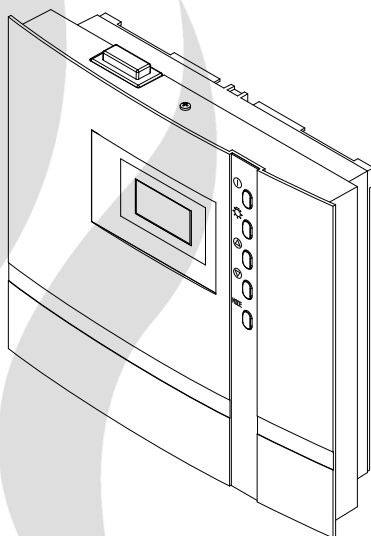


ECON S2

**control unit for steam generator
Steamtec II Basic**



Use exclusively for EOS-steam generator



Installation and operating manual

Made in Germany

CE IP x4

print 29344783 en / 27.16
Technical changes reserved



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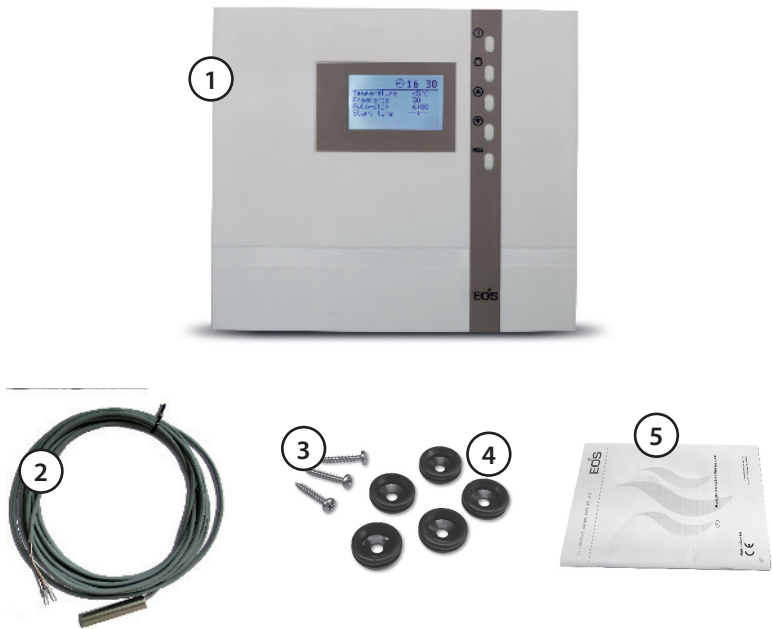
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Delivery scope

- 1. **Econ S2** control unit, only for EOS-steam generator **Steamtec II Basic**
- 2. Temperature sensor including 5 m connection cable
- 3. 3 mounting screws 4 x 25 mm.
- 4. 5 rubber grommets for connection cables
- 5. Installation and operation manual

(changes reserved)



Optional accessories:

Remote button for essence dosing

Essence dosing pump.....item no. 94 6297

Essence container 5 l with level probeitem no. 94.629

Specifications

Power supply:	230 V 1 N AC 50 Hz
Switching capacity:	3 kW resistive load (AC1 operation) with 16 A protection
Heating time limitation:	6 h / 12 h / unlimited (via jumper setting)
Temperature control range:	30°C to 50°C
Temperature sensor:	KTY type in metal housing
Hysteresis:	adjustable range 1K to 5K
Display:	LCD display 65 x 37 mm, multi-line alphanumeric illuminated
Light control output:	230 V, max. 100 W load
Extractor fan output:	230 V, max. 100 W load, unsuitable for fans with starting capacitor, control via phase lead edge
Essence dosing pump output:	230 V, max 100 W load
Ambient temperature (operation):	-10°C to +40°C
Ambient temperature (storage):	-20°C bis +70°C
Protection class:	IPx4 as per EN 60529 water splash proof
Housing:	Plastic, for surface mounting or semi-recessed installation
Size (H x W x D):	220 x 250 x 67 mm (35 mm depth requirement by semi-recessed installation)

Applicable norms:

- 2014/35/EU
- 2014/30/EU
- DIN EN 60335-1
- DIN EN 60335-2-53
- DIN EN 60335-2-98
- DIN EN 60335-2-105
- DIN EN 62233

General information for steam baths

Dear customer,

On purchasing this control unit, you have acquired a high-quality device that was developed and manufactured in compliance with the latest standards and quality guidelines. Please note that perfect interaction of the steam bath cabin, the steam generator and control unit must be guaranteed to achieve the typical pleasant steam bath atmosphere in your cabin. This high-quality control unit is used to 'operate' your steam bath system; its many programming options allow you to quickly find the settings that best suit your requirements.

Everybody experiences the climate in the steam bath differently, which is why you need to find your own individual settings, or those of your family.

The following operation instructions describe how to pre-select "your" climate in the cabin. Read these instructions carefully, so that you can quickly and easily find your way through the programming process.

Please note that there are different temperatures in the cabin of your steam bath.



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

For instance, a pre-selected temperature of 50 °C may show a value of 38°C on your display thermometer. This would then also correspond to the typical climate data in the cabinet.

Only use suitable cabin lights. Always ensure hygienic conditions.

To prevent draughts inside the cabin, try to avoid using the fan function during your steam bath. It should only be used if recommended by the cabin manufacturer.

General Safety Regulations

- This device can be used by children aged 8 upwards and by persons with physical, sensory, or mental disabilities, or persons 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 may not play with this device. **Children** may not clean or carry out any user maintenance if unsupervised.
- **Children** should be supervised to ensure that they do not play with the device.
-  **Caution:** The unit may not be installed in closed switch cabinets or behind closed wooden panels!
- Only qualified electricians may install the device.
- You must comply with the regulations of your electrical supplier and applicable VDE regulations (DIN VDE 0100).
-  **Caution, risk of fatal injuries:** Never carry out repairs or installation work yourself. Only a qualified technician may remove the housing cover.
- Please always observe the dimensions stated in the assembly instructions when installing the temperature sensor. The temperature limit values can only be observed if the assembly work is carried out correctly, and there is a very low temperature fluctuation in the steam cabin.
- The unit may only be used as intended as a control unit for steam generators up to 9 kW. Control units where there is the option of increasing the switching capacity in combination with a power switching unit can be used up to 36 kW.
- The system must be completely disconnected from the mains supply before carrying out any installation work or repairs, i.e. switch off fuses and master switch.
- Observe the safety and installation information provided by the manufacturer of the unit.
- Please also observe the information and instructions provided by the cabin manufacturer.



Caution!

Dear Customer, In compliance with the current regulations, only a qualified electrician may connect the electrical elements of the steam generator or the steam bath control unit.

We would like to remind you that, in case of a warranty claim, you will need to provide a copy of the authorised electronics company's invoice.

Installation of the control unit

Wall installation

The control unit may only be mounted outside the cabin. For sauna rooms it is advisable to select the outside wall of the cabin to which the sauna heater is fixed from the inside as mounting position. If ductwork is already provided for electrical installations then the position of the control unit is predetermined by that. Please follow the instructions for installation:

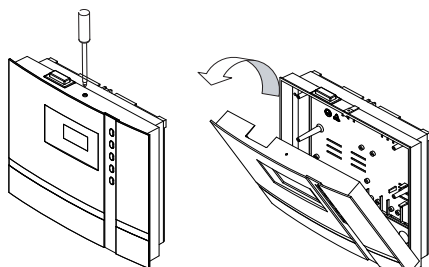


Fig. 1

Remove the control device cover. In order to do this loosen the screw at the top of the housing and pull the housing top upward while swiveling (Fig. 1).

