

Eco Minimal 50

Wood Stove



Description of the appliance
Installation & Operating instructions
Spare parts



Technical manual
To be save by the user
for future reference



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This device is subject to modification
without advance notice.

Plamen congratulates you on your choice.

We guarantee the quality of our appliances and we committed to meet our customers' needs.

Plamen, which can boast an 80-year experience in the industry of heating devices, uses state-of-the-art technologies to design and manufacture its whole range of products.

This document contains instructions on how to install your appliance and make full use of its functions, both for your comfort and safety

This unit is designed to burn
only wood safely with a **closed door**

WARNING

Improper installation can be dangerous and possibly cause serious accidents.

We recommended that you engage the service of a Professional engineer for its installation and the regular maintenance requirements

Product information

Packing

1 package: flue knee Ø120 / 45, protective glove and grip

General characteristics

Reference	Eco-Minimal 50
Nominal heat output	8 kW
Dimensions of the fireplace	
Width	838 mm
Depth	503 mm
Useful height	780 mm
Length of logs	50 cm
Capacity of the ashtray	4.8 litres
Weight	155 kg
Optimal depression of the fireplace	10-12 Pa
Performance	81.7 %
C0 (13% O ²)	0.10 %
Smoke temperature	261 °C
Flue gas mass flow	7.2 g/s
Fuel flow	2.55 kg/h
Dust emissions	27 mg/Nm ³

Overview

The stove is in conformity with European EN standards 13240:2001 - 13240 / A2: 2004 and has **CE** marking affixed to it in accordance with the council directive EU **305/2011**.

- Intermittent-burning heating appliance *.
- Cast iron flue spigot for rear or top chimney connection (via a 45 °elbow).
- Front loading door fitted with large refractory glass
- Side windows 'Wide Vision'.
- Large ash-pan.
- Air wash system
- "Easy Control" system (combustion control)
- Optional Ø80 external air inlet.

When the air comes from the inlet there is no need to additional air inlet into the room.

Note: The performance indicated above result from tests carried out in accordance with standard EN 13240:2001 - 13240 / A2: 2004, with logs 30 cm length, loading 1.9 kg and draught of 12 Pa

