

STOVE MANUAL
O series EMBER STOVES
O1



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EMBER STOVES

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EMBER STOVES

Ember stoves are technologically advanced stoves for heating, intended only for indoor use. Every Ember stove is fuelled by WOOD and BRIQUETTE, thus producing warmth in a safe and healthy manner.

The intended use of the stove and its configurations are described in this manual and have been approved by the manufacturer.

The stoves described in this manual have been checked by the DIN 13240 standard and can as such be connected to multiply-lined chimneys (if possible, given chimney dimensions).

Do not use the stove in a manner which is not in accordance with the instructions provided by the manufacturer.

GENERAL INFORMATION

The person using the stove must be a responsible adult, with all the necessary technical knowledge and skills for carrying out routine maintenance of the stove's mechanical parts. Do not let children play in the immediate vicinity of the stove while it is in use.

The manufacturer is not liable for any problems resulting from inappropriate handling or unauthorised servicing of the stove or replacement of its parts with parts which are not original or not specific for the model. Use only original spare parts and try not to wait for the parts to completely wear out, but replace them prematurely so as to avoid more significant damage and prevent possible accidents.

The manufacturer is not responsible for the installation of the stove. The person put in charge by the owner of the stove should check the flue pipes and air supply, as well as the possibility of correctly following the prescribed instructions. Also, all legal provisions stipulated by the country in which the stove is being installed must be observed when installing the stove, as well as during its further handling.

The manufacturer completely disclaims any responsibility in case of:

- installation of the stove not in accordance with laws stipulated by the country in which the stove is being installed, as well as if installation is not in accordance with safety regulations
- installation which was not performed in accordance with the instructions provided
- installation carried out by unskilled persons
- usage which is not in accordance with the safety regulations
- repairs and alterations which were not approved by the manufacturer
- use of spare parts which are not original or specific for that model
- irregular maintenance of the stove
- exceptional events which are beyond the control of the company Ember Kamin

STOVE MANUAL

1. PURPOSE AND CONTENTS OF THE MANUAL

Purpose: The purpose of stove installation instructions is preparing the user for correct, safe, and long-term use of the stove.

Contents: This manual contains all required information for the proper installation, use, and maintenance of the stove. If you follow the instructions carefully, you will ensure a high degree of safety and productivity of your stove.

2. KEEPING THE MANUAL

Please save the manual so that you can remind yourself of the features and steps for proper handling of the stove at the beginning of the following heating season. A manual comes with each fireplace, but should you lose it, feel free to contact the manufacturer directly to receive a new copy.

O Series stove models (O1)



1. STOVE DESCRIPTION

The stove's handle is made of stainless steel. Thanks to stainless steel's specific property of low heat conduction, the stove's handle does not heat up and will remain cold. Therefore, the stove can be opened by the handle without a protective glove, although opening it with a glove when adding wood is recommended.

The ash container on our stoves is hidden behind the door, and located on the underside of the combustion chamber below the cast iron grate. The air chamber is completely insulated and all regulation is conducted via the primary and secondary air (Figure 1). The stove has the option of log door installation.

