FINSAUNA®

SAUNALINK 10

Precision Sauna Environment Controller

Installation & Operation Manual

Model:

SaunaLink10
CX170-U1-15-XW (Wi-Fi)
240 V 1-Phase

C ETL US LISTED
Intertek
3159549

ETL listed conforms to UL STD 875 certified to CAN/CSA STD E60335-2-53-05

IMPORTANT! This manual must be left with owner, manager, or operator of sauna after it is used by electrician.

NOTE!

These instructions for installation and use are intended for owners of saunas, heaters and control units, persons in charge of managing saunas, heaters and control units, and for electricians responsible for installing heaters and control units. Once the control unit is installed, these instructions of installation and use are handed over to the owner of the sauna, heater and control unit, or to the person in charge of maintaining them. Congratulations on making an excellent choice and choosing a Finsauna control unit!

SAUNALINK 10 CONTROL UNIT

Control unit's purpose of use: The control unit is meant for controlling the functions of an electric sauna heater. It is not to be used for any other purpose.

CONTENTS

1. CONTROL PANEL INDICATOR LIGHTS AND BUTTONS

Note! Available buttons depend on the features of the controlled device.

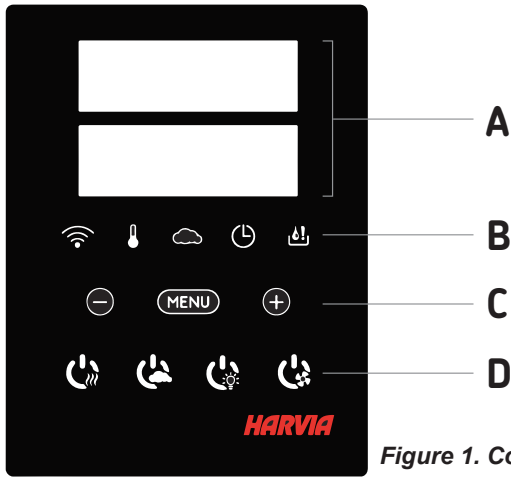


Figure 1. Control panel

A	B	C	D	
Display	Indicator lights	Menu and navigation buttons	Operating buttons	
WiFi connection	Temperature	Humidity	On-time	Water level warning
Value decrease*	Mode change	Value increase*	* Press and hold to make the value change faster.	
Heater I/O	Steamer I/O	Lighting I/O	Fan I/O	

TECHNICAL DATA

Xenio WiFi - Control panel (CX001WIFI)		
MyHarvia mobile application		
		Compatible devices CX170-U1-15-XW SaunaLink 15
Temperature adjustment range	40 - 90 °C / 104 - 194 °F	x (x)
Humidity adjustment range	20-80 rH	
On-time	1h	x
Control of lighting	ON / OFF -button	x (x)
	Automation: ON when heater turns on	(x)
Control of fan	ON / OFF -button	x (x)
	Automation: ON when heater turns off	(x)
Timed start adjustment range	0-12h	x
	- For one heating - Based on calendar	(x)
Week clock	- Max. 8 programs	(x)
Safety device option	Safety switch (optional)	x
Time zone selection	Yes	(x)
Daylight saving selection	Yes	(x)

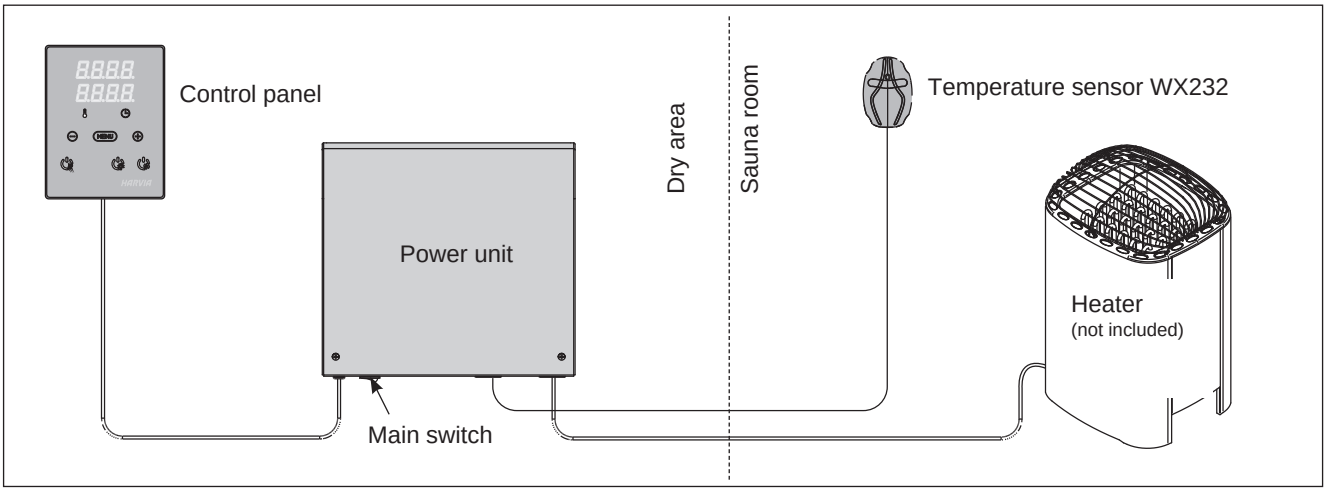
1.2 SAUNALINK SAUNA ENVIRONMENT CONTROLLER

The control unit consists of a control panel, a power unit and a sensor. See figure 1on the previous page.

The control unit regulates the temperature in the sauna room based on information given by the sensor. The temperature sensor and the overheat protector are located in the sensor box. The temperature is sensed by an NTC thermistor, and there is a resettable overheat protector (see section 3.4.).