Drawing

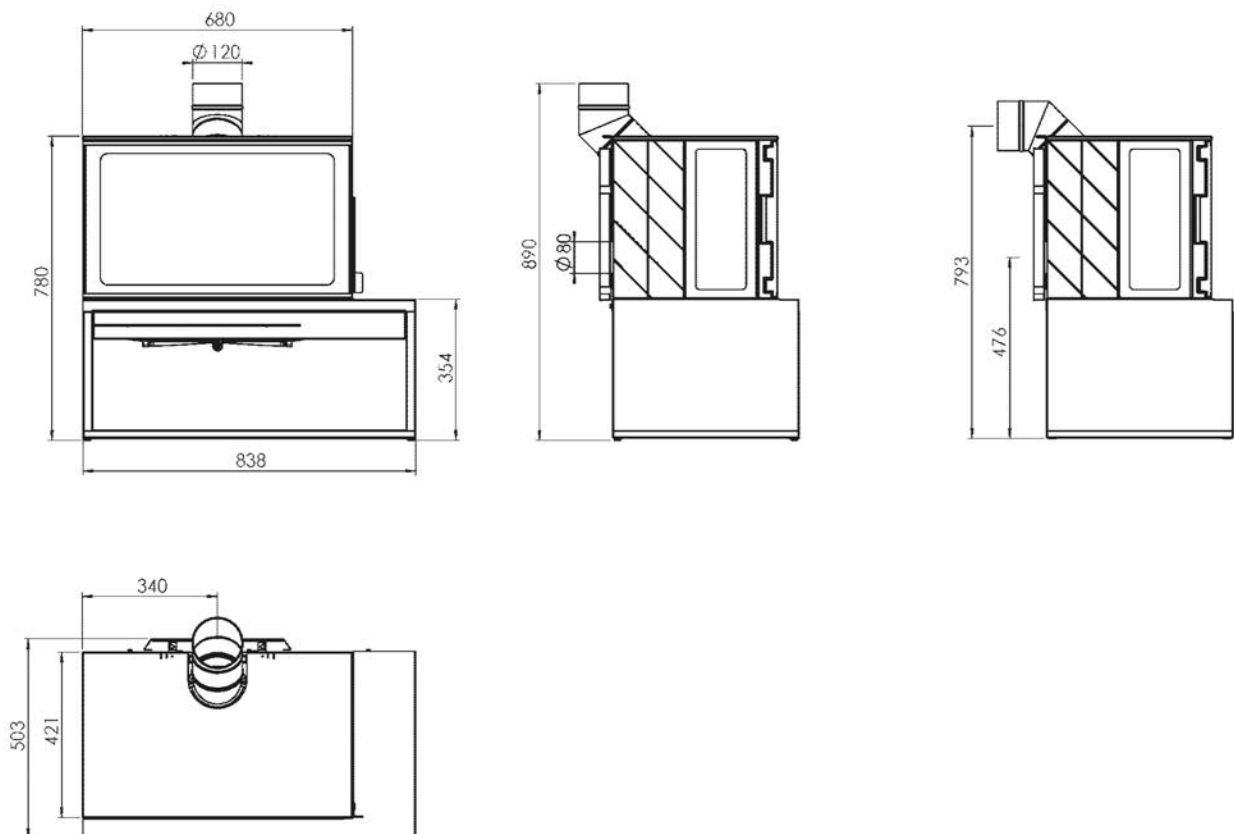


Figure 1

(*) Normal condition of use which the wood is added on a layer of burning ashes

Installation instructions

Warning for the user

All the regulations local and national, including those that are reference at standards national and European must be observed when installing the appliance.

An incorrectly installed heating appliance can cause serious accidents (chimney fires, burning of plastic insulation materials, in partition walls, etc.).

The insulation of both the appliance and the exhaust gas pipe has to be reinforced and done according to the Standards and the Building Regulations for safety reasons.

Failure to respect the mounting instructions leads to engage the responsibility of the one doing the installation.

The manufacturer's responsibility shall be limited to the supply of the equipment.

The room

Ventilation



For satisfactory appliance operation with a natural draught, check that sufficient air for combustion is available in the room.

In houses equipped with one CMV (Controlled Mechanical Ventilation), this one aspire and renew the ambient air; In this case, the residence is under slight low pressure and a non-sealable external air intake must be installed in addition to the chimney itself, at least 50 cm² in section.

If the outside air inlet is connected to the appliance, it is not necessary to foreseen additional air inlets in the room, the stove becoming fully "airtight".

Position of the device

For new installations, select a central position within the house, to provide a good heat distribution around the building.

The heat distribution towards the other rooms will be made through the communicating doors.

These rooms must be in negative pressure or must include ventilation gratings.

Floor and walls



Check the floor is able to support the total weight of the appliance and, if it is not the case, re-enforce it by a clevis in concrete to spread this load.

Make sure there are not combustible or covered with combustible material.

Otherwise it must necessary to install a non-combustible protection.

The appliance must stand on a fi reproof hearth.

It is possible to provide a hearth made of non-combustible board/sheet material or tiles at least 12 mm thick.

Constructional hearths should be constructed of solid non-combustible material at least 125 mm thick (including the thickness of any non-combustible floor under the hearth).

The hearth must protrude at least 400 mm in front of the stove and 150 mm each side.

If the hearth is constructed on timber, there must be a clearance of at least 250 mm from the timber to the top surface of the hearth.

When using a single wall flue pipe, there must be a clearance (A) of at least 400 mm from any combustible materials (timber mantel, girder).

