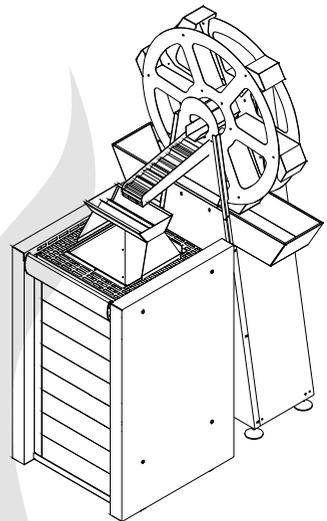


EOS Mill Wheel Mini

for Mill-Sauna



EN Assembly and operating instruction

English

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Preface

Dear customer,
you have purchased a high-quality electronic device with which you will enjoy your sauna & steam bath for many years to come. This device 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. Pay particular attention to the **important notes** and the information on electrical connection.

We wish you a restorative and eventful wellness experience.

General information about sauna bathing

Please note that an optimal interaction between sauna cabin, sauna heater and sauna control unit is mandatory for a pleasant sauna climate in your cabin. With this high-quality sauna control unit you can “operate” your sauna system, and thanks to the many individual programming options, surely you will quickly find the setting which suits you best.

Perception in the sauna is very subjective, therefore, it really requires your own perception or that of your family to find the most suitable settings.

The control units are supplied with the preset typical climate values for a classic Finnish sauna or for models with humidity control, as well as for a sauna with humidity operation.

The following operating instructions describe how to pre-select “your” climate in the cabin. Read these instructions carefully, so that you

quickly and easily find your way through the programming process. Please note the variation in temperatures in the cabin while sauna bathing. The hottest area is directly below the cabin ceiling, whereas there is a steady temperature gradient towards the floor of the cabin. Inversely, the relative humidity is lowest directly below the cabin ceiling and the highest by the cabin floor.

For safety reasons the temperature sensor with the overheat safety shutdown is located on the cabin ceiling above the heater, as this is usually the hottest area in the cabin.

Thus, there will always be temperature variations between the temperature sensor of the control unit and the thermometer in the cabin.

For example, when pre-setting the cabin temperature to 100 °C, the thermometer inside the cabin may show 85 °C - 90 °C. This is in accordance with the typical climate inside the cabin.

Only use sauna-suitable (up to 140 °C temperature-resistant) cabin lights. Always pay attention to hygiene. Always use hand- or bathing towels to avoid getting perspiration on the wood.

For control units with vaporizer connection (optional), we recommend to reheat or dry the cabin after each humid operation, in order to protect your cabin from possible damage due to the humidity mode. In addition, in poorly ventilated rooms, a ventilation fan can be used to remove the used moist air.

To avoid drafts, you should avoid using any ventilation system while sauna bathing. It should only be used if recommended by the cabin manufacturer.

General safety precautions

- This device may be used by children (age 8 and above) and by persons with reduced physical, sensory, or mental disabilities, or inadequate experience and knowledge, if they are supervised or if they have received adequate instructions 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.

-  **ATTENTION:** It is forbidden to install the control box in a closed switch cabinet or behind a wooden panelling!

- The electrical installation may only be done by a qualified electrical technician.
- You must comply with the regulations of your power supply company and applicable VDE regulations (DIN VDE 0100).

-  **WARNING:** Never attempt repairs or installations yourself, as this could result in serious injury or death. Only a qualified technician may remove the housing cover.

- Please note the dimensions in the installation instructions, especially when installing the temperature sensor. The temperature above the heater is critical for the temperature setting. The temperature can

be held within operating parameters and a minimal deviation at the bench level of the sauna cabin can be achieved only if the device is installed correctly.

- The device may only be used as intended as a control unit for sauna heaters up to 9 kW (up to 36 kW when combined with a power extension unit).
- Completely disconnect the control unit from the electrical circuit, i.e. flip all circuit breakers or the main circuit breaker during each installation or repair.
- Please note the safety and installation information from the sauna heater manufacturer.
- Make sure to observe the specifications and instructions of the sauna cabin manufacturer.

-  **ATTENTION:** For control units with remote control functions*, a protection against switching on if the heater is covered is required. (use the suitable cover protection rail or another safety device).