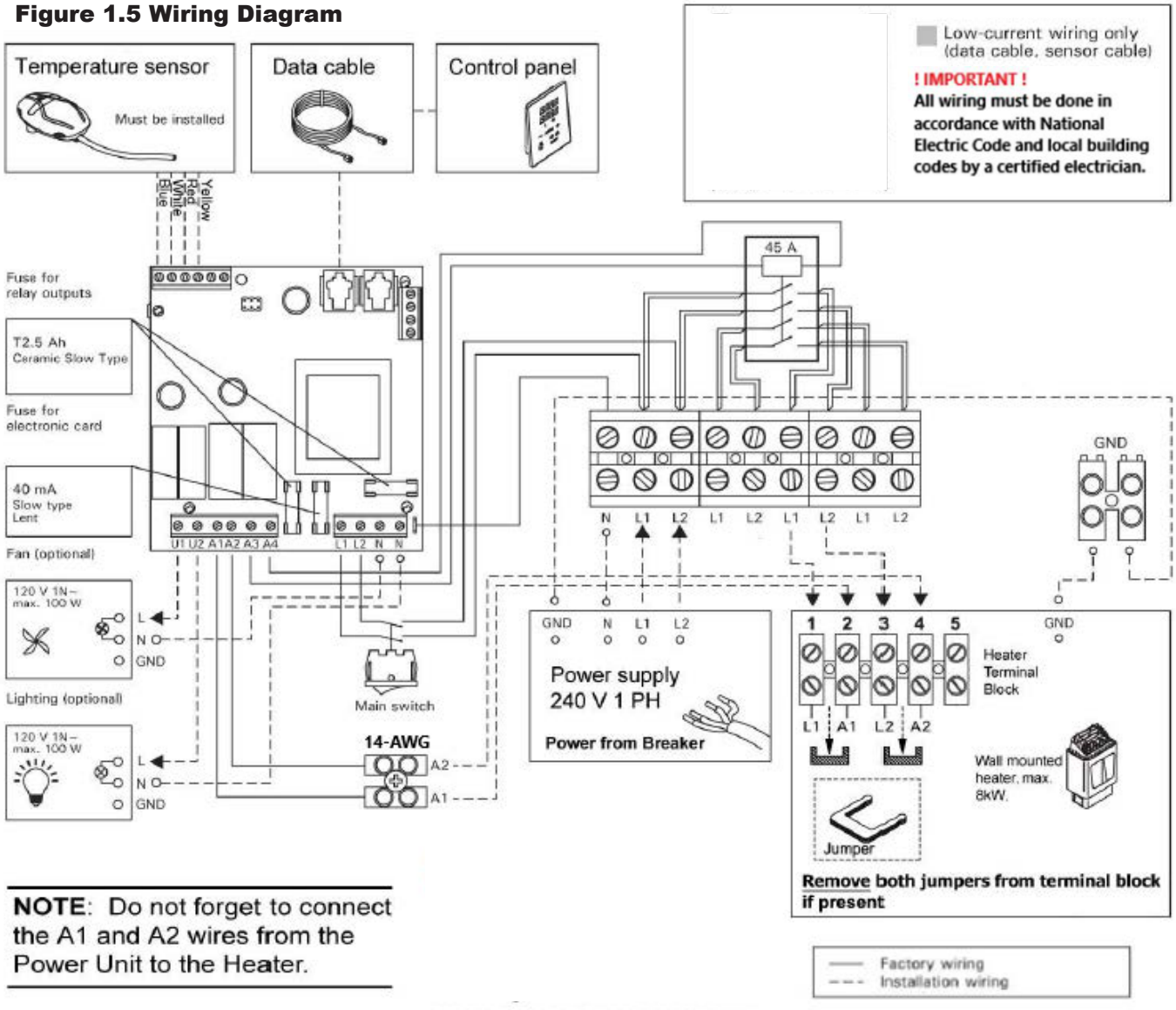
The control unit can be used to preset the start of the heater (pre-setting time). See figure 3.

Action according to: UL 60730-1, UL 60730-2-7, UL 6730-2-9, CSA E60730-1, CSA E60730-2-7, CSA E60730-2-9	**Type 1.A**
Control Panel	
Temperature adjustment range	104 -194°F (40°C - 90°C)
Pre-setting time adjustment range	0 - 12 h
Lighting control, max. power/LED mix	100W, 120 VAC, 150W, 12 VAC
Fan control, max. power	100W, 120 VAC
Mounting surface temp range	14°F to 158°F (-10°C to +70°C)
Dimensions	3.4" x 1" x 4.4" (85mm x 24mm x 110mm)
Power Unit	
Supply voltage	240 VAC 1 Ph
Max. load / Charge max	8 KW
Mounting surface temp range	14°F to 104°F (-10° to +40°C)
Dimensions	10.6" x 3.0" x 10.6" (270mm x 75mm x 270mm)
Sensor	
Temperature Sensor NTC thermistor	22kΩ/T = 77°F (25°C)
Weight	0.39 lbs. (175 g with wire)
Operating, adjusting temp range	32°F to 194°F (0°C to +90°C)
Dimensions	2.0" x 2.9" x 1.1" (51mm x 73mm x 27mm)
Resettable overheat protector	



MODEL	WATTS	AMPS	BREAKER SIZE TO USE	VOLTS	PH	WIRE SIZE		
						breaker to power unit	power unit to heater	power unit A1 & A2 to heater
PH300, KIP-30-W1	3,000	12.5	20	240	1	(2) #12 + N + G	(2) #12 + G	(2) #14 copper
PH450, KIP-45-W1	4,500	18.8	30	240	1	(2) #10 + N + G	(2) #10 + G	(2) #14 copper
PH600, KIP-60-W1	6,000	25.0	30	240	1	(2) #10 + N + G	(2) #10 + G	(2) #14 copper
PH800, KIP-80-W1	8,000	33.3	40	240	1	(2) #8 + N + G	(2) #8 + G	(2) #14 copper

Figure 1.5 Wiring Diagram



NOTE: Do not forget to connect the A1 and A2 wires from the Power Unit to the Heater.

