



INSTALLATION AND  
OPERATION MANUAL FOR  
ELECTRICAL SAUNA HEATER  
CONTROL CONSOLE  
UKU

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### **1. BEFORE INSTALLATION**

- Before installation read the operation manual thoroughly. This way you can use all the benefits of the device and prevent damage.
- Only an electrician or a person with equal qualifications may install the device.
- Operating the contactor box is only allowed when it is not under voltage.
- In case of unique problems that are not covered in the installation manual contact your vendor to ensure safety.
- It is not permitted to alter or rebuild the device without authorisations.
- The manufacturer has the right to make improvements to the device. The latest version of the operation manual can be found on the manufacture's webpage.
- Make sure that the building's cables from the main panelboard to the sauna's desired location have sufficient cross section. In case the device is installed to an old building pay attention to the state of the connection boxes. If possible, install a new cable from the panelboard to the sauna. Install a separate circuit breaker for the sauna.

#### **Symbols used in the installation manual:**

**! WARNING: not following these instructions may lead to serious or fatal injuries.**

**! CAUTION: not following these instructions may lead to medium up to minor injuries or cause damage to objects.**

**Keep this installation and operation manual near the sauna's control console so that you could check the safety requirements and important information for using the device at any given moment.**

NB! Also follow the special safety requirements given in the individual chapters.

#### **Disposal:**

- Dispose of the package material according to the applicable disposal rules and regulations.

## 2. INSTALLING THE SAUNA'S ELECTRICAL CONTROL CONSOLE UKU

- Before installation disconnect the electric heater from the power supply in the panelboard.
- The control console must be installed at the user's eye level next to the door of the sauna room or according to the manufacturer's recommendations.
- The device must be connected to the power supply permanently without using plugs. The quality standard of the power cable must be at least H07RN-F or equivalent.

### **! CAUTION – Damaging the device**

- The control console is splash-proof (IP X4). Nevertheless, the control console should not come into direct contact with water. The device must be installed in a dry place.
- The device's highest operating temperature of 40°C and maximum humidity tolerance of 95% cannot be exceeded.

Measure the lengths of the cables and determine the locations of the cables and the parts of the device (Figure 1).