Surface-mounted installation

1. The 3 mm diameter boreholes for the supplied wood screws 4 x 20 mm to be drilled according to the dimensions shown in Fig. 3 + 3.1.
2. Insert one of the wood screws into the top center hole. The control unit is hooked onto this screw. Therefore, leave the screw out by approx. 3 mm (Fig. 3.2).
3. Hook the control unit onto the 3 mm protruding screw in the upper mounting hole. Insert the supplied rubber grommets into the openings at the rear wall of the housing and insert the connecting cable through these openings.

Fasten the housing bottom at the two bottom openings (Fig. 4) firmly to the cabin wall.

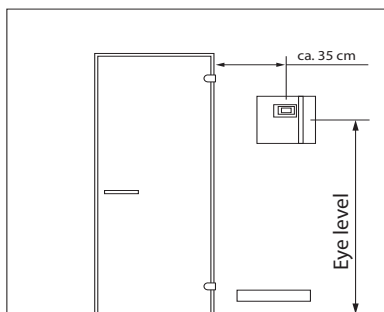


Fig. 3

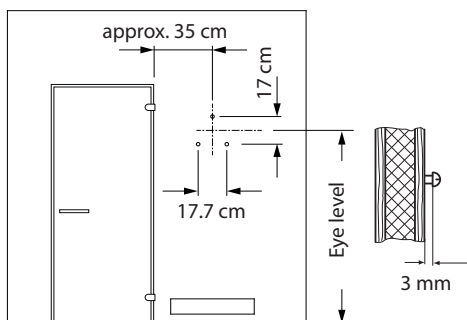


Fig. 3.1

Fig. 3.2

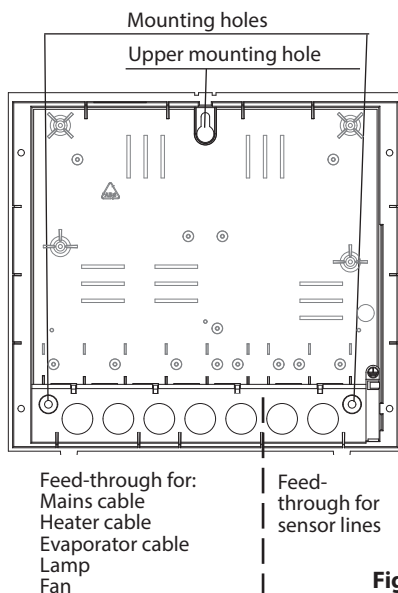


Fig. 4

Recessed installation

1. Cut out a wall section that is at least 3.5 cm deep according to the dimension in Fig. 5.

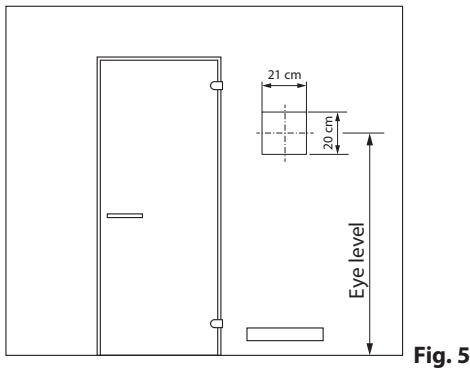


Fig. 5

Insert the supplied rubber grommets into the openings at the rear wall of the housing and insert the connecting cables through these openings.

Place the control unit into the wall opening and fasten it with 4 wood screws.

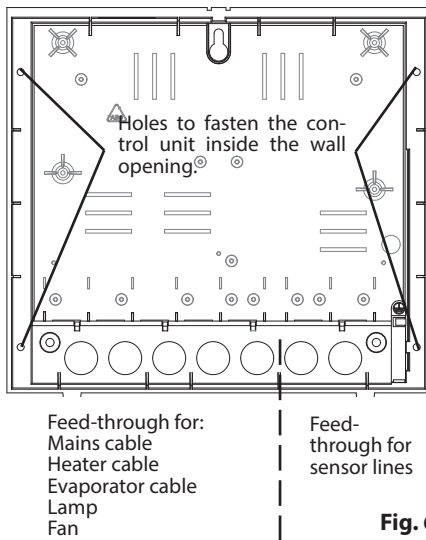


Fig. 6

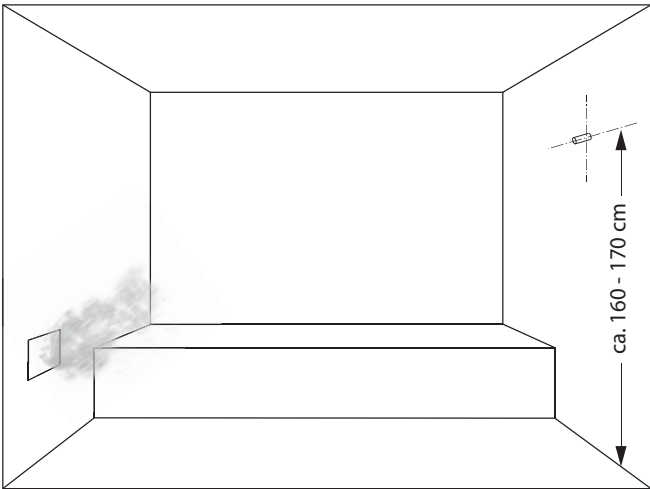
Temperature sensor installation

You should not install sensor and power supply lines together, or lead them through the same duct. Installing these together may lead to malfunctions in the electronics, e.g. error messages.

Any cable shielding (if any) must be connected to the earth in the control unit.

Please note that the following information about sensor position provides only a guideline for the optimal climate and temperature regulation in a standard cabin. Sensor position may vary depending on the cabin situation. Fig. 8-10 provide an overview of the sensor installation.

Sensor position



Optimal position is normally opposite to the steam outlet with approx 2 m gap.

Notice: a too small or too large gap may lead to incorrect temperature control.

Depending on the cabin situation individual testing may be required.

Fig. 8

Sensor installation:

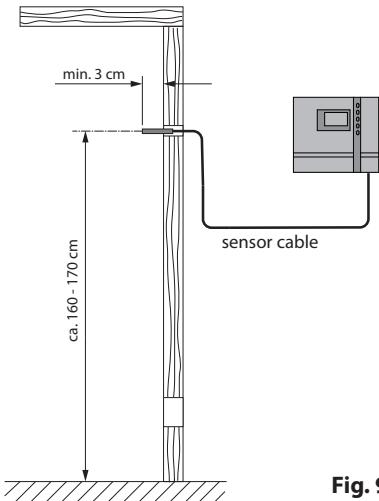


Fig. 9

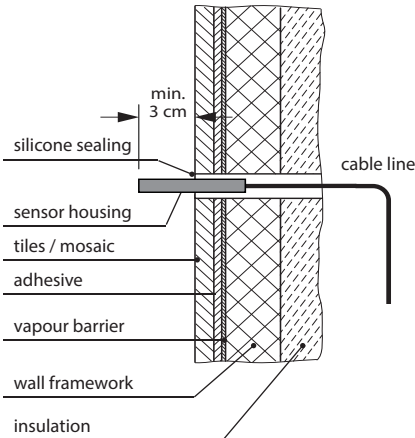


Fig. 10

Electrical connections

The electrical connection may only be done by a certified electrician in compliance with the guidelines of the local utility company and the VDE.