**Remote control = setting up, controlling or adjusting a unit by a command that can be given out of view of the unit by means of transfer media such as telecommunication, audio technology or bus systems, this also includes weekly timers. (from EN 60335-1)*

 When designing the sauna cabin, ensure that the external exposed glass surfaces may only reach a maximum temperature of 76 °C. If necessary, protective features need to be fitted.

 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!**

 **Attention!**

Dear customer,
according to the valid regulations, the electrical connection of the sauna heater and the control box has to be carried out through the specialist of an authorized electric shop

We would like to draw your attention that in case of a warranty claim, you are kindly requested to present a copy of the invoice of the executive electric shop.

 **Attention!**

Only the original spare parts may be used. Any modification of the cables included in the delivery can lead to malfunctions and is not permitted.

Any unauthorized technical alteration makes the product warranty void.

Delivery scope

At first, check device for any damages and for completeness. Any transport damages must immediately be reported to the shipping company or ask the firm responsible for delivery.

Scope of delivery includes:

- stand with column
- mill wheel
- water tank
- cascade
- control unit
- accessory bag

Important Notes

Inappropriate installation or usage could cause fire hazard! Please read this mounting instructions carefully. Pay attention to all measurement specifications and the following notes.

- The mill wheel must only be used in connection with the sauna heating device 34GM 18, 27 or 36 kW and the associated sauna control unit.
- The device has been designed for a connection voltage of 230 V AC.
- The installation and the connection of the device and other electrical utilities must only be carried out by trained technicians. Here, it is especially important to abide by all protective measures necessary according to VDE 0100v. S49DA/6 and VDE 0100 Part 703/2006-2
- **The mill-sauna will be connected to the power supply system via an earthed plug.** All connecting lines to be passed inside the cabin must be suitable for an ambient temperature of min 140 degree. We recommend a silicone line. If single-wired lines will be used as connecting lines, they must be protected by bendable metal pipes
- **Please see that the start button is located outside the cabin.**



Prior to the installation of all individual components all protective foils must entirely be removed.

Installation

Align mill

Put the stator with the column onto the desired place and align horizontally by means of the plate feet.

Use a water-level as supporting instrument.

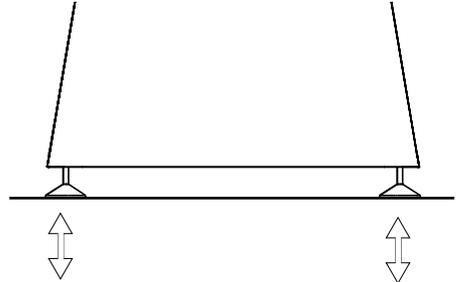


Fig. 1

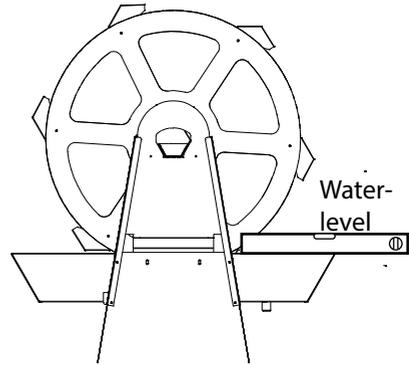


Fig. 2

Install Cascade

The cascade is screwed tight with 2 screws.

Attention!! Tighten the two screws firmly.

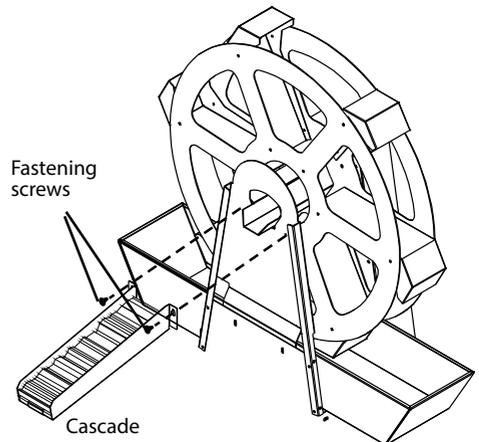


Fig. 3

Install Water Tank

Insert water tank sideways.

Note: Consider position of shovel.

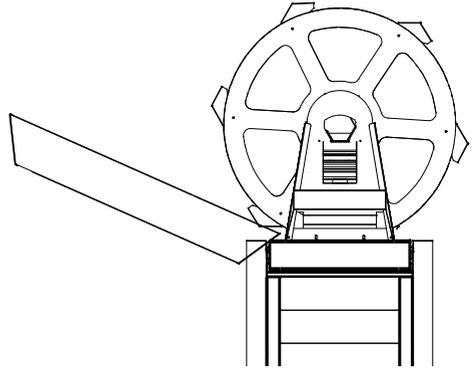


Fig. 4

Mediate the water tank.

