

## **EOS Pipe Control** Sauna heating appliance



Installation and Operating Instructions

Installation and Operating Instructions - EOS Pipe Control



## **Documentation**

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#### Characters, symbols and illustrations

 $\textcircled{\sc 0}$  Additional information about an operating step

- Cross-reference to a page
- Read instructions
- ☑ Result of a step
- 🛅 Table title
- 🖙 Title of figure
- $\leq \geq$  Less than or equal to, greater than or equal

#### **Revision history**

Date	Version	Description
22.05.2024	01.00	First version

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## **General safety instructions**



## **General safety instructions**

## 1.1 Mounting and electrical installation



The installation instructions are intended for qualified personnel familiar with the laws and regulations applicable to electrical installations at the installation site. Observe the following general safety instructions during mounting, configuration and commissioning of the product.

#### Risk to life and limb and risk of fire

Risk to life and limb from electric shock and fire in the event of improper or faulty electrical connection. This risk remains also after completion of the installation work.

- The electrical installation of the heater, power extension units and other electrical systems or equipment with a fixed mains connection must only be performed by a trained electrician from an authorised electrical company.
- Ensure compliance with the applicable standards and regulations for electrical installation.
- The system must be completely disconnected from the mains supply before commencing installation and repair work.
- The housing cover must only be removed by a qualified electrician.

#### ► Fire hazard from overheating

Insufficient ventilation can lead to device overheating and fire.

- Install air inlets and outlets in the cabin.
- Observe the cabin manufacturer's safety and installation instructions.

#### ► Risk of fire due to sauna stones

It is possible for hot stones or stone pieces to fall out of the rock store.

• The sauna heater may not be placed on a floor made of easily flammable material (e.g. laminate or synthetic flooring). Ceramic tiles are recommended as a flooring option.

## General safety instructions

#### Risk of burns from hot glass

Glass surfaces in the cabin become hot while the sauna is in operation.

 When installing the cabin, ensure that the touchable glass surfaces on the outside of the cabin may reach a maximum temperature of 76°C. Appropriate protection may need to be installed if required..

#### ► Risk of burns from hot unit

During operation, the sauna heater may become hot and, if touched, could cause burns.

• Maintain a safe distance.

#### Sauna cabin and sauna heater

The sauna cabin must be constructed with proper material and built in a professional manner, and the sauna heater must be suited for the cabin.

- The sauna heater may only be used in sauna cabins made of suitable, low-resin and untreated material (e.g. Nordic spruce). The control unit must not be used in the cabin.
- Multiple heaters may be installed in one sauna if the heater output can properly supply the cabin volume. In this case, depending on the position, an additional safety temperature limiter must be installed for each additional heater.
- The sauna heater is not designed to be installed or set up in an alcove or under a bench or sloping roof unless the sauna heater is specifically designed and approved for this type of installation.
- Receptacles may not be installed inside the sauna cabin.
- Each sauna cabin must have air inlets and outlets. The air inlets and outlets may be installed from below or from behind the heater. The minimum dimensions of the air inlets and outlets can be found here: Technical Data, air inlets and outlets.
- The air outlet is always installed in the lower part of the wall, diagonal to the sauna heater. The air inlets and outlets must not be closed. Please observe the instructions provided by your sauna cabin manufacturer.
- The control effects through the built-in control unit.
- The cabin lighting must be safe for sauna cabin use and installed in such a way that it can be used safely in a sauna cabin. Ensure that the heater is installed in compliance with the standards and legal norms valid in your country.



- The cabin door must open outward and must not have a lock that cannot be opened in the case of failure. We recommend magnetic or spring locks.
- Electrical installations and equipment in the sauna cabin must comply with IEC 60364-7-703 (DIN VDE 0100-703).

## **1.2 Operator instruction**

The operator of the sauna cabin must be instructed in the general safety instructions during commissioning. The operator must be given a copy of the operating instructions.

#### ► Risk of electric shock

A risk to life and limb from electric shock and fire arises in the event of improper repair work. This risk remains also after work is completed.

- The housing cover must only be removed by a trained specialist.
- Repairs and installations must only be performed by a trained specialist.
- The system must be disconnected and removed entirely from the mains supply before commencing repair work.
- Use only original spare parts from the manufacturer.

#### ► Fire hazard



Objects placed on the heater can easily be ignited and cause fires.

- Attach the heater guard rail.
- Do not place objects on the heater.
- Fill the rock store as directed.
- Inspect the sauna cabin prior to each commissioning.
- If you operate the sauna heater using pre-set timers or a remote control, install a suitable safety system.

#### Health risks

Spending time in a sauna cabin can lead to serious health risks or even death for persons with health impairments.

 Persons with health impairments who spend time in a sauna must consult a doctor before entering a sauna cabin.

#### Damage to health

Excessive time spent in a heated sauna cabin can lead to overheating of the body (hyperthermia), which may cause serious health problems

and even death. Hyperthermia occurs when the core temperature of the body exceeds the norm by a few degrees. Symptoms of hyperthermia include fever, dizziness, lethargy, sleepiness, and fainting. Side effects of hyperthermia include perception disorders, inability to recognize the need to leave the room, inability to identify imminent danger, harm to the foetus in the case of pregnant women, inability to physically leave the room, unconsciousness.

Alcohol, drugs, and medications increase the risk of hyperthermia.

- Do not exceed the maximum recommended time in the sauna.
- Leave the sauna cabin if your body responds abnormally to the heat or if you do not feel well.
- Avoid alcohol, drugs, and medications when you are using the sauna.

#### ► Operation by children or persons with reduced mental capacity

This unit should not be used by children or persons with reduced mental capacity or limited physical or sensory abilities. Children must not play with the unit.