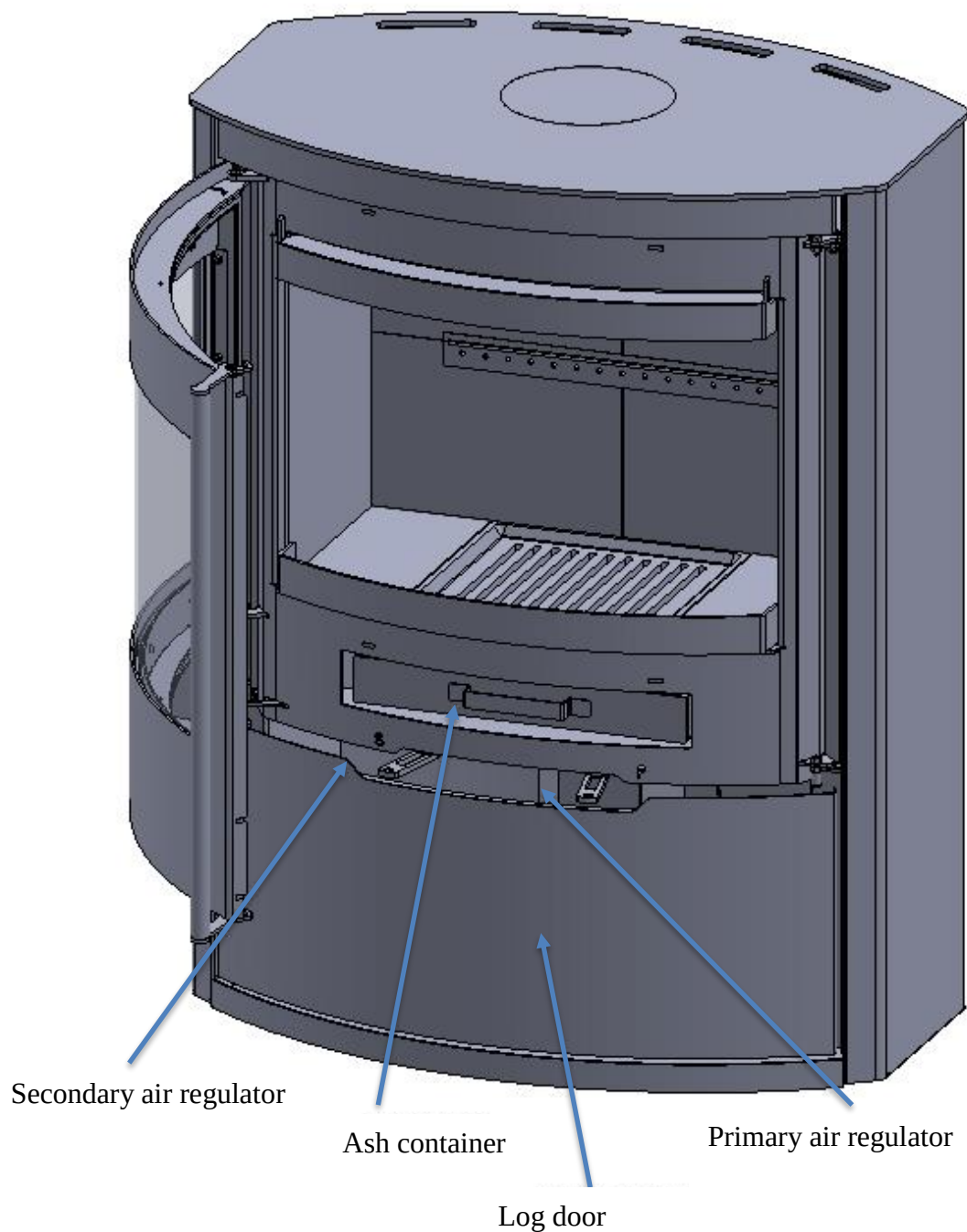


Figure 1.

Primary air is supplied to the combustion chamber through the cast iron grate and regulated by the primary air regulator. Primary air intake is to first be closed when igniting the stove (more details under “Proper ignition”).

Secondary air intake passes through the side ducts to the upper chamber, goes over the flame retarder and enters the combustion chamber, and is regulated by the secondary air regulator. Secondary air intake ensures clear glass (more details under “Proper ignition”).

The coating of the combustion chamber is made of thermal concrete, except for the combustion chamber ceiling which is made of vermiculite (Figure 2). Thermal concrete has good insulation properties, which reduce the passage of heat onto the mantle and side walls of the stove, so the heat is directed towards the stove glass. Along with good insulation properties, thermal concrete also possesses good mechanical properties, allowing for a longer lifetime when the stove is used properly.