In general, there may be only one fixed connection to the network; therefore equipment should be provided that makes it possible to disconnect the system with all poles from the network with a contact opening width of minimum 3 mm.

All electrical installations and all connection lines that are installed inside the cabin must be suitable for an ambient temperature and should have the adequate humidity protection class.

The power supply line should be drawn to the control unit and connected to the connection terminals as per wiring diagram.



Steam generator connection

The steam generator should be mounted outside steam room as per installation instruction of the manufacturer / supplier.

Draw the connecting cable and make electrical connections as per wiring diagram.

Make sure to observe specific connection details as per wiring diagram for steam generator and control unit.

The general connections overview is shown on page 13.



ATTENTION Danger to life

Do not attempt to install or repair the unit by yourselves. The unit's housing may be opened only by authorized and appropriately qualified electrician.



Cabin light connection



The lamp should have at least IPX6 protection class and should be suitable to the steam room temperature range.

The lamp may be mounted at any place except within the direct range of the steam flow coming out or rising from the steam outlet. For light connection please refer to the wiring diagram.



Extractor fan connection

Only fans with the phase lead edge rotation speed control are suitable. The extractor fan should have at least IPX6 protection class. The fan should not be mounted inside the steam cabin.

Recommended position of the duct vent for air extraction is in the ceiling of the cabin. The position of the duct vent may have an influence on the temperature regulation if the fan is operated during steam production.

Connect the fan as per wiring diagram.

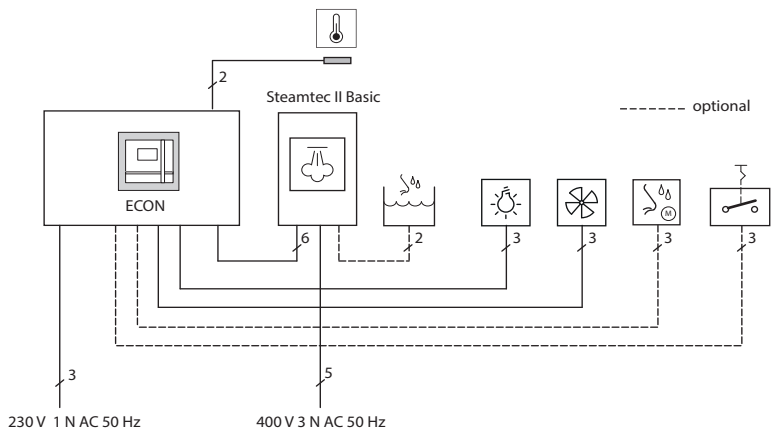
Heating time limitation


The heating time may be limited with the jumper 5 on the main board to max. 6 hours, 12 hours or it may be set to unlimited time.

By jumper setting „unlimited“ the heating should be switched off manually.

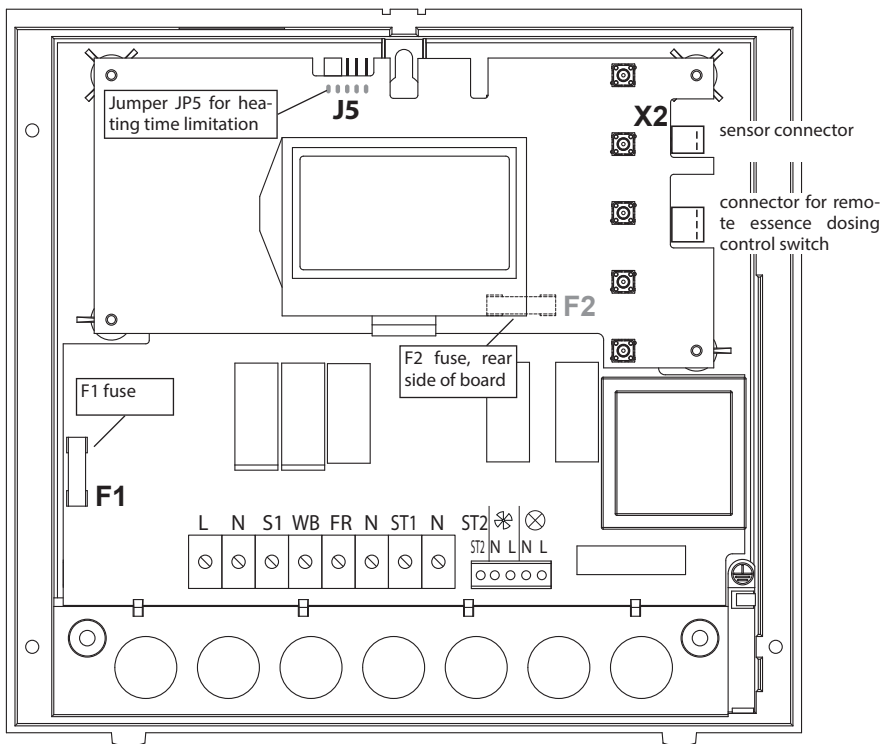
Default setting from factory is “6 hours”.

Connections overview

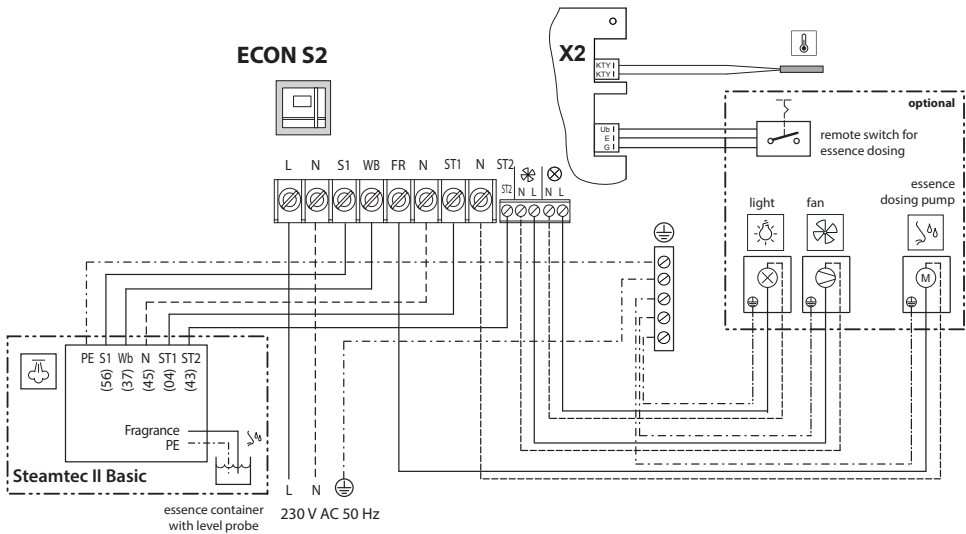


 A control lamp indicating active heating must be installed in the room or location of supervising staff by commercial cabins with disabled heating time limitation.

Main board overview



ECON S2 connection to Steamtec II Basic steam generator



Warning: Always connect the neutral terminal (N) of the steam generator Steamtec II Basic.

