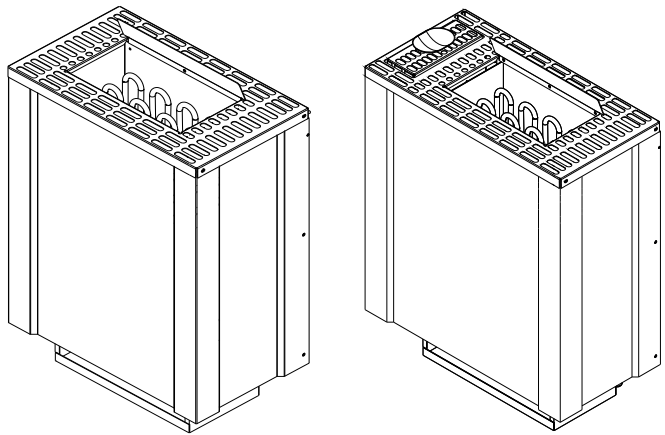


# EOS Filius | Bi-O Filius

Sauna heater



## Installation and operating instruction

Made in Germany

# English

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Dear customer,

You have purchased a high-quality technical device with which you will have years of sauna fun. This sauna heater was designed and inspected according to the current European safety standards and manufactured at the factory in accordance with the quality management standard DIN EN ISO 9001:2015.

This detailed installation and operation manual has been prepared for your information. Please in particular thoroughly read the **important notes** and the information on electrical connection.

We wish you exhilarating recreational experience and lots of fun with your sauna!

## Intended use

This sauna heater is exclusively intended for the heating of sauna cabins in private or commercial use (public sauna), in combination with an appropriate control unit.

Any other use over and above the intended purpose is not considered as appropriate use! Compliance of the standard operation, maintenance and repair conditions is also an element of appropriate use.

The manufacturer cannot be held liable for deviating, unauthorized alterations and any resulting damages: the initiator of these changes bears the full risk.

## General information

Please check whether the unit has arrived in perfect condition. Any transport damages should be immediately reported to the freight forwarder delivering the goods or you should contact the company that shipped the goods.

Please note that you will only be able to achieve an optimum sauna climate if the cabin with its air intake and ventilation, the sauna heater and the control unit are aligned to each other.





Please observe the information and stipulations made by your sauna supplier.





Sauna heaters heat up your sauna cabin using heated convective air. Here, fresh air is drawn in from the air intake which, when heated, rises upwards (convection) and is then circulated within the cabin. Part of the used air is pushed out through the vent in the cabin. This creates a typical sauna climate which can achieve temperatures of approx. 110°C measured directly under the ceiling of your sauna, dropping in temperature to approx. 30-40°C towards the floor. It is therefore not unusual to measure temperatures of 110°C on the temperature sensor hanging over the heater, whilst the thermometer hanging on the sauna wall, approx. 20-25 cm under the cabin ceiling, only indicates 85°C. The bathing temperature generally lies between 80°C and 90°C in the area of the upper bench when the temperature is set to maximum.

Please note that the highest temperatures are always generated over the sauna heater and that the temperature sensor and the safety limiter must be mounted there in accordance with the control unit installation instructions.




When heating up for the first time, you may notice a slight smell caused by evaporating lubricants used in production processes. Please ventilate your cabin before beginning your sauna bath.

## Important notes

-  Unprofessional installation may cause a fire hazard! Please read these installation instructions carefully. In particular, please observe the dimensions stated and the following notes.
- This device can be used by children aged 8 upwards and by persons with physical, sensory, or mental disabilities, or who have inadequate experience and knowledge if they are supervised or if they have received adequate instruction in how to use the device safely and understand the associated risks.
- Children must be supervised to ensure they do not play with the unit.
- Children and persons who have not received proper instruction must not clean or service the system.
-  Only specialists may install and connect the sauna heater, control unit and other electrical equipment with a fixed mains connection. The necessary protective measures according to VDE 0100 of § 49 DA/6 and VDE 0100 part 703/2006-2 must be observed.
- Sauna heater and controller may only be used in sauna cabins made of suitable, low-resin, untreated materials (e.g. spruce).
- Only a sauna heater with the appropriate power output may be installed in the sauna cabin.
- Please provide air intake and vent openings in each sauna cabin. The air intakes must always be positioned behind the sauna heater, approx. 5 to 10 cm above the floor or as described in the installation chapter. The minimum dimensions of the air intake and vent openings are stated in the table.
- The duct vents are always to be positioned offset diagonally to the sauna heater in the lower area of the rear sauna wall. The air intake and vents may not be covered. Please observe the sauna cabin supplier's instructions.
- Only the control units specified herein must be used for the operation of the sauna heater. This control unit must be positioned at an appropriate point on the cabin outer wall; the associated sensor must be positioned inside the sauna cabin according to the installation instructions included with the control unit.
-  **Caution:** Covering the heater or an incorrectly filled stone container represent a fire hazard.
- The sauna heater must be visually inspected before each use (also by remote control) for a safe condition.
-  Inspect the sauna cabin before each use! In particular, ensure that no objects have been stored on the sauna heater or the IR-radiator, if applicable. **Risk of fire!**

-  **Caution:** The high sauna heater temperatures generated during operation can cause burns.
- The sauna heater is not intended for installation or set-up in a niche, under a bench or under a sloping roof.
- Do not put the sauna heater into operation when the air intake is closed.
- The cabin lighting and the corresponding installation must correspond with the "splash protected" version in accordance with DIN EN VDE 0100 T 703. Therefore, only VDE-tested sauna light with max. 40 Watt may be installed in connection with the sauna heater.
-  Only a locally certified electrician may connect the sauna facility (sauna heater, control unit, lighting etc.) to a fixed mains connection.
- All electrical installations and all connection lines that are installed inside the cabin must be suitable for an ambient temperature of at least 170 °C. If single-wire cables are used as connection lines, they must be protected using a flexible metal tube connected to the equipment grounding conductor. Please see the table for the minimum cross-section of the connection cable and the suitable cabin size in relation to the power input in kW.
- When installing the sauna heater, please ensure that the vertical clearance between the sauna heater upper edge and the sauna ceiling is maintained. Please see also the dimensions diagram for the clearance between the lower edge of the sauna heater and the floor. On heaters with bases, this clearance is maintained via the base or legs of the device.
- The sauna heater may not be placed on a floor made of easily flammable material (laminated, synthetic flooring, etc.). Ceramic tiles are recommended as a flooring option.
- Floor heating in the sauna cabin increases the surface temperature of the flooring.
- Please see the dimensions information for the respective sauna heater for the clearance between the heater protective grating or the bench and other flammable materials. The heater protective grating must roughly accord with the front height of the sauna heater.
- Please also observe the information and instructions provided by the cabin manufacturer.
-  Please take precautions when cleaning components with sharp edges.
- Upright heaters need to be fitted on site with elements that prevent them from overturning.
-  **Attention:** Pour the infusion water only on the sauna rocks and never any-

where else.