2. INSTRUCTIONS FOR USE

2.1. Using the Heater

WARNING! Before switching the heater on always check that there isn't anything on top of the heater or inside the given safety distance.

Start the heater by pressing the I/O button on the control panel.

When the heater starts, the top row of the display will show the set temperature and the bottom row will show the set on time for five seconds.

When the desired temperature has been reached in the sauna room, the heating elements are automatically turned off. To maintain the desired temperature, the control unit will automatically turn the heating elements on and off in periods.

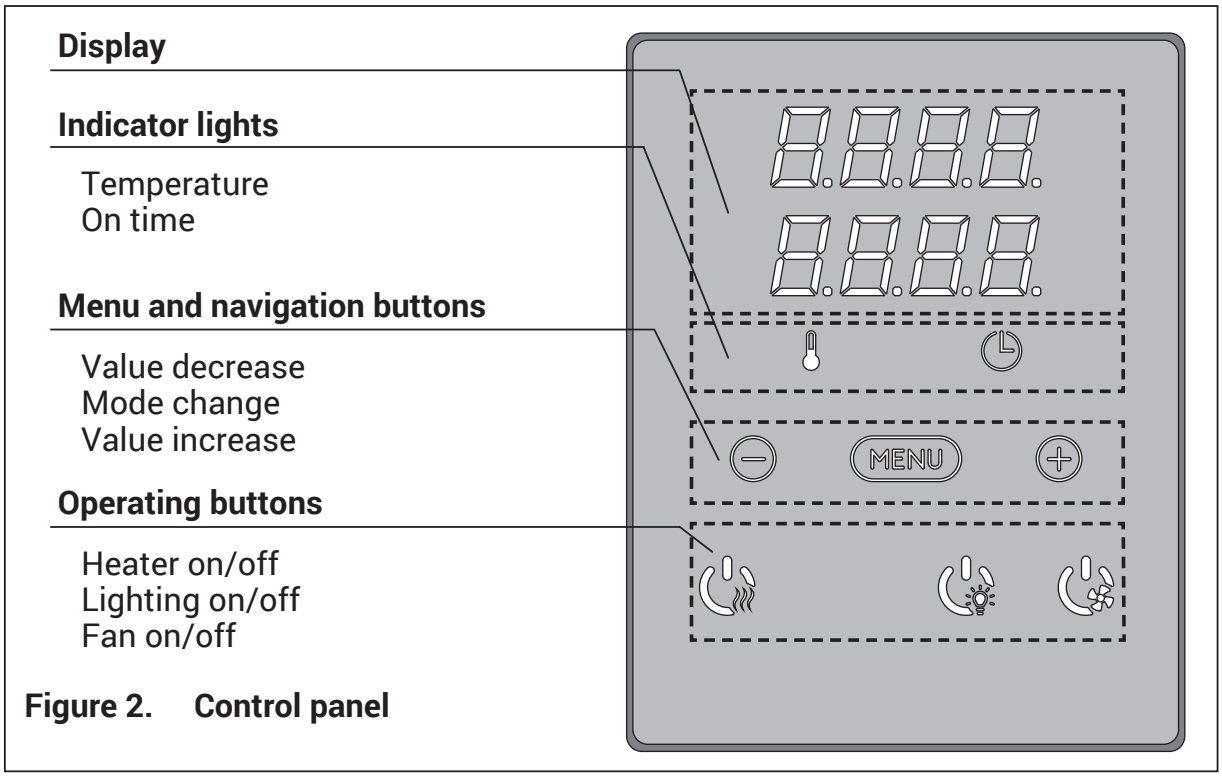


Figure 2. Control panel

EN

BASIC SETTINGS

Basic mode (heater and steamer on)
The top row shows the sauna room temperature. The bottom row shows the humidity level (or remaining on time, if the steamer is not activated).

Press the MENU button to open the settings menu.

Sauna room temperature (shown if the heater is activated)
The display shows the sauna room temperature setting. Temperature indicator light blinks.

- **Change the setting to the desired temperature with the ⊖ and ⊕ buttons.**
- The sum of temperature and humidity can be 140 at maximum

Press the MENU button to access the next setting.

Sauna room humidity level (shown if the steamer is activated)
Change the setting to the desired humidity with the ⊖ and ⊕ buttons.

- The display shows the sauna room humidity setting. Humidity indicator light blinks.
- The sum of temperature and humidity can be 140 at maximum.

Press the MENU button to access the next setting.

Remaining on-time
Press the ⊖ and ⊕ buttons to adjust the remaining on-time.

Example: the heater will be on for 40 minutes.

Pre-setting time (timed switch-on)

- Press the ⊕ button until you overstep the maximum on-time (1h). Temperature and humidity indicator lights switch off. Pre-setting time symbol blinks on the screen.
- Select the desired pre-setting time using the ⊖ and ⊕ buttons. The time changes in 10-minute steps.

Example: the heater will start after 10 minutes.

Press the MENU button to exit.

Basic mode (pre-setting time running, heater and steamer off)
The decrease of remaining pre-setting time is shown until zero appears, after which the activated devices (heater and/or steamer) are switched on. The bottom row shows the remaining pre-setting time.

Figure 3a. Settings menu structure, basic settings.

ADDITIONAL SETTINGS

Control unit standby

I/O buttons' background lights glow on the control panel.

Open the settings menu by simultaneously pressing the buttons ⊖, MENU and ⊕. **Press for 5 seconds. Note! The buttons do not glow when the control unit is in standby mode.**

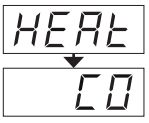
Setting the remote use

The remote control setting can be changed with the ⊕ and ⊖ buttons. (See section 4. *Remote Use* for further information).

