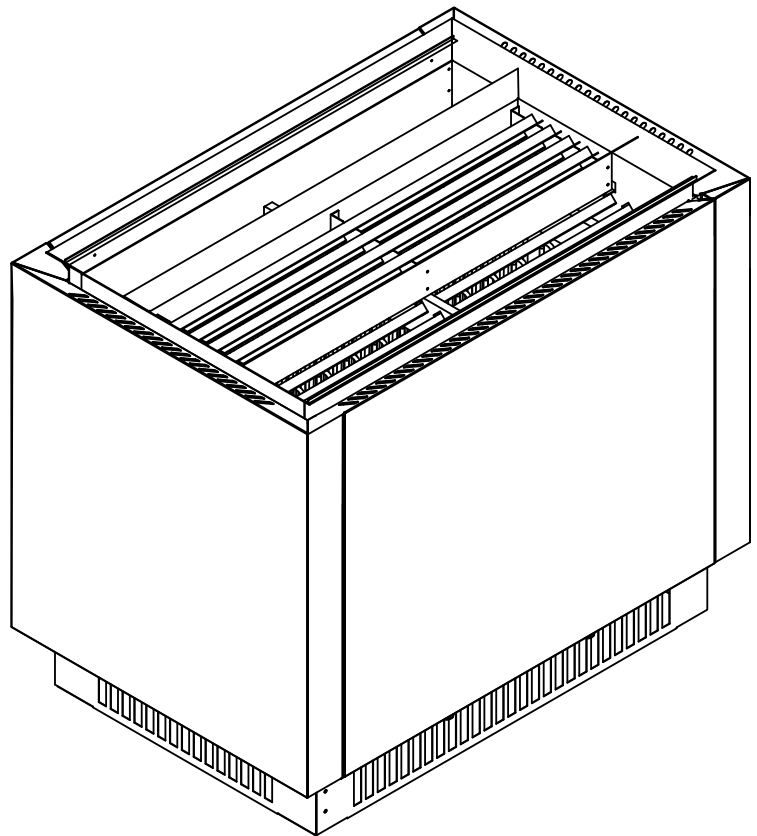


# MEGA

## Heater for Sauna Cabins



### Installation and Operating Instructions

**Made in Germany**



Druck-Nr.: 2902 4973  
Stand: 09/20

# Documentation

## Manufacturer

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## Original installation instructions EN







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## Characters, symbols and illustrations

-  Additional information about an operating step
-  Cross-reference to a page
-  Read instructions
-  Result of a step
-  Table title
-  Title of figure

## Revision history

Date	Version	Description
27 Jan. 2020	01.00	First version
9 Apr. 2020	01.10	Safety-related information added
10 Sept. 2020	01.20	Circuit diagrams updated and information on heating time limitations added

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# 1

## General safety instructions

### 1.1 Safety levels

Safety instructions and important operating instructions are classified according to ANSI Z535.6. Please familiarise yourself with the following terms and symbols:

#### **⚠ DANGER**

##### **Danger**

Indicates a hazardous situation which, if not avoided, will result in death.

#### **⚠ WARNING**

##### **Warning**

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

#### **⚠ CAUTION**

##### **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.

## General safety instructions

### 1.2 Mounting and electrical installation



These 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 also applies following completion of the installation work.

- ▶ The electrical installation of the heater, relay boxes and other electrical systems or equipment with a fixed mains connection must only be performed by a trained electrician from an authorised electrical company.
- ▶ Observe the specifications found in VDE 0100 § 49 DAA/6 and VDE 0100 Part 703/2006-2.
- ▶ The system must be disconnected and removed entirely from the mains supply before commencing installation and repair work.
- ▶ The housing cover must only be removed by a specialist.
- ▶ Read and observe the present installation instructions.

#### **Fire hazard from overheating**

Insufficient ventilation can lead to device overheating and fire.

- ▶ Install the air inlet and outlet in the cabin.
- ▶ Observe the cabin manufacturer's safety and installation 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.

## 1.3 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 also applies after work is completed.

- ▶ The housing cover must only be removed by a 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.

- ▶ Do not place objects on the heater.
- ▶ Fill the rock store as directed.
- ▶ Inspect the sauna cabin prior to each commissioning.
- ▶ If you switch on the heater using pre-set timers or a remote control, attach a protective cover to the heater or install a suitable safety device.

### 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.

### Equipment damage due to overuse

If the cabin is used commercially, the heating time must be set so that the heater switches off automatically after a specific period of time.

- ▶ If the heating does not switch off automatically after a defined heating period, cabin use must be supervised at all times.
- ▶ Inspect the cabin before each use.

## General safety instructions

- 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 and 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.
- Operating the unit** 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. Cleaning and user maintenance must not be performed by children.
- ▶ Children must be supervised to ensure they do not play with the unit.
- Sauna cabin and heater** The sauna cabin must be constructed with proper material and built in a professional manner, and the heater must be suited for the cabin.
- ▶ Sauna heaters and control units may only be used in sauna cabins made of suitable, low-resin and untreated material (e.g. Nordic spruce).
  - ▶ 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 below or behind the sauna heater, approx. 5 to 10 cm above the floor. The minimum dimensions of the air inlets and outlets can be found here: 2.4 Technical data, [12](#), 3.1.2 Air inlets and outlets, [15](#).
- ▶ The exhaust openings are always installed in the lower part of the wall diagonal to the sauna heater. The supply and exhaust openings must not be closed. Please observe the instructions provided by your sauna cabin manufacturer.
- ▶ Use one of the control units listed below to check and control the sauna heater. This control unit is fixed to a suitable location on the cabin's external wall, and the corresponding sensor housings according to the installation instructions that accompany the control units inside the sauna cabin.
- ▶ The cabin lighting and its installation must comply with splash-proof requirements as stated in DIN EN VDE 0100 Part 703. Only one sauna light with a maximum of 40 W may be installed with this sauna heater.
- ▶ 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.

## 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](http://www.eos-sauna.com).

# Identification

## 2

### Identification

MEGA is an electrically heated Finnish sauna heater available in a variety of output capacities.

#### 2.1 Requirements for operation

The heater must be operated together with one control unit and two relay boxes. They are not included in the scope of delivery.

The heater can be operated with one of the following control units:

- EmoStyle series
- Emotec series
- EmoTouch series
- ECON series

The type of relay boxes required depend on the output capacity of the heater. See Heater data, [p. 12](#)

#### 2.2 Nameplate

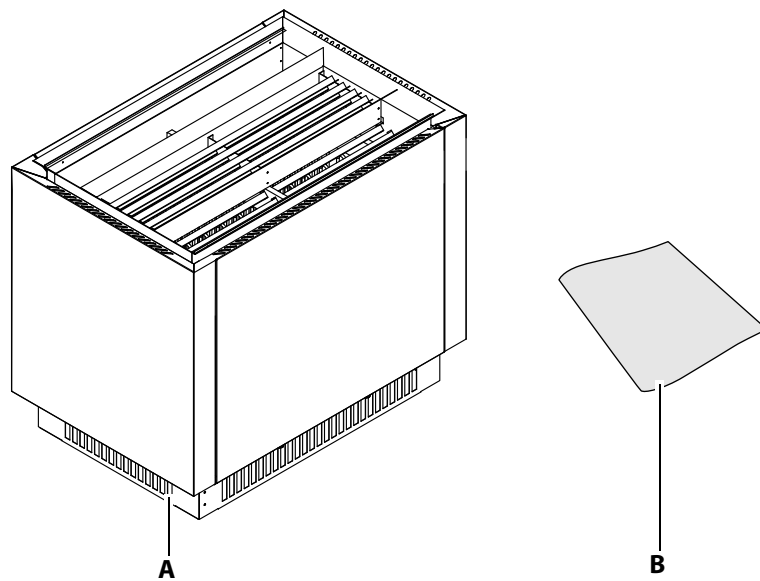


- |                                |                             |
|--------------------------------|-----------------------------|
| <b>A</b> Name                  | <b>F</b> Manufacturer       |
| <b>B</b> Model                 | <b>G</b> Heater output      |
| <b>C</b> Item number           | <b>H</b> Manufacturing date |
| <b>D</b> Electrical connection | <b>I</b> Serial number      |
| <b>E</b> Country of origin     |                             |

## 2.3 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 unit must not be operated if components are missing or damaged.

