INNOVATIVE SAUNA TECHNOLOGY

EMOTEC DC 9000

Sauna control unit

GB **Installation and operating instruction**

Made in Germany

IP x4

Druck Nr. 29344198en / -48.13

English

Table of Contents

Package contents 4
Optional connections:....4
Technical data....5
General information concerning sauna bathing....6
General safety precautions....7
Assembly of the control unit....8
Wall mounting....8
Electrical connection....9
Connecting the sauna oven....9
Connecting the sauna lamp....10
Connecting a fan....10
Connecting a power control unit....10
Connecting a colored light....10
Connecting the remote button....10
Connecting a GSM module....10
Connecting the phase section module for LED/spot lights....10
Connecting the switch module for energy-saving lamps....10
Installation diagram....11
Terminal arrangement on the circuit board....11
Sensor connection....12
Connection of sauna heaters ≤ 9 kW....12
Connection of sauna heaters > 9 kW....13
Connecting the sensor lines....14
Mounting the oven sensor....14
Installing the optional bench sensor....15

Operation 16
Button functions 16
Symbol description 16
Initial unit switch-on 17
Preset parameters 18
Finnish sauna mode 18
Temperature display 18
Actual - target display 18
Heating time 18
To consider when programming: 19
The keylock / hotel mode 20
Specialist section 21
F1 Setting the current time 21
F5 Link color light options with heater 22
F8 The optional bench sensor 23
F10 Reset time from the submenus 24
Programming levels 25
P1 Starting with the time preselection 25
Deactivating the time preselection 26
P2 Heating time limitation 26
Activation of the weekly timer 27
P0 Weekly timer 27
P1 Starting with time preselection in weekly timer mode 28
P5 Temperature setting 30
P6 Programming fan operation 31
P7 Ability to dim the cubicle lights 32
Coloured light (optional) 33
P9 Setting the time interval for the coloured light 35
The control unit switch (Switch-off) 36
Switching over the heating time limitation for commercial use or weekly timer 36
Error display 37
Other error options that are not displayed and their causes: 37
Service Address: 38
Guarantee 38
Handling procedures for return shipments (RMA) - Details for all returns ! 39

Package contents

(subject to change)
Included with the control unit are:

1. An heater-sensor board with overheat shutoff protection, KTY-sensors with sensor housing , two 3x25 mm fastening screws and a 2,0 m long sensor cable, red and white.
2. A plastic bag with three 4 x 20 mm fastening screws.
3. A replacement overheat protection module.

Optional connections:

	Bench sensor	Art. No: 94.4389
	Colored light module	Art. No: 94.2761
	Neon colored light module	Art. No: 94.4286
	EmoLux colored light module	Art. No: 94.4834
	Remote start button Connection line 10m Connection line 25m Connection line 50m	Art.No: 94.4645 Art.No: 94.4646 Art.No: 94.4647 Art.No: 94.4648
	GSM mobile phone remote switch modul	Art.No: 94.4671
	Phase angle control module for LED-/Halogen spotlights	Art.No: 94.4970
	Control module for energie-saving (fluorescent) lamps	Art.No: 94.4669

Technical data

Nominal voltage:	400 V 3N AC 50 Hz
Switching load:	max. 9 kW, Ohm resistive load (AC1 mode), power can be extended by using an optional power extension units up to 36 kW
Heating time limit:	6 hr, 12 hr or no heating time limit
Time preseletion:	up to 24 h switching pre-selection (switching timer)
Week timer:	week timer with up to 4 programs per day
Display:	LCD with backlighting, monochrome
Protection class:	IPx4 as per EN 60529, splashed water resistant
Temperature control range:	30 - 110°C
Sensor system:	KTY sensor with safety temperature limiter 139°C
Control characteristic:	digital two-point regulation
Fan output:	min. 25 W max.100 W (only fan excluding capacitor)
Light output:	min. 25 W max.100 W. Only ohm resistive load, we recommend to use special bulbs like baking oven bulbs. For connection of other illuminants (inductive, capacitive) special optional modules should be used.

Fuse protection of the light and the ventilation may not exceed 500 mA (slow reacting fuses). Risk of fire if greater fuse protection is used!

Coloured light (optional):	max. 100 W per colour
Colour on-time:	1 - 10 min per colour
Colour sequence:	red - red/yellow - yellow - yellow/green - green - green/blue - blue - blue/red
Error display:	error code indication on the display with warning triangle
Ambient temperatures:	-10°C to +35°C
Storage temperatures:	-20°C to +60°C

Dear customer

You have purchased a high-quality technical device with which you will have years of sauna fun. This sauna control unit was designed and inspected according to the current European safety standards and manufactured at the factory in accordance with the quality management standard DIN EN ISO 9001:2000.

This detailed installation and operation manual has been prepared for your information. Please observe in particular the **important notes** and the information on electrical connection.

We wish you exhilarating recreational experience and lots of fun with your sauna!

Intended use

This sauna control unit is exclusively intended for the control of the sauna heater in a sauna cabin.

Any other use over and above the intended purpose is not considered as appropriate use! Compliance of the standard operation, maintenance and repair conditions is also an element of appropriate use.

The manufacturer cannot be held liable for deviating, unauthorized alterations and any resulting damages: the initiator of these changes bears the full risk.

General information

Please check whether the unit has arrived in perfect condition. Any transport damages should be immediately reported to the freight forwarder delivering the goods or you should contact the company that shipped the goods.

Please note that you will only be able to achieve an optimum sauna climate if the cabin with its air intake and ventilation, the sauna heater and the control unit are aligned to each other.

Please observe the information and stipulations made by your sauna supplier.

Sauna heaters heat up your sauna cabin using heated convective air. Here, fresh air is drawn in from the air intake which, when heated, rises upwards (convection) and is then circulated within the cabin. Part of the used air is pushed out through the vent in the cabin. This creates a typical sauna climate which can achieve temperatures of approx. 110°C measured directly under the ceiling of your sauna, dropping in temperature to approx. 30-40°C towards the floor. It is therefore not unusual to measure temperatures of 110°C on the temperature sensor hanging over the heater, whilst the thermometer hanging on the sauna wall, approx. 20-25 cm under the cabin ceiling, only indicates 85°C. The bathing temperature generally lies between 80°C and 90°C in the area of the upper bench when the temperature is set to maximum.

Please note that the highest temperatures are always generated over the sauna heater and that the temperature sensor and the safety limiter must be mounted there in accordance with the control unit installation instructions.

When heating up for the first time, you may notice a slight smell caused by evaporating lubricants used in production processes. Please ventilate your cabin before beginning your sauna bath.

General safety precautions

This device can be used by children aged **8** upwards and by persons with physical, sensory, or mental disabilities, or who have inadequate experience and knowledge if they are supervised or if they have received adequate instruction in how to use the device safely and understand the associated risks. Children may not play with this device. Children may not clean or carry out any user maintenance if unsupervised.

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

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

The electrical installation may be done only by a qualified electrical technician.

You must comply with the regulations of your power supply company and applicable VDE regulations (DIN VDE 0100).

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

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

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

Completely disconnect the control unit from the electrical circuit, i.e. flip all circuit breakers or the main circuit breaker during each installation or repair.

