 20 cm at the rear, 10 cm on the sides and 150 cm at the front.

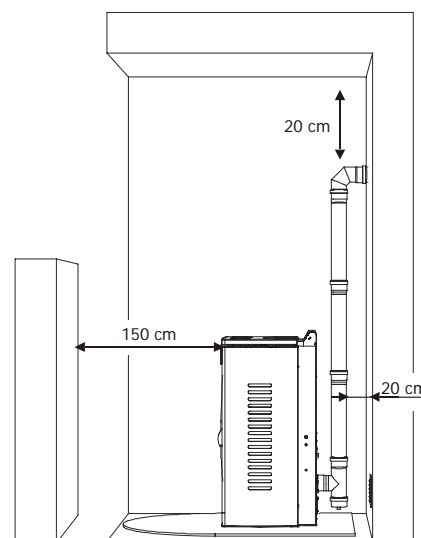
If the room contains objects which are believed to be particularly delicate, such as drapes, sofas and other furniture, their distance from the stove should be considerably increased.



If the flooring is made of wood, provide a floor protection surface in compliance with current national standards.



Example of pellet stove installation



Example of pellet stove installation

2.4. CONNECTION TO THE EXTERNAL AIR INTAKE

It is essential that at least as much air must be able to flow into the room where the stove is installed as is required for proper combustion in the appliance and for the ventilation of the room. This can be effected by means of permanent openings in the walls of the room to be ventilated, which give onto the outside, or by single or collective ventilation ducts.

For this purpose, on the external wall near the stove, a hole must be made with a minimum free cross-section of 100 cm². (equivalent to a round hole of 12 cm diameter or a square hole 10x10 cm), protected by a grille on the inside and the outside.

The air intake must also:

- communicate directly with the room where the stove is installed
- be protected by a grille, metal mesh or suitable guard, as long as this does not reduce the area below the minimum.
- be positioned in such a way as to be impossible to obstruct





It is not compulsory to connect the air intake directly with the stove (so that it draws air directly from outside), but it is essential at all events to ensure an airflow of 50 cubic metres per hour by the use of a hole of the dimensions given.

See standard UNI 10683.

2.5. CONNECTION OF SMOKE DISCHARGE PIPE

When making the hole for the passage of the smoke discharge pipe, it is necessary to take into account the possible presence of flammable materials. If the hole will be going through a wall made of wood or any other material which is sensitive to heat, the **INSTALLER MUST** first of all use the special wall union (diam.13cm 13cm minimum) and properly insulate the pipe of the stove that passes through it, using adequate insulation materials (thickness 1.35cm with minimum thermal conductivity of 0.07 W/m°K).

The same is true if the stove pipe must run through vertical or horizontal stretches passing in proximity (min.20cm) to the heat-sensitive wall

As an alternative we recommend the use of insulated pipe, which can also be used on the outside to avoid condensation.

The combustion chamber works in low pressure. The smoke duct for the discharge of fumes will also be under low pressure when connected to an efficient flue pipe as directed.



Pipes and unions with suitable gaskets must always be used, to guarantee a hermetic seal.



All sections of the smoke duct must be inspectable and removable to enable periodic internal cleaning. Tee connectors with inspection caps should be used.

Position the stove bearing in mind all the instructions and considerations above.



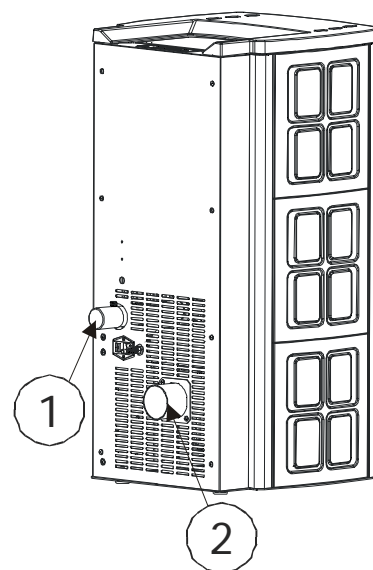
IMPORTANT!

All 90 degree changes of direction in the flue pipe must be fitted with suitable tee connectors to allow the possibility of inspection. (see accessories for pellet stove)

It is absolutely prohibited to fit a grille on the end of the discharge pipe, because it could lead to poor running of the stove.

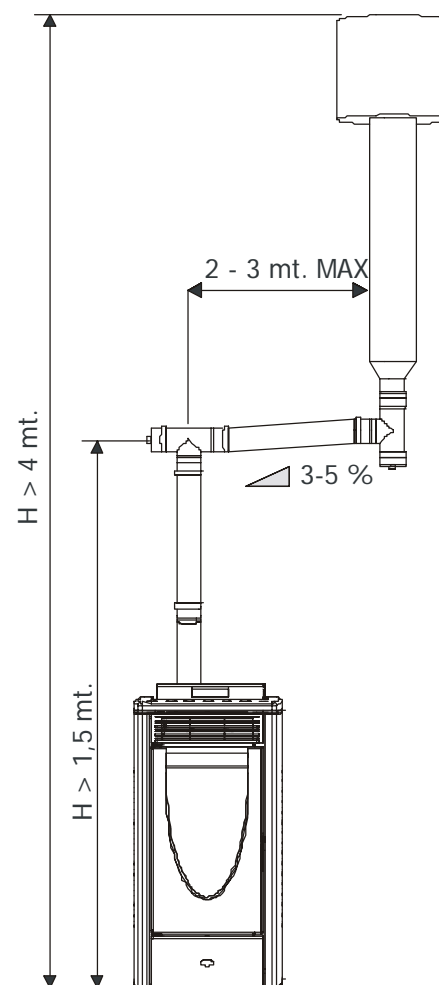
FOR CONNECTION TO THE FLUE PIPE, NOT MORE THAN 2-3 METRES OF HORIZONTAL PIPE MUST BE USED AND NOT MORE THAN THREE 90° CURVES MUST BE USED

IT IS ALSO ADVISABLE NOT TO EXCEED 6 METRES IN LENGTH WITH THE PIPE Ø 80 mm



Rear view of a pellet stove

- 1) Combustion air intake
- 2) Smoke outlet



Example of pellet stove installation

2.6. CONNECTION TO THE FLUE PIPE

The flue pipe must have internal dimensions not larger than 20 x 20 cm, or diameter 20 cm. In the event of larger dimensions, or of the flue pipe being in poor condition (for example cracks, poor insulation, etc.), it is advisable to fit a stainless steel pipe of suitable diameter inside the flue pipe throughout its length, right up to the top.

Check with suitable instruments that there is a minimum draught of 10 Pa.

At the bottom of the flue pipe, provide an inspection cap to allow periodic checking and cleaning, **which must be done annually**.

Make a gas-tight connection to the flue pipe, using pipes and connectors as recommended by us.

You must ensure that a windproof cowl should be fitted which complies with the standards in force.



This type of connection ensures the evacuation of the fumes even in the event of a temporary power cut.

2.7. CONNECTION TO AN EXTERNAL FLUE WITH INSULATED OR DOUBLE-WALL PIPE

The external fluepipe must have internal dimensions of minimum 10x10 cm or 10 cm diameter, and maximum 20x20 cm or 20 cm diameter.

Check with suitable instruments that there is a minimum draught of 10 Pa.

The only type of pipe which is permissible is insulated (double-walled) stainless steel, smooth on the inside, fixed to the wall. Flexible stainless steel pipe must not be used. At the bottom of the flue pipe, provide an inspection cap to allow periodic checking and cleaning, **which must be done annually**. Make a gas-tight connection to the flue pipe, using pipes and connectors as recommended by us.

You must ensure that a windproof cowl should be fitted which complies with the standards in force.



This type of connection ensures the evacuation of the fumes even in the event of a temporary power cut.

2.8. CONNECTION TO THE FLUE PIPE

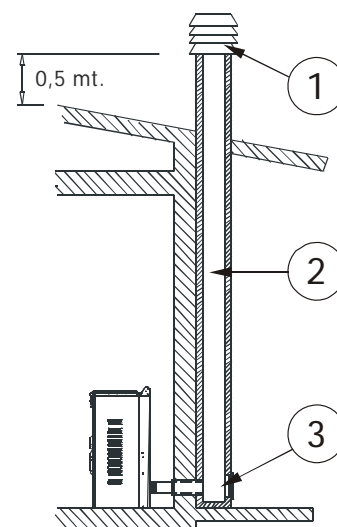
For proper functioning, the connecting pipe between the stove and the chimney or flue duct must have a slope of not less than 3% in the horizontal stretches, the length of which **must not exceed 2/3 metres**, and the vertical distance between one tee connector and another (change of direction) must not be less than 1.5m.

Check with suitable instruments that there is a minimum draught of 10 Pa.

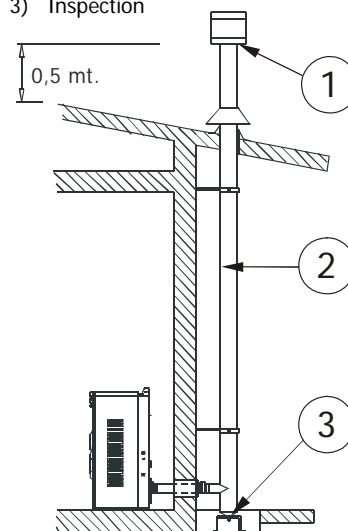
At the bottom of the flue pipe, provide an inspection cap to allow periodic checking and cleaning, **which must be done annually**.

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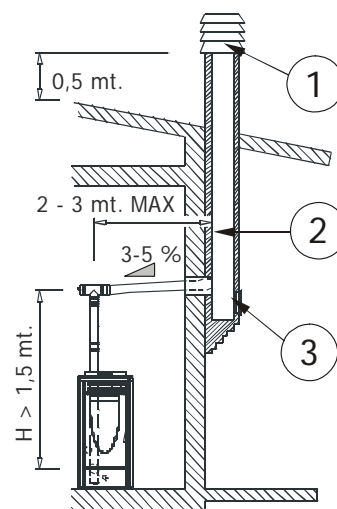
You must ensure that a windproof cowl should be fitted which complies with the standards in force.



- 1) Windproof cowl
- 2) Flue pipe
- 3) Inspection



- 1) Windproof cowl
- 2) Flue pipe
- 3) Inspection



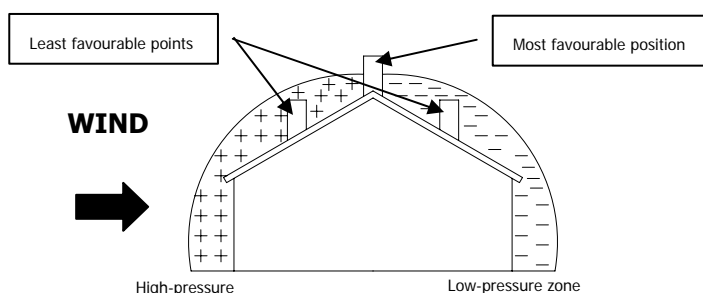
- 1) Windproof cowl
- 2) Flue pipe
- 3) Inspection



This type of connection ensures the evacuation of the fumes even in the event of a temporary power cut.

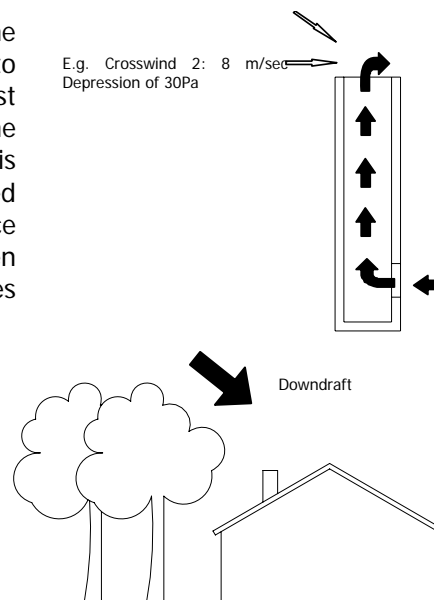
2.9. OPERATING PROBLEMS CAUSED BY DRAUGHT DEFECTS IN THE FLUE

Of all the weather and geographical conditions which affect the operation of a flue pipe (rain, fog, snow, altitude a.s.l., exposure to sunlight, direction of facing), the **wind** is unquestionably the most decisive. In fact, along with thermal depression caused by the difference in temperature inside and outside of the chimney, there is another type of depression or over-pressure: dynamic pressure caused by the wind. An updraft always increases depression and hence draught. A crosswind increases depression provided the cowl has been installed properly. A downdraft always decreases depression, at times inverting it.



E.g. Downdraft at 45° of 8m/sec. Overpressure of 17 Pa

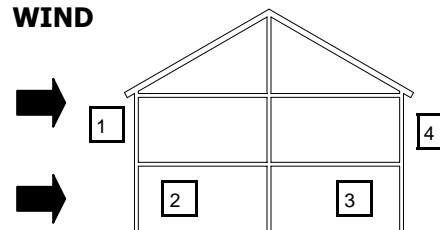
E.g. Crosswind 2: 8 m/sec
Depression of 30Pa



Besides the direction and force of the wind, the position of the flue and the cowl with respect to the roof of the building and the surrounding landscape is important.

The wind also influences the operation of the chimney indirectly by creating high-pressure and low-pressure zones, not only outside the building but inside as well. In rooms directly exposed to the wind **(2)**, an indoor high-pressure area can be created which can augment the draught in stoves and fireplaces, but it can be counteracted by the external high pressure if the cowl is situated on the side exposed to the wind **(1)**. On the other hand, in the rooms on the opposite side from the direction of the wind **(3)**, a dynamic depression can be created which competes with the natural thermal depression developed by the chimney, but this can be compensated for (sometimes) by locating the flue on the opposite side from the direction of the wind **(4)**.

WIND



1-2 = High-pressure zones
3-4 = Low-pressure zones



IMPORTANT!