-  When using your sauna in a dry Finnish mode never add sauna essences or place any herbs into the vaporizer holder for essences/herbs. **Fire hazard!**
-  Never add more essences or volatile oils than advised on the packaging. Never use alcohol or undiluted concentrates. **Caution! Fire hazard!**
-  When designing the cabin ensure that the external exposed glass surfaces only reach a maximum temperature of 76°C. If necessary, protective features need to be fitted.
- Please note that the wooden surfaces in the areas exposed to high heat are subject to possible discolourations (e.g. darkening of wood).

## Electrical connection

Using the above-mentioned wiring diagram and the information on the wiring circuit adhered to the respective control system, your electrician will be able to connect the system without further instructions.

Please note that, for safety reasons, power cables may not be laid visibly on the interior walls of the cabin. Most sauna cabins have empty ducts fitted into the wall element with the air intake.

If no empty ducts are available in your cabin, drill a sufficiently sized hole in the cabin wall directly next to the place where the cable exits the sauna heater and guide this cable outside through the hole to the control unit. The cable, and all other connecting cables (mains power cables and cabin lighting), should be installed

in installation ducts or also be protected against damage on the outside of the cabin e.g. by laying them in installation pipes or attaching wood cover strips.

The sauna heater, when made use of time preset and remote control\*, may only be used with an appropriate cover protection or any other safety device.

*\*Remote control – means settings, switching, control and adjustment of the sauna control unit by means of commands transmitted from a remote location beyond sight distance using telecommunication, wire- or wireless signal transmission systems, network and similar systems. (this also includes timers) (from EN 60335-1)*

### **Caution!**

Dear Customer,  
In compliance with the valid regulations, only certified electricians may connect the sauna heater and the sauna control system to the mains power supply.

Please note that you must provide a copy of the invoice from the electrical company who installed the sauna in case of a warranty claim.

To preserve the right of a warranty claim, only original spare parts of the manufacturer may be used.

## Scope of delivery Filius W / Bi-O Filius W

The scope of delivery includes:

1 sauna heater

1 accessory bag with

1 radiant panel

1 cable gland

4 sheet metal screws 4 x 25

3 sheet metal screws B 4,2 x 9,5

2 chipboard screws

Installation and operation manual

## Technical Data

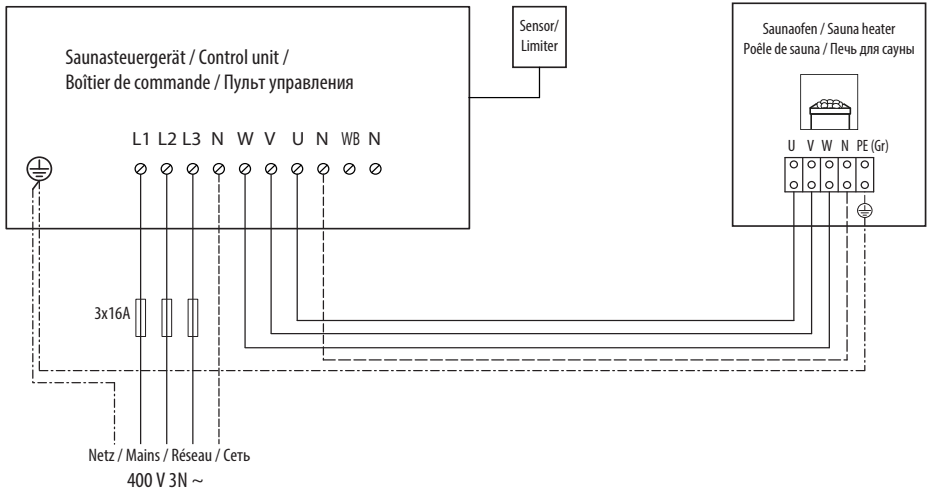
Power supply	400 V 3N ~ 50/60 Hz		
Power output	4,5 kW	6,0 kW	7,5 kW
Suitable for sauna cabin size	4 - 6 m <sup>3</sup>	6 - 8 m <sup>3</sup>	7 - 10 m <sup>3</sup>
Min. size air inlet and air outlet	35 x 11 cm		
Weight, excl. stones / packaging	18 kg		
Dimensions H x W x D (Filius)	57 (75*) x 40 x 24 cm		
Dimensions H x W x D (Bi-O Filius)	57 (75*) x 47 x 24 cm		
Stone filling	8 kg (not included)		
Vaporizer output ( <b>Bi-O Filius</b> )	0,75 kW		
Vaporizer tank volume ( <b>Bi-O Filius</b> )	2,0 l		
Power extension required (LSG unit)	no		
Suitable sauna control units	Econ-H-series, EmoTec H, EmoStyle H/Hi, EmoTouch 3		
Leakage current	max. 0,75 mA per kW heating power		
Intended use	Sauna heater for private sauna cabins		
Fuse control unit in A	3 x 16 A		
Connection cable main - control unit	5 x 2,5 mm <sup>2</sup>		
Connection control unit - heater ( <b>Filius</b> )	5 x 1,5 mm <sup>2</sup>		
Connection control unit - heater ( <b>Bi-O Filius</b> )	1St. 5 x 1,5 mm <sup>2</sup> / 1St. 4 x 1,5 mm <sup>2</sup>		

All cross sections of a line are minimum diameters in mm<sup>2</sup> (Copper line)

\* Height of device with 18 cm up from the floor

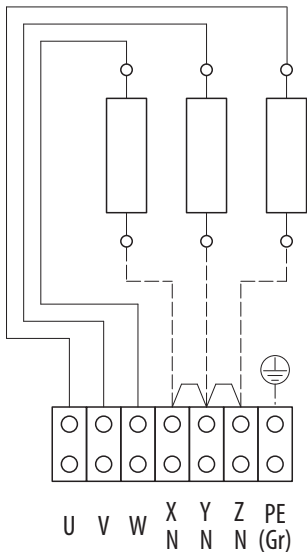
# Connection example of a sauna system with Filius W (400V 3N ~)

The sauna heater has the default power supply 400V 3N AC through the appropriate sauna control unit.