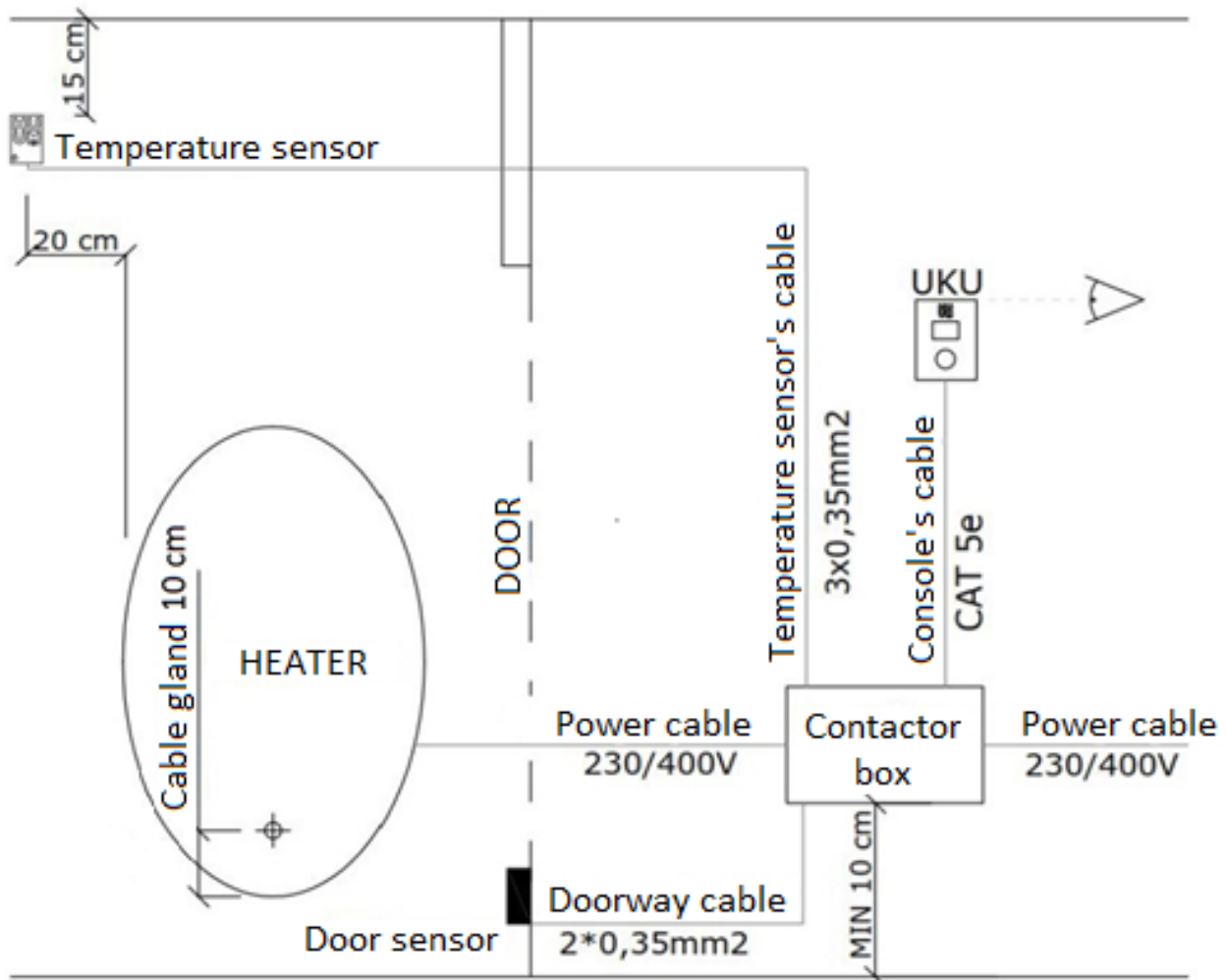


Figure 1

### CONTROL PANEL UKU

1. Remove the back cover of the UKU control panel.

2. Attach the back cover to the wall so that the upper edge of the control panel is at eye level. (Figure 1)
3. If you are using remote control, insert the SIM card that has PIN code request disabled. To disable the PIN code request consult your SIM card vendor. Write down the ID and password from the printed circuit of UKU. Connect the cable to the device (Figure 2).
4. Attach the device to the back cover that has been placed on the wall. Secure it with screws from the sides.

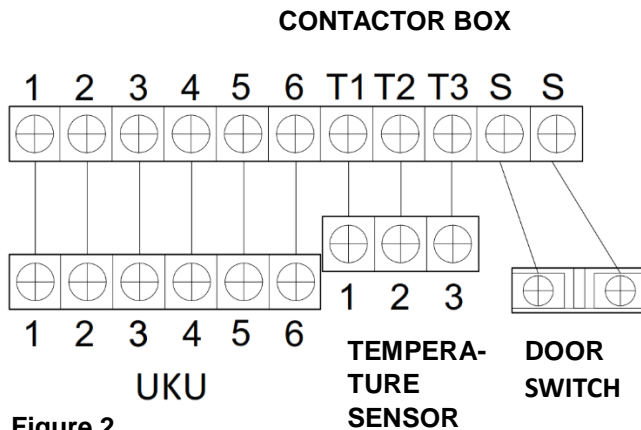


Figure 2

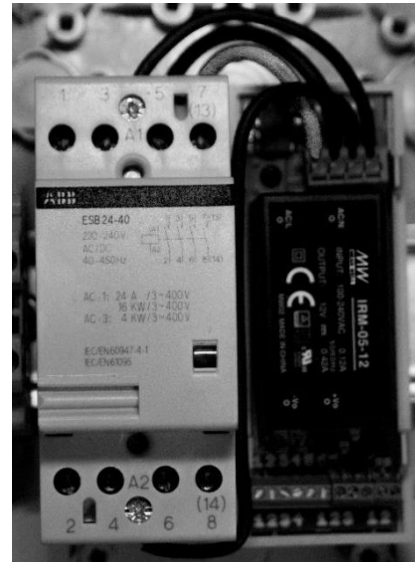


Figure 3

### CONTACTOR BOX

1. Remove the cover of the contactor box.
2. Secure it with screws at least 10 cm from the floor to a wall of a dry room. (Figure 1) You cannot attach the contactor box to ceilings or inclined surfaces – working in those positions damages the contactor.
3. Install the cables of the control console, temperature sensor and door switch through a cable gland to the printed circuit board's terminal block in the contactor box's console and connect the cables according to the adjacent Figure and Scheme. If the connections function properly, there will be a green indicator light on the printed circuit and it will switch off when heating is switched on.
4. Install the power cables of the controller (400/230 V) through cable glands to the contactor box's and protective grounding's terminal block and connect the cables to the contactor box's screw terminals 1, 3, 5 and 7, and to the protective grounding's terminal block as indicated.

*NB! In case of the 18 kW version of UKU, you need to contact the power cables equally through both contactor boxes.*

5. Connect the power cable between the controller and heater to the contactor box's positions 2, 4, 6 and 8.
6. During the connecting, the connections between the contactor box and the box's printed circuit must be retained. (position L from phase to printed circuit and position N from neutral; positions K and K from the starting connections A1 and A2 to the printed circuit).
7. Install the contactor box's cover and close it.



## TEMPERATURE SENSOR WITH OVERHEATING PROTECTION

8. Connect the cable to the temperature sensor's plug according to Figure 2.
9. Screw the temperature sensor onto the wall. The device cannot be placed above the heater. It must be installed 20 cm from the edge of the heater and 15 cm from the ceiling of the sauna room. (Figure 1)

## DOOR SWITCH

The door switch consists of two parts: a sensor and magnet.

1. Open the sensor.
2. Connect the cable ends to the terminals of the switch.
3. Secure the magnet to the lower edge of the door. It must allow the door to close and pass directly by the doorpost.
4. Secure the sensor to the doorpost in so that when the door closes both sides of the sensor will be aligned. The distance between the sides must be 5 mm when the door is closed.