- Children or persons with reduced mental capacity, or limited physical or sensory abilities must be supervised to ensure they do not play with the unit.
- Children under 8 years of age should not operate the sauna cabin.
- The settings for the heating time must only be changed by children under 8 years of age if they are supervised by an adult.
- The sauna cabin must only be used by persons with reduced mental capacity, or limited physical or sensory abilities under supervision or if they have been previously instructed in its use and understand the risks.
- Children and persons who have not received proper instruction must not clean or service the system.



## 1.3 Safety levels

Safety instructions and important operating instructions are classified. Please familiarise yourself with the following terms and symbols:

#### **WARNING**

#### Warning

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

#### 

#### Caution

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

#### NOTICE

#### Notice

Indicates a hazardous situation which, if not avoided, will result in damage to the unit.

## 1.4 Standards and regulations

For an overview of the standards that were observed during design and construction of the sauna heaters, please refer to the individual product's technical data sheet that can be downloaded from www.eos-sauna.com.

Local regulations also apply to the installation and operation of heating, sauna, and steam room systems.

## Identification



## Identification

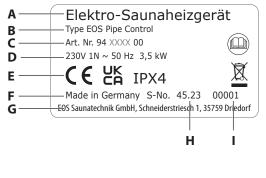
EOS Pipe Control is an electrically heated sauna heater for Finnish mode available in a variety of output capacities.

#### 2.1 Control unit

The control unit is integrated into the sauna heater.

## 2.2 Nameplate

The nameplate is attached to the back of the appliance.



- A Name
- B Model
- **C** Item number
- D Operating voltage / power
- E Approval symbols
- **F** Country of origin
- **G** Manufacturer
- H Manufacturing date
- I Serial number

🖾 Design of the rating plate

## 2.3 Intended use

This heater with integrated control unit is designed exclusively for heating sauna cabins.

EOS Pipe Control is a wall heater and is suitable for cabins in private use.

\_\_\_\_\_ The heater is not suitable for outdoor use.

It must be operated only inside buildings and may not be exposed to environmental conditions such as extreme humidity and moisture or the possible formation of condensation or corrosive substances in the ambient air, as well as other weather conditions.

Any use beyond this is considered improper use. Proper use also includes compliance with operating, maintenance and servicing requirements.

The manufacturer is not liable for deviating, unauthorised modifications or for any resulting damage; the risk for this is borne solely by the perpetrator.





## 2.4 Foreseeable misuse

The following are considered instances of foreseeable misuse:

- The unit is operated without knowledge of or compliance with the safety instructions.
- The specifications for operation, maintenance and servicing are not complied with.
- The unit is operated by children under 8 years of age.
- The unit is operated by children 8 years of age or older, or persons with reduced mental capacity who have not been thoroughly instructed in its use.
- The unit is operated without sauna stones or with a rock store that is not filled as directed.
- The heater power does not match the sauna volume.
- The unit is operated with insufficient air supply or exhaust air.

### 2.5 General instructions for sauna use

- Please note that an optimal sauna climate can be achieved only if the cabin with its air inlets and outlets, the sauna heater, and the control unit are synchronized.
- Observe the specifications and information provided by your sauna retailer.
- Please note that the highest temperatures in the cabin always occur above the sauna heating unit. The temperature sensor and thermal cut-out are located inside the appliance.
- The sauna heaters heat the sauna cabin with heated convection air. Fresh air is drawn in through the air inlet. It is warmed and rises (convection) and is then circulated in the cabin. Some of the used air is pushed out of the cabin through the cabin's air outlet. This creates the typical sauna climate in your sauna. It must be noted that there is a temperature difference between the ceiling and the foot area inside the sauna cabin. The measured and regulated values are taken at the ceiling. Thermometers below the ceiling will show correspondingly lower temperatures. When the max. temperature is set for the area around the upper sauna bench, the bathing temperature is typically between 80°C and 90°C.
- The first time the cabin is heated, you may notice a slight odour resulting from the evaporation of consumables used in the manufacturing processes. Air out your cabin once it has been heated and before using the sauna.

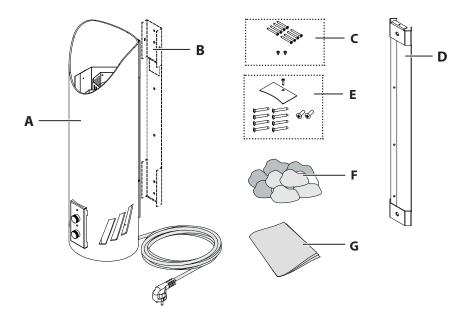
## Identification

#### 2.6 Scope of delivery

Check the unit upon delivery to ensure that all components were delivered and that it is in proper working order. Contact your distributor if components are missing or damaged. The heater must not be operated if components are missing or damaged.

The following parts are included in the scope of delivery:

- A Sauna heater incl. connection cable with plug
- **B** Wall mounting (temporarily installed on the heater)
- **C** Accessory bag (wall installation) with: 4 chipboard screws 4 x 40 and 2 locking screws 4.2 x 9.5
- **D** Wall bracket for corner installation
- E Accessory bag (corner installation) with:
  1 locking screw 4.2 x 9.5 and 1 locking plate,
  8 chipboard screws 5 x 35 and 2 fixing screws M6x20
- F 1 sauna stones unit
- **G** Installation and Operating Instructions



📾 General view of the sauna heater and scope of delivery

## 2.7 Accessories (optional)

Accessories	lsometry	ltem no.	Colour
		949026	anthracite
Contact guard (railing)		949003	black
		949027	rust brown

## Identification



## 2.8 Technical data

Heater output	3,0 kW	3,5 kW
Electrical connection	230 V N ~ 50 Hz	
for cabin volume	3 - 5 m <sup>3</sup>	
Minimum size Air inlets and outlets	20 x 4 cm	
Weight without stones / packaging	ca. 25.5 kg	
Weight incl. stones / packaging	ca. 39 kg	
Unit dimensions Ø x H x D (with wall bracket)	Ø 22 x 80 x 25 cm (without railing)	
Temperature control range	approx. 40° - 100° C	
Heating time limitation	4 h with automatic cut-off	
Stone filling	~ 10 kg, size 30-60 mm (included in the scope of delivery)	
Leakage current	max. 0.75 mA per kW heater output	
Area of use	Sauna heater for use in private saunas	
Fuse protection for sauna heater unit	1 x 16 A	
Connection mains – power sauna heater unit 3 x		5 mm <sup>2</sup>

All line cross-section specifications are the minimum cross-sections of a copper line.

