INNOVATIVE SAUNA TECHNOLOGY

EmoTouch II +

Touchscreen sauna control unit
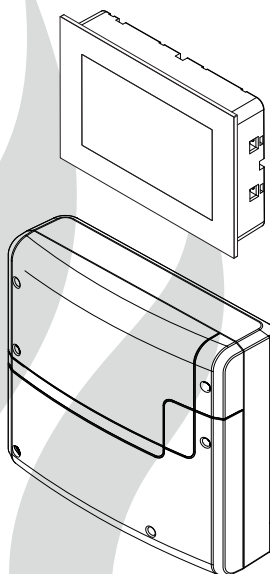
GB **User guide and operating manual**

Made in Germany

$C\epsilon$

Druck Nr. 2934 4598 en / -01.14

English

Contents

Scope of delivery

(changes are reserved)

1. Main electronic unit (with two-part front cover)

2. Control panel with touchscreen display

3. Housing base for flush-mounted installation of the control panel, with mounting brackets

4. De-installation tool (for control panel)

5. Temperature sensor: a) housing, b) sensor board, c) overheat protection fuse, d) 2 mounting screws 4 x 40 mm, e) connection cable 5 m with RJ10 plug, f) 2-core white cable for overheating protection fuse 5 m

6. Connection cable 5 m (main unit - touchscreen display) with RJ14 / RJ10 plugs

7. Plastic bag with 3 mounting screws 4 x 25 mm (for main electronic unit)

8. 1 spare overheating protection fuse

9. 5 rubber cable glands

10. 1 installation & operation manual, 1 operation manual (for end users)

Accessories (optionally available):

2nd sensor ....item 94.5725

Humidity sensor...........................item 94.5726

Technical data

Voltage (power supply):	400 V 3 N AC 50 Hz
Switching capacity:	max. 9 kW resistive load, may be extended with a power extension unit (LSG)
Heating time limit:	6 h / 12 h / unlimited
Housing:	plastic, shatter-resistant
Display:	7" capacitive colour touchscreen display, 16:9 aspect
Operation:	via touchscreen display
Temperature control range:	30° - 115°C (dry sauna mode)
	30° - 70°C (humid sauna mode)
Humidity control:	proportional to time or optionally as per rel. air humidity (%) with an optional humidity sensor.
Sensor system:	Digital sensor with oveheating protection fuse (STB) 142°C
Control characteristic:	Digital two-point control
Connection for fan:	min. 5 W, max.150 W (only fans without starting capacitor)
Connection for light:	min. 5 W (20 mA), resistive loads - max. 150 W, dimmable energy saving lamps - max. 35 W Lamps at conventional transformers - max. 60 VA. Attention: only dimmable lamps may be used!

⚠️ Fan and light output share a common 5 A fuse.

Start time pre-selection:	up to 24 h in advance
Switching automation:	Week timer with 4 switching programs per day
Error display:	Clear text error indication on the display
Outputs:	3 x RJ10 jacks for sensor connections
	2 x RJ14 jacks for control panel and extension modules
	1 x potential free contact (2 terminals)
Card reader:	SD card reader in control panel
Ambient temperatures:	-10°C to +35°C
Storage temperatures:	-20°C to +60°C
Dimensions main block:	H 270 x W 300 x D 100 mm
Dimensions control panel:	H 141 x W 210 x D 42 mm (flush-mounting installation) wall aperture 127 x 188 mm

Dear customer

You have purchased a high-quality technical device with which you will have years of sauna fun. This sauna control unit 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 9001:2000.

This detailed installation and operation manual has been prepared for your information. Please observe in particular 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 control unit is exclusively intended for the control of the sauna heater in a sauna cabin.

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.

General safety precautions

- 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 may not play with this device. Children may not clean or carry out any user maintenance if unsupervised.

- Children are to be supervised in order to make sure that they do not play with this device.

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

- The electrical installation may be done only 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 assembly instructions, especially when installing the temperature sensor. The temperature above the oven is critical for the temperature setting. The temperature can be held within operating parameters and a minimal temperature gradient inside the bench area of the sauna cabin can be achieved only if unit is assembled correctly.

- The device may only be used as intended as a control unit for sauna ovens up to 9 kW (up to 36 kW when combined with a contactor box).

- 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 oven manufacturer.

- Always heed the specifications and instructions of the cabin manufacturer, too.

⚠️ Attention!

When using control units that offer the possibility of external access (GSM-module, remote button, etc.) or time-delayed switching (preselection time, weekly timer, or similar) a protective system for the sauna heater is required (cover protection type 1-6 or S-Guard).

⚠️ 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.

Electrical connection

The electrical connections may only be carried out by a certified electrician in compliance with the guidelines of the local power supply company and applicable legal regulations (e.g. VDE norms for Germany).

In general, there may be only one permanent connection line to the network. Furthermore equipment should be provided that makes it possible to disconnect the system on all phases from the power supply with a contact gap of minimum 3 mm.

All electrical installations and all connection lines that are installed inside the sauna cabin must be suitable for an ambient temperature of at least 170 °C.

The power supply line shall be laid to the control unit and connected to the power input terminals.

Relay box, lower front cover opened

The power supply cable shall be laid to the main relay box and connected to the power input terminal as per connection diagram (see wiring diagrams, page 18-19).

Sauna heater connection

Install the sauna heater and the vaporizer (if available) inside the sauna cabin in front of the air intake according to the manufacturer's installation instructions.

Draw the silicone cable through the ductwork to the relay box and connect it to the appropriate terminals as directed in the wiring diagram.

Make sure to observe the wiring diagrams on pages 18 - 19 with the corresponding terminal connection scheme.

Notice: In case there is no ductwork available drill a hole next to the air intake opening and run the heater line through this hole to the outside and to the appropriate terminals in the control unit. The silicone line must be concealed to protect it from outside influences. Therefore, use a suitable cable-duct or a PVC-pipe through which you can run the line up to the power unit.

Special advice for connection of Bi-O sauna heaters:

⚠️ **Attention!**

By working vaporizer the sauna heater line „W" will diverted to the „Wb" line of the vaporizer.

The sauna heater section will then operate with 2/3 of the total power.

Sauna lamp connection

⚠️ The sauna lamp must have the protection class of at least IPx4 and should be resistant to the ambient sauna temperatures. The sauna lamp may be installed at any location but never close to the rising hot air of the heater.

Only dimmable lamps may be used. The control unit will detect strongly inductive loads and will adjust the phase edge control accordingly.