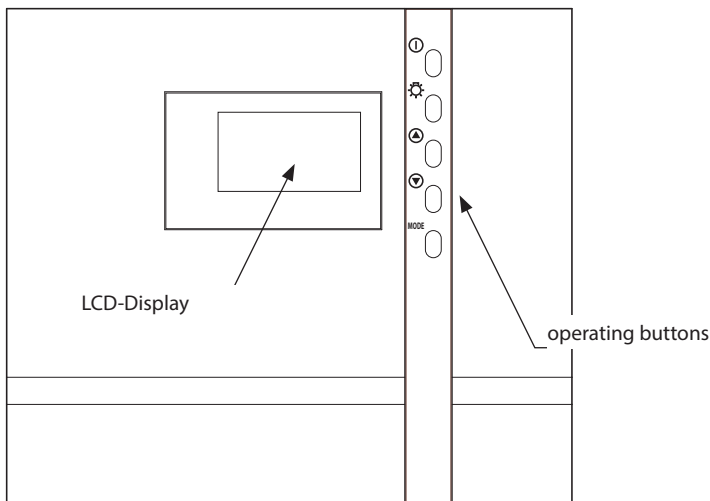
Operation

Once the control unit has been installed with all components and all covers have been fixed, you can put your sauna unit into operation.


The following pages provide the detailed explanation, how to operate your control panel and make all necessary settings.

General Details


Operation elements




Operating buttons

 = Heating on / off (stand-by)

 = Cabin lighting on/off

 = Reduce value / next function

 = Increase value / next function

MODE = Programming mode (settings)

Interface in stand by

is shown if the control unit is in stand-by model
The display will automatically switch this interface from any state if no button has been pressed within >15 sec.

⌚ 12:00	
Temperature	30°C
Auto-stop	5:59
Start time	--:--

Interface during active heating

is shown if the control unit is in active operation mode (heating is switched on).

The display will automatically switch this interface from any state if no button has been pressed within >15 sec (during active heating).

Heating process indication:

During the heating-up phase the bars behind the temperature figures will fill progressively.

Once the pre-set temperature has been reached, the bars will remain filled.

⚙️ ⌚ 12:15	
Temperature	30°C
Auto-stop	5:59
Start time	--:--



Interface in energy-saving mode


If the control unit is not used for a longer time it will switch into the energy-saving mode.


A clock randomly moving across the display every minute will be shown after 5 minutes, similar to a PC screensaver. The backlighting of the display is switched off after an additional 15 minutes

By pressing any key you can wake the unit to the default “Stand-by” interface.

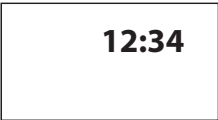
The following applies for all settings:

The following symbols are displayed at the top.


the light symbol
(when the light is on)


the clock symbol


12 : 00current time





In addition, the following symbols are displayed depending on the selected operating mode.

control unit locked (hotel mode)

pre-set timer

Holiday home mode
Holiday park mode (if flashing)

Descaling pending (symbol flashes)

Descaling in progress (symbol flashes)

In order to adjust the individual values to the particular desires, briefly push the **MODE** -button out of Stand-by.

The modifiable parameter will then be highlighted in black and it is possible to select with the ▲ or ▼ - buttons the desired parameter.

⌚ 12:15	
Temperature	30°C
Auto-stop	5:59
Start time	--:--

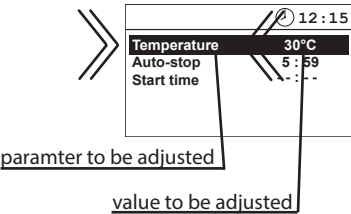
Parameters that flash on the display can be changed and are shown in these instructions as displayed.

By pushing the **MODE** button again you will arrive at the programming level.

The name of the parameter is now flashing and the modifiable value is highlighted in black.

The value highlighted in black can now be changed with the ▲ or ▼ buttons.

All settings out of Stand-by are confirmed by pressing **MODE** >3 sec and are saved in the memory of the unit.



The flashing of the parameter ends and the new value is applied until another change is made.

⌚ 12:15	
Temperature	30°C
Auto-stop	5:59
Start time	--:--

If no button is pressed for >15 seconds the unit switches back to the default display. Changes made up to then will not be saved

Cabin light

The cabin lighting is automatically switched on as soon as the heating is switched on. In the top left of the display the ☀- symbol is shown. When the heating is switched off the cabin lighting will switch off with a delay of 30 minutes.

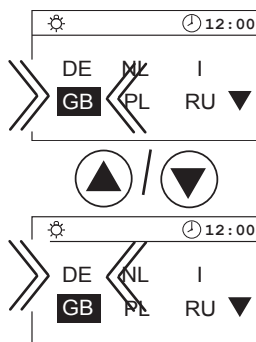
Irrespective of the status of the control unit, the cabin lighting can be switched on or off any-time with the light button ☀.

☀	⌚ 12:15
Temperature	30°C
Auto-stop	5:59
Start time	--:--

Initial commissioning

Language selection

Unit setup starts with language setting. You can choose from 12 languages. Use up/down button to select language, press “mode” for 3 sec to confirm.

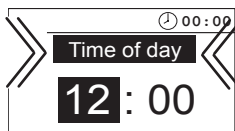
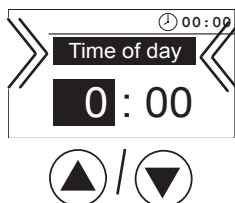


MODE > 3 Sec

Time setting

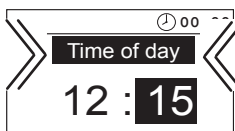
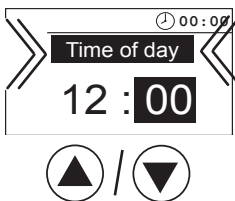
Set the time of day.

First set hours. Use up/down button to select value and press “mode” shortly to confirm.



MODE

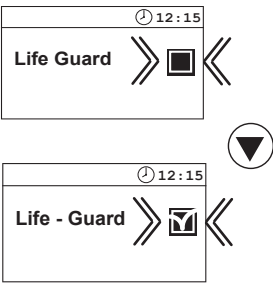
Now set minutes. To confirm time setting press “mode” for 3 sec.



MODE > 3 Sec

Life-Guard setting

To enable Life-Guard use “down” button to check the selection box. Do disable Life-Guard leave the selection check-box empty and press “mode” button for 3 sec to confirm setting.

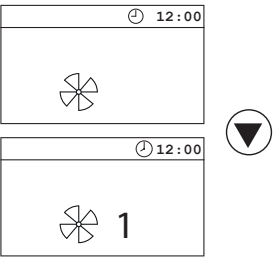


MODE > 3 Sec

Fan setting

Set the fan operation mode by selecting the setting value from 0 to 2.

- 0 = fan runs only after heating (cabin dry program)
- 1 = fan is on during steam off intervals (active heating) + fan runs after heating (cabin dry program)
- 2 = fan is always on if heating is on, + fan runs after heating (cabin dry program)



adjustable
0 - 2

Press “mode” for 3 sec to confirm setting.

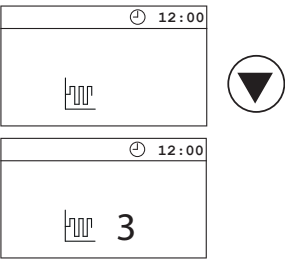
MODE > 3 Sec

Hysteresis setting

You can set the hysteresis from 1K to 5K in order to adjust the temperature regulation and optimize steam production.

Use “down” button to change value and press “mode” button for 3 seconds to confirm.