The following parts are included in the scope of delivery:



**A** Sauna heater

**B** Installation instructions

### Accessories (optional)

A heater guard rail may be placed around the upper edge of the heater. It prevents accidental contact with hot parts of the heater. The heater guard rail consists of four brackets and a wooden frame.

### **⚠ CAUTION**

#### **Skin burns from hot surfaces**

If the heater is placed too close to a bench, there is risk of accidental contact with hot surfaces. This could lead to burns.

The optional heater guard rail does not offer sufficient protection in this specific installation configuration.

- ▶ Increase the distance.
- ▶ During the installation, mount a suitable heater guard rail for the heater.

## Identification

Heater guard rail accessories	Item no.
Brackets for heater guard rail	94.7183
Brackets and wooden frame (abachi)	94.7184
Brackets and wooden frame (walnut)	94.7185

Rocks can be purchased separately and are not included in the scope of delivery.

Use rocks with a grain size of > 10 cm.

## 2.4 Technical data

### Electrical connection data

Power output	Electrical connection	Fuse protection for control unit	Fuse protection for LSG unit	Connection mains – control unit	Connection LSG – heater	Connection control unit – LSG unit
42 kW	400 V 3N AC 50 Hz	1 x 16 A	3 x 35 A	3 x 1.5 mm <sup>2</sup>	2 x (5 x 4 mm <sup>2</sup> ) and 2 x (5 x 6 mm <sup>2</sup> ) 4 x (5 x 6 mm <sup>2</sup> )	4 x 1.0 mm <sup>2</sup>
48 kW			3 x 63 A			
54 kW			2 x (3 x 35 A)			
60 kW			2 x (3 x 63 A)			
72 kW						

### Heater data

Power output	Unit dimensions HxWxD in cm	For sauna cabin size	Minimum size of air inlet and outlet	Weight without rocks	Stone filling	Relay boxes
42 kW	100 x 120 x 80	55–70 m <sup>3</sup>	50 x 12 cm	112 kg	approx. 120 kg	LSG18 + LSG36
48 kW		70–80 m <sup>3</sup>	60 x 12 cm	114 kg		
54 kW		80–100 m <sup>3</sup>	70 x 12 cm	116 kg		
60 kW		100–130 m <sup>3</sup>	70 x 12 cm	118 kg		2 x LSG36
72 kW		130–160 m <sup>3</sup>	80 x 12 cm	120 kg		

## 2.5 Intended use

This heater is intended solely for the purpose of heating sauna cabins, together with a suitable control unit and two relay boxes.

MEGA is a free-standing heater that is suitable for commercially used cabins.

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 possi-



ble 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 responsible for unauthorised modifications and damages resulting from these modifications; the person modifying the equipment alone shall bear the associated risk.

### **Foreseeable misuse**

The following are considered instances of foreseeable misuse:

- The unit is operated without knowledge of or compliance with the safety instructions.
- Operating, service and maintenance requirements are not observed.
- The unit is operated by children or persons with reduced mental capacity or by persons who have not been thoroughly instructed in its use.

### **General instructions**

- 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.
- 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 a typical sauna climate in which temperatures of approx. 110°C are achieved directly below the ceiling. These temperatures drop to approx. 30–40°C in the cabin along the floor. Therefore, it is not unusual that if the temperature sensor above the heater reads 110°C, the thermometer that is mounted approx. 20–25 cm below the cabin ceiling on the sauna wall reads only 85°C. When the max. temperature is set for the area around the upper recliner bench, the bathing temperature is typically between 80°C and 90°C.
- Please note that the highest temperatures in the cabin are always above the sauna heater and that is where the temperature sensor and safety temperature limiter should be mounted according to the installation instructions for the control units.
- 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.

# 3

## Installation

This chapter describes how to install MEGA. Prior to installing the unit, air inlets and outlets must be attached to 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 a temperature of at least 170°C.

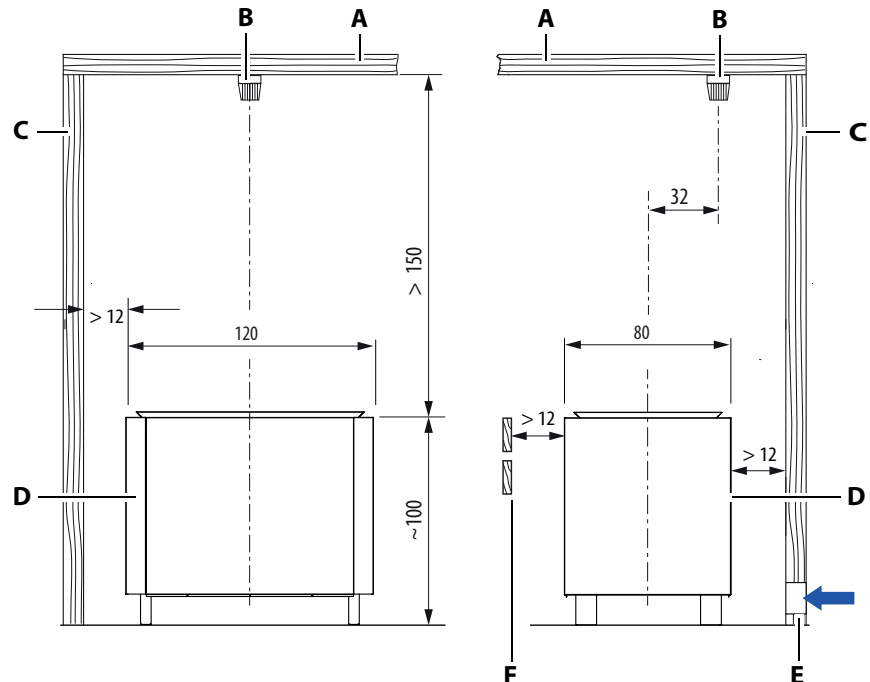
All lines must be routed in such a way that they are well-protected, e.g. in a cable conduit.

In general, it should be noted that the sauna heater must not be set on a floor made of highly flammable material (wood, flooring made of plastic material, etc.). Ceramic tiles are recommended as a flooring option.


Floor heating in the sauna cabin increases the temperature of the floor's surface temperature.

#### 3.1.1 Installation site

- Ceiling height of at least 250 cm
- Distance between heater and cabin wall at least 12 cm
- Distance between heater and bench at least 12 cm
- The required cabin volume depends on the heater output.  
See 2.4 Technical data, [12](#)



- |                             |                            |
|-----------------------------|----------------------------|
| <b>A</b> Cabin ceiling      | <b>D</b> Heater            |
| <b>B</b> Temperature sensor | <b>E</b> Air inlet         |
| <b>C</b> Cabin wall         | <b>F</b> Heater guard rail |

 Dimensions in the cabin (in cm)

### 3.1.2 Air inlets and outlets

#### **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.
- ▶ Commission the cabin only after all air inlets and outlets have been opened.

#### **NOTICE**

##### **Heating process delayed**

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

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

## Installation

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 2.4 Technical data, 12.

Depending on the location of the heater, the air inlet must be installed behind or below the heater.