## Installation



## Installation

This chapter describes how to install Vision. Prior to installing the unit, air inlets and outlets must be installed in the cabin. It may be necessary to mount additional fans in the inlets/outlets. All protective films must be removed.

#### NOTICE

#### Damage due to incorrect mounting location

The heater is not suitable for outdoor use!

- The heater must be operated only inside buildings and may not be exposed to environmental conditions such as extreme humidity and moisture or the possible formation of condensation or corrosive substances in the ambient air, as well as other weather conditions.
- The heater is not designed to be installed or set up in an alcove or under a bench or sloping roof.

## 3.1 Specifications for the cabin

The cabin must be planned and installed according to specifications before the heater is installed.

All electrical installations laid inside the cabin must be suitable for silicone cables and a temperature of at least 170°C. All lines must be routed in such a way that they are well-protected, e.g. in a cable duct.

If single-core cables are used as connecting cables, they must be protected by a flexible metal tube connected to the protective conductor.

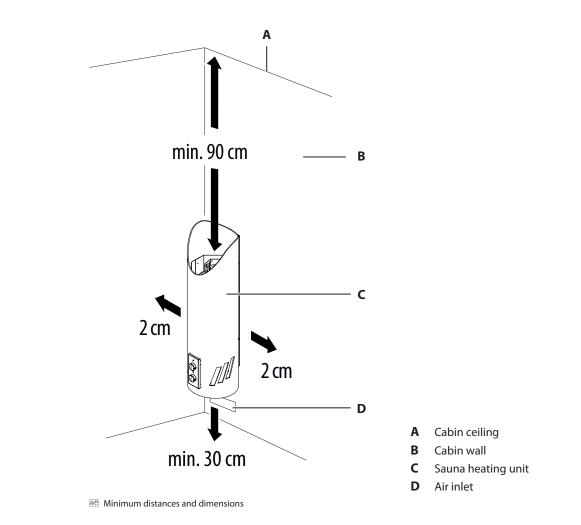
In general, it should be noted that the sauna heater must not be set on a floor made of highly flammable material (laminate, flooring made of plastic material, etc.). Ceramic tiles are recommended as a flooring option. Underfloor heating in the sauna cabin increases the surface temperature of the floor covering.

#### Installation site

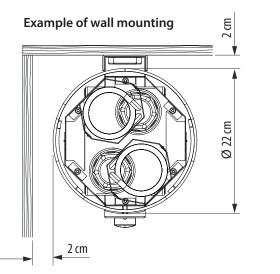
Required heater capacity depends on the cabin volume. See Chapter 4. Technical data.

- Ceiling height of at least 1,90 m
- Distance between top edge heater and cabin ceiling min. 90 cm
- Distance between heater and cabin wall min. 2 cm
- Distance between heater and bench min. 2 cm
- A heater guard rail must be mounted around the upper edge of the heater. It prevents accidental contact with hot parts of the heater.
- Required heater capacity depends on the cabin volume. See Technical Data.

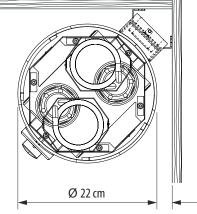




#### ► Dimensions and safety distances



#### Example corner mounting



~2,4 cm

## Installation

### 3.2 Air inlets and outlets

Air inlets and outlets must be installed in the cabin to ensure a sufficient air flow in the cabin and to prevent the heater from overheating.

The required size of the air inlets and outlets depends on the heater output; see chapter Technical data.

#### **WARNING**

#### Fire hazard from overheating

The heater can overheat if the air supply is insufficient. There is a risk of death due to fire.

- Ensure that the air inlets and outlets provide sufficient ventilation. Install a fan if necessary.
- Start the sauna only after all air inlets and outlets have been opened.

#### NOTICE

#### Heating process takes too long

If the heating process takes a long time, the underlying reason is that the sauna heater receives insufficient air.

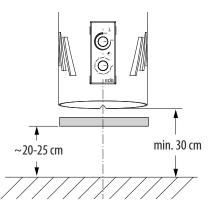
 A minimum of 5 times the cabin volume of air per hour must be exchanged..

#### Heater hanging on the cabin wall

The supply air vent must fulfil the following criteria:

- Location: Under the heater, as shown in the illustration
- Height: 20-25 cm above the cabin floor

However, if too little fresh air reaches the heater, a fan must be fitted outside the cabin by the vent.



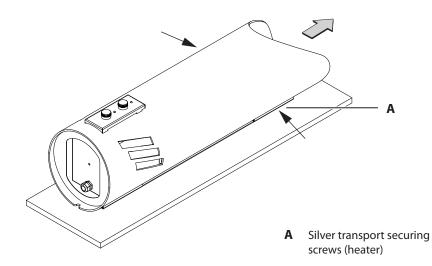
positions of the supply air opening



#### Installation preparation 3.3

Lift the heater, including the chipboard, out of the box.