"SAFE" (Remote control enabled with the safety switch)
"On" (Remote control enabled without safety switch)
"OFF" (remote control disabled).

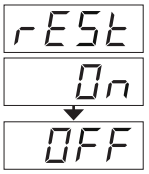
Note! Always check that there are no objects on the heater or near the heater before switching it on!

» Confirm the selection with the MENU button.



Select either heater **HEAt** or combi (=heater and steamer, **CO**) to be controlled remotely. Change the setting with the ⊕ and ⊖ buttons.

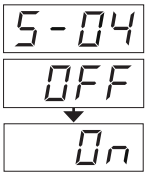
Confirm the selection with the MENU button.



Setting pause time (6 h)

Enable or disable the pause time feature with buttons ⊕ and ⊖. Pause time must be enabled, if the control unit is remotely started by an automated schedule (e.g. a weekly timer).

Press the MENU button to access the next setting.



Sauna dehumidifying interval**

The sauna dehumidifying interval can be turned **On** or **OFF***. The interval will begin when the devices are switched off from the I/O buttons or when the set on-time runs out.

During the interval:

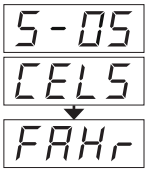
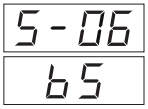
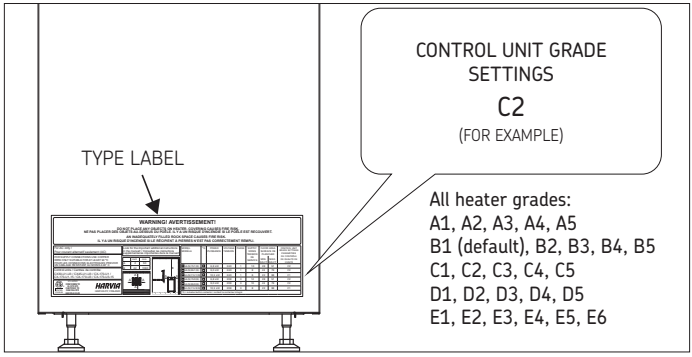
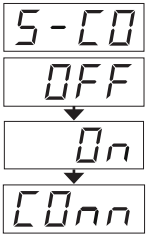
- the heater is on
- the sauna room temperature is set at 40 °C.
- If a fan is connected to the control unit, it will also be on.

The length of the interval is 45 minutes. When the time runs out, the devices turn off automatically. The interval can also be stopped manually at any time by pressing the I/O button. Dehumidifying helps to keep your sauna in a good condition. (further information » 4. *Remote Use*).

Press the MENU button to access the next setting.

** Note! Available functions depend on the features of the controlled device.

EN

	**Temperature unit** Change the setting with the ⊕ and ⊖ buttons. **CEL** (Celsius) **FAHr** (Fahrenheit)
	**Press the MENU button to access the next setting.**
	**Heater grade (IF APPLICABLE)** Change the setting with the ⊕ and ⊖ buttons. See the right grade from the heater's type label, under "control unit grade settings". 
	**Press the MENU button to access the next setting.**
	**WIFI connection** Connect control panel to WiFi network by using the MyHarvia application. Change the setting with the ⊕ and ⊖ buttons. **See MyHarvia application for more detailed instructions.** **OFF** >The WiFi connection is off (WiFi indicator light on the control panel is off). **On** > The WiFi connections is on (WiFi indicator light glows on the control panel). **COnn** > Connect mode is active.
	**Press the MENU button. The control unit switches to standby mode.**

* Factory setting

Figure 3b. Settings menu structure, additional settings.

2.2.0 REMOTE USE

Note! The sauna room and surroundings of the heater must always be checked before the heater is switched on again or it is switched on with the remote-control system.

Remote use with the safety switch: The heater can be turned on remotely if the safety switch circuit is closed. If the circuit is open, "SAFE" is displayed and the heater will not start.

Preset time: If the control unit is on preset delay time, it cannot be controlled with a remote switch. After the preset delay has passed and the heater is turned on, it can be turned off with a remote switch.

Dehumidifying: When the heater is turned off remotely and dehumidifying is enabled, dehumidifying starts and cannot be stopped remotely. When dehumidifying is in progress and a safety switch is used, the heater can be turned on remotely. If a door switch is used, the heater cannot be remotely started, as the remote use mode must be re-activated by pressing and holding the control unit's heater button for three seconds.

Power saving mode: If no buttons are pressed in 30 minutes, power saving mode is activated. Only the heater button (and "rc on", if remote use mode is active) is lit.

Pause time: When the heater is switched off, status message **rESt**. appears on the control panel display. This feature prevents the heater from turning on automatically during a timed start or weekly clock **if it has been less than 6 hours since the heater was last turned off.**

FOTA (Firmware Over the Air)
The Xenio WiFi control panel has a feature that automatically downloads the latest firmware to the control panel.

3. MYHARVIA MOBILE APPLICATION

EN

MyHarvia is a mobile application that allows you to remotely control the functions of Xenio WiFi control panel. With MyHarvia mobile app you can:

- Turn the heater on and off.
- Switch accessories on and off (lights, ventilation).
- Set and monitor the sauna temperature.
- Set and monitor sauna humidity (combi-models).
- See the heater status information.
- Set a scheduled start.

There is no limit to the number of devices you can connect to the MyHarvia application. With the mobile app you can control several saunas with Xenio WiFi control panel, for example, one in your home and the other in your summer cottage.

Installing the MyHarvia application

1. Download MyHarvia mobile app from the app store (Google Play / App Store)
2. Create and register MyHarvia-account.
3. Sign in to your MyHarvia-account.

Note! MyHarvia is not available for download in all countries due to local restrictions.