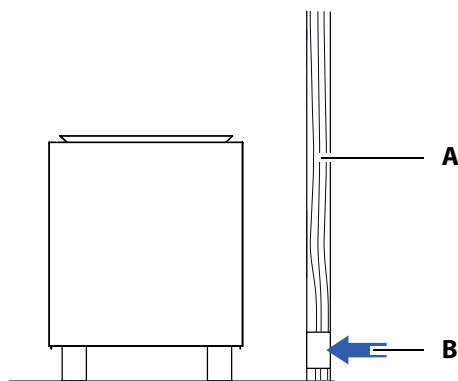
- Heater is located at the cabin wall, 16
- Heater is located in the middle of the cabin or in front of a glass wall, 16

### Heater is located at the cabin wall

The air inlet must meet the following criteria:

- Location: Behind the heater
- Height: 10 cm above the cabin floor

If there is still not enough fresh air to reach the heater, a fan must be installed at the opening outside of the cabin.



**A** Cabin wall

**B** Air inlet

☒ Installing the air inlet in the cabin wall

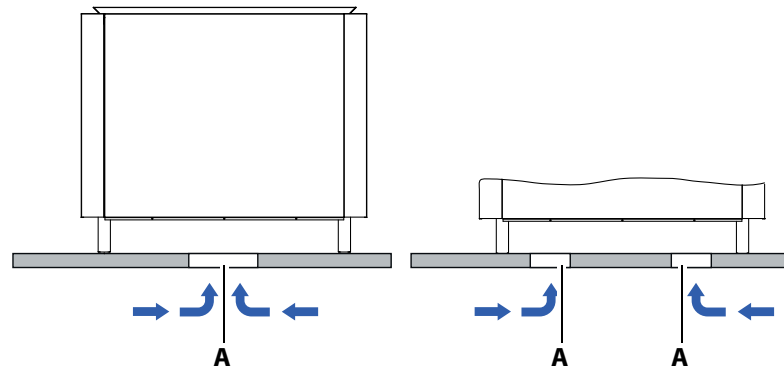
### Heater is located in the middle of the cabin or in front of a glass wall

The air inlet can be either a large opening or two small openings.

The air inlet must meet the following criteria:

- Location: Below the heater
- A duct directs fresh air to the opening or openings.
- A fan must be mounted at the beginning of the duct outside of the cabin.





**A** Air inlet

☒ Installing the air inlet in the middle of the cabin

### Air outlet

The air outlet must meet the following criteria:

- Location: Across from the heater
- Height: 30–50 cm above the cabin floor

### 3.1.3 Connection cables

The heater must be connected to the relay boxes with four connection cables. Install the cables in such a way that they are protected from damage. To do this, route empty pipes from the installation site of the heater to the relay boxes.

Two cables must be routed to each terminal box.

Outside of the cabin, the cables must be routed under a suitable protective cover (e.g. in a cable duct or empty conduits).

See the connection diagram ☒ Connection diagram for connecting MEGA to the sauna system, 21

## 3.2 Specifications for the control unit

Observe the operating conditions for the control unit to ensure that the sauna cabin's temperature control works properly. The installation site must be selected accordingly. Specifications can be found in the installation instructions for the control unit or in the instructions provided by the manufacturer of the control unit.

## 3.3 Installing the temperature sensor in the cabin

The temperature sensor should be mounted in the middle and flush with the long side of the heater; see ☒ Dimensions in the cabin (in cm), 15.

### 3.4 Installing the heater

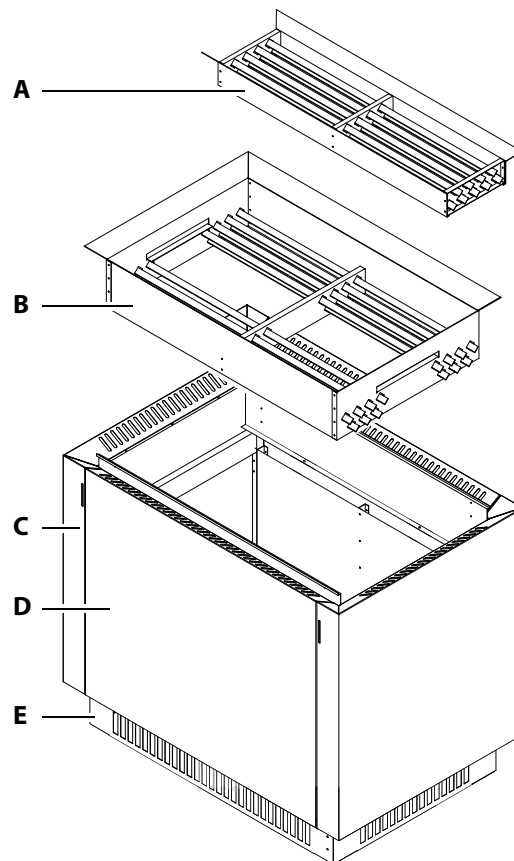
The heater is supplied mounted and packaged on a pallet. Once the cabin is prepared, the heater is placed on a pre-defined installation site. To reduce the weight of the heater for transport, the rock stores are removed. The outer casing on the long side of the heater is removed. Four people should always transport the heater. Two people should always install the rock store.

Tool:

- Screwdriver

Necessary steps:

- ▶ Unpacking the heater, [19](#)
- ▶ Opening the heater housing, [19](#)
- ▶ Setting up the heater, [20](#)



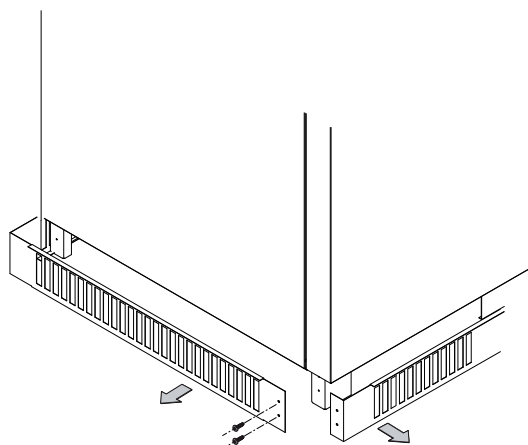
- |                            |                       |
|----------------------------|-----------------------|
| <b>A</b> Middle rock store | <b>D</b> Outer casing |
| <b>B</b> Bottom rock store | <b>E</b> Base cover   |
| <b>C</b> Housing           |                       |

## ► Unpacking the heater

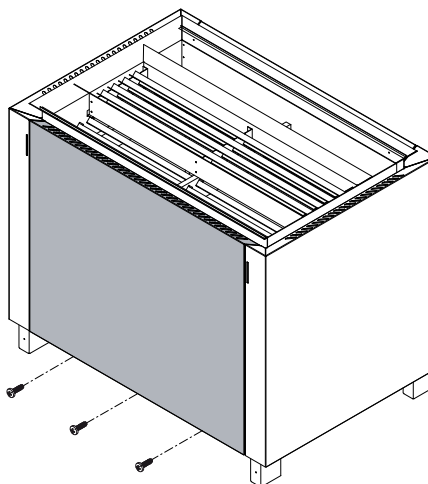
- 1 Remove the heater from the packaging and leave the heater on the pallet.  
① The rock stores (**A**) and (**B**), the outer casing (**D**) and the base covers (**E**) have already been installed.
- 2 Lift the middle rock store (**A**) and bottom rock store (**B**) from the heater.  
① The V-shape profiles are loosely situated in the openings. Ensure that they do not fall out.

## ► Opening the heater housing

- 1 Loosen the 4 screws in the base covers. There are 2 screws on the right side of each long side.

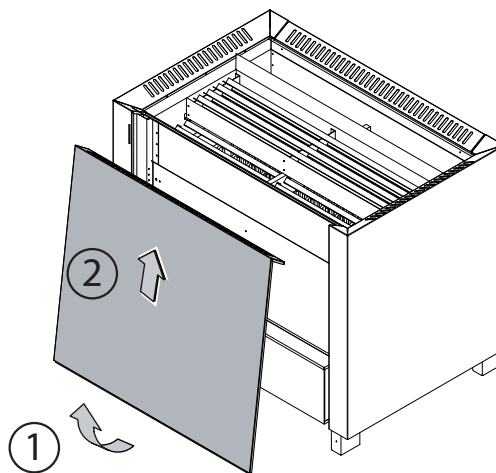


- 2 Remove the base covers.
- 3 Unscrew the 3 retaining screws at the bottom of the outer casing.  
① The dismantling process is identical on both sides.



