ECON D3
Sauna control unit

GB Installation and operating instruction
# English

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Scope of delivery
(changes without prior notice reserved)

The package contents includes:

Control unit
1. Temperature sensor, consisting of: sensor board with overheating protection fuse, KTY-sensor, sensor housing, two 3x25 mm fastening screws and 2.0 m long sensor cable.
2. Plastic bag with three 4 x 20 mm fastening screws.
3. 1 replacement overheating protection fuse (inside control unit housing)
4. Installation and operating manual

Technical specifications

Rated voltage: 400 V 3 N 50 Hz AC
Power output: max. 9 kW resistive load (AC1 - operation).
Power extension: up to 36 kW possible with an optional LSG device.
Heating time limitation: 6 h, 12 h, without limitation (via jumper setting)
Display: LCD Display 65 x 37 mm, alphanumeric, with backlighting
Dimensions (H x W x D): 220 x 250 x 67 mm
Protection class: IPx4 as per EN 60529 splash proof
Temperature control range: 30 - 115°C
Temperature sensor system: KTY-sensor with safety overheating limiter fuse 142°C
Control characteristics: Digital two-point control
Output for cabin lighting: max. 100 W
Ambient temperatures: -10°C to +40°C
Storage temperatures: -20°C to +70°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.
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 warranty claim, you are kindly requested to present a copy of the invoice of the executive electric shop.

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).
Installation of the control unit

Wall installation

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

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

Surface-mounted installation

1. The 3 mm diameter boreholes for the supplied wood screws 4 x 20 mm are drilled according to the dimensions shown in Fig. 3 + 3.1.

2. Insert one of the wood screws into the top center hole. The control unit is hooked onto this screw. Therefore, leave the screw out by approx. 3 mm (Fig. 3.2).

3. Hook the control unit onto the 3 mm protruding screw in the upper mounting hole. Insert the supplied rubber grommets into the openings at the rear wall of the housing and insert the connecting cable through these openings.

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

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

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

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

---

**Fig. 5**

**Holes to fasten the control unit inside the wall opening.**

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**Fig. 6**

Feed-through for:
- Mains cable
- Heater cable
- Evaporator cable
- Lamp
- Fan

Feed-through for sensor lines
Connection of the sensor cables

You should not lay sensor and power supply cables together, or draw them through the same feedthrough. This can lead to interferences in the electronics, such as “fluttering” in the relays, which may damage the control unit. If it is necessary to lay the cables down together, or if the line is longer than 3 m, use a shielded sensor cable (4 x 0.5 mm²).

Connect the shielding to ground in the control unit.

Please observe that the following dimensions relate to the values stipulated during the unit approval as per norm EN 60335-2-53. The heater sensor must always be installed at the point where the highest temperatures are to be expected. Illust. 7 - 9 give you an overview of the mounting point of the sensor.

2. Drill a hole in sauna ceiling panel 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 connect it to the sensor line according to Fig. 10.

4. The cables for the limiter fuse (white) and the temperature sensor (red) shall be connected to the sensor circuit board as per Fig. 10. Insert the sensor board into the casing.

5. Lead the sensor cables through the right-hand cable intake into the control unit. Lay the sensor cables inside the control unit as shown in Fig. 11. Connect the sensor cables to the board as shown in Fig. 12. In order to do this, pull the plug X2 from the circuit board and plug it back in after the connection of the sensor.

Installation of the temperature sensor

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

Fig. 7

Fig. 8

Fig. 9

Fig. 10
Jumper for heating time limitation setting: 6 h, 12 h, unlimited

Attention! Make sure not to confuse the sensor cables at X2 connector! This may cause the F2 fuse to burn, for replacement see page 29.

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6. After completed installation and correct commissioning of the control unit, the line for overtemperature protection must be checked for short-circuits. In order to do this, disconnect one of the white cables in the sensor casing. The respective error message shall appear in the display.

Example of the error message for overheating limiter fuse (DE)
Installation of the optional second temperature sensor (bench sensor)

**Installation place:** The bench sensor shall be mounted to the ceiling over the rear wall bench opposite to the heater as described in the installation of the bench sensor.