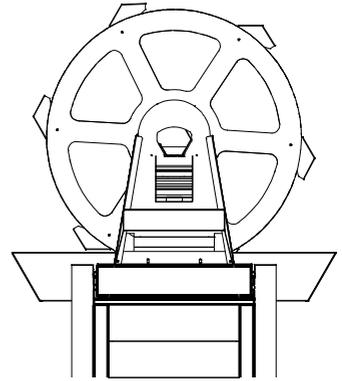


Fig. 5

Non-contact run between cascade inflow channel and mill wheel must be guaranteed (approx. 3-5 mm tolerance).

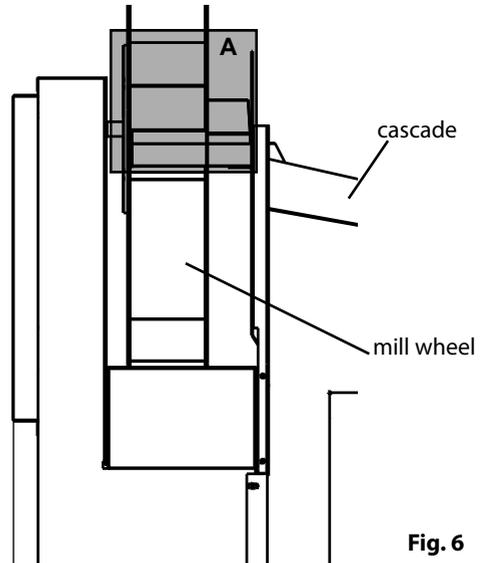
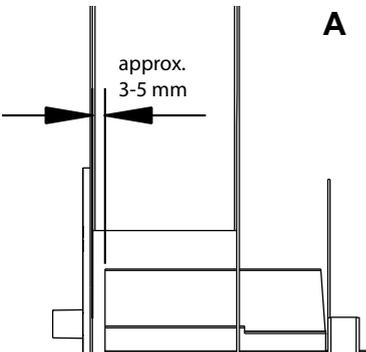


Fig. 6

Place the sauna heating unit (Herkules S60), as shown next in front of the mill wheel as shown

Place the inlet channel over the stone basket, so that the cascade ends centrally above the channel.

The 4 noses on the underside of the inlet trough engage in recesses in the stone basket frame. This prevents the gutter from being inadvertently of the inlet channel is impossible.

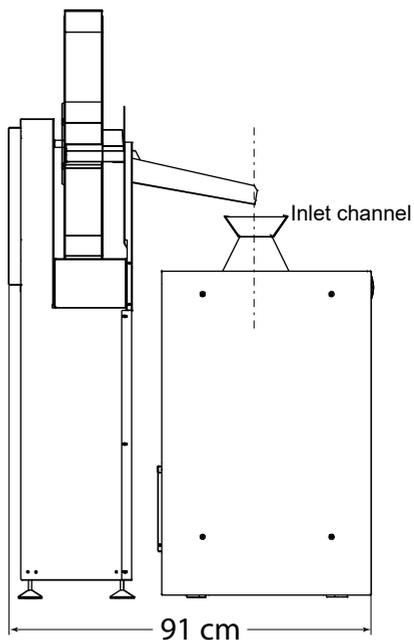


Fig. 7

To ensure an even distribution of the water even distribution of the water, align the gutter with the spirit level

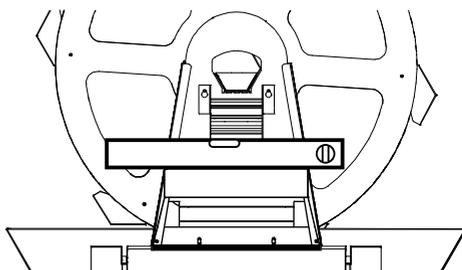


Fig. 8

Set up Fixed Water Connections

Important Notes:

The regulations of EN 1717 and/or DIN 1988 Part 4 must be attended. Appropriate measures must be taken that prevent the water from running back into the drinking water pipeline. For this, especially pipe isolators or system isolators are appropriate. If necessary, ask your drinking water supply company or your local sanitary expert.