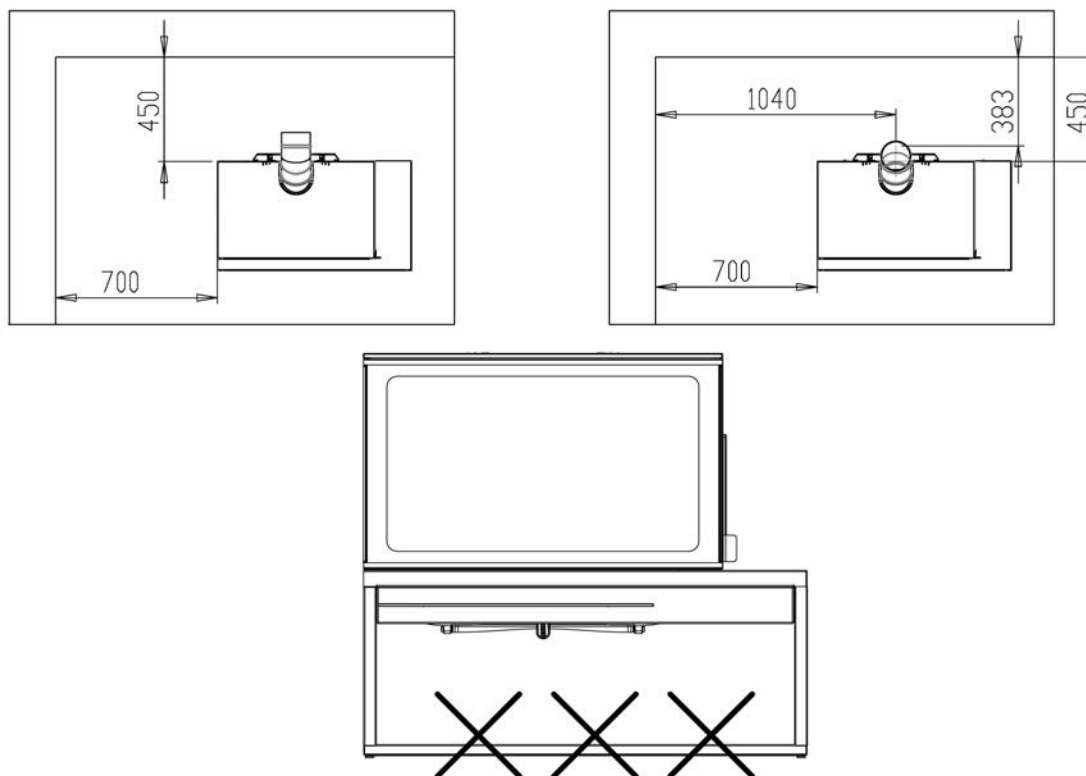
See section J of the UK Building regulations.

This distance must be extended to a minimum clearance from:

- **Combustible material (fig. 2)**
- Non-combustible material (fig. 3).

Do not place any object in combustible materials or curtains, hangings etc.

1 meter clearance in front of the device needs to be respected from any combustible materials or with an adapted protection (protection against the thermal radiation).



Do not store any combustible material under the stove

Figure 2 (Clearance from combustible material)

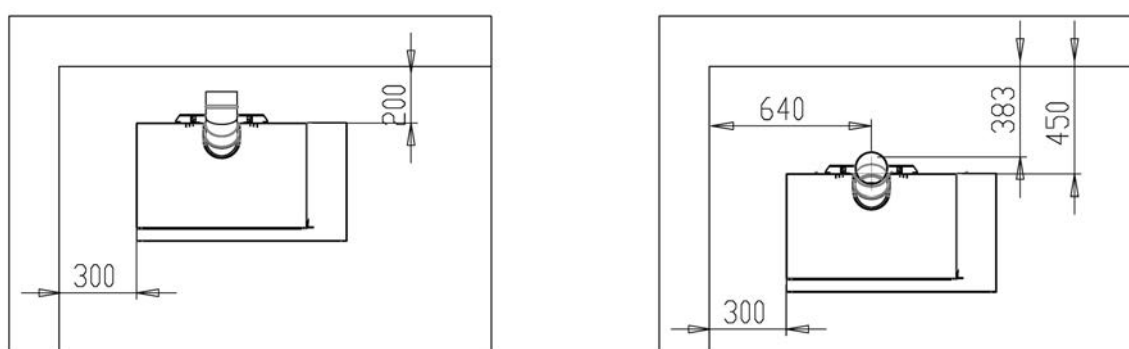
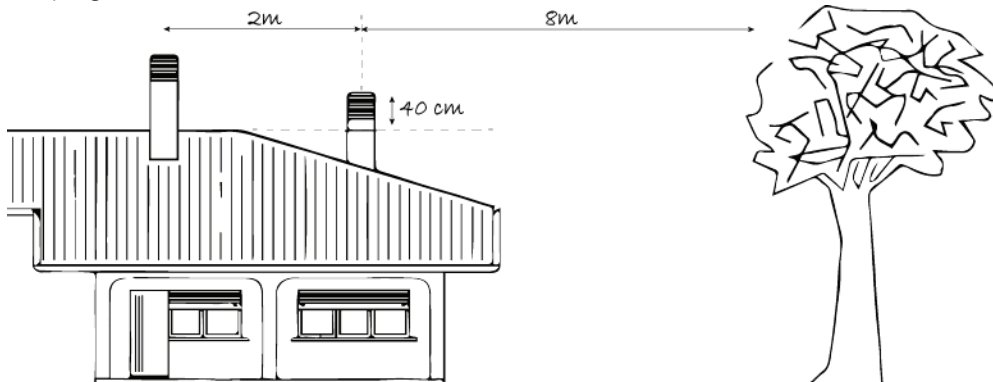
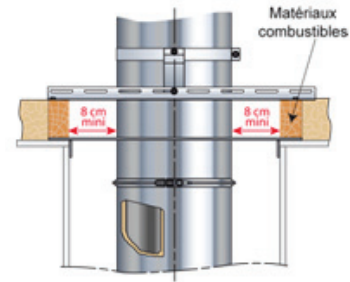