Default value is 3K.



adjustable
1 - 5 K

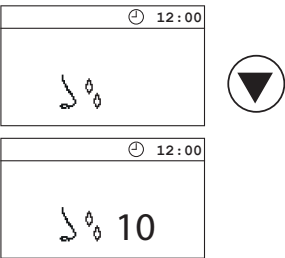
MODE > 3 Sec

Essence dosing setting

This setting adjusts the **essence injection duration** and thus allows you to set the essence quantity per each injection.

For instance the setting “10” means the dosing pump will run for 10 seconds per injection.

You can make the setting from 1 to 15.



0-15 s
adjustable
(default 0)

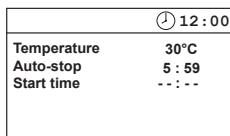
MODE > 3 Sec

12:00	
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

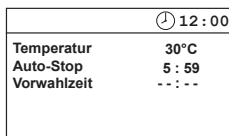
Operation

Language and time adjustment

The navigation menu language and time setting may be adjusted at any time after the initial commissioning. Press "mode" + "down" button to launch setting menu and proceed with adjustments.



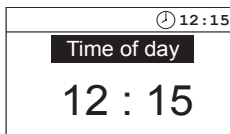
Press „mode“ + „down“ buttons to launch settings menu.



Press „mode“ + „down“ buttons to launch settings menu.

MODE &

MODE &



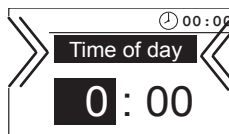
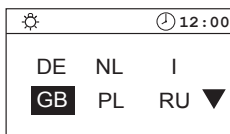
Use up/down buttons to select if you want to set time or language. Press „mode“ to start adjustment.



Press mode to launch time adjustment.

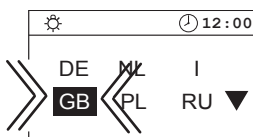
/

MODE

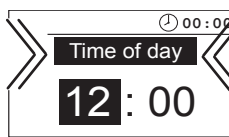


MODE

/

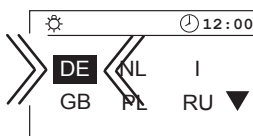


Set language as required and press „mode“ for 3 seconds to confirm.



MODE

/



Set minutes using up/down buttons, press „mode“ for 3 sec to confirm.

MODE > 3 Sec



/



Set time if necessary.



MODE > 3 Sec

Life-Guard function

Life-Guard is a relatively short time, e.g. 20 minutes, after which the heating will switch off if Life-Guard has been enabled. After the pre-set time has elapsed the heating can be switched on again for the same time by pushing the **MODE** button shortly.

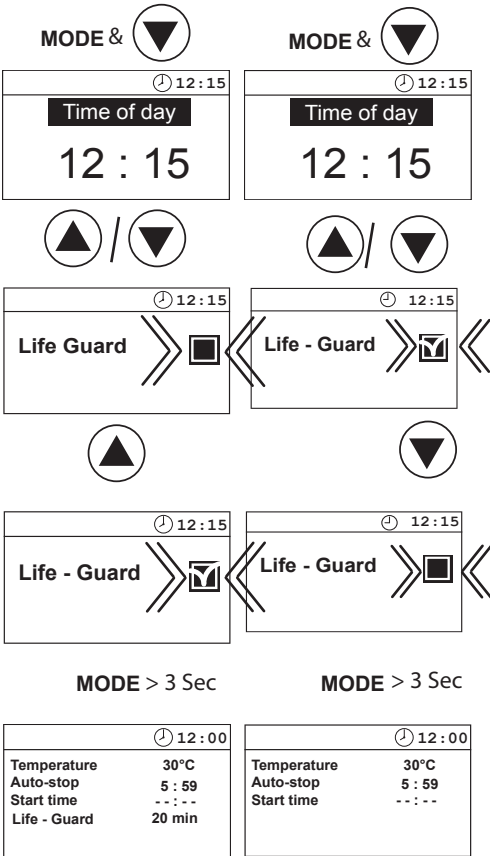
In order to use this function you need to activate it in the set-up menu. This may be done either during initial commissioning or later in normal operation.

To enable

	⌚ 12:00
Temperature	30°C
Auto-stop	5 : 59
Start time	-- : --

To disable

	⌚ 12:00
Temperature	30°C
Auto-stop	5 : 59
Start time	-- : --
Life - Guard	20 min



Life-Guard enabled

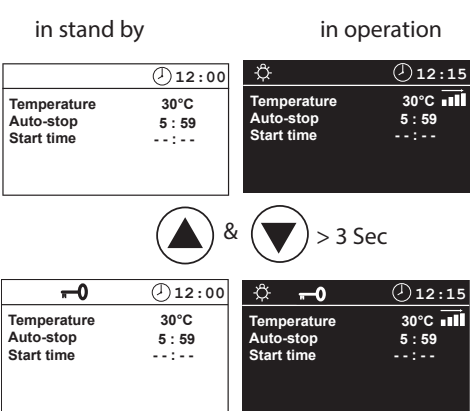
Life-Guard disabled

Child lock (hotel mode)

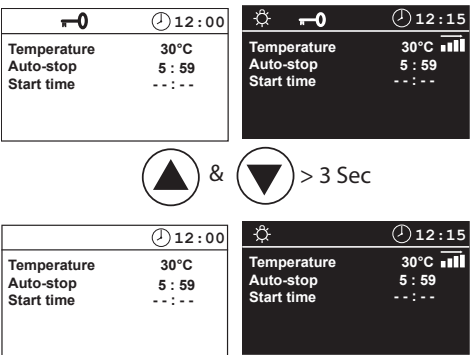
If the child lock is activated (the key symbol is visible in the top section of the display) only the cabin lighting can be switched. All other buttons are without function. Activation / deactivation of the child lock can be done in stand-by as well as in active operation mode.

The unit can still be switched off if in active operation mode.

To activate



Deactivate



Switching the heating on

	🕒 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

🔌 > 3 Sec

🔌	🕒 12:00
Temperature	30°C 🔊
Fragrance	10
Auto-Stop	6:00
Start time	--:--

Switching the heating off

🔌	🕒 12:00
Temperature	30°C 🔊
Fragrance	10
Auto-Stop	6:00
Start time	--:--

Auto-Stop time / 🔌

🔌	🕒 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

Switching the heating with active Life-Guard

	🕒 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

🔌 > 3 Sec

🔌	🕒 12:00
Temperature	30°C 🔊
Fragrance	30
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

The system is in active heating mode without „Life - Guard“. To activate „Life - Guard“ function:

MODE

🔌	🕒 12:00
Temperature	30°C 🔊
Fragrance	30
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

After the pre-set „Life - Guard“ time expires the heating will stop and the display background will flash.

🔌	🕒 12:00
Temperature	30°C 🔊
Fragrance	30
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

To restart (resume) heating:

MODE

🔌	🕒 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

or to stop the steam generator completely:



🔌	🕒 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

Notice:

By enabled Life-Guard mode it is not possible to change the temperature setting during active heating.

Individual settings

You can adjust all parameters to suit your individual requirements. The parameters may be adjusted in stand-by and in active heating state, all changes will be saved in the memory. All adjustments made during active heating are applied immediately.

Temperature setting

Temperature control range: 30 - 50°C

Adjustment in Stand-by

	⌚ 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

MODE

	⌚ 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

MODE

⏪		⏩	⌚ 12:00
	Temperature		30°C
	Fragrance		30
	Auto-Stop		6:00
	Start time		--:--



	⌚ 12:15
Temperature	45°C
Auto-Stop	5:59
Start time	--:--

MODE > 3 sec.