# Installation

- 4 Remove the outer casing (D). To do this, swivel the outer casing forward and lift it upwards.



## ► Setting up the heater

- 1 Move the pallet with the heater as close to the pre-defined installation site as possible.
- 2 **CAUTION!** The heater weighs a minimum of 112 kg. Four people should always move the heater. Lift the heater from the pallet and move it to the pre-defined installation site.

# 4

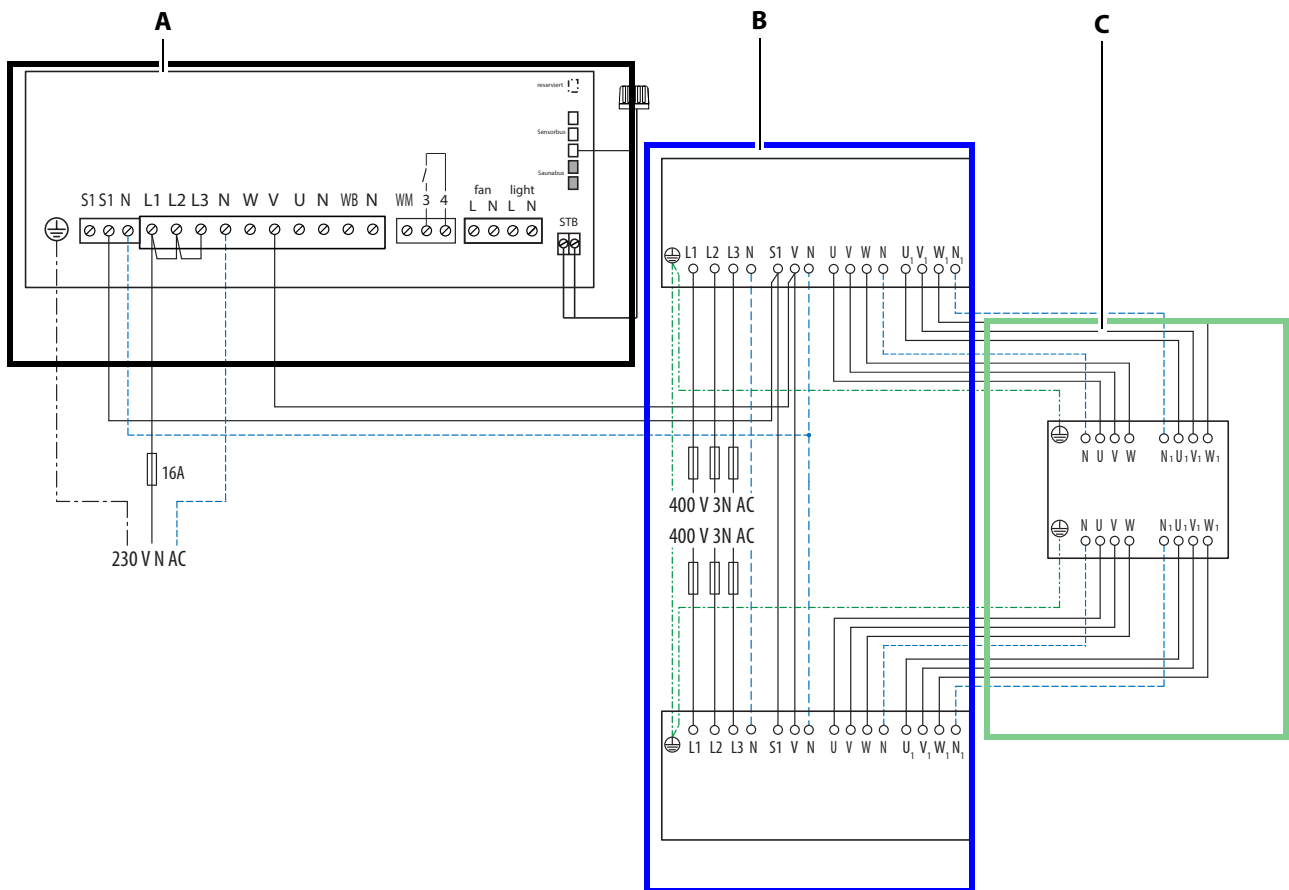
## Connections

This chapter describes how MEGA is connected to the relay boxes.

### 4.1 Connection diagram for connecting MEGA to the sauna system

The sauna control unit, the relay boxes, and the MEGA heater must be connected as shown in the circuit diagrams.

Please observe the installation and operating instructions for the control unit and relay boxes.



A Sauna control unit

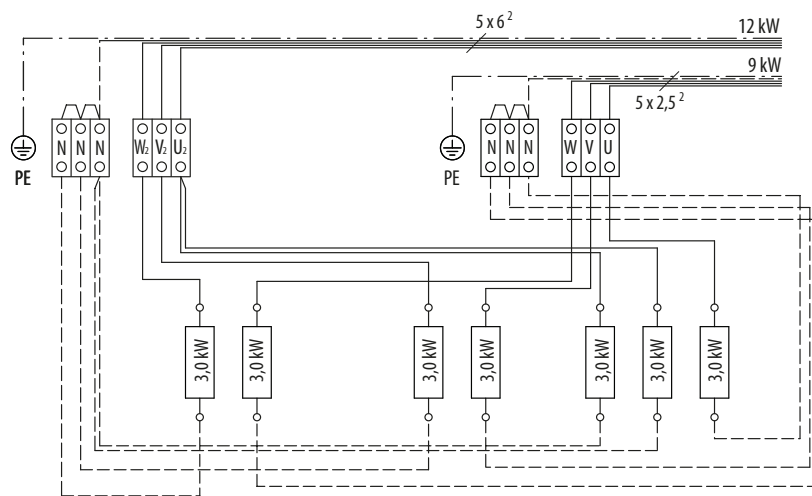
B Connection for relay boxes

C Connection to MEGA

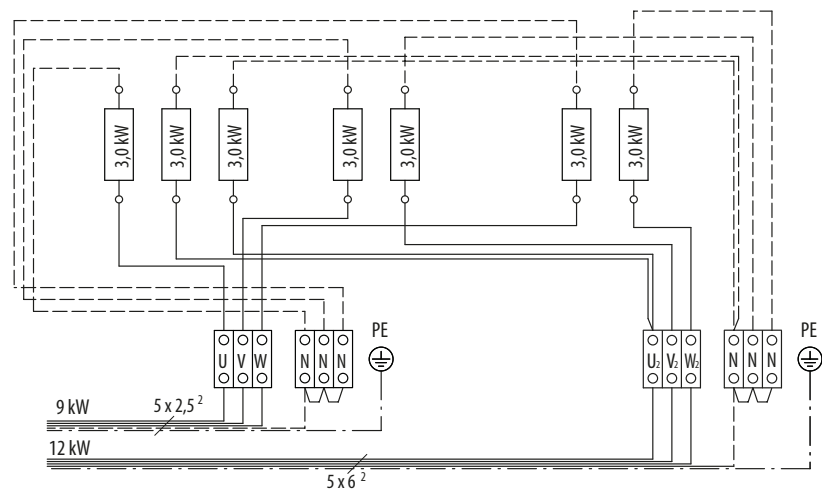
## 4.2 Connection diagrams for heater

The heater is connected to the two relay boxes with four connection cables. Each heating coil is connected to both relay boxes with two cables. The heating coil cable connection is identical for each heating coil. The internal wiring differs depending on the heater output.