Please note the safety and installation information from the sauna oven manufacturer.

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

When using control units that offer the possibility of external access (GSM-module, remote button, etc.) or time-delayed switching (preselection time, weekly timer, or similar) a trigger guard with covered heating unit is required. (cover protection type 1-5 or S-Guard).

Attention!

Dear customer,

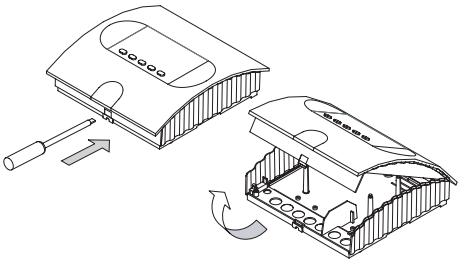
according to the valid regulations, the electrical connection of the sauna heater and the control box has to be carried out through the specialist of an authorized electric shop

We would like to mention to the fact that in case of a warrenty claim, you are kindly requested to present a copy of the invoice of the executive electric shop.

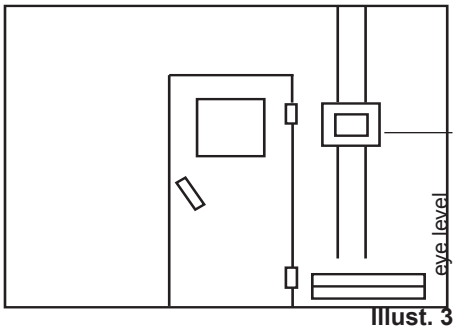
Assembly of the control unit

Wall mounting

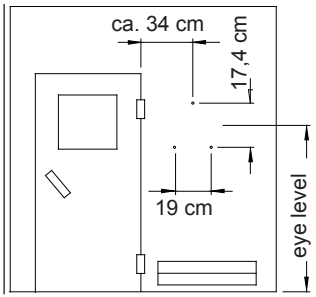
Mount the control unit outside the sauna cabin only. The most practical mounting point would be the wall area onto which the sauna oven is mounted on the inside, except on the outside of the cabin. If electrical conduits are present, mount the control unit accordingly. To mount the control unit, please follow these instructions:



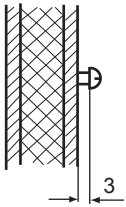
Illust. 1



Illust. 3

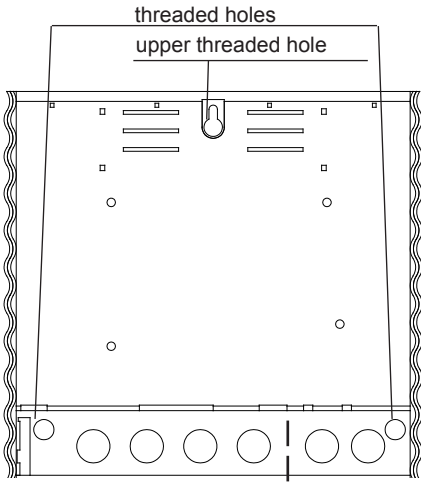


Illust. 3.1



Illust . 3.2

1. Remove the cover of the control unit. To do this press the fastening tab inwards with a flat screwdriver and remove the housing top by pivoting it upwards (Illust.1). Drill the threaded holes for the included 4 x 20 mm wood screws according to Illust. 3 & 3.1.
2. Insert one of the wood screws into the upper middle hole. This screw will be the mounting point for the control unit. Make sure the screw is projecting out from wall about 3 mm. (Illust. 3.2)
3. Hang the control unit onto the 3 mm projecting screw. Insert the included rubber sleeves into the openings on the back side of the housing and lead the electrical cable through these openings. Screw the lower part of the housing onto the cabin wall using the lower threaded holes. (Illust. 4)



Illust . 4

Electrical connection

The electrical connection may only be done by a qualified electrical technician under authority of the regulations of the local power supply company and those of the VDE.

In general, there can only be one permanent connection to the power supply network, to include a device which allows the unit to be disconnected from the power source with a contact distance of at least 3 mm from all terminals.

All electrical installations and connector cables inside the cabin must be able to withstand temperatures up to 170°C.

Lead the power cord to the control unit and connect it to the power inlet terminal.

Connecting the sauna oven

Assemble the sauna oven according to the instructions provided by the manufacturer in front of the air intake opening.

Lead the silicone wire to the power control unit through the ducts and connect them to the corresponding terminals according to circuit diagram.

Note: If no ducts are available, bore a hole next to the air inlet opening and pull the stove wire/s to the outside to lead them to the corresponding terminals in the control unit. In order to protect the silicone wire from external impacts it should be covered. Therefore use a suitable cable duct or a PVC pipe in which you lead the wire/s to the power control unit.

Connecting the sauna lamp

Only ohm resistive load, we recommend to use special bulbs like baking oven bulbs.Other bulbs, like energy-saving-lamps can destroy the control unit.

The sauna lamp must be weatherproof protected (IPx4) and resistant to the ambient temperature.

The sauna lamp can be mounted at any point, but never near to rising hot air from the heater and as far as possible from the installation position of the IR lamp (may not in the direct beam).

Connecting a fan

The fan must be weatherproof protected (IPx4) and resistant to the ambient temperature.

The fan can be mounted at any point, but never near to rising hot air from the heater and as far as possible from the installation position of the IR lamp (may not in the direct beam).

Connecting a power control unit

Details can be found in the power control unit assembly instructions.

Connecting a colored light

Details can be found in the colored light assembly instructions.

Connecting the remote button

Details can be found in the remote button assembly instructions.

Connecting a GSM module

Details can be found in the GSM module assembly instructions.

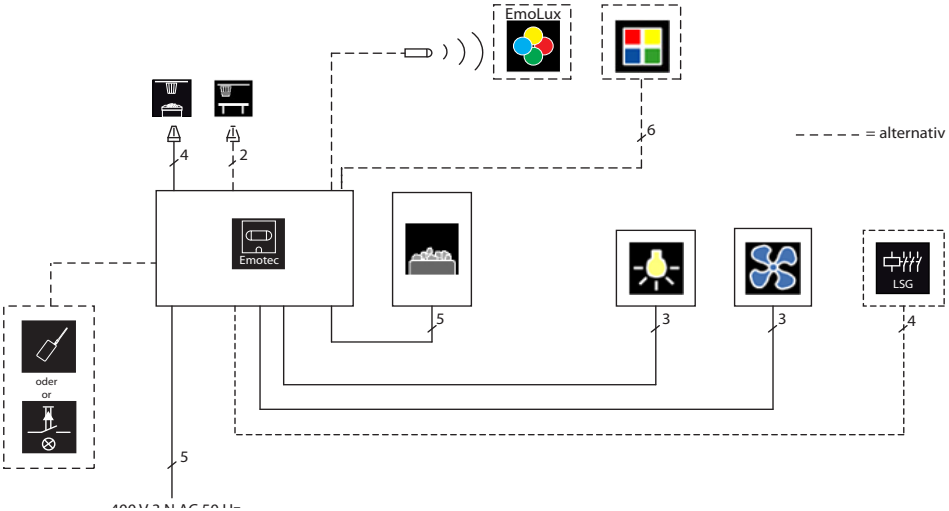
Connecting the phase section module for LED/spot lights

Details can be found in the switch module assembly instructions.