⚠️ **Attention! Make sure to use only dimmable illuminants.** By connection of not dimmable illuminants there is a risk of damaging either the illuminant or the control unit. No warranty claims may be accepted in this case.

Heating time limitation

The maximal heating time may be limited to 6 hours, 12 hours or to set unlimited.

In addition to the hardware setting the heating time will be automatically limited depending of the selected type of use.

If the control unit has been set to private (domestic) use, then the heating time will be automatically limited to **6 hours**.

By commercial use the heating time limitation may be set to up to 12 hours or to unlimited (by supervised commercial saunas only).
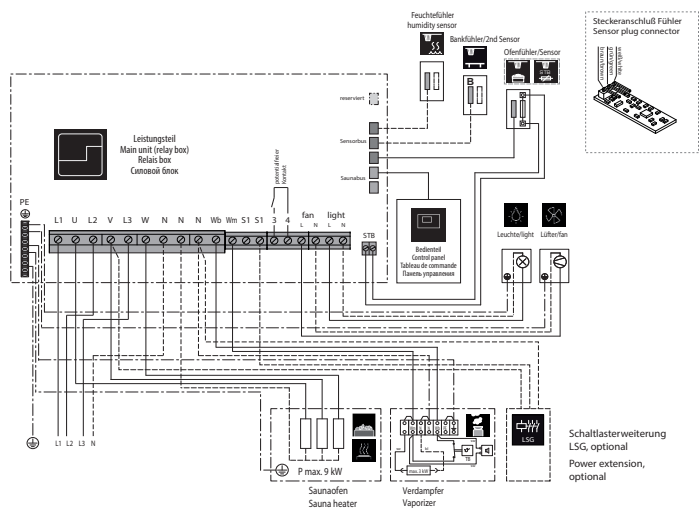
Connection of the power extension unit

The switching capacity may be extended with an external power extension unit (LSG), in order to connect and operate the sauna heaters above 9 kW power.

For connection details please refer to the installation and operation manual for the respective LSG model.

Connection diagram EmoTouch II+

Feuchtefühler
humidity sensor

Bankfühler/2nd Sensor

Ofenfühler/Sensor

Steckeranschluß Fühler
Sensor plug connector

reserviert

Sensorbus

Saunabus

Leistungsteil
Main unit (relay box)
Relais box
Силовой блок

PE

L1 U L2 V L3 W N N Wb Wm S1 S1 3 4   fan   light
                                              L N   L N

potential free
contact

STB

Bedienteil
Control panel
Tableau de commande
Панель управления

Leuchte/light   Lüfter/fan

L1 L2 L3 N

P max. 9 kW

Saunaofen
Sauna heater

Verdampfer
Vaporizer

max. 3 kW

LSG

Schaltlasterweiterung
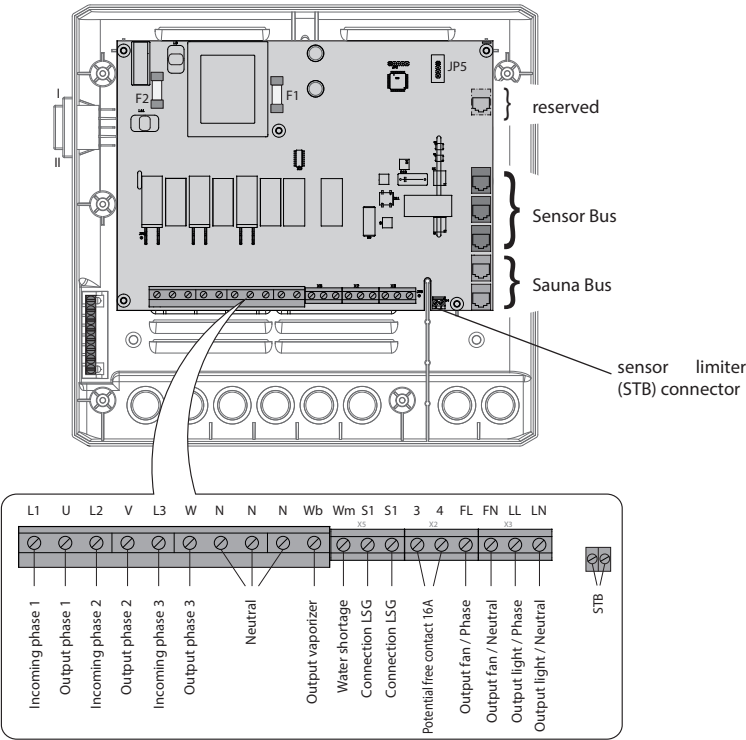LSG, optional

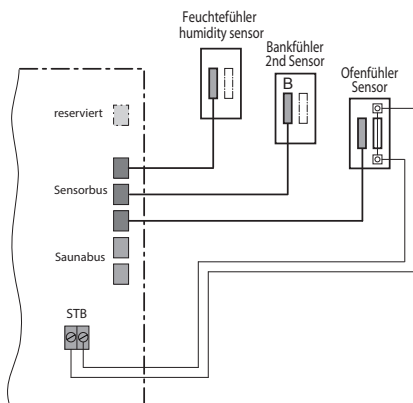Power extension,
optional

⚠ **ATTENTION!**

All electrical connections and other works may be only carried out by an authorized qualified electrician.

Do not open the cover! High voltage! Risk of electric shock!

Terminal layout

(main relay block)

JP5

F2   F1

reserved

Sensor Bus

Sauna Bus

sensor limiter (STB) connector

L1	U	L2	V	L3	W	N	N	N	Wb	Wm	S1	S1	3	4	FL	FN	LL	LN		STB

- Incoming phase 1
- Output phase 1
- Incoming phase 2
- Output phase 2
- Incoming phase 3
- Output phase 3
- Neutral
- Output vaporizer
- Water shortage
- Connection LSG
- Connection LSG
- Potential free contact 16A
- Output fan / Phase
- Output fan / Neutral
- Output light / Phase
- Output light / Neutral
- STB

Temperature sensor (main sensor)

Humidity sensor (optional)

Opening in chip
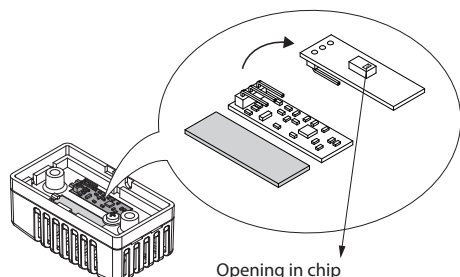
Bench sensor (optional)

B Bench sensor
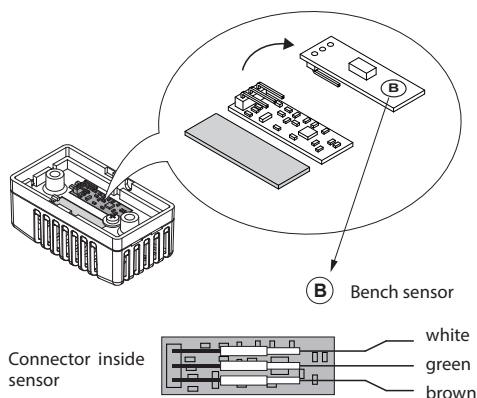
Connector inside sensor

white
green
brown

⚠ ATTENTION!