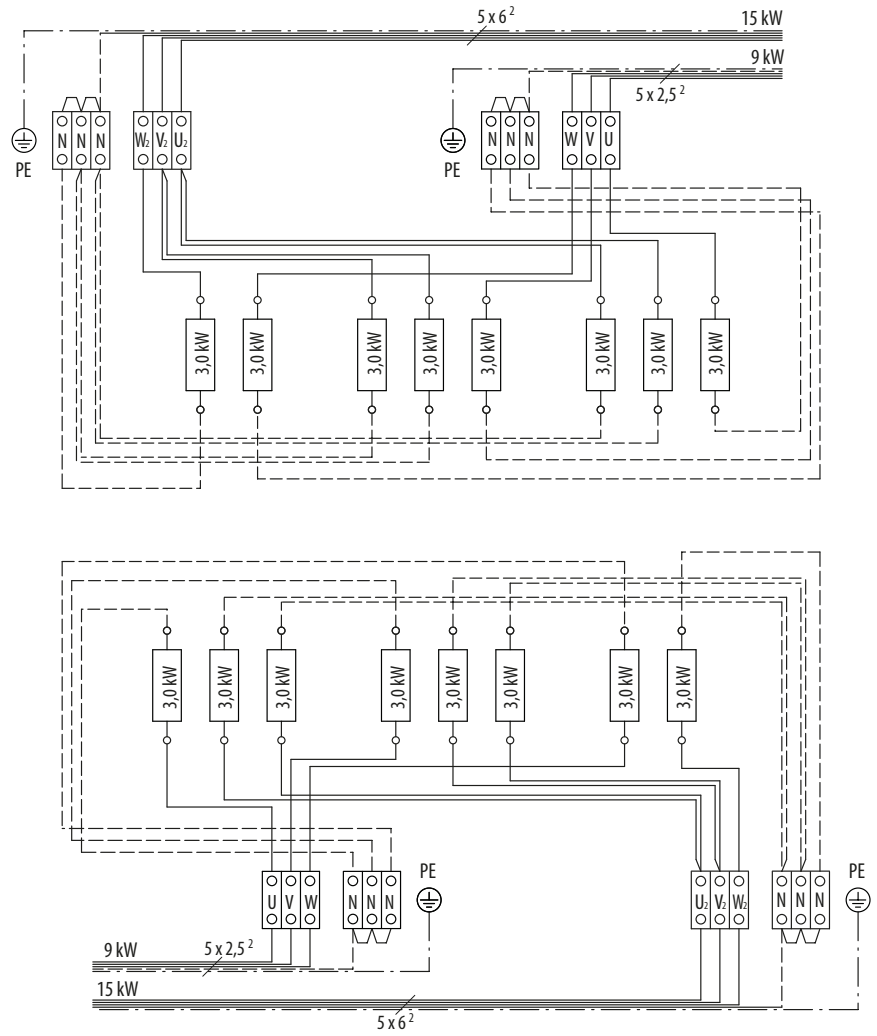
### 42 kW heater output



### 42 kW

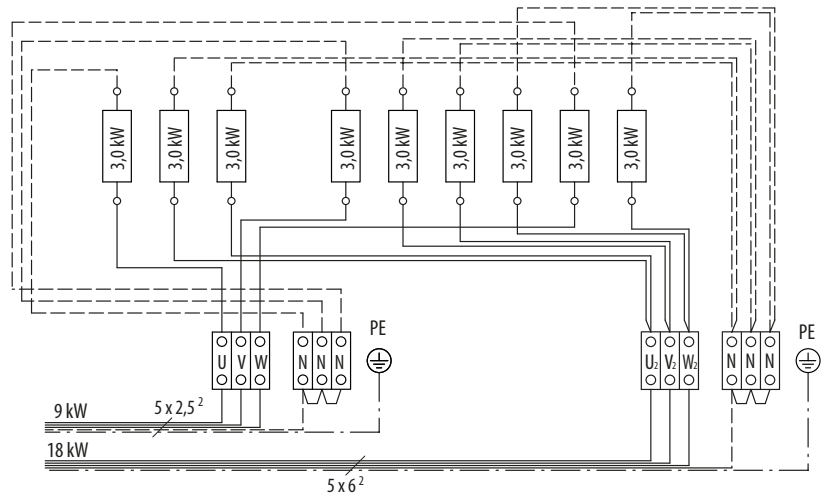
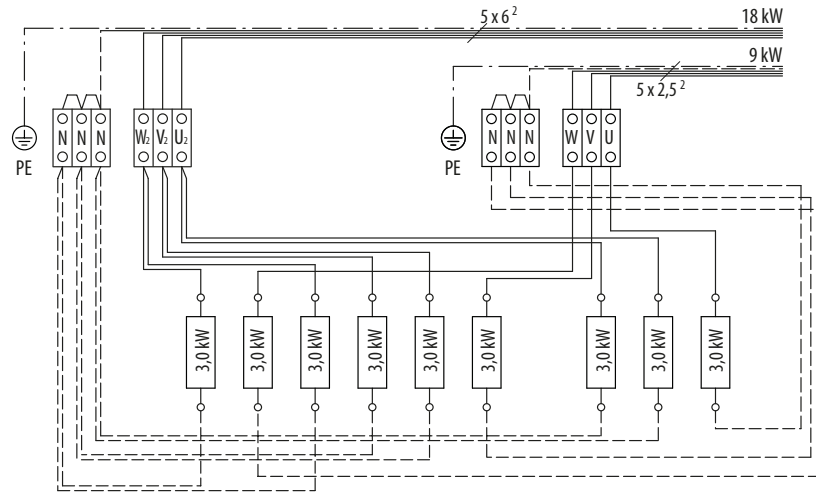