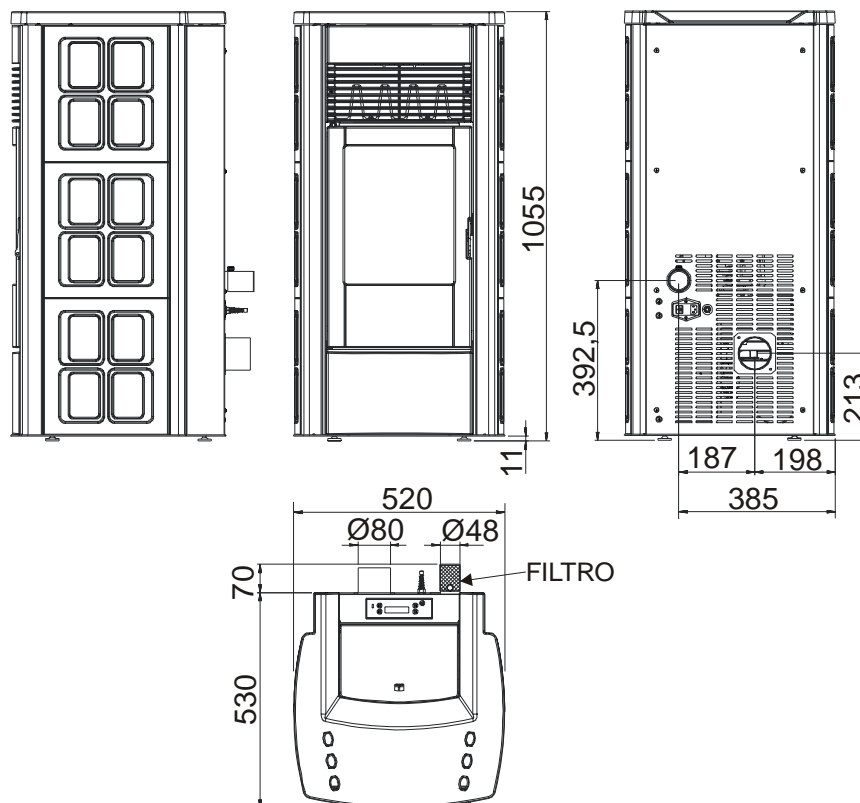
The operation of the pellet stove is noticeably sensitive to the conformation and position of the flue which is adopted.

Hazardous conditions can only be overcome by suitable setting-up of the stove carried out by qualified MCZ personnel.

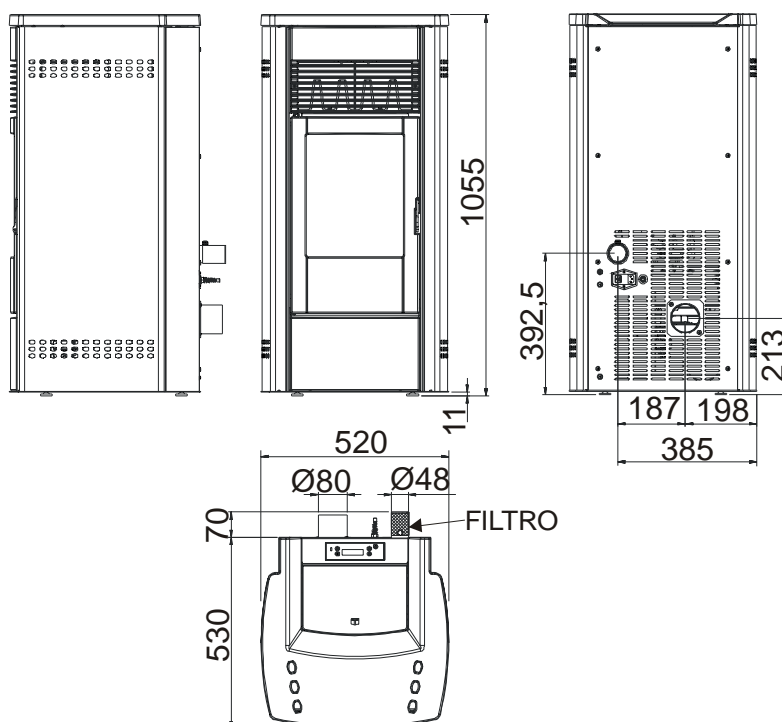
3. INSTALLATION AND ASSEMBLY

3.1. DRAWINGS AND TECHNICAL CHARACTERISTICS

3.1.1. STAR Air



3.1.2. EGO Air



3.1.3. Technical characteristics

Technical characteristics	Star – Ego Air
Overall thermal power Max.	8 kw / 6880 kcal/h
Overall thermal power Min.	2.4 kw / 2064 kcal/h
Yield at maximum	91,7 %
Yield at minimum	94,1 %
Temperature of exhaust smoke at maximum	170°C
Temperature of exhaust smoke at minimum	100°C
CO at 13%O ₂ at minimum and maximum	0.025 — 0.014%
CO ₂ at minimum and maximum	5.7% – 8.7%
Mass of smoke at minimum and maximum	4 – 6.6 g/sec
Minimum draught at maximum power	0.10 mbar – 10 Pa
Minimum draught at minimum power	0.05 mbar – 5 Pa
Hopper capacity	37 litres
Fuel pellet type	Pellet diameter 6-8 mm. Length range 5-30 mm
Pellet consumption per hour	Min ~ 0.6 kg/h * Max. ~ 1.8 kg/h *
Operating time between re-fuelling	At min~ 40 h * At max. ~ 13 h *
Heatable volume m ³	172/40 – 196/35 – 229/30 **
Combustion air inlet	External diameter 50 mm.
Smoke outlet	External diameter 80 mm.
Maximum absorbed electrical power	Max. 420 W – Med. 80 W
Power supply frequency and voltage	230 Volts / 50 Hz
Net weight	140 kg
Weight with packaging	150 Kg

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

**Heatable volume based on demand of cal/m³ 40-35-30 (respectively 40-35-30 Kcal/h for m³)

Appliance suitable for installation in a shared flue.

3.2. PREPARATION AND UNPACKING

STAR AND EGO stoves are delivered with two different packagings:

- ✓ The **EGO** stove has one packaging
 - It contains the stove and the steel sides with the profiles (Fig.1)
- ✓ The **STAR** stove has two packagings
 - One contains the stove and the profile for the ceramic or the soapstone
 - One contains the ceramic (fig.2). In this case there will be a single packaging for the structure (the cardboard with the ceramics will be placed above the packaging with the structure)
 - or Soapstone (fig.3) (in this case there are two packagings structure + soapstone pallet)

Open the packaging, remove the four screws that secure the base of the stove to the pallet, two to the right and two to the left (see figure 4), and position the stove in the selected place, ensuring that it complies with the above instructions.

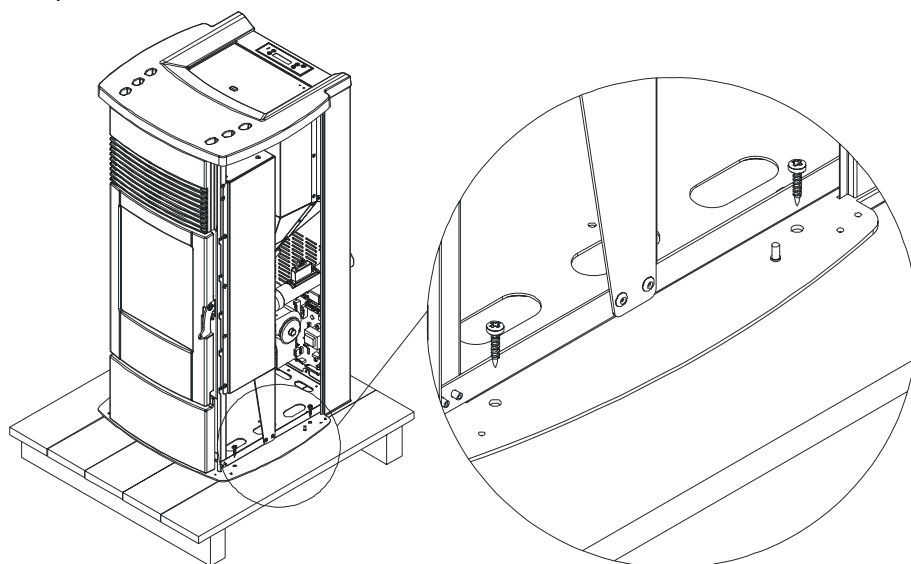


Figure 4 - Removing packaging screws (in figure Ego stove)

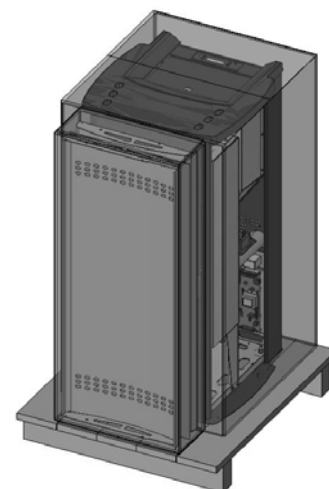


Figure 1 – Example of packaging stove + steel sides (Ego stove)

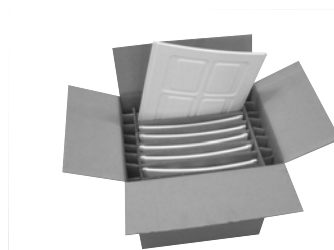


Figure 2 - Example of packing for ceramics

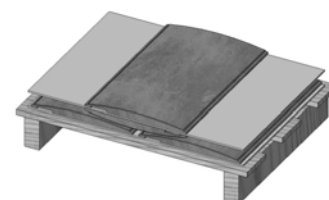


Figure 3 - Example of soapstone packaging

The stove body or unit must always be kept in a vertical position when moved, and moved only using carts. Special care must be used to protect the door and the glass from impacts that would damage them. Moving the product must always be done with care. If possible, unpack the stove in the area where it is going to be installed.

The materials which make up the packaging are not toxic or harmful, so no special procedures for disposal are required.

Their storage, disposal or possible recycling are therefore the responsibility of the final user, in compliance with current legislation on the subject.

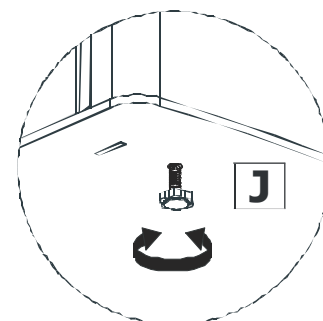
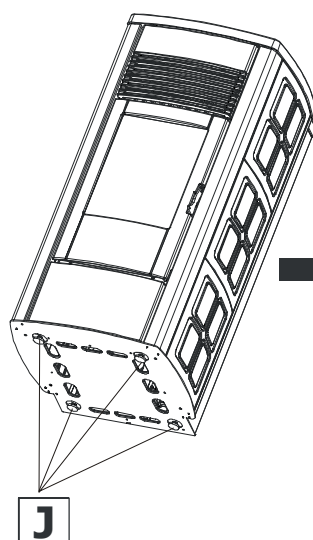
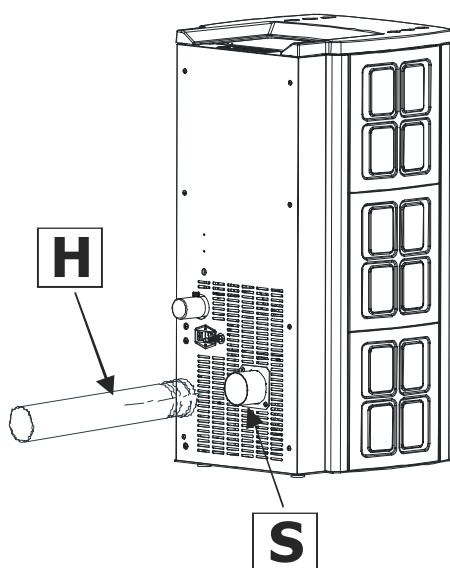
Do not store the stove unit or its cladding without their packaging.

Position the stove without its cladding and connect it to the flue pipe. Use the four adjustable feet **(J)** to get the stove correctly levelled so that the smoke outlet **(S)** is lined up with the connecting pipe **(H)**. Once the operations for connection are complete, assemble the cladding (ceramics or steel sides).

If the stove needs to be connected to a discharge pipe which goes through the rear wall (to connect up with the flue), take the greatest care to make sure that the joint is not stressed.



If the smoke outlet of the stove is forced or used improperly to lift it or position it, the operation of the stove can be damaged irreparably.



- 1.** Turn the feet clockwise to lower the stove
- 2.** Turn the feet counter-clockwise to lower the stove

3.3. LATERAL CLADDING ASSEMBLY



THE 6 CERAMICS AND THE 4 SIDES MADE OF SOAPSTONE THAT ARE LATERAL TO THE STAR STOVE ARE ALL THE SAME.

Assembly of profiles to insert steel sides (for EGO stove only)

Remove, on the upper part, the cast iron top (A).

Take the two profiles (B) to be assembled on the front part of the stove (one to the right and one to the left). Make sure that the profile (B) at the bottom enters the hole predisposed on the base for securing purposes, and along the side enters the blade (B1) predisposed in the stove along its entire height. Once this operation is performed, take the piece (C) with the two screws (D and E) and secure the profile on the top part of the stove. The screw (D) must be secured on the upper sheet metal of the stove, while the screw (E) must be secured on the area predisposed on the profile (B2).

Take the side (I) and secure it to the upper sheet metal of the stove with the two screws (G and H) provided.

In the front part it must be inserted in the housing (B3) of the profile (B).

Repeat the same operation for both sides. Reposition the cast iron top.