If a sensor is plugged into the sauna bus (RJ14 connector), the sensor and the main board may be irreparably damaged!

The sensor cable with RJ10 plugs shall be connected to one of three sensor bus RJ10 jacks on the board. The connection sequence is not important, you may connect the sensors to any of the three sensor bus jacks.

The white line of the overheating limiter fuse shall be connected to the 2-pin connector (STB) on the main board.

The connected sensors will be automatically detected and configured.

NOTICE:
The humidity and the bench sensor are optional equipment and do not belong to the standard supply.

If necessary they may be added at a later time to enhance your sauna capabilities.

Please contact your EOS dealer for further information on this and other optional equipment.

Basic Setup (commissioning / first switching)

Using the control unit for the first time or after a reset

The EmoTouch control unit provides quick and intuitive basic setup in four steps after the first switching (commissioning of the unit) or after the system reset.

Step 1 - set language

Select the required language for the menu navigation by touching the language symbol and confirm by touching it shortly again.

You can choose from 18 languages: DE, EN, FR, RU, SP, NL, IT, PL, SLO, FIN, TR, CZ, RO, BG, HU, SK, DK, CRO, CN.

Upon confirmation the display shows the next step. With the green arrow "back" you can always return to the previous step.

			Sprache			
DE	EN	FR	RU	SP	NL	IT
PL	SLO	FIN	TR	CZ	RO	BG
HU	SK	DK	CRO			

01. January 2014
15:20:35

Step 2 - set time

Set the current time. At first set the hour with „+" or „-" and confirm the selection with a short

touch on the [✓] symbol, then set the minutes in the same way.

Step 3 - set date

Set the date, month and year using the „+" / „-" symbols in the same way as by the time setting. The value which you are currently changing will be shown slightly larger.

Step 4 - set the sauna use type

This step configures the essential setup for the sauna use. The control panel will ask several questions and will set the scope of appropriate features according to the selected options.

1. **Is the sauna for private or commercial use?**
   Select the applicable option and confirm by touching the symbol twice:

   [👤] for private use, or [👥] for commercial use

2. **Is the sauna installed in the EU?**
   Select the applicable option and confirm:

   [✓] - yes, in the EU, or [✗] - no, outside EU.

3. **Safety system as per norm EU 60335 for remote switching / preset timer available?**
   Select the applicable option and confirm:

   [✓] - yes, available, or [✗] - no, not available.

4. **Select the heater type, with or without vaporizer.**
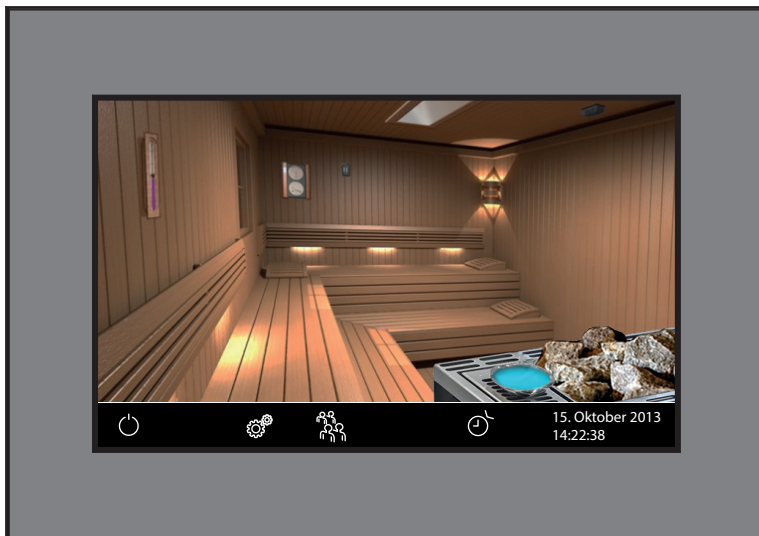   Select the applicable option and confirm:

 - dry sauna heater without vaporizer (disabled vaporizer)

 - Bi-O sauna heaters with vaporizer.

The basic setup is now complete and the control unit will switch to the standby mode.

Further special settings and custom configuration of the control unit may be carried out in the service & setup menu.

Example of the display in standby mode with selected humid sauna operation. The sauna cabin light is switched on.
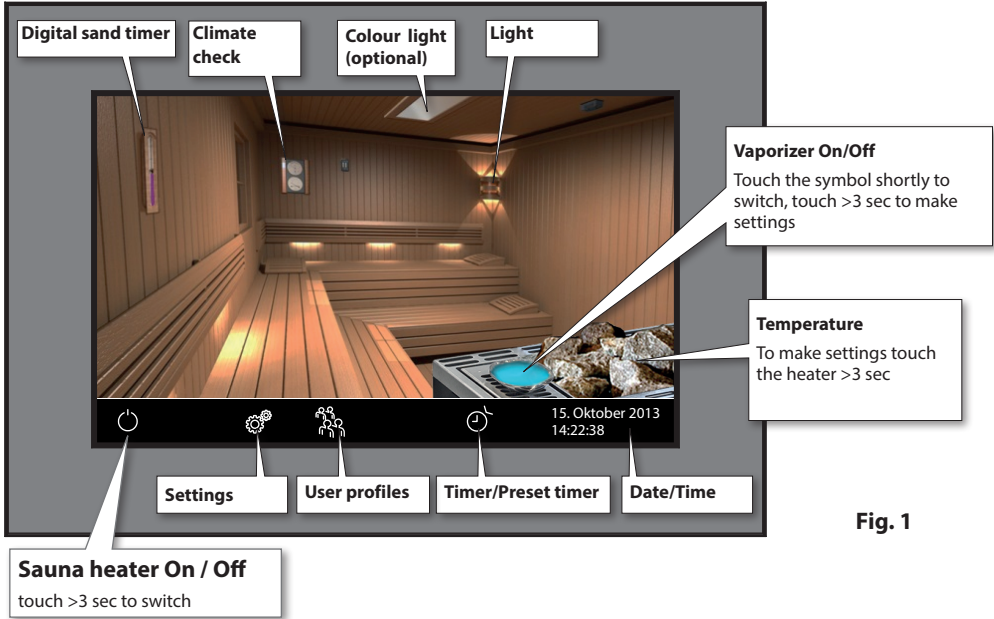
Operation