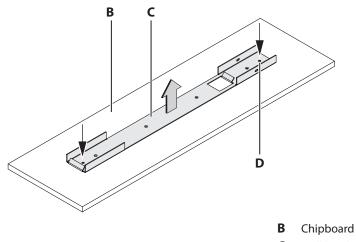
The screws, including the white washers, deliberately chosen in silver and used as an auxiliary means of securing the appliance for transport must be loosened and then



disposed of.

Detach the wall bracket from the chipboard and prepare it for further heater installation.

Packaging contents and chipboard can be disposed of.



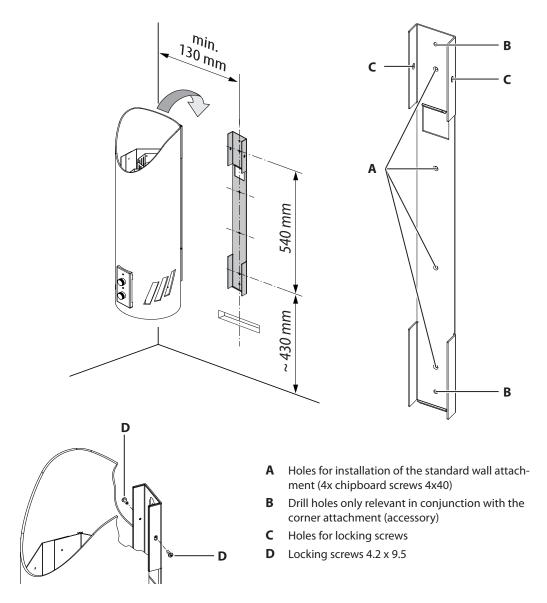
- С Wall bracket
- D Silver chipboard screws (for fixing wall bracket)

## Installation

## 3.4 Installing the heater

- Once the cabin has been prepared, the heater is installed at the predetermined location.
- Fix the wall or corner bracket in the desired position. Observe safety distances!
- Hang the heater in the wall bracket.
- Then route the cable with the pre-assembled plug to the outside of the cabin.
- Secure the heater to the respective bracket using the enclosed self-tapping screws.
- Insert sauna stones

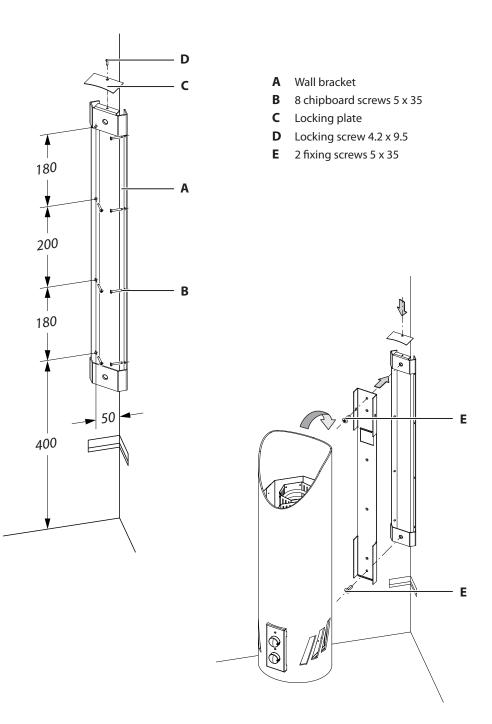
#### ► Wall installation





#### Corner installation

- Attach the wall bracket (A) to the corner of the cabin wall using the eight chipboard screws (B) supplied.
- Attach the wall attachment of the heater to the wall bracket using the two fixing screws (E).
- Hook in the heater and connect and secure the locking plate (C) with the locking screw (D).



## Installation

## 3.5 Heater guard rail

The heater must be framed with a heater guard at least on the top edge. This prevents accidental contact with the heater at the hottest points.

You can purchase a suitable heater guard rail from the sauna heater manufacturer. See chapter Accessories (optional)

#### **A**CAUTION

#### Risk of burns if heater is touched.

The outer casing of the heater may become hot and, if touched, could cause burns.

 It is essential that a heater guard rail is installed so that the unit is protected from being touched.

## 3.6 Connecting cable

The heater is connected to the power supply via the connection cable with plug outside the cabin.

Observe the regulations of the local power supply company (EVU) and the Association for Electrical, Electronic & Information Technologies (VDE).



## 4

## **Electrical installation**

## 4.1 General instructions for electrical installation

Ensure that electrical installation is performed in compliance with the standards and legal norms valid in your country.

Observe the following regulations when installing sauna heaters: IEC 60364-7-703 and/or DIN VDE 0100 part 703:

This most recent version of the standard under amendment of paragraph 703.412.05, states the following:

"The additional protection must be provided for all of the sauna's electric circuits by one or more residual current devices (RCDs) with a rated differential current no greater than 30 mA, with the exception of sauna heaters.""

If a residual current device (RCD) is installed, ensure that there are no other electrical consumers not belonging to the sauna system which are fuse via this RCD.

If the sauna heater has not been used for an extended period of time, the heater may draw moisture from the ambient air, which, in rare cases, could lead to the RCD to be tripped. This is a physical process and not a fault on the part of the manufacturer.

In this case, the heater must be heated by a technician under supervision which will bypass the RCD function. Once the moisture has escaped from the heating elements after approx. 10 minutes, the RCD can be integrated again in the electric circuit.