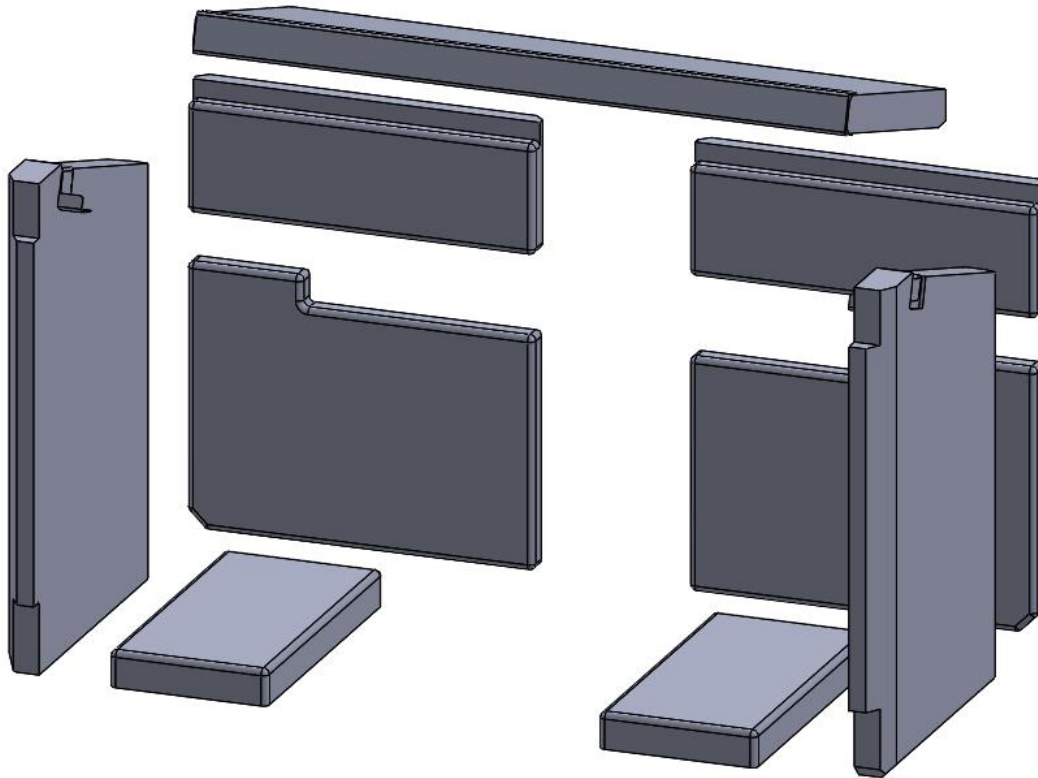


Figure 2

2. PACKAGING

Ember stoves arrive packaged in protective film and embraced in a wooden framework, positioned on wooden pallets, which gives them greater stability and protection of the stove (Figure 3). Each pallet is designed to perfectly fit the stove for which it is used.

Each stove also comes with:

- a manual on the use, installation and maintenance of the stove
- a protective glove



Screws for unpacking

Figure 3

The stove is unpacked by unscrewing the lower 4 screws (Figure 3). The pallet frame is then released from the base and lifted over the stove. The stove stands on the wooden base on metal braces, which is why it needs to be lifted when removing from the wooden base.

3. INSTALLATION AND USE OF THE STOVE

3.1. PRIOR TO INSTALLATION

The installation of your stove must be conducted in accordance with the regulations in your country and in consultation with a licensed chimney sweep, who should check whether the connection of the stove is properly installed.

Important steps prior to installation:

- the room where the stove will be installed has to be able to withstand the weight of the stove, as well as provide enough space for its adequate installation;
- it is important to ensure sufficient space for accessing the stove after the installation;
- flue pipes' pressure should not be lower than 12 Pa;

- check whether the heat generated by the stove corresponds to the room where it is located.

WARNING!!! Do not make any unauthorised modifications to the stove.

3.2. SAFETY MEASURES

3.2.1. INSTALLER INSTRUCTIONS

- Check whether the place of installation complies with all local, national, and European laws and standards.
- Follow the installation steps provided in this manual.
- Check whether the chimney and the air intake are suitable for this type of installation.
- Always use protective equipment and other protection prescribed by the law.

3.2.2. USER INSTRUCTIONS

Ensure that the place of installation complies with all local, national, and European laws and standards.

- Given that the stove is an appliance that generates heat, its outer parts can get extremely hot, which is why extra caution is advised when the stove is in operation. Pay special attention to the following:
 - do not approach too close and do not touch the glass on the stove because you might get burned;
 - do not touch the flue pipes;
 - do not clean the stove while it is in operation;
 - do not empty the ash container while the stove is in operation.
- Make sure that children do not get too close to the stove.
- Follow the instructions provided in this manual.
- Only use fuel intended for this stove (more details under “Fuel characteristics”).
- Stick to the prescribed routine for stove maintenance.
- Do not use the stove without first conducting the prescribed daily check (more details under “Maintenance”).
- Do not use the stove if you notice any malfunction, if you suspect damage or breakage, or you hear an unusual noise.
- Do not throw water onto the stove when it is in operation or into the fire to extinguish it.
- Do not lean onto an open stove door because you can weaken it that way.
- Do not use the stove as support.
- Do not clean the stove until its structure and ash are completely cold.
- Everything you do on the stove should be done with absolute caution and care.
- If the chimney catches fire, call firefighters immediately, move all flammable objects away from the chimney, and notify your chimney sweep. Do not extinguish a fire in the chimney using water, as that may cause damage to the chimney. After the fire in the chimney has stopped burning, before the following ignition of the stove, you should call an expert to check the chimney and implement appropriate measures if cracks have appeared in the chimney.

