

EmoTouch 3 CAN

Control Unit for Sauna Cabins



Installation Instructions

Made in Germany

Documentation

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Original installation instructions DE

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Characters, symbols and illustrations

- Additional information about an operating step
- Cross-reference to a page
- Read instructions
- ☑ Result of a step
- Table title
- ☑ Title of figure
- $\leq \geq$ Less than or equal to, greater than or equal to

Revision history

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General safety instructions

Fire hazard from overheating	 Insufficient ventilation can lead to device overheating and fire. Do not install control panels, relay boxes and modules in enclosed cabinets or wood paneling. Observe the sauna heater manufacturer's safety and installation instructions. Observe the cabin manufacturer's safety and installation instructions. Touchable glass surfaces on the outside of the cabins must not reach more than 76°C / 171°F. Otherwise provide proper protection.
Damage to the unit	 Corrosive or heavy saline atmospheres damage the contacts in the control panel, in the relay box and on the sensors. The control panel, relay box and sensors should not be installed in a corrosive or heavy saline atmosphere.
Damage due to incorrect mounting location	 The control unit is not suitable for outdoor use. The unit should be operated inside buildings only. It should not be exposed to harmful environmental conditions. Harmful environmental conditions include, for example: humidity, moisture, possible formation of condensation or weather that promotes corrosion, as well as other weather conditions. Similarly, excessive cold and extreme exposure to sunlight must be prevented. Protect the unit accordingly if there is an increased risk of mechanical damage.



1.2 Operator instruction

The operator of the sauna cabin must be instructed in the general safety instructions during commissioning. The operator must be given a copy of the operating instructions.

The operator must make the end user aware of safety instructions that are relevant to the end user.

The operator must be familiar with the settings for the heating period and understand how it is controlled.

Risk to life and limb from electric shock and fire

A risk to life and limb from electric shock and fire arises in the event of improper repair work. This risk remains also after work is completed.

- The housing cover must only be removed by a trained specialist.
- Repairs and installations must only be performed by a trained specialist.
- The sauna system units must be completely disconnected from the mains supply before commencing any repair work.
- ► Use only original spare parts from the manufacturer.

Fire hazard

Objects placed on the sauna heater can ignite and cause fires.

- Do not place objects on the sauna heater.
- Fill the rock store as directed.
- Inspect the sauna cabin prior to each use.



Spending time in a sauna cabin can lead to serious health risks or even death for persons with health impairments.

Persons with health impairments who spend time in a sauna must consult a doctor before entering a sauna cabin.

General safety instructions

Equipment damage due to overuse	 Excessive humidity in commercial sauna cabins can lead to property damage. If the sauna cabin is used commercially, the heating time must be set so that it switches off automatically after a specific period of time. If the heating does not switch off automatically after a defined heating period, cabin use must be supervised at all times. Inspect the cabin before each use.
Damage to health	 Excessive time spent in a heated sauna cabin can lead to overheating of the body (hyperthermia), which may cause serious health problems and even death. Hyperthermia occurs when the core temperature of the body exceeds the norm by a few degrees. Symptoms of hyperthermia include fever, dizziness, lethargy, sleepiness, and fainting. Side effects of hyperthermia include perception disorders, inability to recognize the need to leave the room, inability to identify imminent danger, harm to the fetus in the case of pregnant women, inability to physically leave the room and unconsciousness. Alcohol, drugs, and medications increase the risk of hyperthermia. Do not exceed the maximum recommended time in the sauna. Leave the sauna cabin if your body responds abnormally to the heat or if you do not feel well. Avoid alcohol, drugs, and medications when you are using the sauna. Floor heating in the sauna cabin results in additional warming of the legs and can lead to health risks.



Operation by children or persons with reduced mental capacity

- Children and persons with reduced physical, mental or sensory abilities must be supervised to ensure that they do not play with the unit.
- Children under 8 years of age should not operate the sauna cabin.
- The settings for the heating period may only be changed by children over 8 if they are supervised by an adult.
- The sauna cabin must only be used by persons with reduced mental capacity or limited physical or sensory abilities under supervision or if they have been previously instructed in its use and understand the risks.
- Children and persons who have not received proper instruction must not clean or service the system.

1.3 Safety levels

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

Warning

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

ACAUTION

Caution

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Notice

Indicates a hazardous situation which, if not avoided, will result in damage to the unit.

1.4 Standards and regulations

For an overview of the standards that were observed during design and construction of the unit, please refer to the individual product's technical data sheet that can be downloaded from www.eos-sauna.com. Local regulations also apply to the installation and operation of heating, sauna, and steam room systems.





Identification

EmoTouch 3 CAN can be operated in the following models:

- Finnish sauna mode
- Steamy hot air mode

This documentation describes both models.

2.1 Scope of delivery

The following components are included in the EmoTouch 3 CAN scope of delivery:



Check the scope of delivery for completeness prior to installation.

2.2 Nameplate

Relay box

The nameplate is affixed on the right side near the switch.



- A Name
- **B** Model
- **C** Item number
- **D** Operating voltage and maximum switching output
- **E** Safety temperature limiter
- F Country of origin
- **G** Manufacturer
- **H** Protection class
- I Manufacturing date
- J Serial number



Control panel

The nameplate is located on the inside of the control panel next to the circuit board.