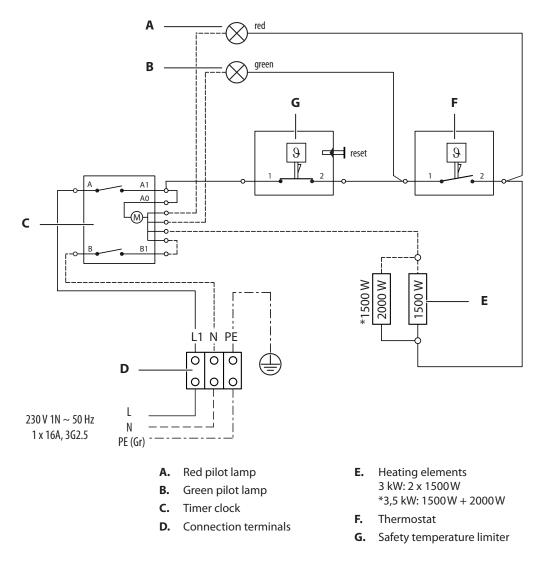
If the sauna heater will not be used for an extended period of time, we recommend that you switch on the heater every 6 weeks so that the heating elements do not accumulate moisture. If, during commissioning, the RCD is triggered, the electrical installation must be checked again.

The electrician is responsible for properly connecting the heater; thus, the manufacturer does not assume liability.

## **Electrical installation**

### 4.2 Wiring diagram

#### Connection overview



#### **WARNING**

#### Risk of fire due to improper mounting

The power supply must suit the connection of a 3 or 3.5 kW heater.

- The sauna heating unit has an integrated power cord for connection to the 230V mains. The socket outlet used must be protected by a separate 16 A fuse.
- Make sure that the connection cable is not subjected to any mechanical loads, as this could possibly damage the cable isolation!

## Commissioning



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## Commissioning

The sauna heater is switched on and off and the settings for controlling the sauna heater are adjusted with the rotary knobs on the control panel of the heating unit.



#### 

#### Fire hazard

Objects placed on the sauna heater could catch fire. Herbs or similar substances used for aroma infusion purposes, which are located near the heater, could catch fire.

- Inspect the cabin prior to each use.
- Start the sauna only after all air inlets and outlets have been opened.

## 5.1 Filling with stones

The heater is intended for use with natural sauna stones. Use only stones of the prescribed caliber.

#### **WARNING**

#### Fire hazard from overheating

Operating the sauna heater without stones could cause fire or damage to the heater. Stones that are too small or are positioned too close together in the heater prevent hot air from being exhausted. This leads to overheating of the heater. There is a danger to life due to fire.

- Start the sauna heater only if it has been filled with stones.
- Ensure stones with the correct caliber are used:
- Place the stones loosely. Make sure you use stones of the correct size

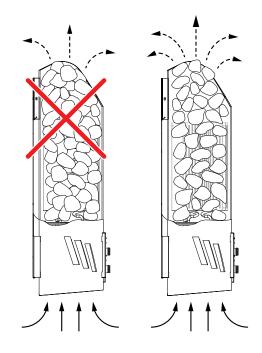
## Commissioning

#### ► Filling with stones

1. Wash the stones thoroughly under running water.

The heater is intended for use with natural sauna stones. Use only stones of the prescribed caliber of approx.30-60 mm.

- 2. **WARNING!** If the stones are placed too close together, the hot air will be blocked. This leads to the appliance overheating. Insert stones loosely.
- Place the stones in the stone basket one by one with plenty of gaps between them up to the height of the top edge.
   ADVICE: For sauna heaters with contact between heating elements and sauna stones, place the stones in such a way that they do not exert excessive pressure on the heating elements.



#### 5.2 Starting the sauna heater

A slight odour may be produced the first time the cabin is heated because the heater is being heated for the first time. The odour ceases upon continued operation of the heater.

#### Switching the system on

- 1. Switch on the sauna heater using the knob on the timer and set the desired heating time.
- 2. Set the temperature using the knob on the thermostat.

See chapter 6: Operation.



## 5.3 Water splash

The cabin must be sufficiently heated before making the first water splash.

#### **WARNING**

#### **Risk of fire due to sauna essences**

Incorrectly diluted sauna essences, essential oils or herbs can catch fire.

- When preparing the water, follow the instructions regarding quantity as specified on the sauna essence containers.
- Never add more sauna essence or essential oils to the infusion water than the amount indicated by the manufacturer.
- Do not add herbs to the water or on the stones.
- Do not use pure sauna essences as a water splash.
- Do not use alcohol as a water splash.
- Pour the water over the stones only.

Pour water slowly over the stones so it is evenly distributed.

As the hot air rises, steam is distributed evenly in the cabin to create a pleasant infusion experience.

Please note that the sauna stones must be reheated after each water splash to generate an intense burst of steam. After each water splash, wait approx. 10 minutes before starting the next one. This time is needed for the sauna stones to reheat.

Recommendation: During a water splash, no more than approx. 10 cL of water per m<sup>3</sup> cabin volume should be vaporised.

## Operation

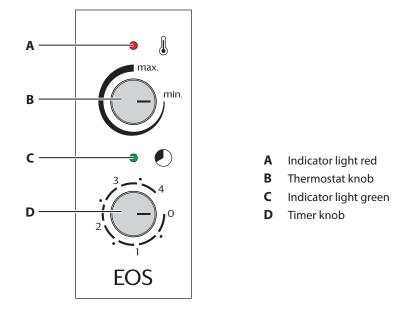
6

## Operation

#### 6.1 Operation

- Turn the timer knob (**D**) clockwise to switch on the sauna heater. The heating time can be set for up to 4 hours.
- The operating status "ON" is indicated by a green indicator light (C).
- If the heater is heating up, the red indicator light(A) also lights up.
- Once the set heating time has elapsed, the heater switches off automatically and both indicator lights go out.
- To switch off the appliance earlier, set the timer clock back to "0".
- You can preselect the temperature in a range from approx. 40°C to 100°C using the thermostat knob(**B**).

Please note that the sauna cabin usually needs to heat up for approx. 45-60 minutes to achieve the typical sauna climate.