By faults of the second sensor the following error messages will be displayed:

- "Sensor break" - interruption of the sensor circuit (e.g. faulty contact).
- "Sensor short" - short circuit of the sensor

In this case, the sensor must be checked by a specialist and replaced if necessary. At room temperature 20 °C, the sensor has approx. 2 kΩ resistance.

In order to keep on operating your sauna cabin despite the second sensor fault switch the unit from power supply, disconnect the cable connection to the second sensor and restore the power supply.

Once the problem has been solved, the control unit shall recognise the sensor after it has been re-connected and the mains voltage has been switched on again.

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

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

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

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

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

Connection of the power extension unit (LSG)

For details refer to the installation instructions of the respective LSG device.

Connection of the sauna lamp

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

Only heat resistant bulbs or other suitable illuminants may be used.

Connection of the sauna heater

Install the sauna heater and the vaporizer in front of the air intake according to the manufacturer's installation instructions.

Run the silicone line through the ductwork to the power unit and connect it to the appropriate terminals as directed in the wiring diagram.

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

Terminal layout on the main board

400 V 3 N AC 50 Hz

Connector for temperature sensor
Connection for the 2nd temp. sensor
Jumper for heating time limitation
at the reverse side of the board
Connection of sauna heaters up to 9 kW

A control lamp indicating active heating must be installed in the room or location of supervising staff by commercial sauna cabins with disabled heating time limitation.
Operation
Once the control unit has been installed with all components and all covers have been fixed, you can put your sauna unit into operation.

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

General details

Operation elements

Operating buttons

- 🌞 = Sauna heating on / off (stand-by)
- ⏯️ = Sauna cabin lighting
- ▼ = Reduce value / next function
- ▲ = Increase value / next function
- MODE = Programming mode (settings)
Interface in Stand by
is shown if the control unit is in stand-by model
The display will automatically switch this inter-
face from any state if no button has been
pressed within >15 Sek.

Interface in active operation
is shown if the control unit is in active operation
mode (heating is switched on).
The display will automatically switch this inter-
face from any state if no button has been
pressed within >15 Sek (during active heating).

Display of the heating process:
During the heating-up phase the bars behind
the temperature figures will fill progressively.
Once the pre-set temperature has been rea-
ched, the bars will remain filled.

Interface in energy-saving mode
If the control unit is not used for a longer time it
will switch into the energy-saving mode.
A clock randomly moving across the display
every minute will be shown after 5 minutes,
similar to a PC screensaver. The backlight of the
display is switched off after an additional 15
minutes
By pressing any key you can wake the unti to
the default “Stand-by” interface.

The following applies for all settings:
The following symbols are displayed at the top.

- the light symbol
  (when the light is on)
- the clock symbol
- 12:00 current time

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

- active child lock (keypad lock)
- preset time (switching time preselec-
tion)
In order to adjust the individual values to the particular desires, briefly push the MODE -button out of Stand-by.

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

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

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

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

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

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

The blinking of the parameter ends and the new value is now authoritative until another change is made.

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

Sauna cabin lighting

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

Irrespective of the status of the sauna unit, the cabin lighting can be switched on or off anytime with the button.
Initial commissioning

MODE > 3 Sek

Time of day
0:00

MODE

Time of day
12:00

MODE > 3 Sek

Time of day
12:15

MODE > 3 Sek

Temperature 30°C
Auto-stop 5:59
Start time - - -
Life - Guard 20 min
Change language

<table>
<thead>
<tr>
<th>Time of day</th>
<th>12:15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>30°C</td>
</tr>
<tr>
<td>Auto-stop</td>
<td>5:59</td>
</tr>
<tr>
<td>Start time</td>
<td>-:-</td>
</tr>
</tbody>
</table>

Set (change) time

<table>
<thead>
<tr>
<th>Time of day</th>
<th>12:00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>30°C</td>
</tr>
<tr>
<td>Auto-stop</td>
<td>5:59</td>
</tr>
<tr>
<td>Start time</td>
<td>-:-</td>
</tr>
</tbody>
</table>

MODE &

12:15

MODE > 3 Sek

0:00
Activate Life-Guard function

Life-Guard is a settable relatively short time, e.g. 20 minutes, after which the sauna heater will be switched off, except for the cabin lighting, if this function has been activated. After this time has elapsed the heater can be switched on again by pushing the MODE - button for the set time.

