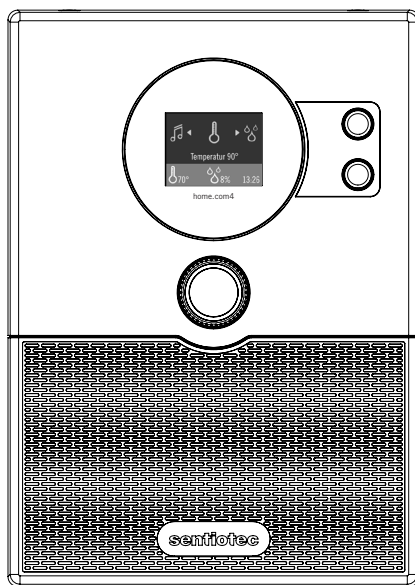


Sauna control unit

home.com4

INSTRUCTIONS FOR INSTALLATION AND USE
English



EN

Sauna control unit home.com4 BLACK

1-040-275

Sauna control unit home.com4 WHITE

1-040-276

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1. About this instruction manual

Read these installation and operating instructions carefully and keep them within reach of the sauna control unit. This ensures that you can refer to information about your safety and the operation at any time.



These installation and operating instructions can also be found in the downloads section of our website: www.sentiotec.com/downloads.

Symbols used for warning notices

In these instructions for installation and use, a warning notice located next to an activity indicates that this activity poses a risk. Always observe the warning notices. This prevents damage to property and injuries, which in the worst case may be fatal.

The warning notices contain keywords, which have the following meanings:



DANGER!

Serious or fatal injury will occur if this warning notice is not observed.



WARNING!

Serious or fatal injury can occur if this warning notice is not observed.



CAUTION!

Minor injuries can occur if this warning notice is not observed.

ATTENTION!

This keyword is a warning that damage to property can occur.

Other symbols



This symbol indicates tips and useful information.

2. Important information for your safety

The sauna control units of the home.com4 series have been produced in accordance with the applicable safety rules and regulations. However, hazards may occur during use. Therefore adhere to the following safety information and the specific warning notices in the individual chapters. Also observe the safety information for the devices connected.

2.1. Intended use

The sauna control units of the home.com4 series are used exclusively for operating and controlling the sauna functions in accordance with the technical data.

The sauna control units of the home.com4 series may only be used for operating and controlling a sauna heater which has been certified as satisfying the combustion test described in paragraph 19.101 of EN 60335-2-53. Alternatively, a suitable safety shut-off device can be installed in or above the heater.

The sauna control units of the home.com4 series may only be used for operating and controlling three heating circuits with a maximum heating capacity of 3.5 kW per heating circuit. The maximum vaporizer capacity is 3.5 kW. The maximum additional output capacity is 3.5 kW.

Any use exceeding this scope is considered improper use. Improper use can result in damage to the product, severe injuries or death.

2.2. Safety information for the installer

- Installation may only be performed by a qualified electrician or similarly qualified person.
- Work on the sauna control unit may only be performed when the power has been disconnected.
- A fully disconnecting all-pole isolating device compliant with overvoltage category III must be fitted on site.
- The sauna control unit must be installed outside the sauna room at a height of approx. 1.70 m or in accordance with the recommendation issued by the sauna manufacturer. The ambient temperature must be within a range spanning -10 °C to +40 °C.
- The heater sensor must be attached in a way that it is not affected by a flow of air.
- The heater supply cable must have a minimum cross-sectional area of 2.5 mm² and be temperature-resistant up to 150 °C.
- Also comply with the regulations applicable at the installation location.
- For your own safety, consult your supplier in the event of problems that are not explained in sufficient detail in the installation instructions.

2.3. Safety information for the user

- The sauna control unit must not be used by children under 8 years old.
- The sauna control unit may be used by children above 8 years old, by persons with limited psychological, sensory or mental capabilities or by persons with lack of experience/knowledge only when:
 - They are supervised.
 - They have been shown how to use the device safely and are aware of the hazards that could occur.
- Children must not play with the sauna control unit.
- Children under 14 years of age may only clean the sauna control unit if they are supervised.
- For health reasons, do not use the sauna when under the influence of alcohol, medication or drugs.
- Make sure that no flammable objects have been placed on the sauna heater before the sauna control unit is switched on.
- Make sure that no flammable objects have been placed on the sauna heater before activating the preset time function or the standby mode for remote start.
- Make sure that no flammable objects have been placed on or in front of the infrared lamp before the sauna control unit is switched on.
- Make sure that no flammable objects have been placed on or in front of the infrared lamp before activating the preset time function or the stand-by mode for the remote start.
- For your own safety, consult your supplier in the event of problems that are not described in sufficient detail in the user instructions.

3. Product description

3.1. Scope of delivery

- Sauna control unit home.com4
- Heater sensor with integrated overheat cut-out
- Sensor cables
- Installation material
 - 4 x chipboard screw 3 x 25 mm raised countersunk head

3.2. Optional accessories

- Bench sensor (1-009-231/O-F2), sensor cables 1.5 m
- Humidity temperature sensor (1-010-081/O-FTS2), sensor cables 6 m
- Foil sensor (1-014-445/P-ISX-FF), sensor cables 3 m
- Power booster (1-008-779/O-S2-18, 1-009-280/O-S2-30)
- Safety shut-off (1-027-796/HT-SWL)

3.3. Product features

The sauna control unit home.com4 features the following functions:

- Regulation of combi-model sauna heaters with a heating output of up to 10.5 kW and vaporizer output of up to 3.5 kW in the temperature range spanning 30 °C to 110 °C and a humidity range spanning 0% to 100%.
- A power booster allows the maximum switching capacity to be increased from 10.5 kW to 18 kW or 30 kW.
- Switching a cabin light (up to 100 W)
- Intensity regulation of a fan (up to 100 W)
- Preset time function (up to 6 hours)
- User programs
The user programs enable favourite sauna settings to be saved and accessed again. There are 5 preset user programs available which can be modified according to user requirements.
- Automatic heating period limiter
The maximum heating period can be set to 6 h, 12 h, 18 h or 24 h.

- Overheat cut-out
The overheat cut-out is installed in the housing for the heater sensor. Should the sauna heater continue heating after reaching the preferred temperature due to a defect, the overheat cut-out switches the sauna heater off at a temperature of approx. 139 °C.
- Real-time clock with weekly timer
- Post-drying program
Once combi-mode has finished, the post-drying program starts automatically to prevent mould or rot from forming in the sauna room. This involves heating the sauna room to 80 °C with the fan running for 30 minutes.
- Additional output
Optional dimming (up to 500 W) or activation (up to 3.5 kW) for the additional output.

The additional output has no overheat cut-out. For this reason, only intrinsically safe devices should be operated using the additional output.

- If infra-red heaters are connected to the additional output, they must have an overheat cut-out.
- If infra-red heater panels are connected to an additional output, the foil sensor 1-014-445/P-ISX-FF must be used and activated on the technician menu (see “**9.1. Technician menu**” on page 33):
- Remote start function of two different operating modes or user programs.
- Colour light control via DMX
 - Adjustment of colour, brightness, transition times and duration.
 - Four colour light groups independently operable.
- Music playback via Bluetooth®
 - Integrated amplifier
- Operation via Bluetooth® app
 - Available for iOS and Android

3.4. Sauna operating modes

The sauna control unit home.com4 provides two operating modes: sauna mode and combi-mode. If no vaporizer is connected, the menu item for operating the vaporizer can be hidden (see “**9.1. Technician menu**” on page 33).

Sauna mode

Dry heat is provided in sauna mode. The temperature in the room is high (80 to 100 °C) The maximum humidity level of 10% is low.

Combi-mode

The vaporizer operates along with the sauna heater in combi-mode. The temperature in the sauna room is lower (approx. 40 to 65 °C) than in sauna mode, with the relative humidity being considerably higher, spanning 35% to approximately 70%. The maximum humidity level which can be set depends on the temperature of the sauna. The higher the sauna temperature, the lower the maximum humidity level which can be set.

3.5. Sensor operating modes

The sauna control units of the home.com4 series can be operated with one or two sensors. A temperature sensor (bench sensor, F2) or a humidity sensor (FTS2) can be used as the second sensor.

Single-sensor mode (F1)

The maximum humidity level which can be set in single-sensor mode is based on the temperature above the heater and the humidity is timed. Only the set value for the humidity level (in % of relative humidity) is displayed by the sauna control unit. The actual humidity level in the sauna room when humidity is timed depends on the size of the room and the vaporizer capacity and may deviate from the set value.

Two-sensor mode with bench sensor (F2)

In two-sensor operation with bench sensor, a second temperature sensor (bench sensor) is installed above the rear sauna bench. The sauna control unit displays the temperature measured by the bench sensor as the actual temperature.

In two-sensor mode with bench sensor, the humidity is timed. Only the set value for the humidity level (in % of relative humidity) is displayed by the sauna control unit. The actual humidity level in the sauna room when humidity is timed depends on the size of the room and the vaporizer capacity and may deviate from the set value.

Two-sensor mode with humidity temperature sensor (FTS2)

When a humidity temperature sensor is used in two-sensor mode, the sauna control unit displays the temperature which is measured by the humidity temperature sensor as the actual temperature.

In two-sensor mode with humidity temperature sensor, the vaporizer is regulated in accordance with the humidity level measured in the sauna room. The actual value for the humidity level (in % of relative humidity) is displayed by the sauna control unit.

If a humidity temperature sensor is connected, the “vaporizer” menu item cannot be hidden.

4. Installation

4.1. Installing the control unit

ATTENTION!***Damage to the unit***

The sauna control unit is protected against splashing water, however direct contact with water could still damage the unit.

- Install the sauna control unit in a dry place at which a maximum humidity of 95% is not exceeded.
-

ATTENTION!***Sources of interference can have a negative effect on signal transmission***

- Route all sensor leads separately from other mains cables and control leads.
 - Use conduit to protect wires with only one layer of insulation (double insulation).
-

Observe the following points when installing the sauna control unit:

- The sauna control unit must be installed outside the sauna room or in accordance with the recommendation issued by the sauna manufacturer.
- The ambient temperature must be within a range spanning -10 °C to +40 °C.
- The sensors may only be connected using the sensor leads supplied with the unit, which are heat-resistant up to 150 °C.



The sensor leads may be extended under the following conditions:

- A silicon lead resistant to temperatures up to 150 °C is used.
 - The minimum cross-sectional area of the wire is 0.5 mm².
 - The length of the heater sensor leads must NOT exceed 10 m.
-

Installing the sauna control unit

To install the sauna control unit, perform the following steps:

1. Screw two chipboard screws (3 x 25 mm) into the wall of the sauna at a height of approx. 1.70 m and leaving a protruding length of 7 mm. The two screws must be placed at a distance of 156 mm from each other (see **Fig. 1**).