**⚠ Caution!** Always connect the neutral wire N.

## Wiring diagram



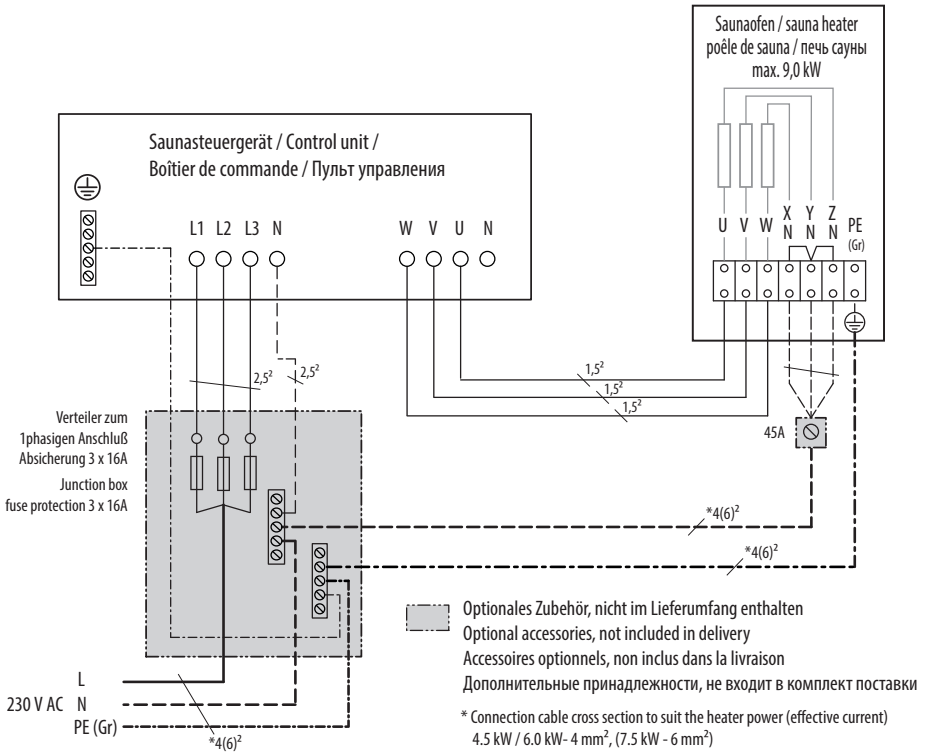
4,5 kW = 3x 1500 W

6,0 kW = 3x 2000 W

7,5 kW = 3x 2500 W



## Connection example of a sauna system with Filius W (230V 1N ~)



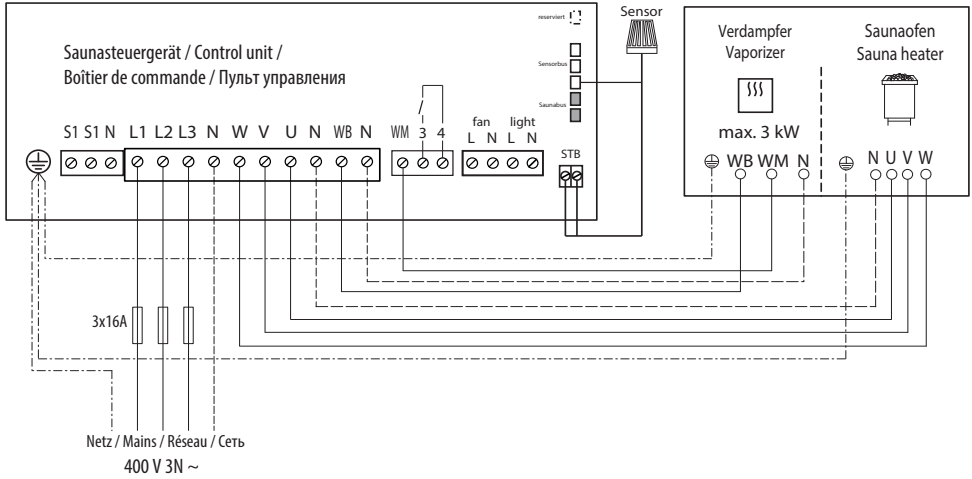
**Attention!** By connection to a 230V 1N ~ make sure that both the sauna heater and the control unit are suitable for such connection. Make sure to use a proper fuse protection and suitable connection cable. Risk of fire and damages to hardware by improper connection!

## Specifications for 230V 1N connection

Power rating per DIN	Electrical connection	Fuse protection for control unit	Connecting cable mains - control unit in mm <sup>2</sup>	Connecting cable control unit - heater in mm <sup>2</sup>	Connecting cable N heater - N mains in mm <sup>2</sup>	Connecting cable PE (Gr) heater - PE (Gr) mains in mm <sup>2</sup>	For operation with control units
4,5 kW	230 V 1N ~ 50 Hz	3 x 16 A	3 x 4 mm <sup>2</sup> (5 x 2,5 <sup>2</sup> )	3 x 1,5 mm <sup>2</sup>	3 x 2,5 mm <sup>2</sup>	4 mm <sup>2</sup>	Econ D-Serie Compact D EmoTec D EmoStyle D EmoTouch
6,0 kW			3 x 4 mm <sup>2</sup> (5 x 2,5 <sup>2</sup> )	3 x 1,5 mm <sup>2</sup>	3 x 2,5 mm <sup>2</sup>	4 mm <sup>2</sup>	
7,5 kW			3 x 6 mm <sup>2</sup> (5 x 2,5 <sup>2</sup> )	3 x 1,5 mm <sup>2</sup>	3 x 2,5 mm <sup>2</sup>	6 mm <sup>2</sup>	

All cross sections of a line are minimum diameters in mm<sup>2</sup> (Copper line)

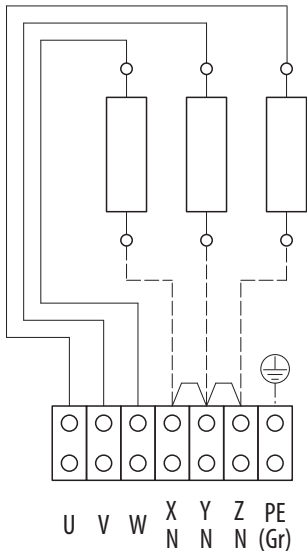
# AnsConnection example of a sauna system with Bi-O Filius W (400V 3N ~)