Figure 3 (Clearance from non-combustible material)

Chimney

Existing flue

- The chimney must comply with the Current Building Regulations. If in doubt, consult your Dealer or local Building Inspector.
- The flue must be in good condition and must provide sufficient draught (refer to technical details p. 30).
- The flue must be suitable for the installation of solid fuel burning appliances and comply with the Current Building Regulations.
- The flue must be clean. It should be swept to remove soot and dislodge tar deposits.
- The flue must be well insulated. If the flue inner wall surfaces are cold, a good thermal draw is impossible causing condensation problems (tar formation etc) to occur.
- The flue must not be shared with other appliances.
- The chimney must be at least 4.5 m (15 ft) high.
- In case of a flat roof or when the roof gradient is lower than 15°, the stack must be 1,2 m (4 feet) high at least.



- If the chimney has any down draught tendency, due to its position in relation to nearby obstacles, then an anti-down draught cowl must be installed on the chimney or the chimney height must be increased.
- If the decompression in the chimney is excessive, a draught stabiliser must be installed.



Chimney to be built – New flue

- The chimney must comply with the Current Building Regulations. If in doubt, consult your Dealer or local Building Inspector.
- The appliance must not support the weight of the flue.
- Consult a chimney specialist for advice on suitable flue systems for solid fuel appliances.
- It must be distant from any combustible material (walls, cross members)
- It must permit an easy sweeping

Assembly of flue spigot

The stove is supplied with a connection flue spigot.

Smoke exist at rear

- g) Fit the 45° elbow (Rep B) on the top with its output to the back of the stove.
- h) Connect the flue pipe (Rep A) to the elbow

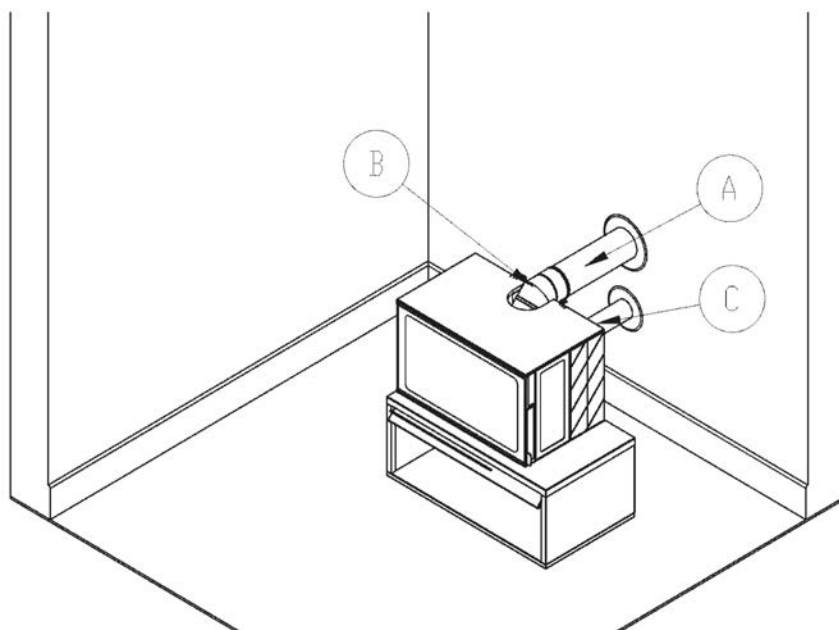


Figure 4

- i) The fitting of the outside air inlet (Rep C) is an option. However if the combustion air is taken in the room where the stove is installed, the ventilation as indicated page 32 needs to be checked.

Smoke exist at the top

Proceed in the same way by directing the elbow upward.