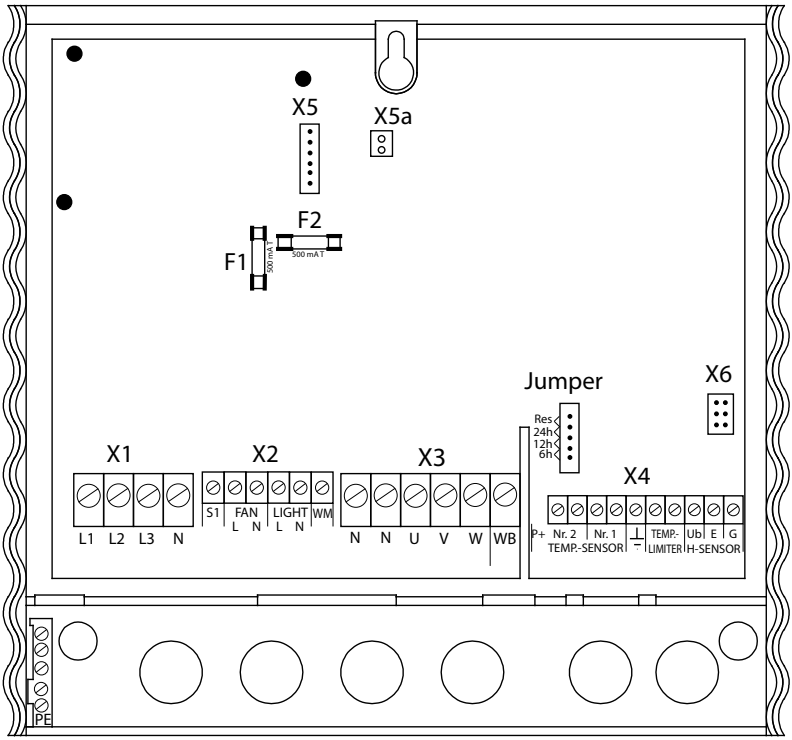
Connecting the switch module for energy-saving lamps

Details can be found in the switch module assembly instructions.

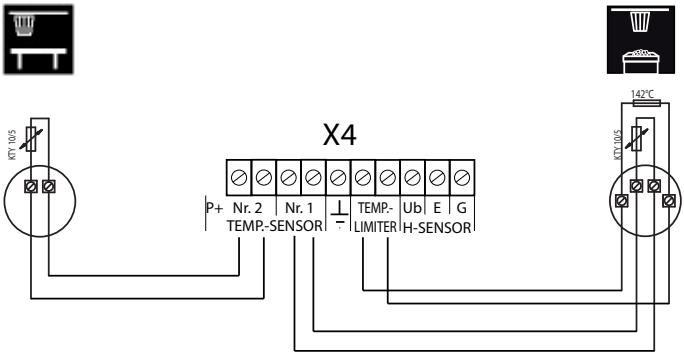
Installation diagram



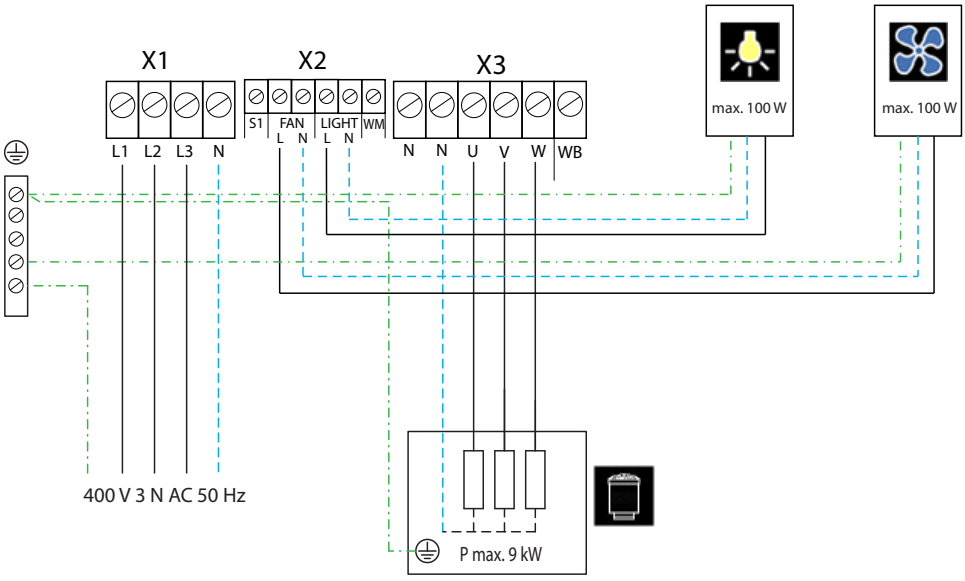
Terminal arrangement on the circuit board.



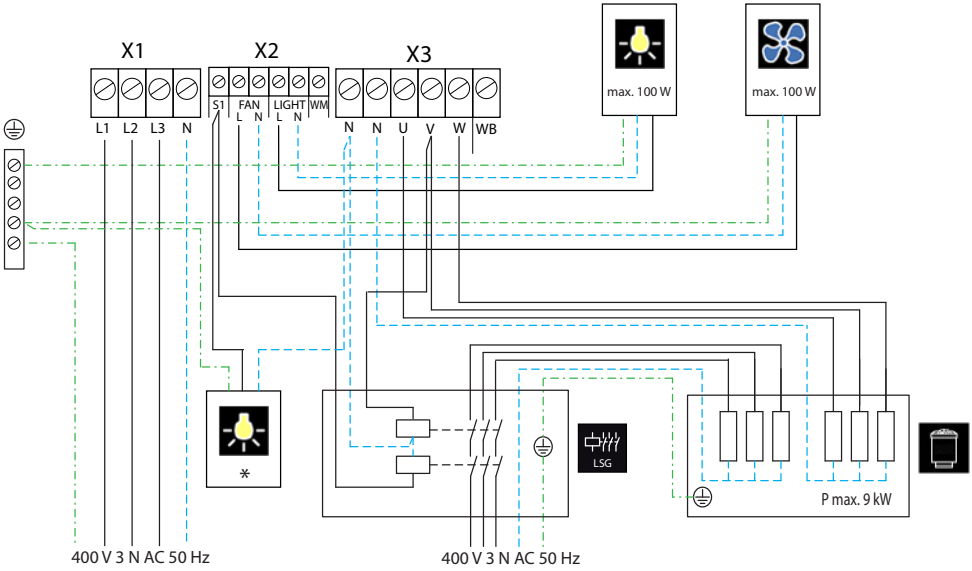
Sensor connection



Connection of sauna heaters ≤ 9 kW



Connection of sauna heaters > 9 kW



* For public installations without heating time limitation, the pilot light must be installed in the control room.