B Item number

D Serial number

Technical data 2.3

Environmental conditions	-10 °C to +35 °C / +14 °F to +95 °F Height < 2000 m a.s.l. / 6,562 ft a.s.l.		
Storage/transport temperature	-20 °C to +60 °C / -4 °F to +140 °F		
Housing	Relay box: Metal Control panel: Plastic		
Relay box dimensions (H x W x D)	250 x 485 x 100 mm / 9.8 x 19 x 3.9 inches		
Control panel dimensions (H x W x D)	142 x 210 x 42 mm / 5.6 x 8.3 x 1.6 inches Mounting depth approx. 37 mm / 1.4 inches		
Relay box weight	Approx. 5 kg / 11 lbs.		
Control panel	EmoTouch 3 CAN		
Power supply	9 kW: 208 Y /120 V AC, 60 Hz, 3 N 9 kW: 240 / 120 V AC, 60 Hz, 2 N 15 kW: 208 Y /120 V AC, 60 Hz, 3 N		
Switching output	9 kW–208 Y: max. 9 kW resistive load with one relay circuit board 9 kW–240: max. 9 kW resistive load with two relay circuit boards 15 kW–208 Y: max. 15 kW resistive load with two relay circuit boards		
Fuses	See Connecting cables and fuses, 🗅 EN-17		
Display	Color capacitive 7-inch touchscreen display in 16:9 format		
Temperature control	Based on ambient temperature: 30 °C–90 °C / 86 °F–194 °F		
Control characteristics	Digital two-point control		

Identification

Connection for lighting	Min. 5 W (20 mA), resistive load, max. 100 W Dimmable energy-saving bulbs, max. 35 W Light source with conventional transformers, max. 60 VA Use only dimmable light sources.		
Sensor system	Digital sensor 90 °C / 194 °F with safety temperature limiter (STB)		
Heating period limitation	6 h/12 h		
Connection for fan	min. 5 W, max. 150 W		
Operation	via touchscreen		
Temperature control	30 °C−90 °C / 86 °F−194 °F – Finnish (dry sauna mode) 30 °C−70 °C / 86 °F−158 °F – Bi-O (humidity mode)		
Humidity regulation	Time-proportionally or optionally according to % relative air humidity with connected humidity sensor		
Sensor system	Digital sensor with safety temperature limiter (STB)		
Safety temperature limiter	in heater: 160 °C / 320 °F in sauna cabin, on ceiling: 139 °C / 282 °F		
Potential-free contact	Load rating of contact for resistive loads: Maximum power supply: 15 A Maximum voltage: 30 V DC / 250 V AC		
Error display	Text on the display		
Outputs	3 x RJ10 jacks for sensor connection 2 x RJ14 jacks for control panel and add-on modules (sauna bus)		
Pipe cross-sections	See Connecting cables and fuses, 🗅 EN-17		
Other connections	Type A connection for memory card		
Connection for vaporizer	VAP1 and VAP2 with total of 3 kW WM for water level sensor		



2.4 Accessories (optional)

Accessories	ltem no.
10 m connecting cable for control panel (RJ10/RJ14)	94.6802
10 m connecting cable for sauna bus (RJ12/RJ12)	94.5861
Humidity sensor	94.5726
SBM-App module	94.9081
SBM remote start	94.5782
Modular distributor RJ12 for connecting cable for control panel and sauna bus	2001.5298

2.5 Heating period limitation

The heating time for the sauna heater is limited.

Private use	Commercial use
6 hours	12 hours

Identification

2.6 Intended use

EmoTouch 3 CAN is designed to operate sauna heaters in sauna cabins. The relay box and control panel are intended only for mounting on the wall. EmoTouch 3 CAN is suitable for residential and commercial sauna cabins.

The control unit is not suitable for outdoor use.



It must be operated only inside buildings and may not be exposed to environmental conditions such as extreme humidity and moisture or the possible formation of condensation or corrosive substances in the ambient air, as well as other weather conditions. Similarly, excessive cold and extreme exposure to sunlight must be prevented. Protect the unit accordingly if there is an increased risk of mechanical damage.

The control unit is not suitable for installation at a height of over 2000 m (6,562 ft).

Foreseeable misuse

The following are considered instances of foreseeable misuse:

- The sauna heater does not have integrated overheating protection.
- The control and sensor cable plugs are plugged in incorrectly.
- The unit is operated without knowledge of or compliance with the safety instructions.
- Operating, service and maintenance requirements are not observed.
- The unit is operated after technical or other modifications are made to the relay box.
- The unit is operated by children under 8 years of age.
- The unit is operated by children 8 years of age or older, or persons with reduced mental capacity who have not been thoroughly instructed in its use.

The manufacturer is not liable for unauthorized modifications made to the equipment and damages resulting from these modifications. The person modifying the equipment alone shall bear the associated risk.



3

Installation

3.1 Routing the lines

All lines should be routed before installing the control unit. The connections can be plugged in after installation, since the control unit's front panel can be removed.

NOTICE

Electronics malfunctions

Routing data and power supply lines together can lead to electronics malfunctions because, e.g., the sensor will not be detected.

- Do not route sensor and sauna bus lines together with power supply lines.
- ► Route cable ducts separately.

Data lines must be routed and connected in such a way that they are not openly accessible. They should be routed between the insulation and the outer wall of the cabin. Cabin insulation must be installed in such a way that the temperature in the area in which cables are routed cannot exceed $65^{\circ}C / 140^{\circ}F$.

If the data lines are installed outside on the wall, they must be protected by a cable duct.

Connecting cables and fuses

Heater out- put	Connection voltage	Connecting cable control system *	Connecting cable Heater **	Fuse
6.0 kW	208 V	AWG 10	AWG 12	25 A
7.5 kW	208 V	AWG 10	AWG 12	30 A
9.0 kW	208 V	AWG 8	AWG 12	35 A
10.5 kW	208 V	AWG 10	AWG 12	25 A
12 kW	208 V	AWG 10/8***	AWG 12	25/35 A***
15 kW	208 V	AWG 8	AWG 12	40 A
6.0 kW	240 V	AWG 12	AWG 12	15 A
7.5 kW	240 V	AWG 12	AWG 12	20 A
9.0 kW	240 V	AWG 12	AWG 12	20 A

Installation

When using 4 to 6-core cables, the type of AWG cable specified in the table increases by one unit.