Set up Connection Fixed Water Connection - Water Tank

Remove all specified parts from the accessory bag and mount them according to the figure.



Now, using the sealing band the T-piece will be screwed onto the 1/2" nipple on the underside of the fixed water connection, whereas the lock nut, including the inside sealing, will be screwed onto the nipple on the water tank.

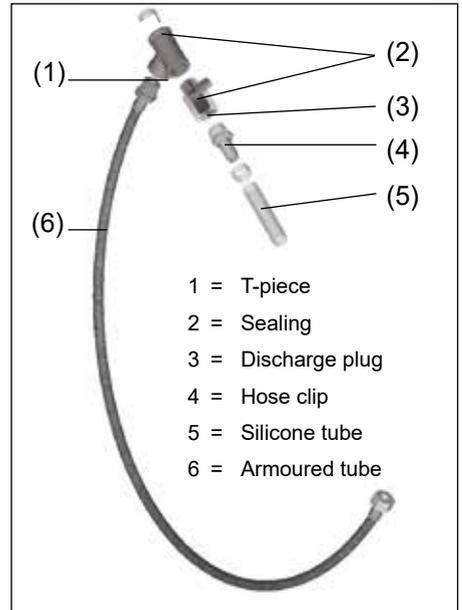


Fig. 9

Connect Fixed Water Connection with Water System On-Site.

 Please note: Between fixed water system and fixed water connection a shut-off cock must be installed. In case the fixed water connection will not be used for any length of time, the shut-off cock is to be closed.

 **Attention: Maximum operating pressure 6 bar**

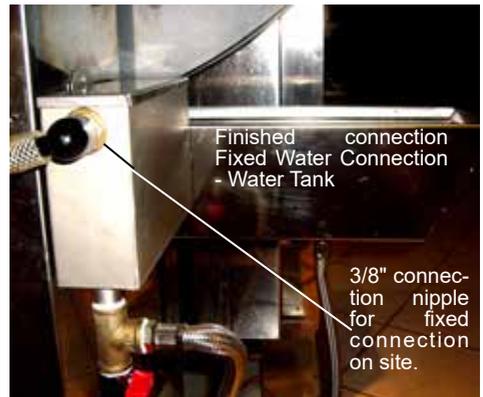
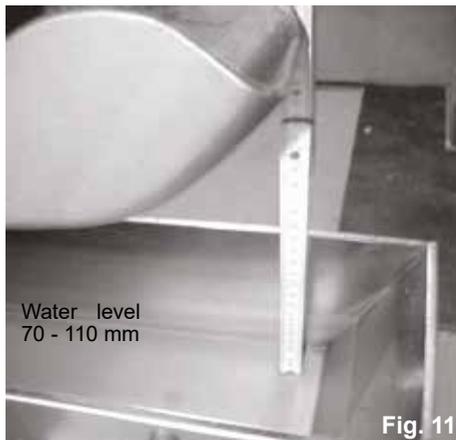


Fig. 10

The system may only be filled with water.
 The water level in the water tank should be between 70 and 110 mm.



The float (1) opens or closes the valve (2) to ensure that the tank remains full.
 The water level can be regulated by turning the float.

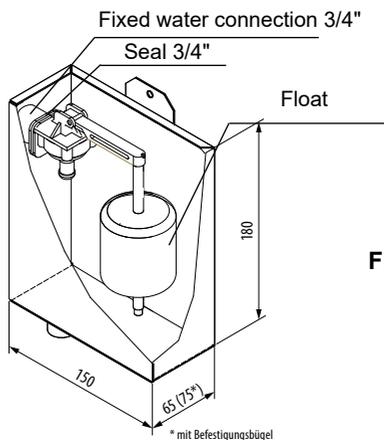
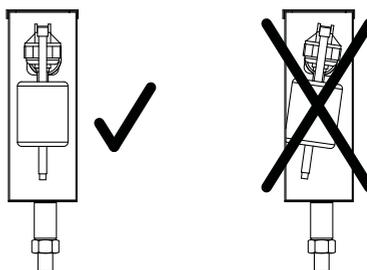