	⌚ 12:15
Temperature	45°C
Auto-Stop	5:59
Start time	--:--

15 sec. / ⏻ > 3 Sec

	⌚ 12:00
Temperature	45°C
Auto-Stop	5:59
Start time	--:--

☀	⌚ 12:15
Temperature	45°C
Auto-Stop	5:59
Start time	--:--

Adjustment during active heating

☀	⌚ 12:15
Temperature	30°C
Auto-stop	5:59
Start time	--:--

MODE

☀	⌚ 12:15
Temperature	30°C
Auto-stop	5:59
Start time	--:--

MODE

⏪		⏩	☀	⌚ 12:15
	Temperature			30°C
	Auto-stop			5:59
	Start time			--:--



⏪		⏩	☀	⌚ 12:15
	Temperature			45°C
	Auto-Stop			5:59
	Start time			--:--

MODE > 3 sek.

☀	⌚ 12:15
Temperature	45°C
Auto-stop	5:59
Start time	--:--

15 sek.

☀	⌚ 12:15
Temperature	45°C
Auto-Stop	5:59
Start time	--:--

Essence dosing intervals

Adjustment range: 1 - 30 minutes

During Stand-by

⌚ 12:00	
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

MODE

⌚ 12:00	
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--



⌚ 12:00	
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

MODE

⌚ 12:00	
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--



⌚ 12:00	
Temperature	30°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--

MODE > 3 sec.

During active heating

⌚ 12:00	
Temperature	30°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--

Operation details

Essence dosing function becomes active if one of the two following conditions are met:

1. The steam room has reached the set point temperature and the control is in usual regulation phase.
2. The steam room is since at least 30 minutes in active heating mode.

The essence injection will only take place if there was steam production after the previous essence injection. Otherwise there will be no essence injection during the present cycle.

This prevents that an excessive quantity of essences collects in the steam pipe because the steam room has reached the set point temperature and there is no steam production (no steam flow in the steam pipeline).

Essence dosing adjustment

The dosing intervals may be adjusted in 1 minute steps within a 1 to 30 minutes range.

Setting the dosing intervals to "0" will switch the essence dosing off.

Dosing interval, min.	Injection duration, sec.	Essence quantity per cycle (grams)*
1	1	0,5 - 1
1	3	3
1	5	5 - 6
1	7	7 - 8
1	10	11 - 12
1	15	17 - 19

*For EOS dosing pump, depending on the position of the rotation rolls
Injection duration per cycle is set during initial setup of the control unit (see page 19).



ATTENTION!

Do not use essences which may present a health risk by high concentration. Use only special essences for steam rooms.

Auto-Stop / Heating time limitation

Auto-Stop is the heating time limitation. After the time pre-set with this function expires the heating will automatically stop.

Default setting is 6 hours.

During Stand-by

	⌚ 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

MODE

	⌚ 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--



	⌚ 12:00
Temperatur	30°C
Fragrance	30
Auto-Stop	6:00
Start time	--:--

MODE

	⌚ 12:00
Temperatur	30°C
Fragrance	30
Auto-Stop	5:59
Start time	--:--



	⌚ 12:00
Temperatur	30°C
Fragrance	30
Auto-Stop	3:59
Start time	--:--

MODE

	⌚ 12:00
Temperatur	30°C
Fragrance	30
Auto-Stop	3:59
Start time	--:--



	⌚ 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	3:30
Start time	--:--

MODE > 3 sec

	⌚ 12:00
Temperaturee	30°C
Fragrance	30
Auto-Stop	3:30
Start time	--:--

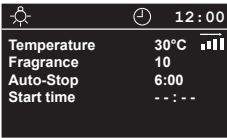
15 sec / ⏻ > 3 sec

	⌚ 12:00
Temperaturee	30°C
Fragrance	30
Auto-Stop	3:30
Start time	--:--

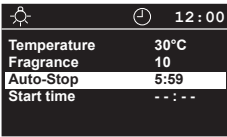
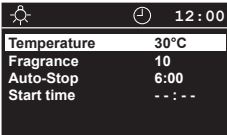
⚙️	⌚ 12:00
Temperature	30°C
Fragrance	10
Auto-Stop	3:29
Start time	--:--

After the heating is switched on the heating time will run as a countdown clock from pre-set time to "0:00". After the heating time expires the heating will stop and the Auto-Stop function will return to the last pre-set value (e.g. 3:30 as shown above).

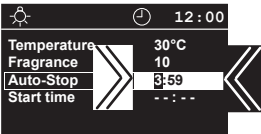
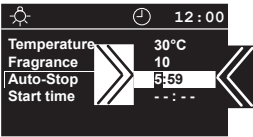
During active heating



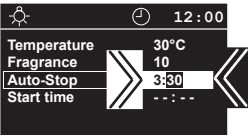
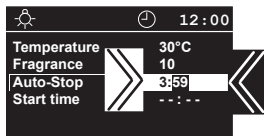
MODE



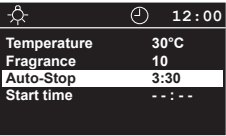
MODE



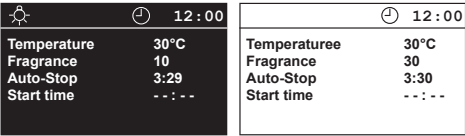
MODE



MODE > 3 sec



15 sec /



Heating time may be adjusted also during the heating. Once the new value is saved it will be overtaken and the countdown time will run from this new value to "0:00".

Time pre-selection

Start time pre-selection allows you to program the automatic start time up to 24 hours in advance in real time. This is a “single event” switching.

If you wish to start heating manually make sure that the Start Time function displays „--:--“. Notice: by „00:00“ the steam room will start at 0:00 o'clock! By activated time pre-selection the heater may not be started manually.

During Stand-by

	🕒 12:00
Temperature	30°C
Fragrance	30
Auto-Stop	5:59
Start time	--:--

MODE

	🕒 12:15
Temperatur	30°C
Auto-Stop	5:59
Vorwahlzeit	--:--



	🕒 12:15
Temperatur	30°C
Auto-Stop	5:59
Vorwahlzeit	--:--

MODE

	🕒 12:15
Temperatur	30°C
Auto-Stop	5:59
Vorwahlzeit	█:--



	🕒 12:15
Temperatur	30°C
Auto-Stop	5:59
Vorwahlzeit	17:--

MODE

	🕒 12:15
Temperatur	30°C
Auto-Stop	5:59
Vorwahlzeit	17:--



To delete pre-set timer press „mode“ for programming, select „Start time“ using up/down keys and press „mode“ shortly again. The corresponding time value will flash. Use up/down keys at “hour” until you see „--:--“ on the display. The time pre-selection is now disabled, the heating may be started manually.