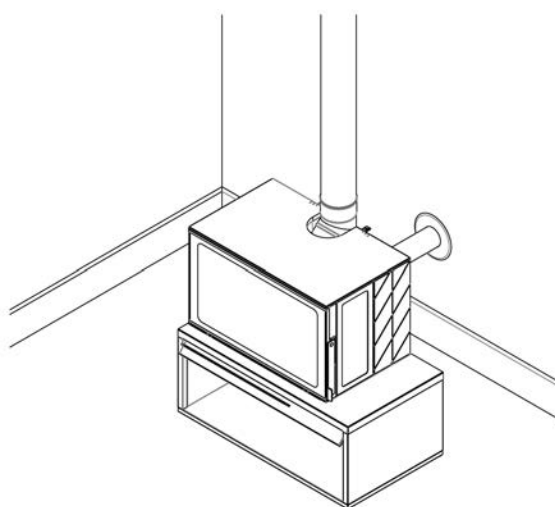


Figure 5

Pre-utilisation check

Check:

- The condition of the filler seals
- The door closes correctly
- The window is not damaged
- The smoke passages are not obstructed by pieces of packaging or removable parts.
- Make sure that all removable parts are correctly installed.

Note : All gaskets ceramic ropes, seals, are consumable parts and must be changed on a regular basis by the user.

Maintenance of the chimney

Very important

To avoid any accidents (chimney fire, etc.), regular maintenance should be carried out.

If the stove is regularly used, the chimney should be swept several times per year, together with the stovepipe connection section.

Chimney Fire Safety

If the chimney catches fire, you must cut off the flue draught, close the doors and windows, hatches and keys and call the Fire Brigade without delay.

DO NOT OPEN THE DOOR OF THE APPLIANCE (OR AIR INLET) UNDER ANY CIRCUMSTANCES.

A professional engineer should check the chimney condition at least once per year.

Removing and replacing the flue baffle

- a) Open the front door
- b) Untight the screws holding the first baffle
- c) Slide this baffle toward the back and remove it
- d) Move up the second baffle to release it from its fulcrum
- e) Untight the screws holding the second baffle
- f) Tip over the baffle downward to clear it
- g) Remove the baffle

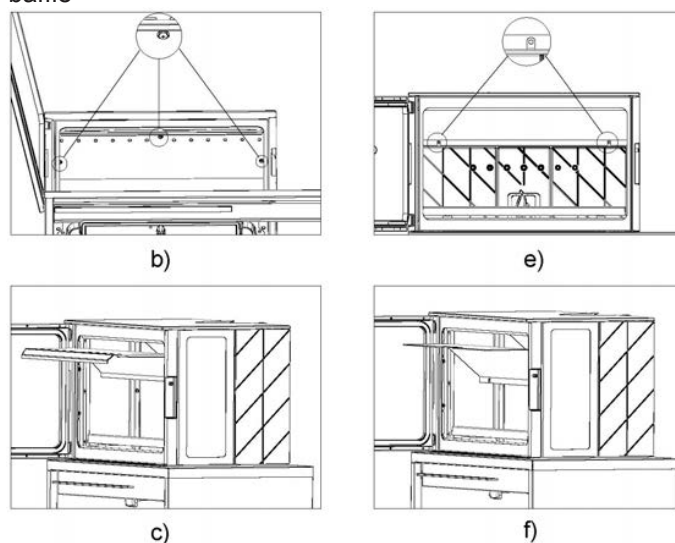


Figure 6

Replace the flue baffle in the reverse order

Instructions for the user

The manufacturer will be not responsible for damages on parts of the appliance due to the use of prohibited fuel or due to an alteration of the appliance or its installation.

Only use replacement parts supplied by the manufacturer

All the local and national regulations, and in particular those relating to national and European standards, must be observed when using the appliance.

Under certain circumstances (e.g. fog and repeated thaw) the chimney will not draw sufficiently well and thus be at the origin of asphyxia.

Fuel

This appliance is not an incinerator

Recommended fuel : Wood

- Use hard wood logs, which have been cut for at least two years and stored, under shelter.
- Hardwood has a higher calorific value per cu metre (oak, ash, maple, birch, elm, beech, etc.). Large logs must be split and cut to a usable length, before being stored in a sheltered and ventilated place.



Not recommended as fuel

- "Green wood". Green or damp wood reduces stove efficiency and soils the glass, the internal walls and the flue (soot, tar, etc.).
- "Used timbers". Burning treated wood (railway sleepers, telegraph poles, offcuts of plywood or chip board, pallets, etc.) quickly clogs the flue ways (soot, tar, etc.), pollutes the environment (pollution and smell, etc.) and cause the fire to burn too quickly and overheat.
- "Green wood" and "recovered wood" can eventually cause a chimney fire.