Fig. 12



Fig. 13

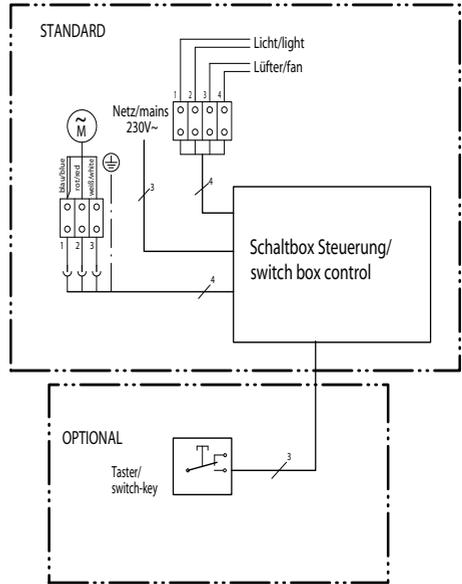


Installation and Connection of Control Unit

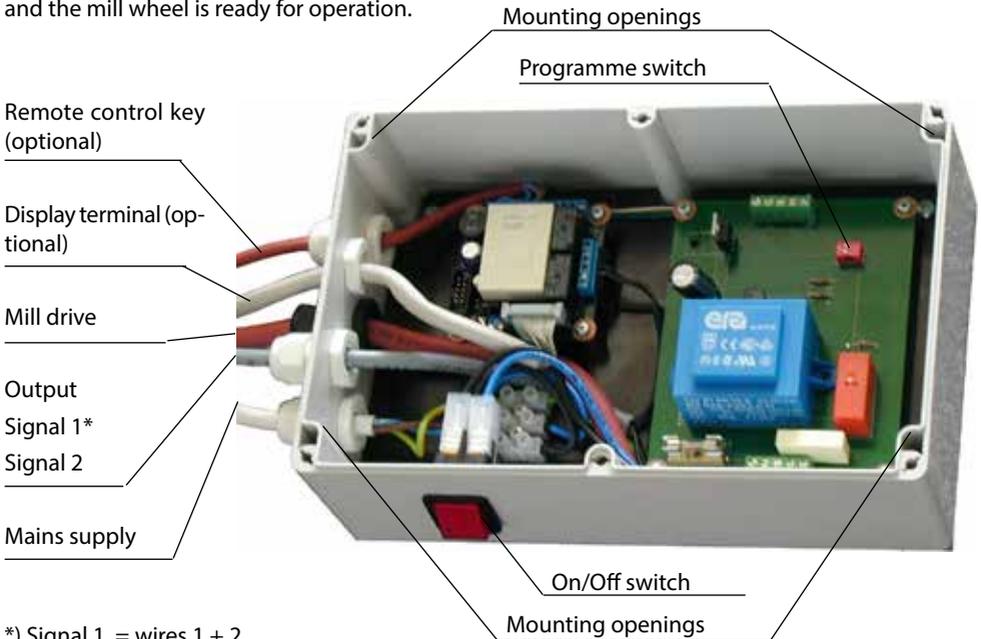
Mount the control unit outside of the cabin.
To this end, open the housing and fit to the intended place with four screws.

Lay the fed line to the mill wheel and connect it to the motor connection on the rear of the mill wheel.

With the 4-wire line, we provide you with the usage of two potential-free contacts (Signal 1 and signal 2). With these contacts, you can switch installations at the place of installation, such as lights or ventilations up to a maximum power input of 2.5 A.



Finally, insert the shockproof plug into a plug and the mill wheel is ready for operation.

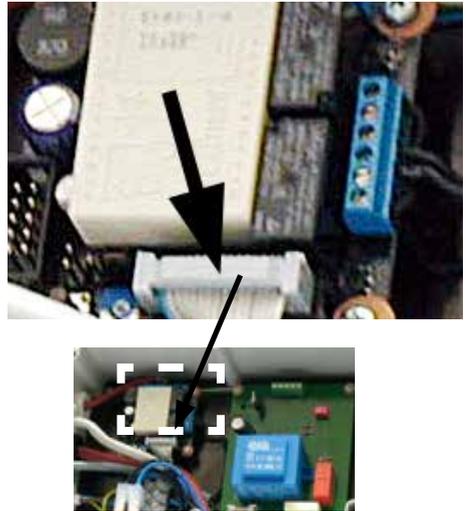


*) Signal 1 = wires 1 + 2
Signal 2 = wires 3 + 4

Electric connection of the display

Lay the feed line to the controls of the mill and lead them through cable opening in the control housing.