## 48 kW heater output



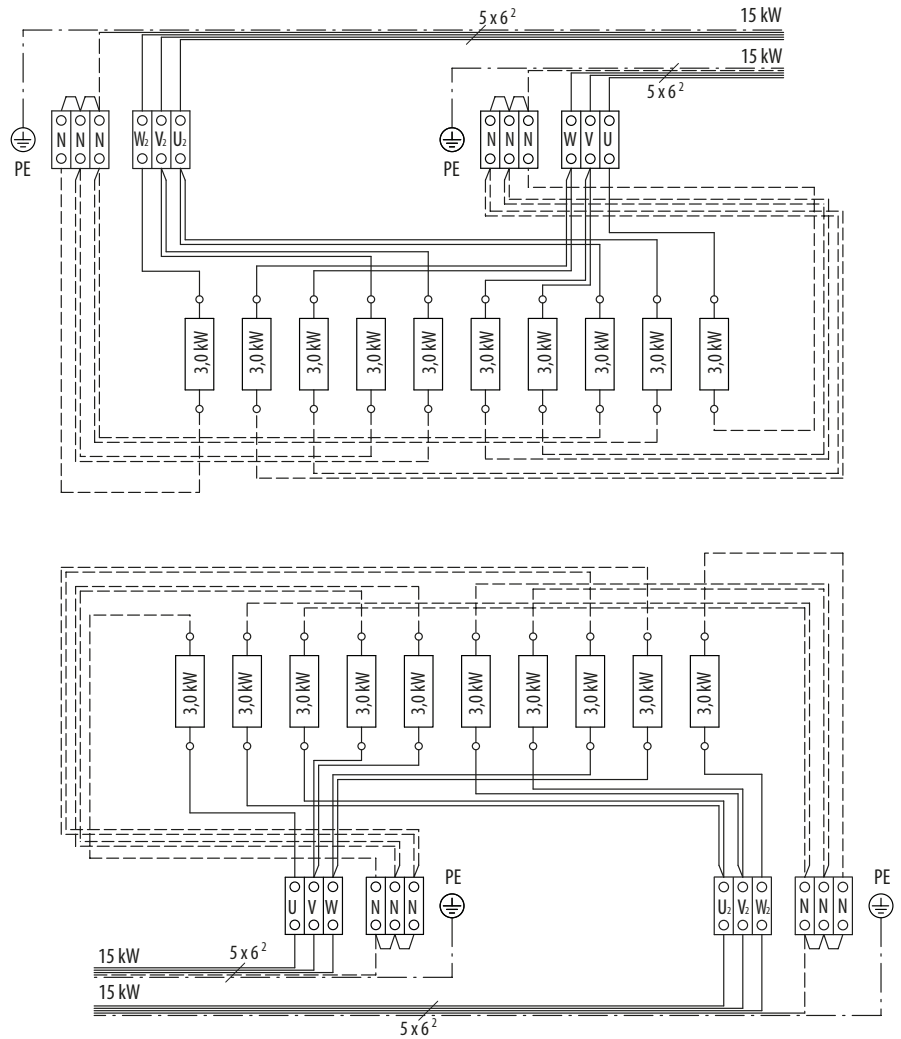
# Connections

## 54 kW heater output

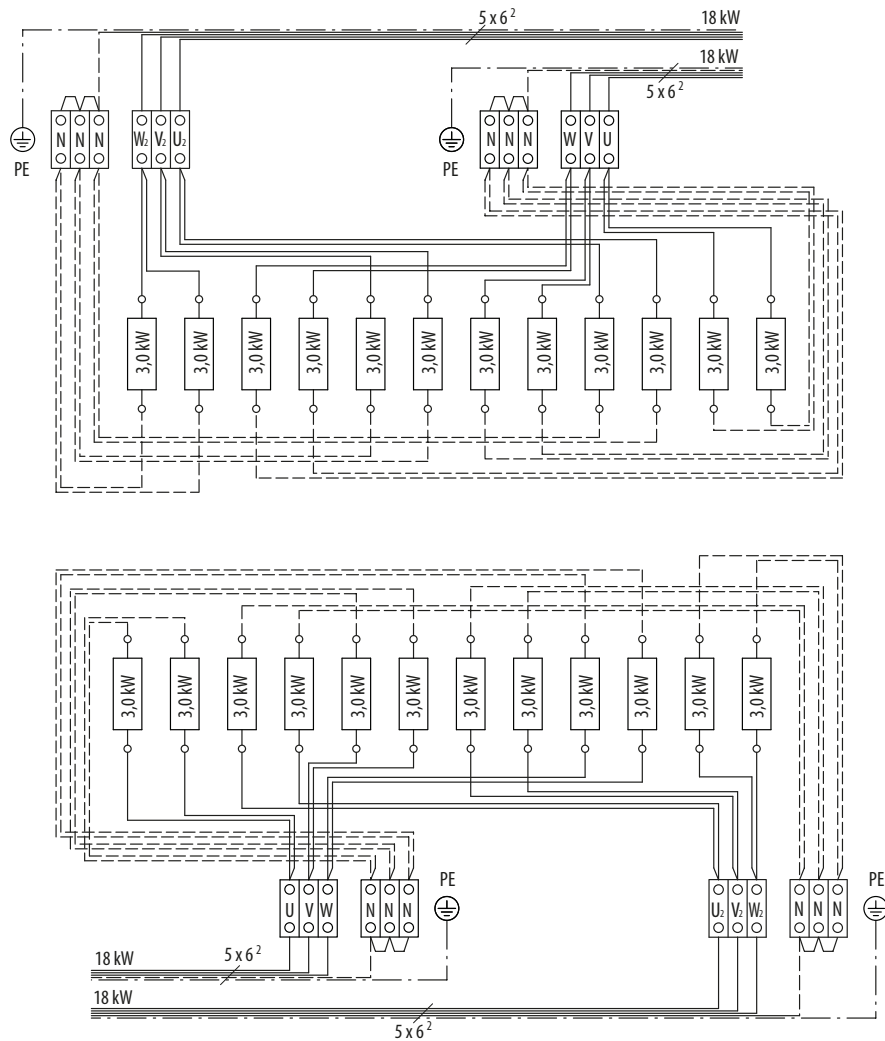




## 60 kW heater output



### 72 kW heater output



## 4.3 Establishing an electrical connection

A heating coil, to which two connection cables must be connected, is attached to each long side of the heater. The procedure for connecting the connection cables is identical for both sides.

Necessary steps:

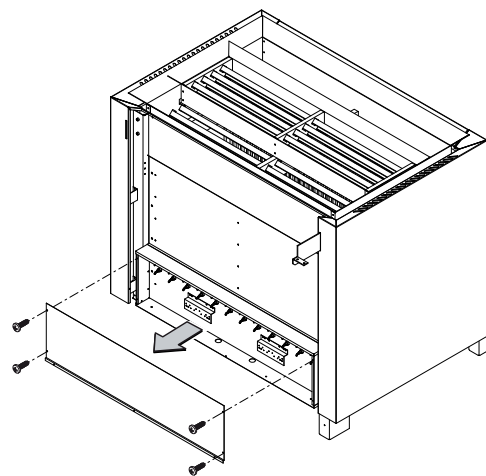
- ▶ Opening the terminal box, [27](#)
- ▶ Connecting the connection cables, [27](#)
- ▶ Closing the MEGA housing, [28](#)
- ▶ Placing the rock store in the heater, [29](#)

Tools:

- Screwdriver

## ► Opening the terminal box

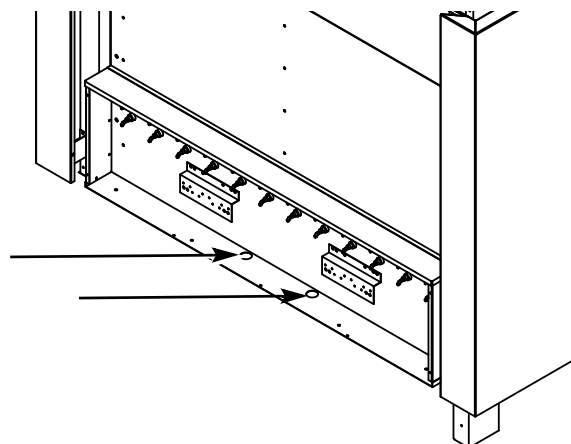
- 1 Dismantle the base covers and outer casing.  
See ► Opening the heater housing, [p 19](#)
- 2 Unscrew the 4 retaining screws from the terminal box cover.



- 3 Remove the terminal box cover.

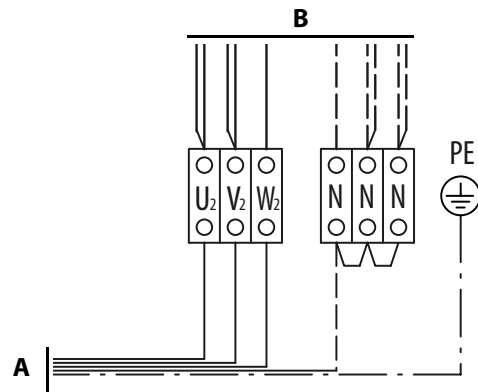
## ► Connecting the connection cables

- 1 Feed the connection cables through the openings in the terminal box.



# Connections

- 2 Connect the connection cables as shown in the connection diagram.