Connecting MyHarvia and Xenio WiFi control panel

- First device is installed right after you sign into your account. Follow the instructions of your mobile application.
- Later you can pair new devices by selecting the "+ Add new" from the Home menu. Follow the instructions of your mobile application.

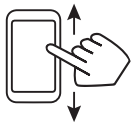
MyHarvia:

Download on the App Store

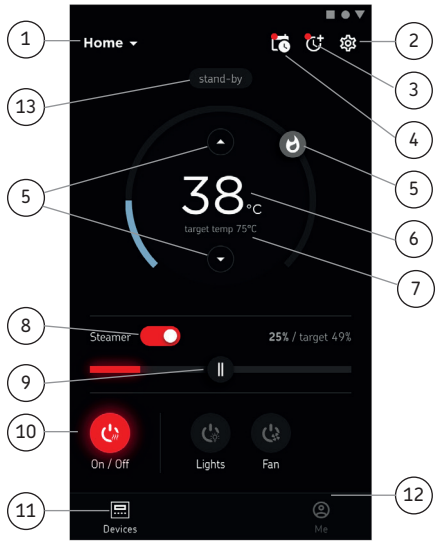
MyHarvia:

GET IT ON Google Play

3.2.3. MyHarvia main view



1. Device menu
2. Device settings
3. Timed start
4. Week clock
5. Adjusting sauna temperature
6. Current sauna temperature
7. Target temperature
8. Steamer ON / OFF
9. Adjusting the steamer
10. Functions ON / OFF
11. Devices
12. User profile and settings
13. Status / Error messages



Note! Available buttons depend on the features of the controlled device.

4. TROUBLESHOOTING

STATUS MESSAGES		
SAFE	Safety switch circuit is open	Remove the object from atop the safety switch
rESt	Pause time active	-
rc on	Remote control activated	-

Table 2a. Status messages

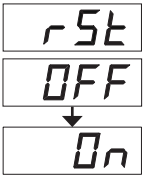
If an error occurs, the heater and/or steamer power will cut off and the control panel will show an error message E(number), which helps troubleshooting the cause for the error. **All service operations must be done by professional maintenance personnel!**

ERROR MESSAGES		
	Description	**Remedy**
E1	Temperature sensor's measuring circuit broken.	Check the red and yellow wires to the temperature sensor and their connections for faults.
E2	Temperature sensor's measuring circuit short-circuited.	Check the red and yellow wires to the temperature sensor and their connections for faults.
E3	Overheat protector's measuring circuit broken.	Press the overheat protector's reset button. Check the blue and white wires to the temperature sensor and their connections for faults.
E6	Humidity sensor's temperature measuring component failure.	Check the brown and blue wires to the humidity sensor and their connections for faults. Replace the sensor.
E7	Humidity sensor's humidity measuring component failure.	Check the brown and blue wires to the humidity sensor and their connections for faults. Replace the sensor.
E8	Humidity sensor's humidity measuring circuit broken.	Check the brown and blue wires to the humidity sensor and their connections for faults.
E9	Connection failure between the control panel and the power unit.	Check the cable and the connectors.
	Water level low or steamer's overheat protector engaged. Water level warning light blinks.	Add water (manual filling models) or check the water supply (automatic filling models). Check the steamer's overheat protector. See the steamer's or Combi heater's manual for more instructions and safety information.
	WiFi indicator light is off	WiFi connection is off in the S-CO setup menu.
	WiFi indicator light is on	WiFi connection is on. Connections to the router and MyHarvia cloud are working.
	WiFi indicator light flashes 3 times in a row	WiFi connection is on, but connection to MyHarvia cloud fails. Check your internet connection. Try restarting your router.
	WiFi indicator light flashes every 5 seconds	The Wi-Fi connection is on, but the wifi connection between the control panel and the router fails. Try fixing the connection by turning off and on the WiFi connection in the control panel S-CO setup menu.

Table 2b. Error messages

FACTORY RESET

Control panel disfunction: In case no other means help, it is recommended to restore the factory settings. Instructions for restoring factory settings can also be found in the application..

	When the control panel is in standby mode, **press and hold the heater, lights, and fan buttons for 5 seconds.**
	Status message **rSt OFF** is displayed. Press ⊕ to change reset status to **On**
	**Press the MENU to perform factory reset**

FREQUENTLY ASKED QUESTIONS

The heater will turn off when the set on time runs out, the I/O button is pressed or an error occurs. Changing the settings for remaining on time, pre-setting time and the desired sauna room temperature is shown in figure 3. Changing the temperature unit (Fahrenheit/Celsius) is shown in figure 3a.

4.2. Using Accessories

Lighting and ventilation can be started and shut down separately from their own operating buttons.

5. Lighting & Ventilation

If there is a fan installed in the sauna room, it can be connected to the control unit and be controlled from the control panel.

Start/stop the fan by pressing the button on the control panel.

5.1 Safety switch

Safety switch, sometimes called SFE, is a safety device installed above or integrated with the heater, preventing the heater from heating should any object such as a towel drop or be placed on top of the heater and cause a fire hazard. The switch is connected to the control unit according to their manuals. See also figures 6a, 6b, 6c and 6d in this manual.

5.2. Remote switch

To remotely control the heater's power input, the control unit can be equipped with an on/off remote switch (e.g. building automation). For more information, see section 2.3.

5.3. Remote control

According to the product standard IEC/EN 60335 -2-53 regulating electrical sauna heaters, a control unit can be used to remotely control the heater once the heater is equipped with a safety switch.

Using with a safety switch: the heater can be turned on remotely, if the safety switch circuit is closed. If the circuit is open, "SAFE" is displayed and the heater will not start.

Pause time: These features are limited by a pause time that prevents the heater from turning on if it has been less than 6 hours since the heater was last turned off. Trying to remotely turn the heater on during the pause time period (6 hours), text "rESt" is displayed. The heater can be remotely started after the pause time has elapsed and "rc" is displayed.