Example: AWG 12 > AWG 10.

* Only use copper lines (cable type 1) that are approved for temperatures of min. 90 $^{\circ}$ C.

** Only use copper lines (cable type 2) that are approved for temperatures of min. 90 °C.

*** The dimensions of cables and fuses may vary. Observe the information provided in the installation instructions for the corresponding sauna heater.

3.2 Installation work inside the cabin

At minimum, the cabin lighting and a temperature sensor with safety temperature limiter must be installed inside the cabin.



The temperature sensor must be installed where expected temperatures are the highest.

3.2.1 Installing the temperature sensor

The temperature/humidity in the sauna cabin is set via the control unit. The set values are checked by the sensor. The heater sensor controls the temperature in the sauna cabin. The heater sensor has a safety temperature limiter, which ensures that the temperature does not exceed the permitted temperature.



Hardware + tools:

- Temperature sensor and connecting cables
- Drill used to drill a hole in the cabin ceiling
- Screwdriver
- Taut wire, as needed



Installation diagram for temperature sensor

Installing the temperature sensor in the cabin

- 1 Determine a suitable location for the installation.
 - ① The heater sensor must be installed on the cabin ceiling above the sauna heater. It is installed in observance of the following distances from the cabin wall, depending on the cabin size.



A Cabins $< 2 \times 2 m / 6.6 \times 6.6 ft$

B Cabins > $2 \times 2 m / 6.6 \times 6.6 ft$

Installation



Installation configuration above the heater

- 2 Drill a hole in the cabin ceiling for the cable.
- 3 NOTICE Do not pull at the plug when routing the control line(s). Doing so could damage the line. Attach the taut wire only to the cable. Route the sensor cable through the hole.
- 4 Open the temperature sensor's housing and connect the cable.



- 📾 Connector pins for safety temperature limiter and sensor bus
- **5** Screw the sensor housing to the cabin ceiling and place the housing cover in position.



3.2.2 Humidity sensor

The humidity sensor (optional) is installed in the middle of the side wall facing away from the sauna heater and door, at a height of approx. 150 cm / 4.9 ft.



Installation configuration – humidity sensor

3.2.3 Installing cabin lighting

Lighting can be installed anywhere, however not near rising hot air. Cabin lighting is not included in the scope of delivery. Observe the separate installation instructions for lighting.

Observe the requirements for light sources in the chapter entitled Technical Data: 2.3 Technical data, \Box EN-13.

NOTICE

Material damage

Lighting and the control system could become damaged if incorrect light sources are installed. In this case, the warranty becomes void.

- ► The inrush current of the light source must not exceed 20 A.
- Do not install lighting in the emitting range of the heater.
- The lighting must conform to protection class IPX4 (splashproof) and be resistant to ambient temperatures.

Control line connection: Electrical installation, 🗅 EN-34

3.3 Relay box

The relay box must only be mounted outside of the cabin and in dry areas only. Observe the following guidelines.

3.3.1 Requirements

A WARNING

Risk to life and limb and risk of fire

Risk to life and limb from electric shock and fire in the event of improper or faulty electrical connection. This risk remains also after completion of the installation work.

- Do not install the relay box in enclosed cabinets or wood paneling.
- Mount the relay box in a dry environment only.



Proper and improper relay box installation

Recommended installation locations are:

- Outer wall of the cabin
- Plant room

If empty conduits for electrical installations are already present, this dictates the position of the relay box.

All lines should be routed before installing the relay box. Data lines must be routed and connected in such a way that they are not openly accessible.



Measurements for installation



📾 Back of relay box

3.3.2 Installing the relay box

1 Drill holes as required.



2 Insert anchors into the drill holes if necessary.

Installation

3 Loosen the 6 screws on the cover.



- 4 Remove the cover.
- 5 Insert the cable glands into the openings and tighten with the nut.



- A Cable glands
- 6 Loosen the 4 screws on the hood.





7 Remove the hood and the seal.



8 Hook the relay box through the mounting holes and screw tight.



Installation



9 Route the connecting cables through the openings.

A Supply lines for sauna bus, sensor bus, STBB Power supply circuit boards, light, fan, vaporizer, heater

10 Screw the seal and the hood in place.



11 Screw the cover in place.

- ① Once you have completed all installation work, you can connect the consumers and plug in the lines.
- ① 4.9 Safety temperature limiter, ¹ EN-44
 - 4.11 Connecting the mains supply and units, 🗅 EN-46



3.4 Control panel

The EmoTouch 3 CAN control panel is designed for mounting in the wall. If empty conduits for electrical installations are already present, this dictates the position of the control panel.

3.4.1 Requirements

- The cabin wall must be designed in such a way that the temperature in the area in which cables are routed cannot exceed 65°C / 149°F.
- The control panel must only be mounted outside of the cabin. The outside wall of the cabin is the preferred mounting location.
- Installation depth in the wall min. 1.3" (35 mm)
- Max. line length: 32.8 ft (10 m).

Line routing



The control line should be routed between the insulation and the outer wall of the cabin. Cabin insulation must be installed in such a way that the temperature of the external wall cannot exceed 35 °C. If the line is installed on the cabin's exterior wall, it must be protected by a cable duct.

Extending the control panel's control line

For longer connections, special RJ10/RJ14 connecting cables with a length of 10 m / 32.8 ft are available as an option. See 2.4 Zubehör (optional), DE-15

Installation site

The control panel is mounted outside of the cabin. The following distances are recommendations:



Dimensions at the mounting location

NOTICE

Damage due to steam and humidity

Steam can escape when the door is opened, which can fog over the control panel. This can lead to the formation of condensation in the control panel and system downtime.

- Mount the control panel far enough away from the area where steam is emitted and can spread.
- Mount the control panel on the hinge side of the door.