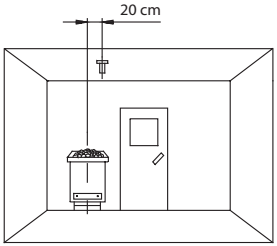
Connecting the sensor lines

The connection cables to the temperature sensor and power supply cables shall NOT be drawn together or lead through the same conduit. This can lead to interferences in the electronics, such as „fluttering“ in the relays. If it is absolutely necessary to install them together, or the wire is longer than 3 m, you should use a shielded sensor line such as the LIYLY-O x 0.5 mm²). Connect the shielding to mass in the control unit.

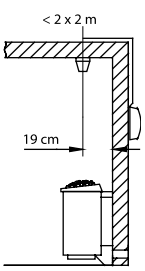
Please note that the following measurements are based on values provided by the unit quality assurance by the European Standard EN 60335-2-53. In principle, you must mount the oven sensor where temperatures are expected to be the highest. Illust. 7 gives you an overview of the mounting point of the sensor..

Mounting the oven sensor

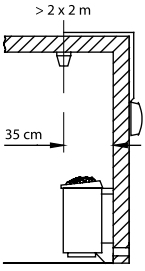
1. Mount the oven sensor in cabins up to 2 x 2 m according to Illust. 7 and 8, in larger cabins according to Illust. 7 and 9.



Illust. 7

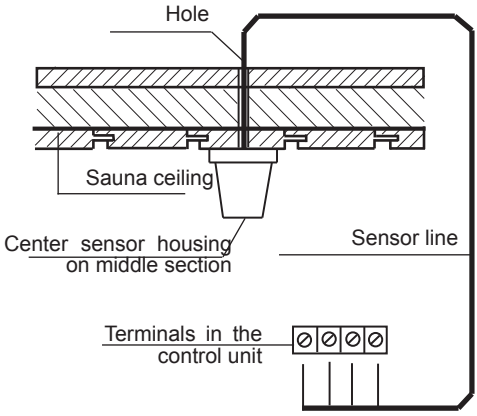


Illust. 8

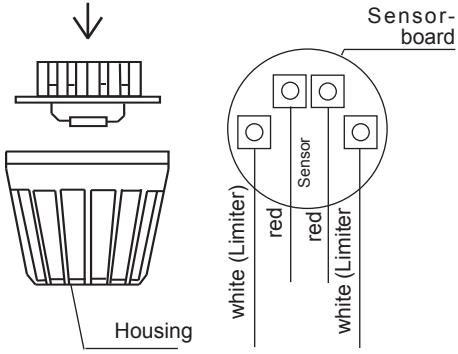


Illust. 9

2. Drill a hole to lead the cable through, preferably through the middle of one of the wooden boards.
3. Lead the sensor cable through the drilled hole and attach it to the sensor line according to Illust. 10.
4. Attach the lines for the shutoff (white) and the temperature sensor (red) according to Illust. 11 to the sensor board. Then insert the sensor board into the housing.
5. After you are finished installing and have made sure the control unit is functioning properly, check the line for overheat shutoff protection for short circuits. To do this, release one of the white lines in the sensor housing. The safety relay of the control unit should now fall; i.e. the heating circuit should now be interrupted.



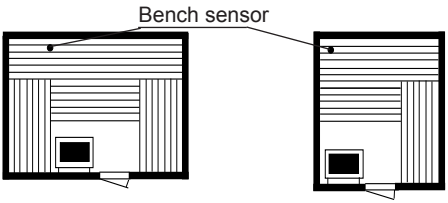
Illust. 10



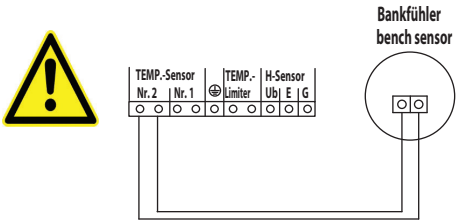
Illust. 11

Installing the optional second temperature sensor (bench sensor)

Installation location: The bench sensor is fixed to the ceiling of the rear reclining bench as described for the installation of the heater sensor.



The bench sensor is connected via a 2-core wire silicone cable from the sensor pcb to the terminals on the right-hand side of the main board of the sauna controller. The terminals are marked „Temp.-Sensor Nr. 2“.



If the sensor is connected correctly, the control unit shall automatically recognise it once the mains voltage has been switched on again.

If there is a problem with the bench sensor, a fault message will appear:

E 103 = Interruption of bench sensor circuit

or

E 104 = Short-circuit of the bench sensor

In this case, the sensor must be checked by an expert and replaced if necessary. At room temperature, the sensor has approx. 2 kΩ.

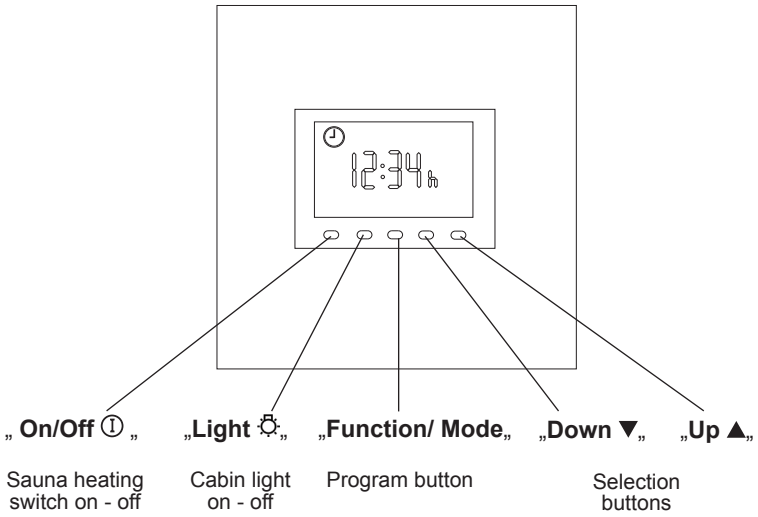
After disassembly the bench sensor can be deactivated so that you can use your sauna despite the problem. See the ‚Bench sensor‘ chapter for more details.

Once the problem has been solved, the control unit recognises the sensor once the mains voltage has been switched on again.

***Notice**: If an error E103 is shown although the bench sensor is not installed, then it has been activated in error. In such case disable the bench sensor at the program level.*

Operation

Button functions



Symbol description

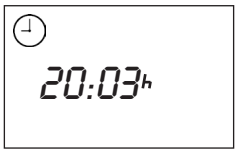
Time	Heating (dry sauna mode)
Preselection time for delayed switching	Ventilation function
Heating time	Coloured light
Lamp	Error message

If the control unit does not switch on after connections, please check the position of the main power switch (Switch-Off). See chapter about „control unit switch (Switch-Off)“ at the end of this manual.

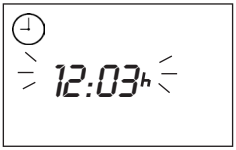
Initial unit switch-on

After you have checked all of the connections once again, connect the unit to the mains by switching on all fuses or the main switch.

The time appears on the display.



If the display flashes, proceed as follows:

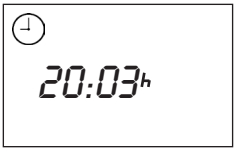


With the buttons **"Down ▼"** and **"Up" ▲„**, you can set the required values.