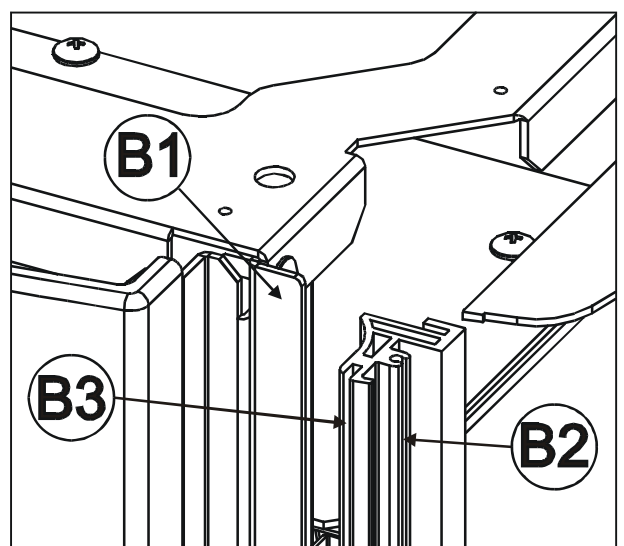
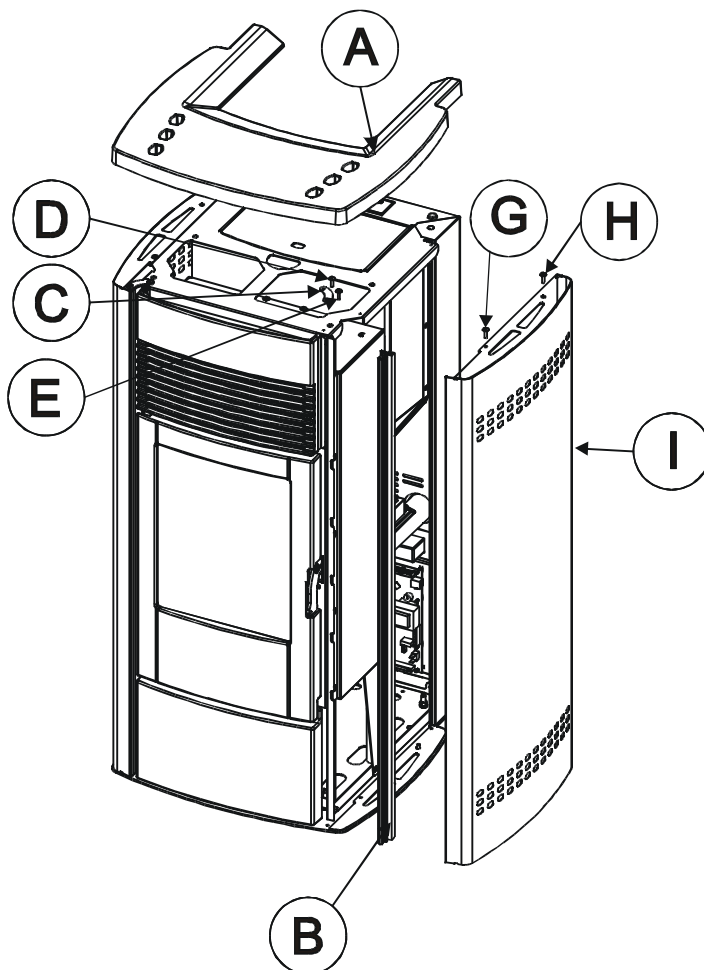
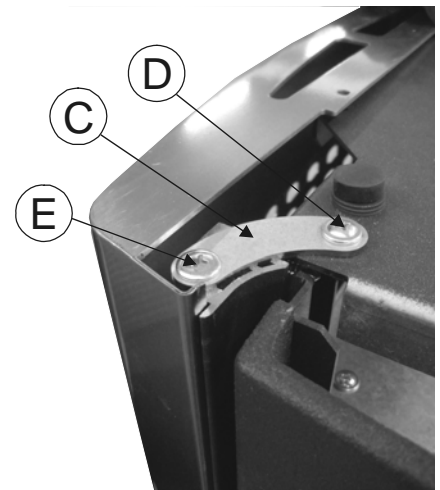
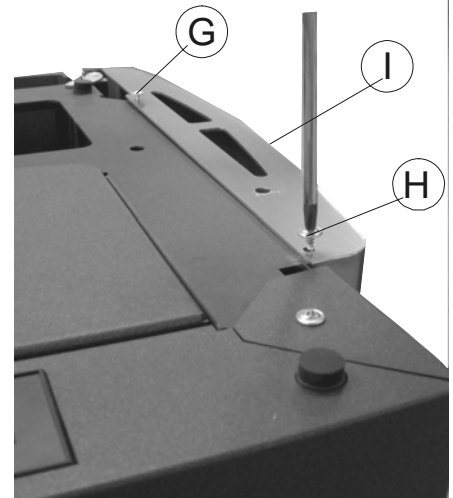


Figure 5 - EGO stove steel sides

Assembly of profiles to insert in the ceramic and soapstone sides (for STAR stove only)

Remove, on the upper part, the cast iron top (A).

Take the four profiles (B) to be assembled on the front and rear part of the stove (two to the right and two to the left). Make sure that the profile (B) at the bottom enters the in correspondence to the two holes predisposed on the base for securing purposes, and along the side enters the blade (B1) predisposed in the stove along its entire height. Once both profiles are assembled on one side, take the piece (C) with the four screws (D-E-F-G) and secure it on the upper part of the stove (F-D) and in correspondence to the element predisposed on the profile (B2) for screws G-E.

At this point take the ceramics (3 per side) or the soapstone (2 per side) and insert them on the profile (B) in correspondence to the element (B3) from above downwards.

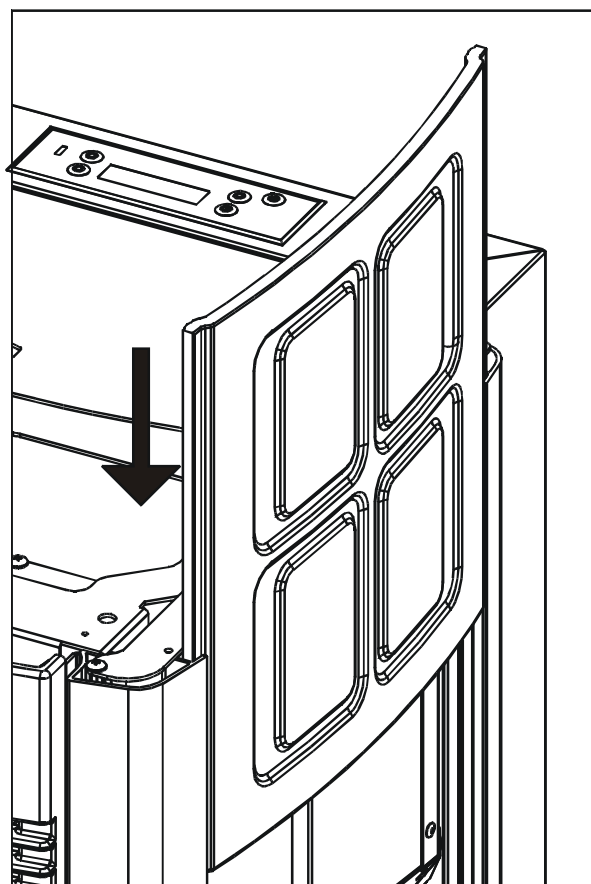
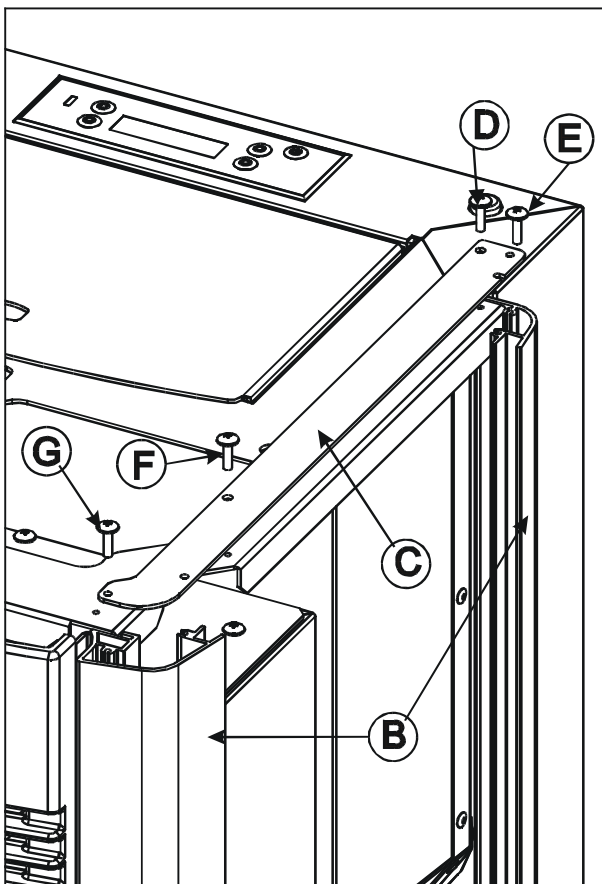


You are advised to use small felt pads (two on the right and two on the left) to be applied at the tips of the ceramics (inwards) in correspondence to the part of the tile that comes into contact with the sheet metal profile (B3).

This prevents the ceramic from coming into contact with the metallic parts of the structure and compensates any differences in thickness of the tile.

Repeat the same operation for both sides. Reposition the cast iron top.

Figure 6 - STAR stove sides



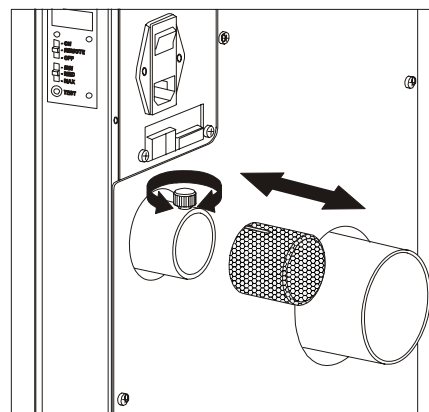
3.4. INSTALLATION OF AIR FILTER

Before placing the stove near the wall for connection to the flue pipe and to the electrical mains, install the air filter provided with the stove.

The cylindrical filter is composed of a metallic net and is already installed on the stove

The filter must be inserted on the air inlet pipe Ø 5 cm.

To remove it, slightly loosen the screw with the knob on the air inlet, insert the filter matching it with the filter groove with the screw of the knob and then secure it by tightening the knob.



Installation/removal of air filter



ATTENTION!

Never operate the stove without the air filter. MCZ shall not be held liable for damage to internal components if this instruction is not followed.

3.5. MAKING THE ELECTRICAL CONNECTIONS

Connect the supply cable first at the rear of the stove and then to an electrical outlet on the wall.

The main switch located on the rear of the stove should be switched on only when you want to light the stove.



If you do not intend to use the stove, it is advisable to keep it switched off.



Electrical connection of the stove

4. OPERATION

4.1. PRE-LIGHTING WARNINGS



Do not touch the stove during the first lighting, as it is during this phase that the paint sets. If you touch the paint, you may expose the steel surface.

If necessary, touch up the paint with the aerosol spray in the original colour (see the section "Accessories for pellet stoves").



It is good practice to provide plenty of ventilation in the room during the initial lighting, as the stove will give off a small amount of smoke and smell of paint.

Do not stay near the stove, and as previously mentioned, ventilate the room. The smoke and the smell of paint will vanish after about one hour of operation. There are no health risks involved.

The stove will be subject to expansion and contraction during the stages of lighting and cooling down, and may therefore make slight creaking noises.

This phenomenon is absolutely normal, the structure being made of sheet steel, and must not be considered a fault.

It is extremely important to be sure not to take the stove to full heat straight away, but to bring it gradually up to temperature.

If in manual mode, use low heating powers (for example 1^a-2^a-3^a). During subsequent use, you will be able to make use of all available heating power (e.g. 4^a-5^a), but remember not to keep the stove running on full power for more than 60-90 minutes.

In this way you will avoid damage to the ceramic panels, the welds and the steel structure.



At first lighting the stove is already in manual mode. At first, it is advisable to use the only low and medium heating levels (from first to third power level).



Do not demand full heating performance straight away!

Try to get familiar with the commands given from the control panel.

Try to memorize the messages that the stove provides on the display.

4.2. PRE-LIGHTING CHECK

Check that all the safety conditions described above have been met.

Make sure you have read and completely understood the contents of this instruction booklet.

Remove any components which might burn from the firebox and from the glass (various instructions and adhesive labels).

Check that the grate **A** is properly positioned and rests correctly on the base.



After long periods of disuse, remove from the hopper (**using a vacuum cleaner with an extension**) any remains of pellets which have lain there for some time, since they may have absorbed moisture, which changes their original characteristics and makes them unsuitable for burning.



4.3. LOADING THE PELLETS

Fuel is loaded from the upper part of the stove by opening a door. Pour the pellets in the hopper. When empty, it will hold slightly more than a 15 kg sack.

This is easier if performed in two steps:

- Pour half of the contents into the hopper and wait for the fuel to settle on the bottom.
- Then pour in the rest



Never remove the protection grille in the hopper. When filling, do not let the sack of pellets touch any hot surfaces.

Do not place any type of fuel in the hopper other than pellets that are compliant with the specifications provided previously.

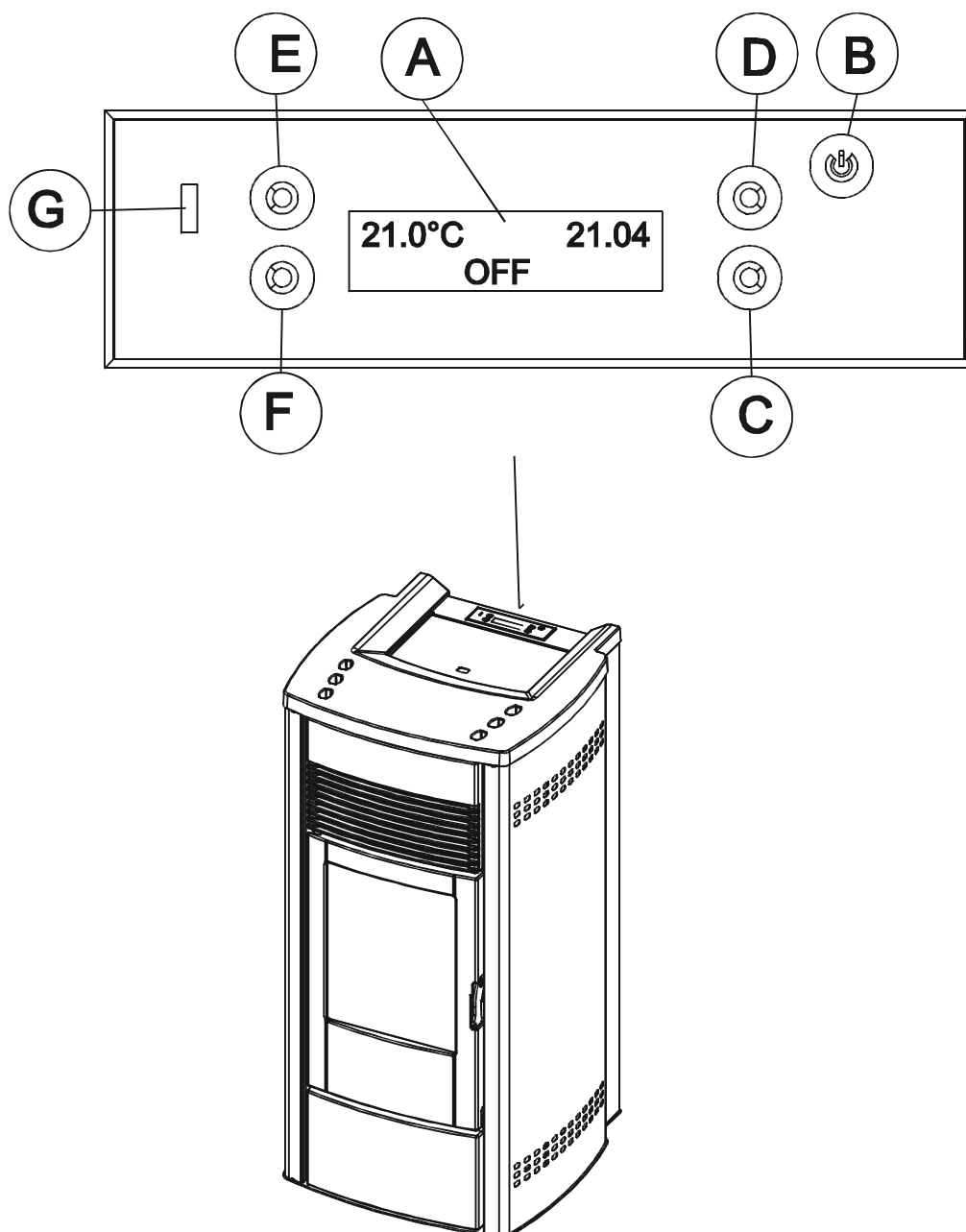


4.4. CONTROL PANEL/REMOTE CONTROL DISPLAY (accessory)

4.4.1. Control panel logic

Reported below are some useful information to understand the navigation logic and use the control panel:

- The luminosity of the control panel is switched off after about 30" seconds of the keyboard being inactive. To switch on the back lighting again just press any of the buttons on the panel.
- The first screen that appears displays the operating status of the stove (ON, OFF, LIGHTING, SHUTDOWN..) that alternates with any other settings activated (TIMER, SLEEP, AUTO ECO..)
- By pressing any of the 4 keys around the display (C D E F) you access the stove's operation settings screen (level of the flame, fan, set temperature, manual or automatic mode..). From this level the 4 keys around the display assume "dedicated" functions, i.e. they directly refer to the corresponding words that appear in the 4 corners of the display (e.g.: the word in the top right hand corner refers to the D key).
- When a setting is modified in any menu level without confirming the modification using the "OK" key and leaving the keypad inactive for some seconds, the initial screen reappears and the modifications are not saved.
- If from any menu level the on/off (B) key is briefly pressed, the display is automatically taken back to the initial screen (stove operating status) without saving any modifications not confirmed with the "OK" key.

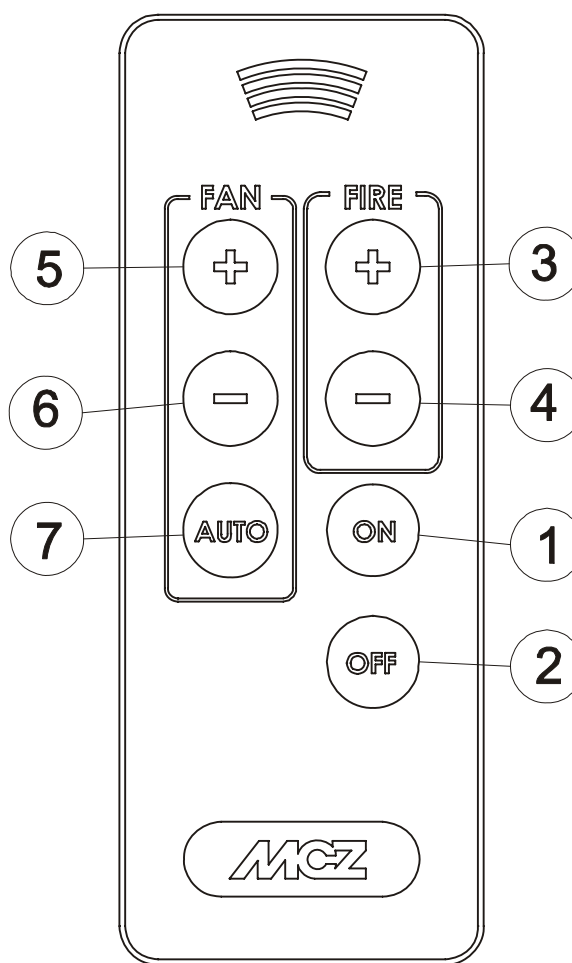


KEY

- A. Display; indicates a series of information about the stove, as well as the identification code for any operating anomaly.
- B. ON/OFF key or ESC (exit the menu).
- C. Programme selection key (next screen)
- D. Programme selection key (next screen)
- E. Programme selection key (next screen)
- F. Programme selection key (next screen)
- G. Receiver for the remote control

N.B. on the control panel it will be possible to set the language

4.4.2. Remote control (accessory)



KEY

1. ON key	6. Key that adjusts the speed of the hot air fan. If the AUTO function (key 7) activates this means that the ventilation is connected to the power.
2. OFF key	7. Key that sets the room fan speed in automatic mode (connected to the flame's power level)
3. Key that increases the flame's power level. The maximum power is 5.	N.B. from the remote control it is not possible to activate the ECO-STOP function
4. Key that decreases the flame's power level.	
5. Key that adjusts the speed of the hot air fan. If the AUTO function (key 7) activates, this means that the ventilation is connected to the power.	

4.4.3. General characteristics of the LCD remote control

The **EGO** and **STAR** stoves are mainly controlled by the control panel that is found above the stove. As an accessory, it is in any case possible to purchase the remote control that manages the main functions: on/off, power adjustment, hot air fan speed adjustment, automatic function.



Keep the remote control away from direct heat and water.

It is advisable to keep it out of the reach of children.

4.4.4. Type of batteries and replacement

To substitute the battery, it is necessary to extract the battery-holder (as shown on the figure on the back of the remote control), and remove or insert the batteries following the symbols printed on the remote control and the battery itself.

Operation requires **1 CR 2025 Lithium battery**.



Used batteries contain metals which are harmful for the environment; they must therefore be disposed of separately in the special containers.



If the remote control is off due to the absence of batteries, it is possible to control the stove from the control panel, located in the upper part of the stove.



The batteries provided have a limited lifespan to allow first lighting of the stove and for the user to learn how to use the device.



When replacing the batteries, ensure correct polarity by observing the symbols on the internal compartment of the remote control.

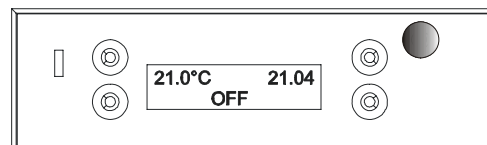
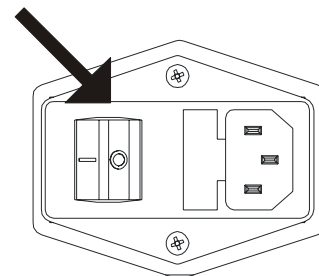
4.5. SETTINGS TO CARRY OUT BEFORE FIRST LIGHTING

Once the power cord is connected to the rear part of the stove, place the switch, also on the rear, to position **(I)**.

The lighted button of the switch will come on.

The switch located to the rear of the stove powers the system.

The stove is off and on the panel the first screen appears with the word **OFF**; by pressing any key the screen with the word **MENU** will appear.



4.5.1. Setting current day and time

By pressing the key concerning **MENU** the word **SET** will appear. Type **SET** and the programme will appear to change:

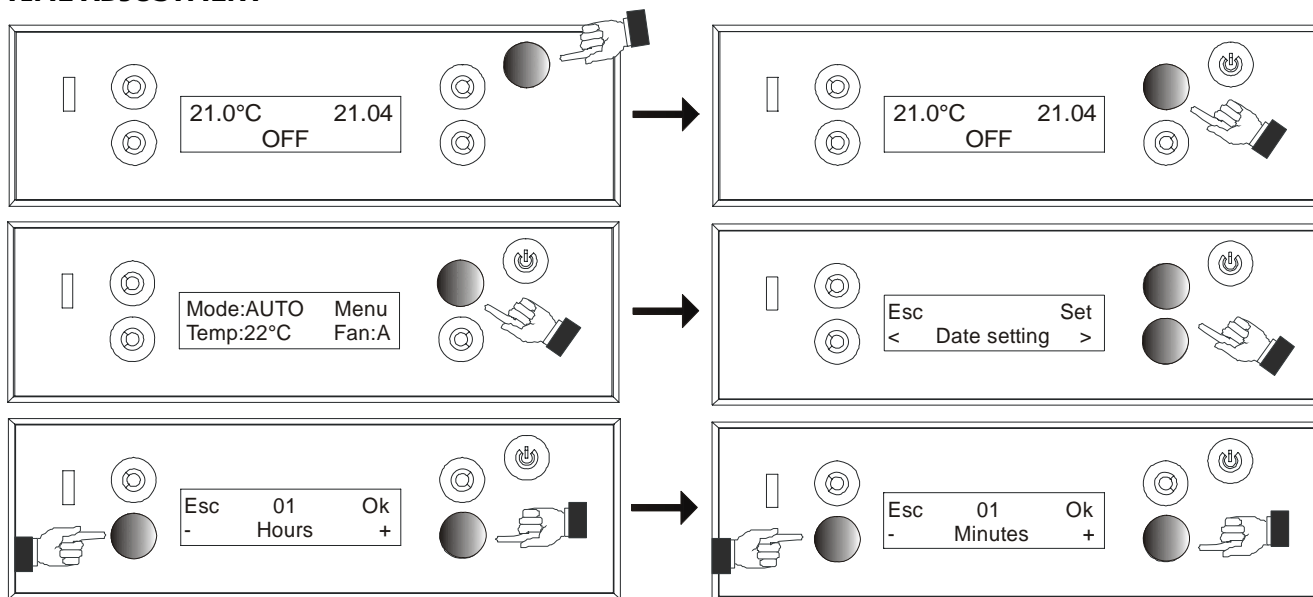
hour
minutes
day
day of month
month
year

To modify the time, for example, when **TIME** appears on the display, press **SET**, the time will begin to flash in the centre of the display. With the lower left or right keys modify the hour and subsequently the minutes, day etc... etc... in the same way and according to need. All the modification made must be confirmed by pressing **OK**, otherwise they will not be saved. The **ESC** key returns to the previous screen without saving the modifications.

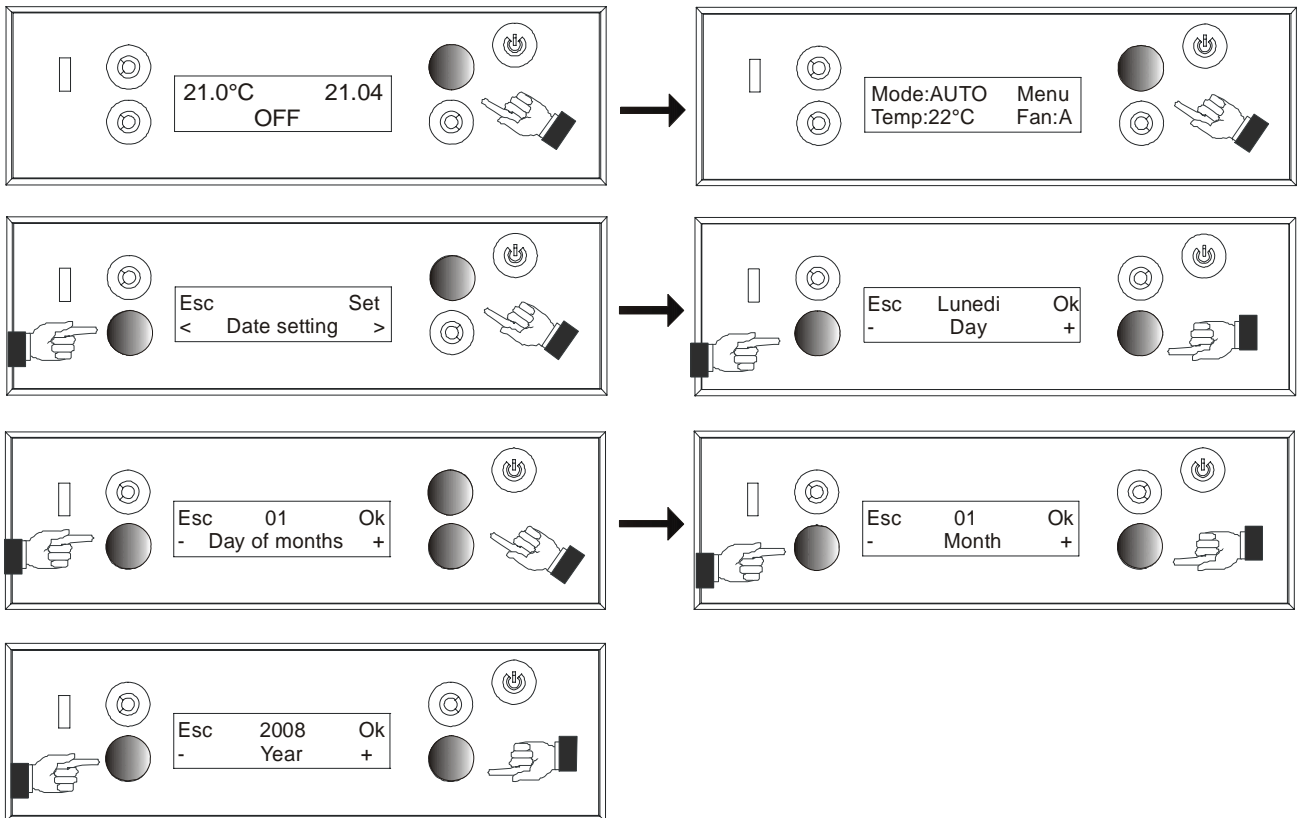


If for 10 seconds the keypad of the control panel is inactive, it returns to the start screen without saving the modifications.