**⚠ Caution! Always connect the neutral wire N.**

## Wiring diagram

### Sauna heater

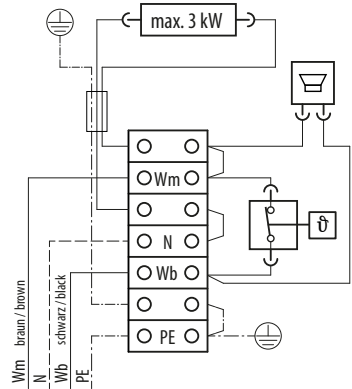


4,5 kW = 3x 1500 W

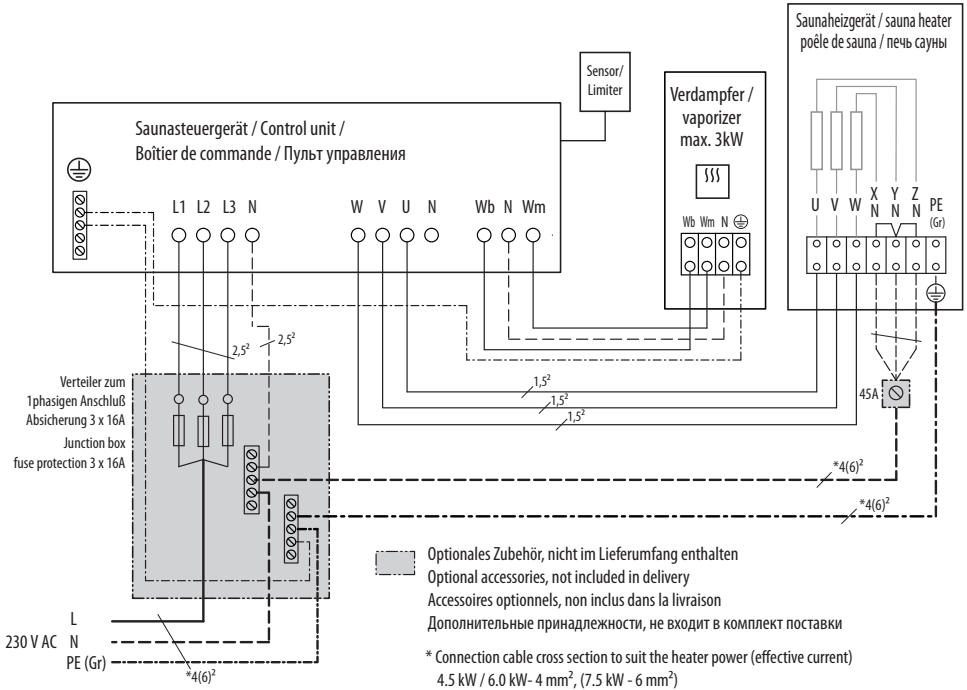
6,0 kW = 3x 2000 W

7,5 kW = 3x 2500 W

### Vaporizer



## Connection example of a sauna system with Bi-O Filius W (230V 1N ~)



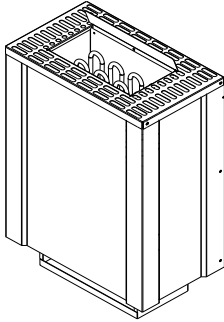
**Attention!** By connection to a 230V 1N ~ make sure that both the sauna heater and the control unit are suitable for such connection. Make sure to use a proper fuse protection and suitable connection cable. Risk of fire and damages to hardware by improper connection!

## Specifications for 230V 1N connection

Power rating per DIN	Electrical connection	Fuse protection for control unit	Connecting cable mains - control unit in mm <sup>2</sup>	Connecting cable control unit - heater in mm <sup>2</sup>	Verbindung Steuergerät - Verdampfer	Connecting cable N heater - N mains in mm <sup>2</sup>	Connecting cable PE (Gr) heater - PE (Gr) mains in mm <sup>2</sup>	For operation with control units
4,5 kW	230 V 1N ~ 50 Hz	3 x 16 A	3 x 4 mm <sup>2</sup> (5 x 2,5 <sup>2</sup> )	3 x 1,5 mm <sup>2</sup>	4 x 1,5 mm <sup>2</sup>	3 x 2,5 mm <sup>2</sup>	4 mm <sup>2</sup>	Econ D-Serie Compact D EmoTec D EmoStyle D EmoTouch
6,0 kW			3 x 4 mm <sup>2</sup> (5 x 2,5 <sup>2</sup> )	3 x 1,5 mm <sup>2</sup>	4 x 1,5 mm <sup>2</sup>	3 x 2,5 mm <sup>2</sup>	4 mm <sup>2</sup>	
7,5 kW			3 x 6 mm <sup>2</sup> (5 x 2,5 <sup>2</sup> )	3 x 1,5 mm <sup>2</sup>	4 x 1,5 mm <sup>2</sup>	3 x 2,5 mm <sup>2</sup>	6 mm <sup>2</sup>	

All cross sections of a line are minimum diameters in mm<sup>2</sup> (Copper line)

# Installation of the Filius W



The sauna heating unit is designed for a default supply voltage of 400 V AC 3N.

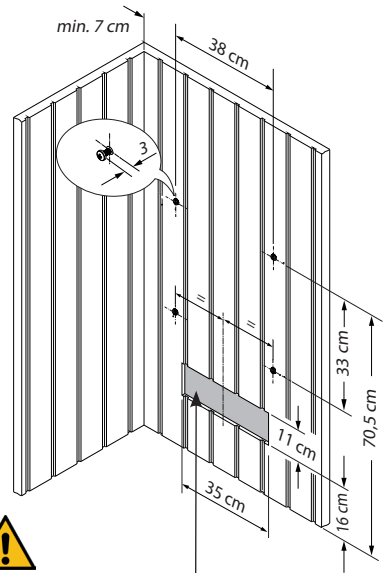
Connection to a 230V 1N AC power supply is only possible with a compatible version, including a compatible sauna control unit and under observation of a special connection scheme.

## Minimum clearances

The sauna cabin interior must be at least 1.90 m in height.

Maintain at least 100 cm clearance between the upper edge of the heater and the cabin ceiling.

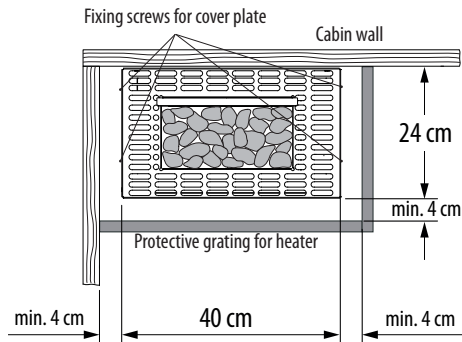
1. Screw 4 fixing screws acc. Fig. 2 centrally into the cabin wall over the air inlet opening so that there is still 3 mm clearance between the wall and the screw head.



Air intake absolutely essential

**Fig. 2**

in the middle of the drip pan (Detail view see Fig. 2a)

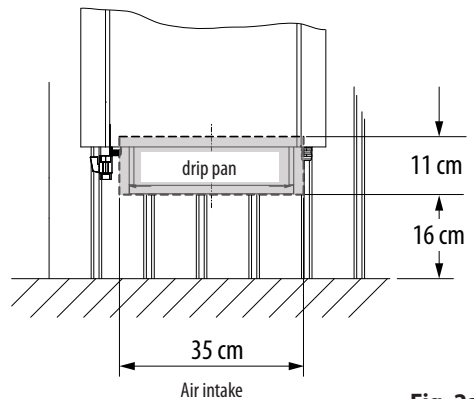


**Fig. 1**

The heater protection is not part of the delivery and must be provided by the cabin builder.