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

Activate / deactivate the child lock

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

Activate

Stand by

Mode &

Operation

Deactivate

Time of day

12:15

Life Guard

Life - Guard

MODE > 3 Sec

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

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

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

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

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

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

Temperature 30°C
Auto-stop 5:59
Start time - - - -
**Switching on the sauna heater**

<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature</th>
<th>Auto-stop</th>
<th>Start time</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00</td>
<td>30°C</td>
<td>5:59</td>
<td>- - : - -</td>
</tr>
</tbody>
</table>

Switching on the sauna heater:

- **Switching the heater with Life-Guard function**

<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature</th>
<th>Auto-stop</th>
<th>Start time</th>
<th>Life-Guard</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00</td>
<td>30°C</td>
<td>5:59</td>
<td>- - : - -</td>
<td>20 min</td>
</tr>
</tbody>
</table>

- **Switching off the sauna heater**

<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature</th>
<th>Auto-stop</th>
<th>Start time</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:15</td>
<td>30°C</td>
<td>5:59</td>
<td>- - : - -</td>
</tr>
</tbody>
</table>

Switching off the sauna heater:

**Notice:**

In Life-Guard mode it is not possible to change the temperature or humidity settings as long as the control unit is in operation (active heating).
Individual settings

Hereafter we are showing you the options that allow you to adjust the controls to your individual needs. The various parameters can be changed in Stand-by or in operation and the changes are saved in the unit. Changes in settings made during operation will be applied directly as they are made.

Sauna temperature  Control range: dry Finnish mode 30 - 115°C

In Stand-by

<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature</th>
<th>Auto-stop</th>
<th>Start time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode 1</td>
<td>30°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
<tr>
<td>Mode 2</td>
<td>30°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
<tr>
<td>Mode 3</td>
<td>85°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
<tr>
<td>Mode 4</td>
<td>85°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
</tbody>
</table>

In operation

<table>
<thead>
<tr>
<th>Time</th>
<th>Temperature</th>
<th>Auto-stop</th>
<th>Start time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode 1</td>
<td>30°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
<tr>
<td>Mode 2</td>
<td>85°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
<tr>
<td>Mode 3</td>
<td>85°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
<tr>
<td>Mode 4</td>
<td>85°C</td>
<td>5:59</td>
<td>- : - -</td>
</tr>
</tbody>
</table>

15 sec. / > 3 sec
**Life-Guard**

Here you can set after what time the sauna heater shall be switched off and by pushing the **MODE**-button again you can restart the heating for the pre-set “Life-Guard” time. This setting can only be selected in Stand-by when the function “Life - Guard” is activated.

For instance you set 15 min time. If you do not press the **MODE** button within 15 minutes during active heating, the heater will switch off once this time expires. If you press the „mode“ button, the heating will resume for the next 15 minutes.

This feature provides you a convenience of a quick timer and is independent to the general heating time limitation (auto-stop).

**In Stand-by**

<table>
<thead>
<tr>
<th>12:00</th>
<th>12:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temperature</strong></td>
<td>30°C</td>
</tr>
<tr>
<td><strong>Auto-stop</strong></td>
<td>5 : 59</td>
</tr>
<tr>
<td><strong>Start time</strong></td>
<td>- : - -</td>
</tr>
<tr>
<td><strong>Life - Guard</strong></td>
<td>20 min</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12:00</th>
<th>12:00</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Temperature</strong></td>
<td>30°C</td>
</tr>
<tr>
<td><strong>Auto-stop</strong></td>
<td>5 : 59</td>
</tr>
<tr>
<td><strong>Start time</strong></td>
<td>- : - -</td>
</tr>
<tr>
<td><strong>Life - Guard</strong></td>
<td>15 min</td>
</tr>
</tbody>
</table>

**MODE**

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

- **Temperature** 30°C
- **Auto-stop** 5 : 59
- **Start time** - : - -
- **Life - Guard** 15 min

- **Temperature** 30°C
- **Auto-stop** 5 : 59
- **Start time** - : - -
- **Life - Guard** 15 min

This feature provides you a convenience of a quick timer and is independent to the general heating time limitation (auto-stop).
Auto-Stop (heating time limitation)

Auto-Stop is the time to which the heating time is limited. The sauna heater automatically turns off once this time has expired.