Press the **"Funktion/Mode"** button for 3 sec to confirm and store the new setting.

The display shows **"F1"** shortly afterwards.

Afterwards, the current time is shown on the display and the unit is ready for use.



To change the time refer to chapter "**F1"** of this operating manual.

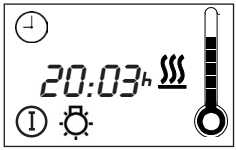
The sauna heating is switched on using the left **"On/Off ⏻"** button. The cabin lighting and the background display illumination are switched on at the same time.

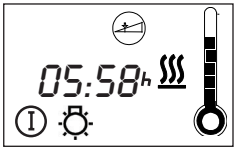
Shown on the display:

Preset parameters

Finnish sauna mode

After switching on, the display alternates between showing the current time and the remaining heating time.

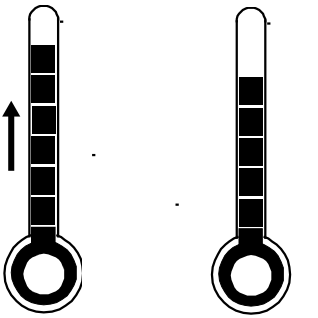




Heating-up phase display

During the heating phase plus approx. 15 minutes, the thermometer symbol continues to fill.

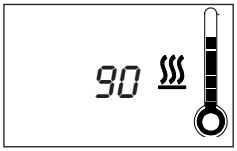
The regular phase begins once the target temperature is reached. The thermometer filling will stop and now continually shows the temperature on the sensor.



Actual - target temperature

By pressing the **"Up ▲"** button for more than 3 seconds, you can check the actual temperature in the sauna (around the sensor).

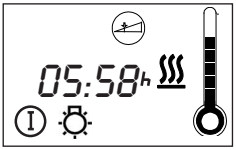
If a bench sensor is installed, you can check the temperature at bench level by pressing the **"Down ▼ "** button for more than 3 seconds.



Heating time

The factory-default heating time limitation is pre-set to 6 hours. This means that the unit switches off after 6 hours due to safety reasons.

The display alternates between showing the current time and the remaining heating time during active heating.



If the sauna bath should be finished before the pre-set limitation, press the **"On/Off ⏻ "**button. The On symbol on display will disappear and only the current time will be displayed.

The cabin light automatically switches off 30 minutes after the heating is off. You can switch the lighting off at any time using the "**light** ☼ " button.

To consider when programming:

The buttons to be confirmed are shown and quoted in the text as follows.

Symbols shown in the display sketches, framed with the symbols , are displayed flashing on the unit.

Any change to the set parameters must be saved by pressing the **"Mode"** button. The respective newly set values flash briefly before the unit switches back to the basic display.

If you change the parameters without saving with the **"Mode"** button, the previous values are automatically restored.

If you do not press any button for a longer period during programming, the display automatically returns to the basic state and the background illumination goes out after a brief period.

The keylock / hotel mode

By activating the keylock / hotel mode, the sauna can only be switched on and off by the user. Changes to the individual parameters are not possible.

To activate the keylock / hotel mode, press the **"Mode", " ▼ "** and **" ▲ "** buttons at the same time until the display shows **"SAFE"** .

The display returns to the original status when the buttons are released.

If other buttons are pressed than the ⏻ button, the display shows **"SAFE"**.

To deactivate the keylock / hotel mode, press the **"Mode", " ▼ "** and **" ▲ "** buttons at the same time longer than 3 seconds.

The various programming options for the unit are generally differentiated into:

Operator level These setting levels described with **"F 1 - F 10"**. Depending on the unit type it may be the case that certain levels are not shown. Here you can change the parameters which need to be adapted very rarely in daily use. They are set during the initial setup and then usually remain unchanged for a long period of time.

Programming level The levels are shown with **"P 0 - P 9"**. Depending on the unit type or operating mode, it may be the case that certain levels are not shown.

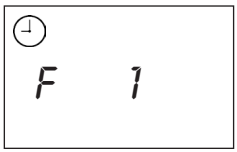
Here you can change the parameters which need to be frequently adapted to your individual requirements in daily use.

Operator level section

F1 Setting the current time

For clock time adjustment please press **„Mode“** and **„▲“** button simultaneously.

(The display will show **„F1“** and the clock symbol.)



Please confirm with the **„Mode“** button.

The clock symbol will start to blink.

Please choose the desired value with the **„▼“** and **„▲“** buttons.

(to switch between **summer and winter time** for example)

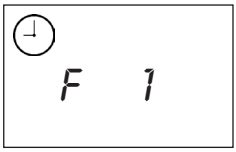
Please confirm with a long press on the **„Mode“** button until the new value is flashing on the display.

Afterwards the displays shows **„F1“** for a short time

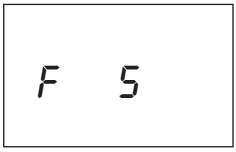
F5 Link colour light with the sauna heater

You can make the colour light system switch on simultaneously with the heater.

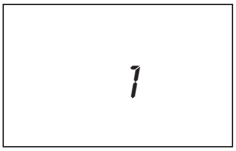
In order to link the colour light functions with the heater, press the **"Mode"** and the **"▲"** button at the same time (**"F1"** and the clock symbol appear on the display) and then the **"▲"** button until **"F5"** appears on the display.



Confirm with the **"Mode"** button.

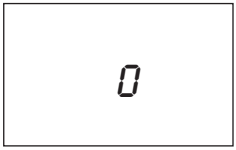


With the buttons **"▼"** and **"▲"** you can now set the required value.

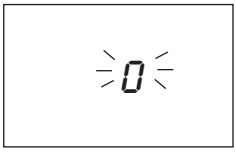


0 = The colour light function is linked with the heater function. i.e. the colour light automatically turns on if the heater is switched on.

1 = The color light function is not linked with the heater function and has to be switched manually.



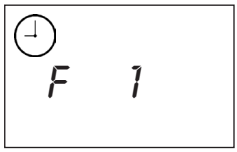
Confirm the entry by continuously pressing the **"Mode"** button until the newly set value flashes on the display.



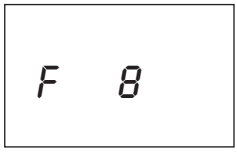
Afterwards the **"F5"** is briefly shown until the display returns to the basic state.

F8 The 2nd temperature sensor (bench sensor, optional)

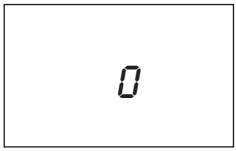
To activate or deactivate the bench sensor (for instance, after an upgrade or an error) please press **„Mode“** and **„▲“** button synchron.



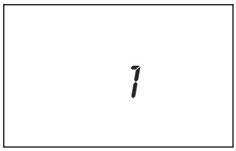
(The display shows **„F1“** and the clock symbol.) Afterwards press **„▲„** button until **„F8“** appears in the display.



Please confirm with the **„Mode“** button.