3.4.2 Mounting the control panel

The control lines are connected to the control panel. Depending on the system installation, they lead to the cabin, to the relay box, and to the control panel. These control lines are fed through the bottom of the housing. Therefore, they must be installed once the cut in the wall has been made.

Necessary steps:

- Create wall cut-out and lay the control line, D EN-29
- ► Mounting the housing, □ EN-30
- Plugging in the lines, D EN-31
- ▶ Plugging in the control panel, □ EN-32

Tools required:

- Saw for wall cut-out
- Phillips screwdriver
- Removal tool to loosen the front panel (included in the scope of delivery)
- Taut wire, as needed

Create wall cut-out and lay the control line

- 1 Determine a suitable location for the installation.
- 2 Create a wall cut-out:



- **3** Route the control line from the relay box to the control panel.
 - ① Do not pull at the plug when routing the control line. Doing so could damage the line. Attach the taut wire only to the cable.
 - The smaller RJ10 plug on the connecting cable must be routed to the control panel.

Installation

Mounting the housing

1 NOTICE The control panel's housing and display are not mounted upon delivery. Do not drop the control panel. The display's glass plate cannot be replaced. Remove the protective foil from the panel after mounting is completed.

Insert the two removal tools in the slots on the lower edge of the control panel and carefully remove the display.

2 Loosen the clip screws in the housing and slide the clips inward.



- 3 After routing, pull the control lines through the opening in the housing.
 ① Do not pull the control line too taut so that you can easily remove the control panel at a later time.
- 4 Place the bottom piece in the prepared wall cut-out.



- ① Observe the sticker on the housing (oben/up).
- ① When fixing the unit to the wall, ensure that the bottom of the unit is aligned properly. The side with the hole for the connecting cables and the slots for the removal tool must be facing downwards.



- 5 Slide the clips as far out as they will go and tighten the screws clockwise.

- ① The housing must sit firmly in the wall cut-out.
- **6** As an alternative to clips, the housing can also be fixed by using screws. Screw the screws into the holes on the 4 sides to fix the housing.



- Plugging in the lines
- 1 Pull the control lines from the relay box through the ferrite ring twice.



2 Slide the ferrite ring onto the bridge on the mounting plate.

Installation



3 Connect the control line to socket 1/2 using the RJ10 plug.

- 🖾 EmoTouch 3 circuit board jacks
- Plug for multi-cabin connection, see 6.1 Configuration options, EN-55

Plugging in the control panel

Place the control panel directly in front of the bottom piece.
① Ensure that it is aligned properly. Socket 1/2 must face downward.





- 2 Press the control panel carefully into the housing with a consistent amount of pressure until it audibly snaps into place.
 - To remove it, insert the two removal tools in the slots on the lower edge of the control panel and carefully remove the display.
- 3 Remove the foil from the control panel.① For commissioning information, see
 - 5.2 Setup during commissioning or after a reset, 🗅 EN-50

3.5 Mounting the fan

The exhaust fan for the sauna cabin is controlled by the control panel. The fan should ideally be installed on the wall opposite the sauna heater, however never near hot air that rises from the heater. The fan is not included in the scope of delivery. Observe the separate installation instructions for the fan.

Fan requirements

- Minimal output 5 W
- Maximum output 150 W
- Voltage 120 V 1 N AC
- Suitable for use in sauna cabins





Electrical installation

4.1 General instructions for electrical installation

Ensure that electrical installation is performed in compliance with the standards and legal norms valid in your country.

If a residual current device (RCD) is installed, ensure that there are no other electrical consumers not belonging to the sauna system which are fused via this RCD.

If the sauna heater has not been used for an extended period of time, the heater may draw moisture from the ambient air, which, in rare cases, could lead to the RCD to be tripped. This is a physical process and not a fault on the part of the manufacturer.

In this case, the heater must be heated by a technician under supervision which will bypass the RCD function. Once the moisture has escaped from the heating elements after approx. 10 minutes, the RCD can be integrated again in the electric circuit.

If the sauna heater will not be used for an extended period of time, we recommend that you switch on the heater every 6 weeks so that the heating elements do not accumulate moisture. If, during commissioning, the RCD is triggered, the electrical installation must be checked again.

The electrician is responsible for properly connecting the heaters; thus, the manufacturer does not assume liability.

Risk of electric shock

A faulty electrical connection poses the risk of an electric shock. This risk remains also after completion of the installation work.

- ▶ Disconnect the system units entirely from the mains supply.
- If retrofitting is required, the housing must only be opened by trained personnel.
- Electrical installation must only be carried out by a qualified and licensed electrician.
- The unit must be connected to the power supply according to the circuit diagram and the terminal scheme.



Recommended installation sequence

Before commencing installation, ensure that the relay box and the control panel are mounted. Furthermore, all cabin work must be complete: sauna heater, temperature sensor, lighting, etc.

Complete installation in the following sequence:

- Plug the S-Bus and sensor lines into the relay box.
- Connect the consumer lines (sauna heater, light, fan, etc.) to the relay box.
- Establish connection to the power supply.
- Switch on the relay box and control panel.
- In a multi-cabin installation: Program the cabin address.
 See 6.3 Programming of the cabin address,
 ^D EN-62
- Configure additional settings at the control panel, e.g. target temperature. See the operating instructions.

4.2 Installation examples

Fan, light, temperature sensor, heater and the control panel are connected to the relay box. A vaporizer can also be connected.

9 kW



All wiring must be done in accordance with the National Electric Code and local building codes.

All supply wire must be 90 °C copper.


15 kW



All wiring must be done in accordance with the National Electric Code and local building codes.



4.3 Internal view of relay box





4.4 Circuit board assignment

See the connection diagrams below for more information on connections.



4.5 EmoTouch 3 CAN – 6–9 kW, 208 V connection diagram



All wiring must be done in accordance with the National Electric Code and local building codes.