Control panel - graphic user interface (GUI)

Digital sand timer

Climate check

Colour light (optional)

Light

Vaporizer On/Off
Touch the symbol shortly to switch, touch >3 sec to make settings

Temperature
To make settings touch the heater >3 sec

15. Oktober 2013
14:22:38

Settings

User profiles

Timer/Preset timer

Date/Time

Fig. 1

Sauna heater On / Off
touch >3 sec to switch

Switching your sauna on / off

In order to switch the sauna heater on touch the ⏻ symbol for 3 sec. The sauna will switch on with the pre-set parameters (e.g. temperature, etc.). To switch off touch the symbol again shortly.

Switching the light on / off

Touch the lamp on the display shortly in order to switch the light on or off.

Settings (sub-menu)

For extended settings (see page 28) touch shortly the symbol ⚙, in order to open the sub-menu. A new window, as shown on the fig. 2, will open.

Settings

01. Januar 2014
15:20:35
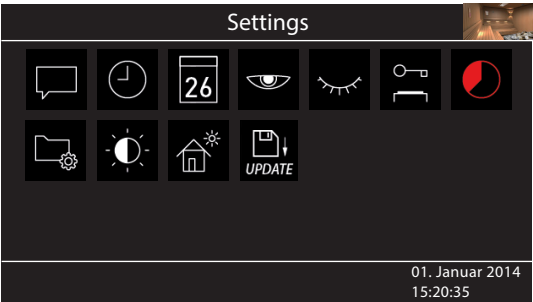
Fig. 2

Notice: if the display of the control panel remains dark after switching the power supply on please check the position of the unit's main switch (Switch-Off rocker switch) located on the main electronics unit (relay box). See chapter "Switch-Off switch" for more details.

Operation principle with a touch screen GUI

On the GUI (sauna cabin image) you can switch the functions by touching shortly the corresponding objects (e.g. lamp). By touching these objects >3 sec you can make settings (adjustments). The symbols in the lower black strip (except for "settings") should be touched for >3 sec for safety reasons.

Operation is based on the short or long touching of the display.

By touching the display a small yellow square will appear in the low right corner to indicate that the display is functional and gets the input.

Return

In all sub-menus - return to start screen, to the previous menu or to the previous selection.

Symbol description (start screen)

Sauna heater (heating) on/off

Switching the sauna heating on/off, to switch on touch for >3 sec, to switch off touch the symbol once shortly.

Settings

Sub-menu for additional (extended) settings. Like e.g. language, time, date, screensaver, special parameters, display lock, etc.

Profiles

User profiles (1 - 8) for individual settings.

Auto-Start

Settings for the switching-on time pre-selection (pre-set timer) - to program the automatic switching at a later time up to 24 h in advance or to program the week timer / single switching time.

Hint:

The small image of the sauna cabin in the upper right corner in sub-menus functions as a „**home**" button to allow quick return to the start screen at any time. Simply touch this image shortly. Please remember that all not yet saved settings will be lost.

If you do not operate the control unit for more than 20 seconds the control unit will return to the start screen. All not confirmed settings will be lost in this case.

Thanks to the integrated battery (CD2032 type, in control panel) all settings will be stored in the memory and will be retained even in the case of a very long time power loss.

New extension modules and optional equipment will be normally automatically detected and configured. Upon restart the control panel will show the corresponding new symbols in the menu navigation.

Symbol description - extended settings

„Extended settings" sub-menu provides a range of additional functions, which normally need to be set only once or quite seldom.

Touch the symbol shortly to enter this sub-menu.

Language
Here you can select one of 18 languages for the menu navigation and text messages:

DE, EN, FR, RU, ES, NL, IT, PL, SLO, FIN, TR, CZ, RO, BG, HU, HR, SK, DK, CRO, CN

Time
Here you can the time of day.

Date
Here you can set the date, month and year (important for time-dependant functions like the week timer)

Screensaver
Here you can set the time interval after which the display shows a screensaver with a floating clock.

Sleep mode
Here you can set the interval, after which the control panel goes into the sleep mode in order to save power. Touch the display to wake up the unit.

Display lock (child lock)
Here you can lock the unit with an own Pin-code. It will be still possible to switch off the heater and to switch the cabin light.

Please observe the special advice below

Heating time
Here you can set the desired heating time. By private use - up to 6 hours, by commercial use - up to 12 hours or unlimited.

Operation data
Here you can check the firmware version, the remaining time until the next service, as well as the contacts for service issues.

Display brightness
Here you can change the display brightness in three steps.

Holiday home mode
Here you can restrict the user's access to the minimum functions with an own Pin-code.

Potential free (volt-free) contact
This function allows you to switch an external equipment connected to the potential-free output of the control unit.

Update
With the update function your can flush or update the installed firmware (requires a standard SD card).

Important advice for Child Lock function

You can completely lock the control panel via symbol with an individual pin-code. By active lock you can only switch off the heater (if it is heating) and switch the cabin light. If you attempt to reach any function you will be prompted to give in the pin-code.

⚠ **How to reset the pin-code (unblock the unit):**

Touch the settings symbol shortly in order to call the pin-code prompt menu. Now touch the display shortly in the very upper left corner. The signs for the pin-code input will change for a very short time from „----" to

„****". During this time touch quickly the symbol. The display will be unlocked and the unit will return to the normal start screen.

Graphic user interface GUI and climate conditions check

Thanks to the modern GUI you can quickly access all functions and make necessary settings, as well as make a simple instant query for the current sauna climate condition.

The symbols on the start screen may be displayed in different colours, in order to indicate the current operation status - e.g. red highlighted heater during active heating.