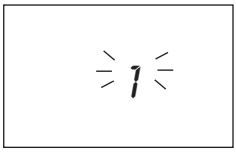
Please choose the desired value with the **„▼“** and **„▲“** buttons.



1: bench sensor activated

0: bench sensor deactivated

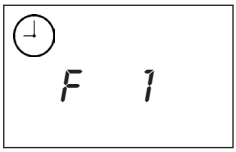
Please confirm with a long press on the **„Mode“** button until the new value is flashing on the display.

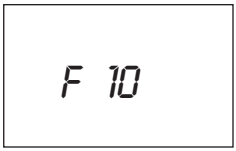


Afterwards the displays shows **„F8“** for short time. The new value is now stored.

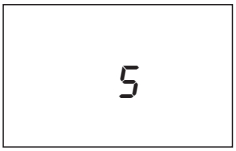
F10 Reset time from the submenus

To set the reset time on submenus (the time after which the display automatically returns to the basic state), press the **"Mode"** and **"▲"** buttons at the same time (**"F1"** and the clock symbol appear on the display) and then the **"▲"** button until **"F10"** appears on the display.





Confirm with the **"Mode"** button.



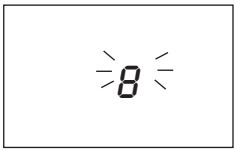
Using the **"▼"** and **"▲"** buttons, you can now set the required value.

5 = 5 seconds

8 = 8 seconds

12 = 12 seconds

Confirm the entry by continuously pressing the **"Mode"** button until the newly set value flashes on the display.



Afterwards, the **"F10"** is briefly shown and the display returns to the basic state. The new value is now stored.

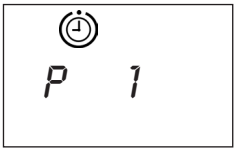
Programming levels

P1 Starting with the time preselection

With time preselection, you may preselect the start of your sauna unit within 24 hours.

Always make sure that there are no objects on the sauna unit before the heating process begins. Risk of fire!

In order to set the time preselection, please press the "**Funktion/Mode**" key. The preselection symbol and **"P1"** will appear on the display.



Confirm with the "**Funktion/Mode"** key.

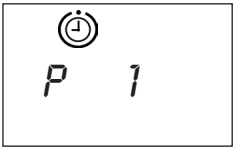
With the keys **"Ab ▼"** and **"Auf ▲"**, you can now set the required value in 10-minute steps.

Keep in mind that the cabin must heat up for ca. 40 – 50 minutes in order to reach a comfortable climate inside the cabin. If, for example. you wish to start with your sauna bath at 18:00 hrs, please select 17:10 hrs as your preselection time.

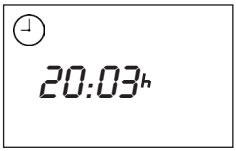
Confirm the entry by permanently pressing the **"Funktion/Mode"** key until the newly set value flashes on the display.

Afterwards, the **"P1"** is briefly shown.

Whilst the **"P1"** is visible on the display, please press the **"An/Aus ⏻ "** key to start the preselection mode.



After a short period of time, the current time and the preselected switch-on time are shown alternately on the display. The background illumination on the display goes out.



Once the preselection time has been reached, the sauna unit will switch on. After the heating period has ended, the device switches the unit off automatically.

Deactivating the time preselection

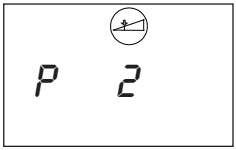
In order to deactivate the time preselection, please press the **"On/Off ⏻"** button. Then the sauna heater will be switched on, By pressing the **"On/Off ⏻"** button again the sauna heater is switched on.

P2 Heating time limitation

⚠ This program step will only appear if the device has not been set for the "Wochentimer" mode during installation.

The heating time is limited to 6 hours by default upon delivery. After this time has elapsed your sauna will switch off automatically.

In order to set the maximum heating time, press the **"Mode"** key and then the "▲" key until the heating time symbol and **"P2"** appear.



Confirm with the **"Mode"** key.

Using the **"▼"** and **"▲"** keys, you can now set the required value. The time is set in 10-minute steps.

Confirm the entry by continuously pressing the **"Mode"** button until the newly set value flashes on the display.

Afterwards, the **"P2"** is briefly shown until the display returns to the original state. The new value for the maximum heating time is now stored.

P0 Week timer

This program step will only appear if the device has been set for the "week timer" mode during installation.

You can program up to 4 switching times (slots) for each day of the week in the week timer menu.

The heating time for each slot can be between 30 minutes and 12 hours. After 12 hours heating a pause of 6 hours will be automatically added (legal requirement).

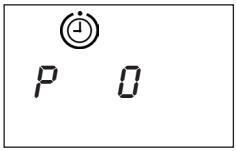
Manual switching of the sauna system is possible at any time. The week timer will be disabled in this case. After the heating time limitation (e.g. 6 h) or the user switches the heater off the weekl timer becomes enabled again (but not active).

Upon commissioning or after a longer period disconnected from the mains (time setting is lost) the weekl timer is disabled.

Activation of the week timer

Setting the current day of the week

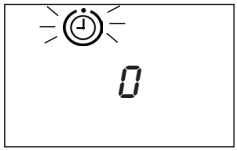
In order to activate the week timer, press the **"Mode"** key and then the "▲" key until the time preselection symbol and **"P0"** appear on the display.

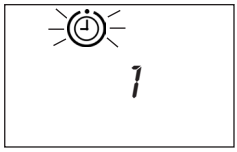


Confirm with the **"Mode"** key.

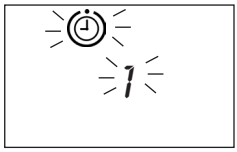
Using the **"▼"** and **"▲"** keys, select the current day of the week.

- 0 = Weekly timer deactivated
- 1 = Monday
- 2 = Tuesday
- 3 = Wednesday
- 4 = Thursday
- 5 = Friday
- 6 = Saturday
- 7 = Sunday





Confirm the entry by permanently pressing the **"Mode"** key until the newly set value flashes on the display.

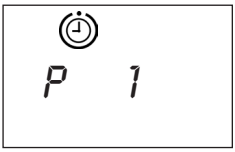


Afterwards the **"P0"** is briefly shown until the display returns to the original state. The weekly timer is now activated and the current day of the week is set.

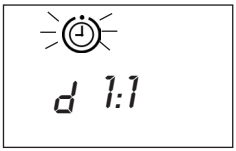
P1 Heater switching with time preselection in week timer mode

Always make sure that there are no objects on the sauna unit before the heating process begins. Risk of fire!

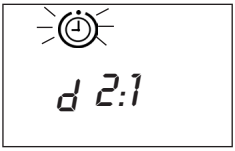
In order to set the time preselection, please press the "**Mode**" key. The preselection symbol and **"P1"** will appear on the display.



In order to set the time preselection, press the "**Mode**" key. The preselection symbol will appear on the display as well as **"**d 1:1**"**. (d<Wochentag 1...7>:<Programm 1...4>)



With the keys **"▼"** and **"▲"** you can select the required day and the program item.



Confirm the entry by pressing the **"Mode"** key. The switch-on time last set will appear on the display.