The time is adjustable from 0:01 to 6:00 hours. The extension of this time is possible with the jumper setting and may be carried out only the specialist dealer. Please notice that such extension is only permitted for commercial sauna cabins (supervised commercial sauna cabins).

**In stand-by**

<table>
<thead>
<tr>
<th>MODE</th>
<th>Temperature</th>
<th>30°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Auto-stop</td>
<td>5:59</td>
</tr>
<tr>
<td></td>
<td>Start time</td>
<td>- : -</td>
</tr>
</tbody>
</table>

**In operation**

<table>
<thead>
<tr>
<th>MODE</th>
<th>Temperature</th>
<th>30°C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Auto-stop</td>
<td>5:59</td>
</tr>
<tr>
<td></td>
<td>Start time</td>
<td>- : -</td>
</tr>
</tbody>
</table>

---

**In stand-by**

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<tr>
<th>MODE</th>
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<th>30°C</th>
</tr>
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Preselection time (pre-set timer)

Using the time preselection, you can preselect a switch-on time within 24 hours in advance for your sauna heater.

Always make sure that there are no objects on the sauna unit before the heating process begins. Fire risk!

Please remember that a typical sauna cabin must heat up for approx. 40 - 50 minutes in order to achieve a pleasant bathing climate. If, for example, you wish to start with your sauna bath at 18:00, then we recommend to select approx.17:10 as your preselection time.

The pre-heating time may vary strongly depending on the sauna cabin and sauna heater.

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Activate the preselction time

Deactivate the preselection time

to preselected time
Extension of the heating time limitation

By switching a jumper you can extend the time setting for sauna time from 6:00 to 12:00 hours or to unlimited operation time. Please notice that such extension is only permitted for certain commercial sauna cabins and may be restricted by the local legal regulations.

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

Open the control unit. The jumper is located in the middle of the top edge of the mainboard. Set jumper to the required position. Close the control unit. Restore the power supply.

![Diagram showing the location of jumpers and fuses](image)

**Jumper for heating time limitation (6 hrs default)**

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

**Device fuses**

On the rear side of board you will find the protective fuses. For replacement make sure to use the fuses of the same type and of the same resistance value.

- F1 = T 2A  Fuse primary electronics as well as light and fan
- F2 = T 250 mA  Fuse secondary electronics
## Error messages and troubleshooting

The control unit continuously monitors the sensors for short circuits and interruptions. The error messages appear as follows:

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<th>Display</th>
<th>Cause</th>
<th>Remedy</th>
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<tr>
<td>12:00 Sensor - break</td>
<td>= Interruption in the room sensor circuit. The temperature sensor (KTY) is defective or the line to the temperature sensor is interrupted.</td>
<td>Have cables and KTY checked by an expert. KTY at 20°C shall have ca. 2 kΩ and may need to be replaced.</td>
</tr>
<tr>
<td>12:00 Sensor short -circuit</td>
<td>= Short-circuit in the room sensor circuit. The temperature sensor (KTY) is defective, or the line to the temperature sensor is short-circuited.</td>
<td>Have cables and KTY checked by an expert.</td>
</tr>
<tr>
<td>12:00 Thermal fuse</td>
<td>= Interruption in the limiter circuit. The thermal fuse (142°C) has tripped due to overheating or the line to the thermal fuse is interrupted.</td>
<td>Have the cables and thermal fuse checked by an expert. Check the reasons for the possible overheating.</td>
</tr>
<tr>
<td>Empty display, unit does not function</td>
<td>= The fuse F2 is blown. The fuse F2 is blown, for instance if the sensor cables (sensor and limiter lines) were confused.</td>
<td>Check the sensor and the 2nd sensor (if installed) for correct connection at X2 connector. Replace the fuse F2 with the same type fuse.</td>
</tr>
</tbody>
</table>
The device „Switch-off“ switch

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

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

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

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

Switch-off by ECON control units

Switch-off

Unit turned on (default Position I)

Unit fully switched off Position 0.

Light switched on; Unit switched off. Position II.

Unit switched on. Position I.
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.

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