During active heating

	🕒 12:00
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	--:--

MODE

	🕒 12:00
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	--:--



	🕒 12:00
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	--:--

MODE

	🕒 12:00
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	█:--



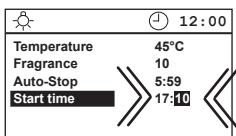
	🕒 12:00
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	17:--

MODE

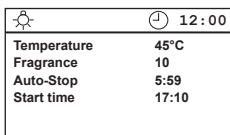
	🕒 12:00
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	17:--



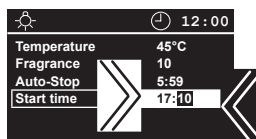
continued on the nextpage



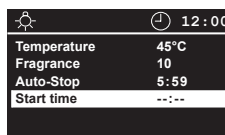
MODE > 3 sec



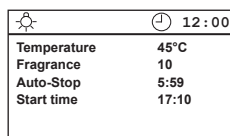
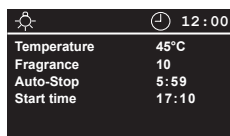
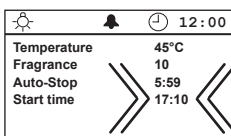
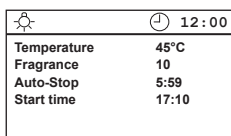
15 sec



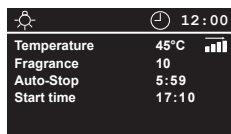
MODE > 3 sec



15 sec



At pre-set time the control units will then automatically switch on:



Single Event Timer / Recurring Switching Timer

Econ S2 features two possible time pre-selection timers - a single event timer and an automatic recurring switching timer.

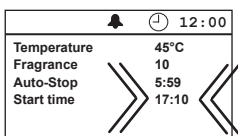
By a single event timer the steam room will be

switched on only once. By recurrent switching timer the steam room will be switched on every day at the same time (helpful for commercial operation).

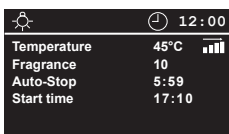
Single event timer

Press "on/off" for **1 sec.**  1 sec

The "bell" symbol will appear to indicate the active timer condition.
The start time will flash.



The control unit will switch on at designated time and will operate for pre-set heating time.

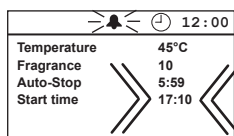


Recurring switching timer

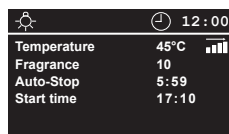
Press "on/off" for **5 sec.**  5 sec

The "bell" symbol will flash to indicate the recurring switching timer mode.

The start time will be flashing as well.





The control unit will be then switching on at designated time every day and will operate for pre-set heating time.



Notice: the display backlighting is illuminated by active start time pre-selection.

Deactivating the timer

Active timer mode is indicated by a bell symbol (continuous or flashing) and by a flashing start time.


  12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	17:10

Please remember that as long as there is any value indicated at the “start time” line the control unit is in automatic timer mode (activated or deactivated) and may not be started manually.

Press “on/off” shortly



The “bell” symbol shall disappear. The timer is now deactivated.


 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	17:10

If you wish to start the steam room manually set the start time to „--:--“ (see page 27 for details).


Life-Guard

Life-Guard is a quick countdown timer which allows to let the unit run for only short periods of time from 1 to 30 minutes. Once this time expires the heating will stop and may be resumed for the same period of time by shortly pressing the **MODE** button.


The heating time for Life-Guard may be set only in stand-by mode. Life-Guard function must be enabled during setup, otherwise this menu line will not be displayed on the screen.

 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--
Life-Guard	20 min.


MODE

 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--
Life-Guard	20 min.




 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--
Life-Guard	20 min.


MODE

 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--
Life-Guard	20 min.






 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

MODE

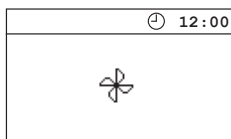
 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

15 sec /  > 3 sec

 12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	6:00
Start time	--:--
Life-Guard	15 min.

  12:00	
Temperature	45°C
Fragrance	10
Auto-Stop	5:59
Start time	17:10
Life-Guard	15 min.

Other symbols / special modes



= **cabin dry mode**

Control unit is in „cabin dry“ mode, extractor fan is active for the pre-set time.

Dry mode starts automatically after the heating is switched off and runs for 30 minutes.

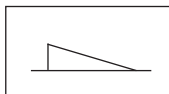


Holiday Home mode

In "Holiday Home" mode the control unit is locked so that a user will have a only few essential settings and functions at this disposal. If the control unit is in screensaver state it is offer the user to select a preferred operation language.

To enable or disable the Holiday Home mode press the "up" and "down" buttons while you switch on the power supply to the control unit and it boots (using the "Switch-Off switch").

1. Power off the unit
2. Press up+down keys
3. Switch power on
4. Let the unit boot while keeping the keys pressed



This setting will be permanently saved. A "Holiday Home" mode symbol will appear in the top line of the display:

		12:00
Temperature	45°C	
Fragrance	10	

The control unit behaves in Holiday Home mode as follows:

- Upon powering the unit on or upon waking the unit from screensaver state it will prompt a user to select the navigation language
- Timer, Life-Guard, Auto-Stop und Child Lock functions are not available.
- The setup menu is not available.
- The user can only switch the heating on/off, adjust temperature, adjust essence dosing intervals, switch the cabin light on/off.

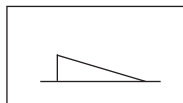


Holiday Park mode

By "Holiday Park" all functions and settings except for heating on/off and light on/off are locked and not available.

No settings, such as setup, temperature, essence dosing, heating time are possible.

To enable or disable the Holiday Park mode press the "up" and "MODE" buttons while you switch on the power supply to the control unit and it boots (using the "Switch-Off switch").



MODE

This setting will be permanently saved. A "Holiday Park" mode symbol will appear flashing in the top line of the display:

		12:00
Temperature	45°C	
Fragrance	10	

The control unit behaves in Holiday Park mode as follows:

- User can switch the heating on / off, user can switch the cabin light on/off.
- No other function or setting is possible.
- If the control unit is disconnected from power and re-started it will still start in Holiday Park mode.

		12:00
Temperature	45°C	
Fragrance	10	

		12:00
Temperature	45°C	
Fragrance	10	

		12:00
58 min		





Manual setup of the light type

The control unit is able to recognise inductive loads via a voltage rise and then switches from phase trail edge control to phase lead edge control. If this automatic detection fails and the connected light does not function properly the phase edge control type can be defined manually.



This work may be carried out only by an appropriately skilled and qualified electrician or a qualified specialist of an EOS authorized dealer.

For manual setup of the light type:

1. Disconnect the lighting from the control system.
2. Switch the control system on (connect power).
3. Go to the menu for setting the light intensity by pressing the  button for >3s
4. Now you can configure the light output:
 - a. Phase trail edge control for capacitive and resistive loads: Press **MODE** +  at the same time. The control unit will display **R, C** on the screen.
 - b. Phase lead edge control for inductive loads: Press **MODE** +  at the same time. The control unit will display **L** on the screen.
 - c. To restore automatic recognition: Press **MODE** +  at the same time. The control unit will display **R, C / L AUTO** on the screen.
5. Save the setting by pressing the **MODE** button for >3s
6. Power the control system off.
7. Connect the lighting again.

Heating time limitation

The maximal heating time may be set with a jumper on the display printed circuit board to 6 or 12 hours or to unlimited operation time. The jumper is located at the top edge of the board as shown below. To set the jumper you will need to use tweezers or fine pliers. Alternatively you may also take the board out of the housing by removing four mounting screws.

Notice for sauna: Heating time above 6 h is only permitted for certain commercial sauna cabins and may be restricted by the local legal regulations.