Memory for power failures: the control unit resumes operation, if the remote switch has remained in ON position.

Preset time: if the control unit is on preset delay time, it cannot be controlled with a remote switch. After the preset delay has passed and the heater is turned on, it can be turned off with a remote switch.

5.4. Control panel lock

	**Press and hold the heater and light buttons for three seconds.**
	-CL- is shown on the display. Panel lock can be activated only in standby mode. Panel lock also prevents remote start.

6. INSTRUCTIONS FOR INSTALLATION

The electrical connections of the control unit may only be made by a licensed professional electrician and in accordance with the current regulations. When the installation of the control unit is complete, the person in charge of the installation must pass on to the user the Instructions for Installation and Use that come with the control unit and must give the user the necessary training for using the heater and the control unit.

6.1 Installing the Control Panel

The control panel is splashproof and has a low operating voltage. The panel can be installed in the dressing room, or in the living quarters. If the panel is installed in the sauna room, it must be installed at least 1.5′ away from the heater and at a maximum height of 39.37″ from the floor. Figure 4.

Conductor tubing (1-3/16″) inside the wall structure allows you to thread the data cable hidden within the wall - otherwise the installation will have to be on the wall surface. We recommend you to install the control panel embedded in to the wall and far away from possible splashes.

6.2 Installing the Power Unit

Install the power unit to a wall outside the sauna room, in a dry place with an ambient temperature more than 32°F (0°C). See figure 5 for instructions on how to open the power unit cover and how to fix the unit to the wall.

Note! Do not embed the control unit into the wall, since this may cause excessive heating of the internal components of the unit and lead to damage. See figure 5.

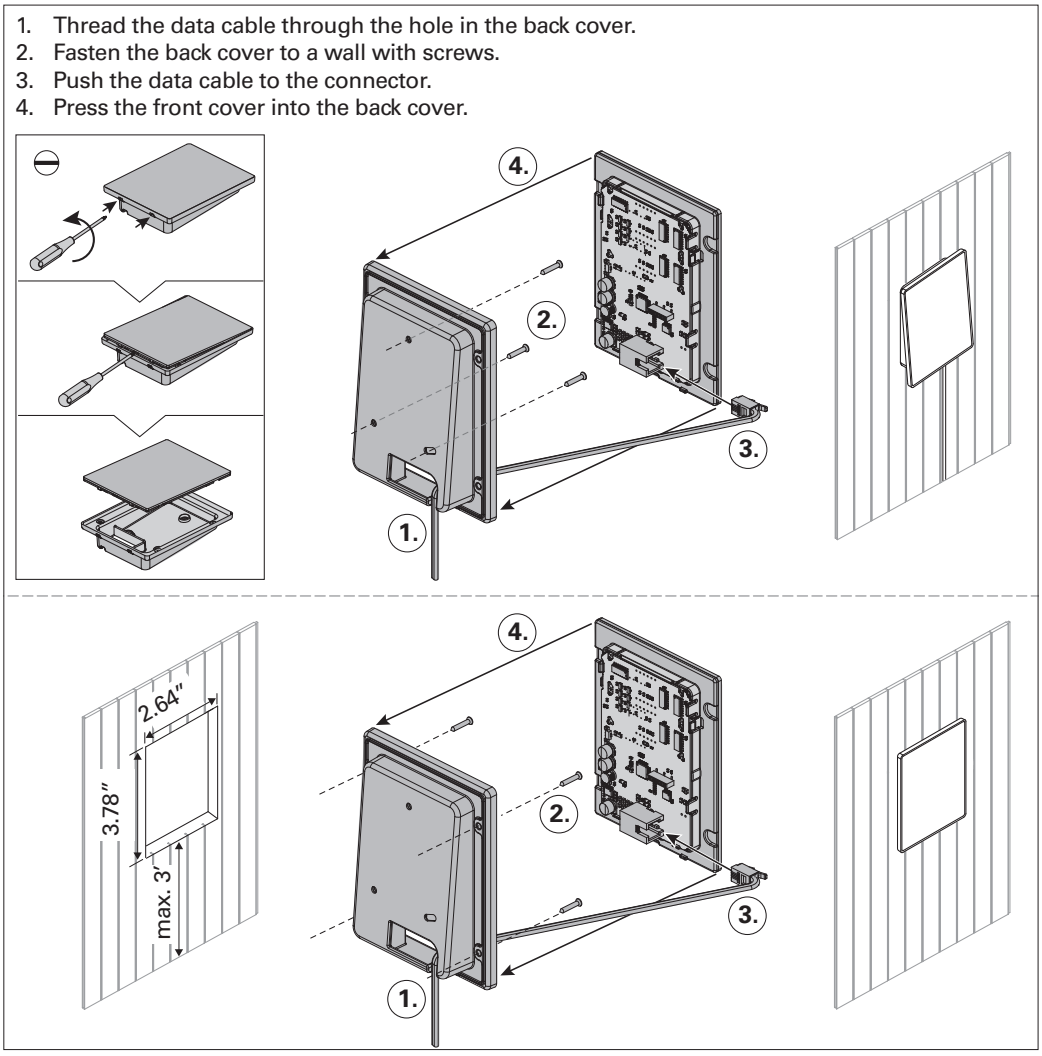


Figure 4. Fastening the control panel

6.2.1. Electrical Connections

Figures 6a, 6b, 6c and 6d show the electrical connections of the power unit.
Tables 2a, 2b, 2c and 2d show the wire and fuse sizes. For more detailed installation instructions see The Instructions for Installation and Use of the selected heater model.

6.2.2. Power Unit Fuse Faults

Replace a blown fuse by a new one with the same resistance. The placement of the fuses in the power unit is shown in Figures 6a and 6b.