For every selected symbol the control panel will display the explanation at the top and will provide additional text hints by various settings. For language selection see page 34.
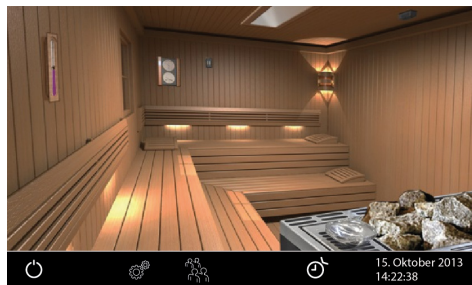
Standby mode

The picture shows the display in standby mode with the light switched on. If a dry sauna heater (no vaporizer) is connected, then the heater on the display will be shown without vaporizer.

The images shows optional equipment.
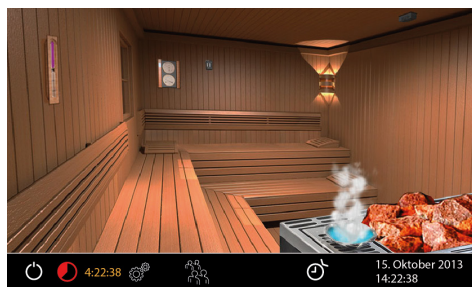
By switched on sauna the stones will glow red and the humid operation (if selected) will be indicated with a white steam cloud.

The remaining heating time will be display in the bottom line. To stop the heating touch the "on/off" symbol shortly.

After a humid operation the sauna-dry mode will switch on automatically (unless disabled). it can be interrupted at any time.
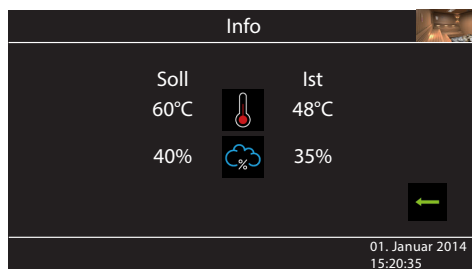
Checking the climate conditions

You can quickly check the target and the current climate (temperature/humidity). Just press shortly on the [symbol] symbol.

The pre-set target and the current values will de display for approx. 50 sec.

If no bench sensor is installed, the temperature will be measured over the heater.

If no humidity sensor is installed, the pre-set propotional humidity will be shown. The „%" sign in the cloud indicates, that the humidity sensor is connected. Without the humidity sensor the [symbol] symbol will be shown. You can return to the start screen at any time (touch the home button).

Notice: Please pay attention that the shown values for the current temperature (humidity) are measured at the sensor location point. Because of the considerable differences in temperature in different parts of a sauna these values may vary from the values shown by the instruments mounted at the sauna wall.

Operation and program settings

Sauna on / off

Touch the ⏻ symbol for 3 sec. The sauna heater will switch on and the display will show the active heating (see page 29). The light will switch on automatically as well.

To switch the sauna off, touch shortly the ⏻ symbol again. By humid operation the sauna-dry program will switch on (if not disabled in setup) for the preset time (max. 30 min). After that the sauna will switch off.

You can interrupt the sauna-dry program - touch shortly the ⏻ symbol.

Dry sauna or humid operation mode (Bi-O)

To enable the humid mode touch the vaporizer shortly - the herbs cup will fill blue. To disable the humid mode touch the vaporizer again - the blue filling will disappear and the control unit will return to the dry sauna operation mode.

Dry sauna

Humid sauna

Temperature

Touch the heater image for >3 sec. A sub-menu window will open and display the last set (or default) temperature. Set the desired temperature using „+" or „-" buttons. Touch the confirmation button to save and exit. This setting can be made also during active heating.

Info

Setting for the
dry sauna operation
**85%**

01. January 2014
15:20:35
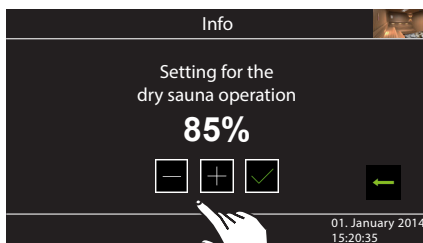
Humidity

Touch the vaporizer image for >3 sec. A sub-menu window like above will open and display the last set (or default) humidity value. Set the desired humidity using „+" or „-" buttons. Touch the confirmation button to save and exit. This setting can be made also during active heating.

With a connected humidity sensor (% sign appears inside cloud) the relative air humidity will be controlled. Without humidity sensor the humidity will be controlled in proportional to time way. "30%" then means 30% of the total heating time. The display will show the ☁ symbol.

Please observe that with a humidity sensor the humidity setting will depend on the pre-set temperature. For safety reasons only the values to the left and under the curve may be selected. For instance at 60°C temperature your can set up to 40% rel. air humidity. In order to set a higher humidity you will need first to reduce the temperature.

If the sauna has been used in dry mode with high temperatures and you switch to the humid mode, the vaporizer will start to work only after the temperature drops under the max. allowed level (70°C).

rH [%]

100
90
80
70
60
50
40
30
20
10
0
   10 20 30 40 50 60 70 80 90 100
   T [°C]
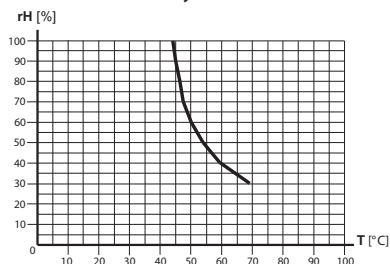
☀ Light on / off

Touch shortly the image of the lamp on the display to switch the light on

or off. Display indication: ▦ - light off, ▦ - light on.

☀ How to dim the cabin light

You can quickly dim the cabin light (0-100%).

Press the lamp image on the display for >3 sec. The cabin light will switch (if switched off) and a sub-menu window for light brightness will open. Using „+" and „-" buttons you can adjust the brightness. The selected brightness will be shown in %. Confirm the selection to store the setting and exit.

| Light |
|---|
| Brightness adjustment |
| **85%** |
| − + ✓ ← |
| 01. January 2014 15:20:35 |
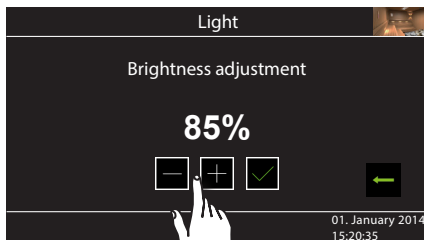
⚠ **Attention! Only dimmable illuminants may be used! Otherwise the control unit or the illuminant may be damaged!** The warranty will be void in such case.