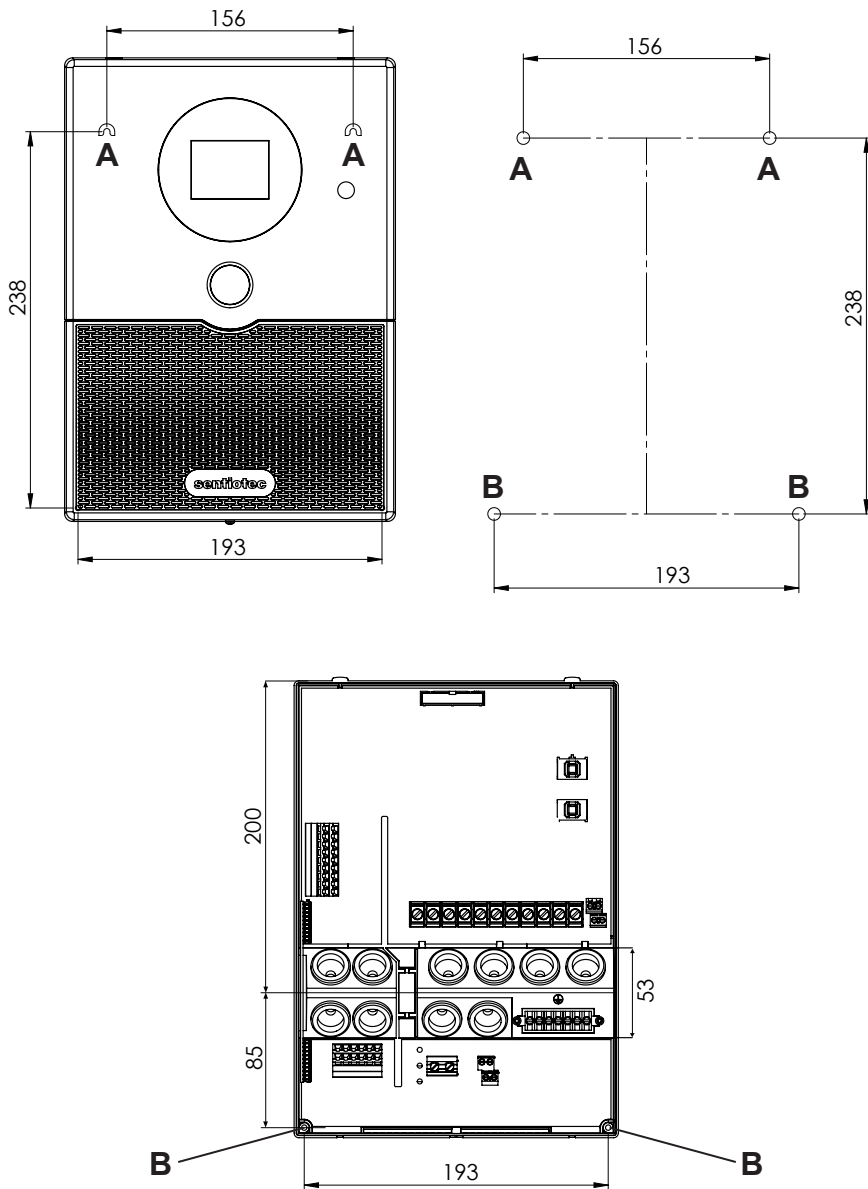


Fig. 1 Position of the attachment device and the installation holes (dimensions in mm)

2. Use a screwdriver to remove housing screw **C** and lift off the housing cover from the underside (see **Fig. 2**).

ATTENTION!

When the housing cover is raised, the on/off switch **D** and the light switch **D** are released from the mounting. Retain these for the duration of the connection work.

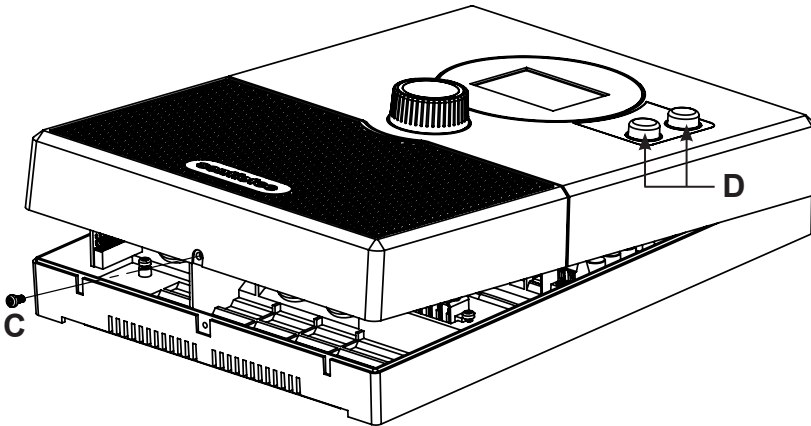


Fig. 2 Remove housing cover

3. Pull gently on ribbon cable **E** to release it from the connection socket (**Fig. 3**).

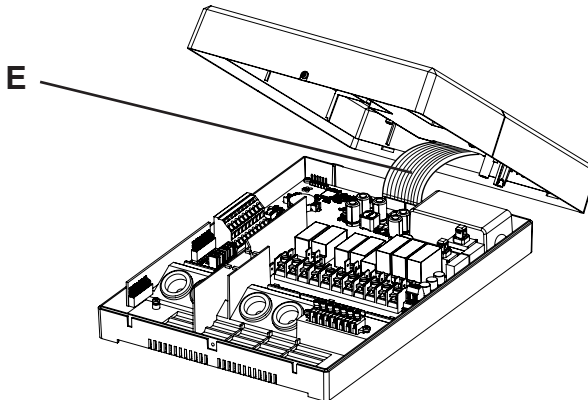


Fig. 3 Unplug ribbon cable

4. Fasten the sauna control unit onto the cross-head screws using attachment device **A** as an aid (see **Fig. 1**).
5. Screw two chipboard screws (3 x 25 mm) into the lower fastening holes **B** (see **Fig. 1**).

4.2. Cable glands

Power, supply and sensor cables should be laid in advance in the cabin wall and pulled through the respective cable glands of the sauna control unit.

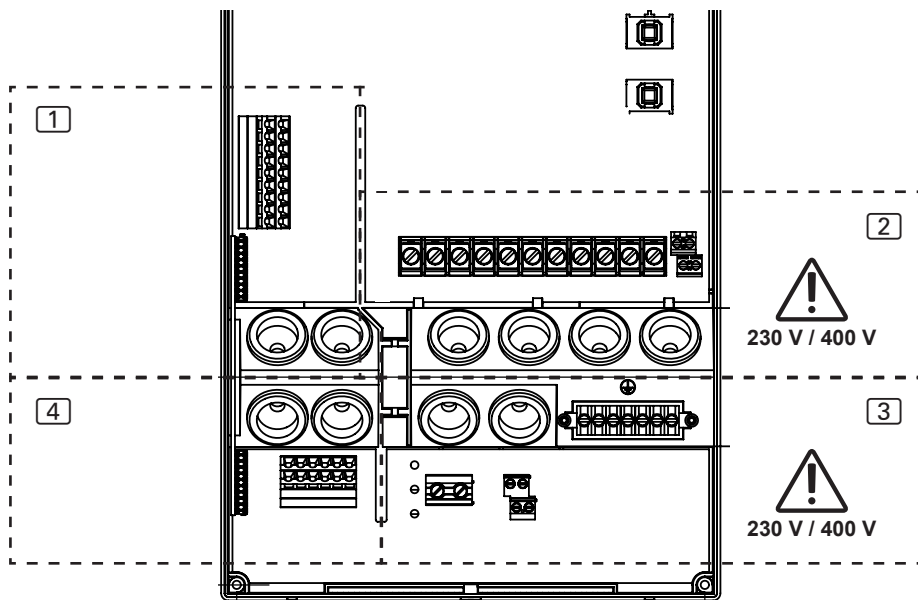


Fig. 4 Connection areas

- 1** Low-voltage connection area for basic module: Heater sensor (F1), bench sensor (F2), humidity sensor (FTS2) and safety shut-off (OSG).
 - 2** Connection area for basic module for 230 V / 400 V: Supply line, heater cable, light and fan.
- Expansion module:**
- 3** Connection area for 230 V: Additional output and booster cable.
 - 4** Connection area for low voltage: Speaker cables, remote start, foil sensor and DMX.

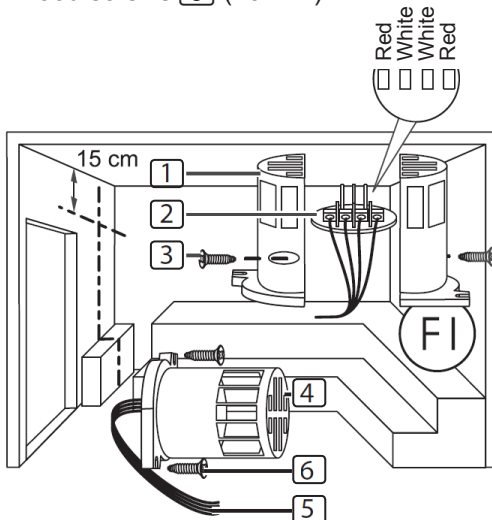
4.3. Installing the heater sensor F1 with overheat cut-out

Observe the following points when installing the heater sensor:

- The heater sensor must be installed on the rear of the heater, above the middle of the sauna heater. A clearance of approx. 15 cm from the ceiling of the sauna room must be maintained.
- The heater sensor must be attached in a way that it is not affected by a flow of air.

To install the heater sensor, perform the following steps (see **Fig. 5**):

1. Route the two 2-pole heater sensor leads in the wall of the sauna room to the mounting location of the heater sensor and affix the heater sensor leads using cable clips.
2. Pull the two half-shells **1** of the heater sensor apart.
3. Connect the four connections for the heater sensor lead **5** in accordance with **Fig. 5**.
4. Place the connection panel **2** crossways (as shown in **Fig. 5**) in the heater sensor half-shells.
5. Place the two half-shells together, screw them together using the two cross-head screws **3** (9 mm) and check whether the heater sensor has been securely closed.
6. Install the heater sensor on the rear of the heater using the two supplied wood screws **6** (16 mm).



- 1** Heater sensor half-shells
- 2** Connection panel
- 3** Cross-head screws (9 mm)
- 4** Heater sensor
- 5** Heater sensor leads
- 6** Wood screws (16 mm)

Fig. 5 Installing the heater sensor

4.4. Installing bench sensor F2 (optional)

The bench sensor must be installed on the wall of the sauna room, above the rear bench seat. A clearance of approx. 15 cm from the ceiling of the sauna room must be maintained.

To install the bench sensor, perform the following steps:

1. Route the two 2-pole bench sensor leads in the wall of the sauna room to the mounting location of the bench sensor and affix the bench sensor leads using cable clips.
2. Pull the two half-shells of the bench sensor apart.
3. Connect the two connectors for the bench sensor lead to the two middle terminals on the connection panel.
4. Place the connection panel crossways in the bench sensor half-shells.
5. Place the two half-shells together and screw them together using the two cross-head screws (9 mm).
6. Check whether the bench sensor has been securely closed.
7. Install the bench sensor on the wall of the sauna room using the two supplied wood screws (16 mm).

4.5. Installing the humidity temperature sensor FTS2 (optional)

The humidity temperature sensor must be installed on the wall of the sauna room above the rear bench seat. A clearance of approx. 15 cm from the ceiling of the sauna room must be maintained.

To install the humidity temperature sensor, perform the following steps:

1. Route the two 5-pole bench sensor leads in the wall of the sauna room to the mounting position of the humidity temperature sensor and affix the sensor leads using cable clips.
2. Install the humidity temperature sensor to the wall of the sauna room using the two supplied wood screws (16 mm).

4.6. Installing the foil sensor (optional)

If a sentiotec infrared heat plate is connected to the additional output, foil sensor 1-014-445 / P-ISX-FF must be used.

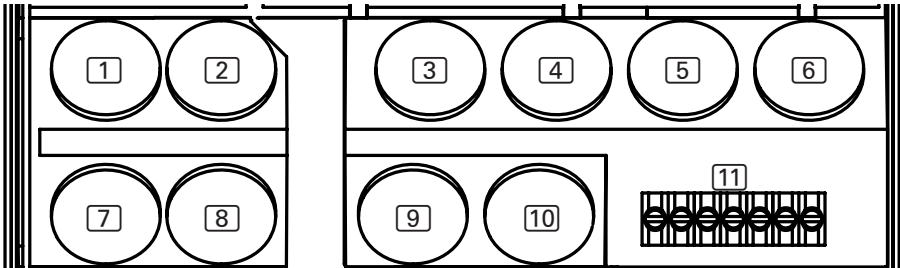
- When installing the foil sensor, observe the operating instructions for the infrared heating plates.
- Use of a foil sensor must be activated on the technician menu.

5. Electrical connection

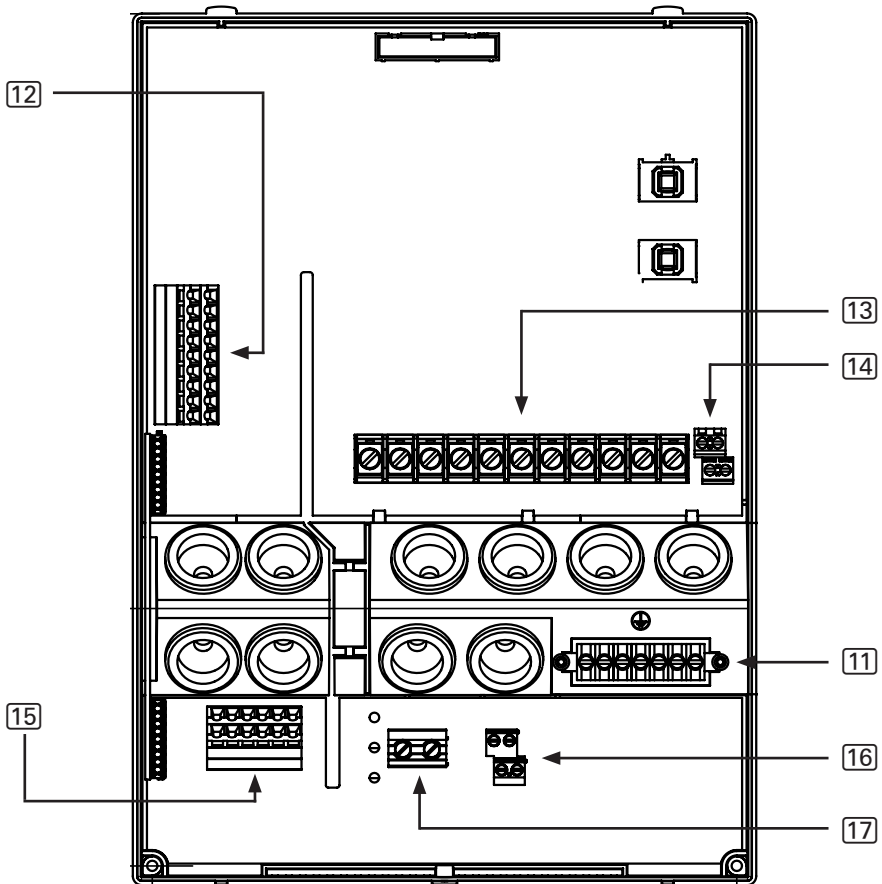
ATTENTION!

Damage to the unit

- The sauna control unit may only be used for operating and controlling 3 heating circuits with a maximum heating capacity of 3.5 kW per heating circuit. The maximum vaporizer capacity totals 3.5 kW. The maximum additional output capacity totals 3.5 kW.



- 1 Cable gland for FTS2 sensor
- 2 Cable gland for F1 sensor, F2 sensor and safety cut-off
- 3 Cable gland for vaporizer cable
- 4 Cable gland for heater cable
- 5 Cable gland for power supply cable
- 6 Cable gland for light and fan
- 7 Cable gland for loudspeaker cables and DMX cable
- 8 Cable gland for remote start and foil sensor
- 9 Cable gland for additional output
- 10 Cable gland for power booster
- 11 Ground busbar



- 11 Ground busbar
- 12 Terminal strip for safety shut-off and sensor cables
- 13 Terminal strip for cables for heater, vaporizer and power supply
- 14 Terminal strip for lights and fan
- 15 Terminal strip for DMX, loudspeakers, remote start and foil sensor
- 16 Terminal strip for additional output
- 17 Terminal strip for power booster

Observe the following points when connecting the power to the sauna control unit:

- Installation may only be performed by a qualified electrician or similarly qualified person.



Please observe that in the event of a guarantee claim, a copy of the bill from the electrician performing the work must be presented.

- Work on the sauna control unit may only be performed when the power has been disconnected.
- There must be a fixed connection for the electrical power supply.
- A fully disconnecting all-pole isolating device compliant with overvoltage category III must be fitted on site.
- Read section “**7. Connection diagram**” on page 28.

5.1. Power supply cable, heater and vaporizer

1. Guide the power supply, heater and vaporizer cable through the cable glands **[3]**, **[4]**, **[5]** into the connection area for 230 V/400 V.
2. Connect the power supply cables to the terminal strip **[13]** in accordance with the connection diagram. Observe the operating instructions for the respective devices.

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5.2. Cabin light

1. Feed the light cable through the cable gland **[6]** into the connection area for 230 V/400 V.
2. Connect the light cable to the terminal strip **[14]** in accordance with the connection diagram. Observe the operating instructions for the respective device.

5.3. Fan

1. Feed the light cable through the cable gland **[6]** into the connection area for 230 V/400 V.
2. Connect the fan cable to the terminal strip **[14]** in accordance with the connection diagram. Observe the operating instructions for the respective device.

5.4. F1 heater sensor

1. Guide the wires for the heater sensor through the cable gland **[2]** into the low-voltage connection area.
2. Connect the red wires for the heater sensor to the terminals labelled “**STB**” in terminal strip **[12]**.
3. Connect the white wires for the heater sensor to the terminals labelled “**F1**” in terminal strip **[12]**.

5.5. Bench sensor F2 (optional)

1. Feed the wires for the bench sensor through the cable gland **[2]** into the low-voltage connection area.
2. Connect the wires for the bench sensor to the terminals labelled “**F2**” in terminal strip **[12]**.

5.6. Humidity temperature sensor FTS2 (optional)

1. Feed the wires for the sensor through the cable gland **[1]** into the low-voltage connection area.
2. Connect the wires for the temperature sensor to the terminals labelled “**F2**” in terminal strip **[12]**.
 - a. Connect the black wire to the right terminal.
 - b. Connect the brown wire to the left terminal.
3. Connect the wires for the humidity sensor to the terminals labelled “**FTS2**” in terminal strip **[12]**.
 - c. Connect the green wire to the terminal “**GREEN**”.
 - d. Connect the orange wire to the terminal “**ORANGE**”.
 - e. Connect the red wire to the terminal “**RED**”.

5.7. Safety shut-off

EN 60335-2-53 states that sauna control units with a remote start or preset timer function may only be used for operating and regulating a sauna heater which has satisfied the combustion test described in paragraph 19.101. Alternatively, a suitable safety shut-off device can be installed in or above the heater. This shuts the sauna heater off if items such as a towel are placed on the sauna heater.

To install the safety shut-off device, perform the following steps:

1. Install the safety shut-off device in accordance with the operating instructions for the device.
2. Feed the wires for the safety shut-off device through the cable gland **[2]** into the low-voltage connection area.
3. Connect the wires for the temperature sensor to the terminals labelled “**OSG**” in terminal strip **[12]**.



If a safety shut-off is not installed, a jumper must be fitted at the terminals labelled “**OSG**”.

5.8. Additional output

The additional output can, for example, be used for an infra-red lamp or infra-red heater panels.

1. Feed the connection cable for the additional device through the cable gland **[9]** into the connection area for 230 V/400 V.
2. Connect the power supply cables to terminal strip **[16]** in accordance with the terminal diagram. Observe the operating instructions and safety instructions for the appliance concerned.

Please note the maximum connected load of the additional output:

- Dimmable up to a maximum of 500 W
- Switchable up to a maximum of 3500 W

5.9. Foil sensor (optional)

1. Feed the wires for the sensor through the cable gland **[8]** into the low-voltage connection area on the expansion module.
2. Connect the sensor cables for the sensor to the terminals labelled “**FOIL SENSOR**” in terminal strip **[15]**.

5.10. Power booster (optional)

1. Feed the cable for the power booster through cable gland **[10]** into the connection area for 230 V/400 V.
2. Connect the cable for the power booster to terminal strip **[17]** in accordance with the connection diagram. To do so, use terminal “**ST1**” for the safety circuit, and terminal “**ST2**” for the control circuit. Observe the operating instructions for the respective device.

5.11. Remote start (optional)

This is connected using the terminals “**RS1**”, “**RS2**” and “**24VDC**” on terminal strip **[15]**.

Using a switch or an actuator, the +24 VDC must be switched to the terminal for the desired operating mode, **RS1** or **RS2**.

In the technician menu, RS1 and RS2 can be assigned to any operating mode or user program (see “**10.16. Activating standby for remote operation**” on page 50).

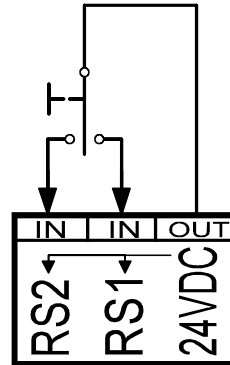


Fig. 6 Remote start

5.12. Speaker output (optional)

The loudspeaker output can be used to connect commercially available loudspeakers with a recommended music load of approx. 25 W. The impedance should be 8 Ω. The minimum cross-section of the speaker cables is 2 x 0.5 mm².

1. Feed the wires for the loudspeaker through the cable gland **[7]** into the low-voltage connection area on the expansion module.
2. Connect the loudspeaker wires to terminal strip **[15]** labelled **RS-** and **RS+** for the right speaker and **LS-** and **LS+** for the left speaker. For an optimal sound experience, observe the polarity of the connecting cables.

5.13. DMX output (optional)

1. Guide the DMX connection cables for the heater sensor through the cable gland **[7]** into the low-voltage connection area.
2. Connect the DMS connection cables in accordance with the designations on terminal strip **[15]**.
 - **DMX A** (DATA +)
 - **DMX B** (DATA -)
 - **GND** (ground/shield)

Four different DMX protocols are supported, which are output at the same time on the DMX output:

1. 8-bit RGBW
2. 16-bit RGBW
3. 8-bit hue value saturation (such as for COLLAXX coloured light devices)
4. 8-bit hue saturation value

Use the following address overview to integrate your coloured light unit into the sauna control unit.

EN

RGBW_8BIT

- Start address: Channel 1
 - ▶ Channel light group 1: **1**
 - ▶ Channel light group 2: **5**
 - ▶ Channel light group 3: **9**
 - ▶ Channel light group 4: **13**

RGBW_16BIT

- Start address: Channel 17
 - ▶ Channel light group 1: **17**
 - ▶ Channel light group 2: **25**
 - ▶ Channel light group 3: **33**
 - ▶ Channel light group 4: **41**

COLLAXX (HUE VALUE SATURATION, 8-bit)

- Start address: Channel 49
 - ▶ Channel light group 1: **49**
 - ▶ Channel light group 2: **52**
 - ▶ Channel light group 3: **55**
 - ▶ Channel light group 4: **59**

HSV (HUE SATURATION VALUE, 8-bit)

- Start address: Channel 62
 - ▶ Channel light group 1: **62**
 - ▶ Channel light group 2: **65**
 - ▶ Channel light group 3: **68**
 - ▶ Channel light group 4: **71**

5.14. Finishing the installation

1. Connect the earth conductor for the power supply cable and all devices to the earth bar 11.
2. Place the housing cover on the upper edge and connect the ribbon cable to the lower part of the housing.
3. Press the upper part of the housing downwards and screw in the housing screw with a screwdriver.
4. Finally, insert the two buttons (on/off switch and light switch) into the upper part of the housing until they audibly click into place.

6. Performing tests

**WARNING!**

The following tests must be performed with the power supply switched on. There is a danger of electric shock.

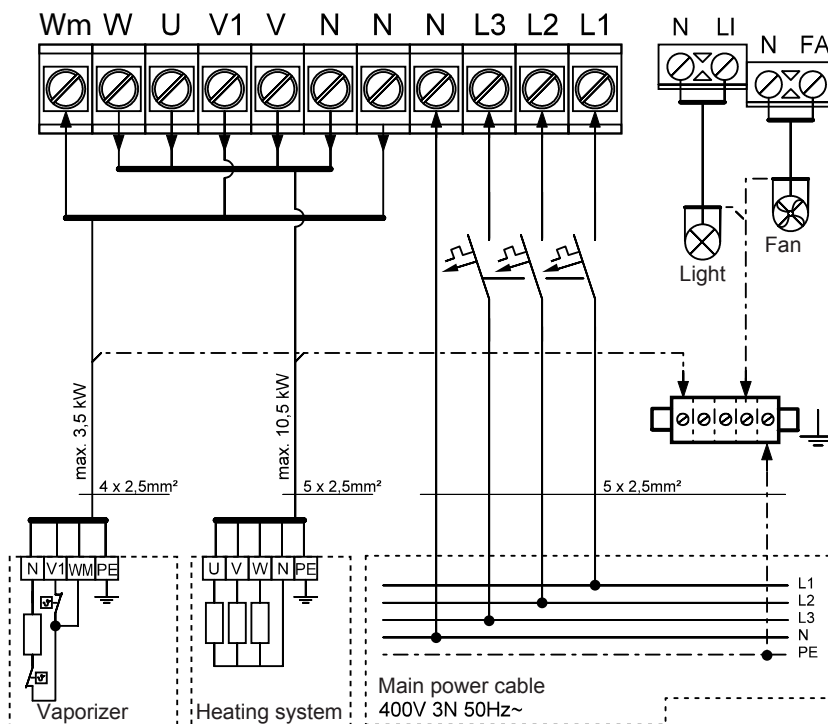
- NEVER touch live parts.

The following tests must be performed by a certified electrical fitter.

1. Check the contact of the earth conductors on the earth conductor terminal.
2. Check the overheat cut-out on the heater sensor F1.
 - a. Switch on the sauna control unit.
 - ▶ If error messages are displayed here, go to step “**14.1. Error messages**” on page 57.
 - b. Open the heater sensor and disconnect one of the two red wires for the heater sensor.
 - ▶ A recurring warning tone sounds, and “Error *01” appears on the display.
 - ▶ The control unit switches off the heater.
 - c. Switch off the sauna control unit.
 - d. Reconnect the red wire for the heater sensor.
 - e. Now disconnect one of the white wires for the heater sensor.
 - f. Switch on the sauna control unit.
 - ▶ A recurring warning tone sounds, and “Error *04F1” appears on the display.
 - ▶ The control unit switches off the heater.
 - g. Switch off the sauna control unit.
 - h. Reconnect the white wire for the heater sensor.
3. Check the phase switching for sauna mode L1, L2, L3 to U, V, W and the maximum permissible heating power of 3.5 kW per phase.
4. Only when using an vaporizer: Check that the phase circuit for vaporizer mode L1, L2, L3 is connected to U, V1, W.
5. Ensure the phase circuit for L3 is connected to AUX when the device connected to the additional output is activated.

7. Connection diagram

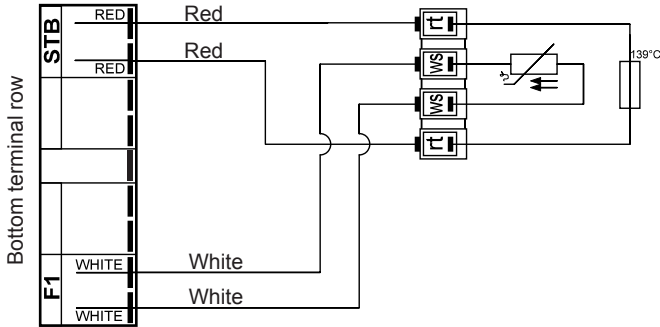
7.1. Connection diagram basic module 230 V / 400 V



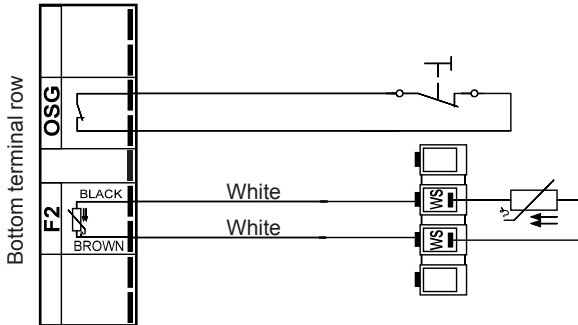
Recommended protective equipment for power cable:	
Power cable fuse:	3 x 20 A (CAT III)
FI (residual current device):	30 mA

7.2. Connection diagram for basic module low voltage

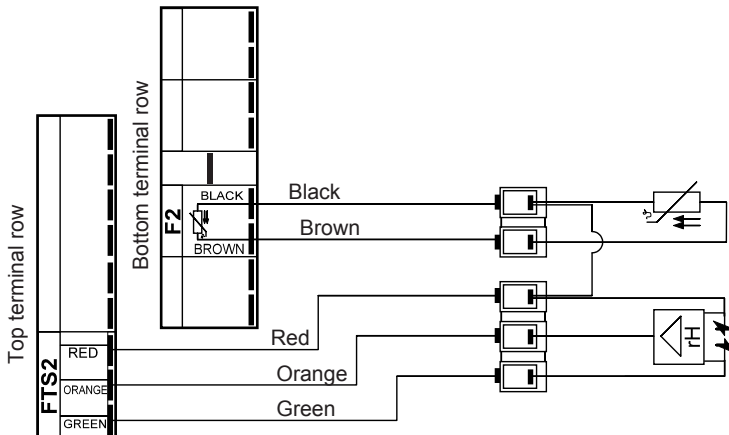
Connection of heater sensor F1:



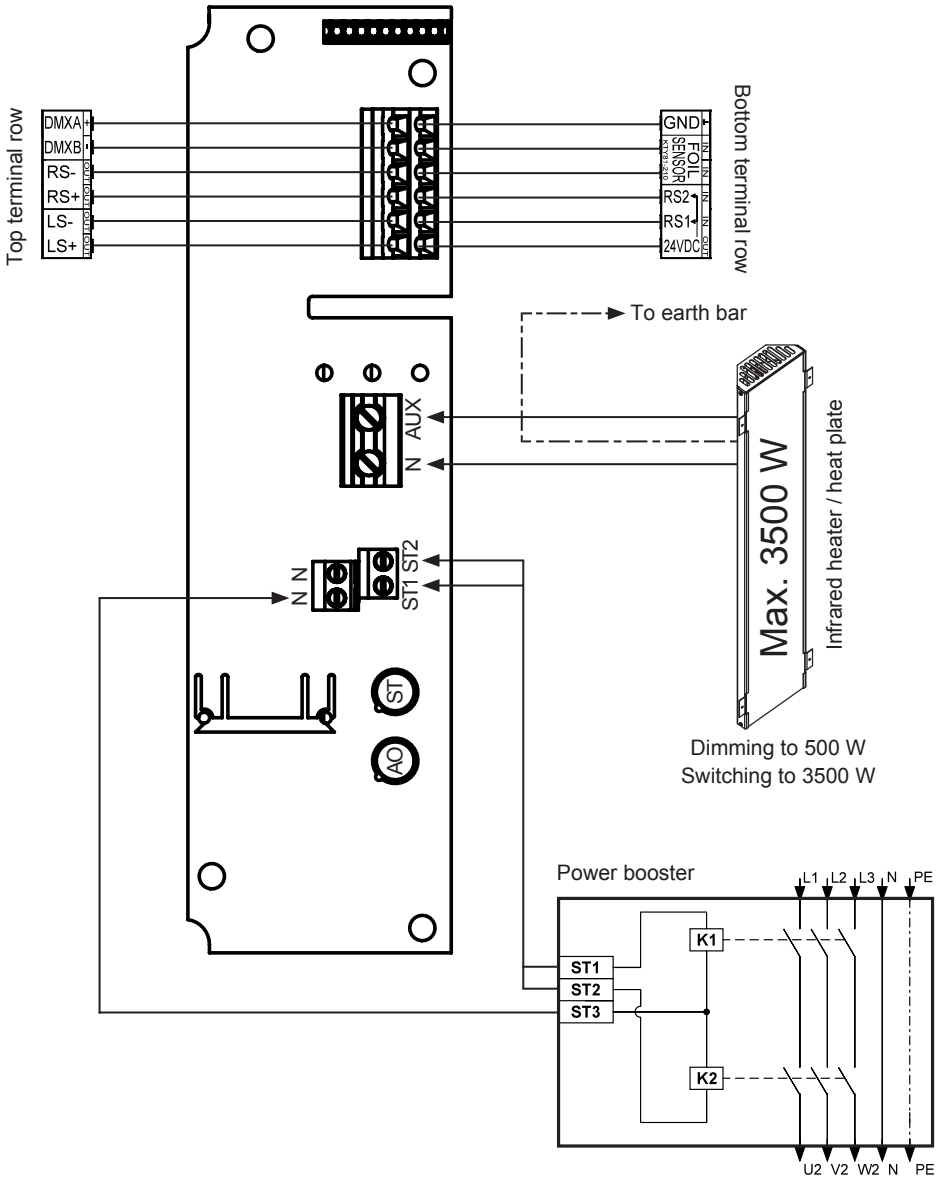
Connection of bench sensor F2 and safety shut-off OSG:



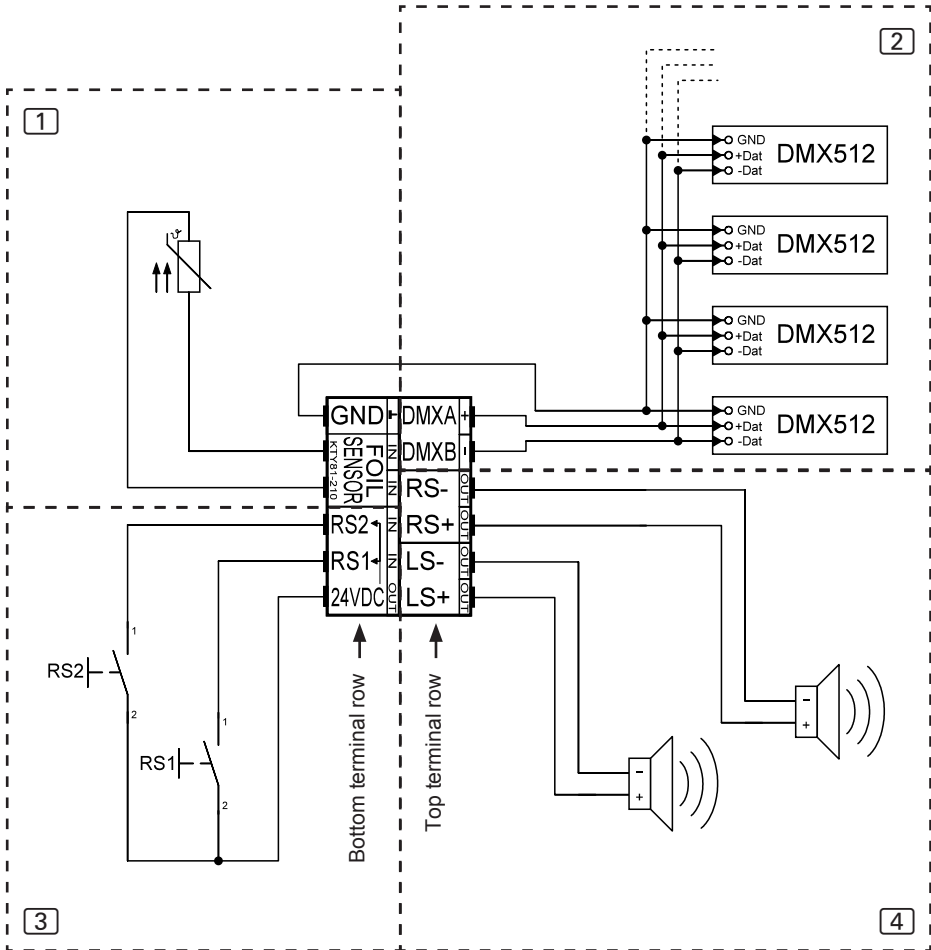
Connection of humidity temperature sensor FTS2:



7.3. Connection diagram for expansion module 230 V

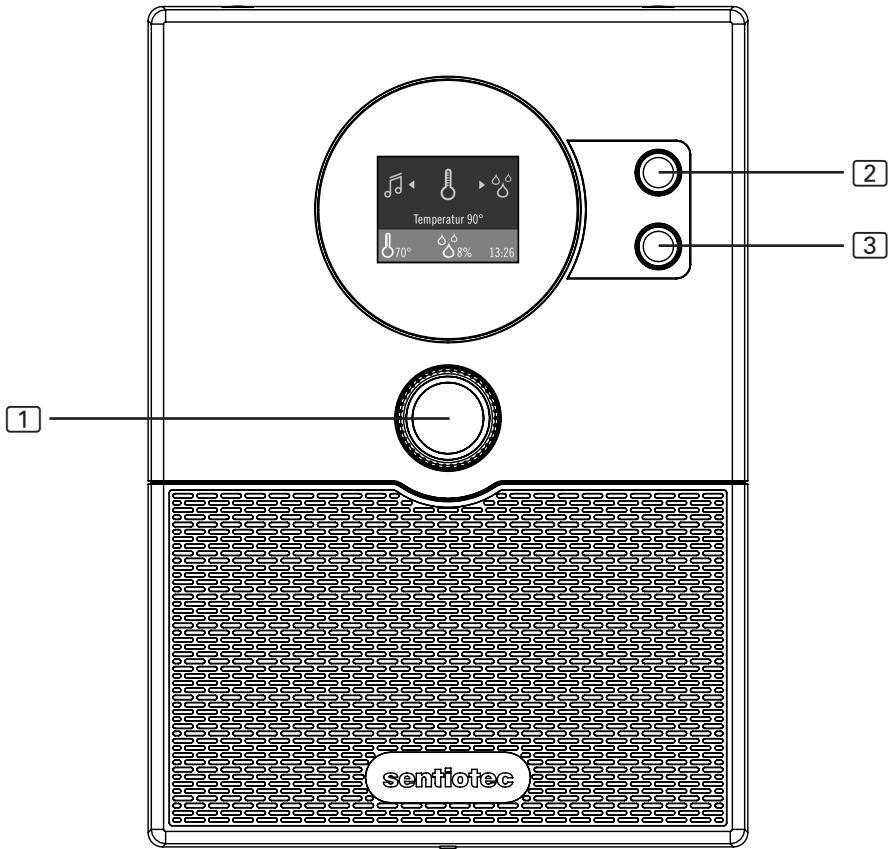


7.4. Connection diagram for expansion module low voltage



- 1** Foil sensor connection
- 2** DMX connection
- 3** Remote start connection
- 4** Loudspeaker connection

8. Controls



- 1 **Rotary selector** (rotary and pushbutton for menu operation)
- 2 **Main switch** (for switching the sauna control unit on and off)
- 3 **Light switch** (for switching the cabin light on and off)

9. Commissioning

9.1. Technician menu

The sauna control unit home.com4 has a technician menu separate from the main menu, in which all the basic settings can be made.

The technician menu is only available in English.

To access the technician menu, perform the following steps:

1. Switch off the sauna control unit.
2. Hold down rotary selector **[1]** and switch on the sauna control unit with main switch **[2]**.
 - ▶ The display shows the technician menu with the available menu items.

Menu navigation

To navigate through the menu, use rotary selector **[1]**.

- Turn the rotary selector to the right to scroll down the menu.
- Turn the rotary selector to the left to scroll up in the menu.
- To select a menu item, press the rotary selector.
 - ▶ The setting of the respective menu item is highlighted in green and can now be changed.
- Turn down or up to see the available setting options.
 - ▶ To confirm the selection, press the rotary selector.

EN

EN 60335-2-53 specifies a maximum heating time limit of 6 hours for private saunas. For saunas in hotels, apartment blocks and similar locations, a maximum heating time limit of 12 hours is permissible. Extending the heating time limit to 18 hours or 24 hours is only permitted in public saunas.

<i>Menu item</i>	<i>Description</i>	<i>Setting options</i>
Language	Menu language setting	German, English, Swedish, French, Slovenian, Spanish, Estonian, Finnish, Italian, Dutch, Polish, Russian, Czech
Time	Time setting	hh:mm
Year	Year setting	Example: 2017
Month	Month setting	Example: July
Day	Day setting	Example: 17th
Weekday	Day of the week setting	Example: Monday
Heating time limit	Maximum heating time limit	6 / 12 / 18 / 24 hours
Maximum temperature	Definition of the maximum adjustable setpoint temperature	40–110 °C
Bench sensor	Activate or deactivate two-sensor operation	On/Off
Relay spread	Activate or deactivate phase alignment	On/Off
Vaporizer	Activate or deactivate vaporizer or enable single mode	Off / Normal / Single
Foil sensor	Activate or deactivate the foil sensor	Yes / No
Aux mode	Dim additional output to 500 W Switch additional output to 3500 W	dimmmable switchable
Mode RS1	Start mode of remote start input RS1 RS = Remote Start	Finnish / combi, user programs 1–5
Mode RS2	Start mode of remote start input RS2 RS = Remote Start	Finnish / combi, user programs 1–5
Remote enabling	Remote start release	Internal/external
Drying time	Duration of the automatic post-drying program (80 °C and fan)	0–60 min
Preheat time vaporizer	Regulator-independent preheating time of the vaporizer (only without FTS2 sensor)	0–20 min

<i>Menu item</i>	<i>Description</i>	<i>Setting options</i>
Colorlight	<p>Colour settings Colour gradients Synchronize DMX radio transmission</p> <p>Individual colour settings for the primary colours red, yellow, green, turquoise, blue, violet and white</p>	<p><u>Colour proportions:</u> Red: 0–100% Green: 0–100% Blue: 0–100% White: 0–100%</p>
- Gradient	<p>Configure colour gradients 1–4 individually Activate or deactivate individual primary colours in the colour gradient</p> <p>The order of the colour gradients cannot be changed</p>	<p>Red: On/Off Yellow: On/Off Green: On/Off Turquoise: On/Off Blue: On/Off Violet: On/Off White: On/Off</p>
- Duration	Setting of the colour duration of individual colours	[Sec]
- Transition time	Setting of the transitional period between the colours	[Sec]
- Synchronize	Synchronize DMX channel (for radio link)	Channel: 0–512
SW version	Display software version	
HW version	Display hardware version	
Cycles	Display number of relay switching operations	
Button sounds	Activate or deactivate the button tone	On/Off
Factory reset	Reset to factory settings	Start
Exit	All settings are saved and the technician menu is exited	Start



10. Operation

Observe “8. Controls” on page 32.

10.1. Switching on the light (cleaning lights)

The light in the sauna room can be switched on and off at the control unit independently of the On/Off switch [2].

- To switch the light on the control unit on or off, press the light switch [3].

10.2. Switching on the control unit



WARNING!

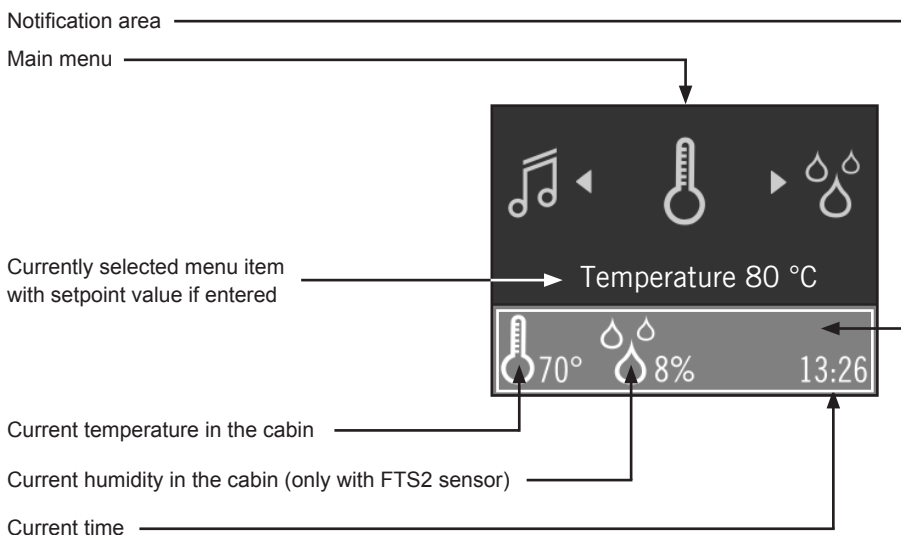
Risk of fire

Combustible objects that are placed on the sauna heater could ignite and cause fires.

- NEVER place combustible objects on the sauna heater.
- Make sure that NO combustible objects have been placed on the sauna heater before the sauna control unit is switched on.

- Press the On/Off button [2] to switch the control unit on.
 - ▶ The “User programs” menu item appears on the display by default upon switch-on.

Display elements:





10.3. Sauna mode

Starting sauna mode

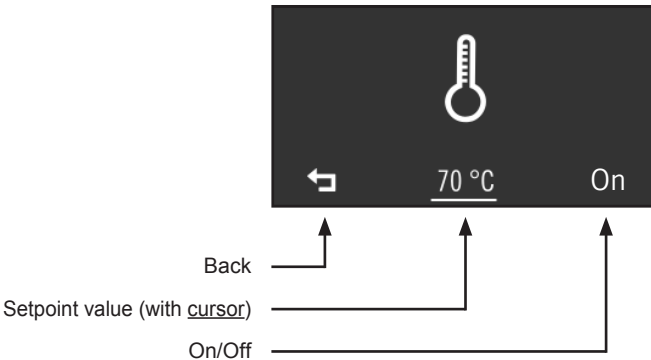
1. Use rotary selector [1] to select the temperature icon. Then press it briefly to confirm.
 - ▶ The “Temperature” submenu opens and the setpoint value for the temperature appears underlined in the display.
2. Press the rotary selector to change the value.
 - ▶ The value is now highlighted in green and can be changed.
 - ▶ Press the rotary selector again to confirm the setting.
3. Move the cursor (underscore) to the right to “On” and briefly press the rotary selector.
 - ▶ The sauna heater is switched on and begins to heat up.
 - ▶ The colour of the temperature icon in the notification area changes to red.
 - ▶ You automatically exit the “Temperature” menu item.

Switching off sauna mode

4. To switch off the heater, repeat items 1 and 3.
 - ▶ Instead of “On”, “Off” is displayed.
 - ▶ To exit the submenu, move the cursor to the “Back” icon on the left and confirm with the rotary selector.

EN

View of temperature submenu





10.4. Combi-mode

Starting combi-mode

1. Use rotary selector **[1]** to select the temperature icon. Then press it briefly to confirm.
 - ▶ The “Humidity” submenu opens and the setpoint value for the humidity appears underlined in the display.
2. Press the rotary selector to change the value.
 - ▶ The value is now highlighted in green and can be changed.
 - ▶ Press the rotary selector again to confirm the setting.
3. Move the cursor (underscore) to the right to “On” and briefly press the rotary selector.
 - ▶ The vaporizer is switched on and begins to heat up.
 - ▶ The colour of the humidity icon in the notification area changes to blue.
 - ▶ You automatically exit the “Humidity” menu item.

Switching off combi-mode

4. To switch off the vaporizer, repeat points 1 and 3.
 - ▶ Instead of “On”, “Off” is displayed.
 - ▶ To exit the submenu, move the cursor to the “Back” icon on the left and confirm with the rotary selector.
 - ▶ The vaporizer switches off.

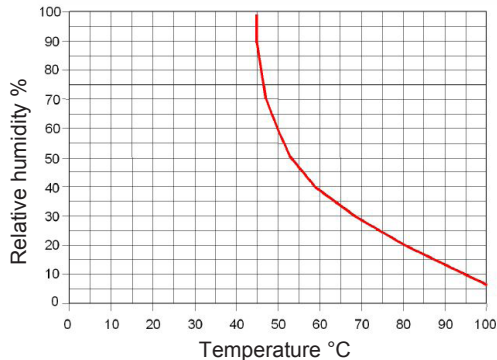


The vaporizer can only be started when the sauna heater is switched on. The maximum humidity level which can be set depends on the temperature of the sauna. The higher the sauna temperature, the lower the maximum humidity level which can be set (see characteristic curve).

Exception: Vaporizer single mode is activated (see “**9.1. Technician menu**” on page 33). The vaporizer can also be operated here without the sauna heater, with the maximum humidity depending on the current sauna room temperature.



If the sauna control unit is used without a humidity temperature sensor (FTS2), cyclic mode is activated. If the sauna room temperature is less than 30 °C, the vaporizer is activated continuously for a preset time (10 minutes by default). Normal cyclic mode then starts.



EN 60335-2-53:2011; characteristic temperature / relative humidity for proper use.



10.5. Post-drying program

Once combi-mode has finished, the post-drying program starts automatically to prevent mould or rot from forming in the sauna room. This involves heating the sauna room to 80 °C with the fan running for 30 minutes.

- ▶ To cancel the post-drying program, press rotary selector **1** while simultaneously turning it to the right.



To prevent mould and rot from forming, the post-drying program should NOT be cancelled.



10.6. Cabin light

Switching on cabin light

1. Use rotary selector **1** to select the light icon. Then press briefly to switch on the cabin light.
 - ▶ The cabin light switches on.
 - ▶ “Light On” appears on the display.

Switching off cabin light

2. To switch off the cabin light, press rotary selector **1** again.
 - ▶ The cabin light switches off.
 - ▶ “Light Off” appears on the display.



10.7. Fan

Switching on fan

3. Use rotary selector **1** to select the fan icon. Then press briefly to switch on the fan.
 - ▶ The fan switches on.
 - ▶ “Fan On” appears on the display.

Switching off fan

4. To switch off the fan, press rotary selector **1** again.
 - ▶ The fan switches off.
 - ▶ “Fan Off” appears on the display.



10.8. Preset time

Setting the preset time

You can set the preset time to the minute. The maximum preset time totals 12 hours.

1. Start the functions to be started after the preset time.
2. Use rotary selector **[1]** to select the preset time icon. Then press briefly to open the submenu.
 - ▶ The “Preset time” submenu opens and the last preset time appears underlined on the display.
3. Press the rotary selector to change the value.
 - ▶ The value is now highlighted in green and can be changed.
 - ▶ The display is in hh:mm.
 - ▶ Press the rotary selector again to confirm the setting.
4. Move the cursor (underscore) to the right to “Start” and briefly press the rotary selector.
 - ▶ All previously activated functions are switched off.
 - ▶ The remaining pre-selection time appears on the display.
 - ▶ Rotary selector **[1]** starts to flash slowly.
 - ▶ Once the preset time has elapsed, the selected functions are started.

Cancelling the preset time feature

To cancel the preset time feature, press rotary selector **[1]** while simultaneously turning it to the right.


- ▶ The preset time function is cancelled.



For security reasons, the operation is blocked during an active preset time. To make changes to the settings, cancel the preset time function and then start it again.

10.9. Operating time

In the technician menu of the sauna control unit you can now specify how long the sauna should be in continuous operation (such as 6 h for private saunas).


1. To refine this setting, use rotary selector  to select the runtime icon. Then press briefly to open the submenu.
 - ▶ The “Runtime” submenu opens and the last runtime set appears underlined on the display.
2. Press the rotary selector to change the value.
 - ▶ The value is now highlighted in green and can be changed.
 - ▶ The display is in hh:mm.
 - ▶ Press the rotary selector again to confirm the setting.
 - ▶ The set value is saved permanently.
3. To exit the submenu, move the cursor to the “Back” icon on the left and confirm with the rotary selector.

eco 10.10. ECO mode

The ECO function allows you to save energy in breaks between sauna sessions. When the ECO function is activated, the connected appliances run with reduced power. You can choose between a 20, 40 or 60-minute sauna break.

The sauna heater and the vaporizer are switched on again before the end of the break. In this way the preset temperature and preset humidity are reached again at the end of the sauna break.

Perform the following steps to activate the Eco-function:

1. Use rotary selector  to select the ECO icon. Then press briefly to open the submenu.
 - ▶ The “ECO mode” submenu opens and the last break time set appears underlined on the display.



2. Press the rotary selector to change the break time.
 - ▶ The value is now highlighted in green and can be changed.
 - ▶ The display is in minutes.
3. There are three different break times available:
 - 20-minute sauna break
 - 40-minute sauna break
 - 60-minute sauna break
 - ▶ Press the rotary selector again to confirm the setting.
4. Move the cursor (underscore) to the right to "Start" and briefly press the rotary selector.
 - ▶ The sauna break is started.
 - ▶ The remaining break time appears on the display.
 - ▶ Rotary selector 1 starts to flash slowly.
5. To cancel the sauna break, press rotary selector 1 and simultaneously turn it to the right.



10.11. Weekly timer

The weekly timer allows you to automatically switch the sauna control unit on and off at specific times, on certain days of the week and with any operating mode. Up to 14 independent On/Off operations can be programmed. Manual operation of the sauna control unit is unrestricted during this time.

Follow these steps to create a weekly timer program:

1. Use rotary selector **[1]** to select the weekly timer icon. Then press briefly to open the submenu.
 - ▶ The “Weekly timer” submenu opens and the following menu items appear on the display:
 - Timer no. [1–14]
 - ▶ You can assign any timer number from 1 to 14 to each On/Off cycle.
 - Days of the week [Mon–Sun]
 - ▶ Here you can set the days of the week on which the current program is to be executed. Every day from Monday to Sunday is available individually, along with groups of Monday to Sunday, Monday to Friday and Saturday to Sunday.
 - Start time [00:00–23:59]
 - ▶ Here you set the time at which the program is to start.
 - End time [00:00–23:59]
 - ▶ Here you set the time at which the program is to switch off.



The maximum runtime set in the technician menu limits the time between switch-on and switch-off. If necessary, correct the setting for the maximum runtime in the technician menu.



- User programs [Finnish, combi, 1–5]
 - ▶ Select the operating mode to be started. You can choose between Finnish sauna (heating only), combination sauna (heating + vaporizer) or one of the five programmable user programs.
 - Activated [On/Off]
 - ▶ Activate or deactivate individual On/Off operations.
2. Exit the weekly timer menu to activate the programs:
- ▶ The notification area of the display shows the weekly timer icon.
 - ▶ Rotary selector [1] starts to flash slowly.



If the mode “Standby for remote control” is started, all weekly timer programs are deactivated while this mode is active. If you exit the mode “Standby for remote control”, all previously activated programs become active again.



Main switch [2] must remain switched on for the weekly timer to work.



10.12. Child safety control

The sauna control unit is equipped with a child safety control which prevents children from being able to switch on the sauna heater unintentionally and unattended.

- To activate the child safety control, use rotary selector **[1]** to select the child safety control icon. Then press briefly to activate the child safety control.
 - ▶ The icon for child safety control appears on the display and the operation of the sauna control unit is blocked.
- To deactivate the child safety control, press rotary selector **[1]** and at the same time turn it to the right.



10.13. All Off

To switch off all switched-on functions and consumers (including DMX coloured light) at once, use rotary selector **[1]** to select the All Off icon. Then press it briefly to deactivate all functions. Settings in regard to the weekly timer are retained.



If you use a DMX coloured light device, it is recommended to use the All Off function after each sauna session, because even after switching off via main switch **[2]**, some DMX coloured light devices can continue to run.



10.14. User programs

The user programs enable favourite sauna settings to be saved and accessed again. There are 5 preset user programs available which can be modified according to user requirements.



The settings of the following functions are stored in the user programs:

- Temperature
- Humidity
- Additional output
- Light
- Fan
- Coloured light

Preset user programs:

The following user programs are already predefined:

<i>User program</i>	<i>Temperature °C</i>	<i>Humidity* %</i>	<i>Light</i>	<i>AUX</i>
1	90	0	On	Off
2	70	0	On	Off
3	50	60	On	Off
4	60	35	On	Off
5	0	0	On	7

* only with active vaporizer

Accessing user program:

1. Use rotary selector 1 to select the user programs icon. Then press briefly to open the submenu.
 - ▶ The “User programs” submenu opens and the display shows the last user program underlined.
2. Press the rotary knob again to use another user program.
 - ▶ The value is now highlighted in green and can be changed.
 - ▶ There are five user programs available [1–5]
 - ▶ Press the rotary selector again to confirm the setting.
3. Move the cursor (underscore) to the right to “Start” and briefly press the rotary selector.
 - ▶ The user program is started.



Creating your own user programs:

You can create user programs as you would like. A preset user program is overwritten in the process. Perform the following steps:

1. Start all functions that are to be switched on with the user program.
2. Use rotary selector **[1]** to select the user programs icon. Then press briefly to open the submenu.
3. Move the cursor (underscore) to the left to “Save” and briefly press the rotary selector.
 - ▶ The settings are stored in the selected user program.
 - ▶ To switch off user programs, use the All Off function.



10.15. Additional output

Infrared lamps or infra-red heater panels, for example, can be connected to the additional output on the sauna control unit.

Intensity regulation when the dimmer switch function is activated

When the dimmer switch function for the additional output is activated, the power for the additional device can be set on a scale of 1 to 7. The value of 7 corresponds to full power.

1. Use rotary selector **[1]** to select the additional output icon. Then press it briefly to confirm.
 - ▶ The “Additional output” submenu opens and the display shows the set intensity value for the additional output underlined.
2. Press the rotary selector to change the value.



- ▶ The value is now highlighted in green and can be changed.
 - ▶ Press the rotary selector again to confirm the setting.
3. Move the cursor (underscore) to the right to “On” and briefly press the rotary selector.
- ▶ The additional output switches on.
 - ▶ The additional output icon appears in the notification area of the display.



Switching off additional output

4. To switch off the additional output, repeat items 1 and 3.
- ▶ Instead of “On”, “Off” is displayed.
 - ▶ To exit the submenu, move the cursor to the “Back” icon on the left and confirm with the rotary selector.

EN

Intensity regulation when the dimmer switch function is deactivated

When the dimmer switch function for the additional output has been deactivated, you can only switch the additional appliance on and off. The unit will always operate at full power.

- Use rotary selector 1 to select the additional output icon. Then press briefly to switch the additional output on or off.
 - ▶ The additional output icon appears in the notification area of the display.



10.16. Activating standby for remote operation

EN 60335-2-53 specifies that sauna control units with a remote start function must be set manually to “Standby for remote operation” mode. This activation must take place again after each remote start and stop procedure.

Starting standby for remote operation:

- Use rotary selector 1 to select the remote start icon. Then press it briefly to start the operating mode “Standby for remote operation”.
 - ▶ The sauna control unit switches off all previously activated functions and the remote start icon appears on the display.
 - ▶ The sauna control unit is then ready to be started and stopped using a remote start signal. It is not possible to manually operate the sauna control unit at the same time.
 - ▶ After a remote start and stop, the remote start icon goes out and the mode has to be activated again.

Cancelling standby for remote operation:

- To deactivate standby for remote control, press rotary selector 1 and at the same time turn it to the right.



10.17. Coloured light

Starting coloured light:

- Use the rotary selector [1] to select the coloured light icon. Then press briefly to open the submenu.
 - ▶ The “Coloured light” submenu opens and the following menu items appear on the display:
- Light group [1–4]
 - ▶ Four lighting groups with different settings can be configured and operated. For example, the rear bench illumination runs on light group 1, the ceiling coloured light on light group 2, etc.
- Light mode
 - ▶ Select the colour or gradient of the selected light group.
- Intensity [0–100%]
 - ▶ Select the intensity of the selected light group.
- Status [On/Off]
 - ▶ Activate or deactivate the selected lighting group.
 - ▶ If a light group has been activated, the coloured light icon appears in the notification area of the display.

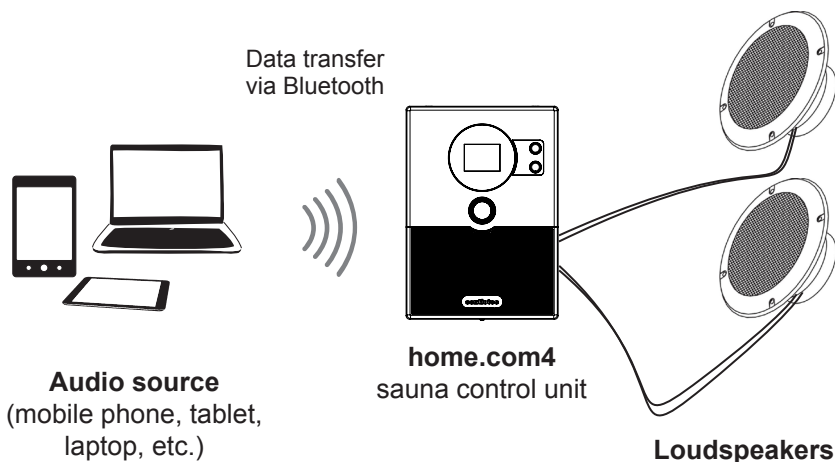


To switch off all coloured light groups, it is best to use the All Off function.



10.18. Music

The music player of the sauna control unit allows you to play music in the sauna. The music is transmitted via a Bluetooth connection from a Bluetooth-enabled device (= audio source) to the sauna control unit. All Bluetooth-enabled devices, such as most mobile phones, tablets, notebooks, etc., can be used as an audio source. The amplifier is already integrated in the sauna control unit.



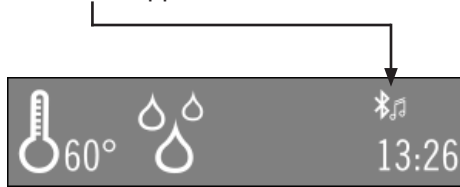
Establishing a connection for the first time (pairing)

1. Turn on the audio source (mobile phone, tablet, etc).
2. Switch on the sauna control unit.
3. Turn on the Bluetooth function of the audio source.
 - ▶ Most devices automatically search for and display other Bluetooth devices in the area.
 - ▶ The sauna control unit will be displayed on the audio source labelled "home.com4 XXXX".
 - ▶ XXXX is a sauna control unit-dependent identification number (such as F39D)
 - ▶ If you are asked for a password, use "0000".



If your audio source does not automatically search for Bluetooth devices in the area, start the search manually by selecting “Search for devices” or a similarly named function.

4. Choose “home.com4” from the device list displayed on the audio source.
 - ▶ The Bluetooth connection between the audio source and sauna control unit is established for the first time (= pairing).
 - ▶ The wave.com4 sound is connected and ready for use when the Bluetooth icon appears in the notification area of the display.



5. Play music with the audio player of your audio source.
 - ▶ The music is output through the speakers connected to the sauna control unit.