All wiring must be done in accordance with the National Electric Code and local building codes.







All wiring must be done in accordance with the National Electric Code and local building codes.



4.8 Connecting the control panel

Routing the lines

- 1 Route the line for the control panel through the openings at the top of the housing in the relay box.
- 2 Plug the plugs into one of the two S-Bus jacks until they click into place.



A Sauna bus (relay box)

- **3** Guide the other end of the line (small RJ10 plug) to the control panel and connect it.
 - ③ Observe the relevant installation instructions. See 3.4.2 Mounting the control panel, ^D EN-29

4.9 Safety temperature limiter

One STB is installed in the heater and another in the sauna cabin. Both STBs must be switched on in sequence.

Connecting the STB

1 Route the line through the openings at the top of the housing.



- A Heater safety temperature lim- B Sauna safety temperature limiter iter
- **2** Connect the STB cables from heater (**A**).
- **3** Connect the STB cables from cabin (**B**).



4.10 Connecting the sensors

In addition to the temperature sensor (heater sensor) you can also connect an optional bench sensor and an optional humidity sensor to the control system.

Routing the lines

- 1 Route the lines through the openings at the top of the housing.
- **2** Plug the plugs into one of the three sensor bus jacks (B) until they click into place.



A Sauna bus (control panel)

B Sensor bus (temperature sensor)



4.11 Connecting the mains supply and units

The mains supply for the vaporizer and the various units (consumers) are connected on the main circuit board.

Connecting the lines

(optional)

- 1 Route the lines through the openings at the base of the housing.
- 2 Connect consumers as assigned below:

Terminal	Assignment
L1, L2, N	Mains connection for vaporizer
N, VAP1, VAP2	Single- or double-stage vaporizer (optional)
WM	Water shortage signal on vaporizer (optional)
FL1, FN, FL2	Single- or double-stage fan
LN, LL	Cabin lighting
3, 4	Potential-free contact, max. 15 A



4.12 Closing the relay box housing

When you have connected all the required lines you can close the relay box:

Remounting the housing cover

- 1 Remount the cover.
- **2** Screw in the 6 screws.



4.13 Setting up the vaporizer (optional)

If you have a heater with a vaporizer, the control unit may be set up only if the vaporizer is ready for operation.

- Control and data lines are connected
- Water supply and drain outlet are connected
- Housing cover is in place

Preparing the vaporizer

- 1 Open the water supply at the shut-off valve.
- **2** Start the vaporizer.
 - ③ Please observe the installation and operating instructions for the connected heater with vaporizer.

Commissioning



5

Commissioning



In order to commission the sauna cabin, the cabin must be switched on at the control panel. If the display is blank, the relay box might be switched off.

A unit switch is located on the front of the relay box.



Position I:

Relay box is switched on (factory setting). The relay box is ready for operation in standby mode.



Position 0:

Relay box is completely switched off. Parts of the circuit board are still under current.

Position II: Cabin lighting is switched on, relay box is switched off. Position for maintenance and cleaning.

5.1 Operation basics

All cabin settings are made via the control panel. All functions must be configured to commission the system. Add-on modules or accessories are detected after the unit is switched on again and their corresponding icons appear in the sub-menus.



5.1.1 User interface icons



EmoTouch 3 CAN control panel (example)

The touch screen icons are displayed in various colors:

- Gray: Function button is inactive
- White: Function available or selected
- Green: Function button Confirm is selected
- Blue: Settings, e.g., for timer
- Red: Function button Delete is selected, icon for auto-stop

Texts are displayed in the following colors:

- White: Status texts, e.g., date, name of sub-menu
- Blue: active input digits, e.g., for date, time, timer display
- Red: Warning, time display for auto-stop

Operating and status icons (examples)



System on/off



Settings



Malfunction warning



Current cabin (only for multi-cabin installation)



Humidity mode



Confirmation prompt

A complete description of the icons and settings can be found in the operating instructions.

Commissioning

5.1.2 Switching on and off

The control panel automatically switches to standby mode once connection to the relay box has been established and it is connected to the mains supply.

Choose the U button to switch heating on or off.

5.2 Setup during commissioning or after a reset

The settings must be redefined upon commissioning and after a complete system reset. The program guides you through the required steps.

Defining the basic settings

1 Tap the desired language.

Setting					\triangleright		
			Langua	ige			
BG	CN	CZ	DE	DK	EN	FIN	FR
HR	HU	Π	NL	PL	RO	RU	SE
SK	SLO	SP	TR				
			000	00	00	01. June 08:44:40	e 2019)

2 Confirm the selection.

 $\ensuremath{\boxtimes}$ The display now shows settings for the time.

- **3** Set the time and confirm.
- 4 Set the date and confirm.
- **5** Specify and confirm the place of operation.
 - ① European Union/CENELEC must be selected if the system is installed in countries under the jurisdiction of the CENELEC.



6 Select the operating mode and confirm.



- Choose this setting if one steam generator or one sauna heater per cabin is controlled. For more information about installing multiple cabins, see Installing multiple cabins,
 EN-54.
- Choose this setting if one cabin is served by 1–4 steam generators. Additionally, 4 more cabins can be controlled with steam generators or sauna cabins.
- Choose this setting if 2 cabins, each with up to 4 steam generators, are operated.
- Choose this setting if 2 steam room cabins, each with up to 2 steam generators, are operated.
 Additionally, 4 sauna cabins or IR cabins can be operated.
- **7** Specify the type of use and confirm:
 - a) h Private use
 - **b**) ^{RB} Commercial use
 - ③ Specific safety regulations apply to this setting. See 1.2 Operator instruction, <a>D EN-7
- **8** Confirm the confirmation prompt.
 - If you do not confirm the safety system, the settings for the remote start module, the Web App WCI module and the timer are deactivated.
- 9 Select the heater type and confirm.