TIME ADJUSTMENT



DAY/DAY NUMBER/MONTH/YEAR ADJUSTMENT



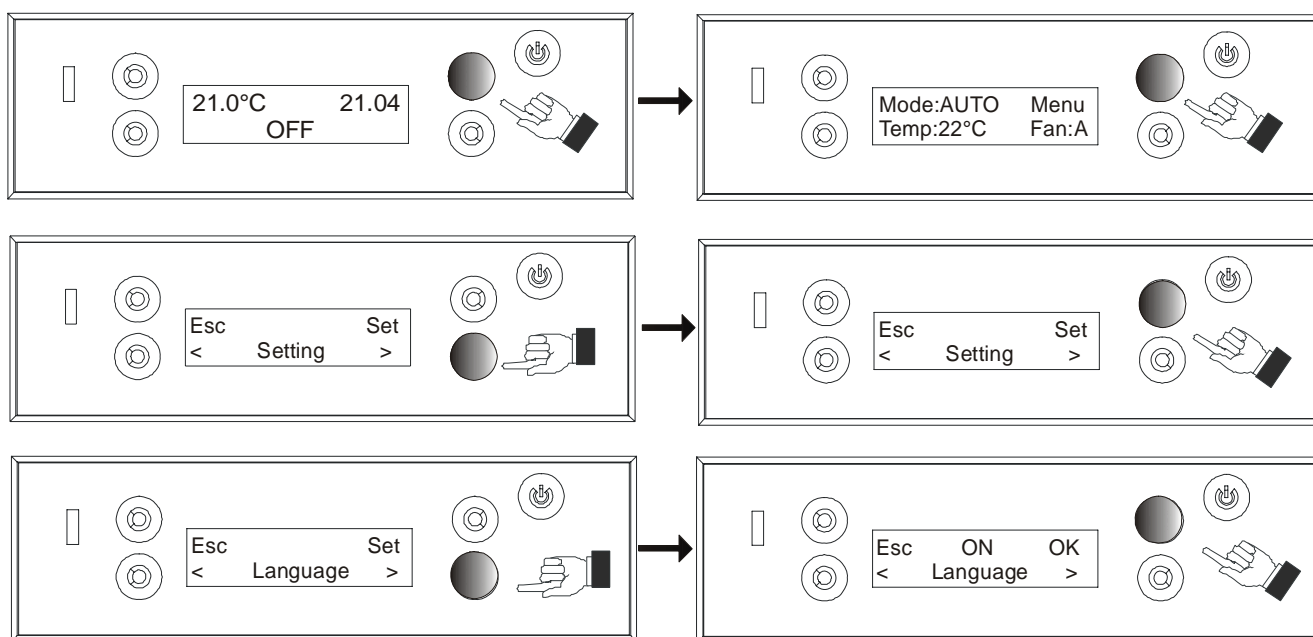
4.5.2. Setting the language

From the start screen, press any key and the screen with the word **MENU** will appear.

Press the key concerning **MENU** then scroll with the keys downwards to the right until the word **SETTING** appears, press **SET** and scroll with the keys downwards until the word **LANGUAGE** appears, press **SET** again and set the language chosen.

The following abbreviations are used for the days of the week deriving from the language set in the panel: In the case of English:

MO	→	Monday
TU	→	Tuesday
WE	→	Wednesday
TH	→	Thursday
FR	→	Friday
SA	→	Saturday
SU	→	Sunday



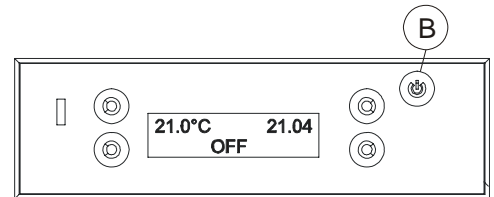
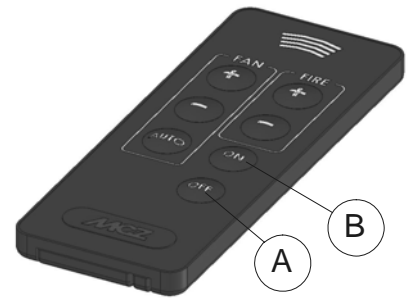
4.6. FIRST LIGHTING

4.6.1. ON/OFF from the control panel or remote control (if purchased)

To switch the stove on and off, press the key **B** for 2 seconds on the control panel or the **A button** on the remote control (if purchased).

After a start-up phase that lasts about 15 minutes, the stove will come up to full operating power.

After the stove is shut down by pressing button **B** on the remote control or the B button on the control panel, the cooling-off procedure begins. This includes the interruption of fuel loading, the cleaning of the grate and the continuation of ventilation until the stove is sufficiently cold. This phase may last from 20 to 40 minutes depending on how long the stove was lit for and where it is located.



4.6.2. Note on first ignition



The first attempt at ignition may not be successful, since the feeder screw is empty and it is not always able to fill the grate with required amount of pellets in time to ensure normal ignition



CANCEL THE ALARM CONDITION FROM THE CONTROL PANEL (see paragraph 4.14)., REMOVE PELLETS IN THE GRATE AND REPEAT LIGHTING

After repeated attempts at lighting, if there is no flame even though pellets are flowing normally, check that the grate is correctly positioned. It must be **placed where it adheres perfectly to its housing and free of any ash incrustations**. If after this check no abnormalities are found, it means that there may be a problem with the stove components or that installation may not have been carried out correctly.



REMOVE THE PELLETS FROM THE BURNER AND CONTACT AN AUTHORISED MCZ TECHNICIAN.

4.7. OPERATING MODE

STAR-EGO stoves have two operating modes: **MANUAL** and **AUTOMATIC**.

4.7.1. Manual and automatic

The stove can operate in one of these two different operating modes.

MANUAL mode allows only adjustment of the flame from power 1 to power 5, ignoring any ambient temperature measurement. This mode is indicated by the word **MANU** on the display of the control.

AUTOMATIC mode, on the other hand, lets you set the desired temperature in the room of installation. The stove will control its power autonomously in order to reach and maintain the established

temperature in the room. This mode is indicated by the word **AUTO** on the control panel.

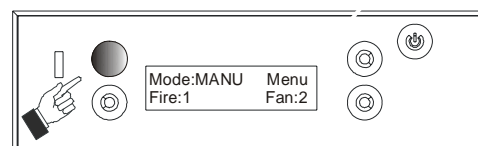
With this mode you can also use an advanced function called **AUTO-ECO** which is described later (*paragraph 4.7.4.*)



At each lighting, the stove automatically sets to the operating mode that it was in the last time it shut down.

4.7.1.1. *Changing from manual to automatic mode*

It is possible to pass from the MANUAL function to the AUTOMATIC function and vice-versa by selecting the related key on the control panel.

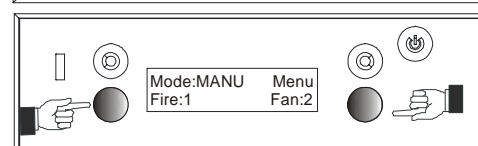
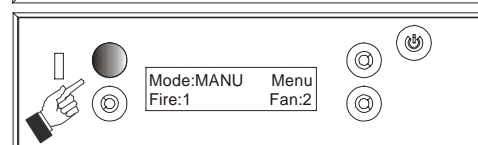
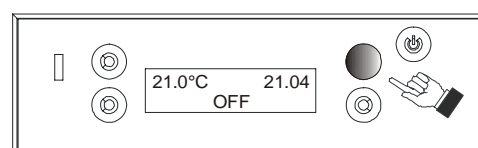


4.7.2. Manual mode

In this mode you can only vary the thermal power provided by choosing the flame power.

By pressing the switch behind the stove the display of the panel is set to **OFF**, by pressing any key the screen with the word **MENU** will appear.

With the upper left button select the **MANU** function (**MANUAL mode**). In this mode, using the bottom left button (**F**) it is possible to adjust the 5 heating powers of the stove, while with the bottom right key (**C**) the speed of the fans is adusted.



Manual mode

4.7.3. Automatic mode

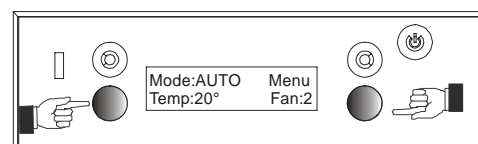
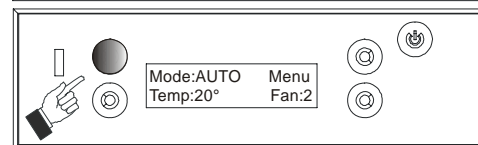
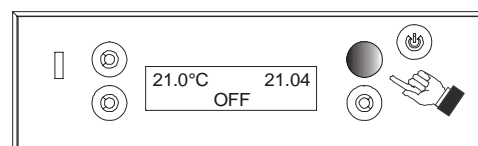
Whereas **MANUAL** mode lets you simply choose the thermal power provided with no variation of operation over time, **AUTOMATIC** mode lets you set a temperature to be reached in the room. In this operating mode the stove will automatically vary the thermal power provided so as to keep the temperature in the room constantly at the set value.

From the first screen with the word OFF, press any key and the screen with the word MENU will appear.

With the upper left button select the **AUTO** function (**AUTOMATIC mode**). In this mode using the bottom left button it is possible to adjust the temperature desired in the room.

Upon reaching the desired temperature in the room, the stove will gradually go to minimum power. If instead the room temperature drops below the set limit, the stove will gradually come back up to maximum hearing performance.

The room temperature is highlighted by the control panel using the reading of the probe placed near the switch of the stove.



Automatic mode

4.7.3.1. Room sensor

The room probe (B) is located at the back of the stove; **should this be near the fumes exhaust tube**, we recommend to extract the room probe so that it sticks out by approximately 10 cm. In this way it will not be affected by the tube's heat and the measured temperature will be near to that of the room.

It is advisable to do this operation during installation, since before extracting the probe (B) it is necessary to take off the clamp (C) that keeps it connected; operation possible by working inside the stove thus without the sides. To extract the probe (B) it is necessary to unscrew the protection cap (A) and slowly pull the probe (B). After extracting the probe (B) sufficiently, close the protection cap (A) again.



ATTENTION! Once the clamp that binds the probe wire is taken off, avoid it coming into contact with the hot parts of the stove.

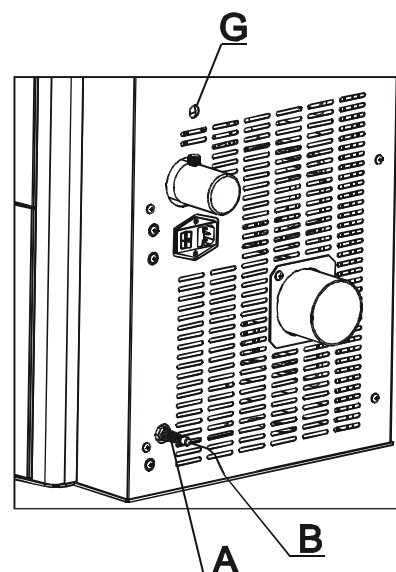


Fig.7 - Room temperature sensor

4.7.3.2. External environment thermostat connection

It is possible to connect the stove to an external thermostat. To make this connection it is necessary to acquire the interface D (optional) that is connected to the motherboard (E) of the stove on the manifold (F) as indicated in the diagram below and in pag.53 par.7.

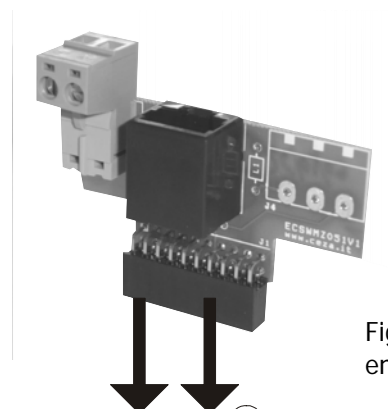


Fig.9 - Interface for the environment thermostat

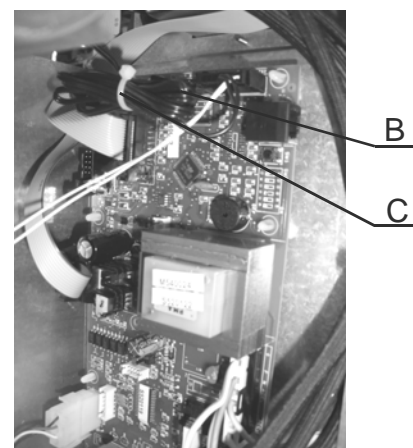
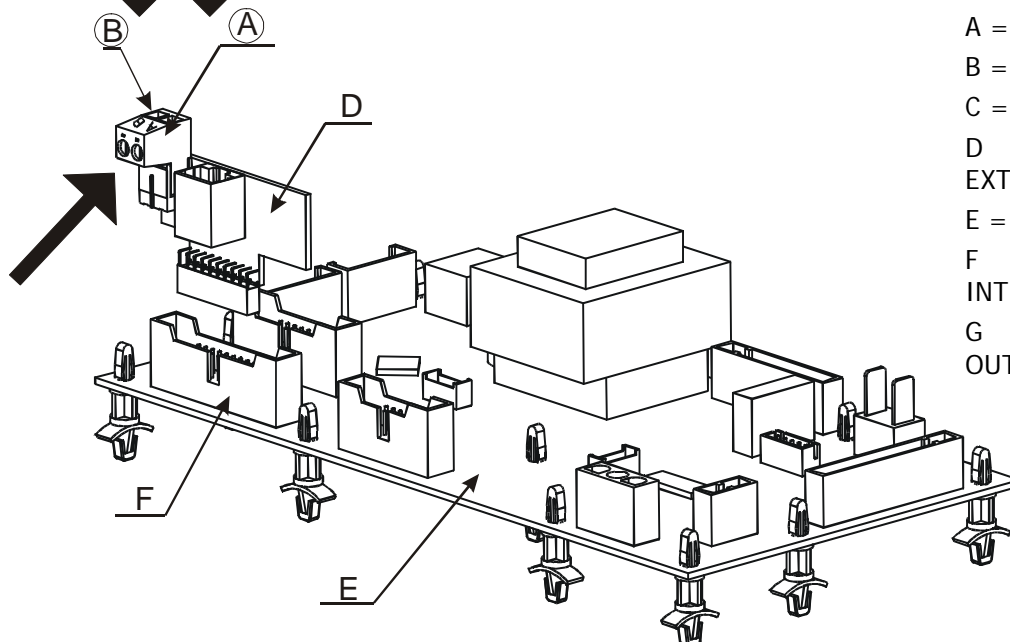


Fig. 8 - Motherboard (internal stove)