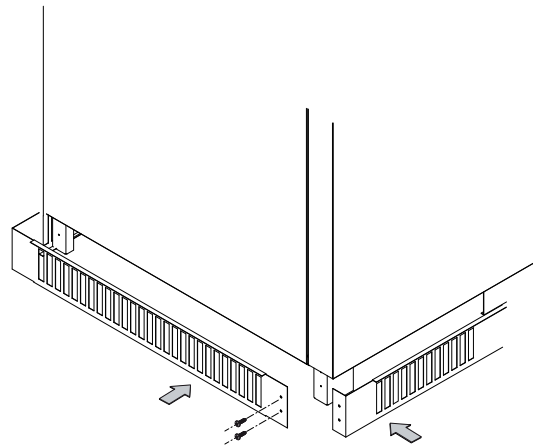


**A** Connection cables

**B** Supply lines for the tubular heating element

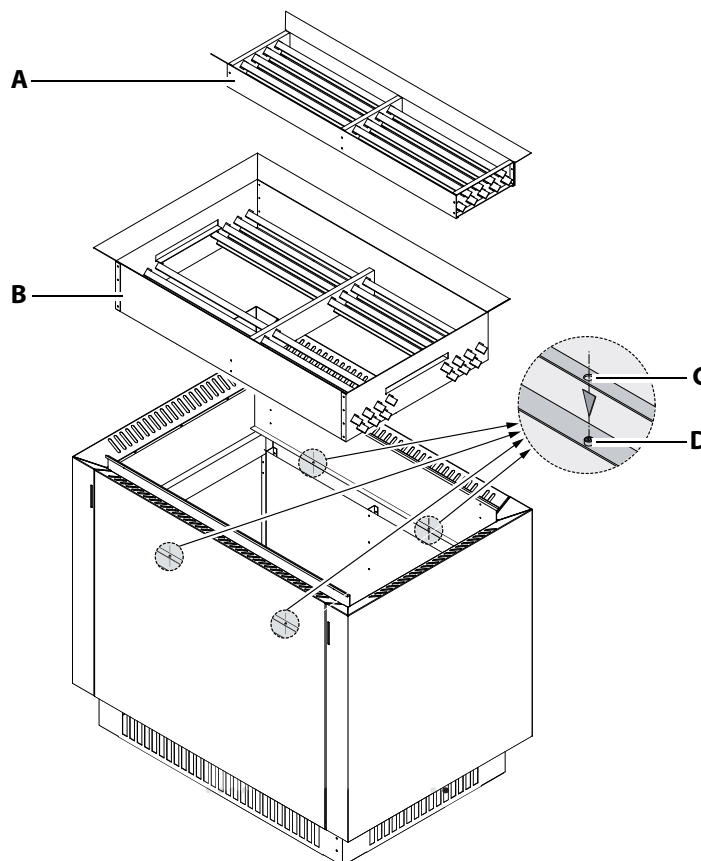
## ► Closing the MEGA housing

- 1 Replace the terminal box cover.
- 2 Screw in the 4 retaining screws and tighten them.
- 3 Replace the outer casing.
- 4 Screw in the 3 retaining screws and tighten them.
- 5 Mount the base covers with 4 screws.



## ► Placing the rock store in the heater

- 1 **NOTICE** The V-shape profiles must be positioned in the middle of the provided openings.  
Place the bottom rock store (**B**) in the housing.



- |                            |   |
|----------------------------|---|
| <b>A</b> Middle rock store | <b>C</b> Openings for locking mechanism |
| <b>B</b> Bottom rock store | <b>D</b> Cylinder screws                |

- 2 Place the openings for the locking mechanism (**C**) above the cylinder screws (**D**).
- 3 Place the middle rock store (**A**) on the bottom rock store so that it is fixed to the support rail by means of the side straps.

## 4.4 General instructions for electrical installation

Observe the following regulations when installing sauna heaters:

- DIN VDE 0100 Part 703:  
This most recent version of the standard, applicable since February 2006, 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.”
- EN 60335-1 DIN (VDE 0700 Part 1): 2012-10:  
This standard states in section 13.2:  
“At operating temperature, the leakage current may not exceed the following values:  
- for stationary class I heating appliances: 0.75 mA or 0.75 mA per kW rated power input of the heating unit, whichever is higher, up to a maximum of 5 mA.”

If a residual current device (RCD) is installed, ensure that no other electrical consumers are fused via this RCD.

By current technological standards, it is not advisable to use vapour-proof tubular heating elements for sauna heaters. It is possible that the magnesium oxide filling in the heaters can draw some moisture from the ambient air through the vapour diffusion silicone stopper, which, in some cases, can lead to tripping of the RCD. 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 has not been used for a longer 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 heaters; thus, the manufacturer does not assume liability.

## 4.5 Heating time limitation

### Heating time limitation functions

All sauna heaters, except for those installed in public saunas, and which must be operated under the supervision of personnel, must be equipped with a timer that complies with IEC and EN standards. This timer fully disconnects the sauna heater from the power supply for safety reasons. It is typically integrated in the sauna control units. The timer must be mounted outside of the sauna cabin and may not be overridden.

- The operation time of a public sauna must be limited so that the heating elements are without power for a minimum of 6 consecutive hours within a 24-hour period.
- Units used in private saunas must be limited to an operating time of 6 hours, and an automatic restart is not permitted.

In accordance with UL875 (USA), this timer must fully disconnect the sauna heater from the power supply after one hour and must not switch on again automatically.

# 5

## Commissioning

Before the heater can be commissioned, it must be filled with sauna stones, which are available as optional accessories.


The heater switches on together with the relay boxes. It is operated via the control panel. Before commissioning the heater, ensure that the air inlets are free of lint. Remove any lint with a moist towel.



### **⚠ WARNING**

#### **Fire hazard**

Objects placed on the heater could catch fire. Herbs placed on the heater could catch fire.

- ▶ Inspect the cabin prior to each use.
  - ▶ When preparing the water, follow the instructions regarding quantity as specified on the sauna essence containers.
  - ▶ Do not use pure sauna essences for water splashes.
  - ▶ Do not use alcohol for water splashes.
  - ▶ Pour the water over the stones only.
  - ▶ Air inlets and outlets must remain open.
  - ▶ Commission the heater only if it has been filled with stones (see ▶ Filling stones,  33).
-



## 5.1 Filling stones

Material:

- Sauna stones (available as optional accessories)

### ⚠ WARNING

#### Fire hazard from overheating

Stones that are positioned too close together in the heater prevent hot air from being exhausted. This leads to overheating of the heater

There is a risk of death due to fire.

- ▶ Place the stones loosely in the rock store.

### NOTICE

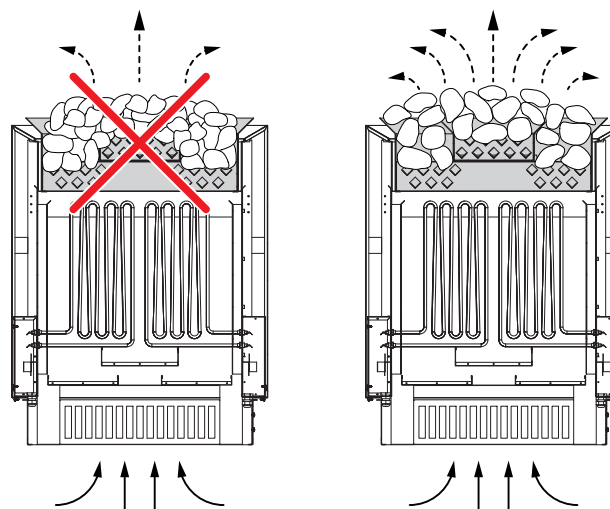
#### Selecting stones suitable for water splashes

Ceramic stones behave differently from natural stones when infused.

- ▶ Use only original stones from EOS.

#### ▶ Filling stones

- 1 Thoroughly rinse the stones with running water.
- 2 Stack the stones loosely in the rock store, leaving sufficient space between them. Stack the stones individually.



- ① Fill the store with stones only to the upper edge.

## Commissioning

### 5.2 Commissioning by remote control

If you switch on the heater using the remote control, ensure that no objects are placed on the heater. A suitable safety device (e.g. EOSafe D/L) can be used to prevent this.

### 5.3 Water splash

Before the first water splash can begin, the cabin must be sufficiently heated. The temperature sensor checks the temperature and, via the control panel, indicates when the desired temperature has been reached.