Insert the plug of the feeder in the planned socket on the board inside the controls. Please note that the fixing nose fits into the planned nut on the socket.



Mounting instructions for the remote control button (optional Item no. 94.4087)



The button must only be installed outside of the cabin. When using the button inside the cabin, there is a danger of burning.

- Children should be supervised to ensure that they do not play with the unit.
- Protect the button from splash water



Wall mounting

Preferably chose the outside wall of the cabin for mounting. Observe the following instructions for mounting:

Cut the two adhesive tape strips supplied into two equally long parts (40 x 20 mm).

Now fit the two adhesive tape strips at the rear of the button housing at the same distance.



Press the button housing with the affixed adhesive tape against the wall in the desired place of mounting.



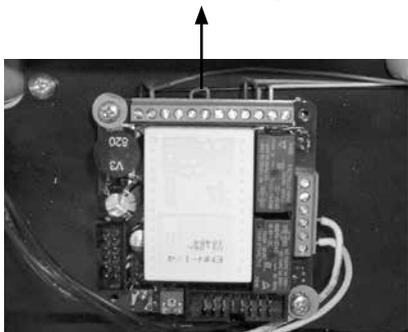
Now pull the button back off again and press the remaining adhesive tape strips down.



Then affix the button again and lead the connection line to the controls

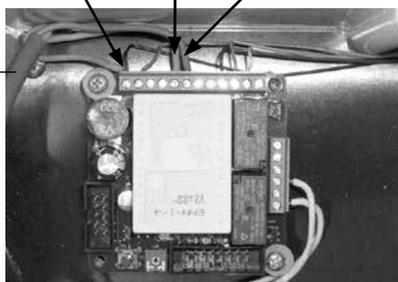
Electric connection of the button

Remove wire bridge



black+blue purple brown

Feeder line
Remote control button



Start - up

Set the controls to the desired mode **when switched off only**

1. Sample program with a running time of 30 minutes.

Programme switch



switch 1 = off
switch 2 = off

Pause time	[Black/White checkerboard pattern]											
Steam shock time	[Black/White checkerboard pattern]											
Signal 1 (Light: "Attention Steam shock")	[Black/White checkerboard pattern]											
Signal 2 (Ventilator)	[Black/White checkerboard pattern]											
Elapsed time in minutes	24	1,5	1	0,1	0,3	1	0,1	0,3	1	0,1	0,3	

2. Sample program with a running time of 45 minutes.

Programme switch



switch 1 = off
switch 2 = on

Pause time	[Black/White checkerboard pattern]											
Steam shock time	[Black/White checkerboard pattern]											
Signal 1 (Light: "Attention Steam shock")	[Black/White checkerboard pattern]											
Signal 2 (Ventilator)	[Black/White checkerboard pattern]											
Elapsed time in minutes	39	1,5	1	0,1	0,3	1	0,1	0,3	1	0,1	0,3	

3. Sample program with a running time of 60 minutes.

Programme switch



switch 1 = on
switch 2 = off

Pause time	[Black/White checkerboard pattern]											
Steam shock time	[Black/White checkerboard pattern]											
Signal 1 (Light: "Attention Steam shock")	[Black/White checkerboard pattern]											
Signal 2 (Ventilator)	[Black/White checkerboard pattern]											
Elapsed time in minutes	54	1,5	1	0,1	0,3	1	0,1	0,3	1	0,1	0,3	

4. Sample program with tracer circuit (Art.Nr. 944087)

Programme switch



switch 1 = on
switch 2 = on

Pause time	Pressing the optional remote switch-key	[Black/White checkerboard pattern]										
Steam shock time		[Black/White checkerboard pattern]										
Signal 1 (Light: "Attention Steam shock")		[Black/White checkerboard pattern]										
Signal 2 (Ventilator)		[Black/White checkerboard pattern]										
Elapsed time in minutes		1,5	1	0,1	0,3	1	0,1	0,3	1	0,1	0,3	



Only switch the mill on when the oven and sauna stones are at operating temperature. This takes approx. 45 minutes.

Switch the mill wheel on using the ON/OFF switch.

The programme procedure starts.

With programme 4 you start the infusion by pressing the optional remote control button at the desired time.

After every infusion, wait approx. 10 minutes until the next infusion. Only then have the sauna stones heated up properly.