⏱ Zeitvorwahl (Auto-Start)

With this function you can program your sauna to switch on at a later time with up to 24 h delay. Touch the ⏱ symbol on the start screen for >3 sec. A sub-menu window with the timer settings will open. Touch the Auto-Start ⏱ symbol to select it and touch it again shortly to enter the settings in a new window. Set the desired start time using the „+" and „-" buttons. Confirm the setting

Timer
⏱ 26 ▦
Select Auto-Start

by touchin the green OK button. On the start screen you will now see the flashing start time in low right corner. This time means the real switching time, not the delay until the switching of the sauna.
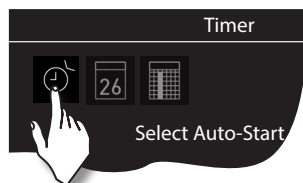
In order to cancel the activated Auto-Start setting, touch the main On/Off button shortly. The blinking Auto-Start time on the start screen shall disappear.

⚠ **Attention!** This function is only allowed to be used if your sauna is fitted with an approved safety system, which prevents the heater from being switched on in unsafe condition (e.g. a towel forgotten on the heater). Even in the case if your sauna has such an approved system, prove there are no objects forgotten on the heater. Risk of fire!
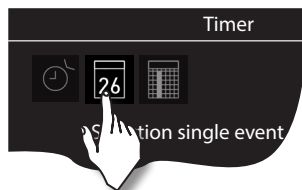
26 Timer

The timer function allows you to have your sauna switched on automatically with the desired climate condition at some time in the future. You have two possible options:

26 - single event (single time switching, not recurrent)

- week timer (regular, recurrent switching on the given day of the week, e.g. Monday, with up to 4 switching programs per day).

⚠️ **Attention!** This function is only allowed to be used, if your sauna is fitted with an approved safety system, which prevents the heater from being switched on in unsafe condition (e.g. a towel forgotten on the heater). Even in the case if your sauna has such an approved system, prove there are no objects forgotten on the heater. Especially by active week timer make sure to check your sauna for safe condition regularly. Risk of fire!

For single event switching touch the single event timer **26** symbol to select it and then touch it again shortly to enter the settings.

In the sub-menu window use the „+" and „-" buttons to set the day, month and the year. In the subsequent window set the start time (hour and minutes). In the next window set the desired operation mode (dry or humid sauna) and finally the desired temperature (by humid mode you can also set the humidity). After the last step the sub-menu window will close. The setting will be shown flashing on the start screen in the bottom right corner (date and time, e.g. 15.01. and 18:30).

In order to cancel the activated single event switching, touch the main On/Off button shortly. The blinking timer on the start screen shall disappear. This setting will be also cancelled by a manual sauna switching.

For week timer programming touch the week timer symbol to select it and then touch it again shortly to enter the settings. A sub-menu window with the days of the week will open (1 to 7).

Hint: white figures mean that no program has been set. Green figures mean that a program has been set for the given day of the week.

Touch a figure 1 to 7 in order to select the day of the week, for which you would like to make a setting (e.g. „1" for Monday). A sub-menu window with available programs will open.

Hint: You can set up to 4 programs (switchings) per day. The maximum duration of a switching may not exceed 12 h. After 12 h continuous heating time a 6 h pause must be observed as per legal obligations. The next switching may be thus started only after 6 h. If you need a shorter pause time, set the first heating time to less than 12 h.

For every switching you can program your personal climate (temperature or humidity) in order to automate the operation of your sauna facility.

To make the setting touch the program symbol (beginning with 1).

1. Set the required start time (hours and minutes) - e.g. 9:30.
2. Set the required heating time (hours and minutes) - e.g. 3:30.
3. Set the required operation type - dry Finnish sauna or humid sauna (Bi-O heaters only)
4. Set the required temperature.
5. Set the required humidity (Bi-O heaters only).

After the last step the control panel will return to the week overview. All days with assigned programs will be displayed in green. Repeat the above steps for every new program you may require (max. 4 per day). After you return to the main start screen you will see the indication of the next (earliest) switching time flashing in the bottom right corner (e.g. Monday, 9:30)

How to delete or change the week timer

In order to delete or change the week timer program open the week timer via Timer settings menu.

1. Select the respective day of the week.
2. Select the respective program number.
3. Make the necessary adjustments (start time, heating time, temperature) or...
4. to delete the program, set the start time (hour and minutes) to „--"
   and touch the green OK button shortly to confirm and exit.
5. The display will return to the week overview.

Notice: By active week timer you will always see the next earliest switching time displayed flashing in the bottom right corner. Also if you programmed several switching times or a combination of the single event switching and week timer switching.
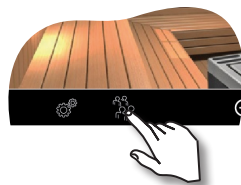
Profiles

You can save your preferred settings in up to 8 user profiles.

This allows to switch between profiles and quickly load the necessary settings without having to set them again and again.

You can for instance set individual profiles for your family members or by commercial operation you can set profiles with specific climate conditions and assign them to the particular days of the week or time of the day in order to simplify the operation of the sauna cabin and avoid unnecessary repeating settings.

How to set a profile

Press for > 3 sec on the symbol on the start screen. A sub-menu window with 8 profiles will open. Select a profile by touching it shortly (the symbol colour will turn white), then touch it again to activate the settings. The control unit will return to the start screen. All settings which you make will be now assigned to the selected profile.

How to load or change a pre-set profile

Select and load as described above the profile, for which you have set specific settings. If you now switch on the sauna, it will be switched with the climate settings assigned to this profile. You can change the settings at any time, they will stored in the selected active profile.

The figure inside the profile symbol indicates the profile number. For instance = profile 1.

Settings

💬 🕐 📅26 👁 😴 🔑 ◐

📁⚙️ 🔆 🏠☀️ 💾↓ UPDATE

01. January 2014
15:20:35
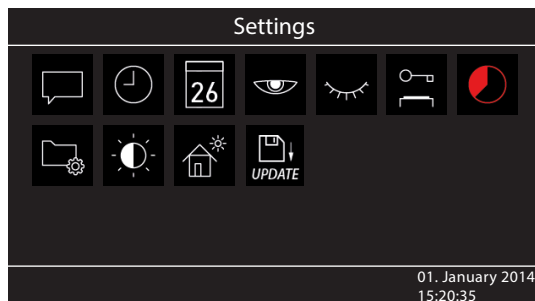
Touch the ⚙️ symbol on the start screen to enter the sub-menu for extended settings.