#### Advice for temperature control

The temperature sensor is integrated in the sauna heater. An external sensor is not required. The size and layout of the sauna can influence the heating performance, air temperature may therefore differ slightly. Please also note that a sauna generally may have large temperature differences at the ceiling and lower bench level.

Please note that most wall thermometers react very slowly, so that the actual temperature is only displayed with a considerable delay. If possible, the thermometer should not be mounted with its entire casing on the cabin wall, but a slight gap should be left. This reduces the reaction time.

We recommend to use practical tests to determine a setting which best suits your individual preferences. Make sure that the temperature corresponds as closely as possible to your personal heat requirements.



You can use the thermostat knob to increase or decrease the temperature setting. Please note that the effective air temperature will only change with a certain delay due to the slow reaction.

## 6.2 Safety cut-out

The sauna heater is equipped with a safety temperature limiter (STB). If there is a malfunction, this STB switches off all 3 phases for reasons of safety.

If the STB triggers, it needs to be reset mechanically.

#### Resetting

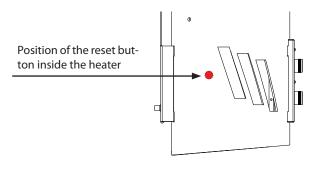
Allow the heater to cool down sufficiently!

Determine and rectify the reason for overheating.

Using a suitable tool, lightly press the reset button on the STB through the side slots in the outer casing so that it engages mechanically.

If you cannot reset it with a light pressure, please allow more time for the heater to cool down..

If the STB triggers again after operation has commenced, the appliance must be checked by a specialist.



🗠 View from left

#### NOTICE

#### Damage to the High Limiter

The high limiter (STB) can be damaged if the reset button is pressed without rectifying the reasons of overheating. Improper reset of the high limiter can damage it, which may cause its malfunction and lead to overheating and resulting damages.

- Troubleshooting and resetting or operation of the STB and the reset button may only be carried out by a trained specialist.
- Eliminate the reason for overheating before resetting.
- Allow at least 30 minutes to cool down the heater.

## Service

## Service

This sauna heater is made of low-corrosion material. To ensure a long service life, take care of and perform regular maintenance on your sauna heater.

Ensure that openings in the intake area and heat reflectors are never blocked. These can easily become blocked with lint and dust as fresh air is drawn in. This limits the air convection ability of the sauna heater and could lead to impermissible temperatures. Clean and/or descale the units as needed.

If you do not use your sauna for a longer period of time, ensure that at the time of recommissioning no towels, cleaners or other objects are lying on the sauna heater.

Do not use the sauna if there are any defects or signs of wear. Contact the sauna dealer or the manufacturer.

## 7.1 Cleaning

The heater must be cleaned regularly depending on the intensity of use. Only clean the heater with standard household cleaning products.

#### **A**CAUTION

#### **Risk of injury from sharp edges**

 Use suitable personal protective equipment, e.g. gloves, when cleaning parts with sharp edges.

#### ► Cleaning the heater

- 1. Switch off the heater from the control unit.
- 2. **CAUTION!** Risk of burns! The sauna heater may be hot. Wait until the sauna heater is completely cool.
- 3. Clean the outside of the heater. Use only household cleaning agents.
- 4. Remove lint and dust from openings and heat reflectors. Openings can easily become blocked with lint and dust as fresh air is drawn in. This limits the air convection ability of the heater and could lead to impermissible temperatures.



## 7.2 Sauna stones

Sauna stones are a product of nature. Stones must be reshuffled depending on the frequency of use.

The process of heating and cooling can make the stones brittle. Particular damage to the stones can be caused by aggressive sauna essences, causing them to disintegrate over time. Small particles can break free from the stones making the gaps between the stones smaller. This means that hot air can no longer rise between the stones.

Check the sauna stones regularly and reshuffle them. Replace damaged stones. Please observe the following frequencies of time.

Commercial use	Private use
Every 2–3 months	Once per year

Use only natural sauna stones when you replace the old stones with new ones. Due to their roughness, they produce a better water splash effect than ceramic sauna stones.

#### Reshuffling the sauna stones

- 1. Switch off the heater from the control unit.
- 2. **CAUTION!** Stones may be hot. Allow the heater to cool sufficiently before you start to replace the stones. Remove each stone individually.
- 3. Check each stone for damage. Sort out any stones with severe damage. Replace stones that have been sorted out
- 4. Rinse all stones with cold water.
- 5. Place the stones loosely so that there is enough space between them for air to circulate sufficiently, see Commissioning.

# 8

## Maintenance

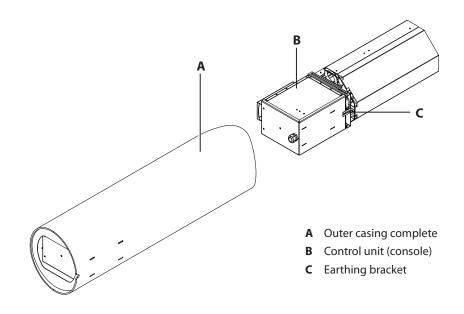
## 8.1 Replace tubular heating elements

## Caution! Please note that the electrical wiring must only be carried out by a qualified electrician!

In the event of damage, it is possible to replace the tubular heating elements.

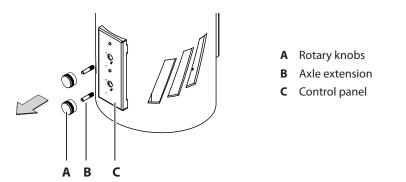
To do this, disconnect the heater from the mains, loosen the locking screws on the wall bracket and lift it out of the bracket.

To replace the tubular heating elements, the control unit (console) must be removed from the outer casing.