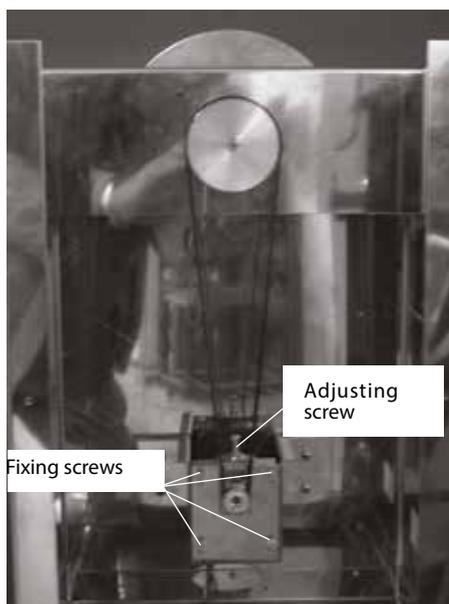
Maintenance

Retightening the Toothed Belt

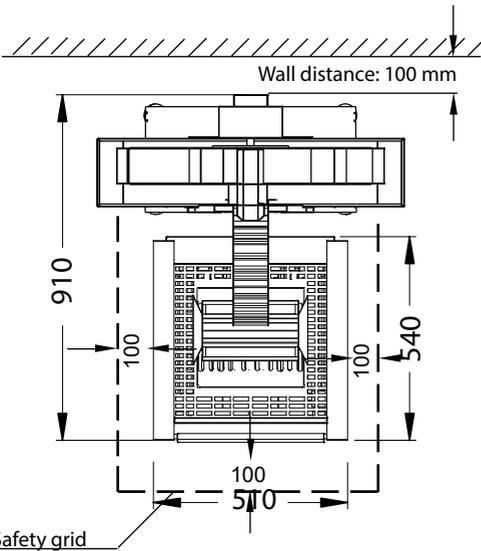
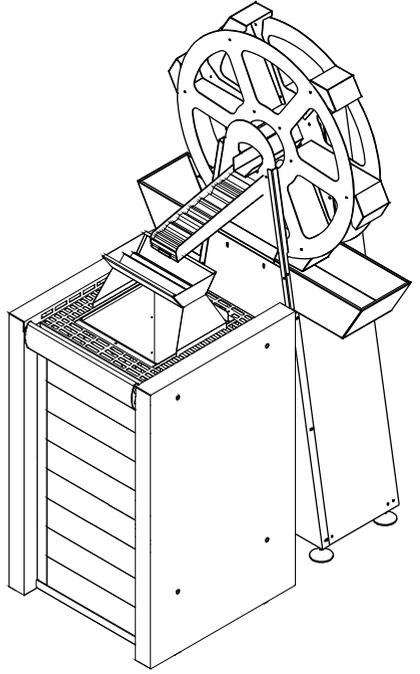
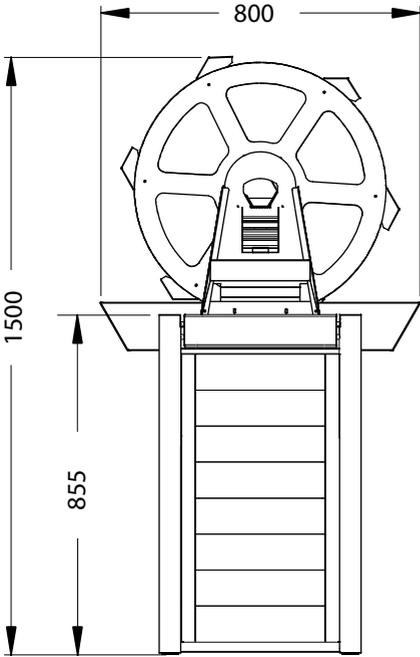
- At first, loosen all 4 fixing screws
- Then, stress toothed belt by means of the adjusting screw.

Note: With soft pressure the belt must only be compressible for max 5mm.

- Finally, retighten all 4 fixing screws.



Dimensions



Service Address:

EOS Saunatechnik GmbH
Schneiderstriesch 1

35759 Driedorf, Germany

Tel: +49 (0)2775 82-514

Fax: +49 (0)2775 82-431

servicecenter@eos-sauna.de

www.eos-sauna.de

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.

Equipment commissioning date:

Stamp and signature of the authorized electrician:

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.

In the case of a 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, shall apply in addition to the foregoing terms and conditions of service.

As of 08/2018