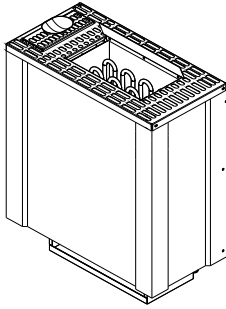
## Detail view (to Fig. 2)

Oven in front of air inlet



**Fig. 2a**

# Installation of the Bi-O Filius W



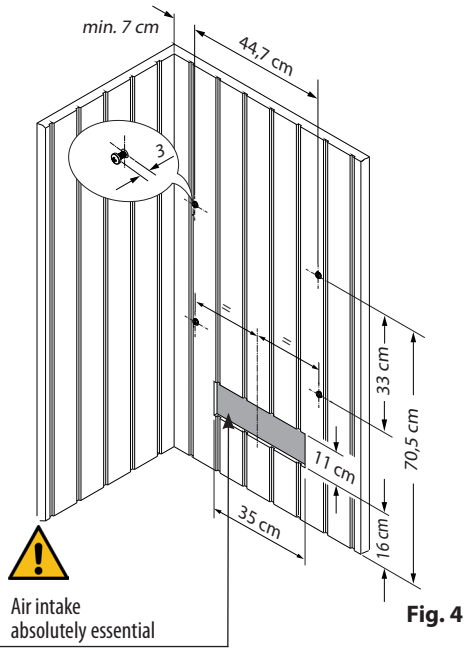
The sauna heater has been designed for a connection voltage of 400 V AC 3N via a sauna control unit.

## Minimum clearances

The sauna cabin interior must be at least 1.90 m in height.

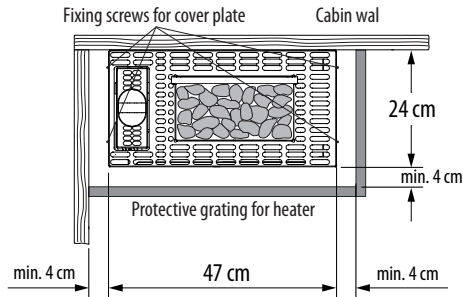
Maintain at least 100 cm clearance between the upper edge of the heater and the cabin ceiling.

Screw 4 fixing screws acc. Fig. 2 centrally into the cabin wall over the air inlet opening so that there is still 3 mm clearance between the wall and the screw head.



Air intake absolutely essential

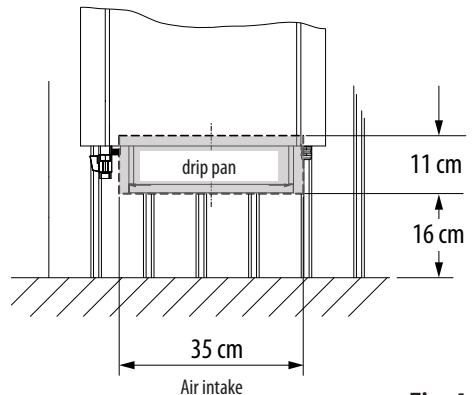
in the middle of the drip pan (Detail view see Fig. 4a)



The heater protection is not part of the delivery and must be provided by the cabin builder.

### Detail view (to Fig. 4)

Oven in front of air inlet



## Connection Filius / Bi-O Filius

- ▶ In order to connect the power supply cable first undo both screws as shown in fig. 3 and pull the terminal block downwards (fig. 3a).

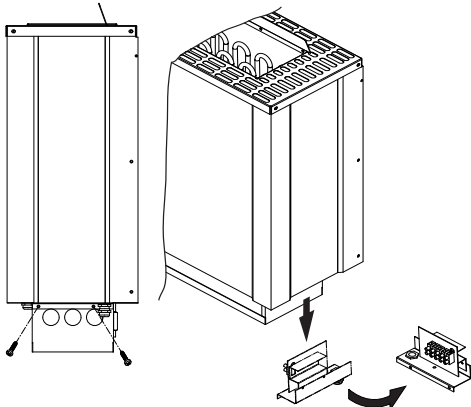


Fig.3

Fig.3a

- ▶ Make the cable connections according to the wiring diagram. The corresponding wiring diagram is given in this manual.
- ▶ Install the terminal block back into the original position in the heater and fasten it with two screws.

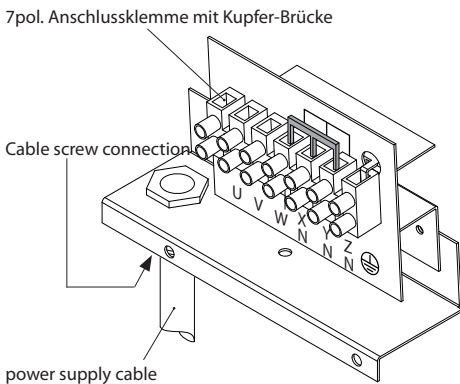


Fig. 4

- ▶ The terminals for connection of the vaporizer are placed on the left side of the heater. Make the cable connections to the vaporizer as described above. (page 10)

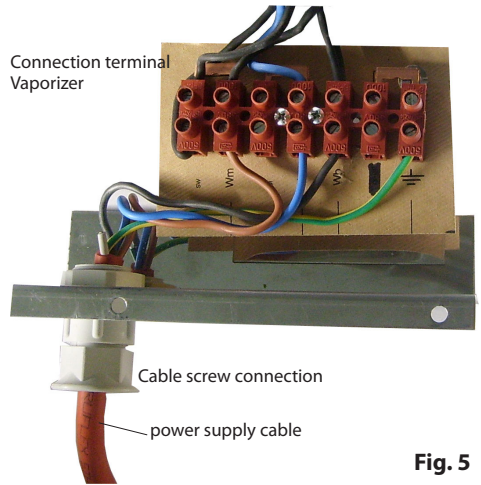


Fig. 5

- ▶ Hook the sauna heater with the rear wall receiving slots onto the fixing screws.
- ▶ Secure the heater on the sauna wall behind it using 2 screws through the holes in the rear upper edge of the heater (see fig. 6) or alternatively secure it to the side wall, as shown on fig. 7.