## APP

1. Download the HUUM application from the application page of your mobile phone's operating system:  
IOS – App Store  
Android – Google play
2. Create a user account.
3. Link the control console's ID (1XXXXX) to your user account. The Sauna's ID and codes are listed on UKU's printed circuit near the SIM socket.
4. Check whether all the functions are working and orders actually reach the sauna. Orders should be realised within a minute.

## TESTING

Tests must be carried out by a qualified electrician.

**WARNING** – risk of electric shock: Tests must be carried out while power has been turned on.


1. Check the terminals of the circuit breaker and contactor box. Bad connections may cause a fire. Make sure that one phase and one neutral are connected to the console's mains terminal. The working voltage of the console is 230 V/AC. Connecting two phases will damage the mains terminal permanently. Switch on the power from the panelboard by using the circuit breaker. The screen will flash for a moment. The device is ready for use.
2. Check the door sensor: close the sauna room's door. Turn on the control console. Set the temperature. Turn on the heating. The contactor must switch on. Open the door. The contactor must switch off. Close the door. The contactor switches on again.
3. Check the temperature sensor:
  - Remove the temperature protection (the component with two glands in the temperature sensor). Heating must stop; increasingly larger numbers and finally the text "sensor problem" should appear on the screen.
  - Install the protection. Turn off the sauna's circuit breaker from the panelboard for 15 seconds and then turn it back on. The control console must be turned off and when it is turned on, it must show the current temperature.

- Temperature is renewed periodically and one degree at a time – therefore it may take some time to reach the actual temperature reading.
- Set the desired temperature to 50 degrees. Turn on the heater. Make sure the desired temperature is maintained. Turn the heating off.
- Set the temperature to 110 degrees. Turn on the heater. Make sure that the temperature is achieved and maintained. Do not leave the sauna unattended for this time period.

### 3. OPERATION MANUAL

- To turn on the control console, start and end heating, press the button once shortly.
- The control console's screen is active when the console is turned on.
- The screen is always active during heating.
- When you use the button of the console, the heating period is always limited to 3 hours. When you use the APP, it is possible to choose the heating period.
- After the heating ends or after using the button the control console will turn off.
- If GSM connection is established, the console will not turn off and will stay in standby mode. To save energy, screen brightness will be lowered for this time period.
- The desired temperature is displayed as a small number in the upper edge of the screen above the current temperature. Turn the button for regulation.
- During heating an "H" sign will appear on the status line, which will be replaced with "\_" when the temperature has been reached. At the same time contactor will turn the heat elements on and off.
- GSM connection can be established only when the control console is turned on and heating is turned off. To establish the GSM connection, press the button for about three seconds. "S" will appear on the status line which means that the GSM connection has been turned on. "N" will also appear from time to time – this indicates that the device is connected to the GSM network but it does not have any importance for controlling the sauna. If the control console accepts the SIM card then the "." symbol will appear on the screen. If the SIM card is allowed to the GSM network, the symbol will be replaced by "i". If the control console connects to the server, then "I" will be displayed. The control console is now remote controlled. In a normal state "i" and "I" will start to alternate. Alternation speed is random and depends particularly on the conditions of GSM coverage.

#### USING THE MOBILE APP

1. Set the desired temperature for the sauna and heating time (previous settings will remain in the memory)
2. Switch the sauna on from the  button.

More details are available in the application's instructions.

#### 4. GENERAL SAFETY INFORMATION FOR THE USER

- Before using the device read this operation manual thoroughly. This way you can use all the benefits of the device and prevent damage.
- In the case of unique problems that are not covered in the installation manual contact your vendor to ensure safety.



- For the safe use of the sauna's control console, it is not permitted to alter or rebuild the device.
- The manufacturer has the right to make technical changes to the device

**Keep this installation and operation manual near the sauna's control console so that you could check the safety requirements and important information for using the device at any given moment.**

NB! Also follow the special safety requirements in the individual chapters.

**PURPOSEFUL USE:**

- Make sure that there are no objects on the heater. Even inflammable items may cause overheating resulting in a fire hazard.
  - Close the door to the sauna room for the heating period. Controls do not work if the door sensor is stopping the heating.
  - The contactor box is designed to work with the control console UKU only.
  - The 9 kW control console can be used with only three heating circuits with a maximum heating power of 3.0 kW per circuit. The 18 kW control console can be used with six heating circuits with a maximum heating power of 6.0 kW per circuit.
  - This device is not intended to be used by people with limited physical, sensory or mental abilities (including children) or by people who lack experience and/or knowledge, unless they are supervised by a person responsible for their safety or they have received instructions from such a person.
  - It must be ensured that children would not play with the device. For safety reasons turn off the sauna's circuit breaker when the sauna is not being used.
- \* If you want to use remote control, switch on UKU's Internet connection. Check that there are no items on the heater. Close the sauna room's door.

**Disposal:**

- Old devices contain reusable materials. Therefore, do not throw away old devices.

**Stopping Use for An Extended period:**

Turn off the sauna's circuit breaker from the panelboard if you do not intend to use the sauna for an extended period.

IPX4



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