Commissioning

10 Open skin selection by pressing .



- 11 Select the skin and confirm.
- **12** Select the sauna heater display and confirm.
 - ① After selecting the heater display, the selection of the connected modules is displayed again.
 - If the installation is a multi-cabin installation, the skin, the heater display and the modules for each cabin are set.



5.3 Troubleshooting

Error messages and icons on the control panel indicate operating statuses and fault conditions.

Error – error message	Reason	Solution	
Display is blank	No power supply.	Switch on the relay box.	
		Check the relay box's mains connection.	
		Check the fuses.	
	No connection to the relay box.	Check the connection to the control panel.	
	A connecting cable > 25 m to the con- trol panel and power adapter is miss- ing.	Check the power adapter; a cable is required if the distance is 25 m or longer.	
Safety temperature limiter trig- gered.	Temperature too high.	Check cause of excess temperature. Replace the safety temperature limiter.	
Temperature sensor fault	No connection to the temperature sensor.	Check the cables and connections.	
	Sensor is defective.	Replace the sensor.	
Error with the safety circuit	No connection.	Check the cable and connections (broken cable, loose connection, etc.).	
	Fuse tripped by excessively high tem- perature.	Check the cause of excess temperature and have the fuse for the safety temperature limiter replaced (a replacement fuse is included with the control unit).	
Water shortage	Not enough water in the vaporizer.	Refill water. Configure automatic filling, if necessary. Observe the set refill period, otherwise the system forces shut-off.	
	Malfunction when automatically filling water.	Check water supply. Check mains water connection FWA01 device. Clean the filter at the water supply connec- tor if necessary.	
	No water supply, water inlet valve clogged, blocked, or defective.	Clean the water inlet valve and check that it functions properly. Replace the water inlet valve if necessary.	
No bus communication.	Too many add-on modules connected.	Connect modules with separate power adapter.	
	Bus connection plug not plugged in.	Connect plug.	
	Bus cable damaged.	Replace bus cable.	
	Unit not detected.	Set unit address for the module.	
Other errors	Software error.	Restart unit. Contact technical support.	

Installing multiple cabins





Installing multiple cabins

The EmoTouch 3 control panel can be used to set and control multiple cabins. Any combination of up to 8 sauna, infrared and/or steam cabins can be connected, e.g.,:



LSG-IR Infrared relay box



6.1 Configuration options

To control multiple cabins with one EmoTouch 3 control panel, you must connect, program, and set up the cabins and relay boxes accordingly. The lines must be connected according to the operating mode that is selected at the time of startup.

A unique cabin address must be programmed for each relay box. Furthermore, in a mixed multi-cabin installation, a unique cabin address must be programmed for each steam generator.

The connections and the cabin addresses are shown in detail in the following chapters.

- 6.1.1 Configuring 1–8 sauna cabins, □ EN-56.
- 6.1.2 Configuration 2 1 steam room and 4 additional cabins, 🗅 EN-57.
- 6.1.3 Configuration 3 2 steam rooms, 🗅 EN-58.
- 6.1.4 Configuration 4 2 steam room cabins and 4 additional cabins, EN-59.

Installing multiple cabins

Setting \triangleleft \diamond Operation mode Default: up to 8 1 Steam cabin 2 Steam cabins 2 Steam cabins each with up to 2 Steam genera-Cabins with up to 4 each with up to 4 Steam genera-Steam generators and optional tors tors and optional up to 4 additional up to 4 additional cabins cabins 01. June 2019 $\bullet \bullet \bullet \bullet \bullet \bullet \circ \circ \circ \circ$ 08:44:40

6.1.1 Configuring 1–8 sauna cabins

Operating mode – standard

In this configuration, one steam generator or one sauna heater is operated per cabin.

The lines are connected as follows:

Cabin no.	Relay box connection – control panel	Cabin address
1	The relay box is connected to jack #1 of the control panel using the sauna bus cable.	Relay box remains set to address 1.
2	The relay box is connected to a free sauna bus jack in the relay box of cabin #1.	Relay box is set to address 2.
3	The relay box is connected to jack #2 of the control panel using the sauna bus cable.	Relay box is set to address 3.
4	The relay box is connected to a free sauna bus jack in the relay box of cabin #3.	Relay box is set to address 4.
5	The relay box is connected to jack #3 of the control panel using the sauna bus cable.	Relay box is set to address 5.
6	The relay box is connected to a free sauna bus jack in the relay box of cabin #5.	Relay box is set to address 6.
7	The relay box is connected to jack #4 of the control panel using the sauna bus cable.	Relay box is set to address 7.
8	The relay box is connected to a free sauna bus jack in the relay box of cabin #7.	Relay box is set to address 8.

All relay boxes are set by the factory to cabin address 1. See also the following figures:

- Jacks sauna cabin relay box, 🗅 EN-60
- Jacks EmoTouch 3 circuit board, 🗅 EN-60



\bigtriangledown	Setting						
	Operation mode						
	Default: up to 8 Cabins	1 Steam cabin with up to 4 Steam generators and optional up to 4 additional cabins	2 Steam cabins each with up to 4 Steam genera- tors	2 Steam cabins each with up to 2 Steam genera- tors and optional up to 4 additional cabins			
			0000	01. June 2019 08:44:40			

6.1.2 Configuration 2 – 1 steam room and 4 additional cabins

Market Operating mode – 1 steam room and max. 4 sauna or IR cabins

In this configuration, one cabin is controlled with 1–4 steam generators. Additionally, 4 more cabins with sauna heaters or infrared emitters can be controlled.