3.3. IMPORTANT INFORMATION FOR STOVE INSTALLATION

3.3.1. COMBUSTION

There are a number of factors which influence good combustion, in terms of producing heat and low emissions of harmful substances.

Some of those factors depend on the stove itself, while others depend on proper installation, manner of usage, and maintenance.

Some indicators can be found later in the manual and it is recommended to adhere to those in order to achieve maximum performance of the stove.

3.3.2. COMBUSTION AIR

When the stove is in operation, it needs air for combustion. That air (small amounts) is taken from the room where it is located, which is why it is advisable to provide fresh air in the room to ensure its sufficient quantity.

If the wall behind the stove is an outside wall, drilling an opening for fresh air intake is recommended. When the stove is connected to a fresh air intake, it becomes independent of the air in the room (the opening for the intake of fresh air into the stove is approximately 20-30 cm above the floor).

In O stove model, the connection for fresh air intake is located on the back of the stove (Figure 4, right) and underneath the stove, on which the pipe for connecting fresh air intake to the stove passes through the room floor and connects directly to the air chamber (Figure 4, left).

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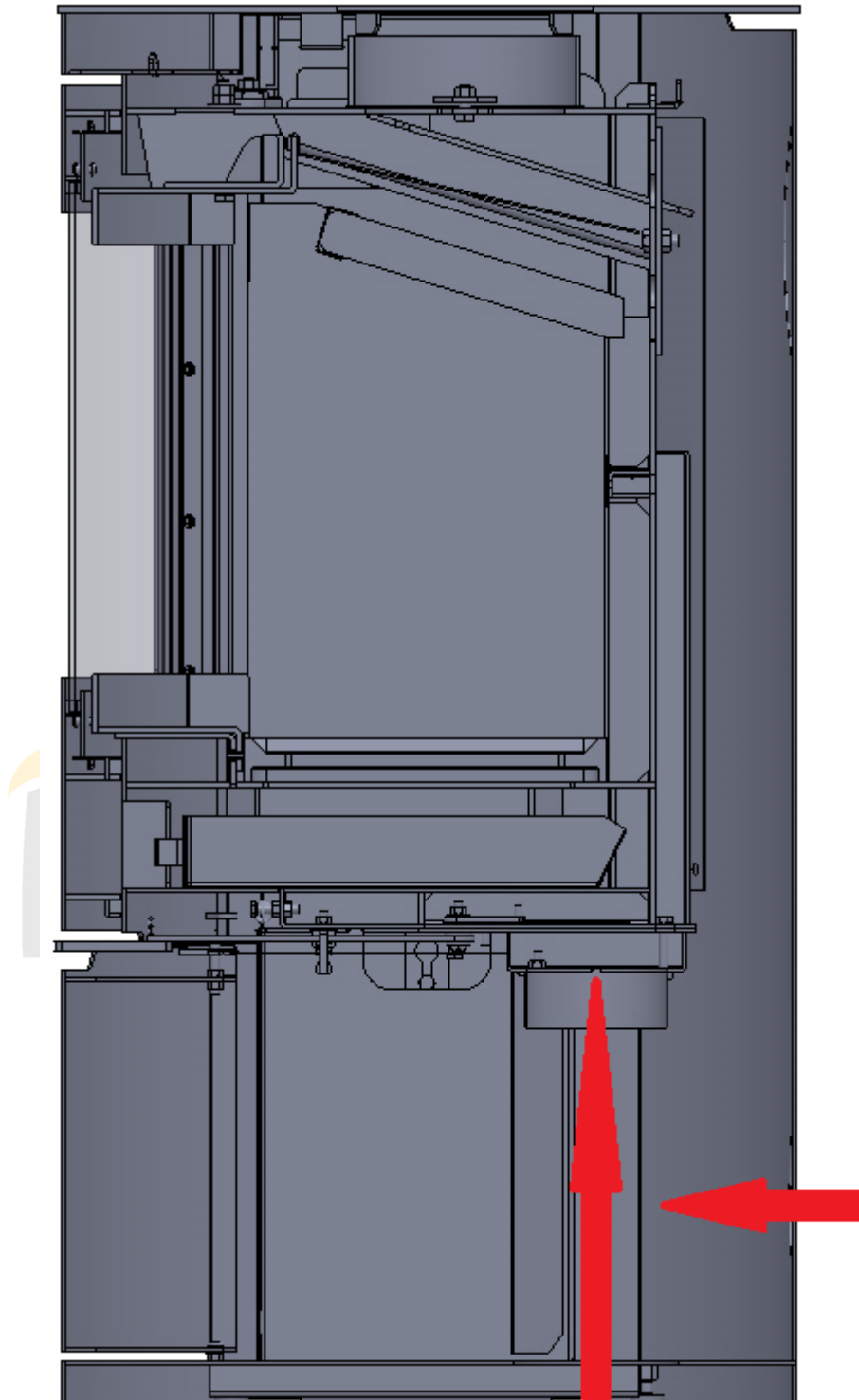


Figure 4

IMPORTANT!!!