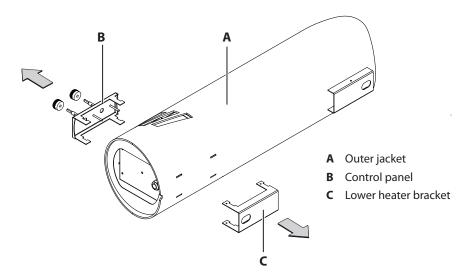
#### ► Dismantling the console from the outer casing

1. First remove the knobs (A) including the axle extensions (B). To do this, you must first loosen the screws on the knobs. You can then pull out the axle extension using a suitable tool.

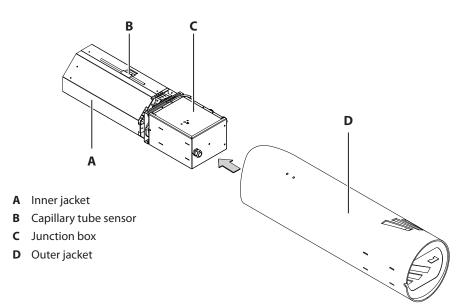




2. Lay the sauna heating unit on its side. Use a suitable base to avoid damage such as scratches. The appliance should be positioned so that it is possible to remove the control panel (B) and the lower heater bracket (C).



- 3. Next, take hold of the tubular heating elements with one hand and pull them a little towards the upper outer casing opening so that the control unit with inner casing is released from the fixing of the control panel. At the same time, pull the control panel out of the outer casing with the other hand. Now do the same with the lower heater bracket.
- 4. The inner workings are now unfixed and you can remove the complete control unit from the top of the heater. Please proceed carefully to avoid damaging the paintwork.

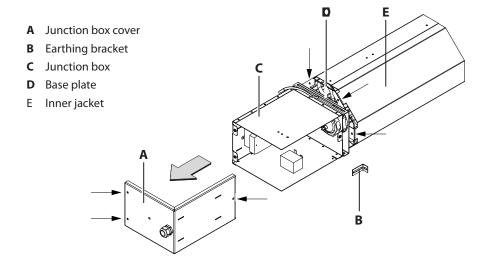


## Maintenance

#### Dismantling the inner housing

To replace the tubular heating elements, you must first open the junction box.

- 1. Loosen the three screws on the cover (A), including the earthing bracket (B).
- 2. Then loosen the six screws of the base plate (D) on the inner casing.
- 3. Loosen the cable tie on the capillary tube sensor lines. The connection cable must be disconnected from the connection terminal.
- 4. You can now separate the inner casing (E) from the junction box (C).
- 5. To do this, place it on its side.



#### ADVICE

#### Damage to the capillary tube sensors

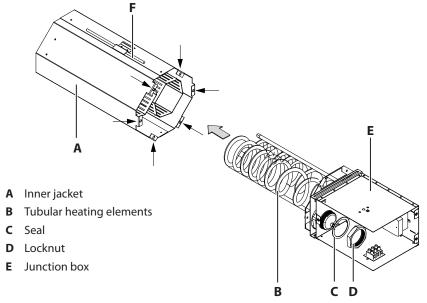
• Pay attention to the capillary tube sensor lines! Carelessness can damage them.



#### Dismantling the tubular heating elements

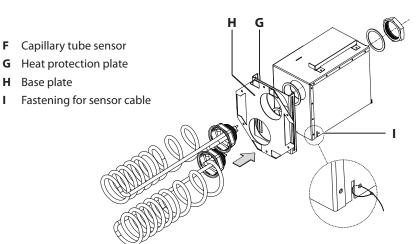
After removing the inner casing, it is possible to separate the tubular heating elements from the junction box.

Loosen the lock nut of the tubular heating element with a suitable tool, remove the seal and pull out the heating element.



After the defective tubular heating element has been replaced, refit the nuts including seals (inside and on the upper side of the junction box).

Place the base plate on the heat protection plate and insert the tubular heating element with the seals into the junction box.



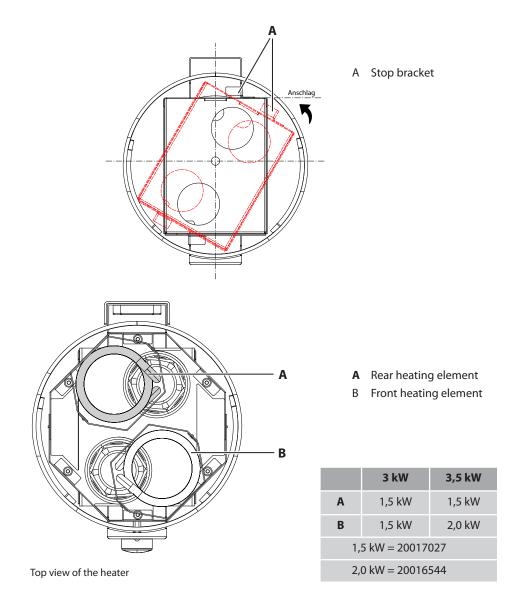
Use a suitable tool to fit the nut on the inside with the seals.

Fit the connection cable to the terminal and fasten the cable gland.

Then guide the inner housing back over the tubular heating elements and fit the base plate. Secure the capillary tube sensor lines with cable ties.

Then close the junction box, fit the earthing bracket and guide the control unit into the outer housing.

ΕN



Align the junction box so that it touches the stop bracket (A). Once the control unit is correctly aligned, the control panel and the rear heater attachment can be easily fitted.

Finally, fit the axle extensions to the axle of the timer and the thermostat using Loctite 243 Medium Strength (Normal) IDH 1335884 and fasten the knobs by tightening the screws on the knobs.

#### ► Installing the heating unit

- 1. Feed the connection cable through the cable gland.
- 2. Connect the connection cables.
- 3. Hang the heating unit back into the wall bracket.
- 4. Secure with the locking screw.
- 5. Insert stones.
- 6. Sauna heating unit is ready for operation again.