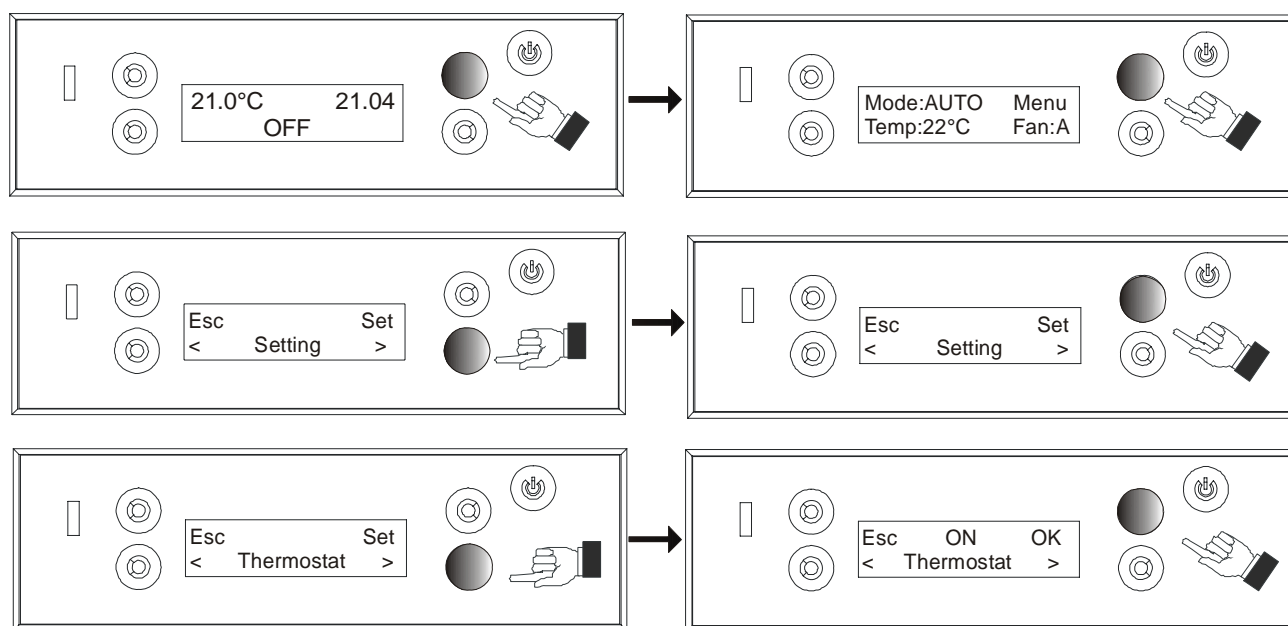


- A = PROTECTION CAP
- B = PROBE (FLUSH)
- C = CLAMP
- D = INTERFACE FOR EXTERNAL THERMOSTAT
- E = MOTHERBOARD
- F = CONNECTOR FOR INTERFACE CONNECTION
- G = HOLES FOR CABLE OUTLET

On the terminal indicated by the arrow, on the housings **(A)** and **(B)** indifferently insert the two wires of the room thermostat. These wires must pass through the hole **G** predisposed on the back of the stove. Thermostat and related electrical cables are on the user's account. Installation by a specialised technician is advised.

On the control panel of the stove, once the thermostat is connected, the temperature detected by the probe will continue to appear; however, in this case the temperature set on the thermostat will be valid.

The activation of the thermostat (on/off) on the control panel is possible from the menu, settings, on/off option thermostat, as explained in the diagram below.



4.7.4. Automatic mode with AUTO-ECO

This mode changes stove operation in **automatic mode**. Upon reaching the temperature set by the user, the stove goes to power 1 for a short period of time. Then, if the temperature remains constant and above the set temperature, it shuts down. The stove comes back on automatically only when the room requires heat again, but not before a period of time has passed for the stove to cool off. This option is advisable only if the stove works in highly insulated rooms or where there is low heat dispersion over time.

Example of operation in AUTO-ECO mode

If the room temperature detected by the sensor and highlighted on the control panel is 15°C and the set temperature is 20°C, the stove will follow a pre-established ramp up to the 5th power. Once 20°C is reached, it goes into standby mode (STANDBY). When the room temperature drops below the value set on the control panel (for example 18°C) and a sufficient shutdown time has elapsed, the stove will come back on automatically and continue running until again reaching 20°C. If the temperature read by the room sensor remains above the value set on the thermostat (for example 20-21°C) the stove will remain off.

In this mode, lighting can be carried out by the user by resetting the thermostat temperature to a value greater than that in the room, or by shutting down the stove by pressing button **B** for a few seconds and then pressing the same button to re-light the stove.

The “**AUTO-ECO**” mode does not need to be reset as it remains in memory from the last use.

4.7.4.1. Activation /de-activation of AUTO-ECO mode

This mode makes it possible to optimize stove consumption in well-insulated rooms.

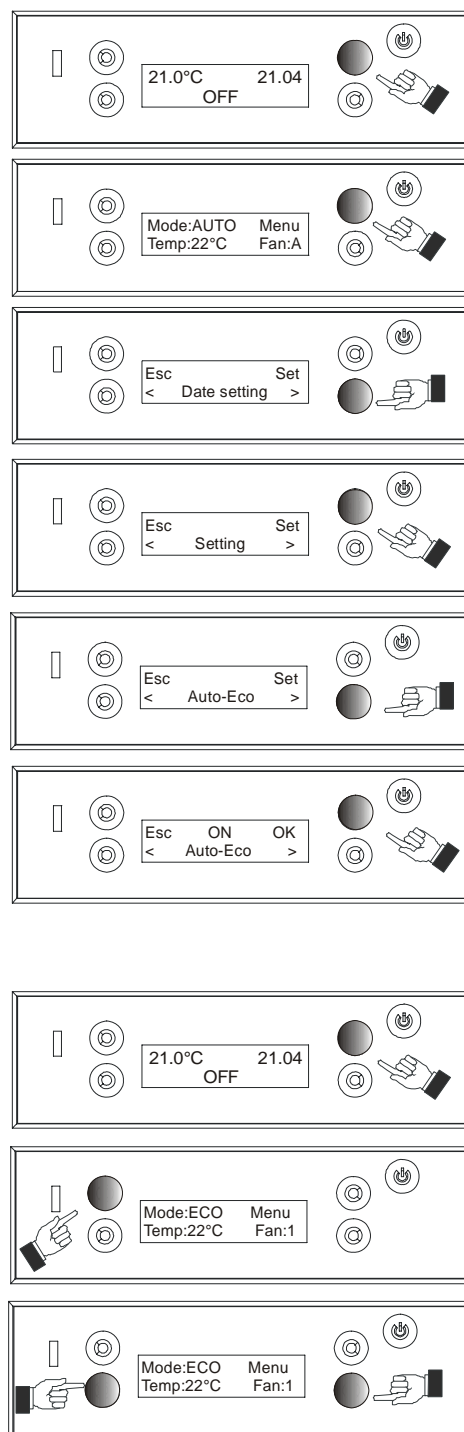
When this option is activated, on the display of the control panel the word **AUTO-ECO** will appear.

The display of the remote control will show the message **AUTO** along with the message **AUTO-ECO**.

From the first screen with the word OFF, press any key and the screen with the word MENU will appear.

With the bottom right button scroll until the word SETTINGS, press the top left key SET, scroll with the bottom right key until the word AUTO-ECO appears. Select SET again in the top right and with the bottom right key set OFF or ON and press OK to save the setting. Now going back to the initial menu you notice that the setting on the Mode is ECO. Therefore, using the bottom left or bottom right keys it is possible to set the temperature and the fan speed respectively, for the expulsion of hot air.

To disable the AUTO-ECO function follow the same procedure.



4.8. HOT AIR VENTILATION

The **Star** and **Ego** stove are equipped with an internal fan for expulsion of heating air. It can be set to 5 different speeds at any time regardless of the whether the stove is in manual or automatic mode.

5 speeds can be selected as well as an automatic function.

To select the speed, after pressing the bottom right button, press it again to increase or decrease the fan power.

In addition to **5th speed** there is an additional selection called **AUTO** function. This function lets you connect the fan speed to the flame power. With this option selected, the stove will independently select the fan speed based on the flame power.

This option can be simply selected by always pressing the bottom right key, scrolling through the various speeds 1-2-3-4-5. On the control panel the letter **A** will appear.

Example with ventilation set to AUTO:

If the flame is at power 3, the fan will automatically set to speed 3. If the flame is at power 5, the fan will automatically set to speed 5, and so on.



If the keypad of the control panel is inactive for 10 seconds the remote control automatically leaves the fan adjustment mode and does not confirm the last setting inserted.



In selecting the fan speed, it is advisable not to select very low speeds (1st or 2nd) when the stove is at maximum power as this may cause the structure to overheat.

4.9. SLEEP FUNCTION

The purpose of this function is to make it faster to select a programmed shutdown, without the need to programme the stove's internal timer.

To explain the **SLEEP** function in simple terms, it might be said that it allows the user to set a countdown starting from a **minimum of 15 minutes up to a maximum of 8 hours**, after which the stove will shut off.

It is specified that the SLEEP function can be activated and appears on the display only when the stove is lit, i.e. when the button B is kept pressed and the word **LIGHTING** appears on the display.

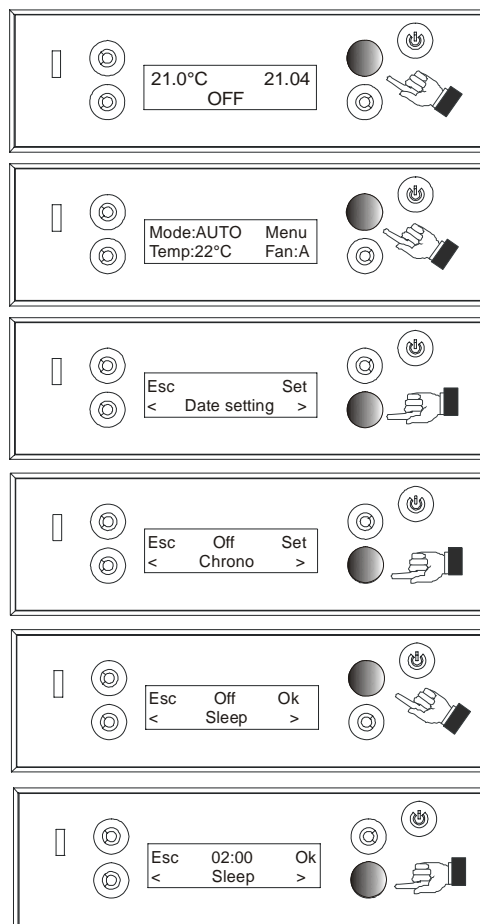
To set the function press **Menu** with the top right key then in the screen the word **Date and Time** appears, therefore scroll with the bottom right key until the word **Sleep** appears, confirm with **Set**. With the bottom right key set the shutdown time.

The figures **00:00** appear in the centre of the display of the control panel; it is possible to choose the quantity of time by pressing the bottom right or left key according to whether you want to increase or decrease the time.

To confirm the choice press **OK** (top right) otherwise quit without saving any setting with **ESC** (top left)



Once the sleep is set, in the initial screen the status of the stove (on/off) alternates with the message sleep 14.50 (example).



4.10. TIMER

This operating mode allows the programming of the start-up and shutdown of the stove in automatic mode.

Normally, the stoves have the PROGRAMMED mode deactivated.

The basic settings in PROGRAMMED mode are:

- **Clock**
- **Current day**
- **Selection of weekly / daily programme**

4.10.1. Current date and clock

See *paragraph 4.5.1.* to learn how to set the current date and time.



Setting the current date and time is essential for proper timer operation.

4.10.2. TIMER activation and selection of a programme.

SETTING OF A WEEKLY PROGRAMME

An explanation will now be provided of how **to activate the TIMER function selecting a daily or weekly programme:**

press the Menu button to scroll through the date and time menu with the relative key until the word **TIMER** appears. Then press the SET key to insert a programme. In the centre of the display between Esc and Ok the letters **P00** appear, by scrolling with the keys below it is possible to choose between 1 10 weekly preset programmes inside the control panel of the stove.

According to the tables reported in *paragraph 4.11.*, choose the programme that best meets the heating needs of the house and save the programme number on the display of the control panel. Confirm with OK.

If none of the 10 pre-set programmes meets your personal heating needs, you can put together a personalized weekly programme that suits you best (see next paragraph).



If the keypad of the control panel is inactive for 10 seconds the control panel automatically leaves the timer adjustment mode and does not confirm the last setting inserted.

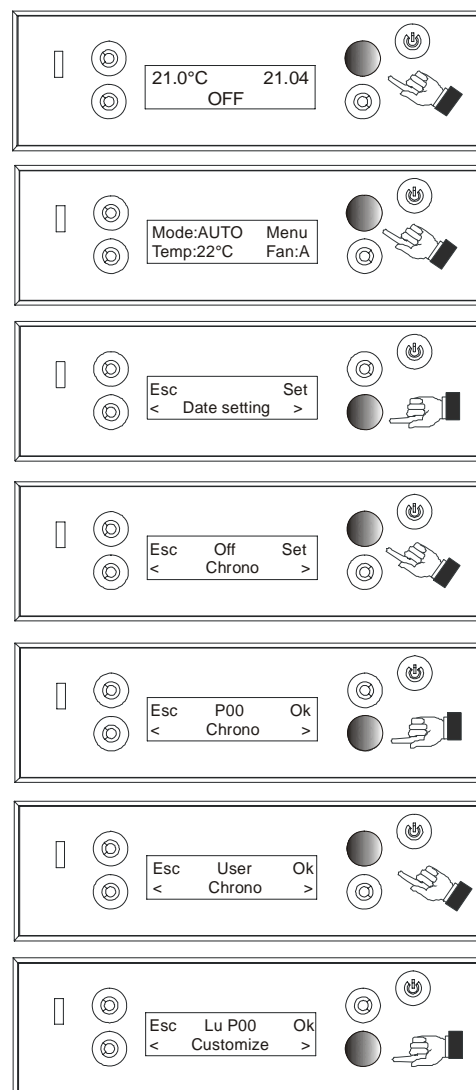
To confirm the TIMER choice press OK.



ATTENTION!

The TIMER function can be activated/deactivated whether the stove is on or off.

If a timer programme has been activated, in the initial screen the stove operating status (on/off/start-up....) alternates with the word "TIMER P01 active" (example)



SETTING OF A PERSONALIZED PROGRAMME

If one of the pre-set weekly programmes does not suit the heating needs for your home, you can choose and combine various daily programmes included in the memory of the remote control to create a personalized weekly programme.

60 daily programmes can be selected , and you can select a different programme for each day of the week.

To activate this option, proceed as described above for setting a weekly programme, but instead of selecting one of the programmes contained in the table of the weekly programmes (**from P01 to P10**) select the programme **USER**.

Once the USER programme is selected, press SET and in the centre of the display the word **Lu P00** appears (where P00 flashes) while in the part below, the word **CUSTOMIZE** appears, by pressing the related key (bottom right or left) it is possible to insert the daily programme.