Prohibited fuel

Homefire and any form of bituminous coal or petroleum based coke are prohibited.

Lighting

- a) Set the controller to position 1.
- b) Open the front door.
- c) Lay firelighters or rolled up newspapers on the grate with a reasonable quantity, if necessary, of dry kindling wood.
- d) Open the front door and place 2 or 3 small logs on top.
- e) Light the newspaper or firelighters using a long taper and close the door and open the air.

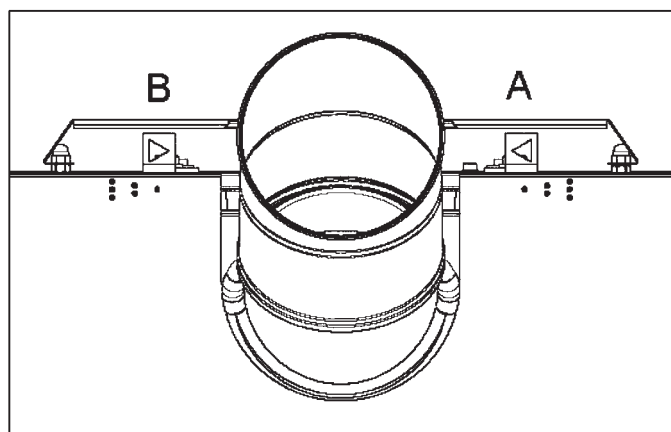
Note

When the fire is lit for the first time, the stove may give off fumes from the new paint. This is normal but ensure the room is well ventilated during the first few hours of operation.

To avoid darkening windows at the starting up, we recommend gathering kindling wood in the center of the fireplace under the grid.

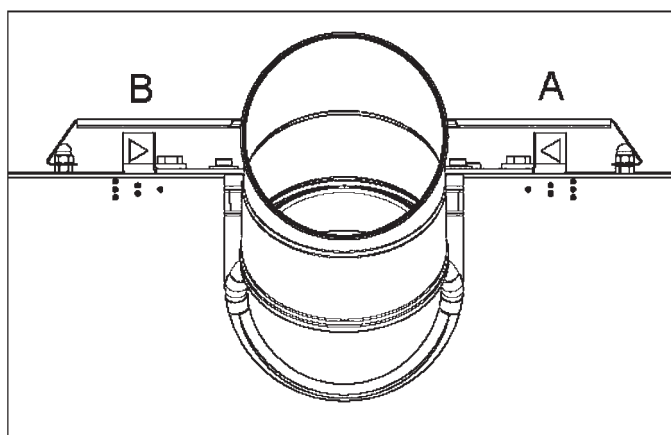
A) Primary air control position

B) Secondary air control position



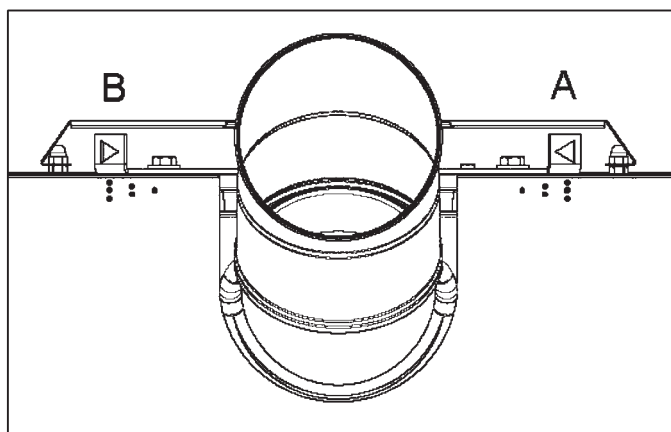
Setting up of the air supply control,
minimum

1



Setting up of the air supply control,
rated output

2



Setting up of the air supply control,
maximum output

3

Operating procedure

The appliance must function with the suitably closed door.

By moving the control lever can adjust the burning rate. Experience will show you which settings are best for your situation.