The sub-menu „Extended settings" allows you to make additional settings, which normally need to be set only once or quite seldom.

Touch the ⚙️ symbol on the start screen to enter the sub-menu for extended settings.

💬 Language

Here you can set the language for the menu navigation and messaging system. Press on the language symbol, in the respective sub-menu select the required language by touching it shortly. All texts will be then shown in the new language. 18 languages are available.

🕐 Time

Here you can set the time of day (system time). Set the hours and minutes using the „+" and „-" buttons and confirm your selection. The time is always displayed in the bottom right corner.

📅 Date

Here you can set the date (day, month, year). Set the day, month and year using the „+" and „-" buttons and confirm the setting. Upon the last setting (year) the display will return to the previous menu.

👁 Screensaver

This setting defines the period of time after which the control panel will enter the screensaver mode if the control unit has not been operated. In this mode the display brightness will be reduced to the minimum and the display will show the current time floating across the screen. Touch the display shortly to return to the start screen.

😴 Sleep mode

This setting defines the period of time after which the control panel will enter the sleep mode. In sleep mode the display will be switched off. Touch the display shortly to wake the control panel. This function is only available if the heater is not switched on.

⌨ Child lock / Operation lock

You can lock the control panel with the individual 4-digit pin code in order to prevent the unauthorized access.

In order to lock the display go to the settings menu, select the ⌨ symbol and touch it again shortly to enter the settings. A sub-menu window with „----" and a numeric pad will open. Give in your personal pin code using the numeric pad and confirm the setting with ⏎. Use "C" button for corrections.

Set Code	
	1 2 3
	4 5 6
━ ━ ━ ━	7 8 9
	0 C ⏎
	15. October 2013 14:22:38
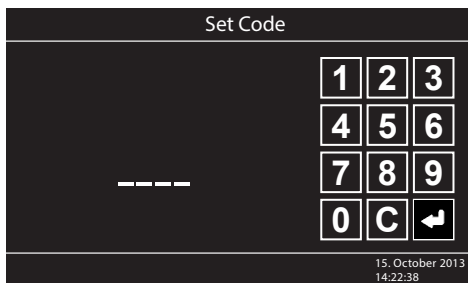
After the confirmation the display will return to the start screen and the unit is now locked.

For safety reasons it is still possible to switch off the heater (interrupt active heating) and to switch the light while the unit is locked. All other functions will be locked.

By an attempt to operate the control panel a pin code prompt will appear.

To unlock the unit touch e.g. the on/off button in order to call the pin code prompt. Now give in your pin code. The unit is now unlocked.

⚠ How to reset the pin code by a locked unit

Touch the on/off or the settings symbols to launch the pin code prompt window.

Touch the display shortly in the top left corner. The four hyphens „----" will turn for approx. 0,5 sec into „****" signs. Now quickly press the ⏎ button. The unit will be unlocked and the display will return to the start screen.

◕ Heating time

Here you can set the desired heating time duration for your sauna bath.

By private use the max. heating time is limited to 6 hours. By commercial use the max. heating time may be limited to 6 hours, 12 hours or set to unlimited. This limitation may be set in hardware during the installation and setup (jumper setting)

Touch the ◕ symbol twice and set the required heating time in hours and minutes. This setting will be then valid for every manual sauna switching in the current profile. You can of course stop the heating earlier at any moment. Upon the setting the display will return to the previous menu.

After switching the sauna on the remaining heating time will be displayed as a countdown clock in the bottom left corner. So you can check at a glance the remaining heating time.

Please notice that after a humid sauna operation the sauna dry program will be switched and the heater will run in dry mode up to 30 minutes. The duration of the sauan dry program can be adjusted in the basis setup. Please contact your authorized dealer (installer).

The heating time setting is adjusted in +/- 1 minute steps from 00:01 (1 minute).

⚙️ Operation data

Here you can check the important information concerning your control unit (sauna) operation.

💾 **Firmware** - allows to check the currently installed firmware version. Use "+" / "-" to switch between two possible parameters. „Panel Vx.xx" - shows the firmware in the control panel, „Mod-LS Vx.xx" - shows the firmware in the main relay unit (x stands for a number). Press on the green arrow shortly to exit.

🔧 **Service intervals** - allows to check the remaining time until the next pending servicing / maintenance of your sauna. The intervals will be set by your dealer (installer) during the installation and setup.

✉️ **Contacts** - shows you the contact information of the sauna control unit manufacturer or your dealer (installer). This information will be also displayed by faults along with the error messages.

☀️ Display brightness

Here you can set the display brightness in 3 stages.

🏠 Holiday home mode

With this function you can restrict the access to the control panel with your own pin code down to the bare minimum of functions. All other functions will be disabled and their symbols will not be displayed.

Following settings are possible when the holiday home mode is active:

- Sauna on / off
- Light on / off
- Selection of the operation mode - dry or humid (only by Bi-O heaters)
- Temperature setting
- Humidity setting (only by Bi-O heaters)

To activate this mode touch the 🏠 symbol twice in settings menu. A sub-menu window with a pin code input will open (similar to child lock). Given in your personal 4-digit pin code and confirm the setting. The holiday home mode is now active. The display will return to the start screen.

Hint: To abort the pin code input, touch shortly the „Home" button in the upper right corner.

In active holiday home mode after the sleep mode phase the display will first show the language selection - confirm the preferred language, the display will return to the start screen.

To unlock the unit go to the settings menu. Touch the 🏠 symbol twice to launch the pin code prompt menu. Give in your pin code to unlock the control panel.

⚠️ How to reset the holiday home pin code

Touch the settings symbol to launch the pin code prompt menu.

Touch the display shortly in the top left corner. The four hyphens „----" will turn for approx. 0,5 sec into „****" signs. Now quickly press the ⏎ button. The unit will be unlocked and the display will return to the start screen.

⌐ Potential-free contact

With the potential-free contact (output) you can switch an additional external device on or off. This might be for instance an additional light circuit, music or some other feature. This function has to be enabled in the basis setup and the external device has to be properly connected and configured. The connection and configuration must be carried out only by an adequately qualified personnel. Please contact your dealer for further details.

Please observe that the potential-free contact output only provides a switching signal (on / off).

In the main navigation menu touch the ⌐ symbol twice with a short interval. In the sub-menu press on the ✓ symbol to switch the external device on or on the ✗ symbol in switch it off.

Hint: If you cannot find the symbol of the potential-free contact in the settings menu please contact your local dealer to have this function enabled.