By scrolling with the bottom right or left key of the control panel it is possible to choose the desired programme from 1 to 60, by consulting the table in par. 4.11.

Once the desired programme is selected for the active day (e.g. 32 for the day MO = Monday), press the OK key in the top right and on the display the word Ma P00 will appear (where the word P00 flashes), proceed with the programming mode until the day SU=Sunday.

If for a given day of the week you do not want to set any programme, select programme 00 and continue with programming.



If a timer programme is active but the user decides to start/stop the stove in advance, the command given by the user overrides the timer and is carried out. The next command from the timer is obviously disregarded.

Example: if the timer calls for the stove to be started up at 10:00 but the user decides to start it at 9:00, by pressing button 5 the stove will come on. At 10:00, the timer, which was to order start-up, will be disregarded.



IMPORTANT NOTE

It takes 10 to 15 minutes for the stove to start up.



Take this into account when setting the start time. Likewise, stove shutdown requires about 30 minutes, during which the heat stored up by the stove is still released into the room.

Keep this in mind for substantial fuel savings.

4.10.3. TIMER de-activation.

To de-activate the timer, access the menu again by means of button **OFF**.

4.11. PRE-SET WEEKLY AND DAILY PROGRAMMES

4.11.1. Weekly programmes

The weekly programmes selected by MCZ and stored in the memory of the control panel were designed to meet the needs of most users who are out of the home during working hours (factory workers, shopkeepers, office workers, shift workers) as well as those who are usually at home (homemakers, senior citizens, etc.).

Also, programming has been provided for those who use the stove in a weekend home (e.g. a home in the mountains) and want to find the home warm when they get there.

If you have even more specific needs which are not met by any of these weekly programmes, you can customize weekly programme P99 using seven different programmes for each single day of the week (*see chapter 4.11.2*).

PROGRAMMES		HOURS																								
No.	DAYS	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
P01	Mon-Fri																									
	Sa-Su																									
P02	Mon-Fri																									
	Sa-Su																									
P03	Mon-Fri																									
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P04	Mon-Fri																									
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P05	Mon-Fri																									
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P06	Mon-Fri																									
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P07	Mon-Sa																									
	Su																									
P08	Mon-Sa																									
	Su																									
P09	Mon-Sa																									
	Su																									
P10	Fri																									
	Sa-Su																									

☒ On
☐ Off

4.11.2. Daily programmes

PROGR.	HOURS																								
N°	0.00	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	18.00	19.00	20.00	21.00	22.00	23.00	0.00
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4.12. PRACTICAL EXAMPLE OF DAILY PROGRAMMING

4.12.1. Setting of a daily programme

Let's look at a user who does not have regular daily hours (a free-lance worker, for example), but who generally expects to be at home at the following times:

- MONDAY → home until 10:00 and from 17:00 on
- TUESDAY → home until 8:00 and from 14:00 on
- WEDNESDAY → at home all day and does not wish to set any programme
- THURSDAY → at home all day
- FRIDAY → at home until 9:00, from 12:00 to 15:00 and from 18:00 on
- SATURDAY → at home only after 18:00
- SUNDAY → at home only after 14:00

Based on these times, from the table in paragraph 4.11.2 the daily programmes are selected which best suit this routine.

- MONDAY → Programme **20**
- TUESDAY → Programme **43**
- WEDNESDAY → Programme **00**
- THURSDAY → Programme **13**
- FRIDAY → Programme **34**
- SATURDAY → Programme **10**
- SUNDAY → Programme **08**

To activate this type of customised setting follow the instruction in par. 4.10 page 39.

4.13. SAFETY DEVICES

The stove is fitted with the following safety devices:

- **SMOKE TEMPERATURE SENSOR.**
Monitors the temperature of the smoke, and gives permission for start-up or shuts the stove down when the smoke temperature falls below the preset value.
- **PELLET HOPPER TEMPERATURE SENSOR.**
If the temperature exceeds the preset safety level, it immediately shuts down the running of the stove, and has to be reset, after the stove has cooled, before the it will restart.
- **ELECTRICAL SAFETY**
The stove is protected against violent surges of current by the main fuse, which is located on the control panel at the rear of the stove. Other fuses to protect the electronic boards are to be found on the boards themselves.
- **FAILURE OF THE SMOKE EXTRACTION FAN**
If the fan stops, the electronic board shuts off the supply of pellets in good time, and an alarm is displayed.

- **BREAKDOWN OF THE REDUCTION MOTOR**

If the reduction motor stops, the stove continues to function until it has cooled down to the minimum level.

- **TEMPORARY POWER CUT**

If there is a power outage during operation, when the power comes back on the stove will go into cooling mode and then it will come back on automatically.

- **FAILURE TO LIGHT**

If during ignition no flame develops, the stove will go into alarm condition.



TAMPERING WITH THE SAFETY DEVICES IS PROHIBITED



It is only after eliminating the cause which gave rise to the intervention of the safety system, that it is possible to relight the stove and thus reset the automatic operation of the sensor. To understand which anomaly has occurred, consult this manual at paragraph 4.14 which explains what to do based on the alarm message the stove displays.



ATTENTION

If the stove is not used as described in this instruction booklet, the manufacturer refuses to accept any responsibility for damage to persons and property that may arise. The manufacturer furthermore refuses to accept responsibility for damage to persons and property arising from the failure to observe all the rules contained in the manual and in particular:

- **Failure when carrying out works of maintenance, cleaning and repair to adopt all necessary measures and precautions**
- **Tampering with the safety devices.**
- **Removing the safety devices.**
- **Failure to connect the stove to an efficient system for the discharge of smoke.**
- **Failure to check in advance that the room where the stove is to be installed is adequately ventilated.**

4.14. ALARM SIGNALLING

Should an operation problem occur, the stove enters a shutdown phase for alarm and informs the user of the type of fault that occurred using a 3 digit code that remains displayed on the control panel of the stove (and a short description of the alarm type)

The table below describes the possible alarms signalled by the stove, associated to the respective code that appears on the emergency panel, and useful suggestions to solve the problem.

MESSAGE ON DISPLAY	TYPE OF PROBLEM	SOLUTION
A01	Fire fails to ignite	Check the level of pellets in the hopper. Check that the grate is properly inserted in its housing and does not have any obvious unburnt incrustations; Check whether the ignition plug heats.
A02	Fire extinguishes abnormally	It derives from a shutdown due to lack of fuel (hopper empty).
A03	Pellet tank temperature exceeds foreseen safety limit. Overheating of the stove body	The structure is too hot because the product has been operating for too long at maximum power, or it is poorly ventilated, or the air fans are faulty. When the stove is sufficiently cold, press button B of the control panel or OFF on the remote control to cancel the alarm A03. Once the alarm is cancelled it is possible to relight the stove normally.
A04	The temperature of the smoke discharge has exceeded pre-set safety limits	The stove will shut off automatically. Let the stove cool off for a few minutes, then re-light it. Control the exhaust of the smoke the type of pellet being used.
A06	The smoke extractor is not able to provide the primary air required for combustion.	Draught difficulties or clogging of grate. Check whether the grate is clogged by incrustation and clean as required. Control and if necessary clean the smoke duct and the air intake.
A07	During the function of the stove, an uncontrolled air intake occurred in the combustion chamber or an obstruction in the flue pipe.	Caused by prolonged opening of the fire door or by substantial air infiltration (e.g. smoke fan inspection plug missing) If not caused by these factors, check and if necessary clean the smoke duct and the flue pipe.
A08	Flue-gas exhaust fan broken	Check that the smoke fan compartment is clean and if it is dirt that is blocking it. If insufficient, the smoke fan is defective. Call an authorized service centre to make the replacement.
A09	The smoke probe is defective and does not properly measure the temperature of the discharge smoke	Contact an authorized service centre to replace the component.
A10	The plug is defective	Contact an authorized service centre to replace the component.
A11	Defective pellet feeder	Contact an authorized service centre to replace the component.
A13	Defective electronic board	Contact an authorized service centre to replace the component.
A14	Generic failure of sensor	This alarm is not blocked, only a warning screen appears. Contact an authorized service centre to replace the component.

4.15. Exiting alarm condition

In case of an alarm intervening, to restore the normal operation of the stove press the on/off key for a long time. After a short verification phase if the cause that caused the alarm does not persist, the stove leaves the alarm status and it may restart.

4.15.1. Shutdown of the stove

The following things can cause stove shutdown:

- Overheating of the stove body ("A03")
- Overheating of the smoke ("A04")
- During the function of the stove, an uncontrolled air intake occurred in the combustion chamber or an obstruction in the flue pipe. ("A07")

WHAT TO DO:

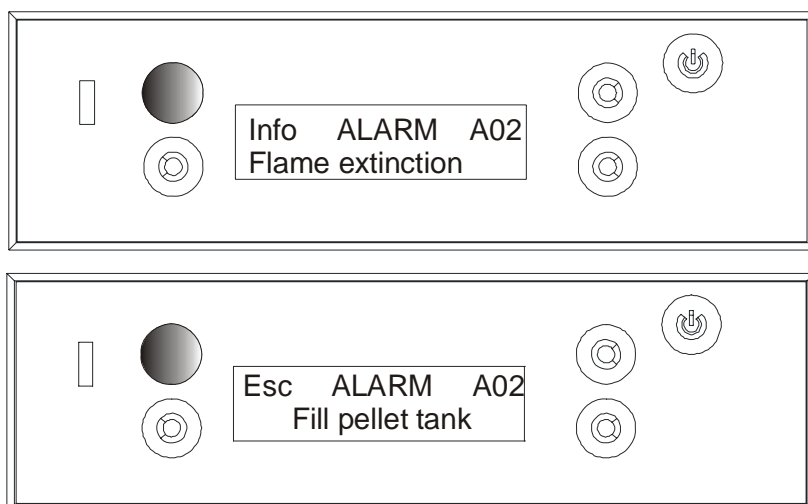
When the stove is cold: if the message "**A03**" appears: The structure is too hot because the product has been operating for too long at maximum power, or it is poorly ventilated, or the air fans are faulty

When the stove is sufficiently cold, press button B of the control panel or OFF on the remote control to cancel the alarm A03. Once the alarm is cancelled it is possible to relight the stove normally.

If the alarm "**A04**" appears the stove shutdown in automatic, leave it to cool down for a few minutes and then re-light. Cancel the alarm and re-light.

If the alarm "**A07**" appears: it is caused by prolonged opening of the fire door or by substantial air infiltration (e.g. smoke fan inspection plug missing). If not caused by these factors control and if necessary clean the smoke duct and the flue pipe.

Only after the cause of the blockage has been permanently eliminated can a fresh attempt to relight the stove be made.



Example: Alarm on the display of the control panel

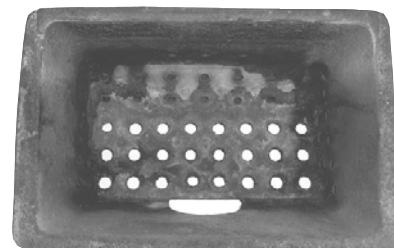
5. MAINTENANCE AND CLEANING



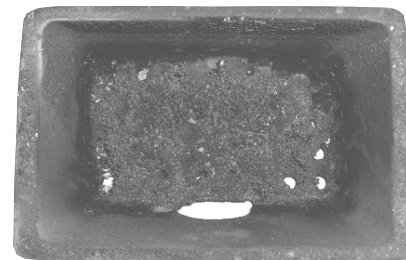
ATTENTION!

All cleaning of all parts must be carried out with the stove completely cold and unplugged.

The stove does not need much maintenance if used with certified quality pellets.



Example of clean grate



Example of dirty grate

5.1. DAILY AND WEEKLY CLEANING BY THE USER

5.1.1. Before each lighting

Using a suitable tool clean the grate "F" of ash and any incrustation which could obstruct the passage of air.

In the case of pellet depletion, unburnt pellet in the grate could accumulate in the hopper. Always empty the residuals from the grate prior to each lighting.



REMEMBER THAT ONLY A CORRECTLY POSITIONED AND CLEAN GRATE CAN GUARANTEE THE OPTIMAL LIGHTING AND OPERATION OF YOUR PELLET STOVE.

For good cleaning of the grate, pull it completely out of its housing and thoroughly clean the grate and holes on the bottom. If you use good-quality pellets, you will normally only need to use a paintbrush to restore the perfect condition of the component. For tough incrustations, use the steel tool provided with the stove.

5.1.2. Check every 2/3 days

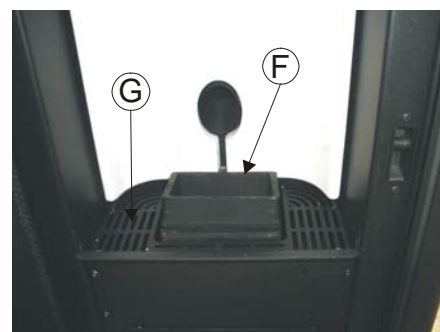
Clean and empty the ash drawer, watching out for hot ash.

Only if the ash is completely cold, it is possible to use a vacuum cleaner to remove it. Use a drum-type vacuum cleaner that is suitable for picking up particles of a certain size.

Experience, and the quality of the pellets used, will determine the frequency of cleaning.

It is however advisable not to let it exceed 2 or 3 days.

Once the operation is finished, reinsert the ash drawer below the grate making sure it is well inserted



Cleaning the ash collection compartment

5.1.3. Cleaning the glass

For cleaning the ceramic glass, the use of a dry brush is recommended, or if it is very dirty, the special spray detergent, applying a small quantity then cleaning with a cloth.



ATTENTION!

Do not use abrasive products and do not spray the cleaning product on the glass of the painted parts or on the gaskets of the fire door (ceramic fibre cord)



Cleaning the glass

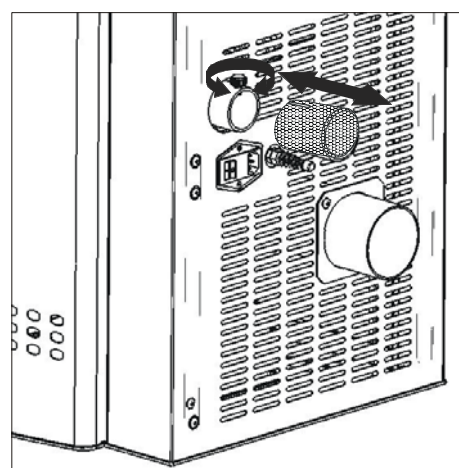
5.1.4. Cleaning of the air filter

At the back of the stove, at the combustion air intake tube Ø 5 cm, there is a metallic mesh air filter. Its purpose is to keep dirt out of the motor body and the internal sensor.

