

# IKI

KIUKAISTA KIUKAIN

## Instructions for installation and use



### IKI electric heaters 13,8–36 kW

Pillar IKI 13,8 kW  
Pillar IKI 18 kW  
Pillar IKI 20,7 kW  
Pillar IKI 27 kW  
Pillar IKI 36 kW

10/2024



This instruction manual is intended for the sauna owner or the person in charge of caring for the operation of the sauna, as well as for the electrician who installs the heater. When the installation is complete these instructions must be given to the owner or the person caring for the sauna. The sauna heater is intended for the sole purpose of heating the sauna room to a temperature appropriate for bathing. Its use for any other purpose is prohibited.

## **Before you begin installing the heater, pay attention to the following points:**

- Beware of the sharp edges of the stainless-steel mesh. Use a long-sleeved shirt and protective gloves during the installation.
- Read through this installation manual before you begin the installation of the heater.
- The warranty does not cover defects caused by faulty installation or misuse of the heater.



**SANTA'S OFFICIAL SAUNA HEATER**

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[www.ikikiuas.com/instructions](http://www.ikikiuas.com/instructions)

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## Table of contents

Table of contents.....	3
Installation of the heater.....	4
Connecting the heater to the electrical network.....	5
Model table.....	5
Safety distances to flammable surfaces.....	5
Circuit diagrams.....	6
Piling the stones.....	7
Requirements for water quality.....	8
Instructions for use.....	8
Trouble-shooting.....	9
Warranty.....	9
Quality guarantee / Freight guarantee.....	10
Mechanical ventilation.....	11
Warnings.....	12

## Installation of the heater

1. Remove the plastic wrapping from around the heater.
2. Choose the place for the heater according to the required safety distances (Page 5).
3. Consider the location of the air vent, thermostat and control unit (see instructions for the control unit).
4. Adjust the legs of the stainless-steel base so it is completely level.
5. Remove the base plate from the underside of the heater and connect the five-pole electric cable to the connection strip inside the element box according to the circuit connector diagram (page 6).
6. Lead the cable through the junction box on to the control unit and affix according to the instructions in the control unit.
7. Test that all the heating elements function properly. If all the resistors heat up, close the element box panel. If problems occur, contact the manufacturer's technical support.
8. Place the lower part of the stainless-steel mesh frame around the heating elements, so that it is an equal distance from all the heating elements. Check that the heating elements stand up straight. If they have been bent, carefully straighten them.
9. **Piling of the stones:** Wash the stones before piling. Pile stones inside the mesh frame. The heating elements should be carefully covered. Please make sure that elements make **NOT** contact with each other or with the heater frame. Olivine, olivine-dolerite, vulcanite and peridotite stones are recommended, in sizes smaller than 10 cm in diameter. The stones should not be placed too tightly together allowing for free airflow between the stones. In communally or publicly used saunas we recommend the use of ceramic Kerkes stones around the heating elements ([www.kerkes.fi](http://www.kerkes.fi)). Kerkes stones support and help preserve the resistors and they do not disintegrate prematurely due to high temperature changes. **See detailed instructions on page 7.**
10. We recommend the use of safety railings around the heater.
11. The surface of the stones sinks in a little after the heater is in use. Frequently check that the heating elements do not become exposed. If this should happen, pile in more stones. The disintegration of the stones depends on the type of stones and the frequency of use. The condition of the stones should be checked yearly, and broken stones must be replaced with new ones. In professional use the stones should be checked 3 times a year.

## Connecting the heater to the electrical network

The heater is connected to the electrical network semi-stationarily with an H07RN-F rubber cable or an equivalent. The use of PVC-insulated cable as a connecting cable is prohibited due to thermal embrittlement. **The electric installation may only be administered by a qualified electrician adhering to current regulations.** The maximum distance of the junction box from the floor is 400 mm, measured from the upper corner of the box. Make sure that the connecting cable will not be exposed to thermal radiation or mechanical strain. If the rubber cable running inside the wall of the sauna is above 1000 mm from the floor, it needs to endure temperatures up to 170 degrees Celsius (for example SSJ).

## Control unit

Refer to the separate instructions for installation provided by the manufacturer of the control unit.

## Sauna-room temperature sensor and over-heat prevention fuse

The sensor should be located

- **to a wall:**  
10 cm down from ceiling and 10-30 cm from outer edge of heater
- **to the ceiling:**  
-10-30 cm from outer edge of heater

minimum of 1000 mm distance from undirected vent for replacement air, or minimum of 500 mm distance from the air vent directed away from the sensor. The temperature restrictor switches off the power if the temperature in the sauna climbs dangerously high (139 degrees Celsius) due to a malfunction.

## Model table

Heater	Size of sauna	Height of heater	Diameter of heater	Max. amount of stones	Power of heaters
Pillar KI 13,8 kW	15–25 m <sup>3</sup>	85 cm	45 cm	140 kg	13,8 kW
Pillar IKI 18 kW	18–28 m <sup>3</sup>	95 cm	45 cm	170 kg	18 kW
Pillar IKI 20,7 kW	22–32 m <sup>3</sup>	85 cm	55 cm	200 kg	20,7 kW
Pillar IKI 27 kW	25–38 m <sup>3</sup>	95 cm	55 cm	230 kg	27 kW
Pillar IKI 36 kW	35–50 m <sup>3</sup>	95 cm	65 cm	290 kg	36 kW

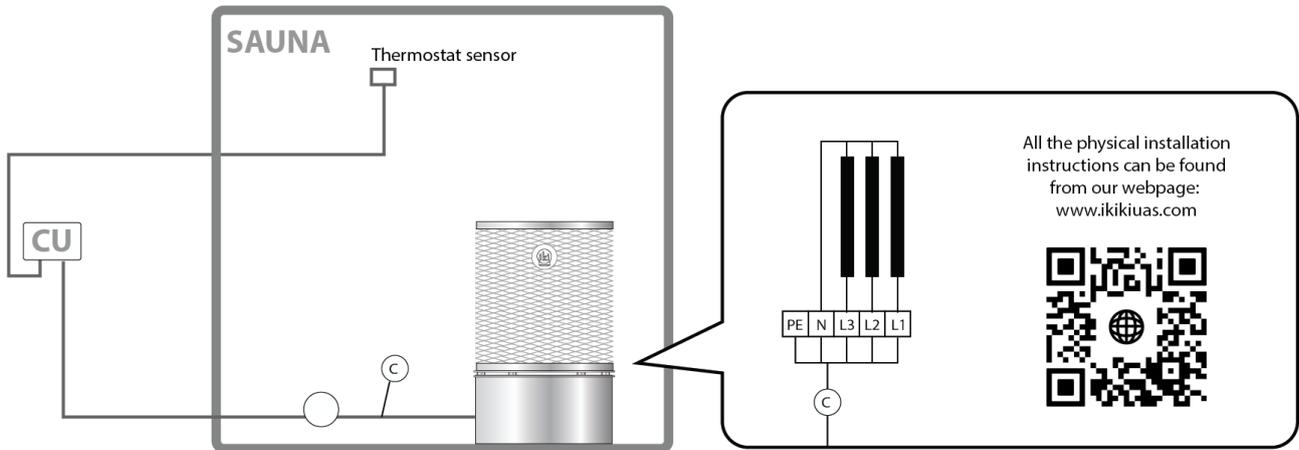
## Safety distances to flammable surfaces

Heater	Front	Sides	Back	Up
Pilari-IKI 13,8 kW	25 cm	25 cm	25 cm	100 cm
Pilari-IKI 18 kW	25 cm	25 cm	25 cm	100 cm
Pilari-IKI 20,7 kW	25 cm	25 cm	25 cm	110 cm
Pilari-IKI 27 kW	25 cm	25 cm	25 cm	110 cm
Pilari-IKI 36 kW	25 cm	25 cm	25 cm	110 cm

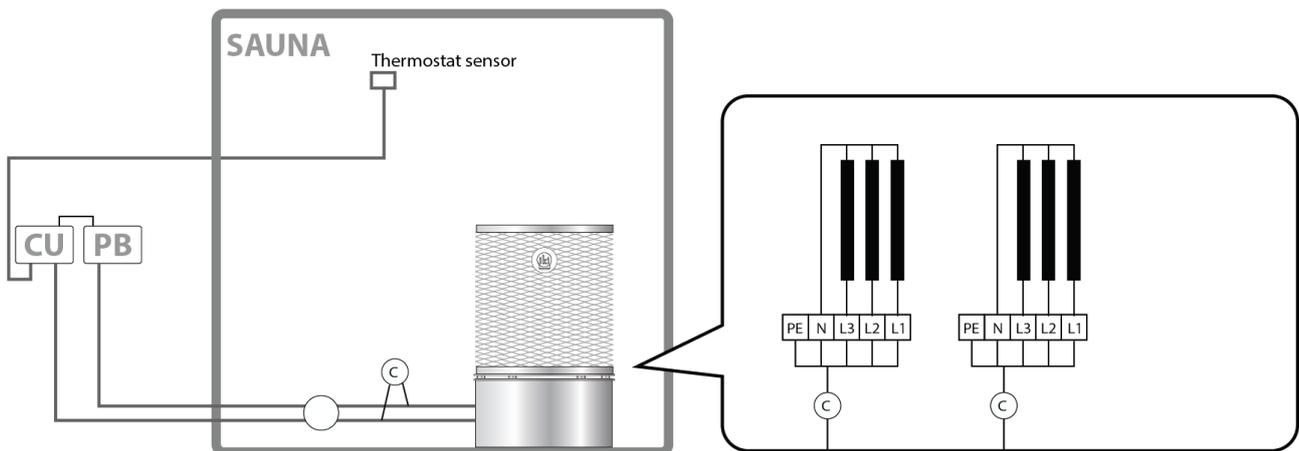
## Circuit diagrams

(CU=control unit / PB=Power booster):

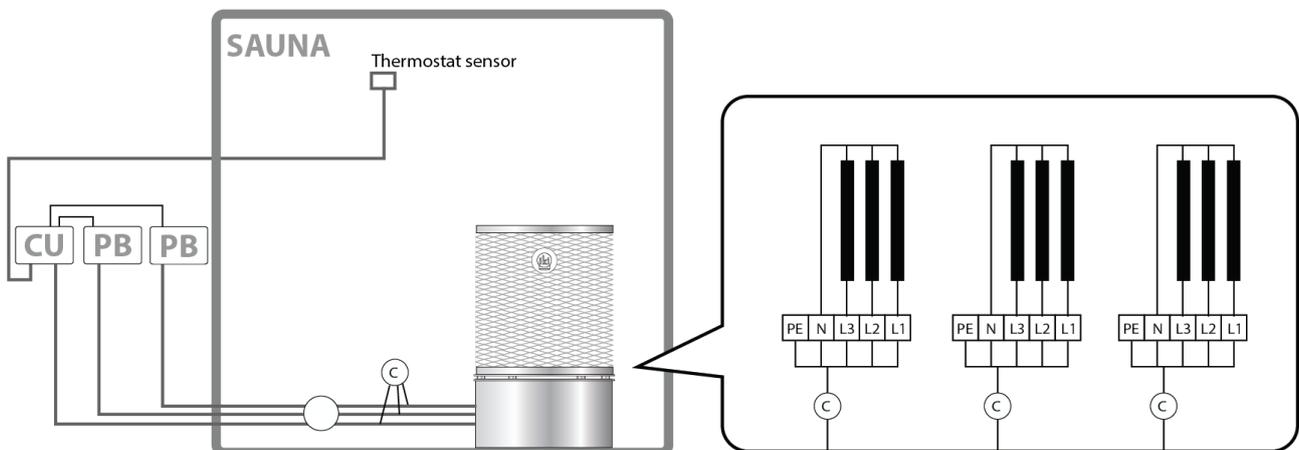
Electrical one-way switch connection:



Electrical two-way switch connection:



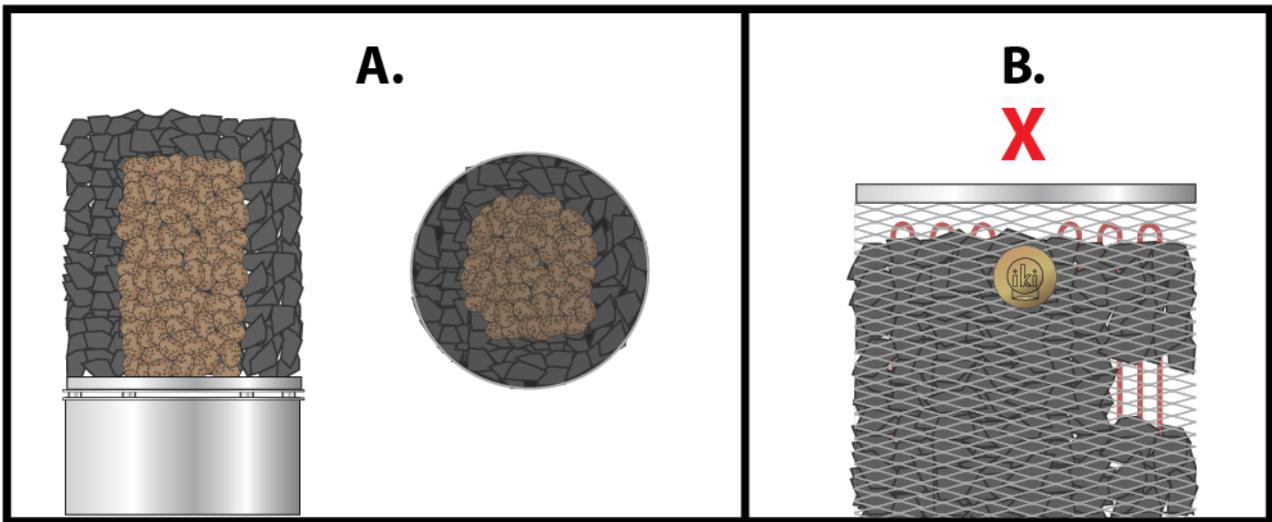
Electrical three-way switch connection:



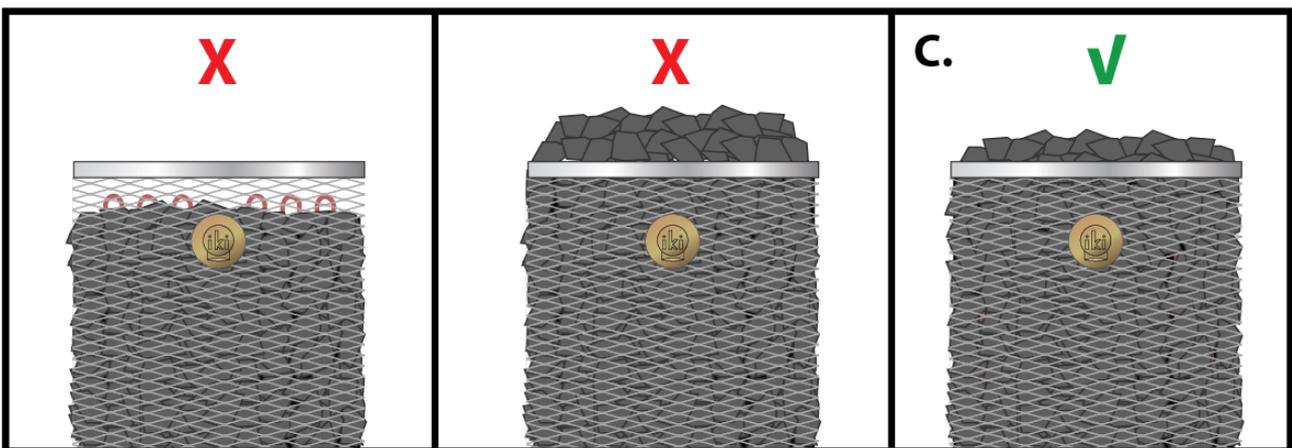
## Piling the stones

### Recommendations for professional use:

Professional use: swimming halls, spas and sports halls etc., where the heater is on daily around 8–18 hours. Recommendation is to use Kerkes ceramic sauna stones at least in the core of the heater (**PICTURE A**). The stove can also be stoned completely with Kerkes ceramic stones. The heating elements must not be visible above the stone surface (**PICTURE B**). Frequently check that the heating elements do not become exposed. If this should happen, pile in more stones (**PICTURE C**). The heating elements must also not be visible on the sides of the heater (**PICTURE B**). If the heating elements remain or become visible during use, the stoning must be repaired.



Stone quantities (picture A):	13,8 kW	18 kW	20,7 kW	27 kW	36 kW
Regular sauna stones (olivine etc.)	80 kg	100 kg	120 kg	140 kg	170 kg
Kerkes, ceramic sauna stones	60 kg	70 kg	80 kg	90 kg	120 kg



The condition of the stones should be checked yearly, and broken stones must be replaced with new ones. In professional use the stones should be checked 3 times a year.

## Requirements for water quality

Water type	Effect	Recommendation
Humus concentration	Color, taste, precipitates	<12 mg/l
Iron concentration	Color, smell, taste, precipitates	<0,2 mg/l
Hardness: most important substances are manganese (Mn) and lime, i.e. calcium (Ca)	Precipitates	Mn: <0,05 mg/l Ca: <100 mg/l
Chlorinated water	Risk to health	Forbidden
Seawater	Fast corrosion	Forbidden

## Instructions for use

- Before bathing for the first time, heat up the heater once to burn off the protective oil solvents. Be careful to air out the sauna room efficiently afterwards.
- The heating time is about 45–75 minutes depending on the size of the room and its ventilation. Recommended temperature for IKI stone pillars is 50–70 degrees. Pouring water on the heater increases temperature and humidity. You can control the heat and humidity by pouring the water to different parts of the heater.
- The temperature should be set to the desired range from the temperature knob in the control unit.
- Check that the heating elements do not become exposed as the stones shift about due to heat expansion.
- Do not throw water to the heater when there are people nearby: the steam coming off the heater is burning hot. Do not throw too much water on to the heater. Max. amount is half a litre at a time.
- **NOTE! Throwing water on a cold stove is prohibited!** The ceramic stones may crack when the heater starts to heat up, because the cold water has been absorbed into them. The cleaners of public saunas must be instructed not to wash the heater when it is turned off. You must not spray water on the heater or around the heater with a hose when cleaning the sauna, because water can get on the electrical connectors at the bottom of the heater, and it can cause the stove to break.



The warning sticker that came along the heater delivery is recommended to be glued to the bottom side of the heater or to another visible place in the sauna.

## Trouble-shooting

If the heater or sauna room does not heat up, check that:

- The power is on.
- The timer is set to the operating range.
- The temperature knob is set to a higher temperature than the temperature in the sauna room.
- The fuses are intact.
- The temperature restrictor (overheat protector) has not gone off. If temperature restrictor has gone off, the reason for this must be solved before using heater again.
- The stones are piled correctly

If the wooden walls / parts take on a darker shade, check safety distances and piling of the stones does not leave resistor exposed or touching one another. If the resistors are visible, they emit excessive heat.

## Warranty

IKI-Kiuas Ltd (the manufacturer) assures a warranty to its products as stipulated here, guaranteeing the quality and functionality of the products during the warranty period. The warranty applies to heaters sold and used in Finland. The warranty requires that the buyer follow the instructions regarding the placement of the heater, its installation, use and maintenance as well as those regarding the qualities of the stones used in the heater. The length of the warranty period is 24 months from the day of purchase or from the day of purchase. The warranty period for spa saunas and other public-use saunas is 6 months or determined according to the frequency of use. Contact the manufacturer for more details.

1. In case of defect or malfunction, the buyer must always contact the manufacturer or sales agent before searching for the cause or attempting to repair it. Any repairs must be agreed upon in writing with the manufacturer.
2. In private apartment use, the heater's stone space needs to be cleaned out and re-piled at least once a year and weathered stones need to be replaced with new ones.
3. In institutional or professional use, the heater's stones must be re-piled at least three times a year during the warranty period. If this is not done, the warranty ceases to apply. In addition, the stones must be changed to new ones at least once a year. Proof, such as the product's purchase receipt, must be presented at request. The use of ceramic heater stones (other than those from Kerkes) is prohibited.
4. The warranty does not cover dismantlement or reinstallation on sauna benches, removal of sauna stones nor re-piling them. IKI-Kiuas recommends using for the lower levels sauna benches that can be moved without using tools to dismantle structures.
5. The warranty for replacement parts is 12 months from the day of purchase. The replacement for the damaged part will be delivered to the sales agent cost free. The installation of the replacement part must be carried out by a mechanic that has been approved by the manufacturer. The manufacturer is not liable to reimburse any costs due to the removal of the faulty part or the installation of the replacement. The faulty part must be returned to the manufacturer at request and at their expense. The manufacturer will issue its freight contact number for the delivery of the faulty part. Receipt from the reseller or certificate from a manufacturer's authorized mechanic will function as a warranty certificate.

6. Limitations to warranty: The product owner must take good care of the product. On receiving the product, the owner is expected to check that it does not show signs of damage caused during shipping or storage. In case of such damage, they must contact the sales agent or transport company immediately. The manufacturer is not liable for any damages caused during shipping, or by inappropriate storage, installation or use against manufacturer's instructions, neglect of maintenance, or damage caused by placement of the heater in a place which does not meet the recommendations made by the manufacturer.
7. Damage notifications: The owner is responsible for notifying the manufacturer, the sales agent, or manufacturer's authorized mechanic of any damage or malfunction as soon as it appears and within 14 days. Any warranty related claims must be submitted within 14 days from the closing date of the product's warranty period.
8. Manufacturer's actions regarding warranty, continuation of warranty: In receipt of a substantiated warranty claim, the manufacturer will repair or change the product. This is done in the manufacturer's expense, and the manufacturer is free to select the most cost-effective alternative. The warranty for replacement parts is outlined above. The replacement part is granted warranty according to specifications. The warranty for a repaired part continues as before.

The manufacturer is not liable for reimbursing any expenses, business loss or other direct or indirect harm occurred to the buyer from damages or malfunction.

## **Quality guarantee / Freight guarantee**

Guarantee of materials. The manufacturer guarantees the durability of the stainless-steel parts (resistor platform and frame) in private home use for 10 years. During the warranty period any defects that appear in the heater's raw materials or are production-based will be repaired free of charge. For example, the use of seawater on the heater is forbidden. Read through the requirements for water quality in the installation's instructions.

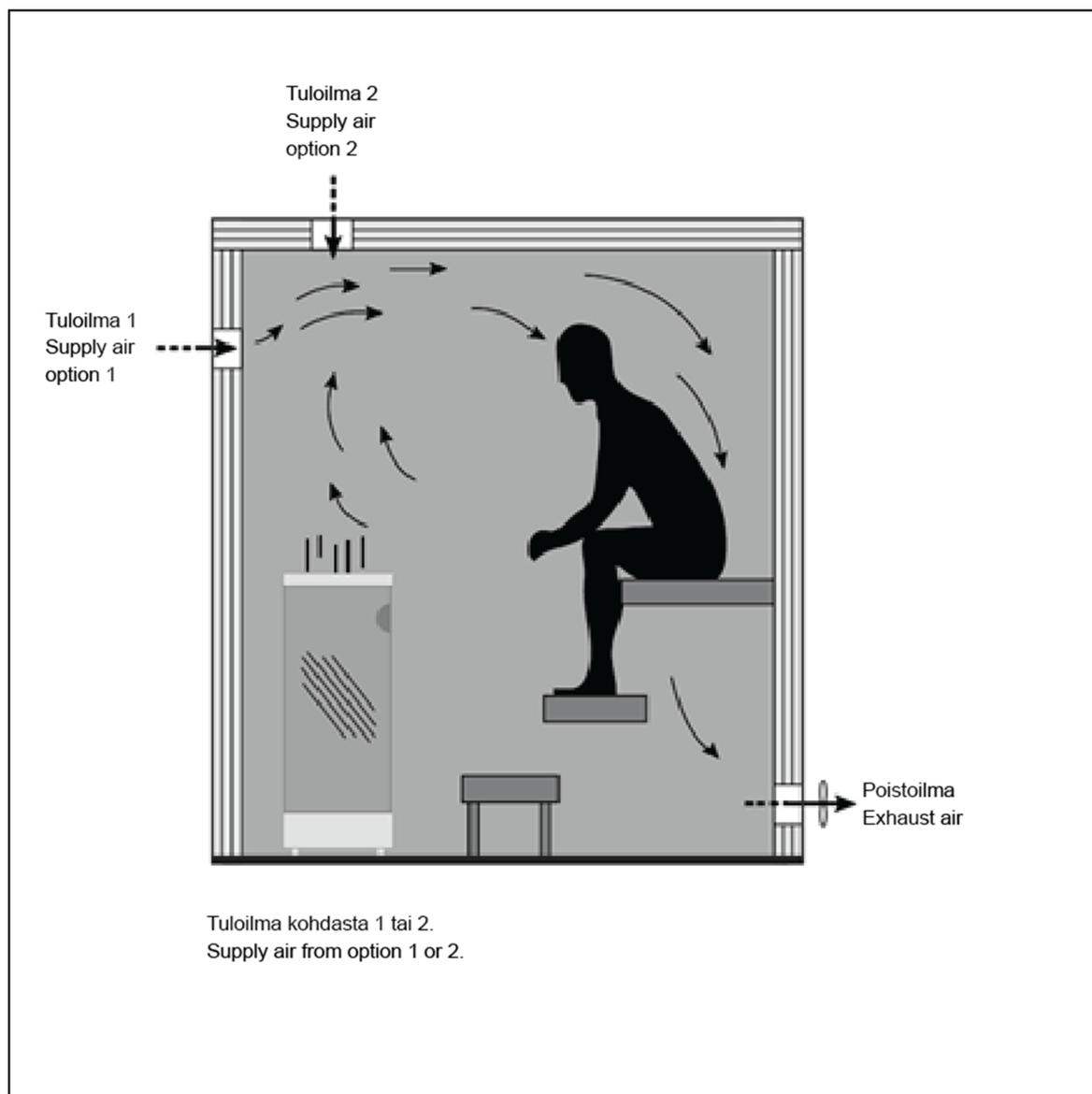
The warranty does not cover colour changes, slipping or hair-line fractures, characteristic to natural stones, which do not affect the use or the safety of the heater.

Damages occurred while shipping must be recorded in the waybill when the product is received or within 7 days of delivery. Shipping damage must also always be reported to the shipping company's last contact. The damaged part needs to be stored for inspection. Insurance compensates for the new part, which will be delivered by a public transporter. In all issues concerning warranty contact the store the product was bought from.

## Mechanical ventilation

The ventilation in the sauna room needs to be considered. Proper airflow allows bathers to enjoy fresh, oxygen-rich air. The air should fully change 6 times an hour. The supply air inlet should be installed on the wall or the ceiling at about 500 mm above the heater. The supply air inlet vent should be 50-100 mm in diameter. The outlet vent should be located as far away from the heater as possible, close to the floor. The outlet vent should be twice the size of the inlet vent.

**NOTE!** The sensor for the thermostat should be located at a minimum of 1000 mm distance from the undirected vent for replacement air, or minimum of 500 mm distance from the air vent directed away from the sensor.



## Warnings

1. Staying in the hot sauna for long periods increases body temperature, which may be dangerous.
2. Keep away from the heater when it's hot. The stones and outer surface of the heater may burn.
3. Prevent children from getting close to the heater.
4. Do not leave children, handicapped or ill people to use the sauna without supervision.
5. Consult your doctor about any health concerns regarding sauna-bathing.
6. Consult child welfare clinic about taking little babies to the sauna.
7. Always move carefully in the sauna, as the benches and floors may be slippery.
8. Never go to a hot sauna under the influence of alcohol, medication or narcotics.
9. Never sleep in a hot sauna.
10. Sea-air and a humid climate may corrode the metal surfaces of the heater.
11. Do not hang clothes to dry in the sauna, as this may cause a risk of fire.  
Excessive moisture content may also cause damage to the electrical equipment.



The warning sticker that came along the heater delivery is recommended to be glued to the bottom side of the heater or to another visible place in the sauna.









SANTA'S OFFICIAL SAUNA HEATER

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