🖫 Firmware update

This function allows your to flush or update the installed firmware both in the control panel and in the main relay box. For this an empty SD or SD-HC card will be required (not included in delivery scope). Please contact your authorized dealer for further assistance.

⚠ **Attention!** Do not attempt to update the firmware on your own without a competent assistance. Malfunctions or faults caused by an unauthorized firmware flushing/update will lead to the loss of warranty.

Troubleshooting (error messages)

The EmoTouch II+ control unit may detect various errors and will display an error message on the screen. The errors will be displayed in text form which allows to identify the reason of the fault easier and to rectify it faster. Additionally the control panel will display on alternating basis the contact information, so that the end user could contact the manufacturer or the dealer immediately without having to search for this information in the manual or other records.

Error	Error
!	**!**
error description text	EOS Saunatechnik GmbH 35759 Driedorf Tel: +49277582-0 info@eos-sauna.de www.eos-sauna.de
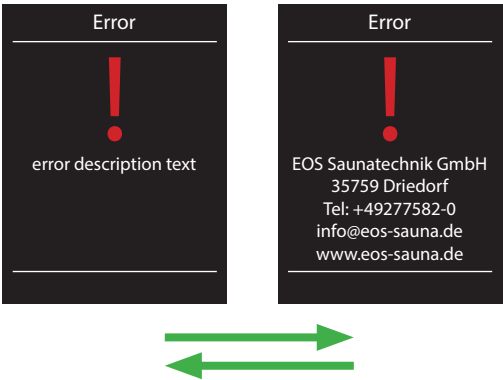
Errors / Error messages	Reason / Troubleshooting
Display remains dark	• No power supply - check fuses, check cables. • Switch-Off switch in off position - check the device's main switch for correct position. • Faulty connection to control panel - check the link cable (rely box - control panel) for reliable connection. • Control panel in sleep mode - touch the screen.
Sensor fault	• Faulty connection to the main sensor - check the sensor and cables for reliable connection. • Faulty sensor - get the sensor replaced by the dealer.
Thermofuse blown	• Faulty connection - check the white cable (loose wire, faulty contact, etc.) • Thermofuse blown because of overheating - check the possible reason for overheating, replaced the fuse (one spare fuse is included with every controller).
Water shortage	• Too little water in vaporizer - refill water. Observe the pre-set grace time for refilling, otherwise the vaporizer will be shut-down! • By automatic refilling - check the water supply line, check the FWA water level control device.
No Bus communication	• Check the cable connection between the relay box and the control panel. • Restart the control unit; if the fault persists, contact the dealer or EOS service.
Unknown error	• Check cable connections and restart the control unit; if the fault persists, contact the dealer or EOS service

If any other unidentified error messages appear, please contact EOS service. Make sure to supply the serial number, fault details and other relevant information.

The device „Switch-off" switch

You will find the rocker switch on the left side of the main relay box. You can completely disconnect the control unit from the mains using this switch.

⚠️ **Attention!** Parts of the printed circuit board will still remain energized in the switched off condition! Risk of electric shock!
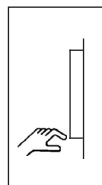

Device's main switch

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).

Device switched off (completely); 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 I**).

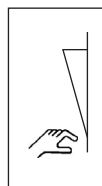**Light enabled; Device switched off. Position I.**

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

Device switched on. Position II. Default position.

WARRANTY

The warranty is provided according to the legal regulations at present.

Manufacturer's guarantee:

- The period of guarantee starts from the date of purchase and lasts up to 2 years by commercial use and 3 years by private use.

- Always include the completed guarantee certificate when returning equipment.

- The guarantee is void for appliances which have been modified without manufacturer's explicit agreement.

- Damages caused by incorrect operation or handling through non-authorized persons are not covered under the terms of guarantee.

- In the event of a claim please indicate the serial number as well as the item number and model name with detailed description of the fault.

- This guarantee covers defective parts and labour but not the defects caused by wear and tear.

In case of complaint please return the equipment in its original packaging or other suitable packaging (caution: danger of transport damage) to our service department.

Always include the completed warranty certificate when returning equipment.

Possible shipping costs arising from the transport to and from point of repair cannot be overtaken by us.

Outside of Germany please contact your specialist dealer in case of warranty claims. Direct warranty processing with our service department is in this case not possible.

Equipment commissioning date:

Stamp and signature of the authorized electrician:

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.

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

Handling procedures for return shipments (RMA) - Details for all returns !

Dear customer
we hope that you will be satisfied with the purchased EOS product. In the rear case if you may have a claim and will need to return a product, please follow the procedures specified below. This will enable to ensure a quick and effective handling of the return shipment.

Please observe for all returns!

- Please add the provided **RMA-voucher completely filled out** together with an **invoice copy** to the return shipment! Do not stick it on the goods or on the packaging. **We do not accept return shipments without these papers.**

- Not prepaid parcels **will be refused** and returned to Sender! Please always ask your dealer or EOS service department about the most economical return shipment way.

- **Please pay attention that** the goods have to be sent back in the **original scope of delivery** and in **original packing**.

- We recommend to use an **additional solid and break-proof covering box** which should be padded out with styrofoam, paper or similar. Transport damages as a result of faulty packing are for the sender's account.

Reason of complaint and proceedings:

1) Transportation damage

- Please check the content of your parcel immediately and advise the forwarding company of a claim (parcel service/ freight forwarder)

- Do not use damaged goods!

- Ask the forwarder **for a written acknowledgement of the damages.**

- **Report the claim promptly by phone to your dealer.** He will discuss with you how to act in this case.

- If the transport box has been damaged, please use an additional covering box. Do not forget to add the **acknowledgement of the damage of the forwarding company !**

2) Faulty goods

- The implied warrenty period is 2 years.Please contact your dealer in case of **faulty or wrong articles or missing accessories.** He will discuss with you the individual case and try for immediate and customer-friendly solution.

- For **economic returns** within Germany you will get an **RMA-number from the manufacturer.**

- All returns have to be in the **original packing of the goods with corresponding accessories.** Please repack the goods to avoid damages. In case of wrong delivery, please do not use this article .

3) Problems of installation and functioning

- Please **read the manual carefully first of all** and pay attention to the indicated assembly or installing instructions.

- **Your dealer should be the first contact person** because he knows his products best and also knows possible problems.

- **In case of function problems with an article,** please check at first whether there is an obvious material defect. The quality system in our factory reduces malfunctions of new appliances to almost zero.