- If the fuse for the electronic unit has blown, there is likely a fault in the power unit and service is required.
- If the fuse in the line U 1, U2 has blown, there is a problem with lighting or fan. Check the wiring and functioning of lighting and fan.
- If the fuse in the line A 1, A2 has blown, there is a problem with the heater's overheat protector circuit. In the heater, check the safety contactor, overheat protector and their wiring.

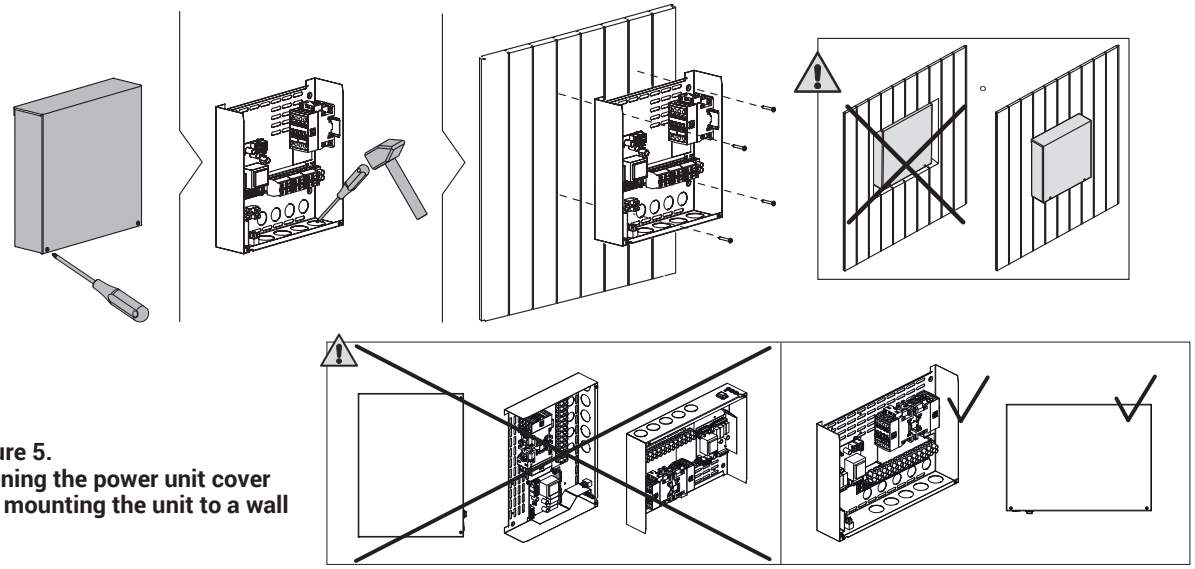


Figure 5.
Opening the power unit cover and mounting the unit to a wall

6.3 Wall-mounted heaters (see Figure 8)

The temperature sensor is wall-mounted above the heater, along the vertical center line running parallel to the sides of the heater, at a distance of 3 15/16" (100 mm) from the ceiling.

Do not install the temperature sensor closer than 3'-3 3/8" (1000 mm) to an air vent. The air flow near an air vent cools down the sensor, which gives inaccurate temperature readings to the control unit. As a result, the heater might overheat. See Figure 9.

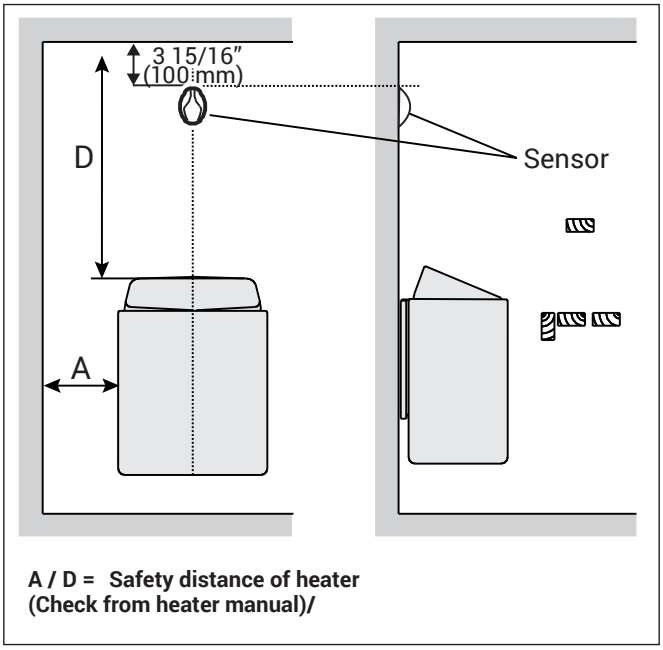


Figure 8. The place of the temperature sensor of the control unit in connection with wall-mounted heaters

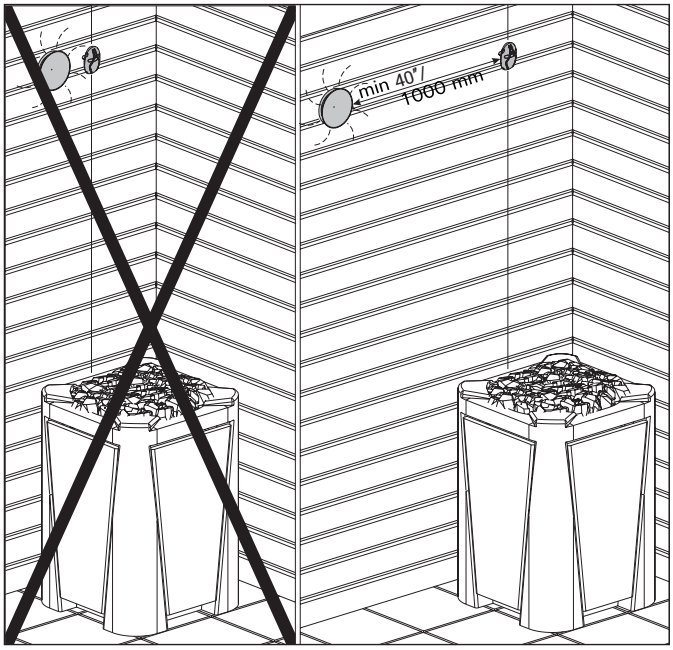


Figure 9. Sensor's minimum distance from an air vent

6.4. Resetting the Overheat Protector

The sensor box contains a temperature sensor and an overheat protector. An NTC thermistor senses the temperature, and the resettable overheat protector cuts off the heater power in a case of malfunction, after which the protector can be reset. See Figure 10.