#### **WARNING**

##### **Fire hazard**

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

- ▶ Never add more sauna essence or essential oils to the water than the amount indicated on the container.
  - ▶ Never use alcohol or pure concentrate.
  - ▶ Do not add herbs to the water or the stones.
- 

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 water splash experience.

Please note that the sauna stones must be reheated after each water splash to generate an intense burst of steam.

Recommendation: During a water splash, no more than approx. 10 cL of water per m<sup>3</sup> cabin volume should be vaporized. After each water splash, wait approx. 10 minutes before starting the next one. This time is needed for the sauna stones to reheat.

# 6

## Maintenance

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 the units as needed. Contact your sauna retailer or the manufacturer directly if you notice malfunctions or signs of wear and tear. 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.

### 6.1 Cleaning

The heater must be cleaned regularly. The cleaning frequency depends on how often it is used.

#### **CAUTION**

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

- ▶ Use suitable personal protective equipment (e.g. gloves) when cleaning parts with sharp edges.
- 

Clean the heater only with household cleaners.

### 6.2 Sauna stones

Depending on the frequency of use, sauna stones must be added or repositioned at least twice a year. The process of heating and cooling can make the stones brittle and small particles can break free from the stones. The gaps between the stones also become smaller which means that hot air can no longer rise between the stones.

Use only natural sauna stones when you refill the rock store. Due to their roughness, they produce a better water splash effect than ceramic sauna stones.

### ► Replacing sauna stones

- 1 CAUTION! Caution: stones may be hot. Allow the stones to cool for at least 45 minutes before you remove the old stones.  
Remove each stone individually.
- 2 Check each stone for damage. Sort out any stones with severe damage.
- 3 Rinse the stones with cold water.
- 4 Stack the stones loosely in the rock store leaving sufficient space between them.

## 6.3 Replacing the tubular heating elements

You can replace individual tubular heating elements or the entire heating coil. One heating coil is installed on each long side of the heater. The process for dismantling the heating coils is identical on each side.

If the heater is too close to the wall, it may be necessary to move it so that you can access the rear side. To move the heater more easily, remove stones.

The following steps must be complete:

- Opening the heater housing, [19](#)
- Opening the terminal box, [27](#)

Necessary steps:

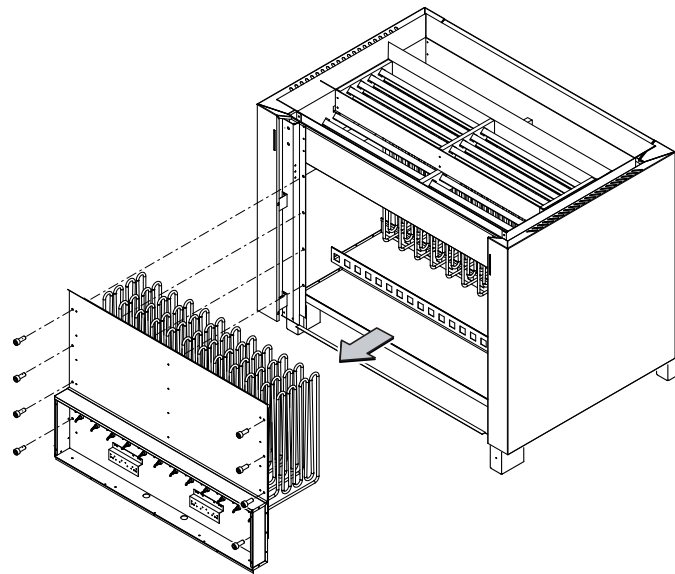
- Removing the heating coil, [37](#)
- Replacing the tubular heating elements, [37](#)
- Inserting the heating coil, [38](#)

Hardware + tools:

- Tubular heating element and/or heating coil
- Screwdriver
- Hex key SW 5
- Ring or socket spanner SW 22

## ► Removing the heating coil

- 1 **DANGER!** Ensure that the heater has been disconnected from all power supply lines.  
Loosen the connection cable from the connection terminals.
- 2 Unscrew the 8 hexagon socket screws on the heating coil.

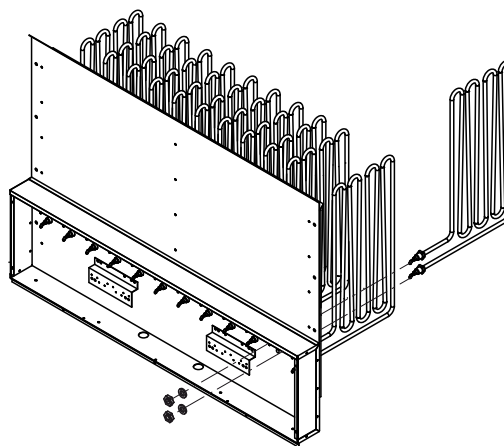


- 3 Remove the heating coil.
  - ① Insert the new heating coil.  
See ► Inserting the heating coil, [p 38](#)
  - ① Replace the tubular heating element.  
See ► Replacing the tubular heating elements, [p 37](#)

## ► Replacing the tubular heating elements

- 1 Remove the heating coil.  
See ► Removing the heating coil, [p 37](#)
- 2 Identify the defective tubular heating element by taking measurements.
- 3 Pull out the flat plugs belonging to the tubular heating element to be replaced.

- 4 Loosen the two hexagon nuts of the tubular heating element to be replaced located in the terminal box.



- 5 Remove the tubular heating element.
- 6 Insert the new tubular heating element and tighten.
- 7 Plug in the flat plugs belonging to the tubular heating element to be replaced.
- 8 Insert the heating coil.  
See ► Inserting the heating coil, □ 38

#### ► Inserting the heating coil

- 1 Insert the heating coil.
- 2 Screw in the 8 hexagon socket screws and tighten them.
- 3 Connect the connection cable.  
See 4.2 Connection diagrams for heater, □ 22
- 4 Close the heater housing.  
See ► Closing the MEGA housing, □ 28

## 6.4 Troubleshooting

Error	Reason	Solution
It takes the heater a long time to heat up the cabin.	Some tubular heating elements are defective.	Replace the tubular heating element or heating coil. See 6.3 Replacing the tubular heating elements, 36
	There is not enough space between the stones.	Reshuffle the stones. See ► Replacing sauna stones, 36
	There is insufficient ventilation.	Install the air inlets. If these are insufficient, add a fan to the openings. See 3.1.2 Air inlets and outlets, 15
The heater is very hot but cannot distribute the heat throughout the cabin.	There is not enough space between the stones.	Reshuffle the stones.

# 7

## 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 shall apply to service operations, including reviewing 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 acknowledgments or deliveries shall not be construed as any form of acknowledgment of such terms and conditions. Ancillary agreements or amendments must be confirmed in writing.

### II. Costs

The customer shall bear 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 shall provide 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 shall 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 shall apply 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 shall cover defective equipment parts, with the exception of normal wear parts. Wear parts shall include, for example, light sources, glass elements, tubular heating elements and sauna heater 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 shall 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.

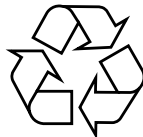
Complaints in respect of our products shall be reported to the responsible distributor and shall be handled exclusively by said distributor.

## General terms and conditions of service

The manufacturer's General Terms and Conditions of Business, in the version available at [www.eos-sauna.com/agb](http://www.eos-sauna.com/agb), shall apply in addition to the foregoing terms and conditions of service.

## 8

## Disposal



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

- Used paper/cardboard
- Plastic foil

### Electronic waste

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

**Service address**

EOS Saunatechnik GmbH

Schneiderstriesch 1

35759 Driedorf, Germany

Tel. +49 2775 82-0

Fax +49 2775 82-431

Web [www.eos-sauna.com](http://www.eos-sauna.com)

Store this address with the Installation and Operating Instructions in a safe place.

Please always provide us with nameplate data, such as model, item number and serial number so we can provide fast and efficient support.

**Date of sale**

**Stamp/retailer signature:**