Making or receiving a call during music playback

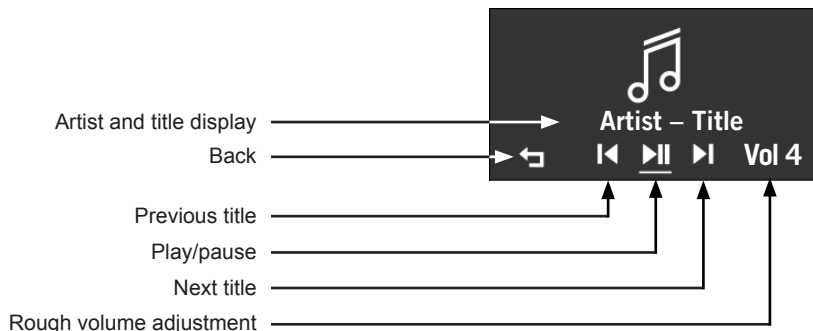
If you dial a number or receive a call, the music will automatically pause and resume again after the phone call.

Since the sauna control unit does not have a microphone, you have to switch the sound to your mobile phone. Follow the operating instructions for your device.



Operating music via sauna control unit:

- Use the rotary selector **1** to select the music icon. Then press briefly to open the submenu.
 - ▶ The “Music” menu opens and in the display the control panels shown below appear:
 - The **Artist and title display** shows information about the piece of music currently being played. If there is no audio source connected via Bluetooth, “not connected” will be displayed.
 - Select **Back** to exit the music menu. If a piece of music is currently playing, it will continue to play in the background.
 - Select **Previous title** to jump back one title in the playlist.
 - Press **Play/Pause** to start or pause the music playback.
 - Select **Next title** to jump forward one title in the playlist.
 - **Rough volume adjustment** can be done in four steps on the sauna control unit. Fine adjustments are made at the audio source.



11. App

All primary features of the sauna control unit “home.com4” can be operated and controlled using the Bluetooth app.

To do this, download the “home.com4” app from the App Store. The app is available for iOS and Android at no charge.

Depending on the device, the range is up to 30 m in open areas. The app can be operated and the music can be streamed from the same device.

To connect to the home.com4 control unit, enable Bluetooth on your device and launch the “home.com4” app.

There is an automatic search for available “home.com4” devices.



Apple / iOS



Android

EN



home.com4 icon



WARNING!

Risk of fire

Use the app only if you are within sight of the sauna heater and can make sure that there are NO flammable objects on the sauna heater!

12. Cleaning and maintenance

12.1. Cleaning

ATTENTION!

Damage to the unit

The sauna control unit is protected against splashing water, however direct contact with water could still damage the unit.

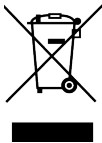
- Never immerse the unit in water.
 - Never pour water over the unit.
 - Never clean the unit with a cloth which is too wet.
-

1. Immerse a cleaning cloth in a mild, soapy solution.
2. Wring the cleaning cloth out well.
3. Wipe the sauna control unit housing carefully.

12.2. Maintenance

The sauna control unit is maintenance-free.

13. Disposal



- Please dispose of packaging materials in accordance with the applicable disposal regulations.
- Used units contain reusable materials as well as hazardous substances. Therefore, do not dispose of your used unit with household waste, but rather do so in accordance with the locally applicable regulations.


14. Troubleshooting



14.1. Error messages

The sauna control unit is equipped with diagnostic software which monitors system statuses when it switches on and during operation. As soon as the diagnostic software identifies an error, the sauna control unit switches the sauna heater off.

Errors are shown on the display as error numbers. In addition, a recurring warning tone is sounded.

Switch the sauna control unit off using the On/Off switch  and rectify the error before switching the sauna control unit on again.

The table on the next page describes the possible errors and their causes. If necessary, quote the error number to your customer service specialist.

If several errors occur at the same time, the error numbers are separated by a *.



14.2. Low-water display

The sauna control unit features an automatic low-water shutdown feature in combi-mode, providing your combi-heater supports it.

If the water tank of the vaporizer is empty, this is signalled by a recurring warning tone, the icon for humidity and the text “**Refill water**” on the display. The vaporizer switches off at the same time.

- Pour water into the water tank in the vaporizer.
 - ▶ After a short period, the warning stops and the vaporizer starts heating up again.



A few seconds may elapse between filling of the vaporizer and the warning stopping, since detection takes place with temperature switches in the vaporizer.

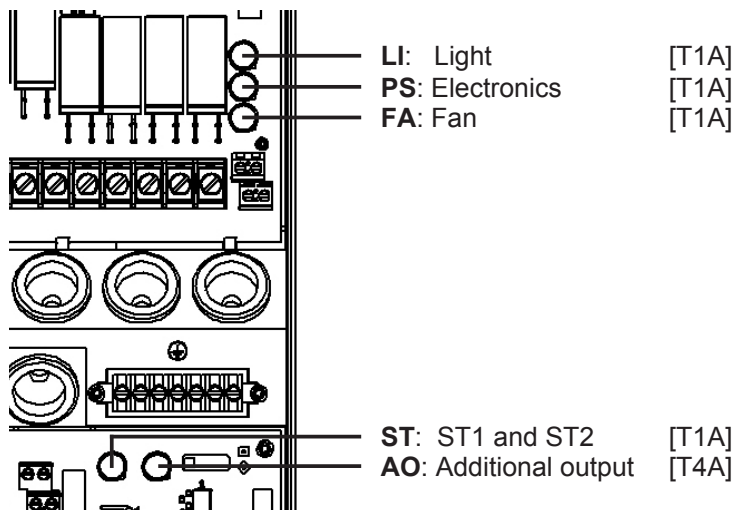
Error	Description	Cause/remedy
*01	Safety shut-off	<p>An object has been placed on the sauna heater. Remove any objects before starting up the sauna heater again.</p> <p>If no safety shut-off is fitted, note "5.7. Safety shut-off" on page 23.</p>
*02	Overheat cut-out	<p>The maximum temperature of 139 °C has been exceeded above the heater. Check the overheat cut-out (STB).</p>
*04F1	Heater sensor error	<p>Defective heater sensor, poor contact or short circuit. Check the sauna sensor (F1).</p>
*05	Foil sensor error	<p>Defective foil sensor, poor contact or short circuit. Check the foil sensor (FF).</p>
*06F2	Bench sensor error	<p>Defective bench sensor, poor contact or short circuit. Check the bench sensor (F2).</p>
*07	Humidity sensor error	<p>Defective humidity sensor, poor contact or short circuit. Check the humidity sensor (FTS2).</p>
*08	Foil sensor excess temperature	<p>The maximum foil temperature of 100 °C was exceeded. Switch off the auxiliary output.</p>

Other errors	Cause/remedy
No function	<p>Check supply line L1 and fuse PS.</p>
Setpoint temperature is not reached	<ul style="list-style-type: none"> ● Bank sensor not activated in the technician menu (if available) ● Sauna heater power too low / cabin volume too large ● Check supply and exhaust air ● Check power consumption of U, V and W.
Coloured light continues to run even though the control unit is switched off	<p>Use the “All Off” function to turn off the coloured light.</p>
Additional output cannot be dimmed	<p>Activate dimming function in the technician menu (dimnable)</p>
Operating mode switches off for no apparent reason	<p>Check the setting of the runtime</p>
Remote start does not respond	<ul style="list-style-type: none"> ● Control unit must be in operating mode “Standby for remote control” (see “10.16. Activating standby for remote operation” on page 50) ● Check the wiring of RS1 and RS2.
Time always starts at 00:00.	<p>Battery dead (see “Battery” on page 61)</p>

14.3. Fuses

In the connection area of the sauna control unit, there are fuses for light, fan, power booster, additional output and electronics.

These are time-delay micro fuses. They can be ordered using the item number PRO-FUSE. In order to replace the fuse, pull the fuse link straight out and insert the new fuse.

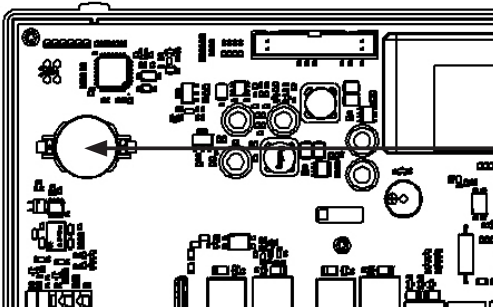


14.4. Battery

To keep the clock and date settings from being lost in the event of a power failure, there is a battery in the basic module. This may need to be replaced if the clock no longer runs correctly.

**WARNING!*****Electric shock***

Before opening the housing cover, disconnect all poles of the sauna control unit and secure against reconnection.



Battery: CR 2032

15. Technical data

Ambient conditions

Storage temperature:	-25 °C to +70 °C
Ambient temperature:	-10 °C to +40 °C
Relative humidity:	max. 95%

Sauna control unit

Dimensions (W x H x D):	210 x 294 x 53
Switched voltage / three-phase 3N:	400 V AC
Frequency:	50 Hz
Standby power consumption:	8 W
Switching capacity/heater:	3 x 3.5 kW
Switched current per phase/heater:	16 A
Switching capacity/vaporizer:	3.5 kW
Switched current/vaporizer:	16 A
Switching capacity/additional output (dimmable)*	500 W
Switching capacity/additional output (switchable)*	3.5 W
Switched current/additional output*:	16 A
Rated voltage:	230 V
Protection class (protected against splashing water):	IPX4
Connection to the mains supply as fixed wiring (fixed connection)	

Light

Switching capacity:	100 W
Fuse:	1A T

Fan

Switching capacity:	100 W
Fuse:	1A T

Setting ranges

Temperature:	30 °C to 110 °C
Humidity:	0% to 100%

The maximum humidity level which can be set depends on the temperature of the sauna. The higher the sauna temperature, the lower the maximum humidity level which can be set.

Thermal safety

- Heater sensor with overheat cut-out (139 °C shut-off temperature)
- Adjustable automatic heating period (6 h, 12 h, 18 h, 24 h)*
- Optional single-sensor mode or two-sensor mode

Connection cables

Power supply cable:	min. 5 x 2.5 mm ²
Heater supply cable (temperature-resistant up to 150 °C):	min 2.5 mm ²
Sensor leads (temperature-resistant up to 150 °C):	min 0.5 mm ²
Light lead:	min. 1.5 mm ²
Fan lead:	min. 1.5 mm ²

Expansion module

Amplifier power (@ 4 Ω):	2 x 3 W
Loudspeaker music load:	~ 25 W
Loudspeaker impedance:	4 Ω or 8 Ω
Bluetooth profile:	Bluetooth 4.0 Class 2
Bluetooth range:	20–30 m
DMX profile:	DMX-512-A

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