Note: The issue that caused the protector to deploy must be determined and resolved before the button is pressed.

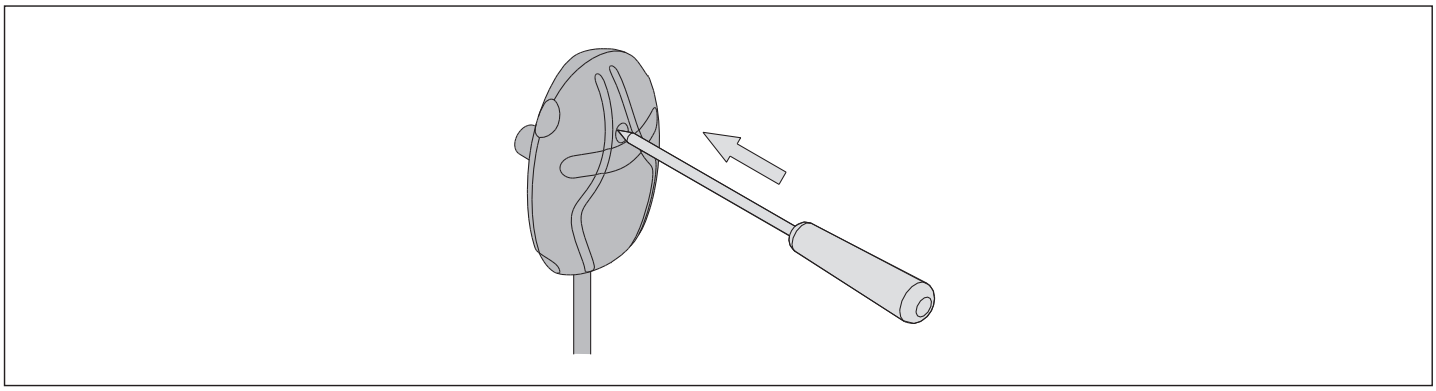
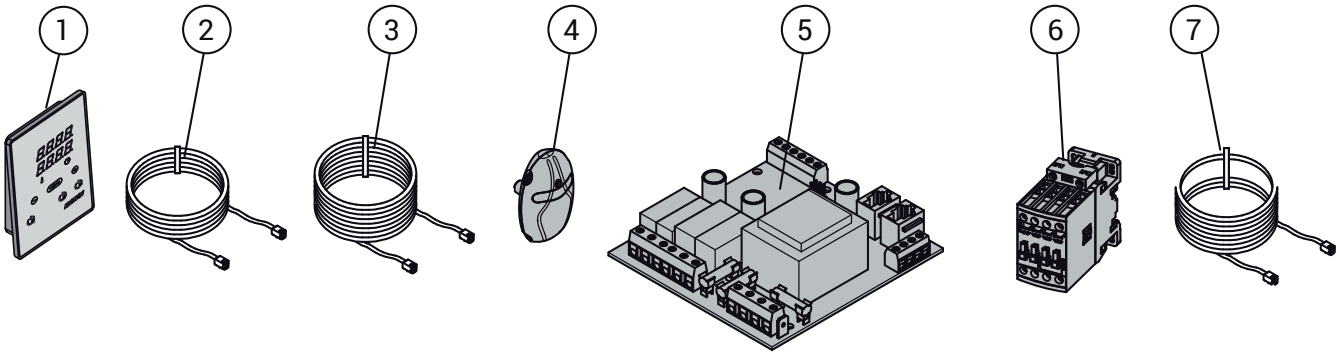


Figure 10. Reset button of the overheat protector

7. Spare Parts



Use only parts approved by the manufacturer.

1	Control Panel Wi-Fi
2	Data Cable 16.4' (5m)
3	Data Cable Extension 32.8' (10m) (accessory)
4	Temperature Sensor
5	Circuit Board
6	Contactor 45 A
7	Data Cable 65.6' (20m) (accessory)

8. GUARANTEE

The manufacturer gives a one year guarantee for this control unit. The guarantee starts from the date of purchase and includes all the parts of the control unit.

The guarantee covers faults from the manufacture and material only. The guarantee includes a supply of spare parts by the manufacturer or importer after the faulty parts have been returned. Replacing any parts in the control unit does not extend the original guarantee period of one year.

The guarantee does not cover defects caused by normal wear and tear, defects caused by improper installation, poor maintenance or failure to follow the manufacturer's instructions for installation, use and care, or alterations made to the product. The guarantee is void if the control unit is used improperly. The guarantee does not cover delivery costs of the faulty part or repair costs on the field. If the control unit is returned to the manufacturer or importer within five years from the date of purchase, the importer will provide free repair work, but may charge for spare parts if the one-year guarantee has expired.

The guarantee is void if installation and wiring has not been carried out by certified electrician or authorized and qualified service representative. Please not that the installers signature is needed below.

The guarantee is void if the information below is not filled out and returned to the manufacturer or importer within 15 days of purchase. The guarantee applies only to the first installation of the product and to the original purchaser.

Finsauna control unit model _____

Model number _____

Date of purchase _____

Original purchaser _____

Address _____

_____

Purchased from _____

Date of electrical installation _____

Signature of the installer _____