Fans extracting air out of the room (extractor hood) where the stove is installed can cause penetration of flue gases into the room.
In that case, fresh air should be connected directly to the stove.

3.3.3. CONNECTING FLUE PIPES

For the connection of the stove to the chimney, only a flue pipe with a 2-millimeter wall thickness can be used!!!

Flue pipes, their dimensions and materials must be in accordance with current standards (DIN EN 1856:2).

Important instructions:

- the metal pipe connecting the stove to the flue pipe can never have a diameter smaller than the outlet of the stove;
- all connections from the stove to the chimney must be firm and tightly connected;
- each stove must have its own flue pipe and under no circumstances can the same flue pipe be used for multiple stoves.

Chimney deficiencies can include: (Figure 5)

1. The chimney is lower than the top of the roof
2. The slope is too steep
3. Sharp change of direction
4. A furnace or another appliance is connected to the same flue
5. Protrusions in the flue
6. Cracks
7. Foreign bodies or accumulated soot
8. Flue pipe inserted too deeply
9. Fan, extractor hood, or another appliance creating under-pressure in the room
10. The cleaning opening is poorly sealed or open

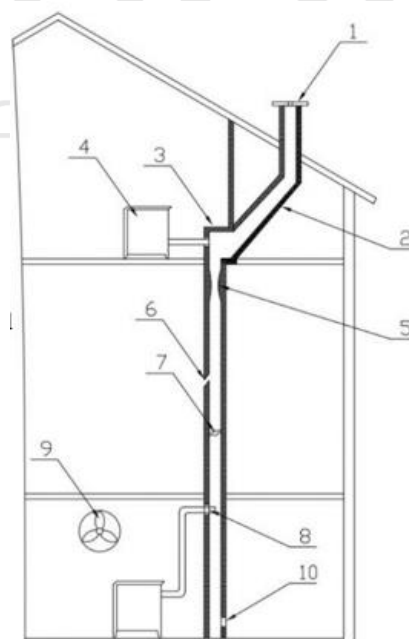


Figure 5

3.3.4. LOCATING AND POSITIONING THE STOVE IN A ROOM

When installing the stove, it is necessary to adhere to the rules of fire safety. Figure 6 and Table 1 show the minimum required distances between the stove and the walls/floor.

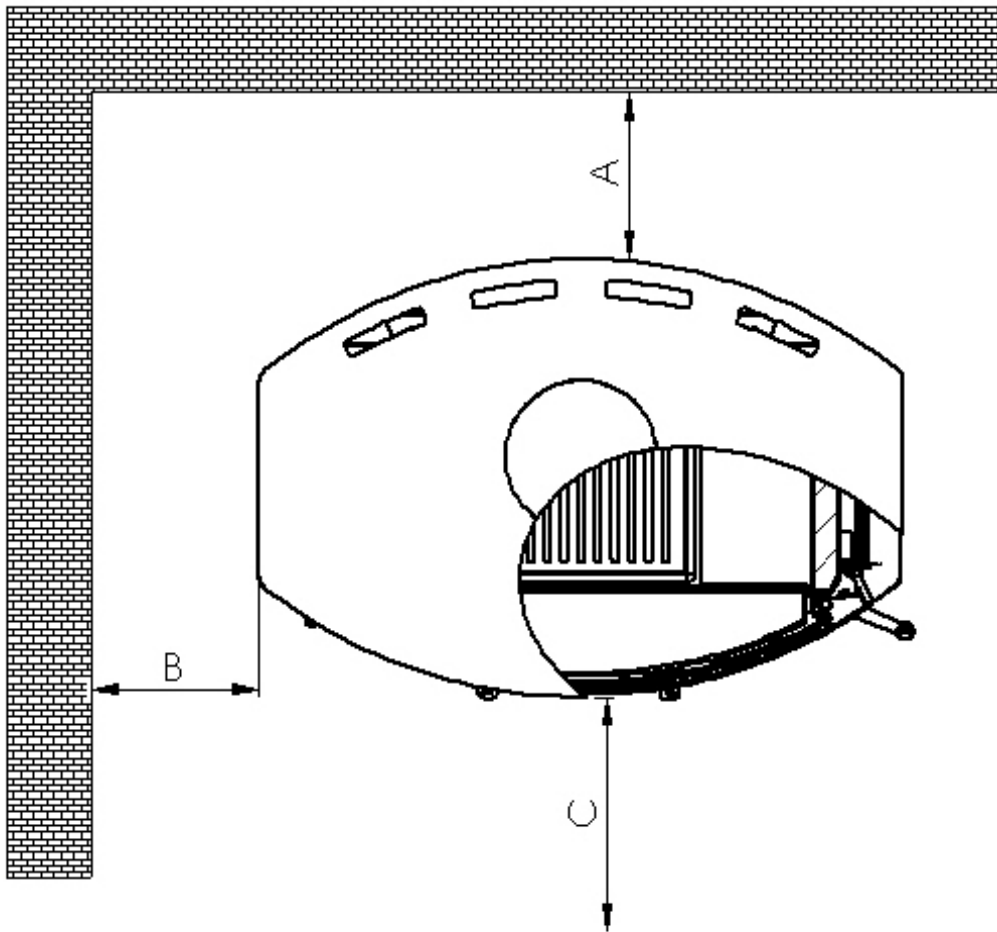


Figure 6

Minimum distance from combustible building materials	O1
On the back (in mm) – A	100
On the side (in mm) – B	450
Thermal radiation area (in mm) – C	1270

Table 1

It is important to protect all items that might catch fire when exposed to the stove's high temperatures.

It is recommended to buy a floor plate, which is placed under the stove to protect surroundings from catching fire.

4. COMMISSIONING THE STOVE AND USING IT

4.1. FIRST IGNITION OF THE STOVE

- Check whether all movable parts are put in the right place and whether air regulators are working properly.
- Wipe all external surfaces with a dry cloth to remove dirt.

- After igniting the stove for the first time, we recommend that you use a weak fire to avoid the stove being under sudden thermal load.
- It is possible that during initial ignition the stove will release a smell of metal and fresh varnish, but the smell will disappear with the second ignition. The reason why this smell is released during first ignition is because, on that occasion, the varnish blends completely with the metal.
- Also, it is important for the primary air intake to be in a semi-open position for at least four hours.
- The ash container must be well sealed so that the primary and secondary air intakes can be properly regulated.

4.2. APPROPRIATE FUEL MATERIALS

Ember stoves are stoves intended for use with wood and briquette as their only possible fuel. Beech and birch are the recommended types of wood for the stoves, as they have the highest degree of combustion and the cleanest combustion. Of course, other types of wood are also suitable for our stoves, with the condition of sufficient dryness, which means that for all types of wood, moisture in logs should not amount to more than 20%, and it is recommended that the moisture of the log should be closer to 15% as such log moisture has shown to provide optimum stove utilization.

For this reason, freshly cut wood is to be stored for a period of 12 to 18 months to achieve a sufficient percentage of dryness and be appropriate for combustion.

No fuel other than the above may be used for combustion. Accordingly, you should not fire the stove at all with the following:

- fresh wood: wood with a moisture content above the recommended level, as it reduces the stove's heat capacity, causes glass 'blackening', rendering more frequent stove and chimney cleaning necessary;
- reclaimed wood: burning of treated wood (railway sills, chipboard, lacquered wood, etc.) causes the formation of sediments in the flue system and may lead to overheating;
- slow-burning coal (the use of this coal is absolutely prohibited);
- coke (it has a too-high calorific value and is in no way suitable as fuel for stoves);
- charcoal;
- plastic of any kind;
- clothes and household waste.

Burning any type of waste is harmful to the environment, but also to your stove!!!

4.3. HOW TO IGNITE A FIRE IN THE STOVE

- Fully open the primary and secondary air regulator.
- Open the door of the combustion chamber and place a roll of paper or some other lighting mean on the bottom.
- Place several small pieces of wood on paper, arranging them crosswise over each other.
- Then place some larger pieces on the smaller pieces of firewood.
- Light one of the paper pieces in the stove to start the fire.
- Do not fully close the combustion chamber door, but leave it ajar until you notice the fire catching on.

At this time, the primary and secondary air supply must be open!!!

- After a few minutes, you can set the primary and secondary air supply according to your own preferences (see section 6 for more about the primary and secondary air supply) and refill the stove with fuel. If the wood is sufficiently dry (see 4.2), after the fire is lit, it is recommended to close the primary regulator completely and regulate stove burning with the secondary regulator.

4.4. REFILLING FUEL IN THE STOVE

To keep the fire in your stove steady and heat your home, the stove should be refilled with fuel if needed. The ideal time for this is when you notice there are only embers in the stove, without any flames.

Do not refill the fuel in the stove while there is still a flame!!!

Complete the following steps to refill the stove:

- Open the primary air supply to the end.
- Slowly open the handle of the stove door and thus avoid creating air pressure in the stove that would allow smoke from the stove to enter the room.
- Add a few wood logs and close the door.
- Primary and secondary air supply is then adjusted according to your own preferences.

5. MAINTAINING AND CLEANING THE STOVE

5.1. SAFETY PRECAUTIONS BEFORE CLEANING

Before you begin any stove maintenance or cleaning, it is important to ensure the following steps:

- All parts of the stove must be cold.
- The ash in the stove must be cold; there must be no ember in it.
- Use protective equipment prescribed by the law (EEC 89/391).
- The tools you use must be appropriate.
- After finishing repairs or maintenance, make sure that all safety covers are in place and closed.

It is recommended to clean the stove surface only with a dry cloth and without the use of detergents, so as to avoid destruction of the surface!!!

5.2. CLEANING THE STOVE ASH

Ember stoves have a great advantage over competitors – an ash container installed in the stove, enabling easier and simpler cleaning of ashes.

The ash container needs to be emptied timely to avoid contact between the ashes and the stove grid. If this is not done in a timely manner, there is a possibility that the combustion chamber grate will not be fully cooled and will thus eventually be destroyed.

Ash container use: The ash container is located under the stove's combustion chamber, hidden beneath the stove door. When ash is removed from the ash container, it is necessary to

first open the combustion chamber door, then lightly pull the ash container handle and pull out and remove the ash, after which the ash container can be put back in place.

It is extremely **IMPORTANT** to ensure that no ember is left in the stove and that the ash is completely cold. If any embers remain while cleaning the stove, there is a risk of burns, as well as of trashcan combustion. We recommend using the protective glove when disposing ashes, as well as a metal container for ash disposal to avoid possible accidents.

Do not throw ash in the trashcan!!!

5.3. CLEANING GLASS ON THE STOVE

If necessary, the stove glass can be cleaned with a wet cloth or newspaper previously immersed in ash, and the stove glass is to be scrubbed until completely clean. It is also possible to use glass washing or kitchen cleaning detergents. In addition, there are special dry cleaning sponges.

Do not clean the stove glass while the stove is in use; the stove must be completely cold!

Do not wet the door gasket so as to prevent it from losing its function!

The appliance must not come into contact with the stove's painted elements!

5.4. CLEANING THE FLUE PIPES AND CHIMNEY

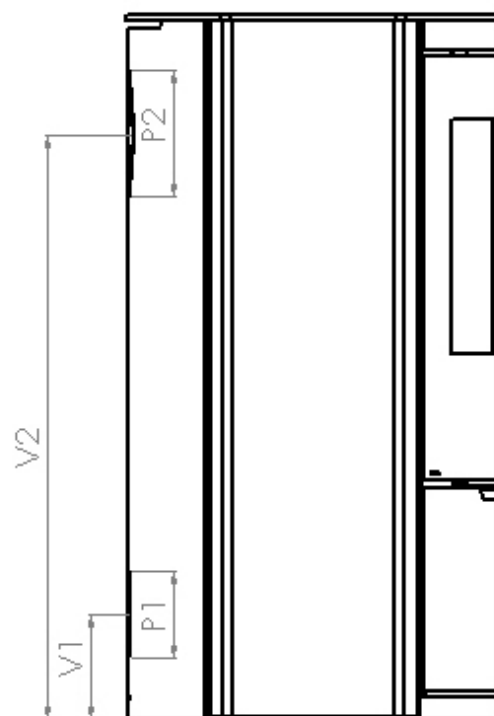
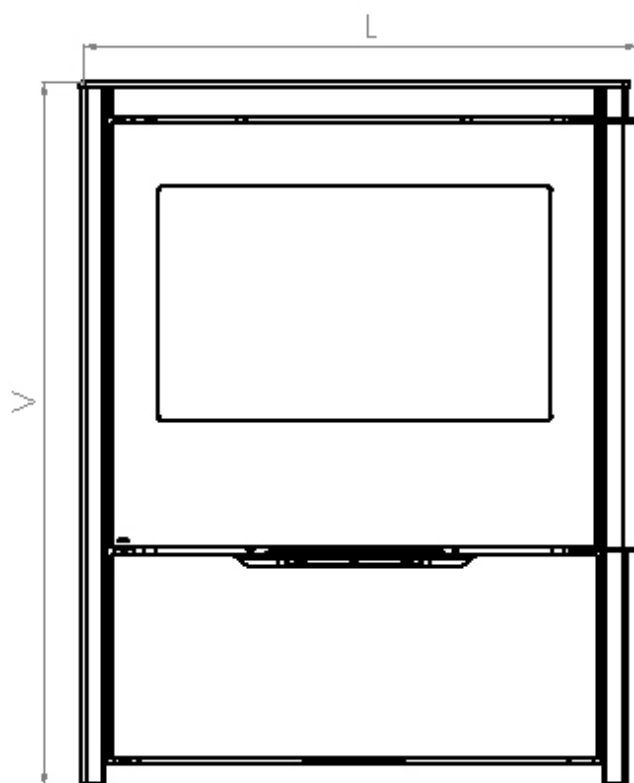
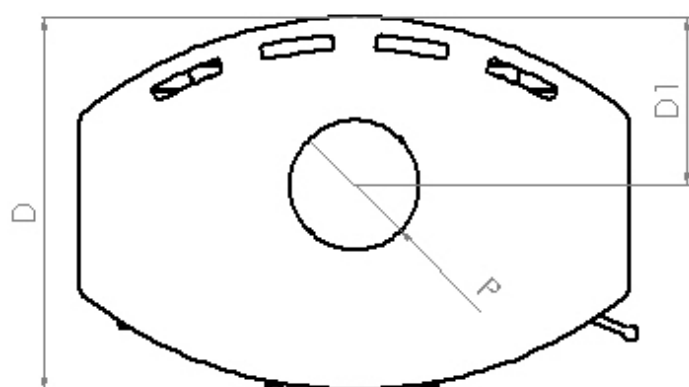
It is recommended to clean chimneys and flue pipes every time you notice a heavy flow of smoke.

Cleaning the soot and carbonated residue needs to be carried out properly, using the appropriate instruments and taking care not to damage the lacquered parts and seals.

SPECIFICATIONS

SPECIFICATIONS		O1
Technical data	Fuel type	Firewood
	Nominal heat output	7,6 kW
	Fuel consumption	2,41 kg/h
	Efficiency	> 76%
	CO quantity at 13% of O ₂	< 1000 mg/m ³
	Fine particulate quantity	< 18 mg/m ³
	Flue gas temperature	300 °C
	Required under-pressure	12 Pa
	Mass flow of flue gases	7,5 g/s
	Weight depending on construction	from 197 to 270 kg
Heating capacity under WSchV 77	Favourable approximation (in m ³)	186
	Less favourable approximation (in m ³)	145
	Unfavourable approximation (in m ³)	98
Minimum distance to combustible building materials	Behind (in mm) – A	100
	Lateral (in mm) – B	450
	Above (in mm)	---
	Thermal radiation area (in mm) – C	1270
Requirements	DIN EN 13240	✓
	Levels 1 and 2 of BlmSchV (Germany)	✓/✓
	Regulation on Air Pollution Control (Switzerland)	✓

STOVE DIMENSIONS	O1	
L [mm]	764	Stove length
D [mm]	518	Stove width
V [mm]	977,5	Stove height
P [mm]	150	Diameter of the flue gases opening
D1 [mm]	234	Centre width of the flue gases opening
P1 [mm]	100	Diameter of the fresh air opening
V1 [mm]	145	Height of the fresh air opening
P2 [mm]	150	Diameter of the flue gases opening
V2 [mm]	815	Height of the flue gases opening



6. COMPLAINTS AND SERVICING

The Ember Kamin company places great importance on customer relations even after sale, and our repair and customer support services are an extremely important process in our business.

All Ember stove models have a two-year warranty.

The warranty does not cover damage and replacements on combustion chamber lining or stove glass, or damage caused by improper handling, neglect, and incorrect maintenance.

For all additional questions and service information, we kind ask our valued customers to contact the place of purchase of their Ember stove, where authorized service providers will determine whether the warranty covers the issue or damage. If the problem or damage is covered by the warranty, the product will enter the processing and repair procedure.

If the stove damage or issue occurs after two years and after the warranty expires, we also invite you to contact the place of purchase of your Ember stove so that authorized repairers can give you recommendations on further repair procedures, as well as inform you of their cost.

The Ember Kamin company disclaims any liability for any defects caused by unauthorized changes to the stove or in the case of the use of non-original spare parts. If any of the above is established when the stove comes to service and before the warranty expires, the warranty will not be recognized.

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