With the keys **"▼"** and **"▲"**, please set the required switch-on time.

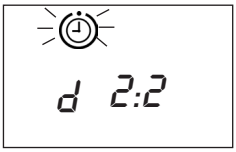
Confirm the entry by pressing the **"Mode"** key until the newly set value flashes on the display. After this the heating time symbol will start to flash on the display and the last set heating time.

With the keys **"▼"** and **"▲"** you can set the required heating time.

If the controller is running in humid mode (HCS 9003 series), the time set here is the total time including the reheating time set in F2.

If the heating time is set to the maximum value of 12 h, a 6 h pause will be added once this 12 h period has elapsed.

Confirm the entry by pressing the **"Mode"** key until the newly set value flashes on the display. The preselection symbol appears on the display as well as **"**d 2:2**"**.

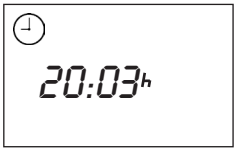


You can set further time pre-sets in the same way.

The controller prevents the time slots from overlapping during programming. A break of at least 10 minutes is automatically maintained between two time slots.

This does not apply for the maximum heating time of 12 h; here a 6 h pause will be added.

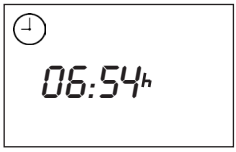
The display reverts to the standby state after a brief period of time.



10 minutes before a program begins, the preselection time is shown alternating with the time of day in the display.

In this time and during the automatic heating phase, the time of day cannot be changed in the "F1" menu.

In order to switch on manually in this time, the preselection time must initially be deactivated by pressing the **"On/Off** ⏻ **"** key.



If **"-:--"** is selected as the preselection time, the appropriate program is deactivated.

P5 Temperature setting

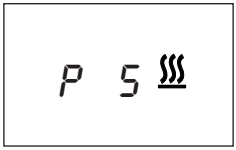
Attention:Temperature range
in dry sauna mode 30 - 110° C
in humid mode 30 - 70° C*

** only for controllers supporting dry & humid modes.*

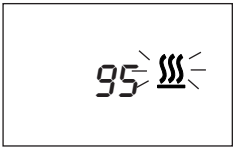
The default temperature is set to 95°C for dry sauna operation and 60°C for humid operation.

For temperature adjustment please press the **„Mode“** button.

Then press the **„▲„** button until in the display the heating symbol and **„P5“** appears.

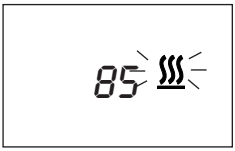


Please confirm with the **„Mode“** button.



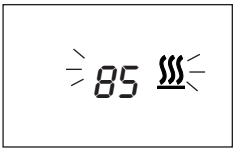
Please choose the desired value with the **„▼„** and **„▲„** buttons.

The arrow at the thermometer symbol shows the selected temperature area.



Please confirm with a long press on the **„Mode“** button until the new value is flashing on the display.

Afterwards the displays shows **„P5“** for a short time. The temperature is now stored with the new value.



P6 Fan operation programming

This control unit provides you the possibility to switch a ventilation fan (max. 100 W) and to set its speed in 3 stages.

The default setting is „no fan“ mode. Only in afterheating operation after the humid mode the fan is switched at the maximum speed.

To adjust the fan function please press **„Mode“** button.

The press the **„▲„** button to reach the fan symbol and **„P6“** in the display.

Please confirm with the **„Mode“** button.

Please choose the desired value with the **„▼“** and **„▲“** buttons.

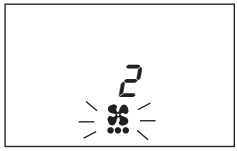
They mean:

0 = fan off

1 = fan level 1 (approx. 1/3 output)

2 = fan level 2 (approx. 2/3 output)

3 = maximum fan output



Please confirm with a long press on the **„Mode“** button until the new value is flashing on the display.

Afterwards the displays shows **„P6“** for short time. Fan function is now stored with the new value.

The selected level can be seen by the points under the fan icon on the screen.

Level 0 fan off

Level 1

Level 2

Level 3

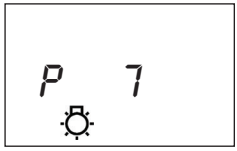
P7 Dimming of sauna cabin light

Please note that this function may only be work in combination with incandescent bulbs, we recommend to use special heat resistant bulbs. No fluorescent (energy-saving) or gas discharge lamps may be used.

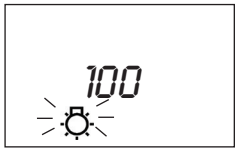
The default light setting is 100%. You can dim the cabin light of your sauna to your preference.

For light output level adjustment (in %) please press **„Mode“** button.

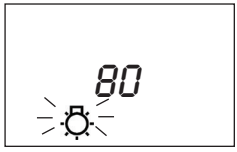
Afterwards the „▲“ button until the light symbol and **„P7“** appears in the display.



Please confirm with the **„Mode“** button.

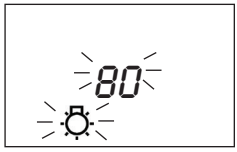


Please choose the desired value with the **„▼“** and **„▲“** buttons.



Please confirm with a long press on the **„Mode“** button until the new value is flashing on the display.

Afterwards the displays shows **„P7“** for a short time. The new dimming level is now stored.



Coloured light (optional)

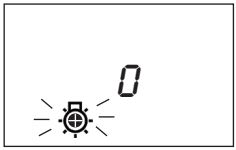
This programming option is only available if the coloured light module (item number 942761 / 944286 / 944834) has been installed.

Before installing the coloured light module the control unit must be completely switched off the power supply.

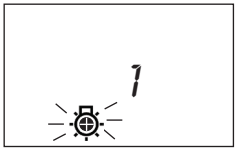
You have the option of operating a coloured light device in your sauna using the HCS 9003 control unit. Each coloured light may not exceed the maximum power of 100 W.

Switching on the coloured light

Press the „☼“ button for approx. 5 seconds. The flashing coloured light symbol and the number 0 appear on the display.



Please select the desired setting with the „▼“ and „▲“ buttons.



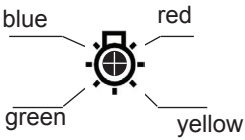
The meaning of settings:

	Item: 94.2761	item: 94.4286	Item: 94.4834
0	off		
1	automatic mode		continuous withe
2	continuous red		
3	continuous yellow		
4	continuous green		
5	continuous blue		
6	continuous red yellow green blue	automatic mode 1.min	
7	continuous yellow green blue	automatic mode 2 min per colour	automatic mode 4 min per colour
8	continuous red green blue	automatic mode 5 min per colour	automatic mode
9			Sunrise mode

When the coloured light is switched on the control unit screen also displays the flashing coloured light icon.

The coloured light icon indicates the segment for the colour that is currently lit.

The colours are assigned as follows.



If coloured light mode is to be switched off use the previous instructions and set the value to **„0“.**

It goes without saying that the sauna cabin light can also be switched on and off in coloured light mode. To do so press the light switch as usual.

If the sauna light is on the coloured light icon does not flash but is displayed constantly.