Regardless of the number of steam generators in the first cabin, the second cabin must be connected to jack 3 on the control panel. Cabin address 5 must be programmed at the corresponding steam generator or relay box. Additional cabins are connected and programmed as follows:

Cabin	Steam generator/module*	Cabin address	EmoTouch 3 jack	
Cabin 1	Steam generator 1	1	1	Required
	Steam generator 2	2	1	Optional
	Steam generator 3	3	2	Optional
	Steam generator 4	4	2	Optional
Cabin 2	1 steam generator or module	5	3	Optional
Cabin 3	1 steam generator or module	6	3	Optional
Cabin 4	1 steam generator or module	7	4	Optional
Cabin 5	1 steam generator or module	8	4	Optional

* Module = add-on modules, e.g. LSG-Sauna, LSG-IR, LSG-RB, etc. See also the following figures:

- Jacks sauna cabin relay box, 🗅 EN-60
- Jacks EmoTouch 3 circuit board, 🗅 EN-60

Installing multiple cabins



6.1.3 Configuration 3 – 2 steam rooms

☑ Operating mode – 2 steam rooms with 2–4 steam generators

In this configuration, 2 cabins are controlled with 2–4 steam generators. Additional cabins require their own control unit.

Cabin	Steam generator	Cabin address	EmoTouch 3 jack	
Cabin 1	Steam generator 1	1	1	Required
	Steam generator 2	2	1	Optional
	Steam generator 3	3	2	Optional
	Steam generator 4	4	2	Optional
Cabin 2	Steam generator 1	5	3	Required
	Steam generator 2	6	3	Optional
	Steam generator 3	7	4	Optional
	Steam generator 4	8	4	Optional

See also the following figures:

- Jacks sauna cabin relay box, 🗅 EN-60
- Jacks EmoTouch 3 circuit board, 🗅 EN-60



6.1.4 Configuration 4 – 2 steam room cabins and 4 additional cabins



☑ Operating mode – 2 steam rooms with 1–2 steam generators and max. 4 additional cabins

In this configuration, two cabins with 1–2 steam generators each and up to 4 additional cabins are operated.

Cabin	Steam generator/module*	Cabin address	EmoTouch 3 jack	
Cabin 1	Steam generator 1	1	1	Required
	Steam generator 2	2	1	Optional
Cabin 2	Steam generator 1	3	2	Required
	Steam generator 2	4	2	Optional
Cabin 3	Module	5	3	Optional
Cabin 4	Module	6	3	Optional
Cabin 5	Module	7	4	Optional
Cabin 6	Module	8	4	Optional

* Module = add-on modules, e.g. LSG-Sauna, LSG-IR, LSG-RB, etc. See also the figures for configuration 1:

- Jacks sauna cabin relay box, 🗅 EN-60
- Jacks EmoTouch 3 circuit board, 🗅 EN-60

6.2 Control lines and cabin addresses

Control lines must only be plugged into the corresponding jacks on the circuit boards of the steam generator and relay boxes.



📾 Jacks – sauna cabin relay box

The relay boxes for steam room or IR cabins are described in detail in separate instructions.



🛛 Jacks – EmoTouch 3 circuit board



Ferrite ring per jack

NOTICE

Malfunctions in other electronic devices

Electromagnetic emissions (interference signals) can adversely impact other electronic devices.

Pull each connection cable through its own ferrite ring twice per jack.

One jack per connection must be fitted with 1 ferrite ring. The connection cable must be pulled through the ferrite ring twice.



The ferrite ring for jack #1 is included in the scope of delivery for each control panel and add-on module.

Once the cabins with their custom cabin address (ID) are connected, the icon for the selected cabin is displayed in the footer.



The number corresponds to the cabin currently selected (not the number of connected cabins).

6.3 Programming of the cabin address

The EmoTouch 3 relay box is programmed with cabin address 1 as delivered. To ensure that EmoTouch 3 detects multiple cabins, the cabin address must be changed to a different cabin address starting with cabin 2. See more about the various configurations: 6.1 Configuration options, \Box EN-55

Programming button on the circuit board



Programming button – relay box



6.4 Setting up a multi-cabin installation

To program the cabin addresses, you must open the housing of the control panel and of the relay box.

See chapter Installation, 🗅 EN-17

Ensure that you observe the connection sequence.

The connection sequence must start with jack #1 on the control panel's circuit board. See 6.1 Configuration options, \Box EN-55

The control lines can be connected via the relay box or directly in the control panel. The cabin with address 4 can be connected as follows, for example:

- Via the relay box of cabin 3, which is then connected to jack #2 of the control panel.
- Directly to jack #2 of the control panel.

In both cases, cabin 4 is finally connected to jack #2. Cabins with incorrect connections will not be detected or displayed on the control panel.

The following describes how you set up the multi-cabin installation for configuration 1. Proceed as described in configuration 2–4 and ensure that the cabin address is correct.

NOTICE

Cabin is not detected by the control panel

In the multi-cabin installation, the cabin address must match the connection of the S-Bus connections on the circuit board of the EmoTouch 3 CAN control panel.

- Observe the correct S-Bus connection sequence.
- Ensure the cabin address is correct.
- ▶ Plug in the S-Bus lines, □ EN-63
- Programming addresses,
 EN-64

Plug in the S-Bus lines

- Open the housing of the relay box and control panel.
 3.3.2 Installing the relay box,
 ¹ EN-23
 3.4.2 Mounting the control panel,
 ¹ EN-29
- Plug the relay box for cabin 1 into jack #1 on the control panel.
 The connection must always start with jack #1. The connection sequence must be adhered to exactly.

Installing multiple cabins



3 Plug the relay box for cabin 2 into jack #2 on the relay box for cabin 1.

- ① EmoTouch 3 automatically switches to multi-cabin mode. On the display, the new cabin in gray is displayed until the cabin address has been programmed.
- ① The cabin address can be programmed once all lines have been plugged in, see ► Programming addresses, □ EN-64.
- 4 Plug the relay box for cabin 3 into jack #2 on the control panel.
- 5 Plug the relay box for cabin 4 into jack #2 on the relay box for cabin 3.
- 6 Plug the relay box for cabin 5 into jack #3 on the control panel.
- 7 Plug the relay box for cabin 6 into jack #2 on the relay box for cabin 5.
- 8 Plug the relay box for cabin 7 into jack #4 on the control panel.
- 9 Plug the relay box for cabin 8 into jack #2 on the relay box for cabin 7.
 ① Once all lines have been plugged in, the cabin addresses must be deprogrammed.