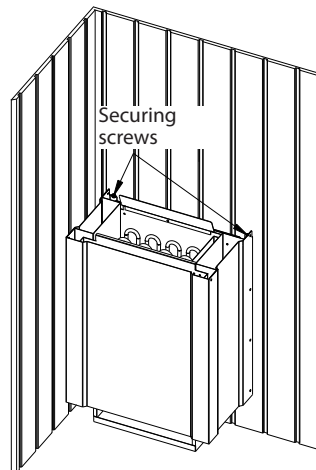


Fig. 6

1. Screw the supplied reflector shield as shown in pic. 10 with 3 screws 4.2 x 9.5 and the 2 Securing screws.

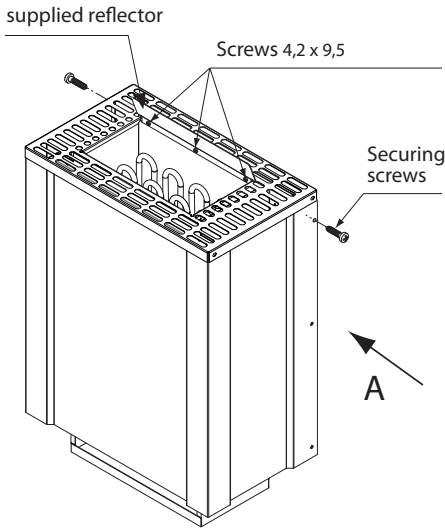


Fig. 7

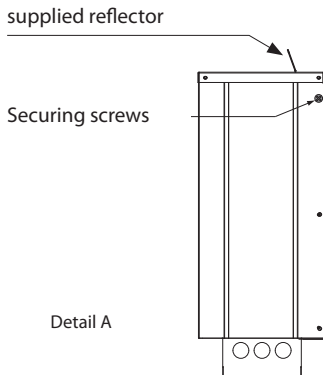


Fig. 7a

## Sensor installation

In contrast to the information on sensor installation in the installation instructions for your sauna control unit, the sensor for this heater is mounted centrally above the heater on the cabin wall, 5 cm below the ceiling (Fig. 8)

Start up the sauna heater according to the connection diagram of your sauna control unit.

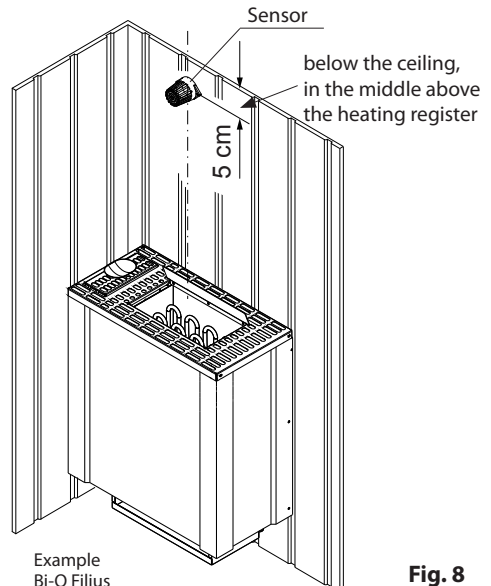


Fig. 8



### Fire hazard from overheating

A non-approved radiant panel causes a fire hazard.

2. After that put the cover panel back on and secure it with 4 screws.



### Fire hazard from overheating

An incorrect position of the temperature sensor can lead to overheating because a lower temperature is measured than actually prevails in the cabin. As a result, the oven receives the signal to continue heating even though the desired temperature has already been reached.

- ▶ Install the sensor as shown in Figure 8.
- ▶ Ignore any information to the contrary in the instructions for the sauna control unit.

## Commissioning

Start up the sauna heater according to the user instructions of your sauna control unit.

## 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.



# Replacment of heating elements

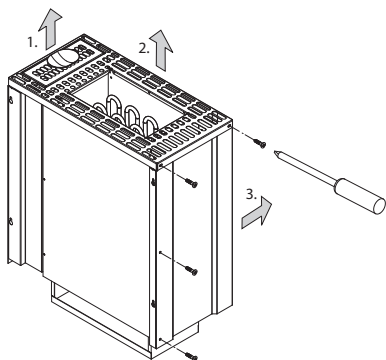


Fig. 1

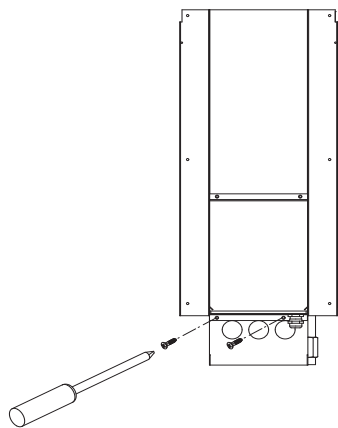


Fig. 2

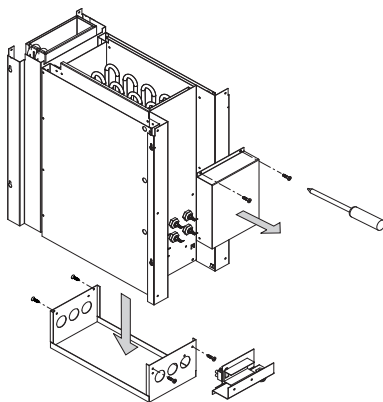


Fig. 3

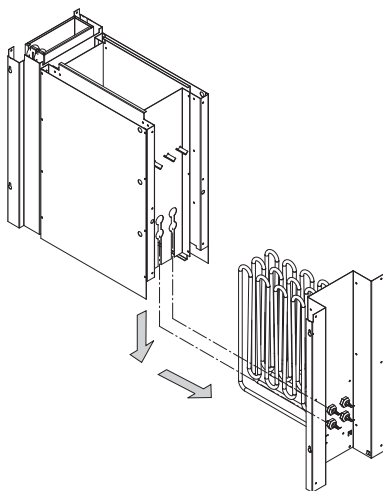


Fig. 4

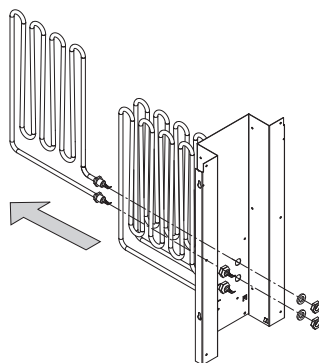


Fig. 5

# Vaporizer position change (left / right)

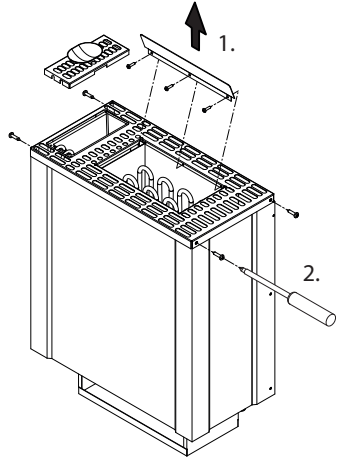


Fig. 1

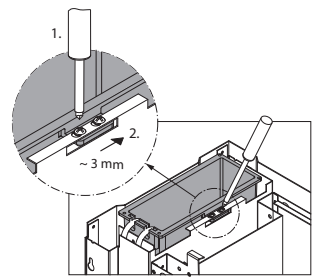


Fig. 4

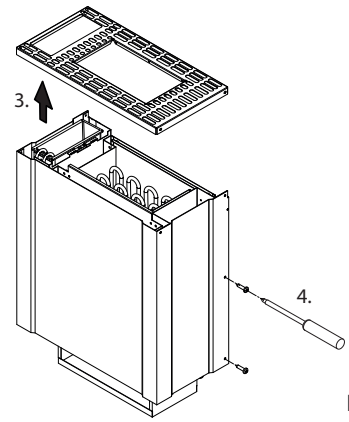


Fig. 2

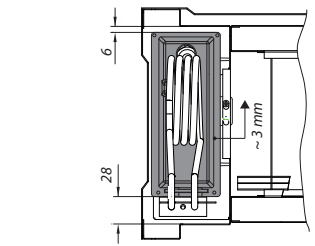


Fig. 5

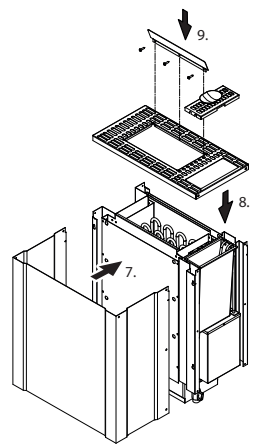


Fig. 6

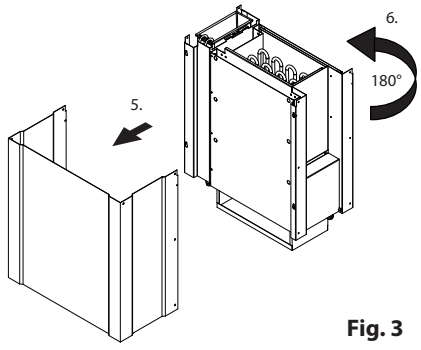


Fig. 3

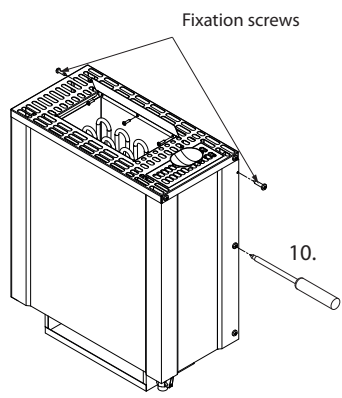



Fig. 7

## Operation with vaporizer

### (only for Bi-O / Vapor heaters)

 Please clean the vaporizer in advance before the first use.

All parts and joints in contact with water should be inspected regularly for defect in liquid tightness during servicing and maintenance.

The control of the temperature and humidity of the vaporizer is managed by the control unit. The humidity level is controlled either proportionally (time basis) or in the case a humidity sensor is connected it is controlled basing on the relative humidity value.

Please note that the relative humidity varies greatly due to the varying temperature distribution in the cabin. The readings of the hygrometer and the readings at the control unit can for that reason be very different.

Make sure that sufficient water is in the water tank of the vaporizer before use.


Please fill the vaporizer tank up to a max of four centimetres below the upper edge respectively until the marking „MAX“ on the display panel.


**Never add essences, oils or herbs directly to the water tank; instead add these to the herbal bowl on the holder of the vaporizer.**


The volatile oils released from essences are carried with the hot rising steam and will be distributed throughout the cabin.

In the case of the low water level in the water tank during operation a buzzing signal indicates the water shortage. To continue your sauna session, you have to refill the tank after a 5 minutes stop of the sauna control or after switching to Finnish (dry) sauna for 5 minutes.


The heating element in the vaporizer must cool down for 5 minutes before cold water is refilled.


 Never pour water on the glowing heating elements. Besides of the danger of scald, the heating element could be damaged. Fill in the water up to the upper water level marking.

 Add herbs and essences to the herbal bowl only. **Do not** pour essences into the vaporizer tank!

 By adding essences or any other additives for air humidity, a health hazard cannot be removed. It is advised not to use those additives apart from the recommended ones by the manufacturer of the oven.

If additives are put in the water, this generally leads to a foaming of the water. In this case the water must be drained and the interior of the cold reservoir washed out with a cloth soaked in alcohol or mineral spirits. Even small remainders of essences in the vaporizer will change the natural molecular structure of the water.

 Attention: Risk of scalding at the steam outlet. Essences and herbs are to be placed in the herb dish only.

 Caution by control units with after-heating mode! Never leave herbal bags in the herbal bowl during the after-heating mode after a humid (steam) operation. These may dry out rapidly in this case and a present a fire hazard! For fire safety reasons only herbs in perforated aluminium bags may be used.

## De-scaling of the vaporizer

Consult your water company to determine the hardness level of your water. In areas with hardness level 1 (0-8,4° German hardness levels - soft water), the system generally works without special precautions and must be de-scaled only occasionally when necessary.

Should your water lie within the hardness levels 2-3 (8,4-14° German hardness levels - soft water), the vaporizer must be de-scaled regularly (in accordance with the hardness level). Control the vaporizer on regular basis!

To descale the vaporizer add the de-scaling liquid (descalers for household appliances are generally suitable), which is suitable for aluminium, to the water in the vaporizer in accordance with manufacturer's instructions. Bring the water and de-scaling product mixture to a boil for about 10 minutes and allow to cool. After cooling, drain the mixture from the vaporizer and rinse at least twice with clear water. Note also the instructions given by the de-scaling product manufacturer.



### **ATTENTION!**

Please make sure to disconnect the power supply completely by all servicing and maintenance works, by replacement of parts and accessories and by troubleshooting of any operation faults.

## Sauna stones

Sauna stones are a natural product. Check the sauna stones at regular intervals. Aggressive sauna essences can weaken the sauna stones and cause them to break apart over time. Consult your sauna supplier if necessary.

Wash the stones with flowing water thoroughly and put them into the **stone basket** in a way that they do not exercise excessive pressure on the heating elements and that the air can still freely circulate through the stones.

The quantity of stones is sufficient to create a steam shock, vaporizing about 10 cl of water per m<sup>3</sup> cabin volume. Always wait at least 10 minutes after an infusion before repeating it. Only then the sauna stones will re-heat sufficiently again.

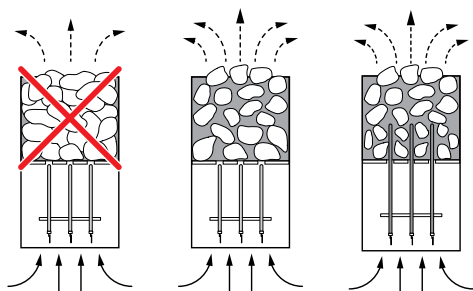
By daily commercial use we recommend to check the condition of sauna stones every 2-3 months and to reshuffle them.

By home use the sauna stones need to be checked and reshuffled at least once per year.

### **Caution! Fire hazard!**

Never add more essences or volatile oils than advised on the packaging. Never use alcohol or undiluted concentrates.

### Filling the sauna heater with stones:



## Maintenance and care

The sauna heating unit is made of low-corrosion material. To enjoy your sauna heating unit for a long time you should ensure maintenance and take due care about the heater. Always make sure that the air supply vents and reflection surfaces in the area of air intake are free. These can easily become clogged with fuzz and dust when drawing in fresh air. This reduces the air convection in the sauna heating unit and can be a cause of too high temperatures.

Clean or de-scale the heater when needed. Refer to your sauna supplier or directly to the manufacturer in case of defects or signs of wear and tear.

Only use original manufacturer's replacement parts, which can be obtained from your supplier or directly from the manufacturer.

**If you did not use your sauna for a long period of time, always check before next use that cloths, cleansers or other objects have not been left on the sauna heating unit or the vaporizer before turning them on.**

### Please be sure to note!

Do not insert sauna stones too tightly in the rock store. Place them loose, leaving as many spaces as possible to allow the free flow of hot air for circulation purposes. Sauna stones should not exercise excessive pressure on the heating elements or be wedged between them.

Remove stones from the sauna heater only when they cooled down.

It cannot be excluded that hot stones or parts of them fall out of the rock store.

**Risk of fire!**

**For the installation of sauna heaters, please pay attention to the DIN VDE 0100 part 703 or the corresponding national norms and legal requirements, e.g. UL875 norm!**

This standard makes the following statement valid in your newest expenditure, since February 2006, paragraph 703.412.05; Quotation:

*The addition must be planned for all electric circuits of the Sauna by one or more fault current protection device (RCDs) with a calculation difference stream not more largely than 30 mA, excluded of it is Sauna heating.*

The EN 60335-1 DIN (VDE 0700 part 1):2012-10 states the following in paragraph 13.2; quote:

*The leakage current may not exceed the following values during operation:*

*- for stationary heaters of protection class I 0,75 mA; or 0,75 mA each kW input of the appliance, depending on the higher value, at a maximum value of 5 mA.*

If the appliance is equipped with a protective device for leakage current (ELCB), please pay attention to the fact that no other electrical units will be protected by this ELCB.

Under current manufacturing technology, it is not reasonable to use heating elements for sauna heaters which do not collect moisture from the surrounding air. It is therefore possible that a little bit of moisture from the surrounding air may reach the magnesium-oxide filling in the heating elements during transport or storage and may cause the ELCB to release.

In this case the heater must be heated up under supervision of an expert, during which the Ground conductor is not connected. After about 10 minutes, when moisture has evaporated from the heating elements, the heater must be reconnected to the Ground conductor!

If the sauna heater is not in use for a significant period of time, we recommend running it every 6 weeks, so as to avoid moisture concentrating in the heating elements.

Therefore, should the ELCB be released during start-up, the electrical installation must be checked.

Installation of the sauna heater and control unit must be undertaken only by an authorized and appropriated qualified electrician.

**Without a documented proof of such installation a warranty is generally void.**

## Recycling



Devices or lighting elements that will not be used any longer have to be handed in at a recycling station according to regulation 2012/19/EU.



Do not dispose it with the normal household waste.

## Packaging

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

- Paper/cardboard
- Plastic foil / plastic

## Electronic waste

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

## Additional disposal note for commercial users:

Further disposal instructions can be found under the link [www.eos.sauna.de/recycling](http://www.eos.sauna.de/recycling)

## Service Address

EOS Saunatechnik GmbH  
Schneiderstriesch 1  
35759 Driedorf  
Germany

Tel: +49 (0)2775 82-514  
Fax: +49 (0)2775 82-431  
[service@eos-sauna.de](mailto:service@eos-sauna.de)  
[www.eos-sauna.com](http://www.eos-sauna.com)

Please retain this address together with the installation guide for further references.

To help us answer your questions quickly and competently please provide the information printed on the type shield including the model, item no. and serial no., in all inquiries.

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Date of sale:

\_\_\_\_\_

Stamp and signature of the authorized dealer:

## General Terms and Conditions of Service

### I. Scope

Unless otherwise agreed in writing in a specific case, these terms and conditions of service shall apply to service operations, including examining and repairing complaints. All our existing or future legal relationships shall be governed solely by the following terms and conditions of service. Our recognition of any conflicting terms and conditions of the Ordering Party shall be conditional upon our having given our express written consent to their applicability. We hereby expressly object to any terms and conditions of the Ordering Party contained in its General Terms and Conditions of Business or order confirmation. If order confirmations or deliveries are accepted without reservation, this shall not be deemed to constitute recognition of such terms and conditions. Any ancillary agreements or amendments must be confirmed in writing.

### II. Costs

The Ordering Party shall bear the following costs in connection with the service operation:

- De-installation/installation and electrical works (connection / disconnection).
- Transportation, postage and packaging.
- Function testing and troubleshooting including inspection and repair costs.

There shall be no third-party billing.

### III. Obligations / Ordering Party's cooperation

The Ordering Party shall provide free-of-charge assistance to the manufacturer in carrying out the service operation.

By an accepted warranty claim the manufacturer shall provide the required replacement parts to the Ordering Party free of charge.

### IV. Service visit by the manufacturer

In the event that it is essential that a manufacturer employee carry out the service operation on site, this must be agreed in advance. Where the main reason for the service call is not the fault of the manufacturer, any costs incurred shall be recharged to the Ordering Party after the service visit and shall be paid as per agreed payment terms.

### V. Liability

The manufacturer shall assume liability in accordance with the currently applicable statutory regulations. The packaging for all of our products is designed for the shipping of individually packed

goods (pallet). We expressly point out that our packaging is not suitable for individual shipments via parcel post. The manufacturer shall accept no liability for damage incurred as a result of improper packaging in an individual shipment.

### VI. Manufacturer's Guarantee

The manufacturer's guarantee shall apply only in the event that installation, operation and maintenance have been carried out in accordance with the manufacturer's specifications contained in the installation instructions and instructions for use.

- The guarantee period shall commence from the date on which proof of purchase is provided and shall be limited, in principle, to 24 months.
- Guarantee services shall be performed only if the original proof of purchase relating to the equipment can be presented.
- Any and all guarantee claims shall become void if modifications are made to the equipment without the manufacturer's express consent.
- Any guarantee claim shall likewise become void in the case of defects that arise due to repairs or interventions made by unauthorized persons or due to improper use.
- In the case of guarantee claims, the serial and article numbers must be indicated together with the product name and a meaningful description of the fault.
- This guarantee shall cover defective equipment parts, with the exception of usual wear parts. Wear parts are, among others, lamps, glass parts, heating elements and sauna stones.
- Only original replacement parts may be used within the warranty.
- Service visits by outside companies shall require a written order to be issued by our service department.
- The equipment in question shall be sent to our service department by the Ordering Party and at its expense.
- Electrical installation and connection works in the event of service or replacement shall be carried out at the Customer's expense and shall not be borne by the manufacturer.

Complaints in respect of our products shall be reported to the responsible authorized dealer and shall be exclusively handled via the latter.

The manufacturers General Terms and Conditions of Business, which can be found at [www.eos-sauna.com/agb](http://www.eos-sauna.com/agb), shall apply in addition to the foregoing terms and conditions of service.

As of 08/2018