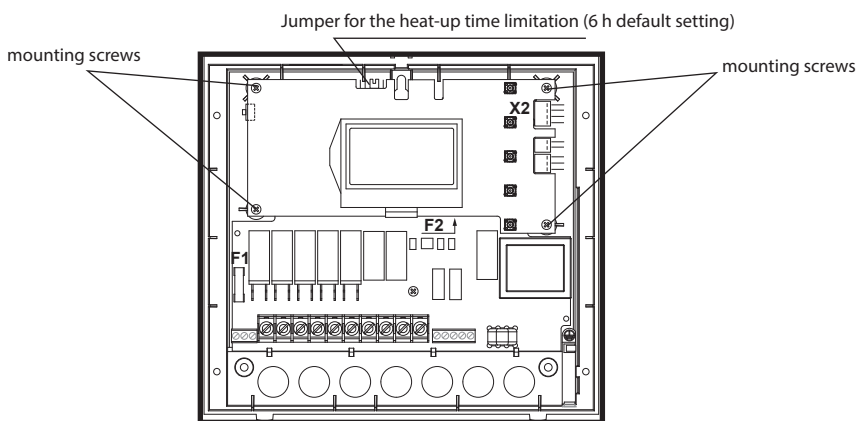
By unlimited heating time the control unit will not stop unless switched off manually.

Once the maximal heating time has been set the user will be able to select the heating time up to the defined limitation.



Such work may be carried out exclusively by an expert. Prior to any kind of work disconnect the control unit from the power supply on all phases. (Switch off main switch, or trip the ground circuit breaker). **Risk of electric shock!**

Loosen the four screws on the opened unit that hold the circuit board.



Jumper		6:00 hours heating time limitation (factory default)
Jumper		12:00 hours heating time limitation
Jumper		no heating time limitation



Attention!

Make sure to disconnect the control from power before changing the heating power limitation. Setting the heating time limitation without disconnecting the power may damage the electronic.

Device fuses

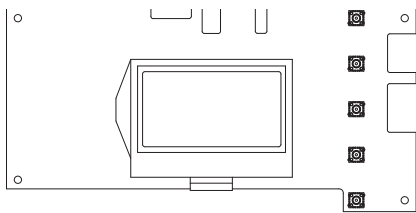
The control unit is fitted with two protective fuses which are mounted on the main relay board of the unit. These fuses protect the electronics on the board and the light and fan outputs.

Notice: fuses do not mean absolute protection, in an unlikely case of a power surge or a short circuit with particularly fast voltage increase the electronic components may be still be affected.

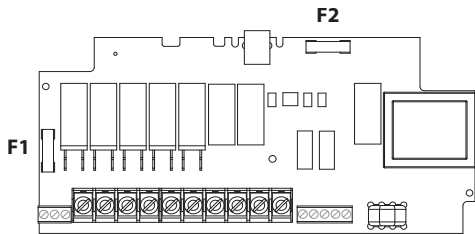
Fuses:

- F1 = T 2A Fuse primary electronics as well as light and fan
- F2 = T 315 mA Fuse secondary electronics

Display PCB



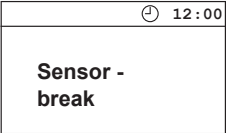
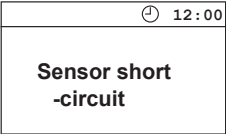
Relay PCB*



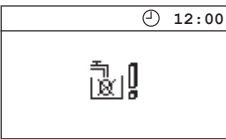
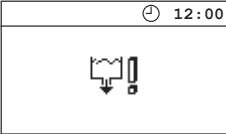
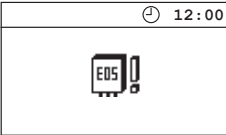
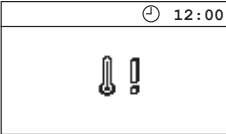
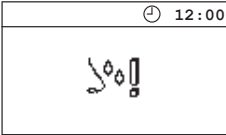
*) specific layout of the board and its components may vary slightly from model to model.

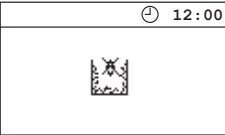
Error Messages & Troubleshooting

The control continuously monitors the temperature sensor as well as the connected steam generator (Steamtec II Basic only). Following are the possible error messages:

Error message	Possible fault	Remedy
	= interrupted room sensor circuit. The temperature sensor (KTY) is faulty, or the line to the temperature sensor is interrupted.	Arrange for a specialist to check the lines and sensor. The sensor at 20°C has approx. 1.9 kΩ, replace if necessary.
	= short-circuit in the sensor circuit temperature sensor (KTY) is faulty, or the line to the temperature sensor has a short circuit.	Arrange for a specialist to check the lines and the sensor.

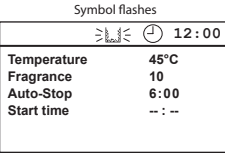
Error message (only in connection with Steamtec II Basic steam generator)

	= Water tank filling error (steam generator)	Check the water supply to steam generator. Check the water filling valve.
	= Draining error (steam generator)	Check the drain of the steam generator (e.g. may be blocked by scale debris). Clean if necessary.
	= Steam generator error	Faulty connection to steam generator. Check if steam generator is switched on. Check connection cables.
	= Overheating error	
	= Essence container empty	Refill the container with essence for steam rooms.



= Descaler container empty

Refill the descaler (cleaner) container of the steam generator.



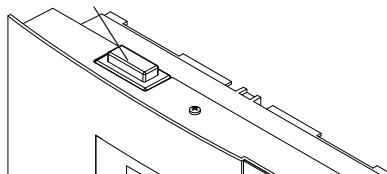
= pending descaling / cleaning

Steam generator waits for pending descaling / cleaning cycle.

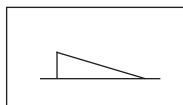
The device „Switch-off“ switch

You will find the rocker switch on the top side of the control unit. You can completely disconnect the control unit from the mains using this switch.

Switch-off by ECON control units

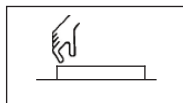


Switch-off



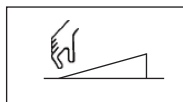
Unit turned on
(default Position I)

Press the switch on the left side of the rocker to the first latch (**switch setting 0**). The switch will be in the middle position. The unit is now completely switched off (disconnected).



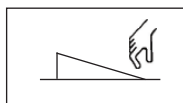
Unit fully switched off
Position 0.

To turn the light on in the cabin while the unit is still disconnected push the left side of the rocker to the second latch (**switch setting II**).



Light switched on;
Unit switched off.
Position II.

To make the unit ready for operation, switch back to the initial position (**switch setting I**). The unit will return to stand-by mode.



Unit switched on.
Position I.

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 keep this address in a safe place together with the installation guide.

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. Prices and Payment Terms

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

- Disassembly/assembly 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 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 make the replacement parts necessary for the service available 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.

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 Warranty

The manufacturer's warranty 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 assembly instructions and instructions for use.

- The warranty period shall commence from the date on which proof of purchase is provided and shall be limited, in principle, to 24 months.
- Warranty services shall be performed only if the proof of purchase relating to 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 unauthorized persons or due to improper use.
- In the case of warranty claims, the serial and article numbers must be indicated together with the designation and a meaningful description of the fault.
- This warranty shall cover defective equipment parts, with the exception of normal wear parts. Wear parts shall include, among other things, light sources, starters, gas or oil pressure dampers as well as acrylic glass panes, tubular heating elements and sauna heater 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 assembly and installation work, including 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 specialist trader responsible and shall be exclusively handled via the latter.

The manufacturers General Terms and Conditions of Business, as amended, shall apply in addition to the foregoing terms and conditions of service.