It is advisable to check every 15/20 days whether the filter is clean. Remove lint or any other material which may have been trapped by the filter.

Checking and cleaning will be required more frequently if there are pets in the home.

For cleaning, just turn the knob that holds the filter on the air intake pipe and remove the filter by turning in the direction indicated by the arrow. Clean it with a brush, damp cloth or compressed air.



Removing the air filter for cleaning



The filter is made of metallic mesh. It is soft and malleable to the touch. Therefore, when cleaning it, be careful not to crush it or damage it in any other way. If it is broken it must be replaced



ATTENTION!

Never operate the stove without the air filter. MCZ shall not be held liable for damage to internal components if this instruction is not followed.

5.2. PERIODIC CLEANING BY A SPECIALISED TECHNICIAN

5.2.1. Cleaning of the heat exchanger

After the winter you will need to clean the compartment where discharge smoke passes.

This cleaning must be done in order to remove all combustion residues before time and humidity let them harden and make them difficult to remove.

CLEANING OF HEAT EXCHANGER:

CLEANING THE UPPER COMPARTMENT

With the stove cold remove the cast iron top "A", remove the sides as indicated in. Par. 3.3, take off the cast iron front top "C". At this point remove the plug (by unscrewing the screws) "E", remove the exchanger D and access the inspection hole for cleaning (see arrow): Using a stiff rod or a bottle brush, scrape the inner walls of the fire box so that the ashes drop into the part below "H".

Clean and refit all the components by using a new front gasket.

CLEANING THE LOWER COMPARTMENT

Remove the ash drawer "G", unscrew the screws and remove the plug "E" and with the nozzle of a vacuum cleaner to remove the soot and ash which has accumulated in the exchanger "H". Also remove the grate "F" and clean it every 2/3 days as explained in chap. 5.1

It is worthwhile to carry out the cleaning of the upper exchanger at the end of the season and possibly by an authorised MCZ technician in order to replace the gaskets that are below plug "C" and "E"

CLEANING OF SMOKE DUCT AND GENERAL CHECKS:

Clean the smoke discharge system, especially in the area of the tee connectors, curves and any horizontal stretches of pipe.

For information on cleaning the flue pipe, contact a professional chimney sweep.

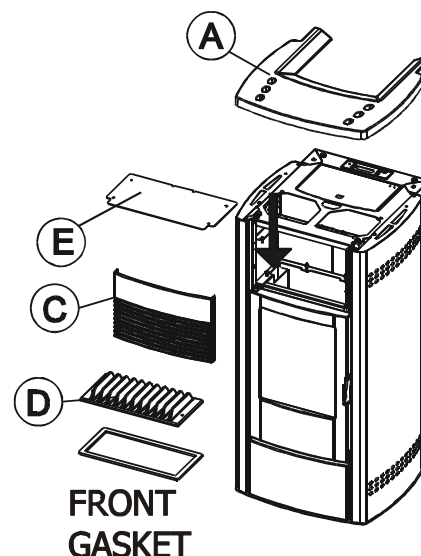
Check the seal of the ceramic fibre gaskets on the door of the stove. If necessary, order new gaskets from the retailer for replacement or contact an authorized service centre to carry out this work.



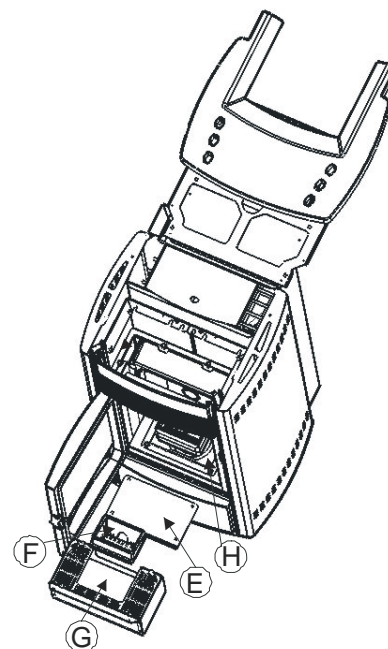
ATTENTION:

The frequency with which the smoke discharge system is cleaned should be determined based on the type of use that is made of the stove and the type of installation.

MCZ suggests relying on an authorized service centre for end-of-season cleaning and maintenance, who will carry out all of the previously mentioned work and make a general check of the stove's components.



Cleaning the upper compartment



Cleaning the lower compartment

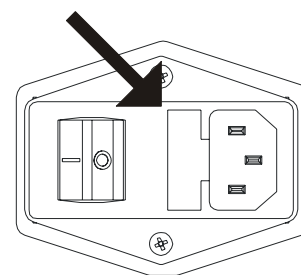
5.2.2. Shutting the stove down (end of season)

At the end of season, before shutting down the stove, we recommend completely removing pellets from the hopper with the use of a vacuum cleaner with an extension.

During periods of disuse, the stove must be unplugged and placed in a dry place protected from the elements. For greater safety, especially if there are children around, we recommend removing the supply cable from the rear of the stove.

Upon re-start, when pressing the main switch (located on the back of the stove) does not make the control panel display light up, it could mean that the service fuse needs replacing.

On the rear of the stove there is a fuse holding compartment which is located underneath the supply socket. Use a screwdriver to open the fuse-holder compartment and if necessary replace them (3.15 AT delayed)



5.2.3. Check of internal components



ATTENTION!

The check of the internal electro-mechanical components must be carried out only by qualified personnel with technical knowledge of electricity and combustion.

We recommend that an annual maintenance service is carried out, preferably under a programmed service contract. The essential part of this service is a visual and functional check on the internal components:

The following is a summary of the checks and/or maintenance tasks which are indispensable for the correct operation of the stove.

PARTS / INTERVAL	1 DAY	2-3 DAYS	30 DAYS	60-90 DAYS	1 YEAR
Grate	●				
Ash collection		●			
Ash drawer		●			
Glass		●			
Lower heat exchanger				●	
Complete exchanger					●
Smoke duct			●		
Door seal					●
Air filter			●		●
Flue pipe					●
Remote control battery (if purchased/optional)					●

6. PROBLEMS / CAUSES / SOLUTIONS



ATTENTION:

All repairs must be carried out exclusively by a specialised technician, with the stove completely cold and the electric plug pulled out.

PROBLEM	POSSIBLE CAUSES	REMEDY
Pellets not being fed into the combustion chamber.	<ul style="list-style-type: none"> Pellet hopper empty. Feeder screw blocked by sawdust. Reduction motor defective. Defective electronic board. 	<ul style="list-style-type: none"> Refill pellet hopper. Empty the hopper and manually free the feeder screw of sawdust. Replace reduction motor. Replace electronic board.
The fire goes out or the stove stops automatically.	<ul style="list-style-type: none"> Pellet hopper empty. Pellets not being fed in. Intervention of pellet temperature sensor. Door not closed properly or gaskets worn. Unsuitable pellets. Low pellet feed rate. Combustion chamber dirty. Smoke outlet obstructed. Smoke extraction motor failed. 	<ul style="list-style-type: none"> Refill pellet hopper. See previous problem.. Let the stove cool down completely, reset the thermostat till lockout ceases, relight stove; if problem persists, contact technical assistance. Close the door or replace the gaskets with original spare parts. Change to a type of pellet recommended by the manufacturer. Have the fuel feed rate checked by technical service. Clean the combustion chamber, following instructions in the manual. Clean the smoke duct. Check the motor and replace if necessary.
The stove runs for a few minutes and then goes out.	<ul style="list-style-type: none"> Lighting cycle not completed. Temporary failure of electricity supply. Smoke duct obstructed. Temperature sensors defective or broken. Sparkplug failure. 	<ul style="list-style-type: none"> Re-run lighting cycle. See previous instruction. Clean smoke duct. Check and replace sensors as necessary. Check the plug and replace if necessary.
Pellets build up in grate, door glass gets dirty and flame is weak.	<ul style="list-style-type: none"> Insufficient combustion air. Pellets damp or unsuitable. Smoke extractor motor broken. 	<ul style="list-style-type: none"> Check that the room air intake is present and free. Check that the combustion air filter on the pipe Ø 5 cm for air inlet is not obstructed. Clean the grate and check that all the airways are clear. Carry out a general cleaning of the combustion chamber and the smoke duct. Check the state of the door gaskets. Change the type of pellet. Check the motor and replace if necessary.

PROBLEM	POSSIBLE CAUSES	REMEDY
The smoke extraction motor does not work.	<ul style="list-style-type: none"> No electrical supply to the stove. The motor is broken. Defective electronic board. Control panel 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 electronic board. Replace the control panel.
The convection air fan runs continuously.	<ul style="list-style-type: none"> Temperature sensor defective or broken. Fan broken. 	<ul style="list-style-type: none"> Check the operation of the sensor and replace if necessary. Check the operation of the motor and replace if necessary.
Remote control does not work (if purchased / optional)	<ul style="list-style-type: none"> Remote control batteries flat. Remote control broken. 	<ul style="list-style-type: none"> Replace batteries. Replace remote control.
In the automatic position the stove always runs at full power.	<ul style="list-style-type: none"> Room thermostat set to maximum. Temperature sensor defective. Control panel defective or broken. 	<ul style="list-style-type: none"> Reset the thermostat temperature. Check the operation of the sensor and replace if necessary. Check the panel and replace if necessary.
The stove does not run	<ul style="list-style-type: none"> Lack of electricity supply. Pellet sensor in lockout. Fuse blown. 	<ul style="list-style-type: none"> Check that the electric socket is plugged in and that the main switch is in position "I". Clear lockout by resetting the rear thermostat, replace the thermostat if it happens again. Replace the fuse.
The stove does not light	<ul style="list-style-type: none"> Make sure that the grate is clean Check the position of the grate Make sure that the sparkplug heats Smoke outlet or duct blocked 	<ul style="list-style-type: none"> Clean the grate of any incrustations or residues of unburnt pellets. Put the grate back in its seat. Check and replace if necessary. Clean the smoke outlet and/or smoke duct

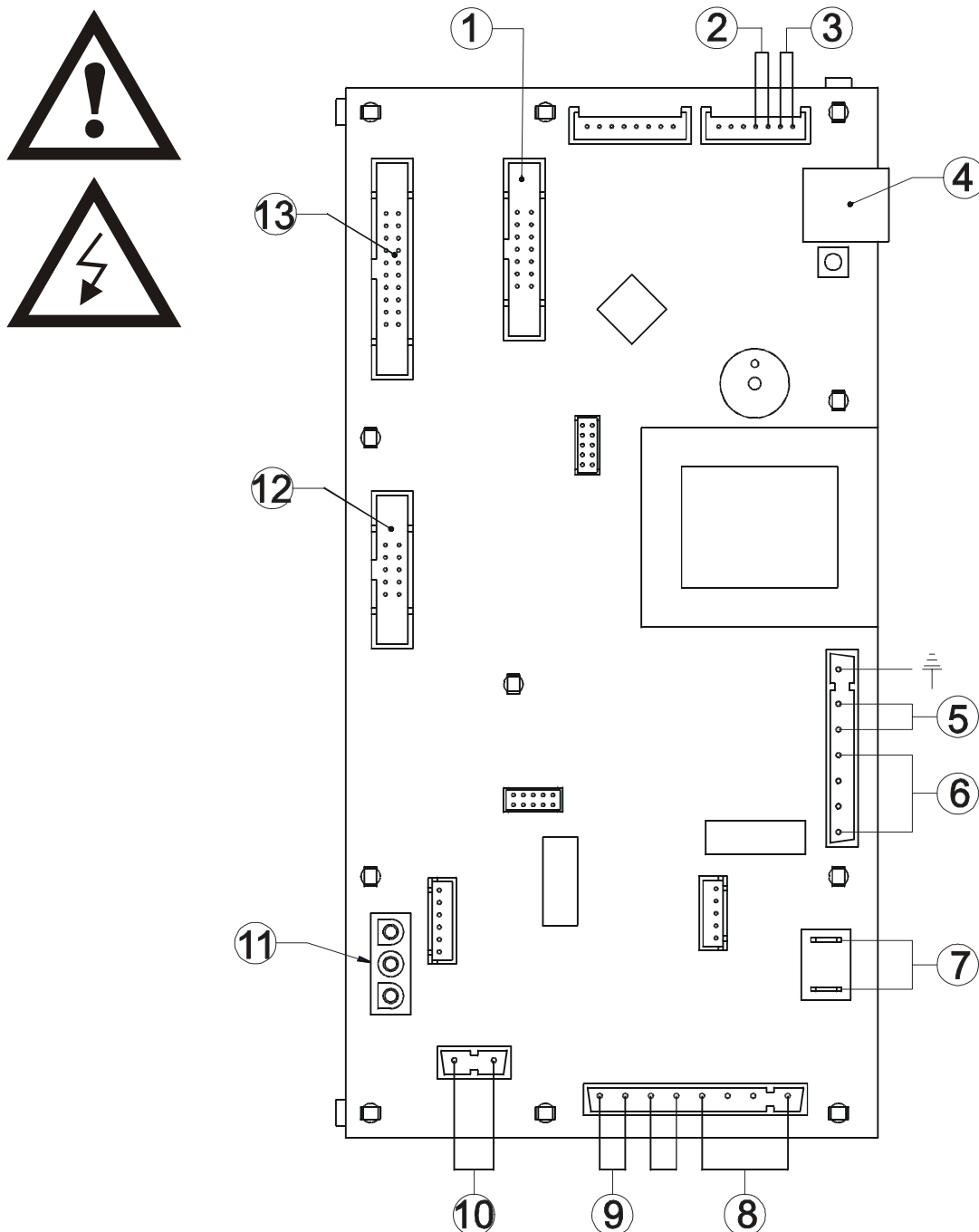


ATTENTION

The operations marked in bold type must be carried out by specialised MCZ personnel.

The manufacturer refuses to accept any responsibility and the guarantee lapses if this condition is not respected.

7. ELECTRICAL DIAGRAMS



MOTHERBOARD WIRING KEY

1. Control panel	8. Reduction motor
2. Room sensor	9. Contact thermostat
3. Smoke sensor	10. Air fan
4. Modem connection	11. Flue-gas extractor fan revolutions control
5. Switch	12. Air flow sensor
6. Ignition plug	13. Manifold for environment thermostat interface
7. Flue-gas extractor fan	

N.B. The electrical wiring of the single components includes pre-wired connectors which are of different sizes.



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