The air wash system works with the air slide but it is also connected to the quality of the burned wood

Loading the fuel

- It is advisable to wait for the fire to be reduced to hot embers before re-loading. The door should also be opened slowly when re-loading. The minimum reloading interval for nominal heat output is 45 mn.
- The logs must be placed on the glowing embers.
- For a briskly burning fire, there should always be at least two logs in the fire. The fire will burn better if there are several logs.
- For a slower burning fire (for example, at night), select larger logs.
- **Always close the loading door.**

Cleaning

- It is essential to keep the grate free from a heavy build-up of ashes.
- REMEMBER TO BURN SOLID FUEL CORRECTLY, AIR SHOULD BE ALLOWED TO FLOW FROM THE ASH PIT AREA THROUGH THE GRATE AND THROUGH THE FUEL. IF THE GRATE OR ASH PAN ARE CONGESTED, THE PERFORMANCE WILL BE AFFECTED.
- Always empty the ash pan at least once a day or whenever it is full of ashes. Never allow the ash pan to overflow allowing ash to be in contact with the underside of the grate. If this condition is allowed, the grate will wear out pre-maturely.

Do not open the door of the ash pan, the air inlet could pack the combustion

Maintenance of the chimney

**Very important
In order to avoid any incident carried out regularly**

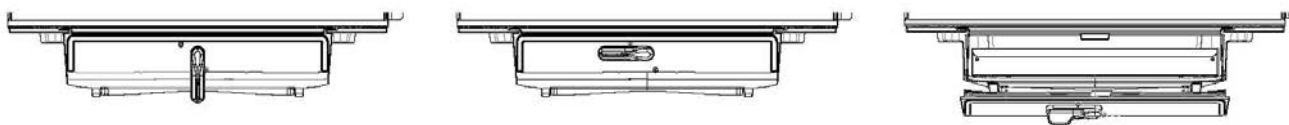
If the appliance is regularly used, the chimney should be swept several times per year, together with the stovepipe connection section.

Safety in case of chimney fire

If the chimney catches fire, you must cut off the flue draught, close the doors and windows, hatches and keys and call the Fire Brigade without delay.

DO NOT OPEN THE DOOR OF THE APPLIANCE (OR AIR INLET) UNDER ANY CIRCUMSTANCES.

Access to the Ashtray



Maintenance of the stove body

To maintain the glasses translucent, it is recommended to clean them regularly with a wet cloth and of a worn newspaper paper - **The glasses need to be cold during the cleaning operation.**

The appliance must be cleaned regularly together with the connecting pipe and the flue pipe.

Remove all deposits from the combustion chamber and clean the grate area.

The vitro ceramic glass can only be cleaned using a soft cloth and stove glass cleaner, available from your Dealer. **DO NOT USE ABRASIVES**

The vitro ceramic glass resists a temperature of 750°C.

If the glass should be broken, it is recommended that only an original factory replacement should be fitted.

Check that there are no obstructions before relighting after a long period of disuse.

The appliance must not be used with a flue serving several appliances.

To maintain the grates ventilation free of any obstruction,

For enamelled finishes, the stove body can be cleaned using a soft cloth either dry, or slightly damp with a very mild detergent.

NEVER CLEAN ENAMEL SURFACES WHILST THE STOVE IS HOT.

The cast iron body panels of non-enamelled stoves can be cleaned with a proprietary stove cleaner or re-sprayed / touched up using a stove paint. These products are available from your Dealer.

Recommendations

This room heater is a high heat producing appliance and may cause severe burns if touched on the glass front door or on top directly over the burner.

The stove may still be HOT even when fire has burnt out.



To get access to the stove, to control the air flow or even to open the door of the ashtray, wear always the provided insulated glove