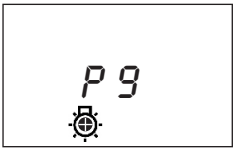
P9 Setting the time interval for the coloured light

This programming option gives you the option of automatically setting the length of time each collour is on. The fefault is one minute.

You can set on-time to between 1 and maximum 10 minutes..

For shining period adjustment please press **„Mode“** button.

Afterwards the **„▲„** button until in the display the colour light symbol and **„P9“** appears.



Please confirm with the **„Mode“** button.

Please chose the wished value with the **„▼„** and **„▲„** buttons.

Please confirm with a long press on the **„Mode“** button until the new value is flashing on the display.

Afterwards the displays shows **„P6“** for short time. Shining period is now fixed with the new value.

The control unit switch (Switch-off)

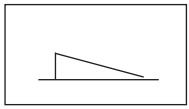
The control unit switch can be found on the top end of the unit. Using this switch, you can isolate the electronics from the mains supply in case of a breakdown.

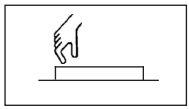
In case of breakdown, press the control unit switch on the left part of the rocker to the first position (switch position 0). The unit is now completely switched off.

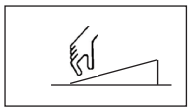
In order to switch on the light in the sauna when the unit is switched off, press on the left part of the rocker to the second position (switch position II).

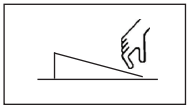
In order to put the unit back into operation, switch back to the starting position (switch position I).

Control unit switch


= unit switched on


= unit switched off


= light switched on



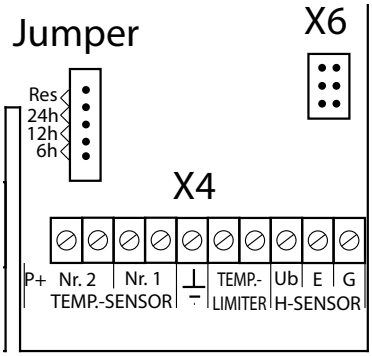
Switching over the heating time limitation for commercial use or weekly timer

Attention! Completely disconnect the control unit from the electrical circuit!

As a standard, the control unit is supplied with a heating time limitation of max. 6 hours.

To change over to max. 12 hours, there is a jumper socket on the bottom board. This is plugged in the factory with the "**6h**" marking. By changing to "**12**" or "**24h**" , the heating time can be set to max. 12 hours, max. 24 hours or (∞) infinitely. If the jumper is removed, the heating time is max. 6 hours. By plugging the jumper to **"Res"** , the weekly timer is activated.

The maximum heating time for private use is 6 hours. Resetting to 12 or more hours is permissible only for supervised (commercial) operation.



∞ = Jumper + **24h**

P2 = - : - -

Error display

n order to provide an immediate diagnosis for any errors that may occur, the following errors can be determined via on-screen error codes.

Error code Error description

E100 –Temperature sensor fault (no signal)

E101 – Temperature sensor short circuit

E103 – Bench sensor (optional 2nd sensor) fault (no signal)

E104 - Bench temperature sensor (optional 2nd sensor) short circuit

E211 – Overheating limiter fault (no signal or blown fuse)

Other error options that are not displayed and their causes:

Screen is blank – no background lighting

Check the main switch setting.

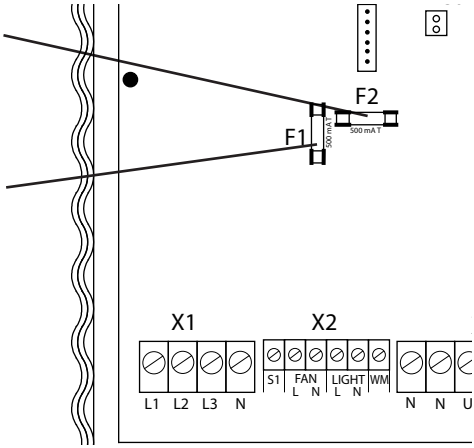
Check the mains connection! Each of the 3 phases L1, L2 and L3 must have 230V AC.

Check the fuses!

Cabin light malfunction:
Check the fuse on the main board

Fan malfunction:
Check the fuse on the main board

Both fuses are 500 mA T



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

To help us answer your questions quickly and competently please provide the information printed on the type shield including the model, item no. and serial no., in all inquiries.

Service Address:

EOS Saunatechnik GmbH
Schneiderstriesch 1

35759 Driedorf, Germany

Tel: +49 (0)2775 82-514
Fax: +49 (0)2775 82-431

servicecenter@eos-sauna.de
www.eos-sauna.de

WARRANTY

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

Manufacturer's guarantee:

- The period of guarantee starts from the date of purchase and lasts up to 2 years by commercial use and 3 years by private use.
- Always include the completed guarantee certificate when returning equipment.
- The guarantee is void for appliances which have been modified without manufacturer's explicit agreement.
- Damages caused by incorrect operation or handling through non-authorized persons are not covered under the terms of guarantee.
- In the event of a claim please indicate the serial number as well as the item number and model name with detailed description of the fault.
- This guarantee covers defective parts and labour but not the defects caused by wear and tear.

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

Always include the completed warranty certificate when returning equipment.

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

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

Equipment commissioning date:

Stamp and signature of the authorized electrician:

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

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

Please observe for all returns!

- Please add the provided **RMA-voucher completely filled out** together with an **invoice copy** to the return shipment! Do not stick it on the goods or on the packaging. **We do not accept return shipments without these papers.**
- Not prepaid parcels **will be refused** and returned to Sender! Please always ask your dealer or EOS service department about the most economical return shipment way.
- **Please pay attention that** the goods have to be sent back in the **original scope of delivery** and in **original packing**.
- We recommend to use an **additional solid and break-proof covering box** which should be padded out with styrofoam, paper or similar. Transport damages as a result of faulty packing are for the sender's account.

Reason of complaint and proceedings:

1) Transportation damage

- Please check the content of your parcel immediately and advise the forwarding company of a claim (parcel service/ freight forwarder)
- Do not use damaged goods!
- Ask the forwarder **for a written acknowledgement of the damages.**
- **Report the claim promptly by phone to your dealer.** He will discuss with you how to act in this case.
- If the transport box has been damaged, please use an additional covering box. Do not forget to add the **acknowledgement of the damage of the forwarding company !**

2) Faulty goods

- The implied warrenty period is 2 years.Please contact your dealer in case of **faulty or wrong articles or missing accessories.** He will discuss with you the individual case and try for immediate and customer-friendly solution.
- For **economic returns** within Germany you will get an **RMA-number from the manufacturer.**
- All returns have to be in the **original packing of the goods with corresponding accessories.** Please repack the goods to avoid damages. In case of wrong delivery, please do not use this article .

3) Problems of installation and functioning

- Please **read the manual carefully first of all** and pay attention to the indicated assembly or installing instructions.
- **Your dealer should be the first contact person** because he knows his products best and also knows possible problems.
- **In case of function problems with an article,** please check at first whether there is an obvious material defect. The quality system in our factory reduces malfunctions of new appliances to almost zero.