## Troubleshooting



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## Troubleshooting

Error	Reason	Solution
It takes the heater a long time to heat up the cabin.	One or more than one heating element is defective.	Have a technician replace the tubular heating element.
	There is not enough space between the stones.	Reshuffle the stones.
	There is insufficient ventilation.	Install the air inlets. If these are insufficient, add a fan to the openings.
	The electrical connection is defective	Check the installation fuses.
		Have the control unit's outputs checked by a technician.
	The position of the Capillary tube sensor is not optimal.	Check the position of the sen- sor and adjust as needed.
The heater is very hot but cannot distribute the heat throughout the cabin.	There is not enough space between the stones.	Reshuffle the stones.
The safety temperature lim- iter was triggered and the heater no longer heats.	The STL was triggered by heat accumulation.	Check the inlets, outlets, and the fan and ensure that the heater has access to a suffi- cient amount of air. Replace the safety temperature limiter.
	The position of the Capillary tube sensor in the cabin is not optimal.	Check the position of the sensor and adjust as needed.

## Warranty conditions

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## **Manufacturer's warranty Statement**

You can obtain an extended manufacturer's warranty for this product. To do this, you must register the product with EOS Saunatechnik GmbH.

The warranty period begins when the product is registered. This must be done within three months of the date of purchase.

The extended manufacturer's warranty in such case is 8 years by private use only.

Otherwise the usual manufacturer's warranty as per terms and conditions of trade of EOS Saunatechnik GmbH applies

Further information on the warranty conditions can be found on the Internet at: https://www.eos-sauna.com/en/warranty-conditions

You can register on the Internet at: https://www.eos-sauna.com/en/product-registration

or via the QR code below



Notice:

**Without product registration**, only the General Terms and Conditions of Service specified in the following chapter apply to the product!

## **General Terms and Conditions of Service**



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## **General Terms and Conditions of Service**

(T&C, Dated 08-2018)

#### I. Scope

Unless otherwise agreed in writing for specific instances, these terms and conditions of service apply to service operations, including checking and remedying complaints. All our existing or future legal relationships shall be governed solely by the following terms and conditions of service. We do not recognise any of the customer's conflicting terms and conditions unless we have given our express written consent to their applicability.

We hereby expressly object to any of the customer's terms and conditions included in the customer's General Terms and Conditions of Business or order confirmation. Unconditional acceptance of order acknowledgements or deliveries shall not be construed as any form of acknowledgement of such terms and conditions. Ancillary agreements or amendments must be confirmed in writing.

#### II. Costs

The customer bears the following costs in connection with services rendered:

- Mounting/dismantling and electrical (de-)installation
- Transportation, postage and packaging
- Function testing and troubleshooting, including inspection and repair costs

There shall be no third-party billing.

#### III. Performance and cooperation obligations

The customer shall provide assistance free of charge to the manufacturer in rendering services. In the case of a warranty claim, the manufacturer provides spare parts necessary for servicing free of charge.

#### IV. Service visit by the manufacturer

Services rendered on site by an employee of the manufacturer must be agreed in advance.

If the main reason for the service visit is not the fault of the manufacturer, any costs incurred will be charged to the customer after the service visit and must be paid by the customer in full within the agreed payment term.

#### V. Liability

The manufacturer shall assume liability in accordance with the currently applicable statutory regulations. All our products are packaged in such a way that the individually packed goods (pallets) can be shipped. We wish to point out that our packaging is not suitable for individual shipments via parcel post. The manufacturer shall accept no liability for damages incurred as a result of improper packaging in an individual shipment.

#### VI. Manufacturer's warranty

The manufacturer's warranty applies only if installation, operation and maintenance have been carried out in full accordance with the manufacturer's specifications in the installation and operating instructions.

- The warranty period shall commence from the date on which proof of purchase is provided and shall be limited, in all cases, to 24 months.
- Warranty services shall be performed only if proof of purchase of the equipment can be presented.
- Any and all warranty claims shall become void if modifications are made to the equipment without the manufacturer's express consent.
- Any warranty claim shall likewise become void in the case of defects that arise due to repairs or interventions made by unauthorised persons or due to improper use.
- In the case of warranty claims, the serial and article numbers must be provided, together with the unit designation and a meaningful description of the error.
- This warranty covers defective equipment parts, with the exception of normal wear parts. Wearing parts include lamps, glass parts and sauna stones.
- Only original spare parts may be used within the warranty period.
- Service visits made by third parties shall require a written order issued by our service department.
- The equipment in question is be sent to our service department by the customer at the customer's own expense.
- Electrical assembly and installation work, including service visits and parts replacements, shall be carried out at the customer's expense; costs shall not be borne by the manufacturer.

Complaints in respect of our products shall be reported to the responsible distributor and shall be handled exclusively by said distributor. The manufacturer's General Terms and Conditions of Business, in the version available at www.eos-sauna.com/agb, shall apply in addition to the foregoing terms and conditions of service.

## Disposal





## Disposal



The sauna heater may only be deinstalled by trained electricians.

Electrical devices that are no longer needed must be recycled at a recycling station as per EU guideline 2012/19/EU or as per the Electrical and Electronic Equipment Act (ElektroG).

Observe local provisions, laws, regulations, standards and directives when disposing of the unit.



Do not dispose of the unit with household waste.

#### ► Packaging

The packaging of the unit can be completely separated for disposal and recycled. The following materials are used in the packaging:

- Used paper/cardboard/wood
- Plastic foil

#### ► Electronic waste

Electronic waste must be disposed of at the designated local collection point for electronic waste.

#### Additional disposal instructions for commercial users (DE only)

You can find further disposal instructions under

www.eos-sauna.com/recycling



made in Germany



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