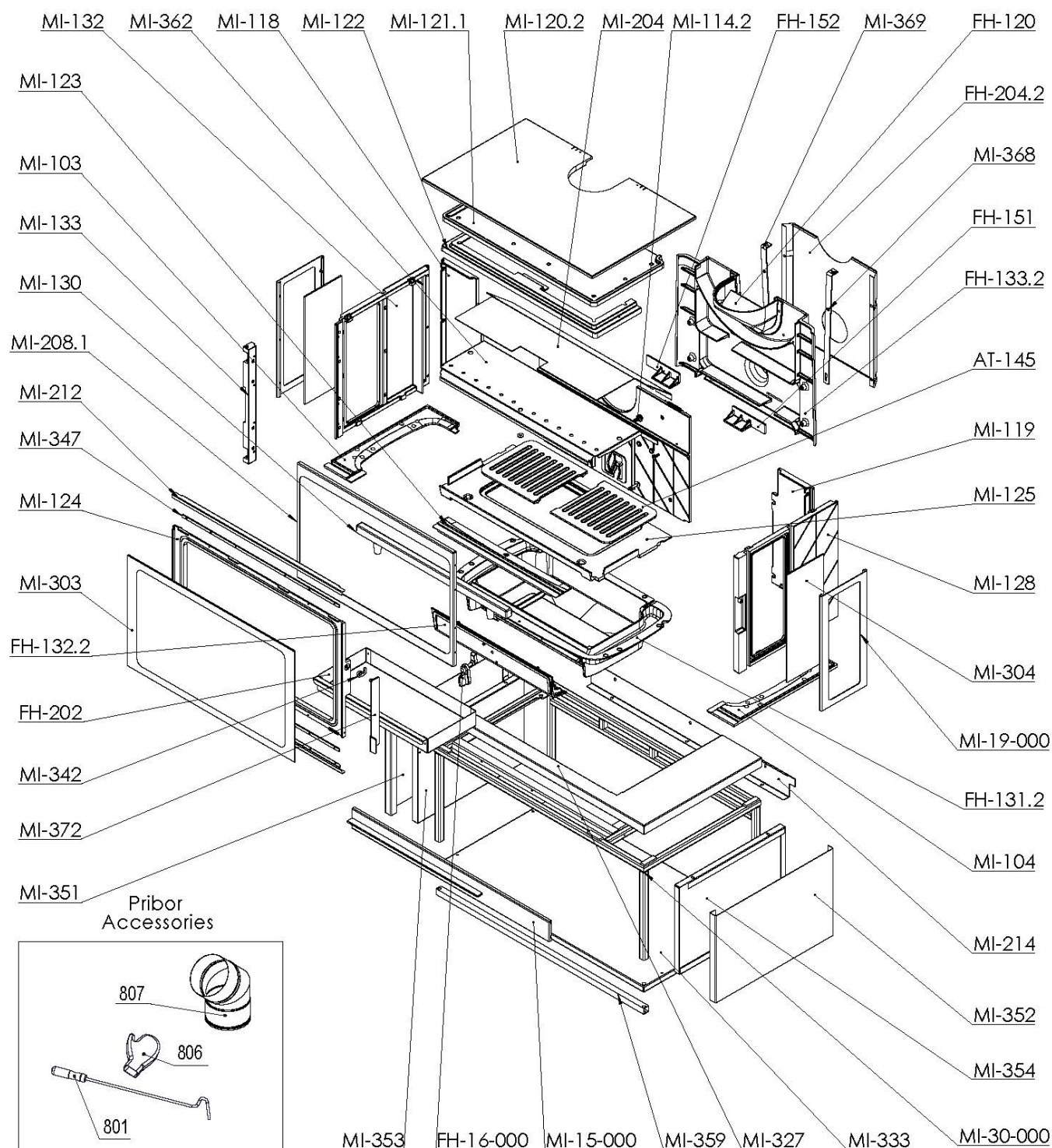
Keep children away from the stove

Causes of malfunction

<i>Situation</i>	<i>Probable causes</i>	<i>Action</i>
<i>Fire difficult to start.</i> <i>Fire goes out</i>	Wood green, too damp or poor quality	Use the recommended fuel.
	The logs are too big	To light the fire, use small, very dry twigs. To maintain the fire, use split logs.
	Air starvation	Increase the amount of air by moving the regulator.
	Insufficient draught !	Check that the flue is not obstructed, sweep it if necessary Seek advice from a chimney specialist.
<i>The fire burns too quickly</i>	Too much draught	Reduce the amount of air by moving the regulator.
	Excessive draw !	Install a draught stabiliser. Consult your dealer
	Poor Quality wood.	Do not continuously burn small wood, sticks, bundles, carpentry offcuts (plywood, pallets), etc.
<i>Smoke when lighting up</i>	Flue duct is cold	Burn paper and kindling wood to increase heat.
	Room is in decompression !	In houses equipped with mechanical ventilation, partly open a window until the fire is well established
<i>Smokes while burning</i>	Draught is insufficient !	Consult a chimney specialist. Check that the flue is not obstructed, sweep if necessary.
	Down draught	Install an anti-down draught cowl. Consult your Dealer
<i>Low heat output.</i>	Incorrect fuels	Use the recommended fuel

! This sign means that you should ask for a qualified engineer to do the work.

Rezervni dijelovi - Pièces détachées - Spare Parts – Ersatzteile Parti di ricambio





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