Programming addresses

- If the cabin address does not match the connection, the cabin is not detected.
 - ③ You must follow the correct connection sequence in the EmoTouch 3 CAN control panel.
- Press and hold the programming button on the circuit board of relay box 2 for approx. 5–6 seconds until the red LED illuminates.
 ✓ Programming mode is then active. The green LED light goes off.
- **3** Briefly but firmly press the programming button once.



- Wait until the green LED flashes and count how many times it flashes.
 ☑ The green LED flashes 1 to 8 times, depending on the new cabin address. E.g., for cabin 2, the LED flashes twice.
- 5 Repeat steps 3 and 4, until the desired cabin address has been set.
 ① Note that each time you press the programming button, the cabin address increases by one. Once address 8 is reached, the count starts over with address 1.

☑ If the button is not pressed for approx. 15 seconds, programming mode ends. The red LED goes off and the green LED starts flashing. The new address is saved.

6 Check if the new cabin is shown on the display.

☑ In the status bar, the icon for multi-cabin operation appears:



Example – display for cabin 3

 \boxdot On the display, the image changes from the large cabin image to a black background with small cabin icons.

- ① If the small cabin icon is displayed in gray, the cabin has not been detected. Check the cabin address and the connection sequence on the EmoTouch 3 control panel.
- 7 Repeat programming if the cabin is not displayed.
 - I Please note that the address increases by one each time you press the programming button, e.g., from 4 to 5.
- 8 Close the housing of the relay box and control panel.
 (i) ▶ Plugging in the control panel, □ EN-32

Now you can make the settings for each cabin. 5.2 Setup during commissioning or after a reset, For information on cabin settings, see the separate operating instructions.



General terms and conditions of service

(T&C, Dated 08-2018)

I. Scope

Unless otherwise agreed in writing for specific instances, these terms and conditions of service shall apply to service operations, including reviewing and remedying complaints. All our existing or future legal relationships shall be governed solely by the following terms and conditions of service. We do not recognize any of the customer's conflicting terms and conditions unless we have given our express written consent to their applicability.

We hereby expressly object to any of the customer's terms and conditions included in the customer's General Terms and Conditions of Business or order confirmation. Unconditional acceptance of order acknowledgments or deliveries shall not be construed as any form of acknowledgment of such terms and conditions. Ancillary agreements or amendments must be confirmed in writing.

II. Costs

The customer shall bear the following costs in connection with services rendered:

- Mounting/dismantling and electrical (de-)installation
- Transportation, postage and packaging
- Function testing and troubleshooting, including inspection and repair costs

There shall be no third-party billing.

III. Performance and cooperation obligations

The customer shall provide assistance free of charge to the manufacturer in rendering services.

In the case of a warranty claim, the manufacturer shall provide spare parts necessary for servicing free of charge.



IV. Service visit by the manufacturer

Services rendered on site by an employee of the manufacturer must be agreed in advance.

If the main reason for the service visit is not the fault of the manufacturer, any costs incurred shall be charged to the customer after the service visit and must be paid by the customer in full within the agreed payment term.

V. Liability

The manufacturer shall assume liability in accordance with the currently applicable statutory regulations. All our products are packaged in such a way that the individually packed goods (pallets) can be shipped. We wish to point out that our packaging is not suitable for individual shipments via postal service. The manufacturer shall accept no liability for damages incurred as a result of improper packaging in an individual shipment.

VI. Manufacturer's warranty

The manufacturer's warranty shall apply only if installation, operation and maintenance have been carried out in full accordance with the manufacturer's specifications in the installation and operating instructions.

- The warranty period shall commence from the date on which proof of purchase is provided and shall be limited, in all cases, to 24 months.
- Warranty services shall be performed only if proof of purchase of the equipment can be presented.
- Any and all warranty claims shall become void if modifications are made to the equipment without the manufacturer's express consent.
- Any warranty claim shall likewise become void in the case of defects that arise due to repairs or interventions made by unauthorized persons or due to improper use.
- In the case of warranty claims, the serial and article numbers must be provided, together with the unit designation and a meaningful description of the error.
- This warranty shall cover defective equipment parts, with the exception of normal wear parts. Wear parts shall include, for example, light sources, glass elements, tubular heating elements and sauna heater stones.
- Only original spare parts may be used within the warranty period.
- Service visits made by third parties shall require a written order issued by our service department.

General terms and conditions of service

- The equipment in question shall be sent to our service department by the customer at the customer's own expense.
- Electrical assembly and installation work, including service visits and parts replacements, shall be carried out at the customer's expense; costs shall not be borne by the manufacturer.

Complaints in respect of our products shall be reported to the responsible distributor and shall be handled exclusively by said distributor. The manufacturer's General Terms and Conditions of Business, in the version available at www.eos-sauna.com/agb, shall apply in addition to the foregoing terms and conditions of service.

Disposal

8

Disposal

Observe local provisions, laws, regulations, standards and directives when disposing of the unit.



Do not dispose of the unit with household waste.

Packaging

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

- Used paper, cardboard
- Plastic foil
- Foam material

EN





Service address

EOS Saunatech ik GmbH Schneiderstriesch I 35759 Driedorf, Ermany Tel. +49 2775 82-514 Fax +49 2775 82-431 Email service@eos-sauna.com

Store this address with the installation and operating instructions in a safe place.

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

Date of sale

Stamp/retailer signature: