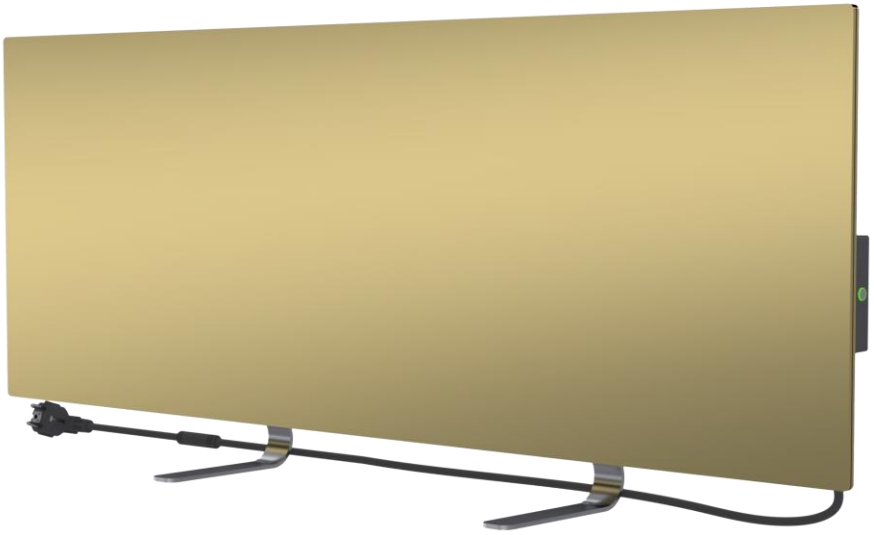

Installation and Operation Manual for Perenio® Joule Eco Smart Heater

(Article: PEJPH01-PEJPH04)

August, 2021

Introduction

Perenio® Joule Eco Smart Heater is designed for heating residential, office, industrial and other premises.

The present Manual contains a detailed description of the device, as well as instructions for its installation and operation.

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Responsibility and Technical Support

The present document is prepared in accordance with all necessary requirements and contains detailed information on the device installation, configuration and control valid as of the date of its issue.

Perenio IoT reserves the right to modify the device and make corrections or changes to this document without prior notice of the User, and shall not be responsible for any potential negative consequences which may arise from the use of an outdated version of the document, as well as for any possible technical and/or typographical errors, either omitted or accidental, or any related damage that may result from the document transfer or the use of the devices.

Perenio IoT shall make no guarantee with respect to any data contained herein including but not limited to the device merchantability and fitness for a particular purpose.

In case of any discrepancies between language versions of this document, the Russian version of this User Manual shall prevail.

For any technical issues, please contact your local *Perenio IoT* representative or the Tech Support Department at **perenio.com**.

The most common problems may be found in Section 8 of the present document and at **perenio.com** where you can also download the latest version of this Installation and Operation Manual.

Manufacturer:
Perenio IoT spol s r.o.
Na Dlouhem 79, Ricany – Jazlovice 251 01, Czech Republic
perenio.com

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Conformance to Standards

The device is CE certified and complies with requirements of the following Directives of the European Union:

- 2014/35/EU Low Voltage Directive;
- 2004/30/EC Electromagnetic Compatibility Directive.

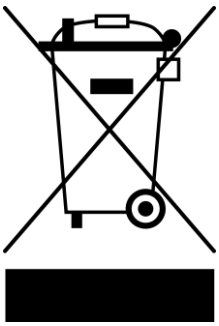
The device complies with the UKCA marking requirements for selling the device in the UK

The device has passed all procedures of assessments established in Technical Regulations of the Customs Union and conforms with standards of the Customs Union

The device complies with the requirements of Restriction of the Use of Certain Hazardous Substances (RoHS) in Electronic and Electrical Equipment (2011/65/EU Directive)

The device complies with requirements of the Technical Regulations of the Republic of Belarus TR 2018/024/BY (Telecommunications. Security)

The national conformity mark of the Ukraine indicating that the device meets requirements of all applicable technical regulations



The crossed-out trash can symbol is used to label electrical and electronic equipment, and indicates its separate collection.

The symbol is given in accordance with the Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE)* and indicates that this equipment requires separate collection at the end of its life and must be disposed of separately from unsorted household waste.

To protect the environment and human health, please dispose of used electrical and electronic equipment according to approved safe disposal guidelines

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BG	CZ	DE	ES	FR
GR	IT	KZ	LT	LV
NL	NO	PL	RO	RU
SE	SK	TR	UA	UK

Details on available Certificates are specified in Section 6 of the present document. For copies of Certificates and Reports, please visit a corresponding Section at **perenio.com**.

Limitations and Warnings

Prior to installation and operation of the device, the User shall carefully read and understand information contained herein.

WARNING! Do not cover the heater to avoid overheating.

WARNING! Do not install the heater directly under a plug socket.

WARNING! Do not use the heater if the glass panels are damaged.

ATTENTION! The warnings, precautions, and instructions contained in this document may not contain every possible hazardous situation. Use common sense when using the device.

Warning Symbols and Icons

Hot surface. The risk of burns in the case of contact with heated surfaces. Do not touch heating panels until completely cooled down

To avoid overheating, do not cover the device or dry clothes on it

The device is intended for indoor use only

IP44

Degree of protection of the device casing that is protection against the ingress of solid objects larger than 1 mm in size, as well as drops and splashes falling from any angle

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Built-in roll-over protection sensor

Very thin heating panel

The function of maintaining the set temperature (with remote control)

Wall mountable

Possibility of installation on legs

The composition uses non-toxic materials

Made in the European Union

Safety Operation Rules

1. The device shall be used as described in this manual only. Any other use not specified therein may cause fire and other hazards, as well as injury to persons.
2. The device is intended for operation in a room with an ambient temperature of 0°C... +40°C.
3. Keep children and pets away from the area of installation of the Eco Smart Heater, as contact with the device in operation may result in burns.
4. The device may only be operated when it is properly mounted on brackets or special legs as supplied within the scope of delivery.
5. In the case of wall installation, the installation height shall not be higher than 1 m.
6. The installation area shall be level, i.e. without any bends or warps (Flat vertical or horizontal surface). If the device is in the wrong position when connected to the source of power, it will emit short beeps.
7. Do not bend the device or otherwise use force for wall installation using screws.
8. When moving the device, you may only hold it by brackets on its back. Do not move the device by the glass panel while it is switched on or hot.
9. If the device is connected to the mains, it is strongly recommended to ensure quick and easy way to disconnect it from the source of power.

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10. To avoid supply network overloading and the risk of fire, do not use an extension cord to connect the device to the power source, or connect the device to the mains socket along with other household appliances.
11. Do not mount the device directly under the mains socket, or on top of it.
12. Do not touch the heating panel of during the device operation.
13. Do not use the device in the case of damage or cracks, or any signs of damage to any other parts thereof, e.g. the power cable.
14. If the power cable is damaged, it may only be replaced by an authorized service center or other authorized party.
15. Do not drop, throw, disassemble or attempt to repair the device on your own. Stop using the device, it is has fallen.
16. Do not expose the device to direct sunlight or moisture, oils, chemical or other organic liquids, or vibrations.
17. Do not use the device in a combustible, explosive and/or dusty environment, as well as in areas where corrosion of its materials is possible.
18. Do not dry clothes or any other items with the device, and do not place it less than 1 meter away from any fabrics, decorative objects or other flammable objects. Do not operate the device on carpets!
19. If the device is not used (heating mode switched off) for a long period of time, it shall be disconnected from the source of power.
20. To avoid an unpleasant "burnt" smell, it is recommended to keep the device clean and free of dust accumulation.
21. To clean the device, use a water-dampened cotton cloth followed by a dry streak-free cloth cleaning. Do not clean the device until it is switched off and de-energized. Do not use cleaning agents or detergents to clean the device.
22. The device is not intended for use by children under 12 years, or by persons of limited physical, sensory or mental capabilities who have no adequate experience or knowledge in using the device, unless they are supervised or instructed by a person responsible for their safety.
23. Do not use the device in areas with people who are unable to leave the room on their own or who are not under the constant supervision of a person responsible for their safety.

ATTENTION! Any damage to the device as a result overturning or falling will void the manufacturer's warranty.

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1 General Description and Specifications

1.1 General Purpose

The **Perenio® Joule** Eco Smart Heater is an electric heating device with mainly an infra-red heat emission designed for primary, supplementary and local heating of domestic, industrial and other premises such as flats, offices, commercial premises, sports halls, educational facilities, catering facilities, etc.

Key benefits of the **Perenio® Joule** Eco Smart Heater are as follows:

- Connection via Wi-Fi (2.4GHz) or manual operation;
- Low power consumption of 0.8kW;
- Automatic maintenance of desired room temperature;
- Large heat-radiating surface area;
- Ability to be installed on a vertical or a horizontal surface;
- "Freshness" effect where the air is not dried out (This effect is created by increasing the temperature on surfaces of various objects, floors and walls at a lower room temperature);
- Lack of "Burnt Air" effect due to a lower surface temperature than the one on typical non-IR heaters;
- Reduction of dust in the air due to lower convection process (Thermal movement of air volumes);
- Optional remote control via the mobile app or voice assistants;
- Elegant glass surface and stylish design.

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Figure 1– Appearance

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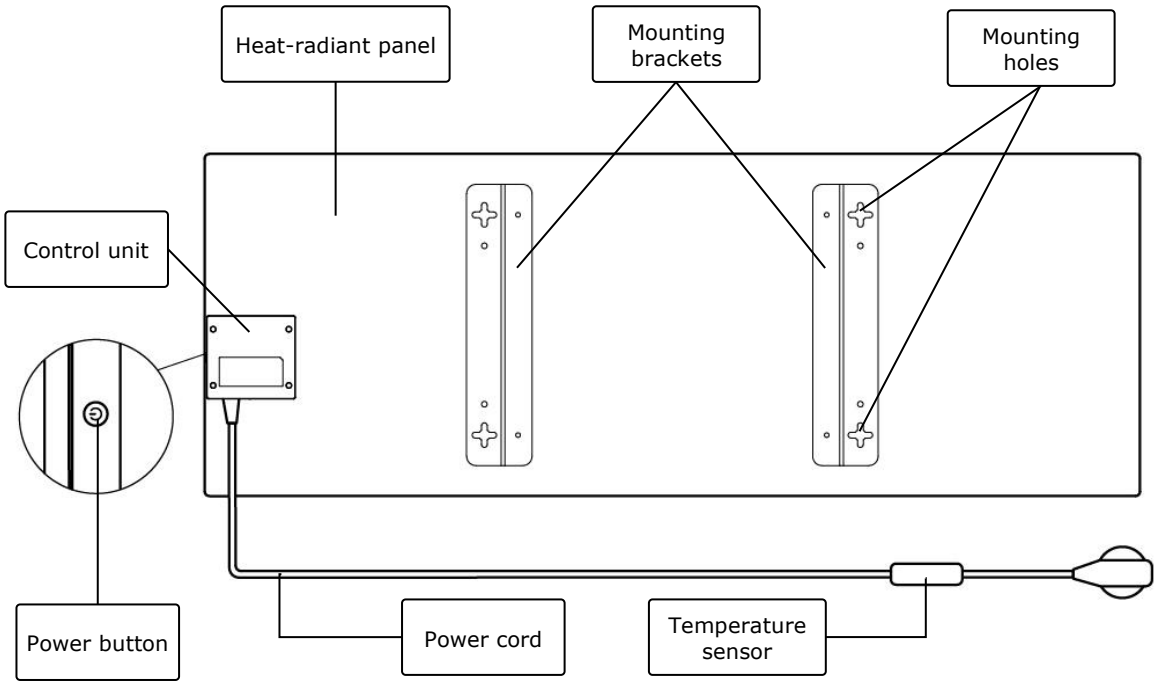

Figure 2– Buttons, ports and indicators

Buttons, Ports and Indicators

Heat-radiant panel	Glass panel of the device that is radiating heat to warm the room
Mounting brackets	Metal brackets for mounting the device on a vertical surface
Mounting holes	Cross-shaped holes in the mounting brackets for wall mounting of the device
Control unit	Electronic module for management of the heater which includes a signaling component (piezo siren) to audibly notify users of the device statuses
Power button	LED button for switch the heating mode on and off
Power cord	Cable to connect the heater to the mains socket
Temperature sensor	Sensor that measures the ambient air temperature and ensures accuracy when maintaining the required heating temperature

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Table 1– Functions of the power button

Action	Description
Press and hold the power button for less than 3 seconds	Switching the device from OFF to ON state and vice versa
Press and hold the power button for 4 to 10 seconds	Switching to activation mode in the "Perenio Smart" or the "Perenio Lite" mobile app
Press and hold the power button for more than 10 seconds	Activation of the factory reset process
Press the power button 5 times for 4 seconds	Mechanical deactivation of the Child Lock Mode

Table 2 – Power button LED indication

Color	State	Description
Blue	On	The device is connected to the mains and activated in the mobile app, but the heating mode is switched off
	Flickering	The device is connected to the mains, but not activated in the mobile app, and heating mode is switched off
Green	On	The device is connected to the mains and activated in the mobile app, and the heating mode is switched on
	Flickering	The device is connected to the mains, but not activated in the mobile app, and heating mode is switched on
Purple	Blinking fast	The device is connected to the mains, and the process of activation in the mobile app was started
Red	Blinking	The device is connected to the mains, but an error has occurred (Incorrect orientation, safety mechanism actuation, etc.)
	Blinking fast (3 times)	Factory reset process was initiated

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Color	State	Description
Yellow	On	The device is connected to the mains, and the temperature maintenance mode is on (For control via the mobile app only)
White	Blinking (3 times)	The device is connected to the mains, and the Child Lock Mode is activated. A short acoustic signal is emitted when swicthing to this mode
	Off	The device is not connected to the mains, or a power failure occurred

Blinking means that the LED is on for 500 ms, and then is off for 500 ms.
Blinking fast means that the LED is on for 100 ms, and then is off for 100 ms.
Flickering means that the LED is on for 3,000 ms, and then is off for 300 ms.

1.2 Technical Specification

Table 3 – Basic Technical Specifications

Parameter	Value
Article	PEJPH01 (White), PEJPH02 (Black), PEJPH03 (Silver), PEJPH04 (Gold)
Communication Technology	Wi-Fi (IEEE 802.11b/g/n20)
Operating Frequency	2.4GHz
Wi-Fi Coverage Area	Up to 100 meters (Open area)
Integration	Yandex Smart Home, Amazon Alexa
Server	Cloud
IR Angle	Up to 360° (depending on the installation area)
IR Wavelength	95-100μm
Room area	25 m^2 max
Nutrition	Rated input voltage: 220V Rated input current: 3.5A Rated power: 700-800W Power supply voltage: 220-230V, 50Hz Standby power: 1W max

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Parameter	Value
Types of protection	Current protection: 6A Voltage protection: 260V Heating panel temperature protection: +110°C
Casing protection class	IP44
Electronic gyroscope	Rollover switch-off
Operating Temperature	0°C to +40°C
Operating Humidity	35% to 85% relative humidity (non-condensing)
Storage Temperature	0°C to +70°C
Storage Humidity	5% to 95% relative humidity (non-condensing)
Installation	On a flat horizontal or vertical surface. The device is intended for indoor installation.
Installation height (wall mounting)	Not higher than 1 meter from the floor
Casing Material	Heat-radiant panel: Tempered glass Control unit: ABS plastic
Color	White, black, silver, gold
Dimensions (L x W x H)	1000mm × 356mm × 32mm (without brackets)
Weight	7.4kg
Warranty Period	1 year
Service Life	2 years
Certification	CE, EAC, RoHS, UA.TR

1.3 Scope of Delivery

The **Perenio® Joule** smart eco-heater comes with the following devices and accessories:

1. **Perenio® Joule** Eco Smart Heater – 1 pc.
2. Legs for floor installation – 2 pcs.
3. Wall mounting brackets (Assembled or disassembled) – 1 set.
4. Mounting kit (Screws and dowels) – 1 set.
5. Quick Start Guide – 1 pc.
6. Warranty Card – 1 pc.

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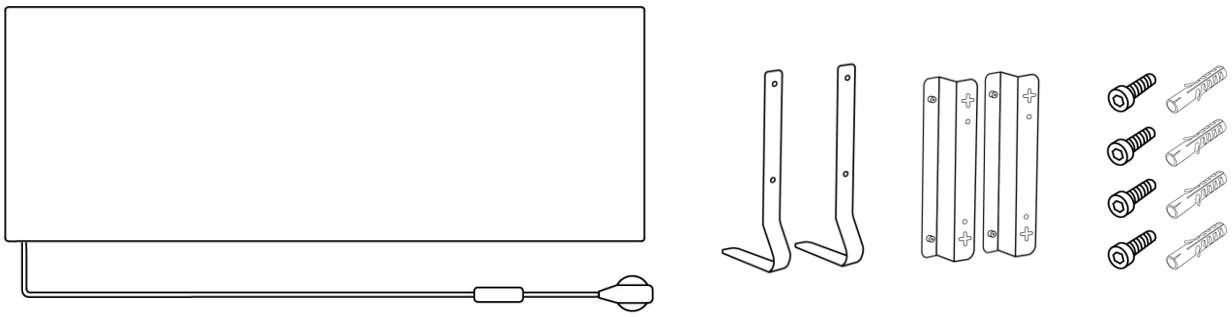

1 2 3 4

Figure 3 - Scope of Supply*

***** Images are provided for informational purposes only

1.4 Packaging and labelling

The **Perenio® Joule** Eco Smart Heater is supplied in an individual carton package of 106cm x 38.5cm x 8.5cm (L x W x H) containing the full name and marking of the device, the list of accessories provided and basic technical specifications thereof, as well as the date of manufacture and information about the Manufacturer of devices.

Weights of the carton package are as follows:

- Net weight: 7.2kg;
- Gross weight: 9.5kg.

1.5 Child Lock Mode

The Child Lock Mode means locking the device's control button via the **Perenio Lite** mobile app.

NOTE that this mode may only be activated remotely after connecting the device to the **Perenio Lite** mobile app.

If activated, the Eco Smart Heater will beep every time its button is pressed. The button itself will be locked.

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The Child Lock Mode may be deactivated in the two following ways:

1. Remotely via the **Perenio Lite** mobile app.
2. Manually by pressing the power button 5 times for 4 seconds.

1.6 Remote Control via Voice Assistants

To control the Eco Smart Heater via the Yandex Smart Home (Alice) or Amazon Alexa app, you should first activate the device in the **Perenio Smart** or **Perenio Lite** app.

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2 Installation and Setup

Before installation, the User shall select one of the following possible locations and mounting modes for the device:

- On a flat and stable horizontal surface on legs;
- On a flat and non-sloping vertical surface on brackets.

The User shall also make sure that the selected location meets the following requirements:

- Availability of the source of power at the installation area of the Eco Smart Heater;
- Correct location of the electrical socket (See "Limitations and Warnings" Section for details).

WARNING! It is strongly recommended that the Eco Smart Heater is installed out of the reach of children and pets, as contact with the device in operation may result in burns. Do not use the Eco Smart Heater on carpets or near curtains or upholstered furniture.

NOTE that it is not recommended to install the device in areas with a high level of noise and a high-frequency interference. Reinforced concrete floors may reduce the distance of wireless signal transmission.

See below possible installation locations for the Eco Smart Heater.

Figure 4 – Examples of installation*

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2.1 First Installation and Configuration

To ensure proper installation and operation of the Eco Smart Heater, follow the steps below:

1. Unpack the device (See par. 2.1.1), install it in the desired location (See par. 2.1.2 or par. 2.1.3) and connect to the source of power (220V) using the power cable.
2. If necessary, activate the device in the mobile app (See par. 2.5 or par. 2.6).
3. Operate the device manually, or remotely via the mobile app (See par. 2.5 or par. 2.6) and/or voice assistants (See par. 1.6).

IMPORTANT! Upon the initial activation in the mobile app, the Eco Smart Heater firmware update process may be started (In this case, the notification will be displayed in the control panel of the device and in the "Event History" tab). **Do not disconnect the device from the mains until the update process is completed!**

Also, do not disconnect the device from the mains for **5 minutes** after resetting it to factory settings.

2.1.1 Unpacking and Preparing for Installation

1. Unpack the device carefully and remove the accessories.
2. Arrange the device on a clean, horizontal surface with the heat-radiant panel facing downwards.
3. Wipe both sides of the heat-radiant panel with a water-dampened cloth, and then with a dry, streak-free cloth. Make sure that the device is free from dust and dirt.
4. Prepare the device installation area.
5. Mount the device in the desired area as per selected installation option (See par. 2.1.2 or par. 2.1.3).

NOTE. Do not use the device at ambient temperatures of 0°C or lower, as it will initiate an error, and the device will not be switched on.

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2.1.2 Floor Installation (Option 1)

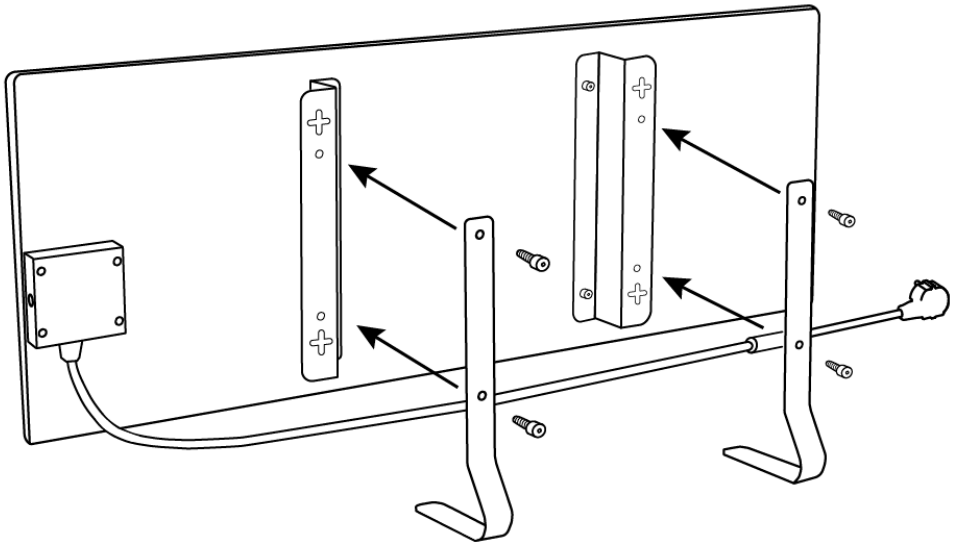

Figure 5 – Mounting on legs (Floor)

1. Arrange the device on a clean, horizontal surface with the heat-radiant panel facing downwards.
2. Tighten the mounting brackets to the rear surface of the panel (Skip this step, if mounting brackets were pre-installed by the manufacturer).
3. Tighten the two metal legs to mounting brackets through the holes using screws (See Figure above).

NOTE that for the floor installation version, the Eco Smart Heater may only be oriented horizontally as shown in the Figure above.

During installation, please ensure that the screws are securely tightened and that the legs are oriented correctly towards the device panel (See Figure above).

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2.1.3 Wall Installation (Option 2)

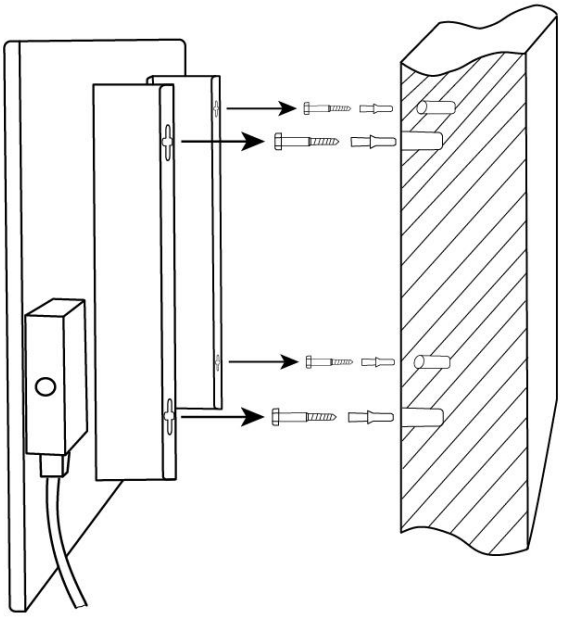

Figure 6 – Mounting on brackets (Wall)

1. Arrange the device on a clean, horizontal surface with the heat-radiant panel facing downwards and tighten the mounting brackets to the back of the panel (Skip this step, if mounting brackets were pre-installed by the manufacturer).
2. Choose the Eco Smart Heater orientation on the wall (Horizontal or vertical installation).
3. Drill 4 holes in the wall considering the distance between the cross-shaped mounting holes on the brackets.

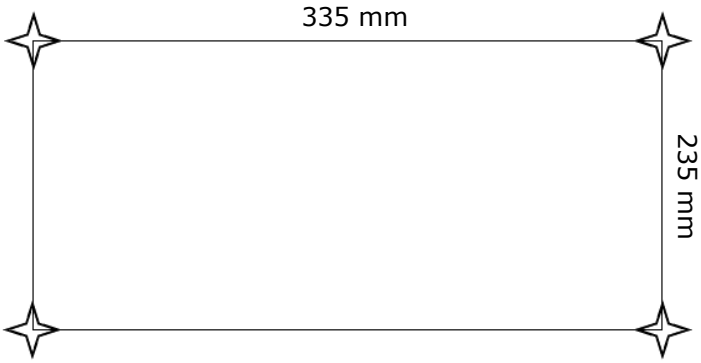

Figure 7 – Spacing for drilling holes (Wall mounting)

4. Insert the dowels in the drilled holes and screw in the screws supplied.

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5. Lean the Eco Smart Heater carefully against the wall and hang it to all 4 screws at the same time. Make sure that all screws were engaged successfully, and that the device is properly secured.
6. Adjust the tightening depth of the screws into dowels, if required.

NOTE that during installation, you should make sure that the screws are tightened securely, and that the control unit is oriented correctly in relation to the electrical socket.

ATTENTION! The installation height shall not be higher than 1 m for wall mounting.

2.2 Initial Switching On

To switch on the Eco Smart Heater, plug it into an mains socket using the power cord.

NOTE that by default, the Eco Smart Heater will be in the mode ready for activation in the mobile app for 3 minutes after it is first switched on. After that, the device will ve automatically switched to the standby mode (Heating mode will be off).

Next, you should select the way to manage the device, namely:

1. Manual operation.
2. Remote control via the mobile app.
3. Remote control via voice assistants.

2.3 Manual Operation

The Eco Smart Heater may be manually controlled via the power button located on the control unit of the device.

1. To start the heating process, press and hold the power button for less than 3 seconds.
2. To stop the heating process, press and hold the power button again for less than 3 seconds, and the device will be switched to the standby mode (See Table 1 for more details on functions of the power button).

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NOTE that you should unplug the power cable from the electrical socket to completely de-energize the Eco Smart Heater.

2.4 Selection of the Mobile App for Control

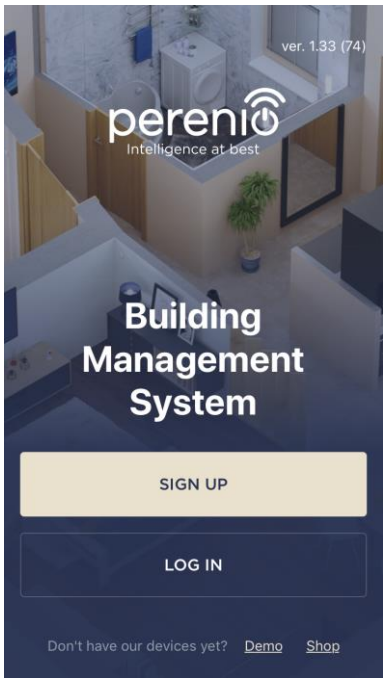
The device may be remotely managed via one of the following applications:

- **Perenio Smart** mobile app (recommended);
- **Perenio Lite** mobile app.

NOTE that the **Perenio Smart** mobile app is recommended because it has more functions and allows for control of all **Perenio®** devices.

2.5 Remote Control via Perenio Smart App

2.5.1 Installation of the Application



The device shall be managed via a free mobile application available for downloading in Google Play or App Store.

In order to log in to the User Account, follow the steps below:

a. Connect your smartphone to the Wi-Fi Network and download the "**Perenio Smart Building Management System"** app from Google Play or App Store;

b. Register a new User Account or sign in to an existing User Account as follows:

- **Registration**:
  - Fill in your e-mail address, user name and password (8 or more symbols including at least one capital letter and one number);
  - Select the country of residence;
  - Agree to Privacy Policy terms;
  - Click on the "**SIGN UP"** button;
  - Confirm your e-mail address, and for this purpose the User will receive an email to verify the User Account (Follow the link);
  - Log in to the created User Account.

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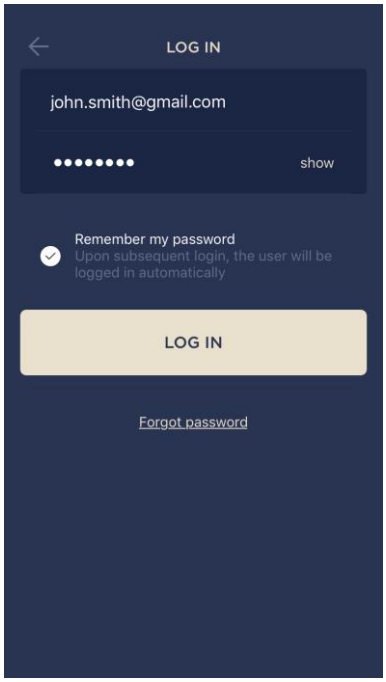
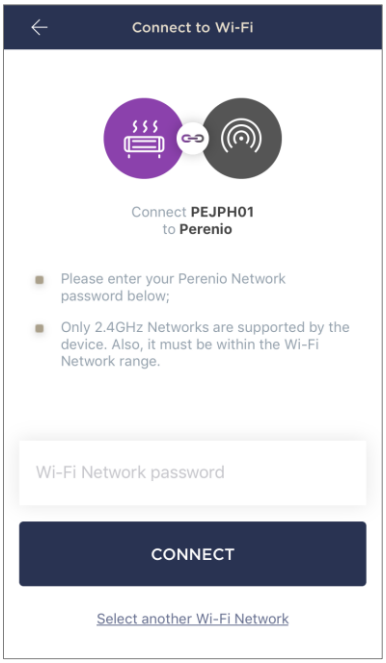
- **Logging in to an existing account:**
  - Enter your e-mail address and password in the login screen;
  - Click on the "**LOG IN**" button.



NOTE that if the password is lost, the User can restore it by clicking on a corresponding link on the screen.

To restore a forgotten password, use the e-mail address linked to your User Account, as instructions on changing the password will be sent thereto.

2.5.2 Activation Process



a. After login to the User Account, click on the "+" icon in the upper right corner of the "Devices" tab;
b. Select the Eco Smart Heater from the list;
c. Enter the password from the Wi-Fi Network or select another network;

NOTE. The device may be connected to Wi-Fi Network of **2.4GHz** only.

d. Click on the "**CONNECT**" button;

NOTE. Before connecting, make sure that the Eco Smart Heater is powered on and that the smartphone is located at a distance of not more than 2 meters from it.

e. Press and hold the power button on the device control unit until the LED flashes purple (See Table 2);
f. Clink on "**START SEARCHING**" button;
g. Wait for the connection process to be completed.

NOTE. To eliminate connection failures, follow instructions specified on corresponding screens of the smartphone.

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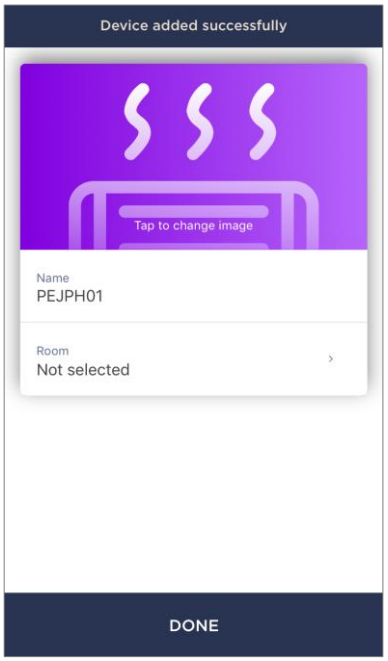
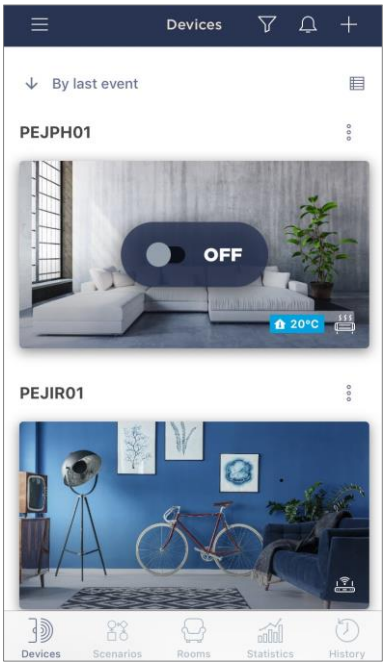
After successful connection of the device, the User may specify the following:

a. Image;
b. Device name;
c. Room.

When the settings are complete, press the "**DONE"** button.

NOTE. All the specified data can be entered or changed later in the Eco Smart Heater settings.





The Eco Smart Heater is displayed in the "Devices" tab.

In this tab, you can switch on/off both the device and its climate control mode, as well as view the current room temperature.

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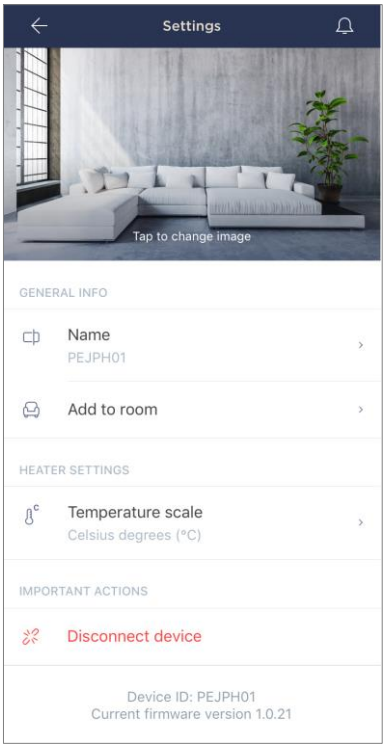
2.5.3 Additional Settings

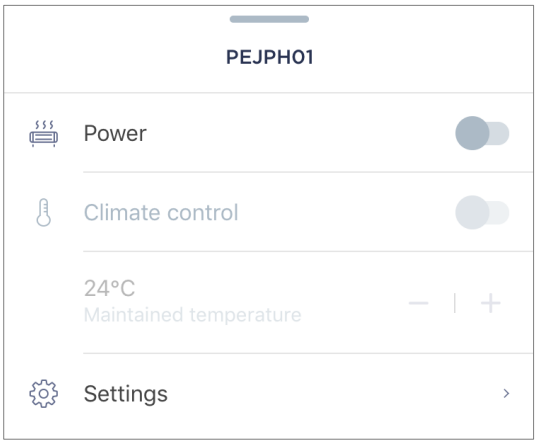
Once the Eco Smart Heater is activated in the **"Perenio Smart"** mobile app, the User can make the following settings remotely:



- Change or upload the device image for easier identification of the Eco Smart Heater in the list of connected devices;
- Change the name of the device;
- Add the device to the Room or change the Room of installation;
- Select the temperature scale (°C or °F);
- Remove the device from the mobile application;
- View the device ID and the current firmware version of the device.

NOTE. There are two ways to switch to the settings screen, namely:

1. Click on the icon with three dots in the right upper corner of the smart Eco Smart Heater in the mobile application and select "Settings".



2. In the Eco Smart Heater control panel, click on the settings icon.

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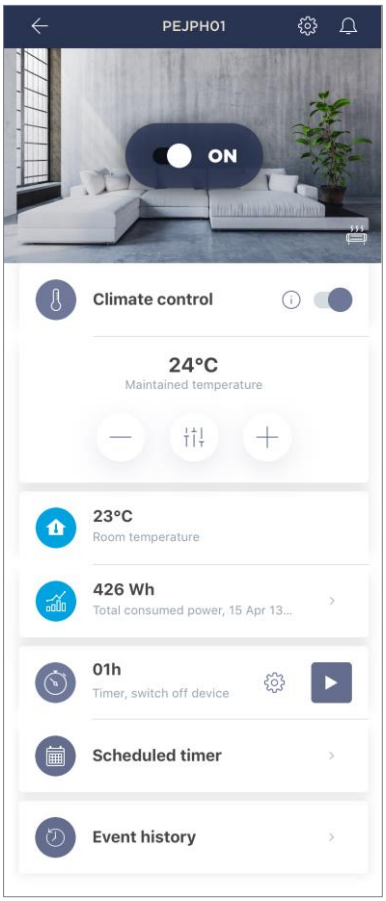
2.5.4 Control Panel



The Eco Smart Heater control panel is displayed when you click on its image in the list of connected devices in the "Devices" tab.

In this control panel, the User may perform the following actions:

- Turn on and off the device remotely;
- Activate and deactivate the auto-control of the desired temperature;
- Change the desired room heating temperature;
- View data on the current room temperature;
- View statistics on energy consumption;
- Set timers;
- View the history of events.

NOTE. Currently, Child Lock Mode can only be activated in the **"Perenio Lite"** mobile app.

2.5.5 Setting Climate Mode

The climate control mode means that the Eco Smart Heater will automatically maintain the room temperature set by the User.

By default, this function is deactivated, i.e. the device will continuous heat the area of installation after being switched on.

The climate control mode may be switched on and off in the following several ways:

1. From the control panel of the Eco Smart Heater:
    a. Move the climate control slider to the right or to the left to activate or deactivate the mode, respectively;
    b. Set the temperature to be maintained.

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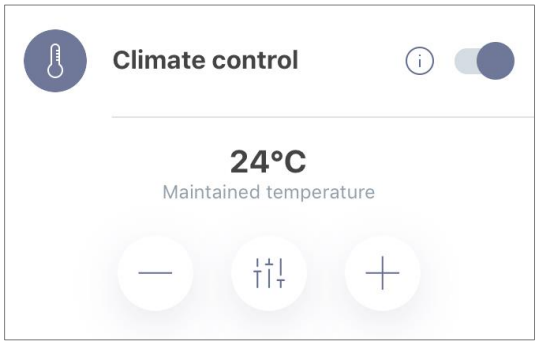


2. From the "Devices" tab in the **"Perenio Smart"** mobile app:
    a. Click on the three-dot icon next to the Eco Smart Heater name;
    b. In the popup window, move the climate control slider to the right or to the left to activate or deactivate the mode, respectively;
    c. Set the temperature to be maintained.

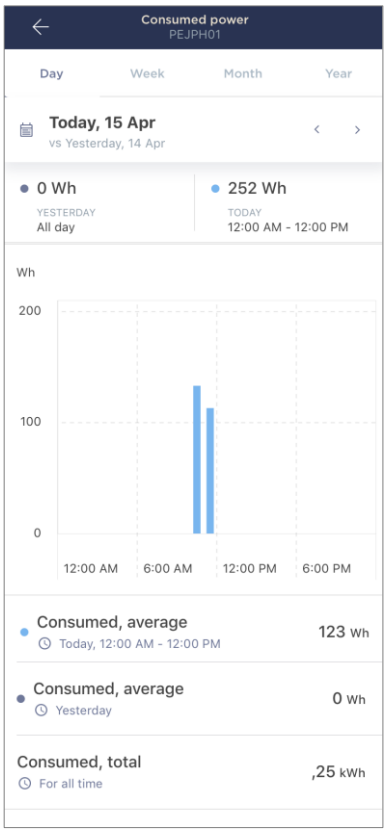
2.5.6 Viewing Energy Statistics

To switch to the statistics screen, click on the "Total consumed power" icon in the device control panel.

The data is displayed as a chart of the current power consumption in Wh versus yesterday's data.

Also, the User may view energy consumption for other days by clicking the Right/Left arrows on the chart.

NOTE. Power consumption statistics is stored for 7 days only, so the dates available for comparison are limited to one week.



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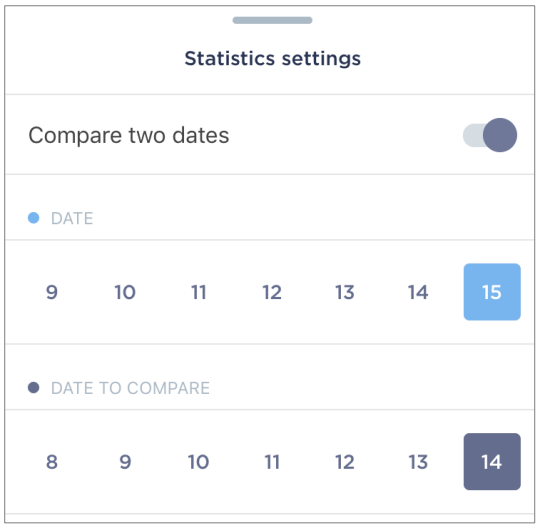
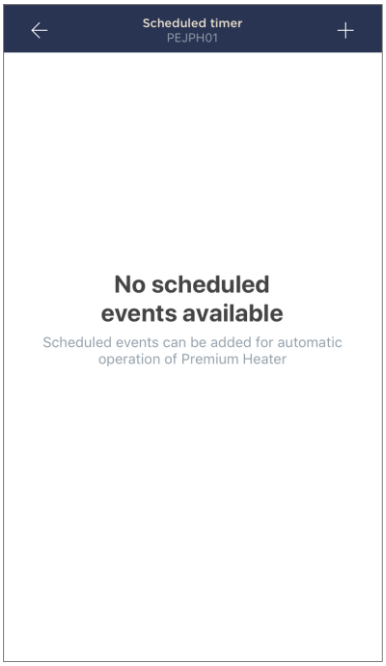
The User can compare the energy consumption data for any two days during the week. For this purpose, you need to go to the "Calendar" in the upper left corner of the Statistics screen and select the required days for comparison.



2.5.7 Setting Scheduled Timers



Scheduled timers are used to automatically turn on and/or off the Eco Smart Heater at a specified time on specified days of the week. This timer is not preset by default for the device.

NOTE. Available options to set timers depend on the selected action for the Eco Smart Heater (Turning on or off).

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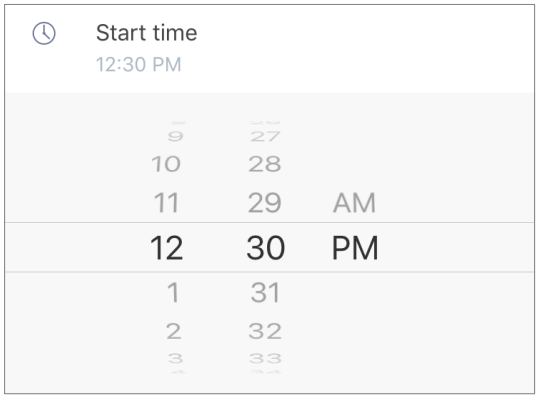
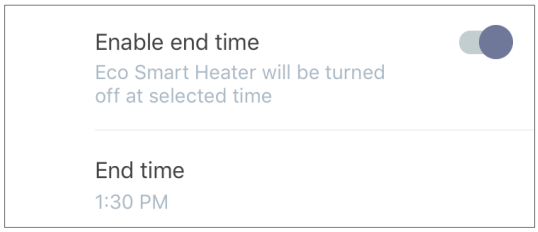
How to set the scheduled timer to turn on the Eco Smart Heater

1. Click on the "Scheduled timer" button in the device control panel, and then on the "+" icon in the right upper corner of the screen.
2. In the "Add Scheduled Event" screen, select the power type – "Turn on".

3. Select the time to turn on the Eco Smart Heater.

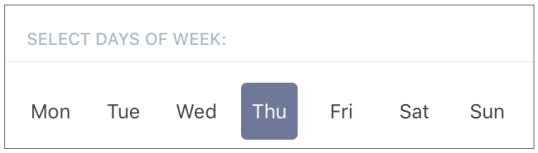


4. Activate and select the time to turn off the Eco Smart Heater, if necessary.



NOTE. The switch-off time activation is optional.

5. Select days of the week when the Eco Smart Heater shall be turned on.



6. If required, activate the climate control mode, and select a maintained temperature.

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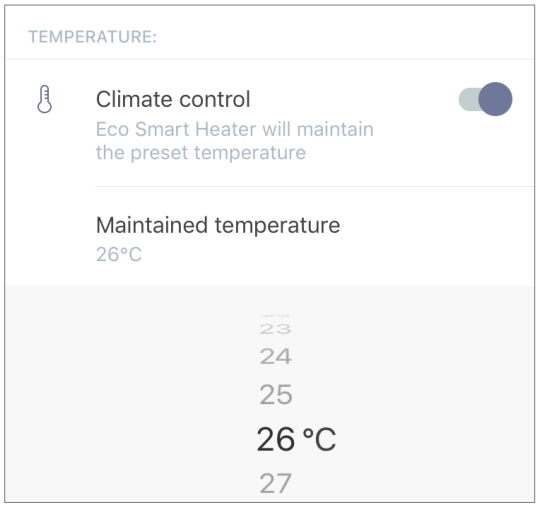
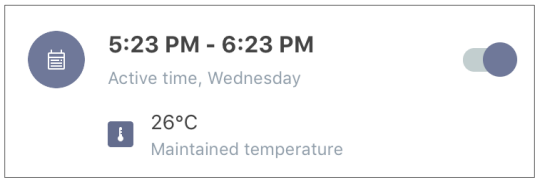


7. Click on the "Save" button.
8. Activate the timer in the "Scheduled timer" tab by moving the slider to the right/left.



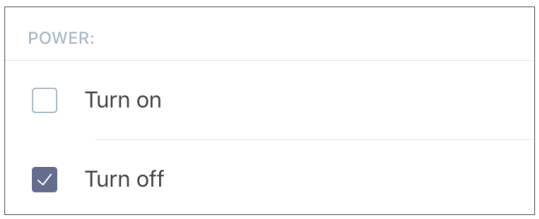
9. The User may make changes to the created timer by clicking on it in the "Scheduled timer" tab.

NOTE. If the User shall try to change settings of an activated timer, it will be automatically disabled.

A maximum of fifteen (15) weekly timers can be activated at a time.

How to set the scheduled timer to turn off the Eco Smart Heater

1. Click on the "Scheduled timer" button in the device control panel, and then on the "+" icon in the right upper corner of the screen.
2. In the "Add Scheduled Event" screen, select the power type – "Turn off".



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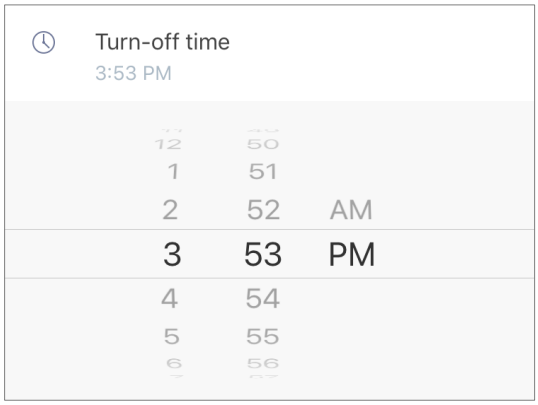
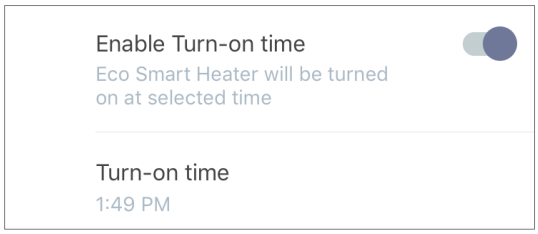
3. Select the time to turn off the Eco Smart Heater.

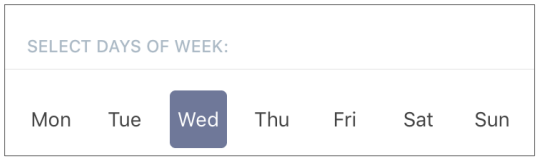


4. Activate and select the time to turn on the Eco Smart Heater, if necessary.



NOTE. The switch-on time activation is optional.

5. Select the days of the week on which the Eco Smart Heater shall operate on a timer.



6. If required, activate the climate control mode, and select a maintained temperature.

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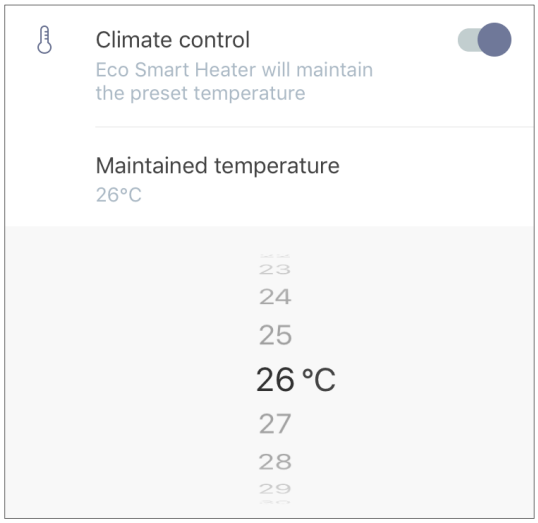
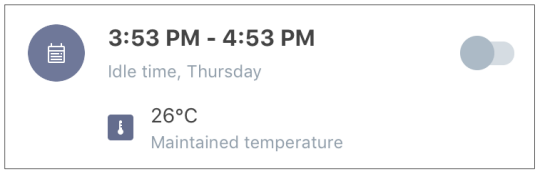


7. Click on the "Save" button.
8. Activate the timer in the "Scheduled timer" tab by moving the slider to the right/left.



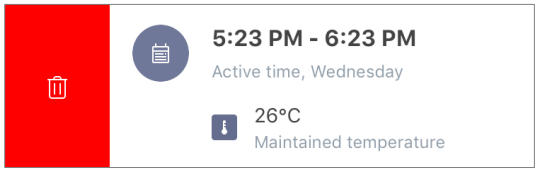
9. The User may make changes to the created timer by clicking on it in the "Scheduled timer" tab.

NOTE. If the User shall try to change settings of an activated timer, it will be automatically disabled.

A maximum of fifteen (15) weekly timers can be activated at a time.

How to delete the timer

Swipe from left to right on the desired timer in the "Scheduled timer" tab, and tap the bin icon.



NOTE. A deactivated timer only can be deleted.

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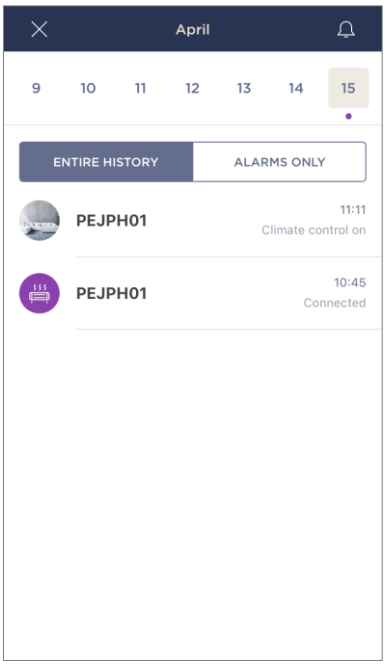
2.5.8 Event History



In this tab, the user can view the status of the device, as well as the time when the event occurred.

Functions are as follows:

- "ENTIRE HISTORY" filter, which allows viewing the following events:
  - Changes in the security modes ("Online", "Offline"), climate control on and off;
  - Start and completion of the firmware update.
- "ALARMS ONLY" filter, which displays device actuation events for the Armed Mode only;
- Filter by date.

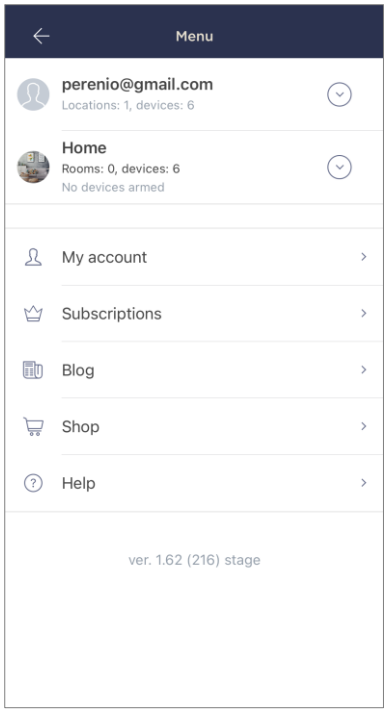
2.5.9 Subscriptions

Subscriptions allow the User to increase the storage period of the following information and data in the cloud:

- Videos and images;
- History of events;
- Statistics.

By default, all users of the **"Perenio Smart: Building Management System"** Mobile App are subscribed to a free plan with a limited storage period.

To view and change the current type of Subscription, the User shall go to the Side Menu and click on a corresponding button (See Figure on the right).



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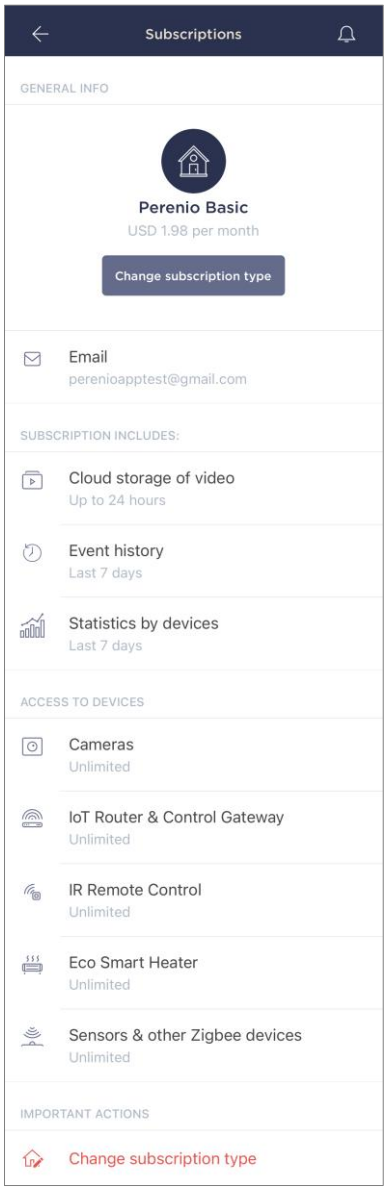

The following details for the current Subscription type will be displayed:

- Subscription name (Perenio Basic, Perenio Pro or Perenio Extra);
- Subscription (monthly) fee;
- Option to change the type of Subscription;
- Information about the Subscriber (Email address);
- Information about data storage in the Cloud;
- Information about the maximum number of devices that may be connected to the User Account.

To change the type of Subscription, the User shall click on a corresponding button and select the desired tariff plan from the list. Then, confirm the choice.

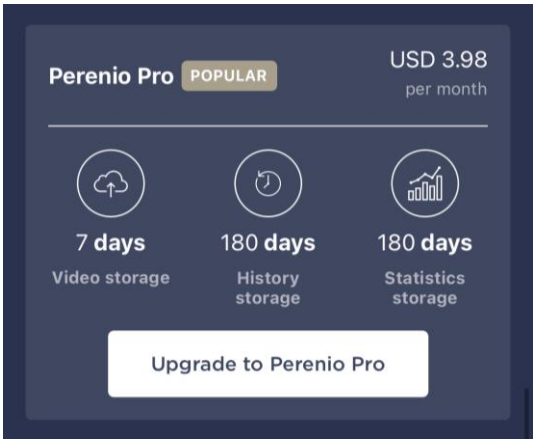

Table 4 – Available subscriptions

Storage	Perenio Basic	Perenio Pro	Perenio Extra
Video	24 hours	14 days	30 days
History	Last 7 days	Last 180 days	Last 365 days
Statistics	Last 7 days	Last 180 days	Last 365 days

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2.5.10 Changing the Room or Location for the Eco Smart Heater

When using the Eco Smart Heater, it may be necessary to change its installation area. The following options are possible:

1. **Change the Room**:
    a. Disconnect the Eco Smart Heater from the source of power and move it to another room;
    b. Plug it into the source of power;
    c. Make sure that the device is connected to the Wi-Fi Network;
    d. Change the Room in Eco Smart Heater settings in the User Account.

2. **Change the Location**:
    a. Sign in to the Perenio Smart app and select the Location where the Eco Smart Heater is activated;
    b. In the Devices tab, select the required Eco Smart Heater from the list and click on the ⚙ icon (Settings);
    c. In the pop-up window, choose "Disconnect device";
    d. Disconnect the Eco Smart Heater from the source of power and move it to another location/room;
    e. Plug it into the source of power in a new room;
    f. In the User Account, select the Location where you want to move the device;
    g. Initiate the Eco Smart Heater search through the Perenio Smart app.

2.5.11 History and Push Notifications

All notifications and other messages including changes in the status of **Perenio®** devices are displayed in the "History" tab. The most important messages can be viewed online in the "🔔" notification window in your account.

The following types of notifications are available:

- (Critical) alarms (They always come as push notifications to your smartphone, and are also displayed in the notification window, as well as in the "History" tab of the mobile app; The indication color is red);
- Important messages (They are always displayed in the notification window and the "History" tab; The indication color is yellow);
- Typical events (They are displayed in the "History" tab only; The indication color is not available).

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Alarms. These are the most important messages, which include notifications about the following events:

- IoT Router battery charging is low;
- The IoT Router runs on battery;
- Motion detection by the camera;
- There is not enough space on the SD card to continue recording video;
- Change of the camera status to "Offline";
- Sensor triggering in the armed mode, including all alarms fro smoke and leak sensors (even when the Location is in the disarmed mode);
- Disabling the sensor armed mode;
- Failure to perform the scenario;
- Connection of a dangerous device, and overloading the network (for the Power Link Wi-Fi Smart plug);
- Sudden changes or insufficient voltage, excessive power, temperature and/or consumption (for Power Link (ZigBee) Smart plug);
- Falls and/or overheats of the Eco Smart Heater, or sudden changes in voltage;
- Important updates.

Important messages. These are notifications on launches and completion of the camera and the Control Gateway firmware update, as well as notifications about low battery level of the sensor and changing the armed mode for the Location.

Typical Events. Various Perenio IoT newsletters, as well as messages about triggering Door & Window/Motion sensor in the disarmed mode.

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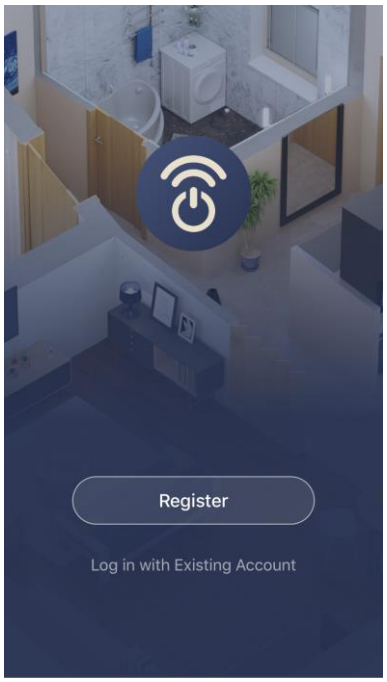
2.6 Remote Control via Perenio Lite App

2.6.1 Installation of the Application

The device shall be managed via a free mobile application available for downloading in Google Play or App Store.

In order to log in to the User Account, follow the steps below:



a. Connect your smartphone to the Wi-Fi Network and download the **Perenio Lite** app from Google Play or App Store;

b. Register a new User Account or sign in to an existing User Account:

- **Registration**:
  - Agree to Privacy Policy provisions;
  - Select the country of residence;
  - Fill in your e-mail address and click on "Get Verification Code";
  - Enter the code received at the specified email box;
  - Set the password (6 to 20 symbols including at least one capital letter and one number);
  - Log in to the created User Account.

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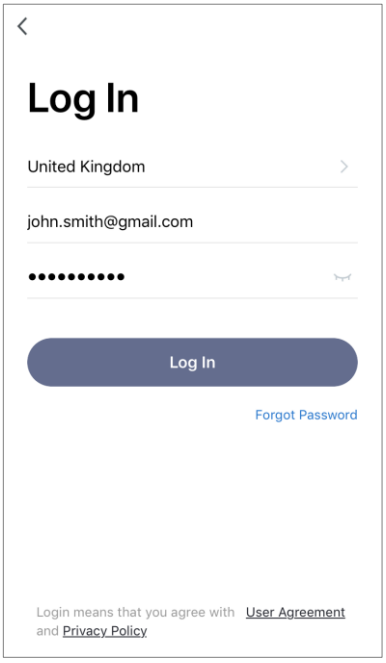
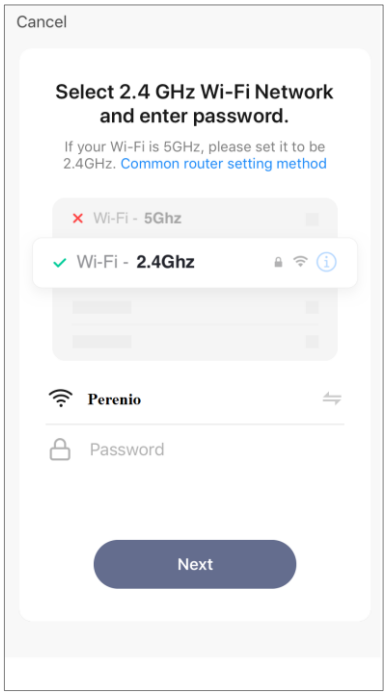
- **Logging in to an existing account**:
  - Enter your e-mail address and password in the login screen;
  - Click on the "**LOG IN"** button.

NOTE that if the password is lost, the User can restore it by clicking on a corresponding link on the screen.

To restore a forgotten password, use the e-mail address linked to your User Account, as instructions on changing the password will be sent thereto.



2.6.2 Eco Smart Heater Connection Process



a. After logging into your account, click on the "+" icon in the "Home" tab;
b. Select "Heater (Wi-Fi)" in the "Small Home Appliances";
c. Enter the password from the Wi-Fi Network or select another network;

NOTE. The device may be connected to Wi-Fi Network of **2.4GHz** only.

d. Click on the **"Next"** button;

NOTE. Before connecting, make sure that the Eco Smart Heater is powered on and that the smartphone is located at a distance of not more than 2 meters from it.

e. Press and hold the device power button until the LED indicator starts blinking purple, and press "Next";

f. Confirm that the indicator is rapidly blinking by ticking the box, and press the "Next" button;
g. Wait for the connection process to complete and click on "Done".

NOTE. If the connection fails, you must follow the instructions on the smartphone screen.

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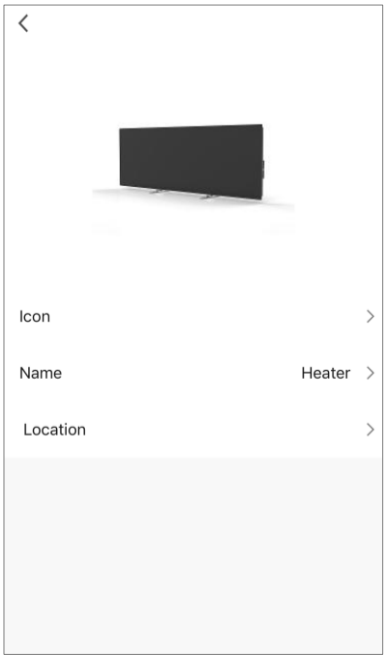
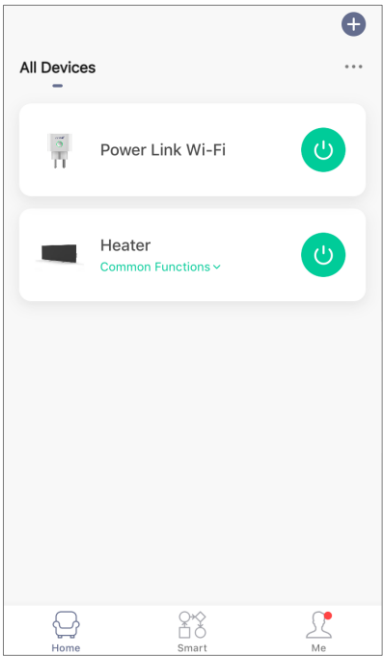
After successful connection of the device, the User may specify the following:

a. Image;
b. Device name;
c. Device Location.

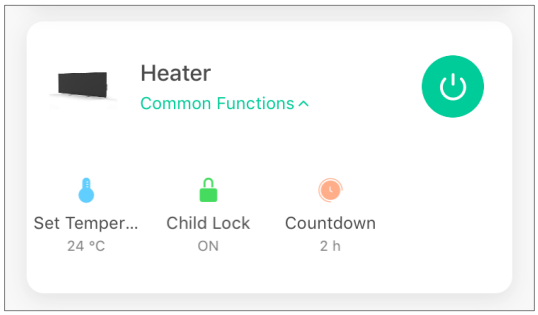
To do this, click on the image of the smart plug in the "Home" tab, then click on the "edit" icon in the right upper corner of the device control panel. The Eco Smart Heater setting screen will be displayed. After that, click on the edit icon in the right upper corner of the screen once again.





The Eco Smart Heater will be displayed in the "Home" tab.

From this tab, without opening the control panel, you can switch the heater on/off, set the temperature, activate the child lock and set the countdown timer.



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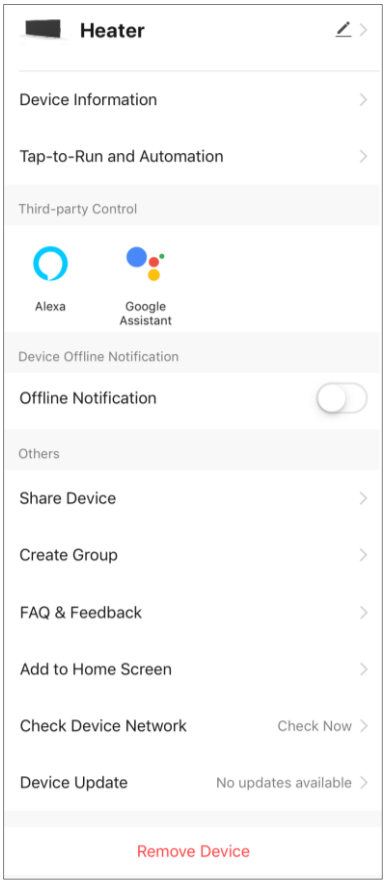
2.6.3 Additional Settings



After activation of the Eco Smart Heater in the **Perenio Lite** app, the User can make the following settings remotely:

- Change or upload the device image for easier identification of the Eco Smart Heater in the list of connected devices;
- Change the name of the device;
- Add the device to the Room;
- Add options for third-party apps control;
- Enable push-notifications;
- Share rights for management of the device;
- Create a group of several devices for easier management;
- Remove the device from the mobile application.

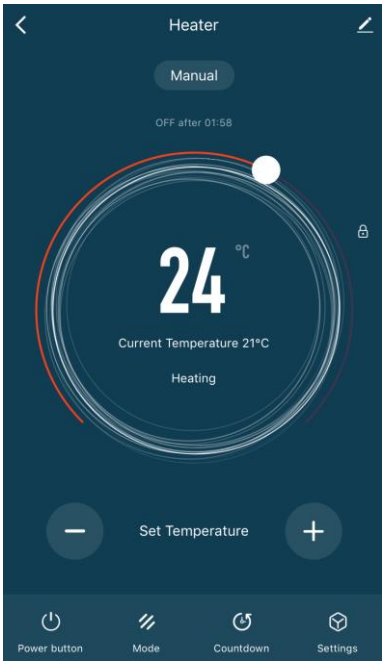
NOTE that the User can switch to the settings screen by clicking on the "Edit" icon in the right upper corner of the Eco Smart Heater control panel.

2.6.4 Control Panel

The Eco Smart Heater control panel is displayed when you click on its image in the list of connected devices in the "Home" tab.

In this control panel, the User may perform the following actions:

- Set the room temperature at which the heating element will be switched off. The maximum possible value is +40 °C, or 104 °F;
- Switch the device on and off;
- Select the device control mode;
- Set countdown timer;
- Change settings.



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2.6.5 Selecting the Control Mode

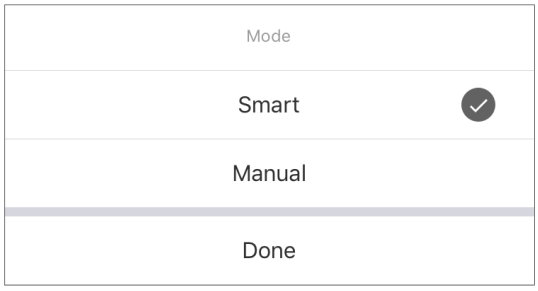
The two following modes of are available in the Eco Smart Heater control panel:

- Smart Mode, where the room temperature is controlled by the built-in sensor. The desired temperature is maintained automatically, i.e. the heating element is switched on or off as required;
- Manual Mode, where the Eco Smart Heater is switched on and off according to the user's commands.

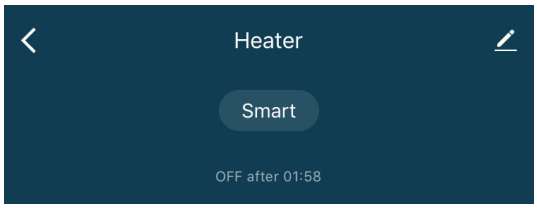
NOTE. By default, the Eco Smart Heater will be switched to the Manual Mode after the first activation.

In order to change the control mode, you should click on the "Mode" icon in the device control panel and select the required setting.

The selected mode is considered activated when ticked in the Mode pop-up window. Click on "Done" to save the settings.



The selected mode will be displayed in the Eco Smart Heater control panel.



NOTE. Mode selection is enabled for the switched-on Eco Smart Heater only.

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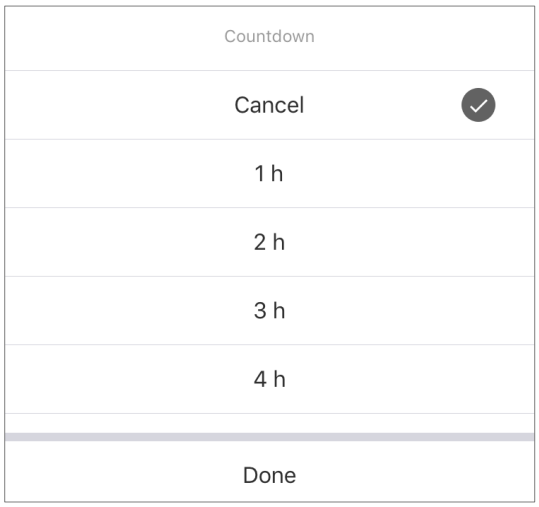
2.6.6 Setting the Countdown Timer

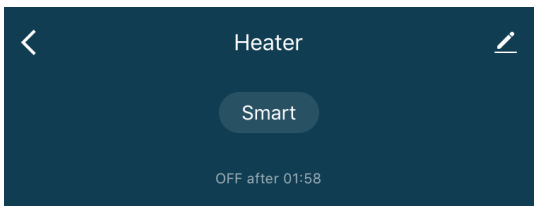
The countdown timer allows the device to be switched off automatically after a specified interval of twenty-four (24) hours. The time step is 1 hour.

To set the countdown timer, you should go to the "Countdown timer" tab by clicking on the corresponding button at the bottom of the Eco Smart Heater control panel.

The selected timer is considered activated when ticked in the pop-up window. Click on "Done" to save the settings.



The selected switch-off time will be displayed in the Eco Smart Heater control panel.



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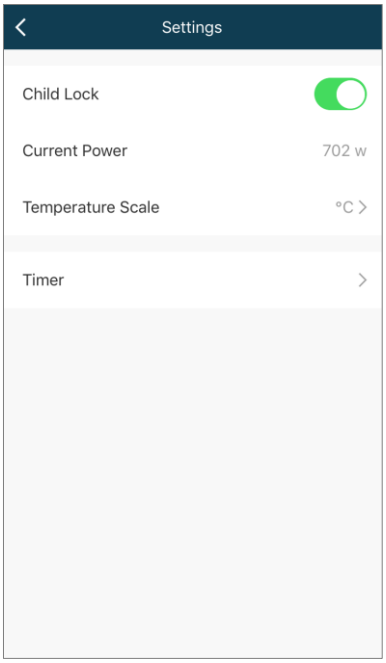
2.6.7 Changing Settings



In the "Settings" tab of the Joule Eco Smart Heater control panel, the User may perform the following actions:

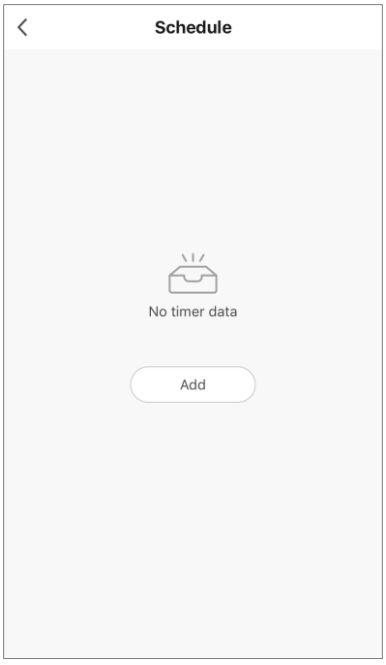
- Enable the Child Lock Mode by moving the slider to the right or to the left. When the Child Lock Mode is activated, the Eco Smart Heater will not respond to pressing the power button on its control unit, as all actions will be performed via the mobile app only;
- View the current power data;
- Select the temperature scale (°C or °F);
- Set the timer.

NOTE. If the Eco Smart Heater is switched off, the only available settings will be the timer setting.

Timer setting

The timer is used to automatically turn on and/or off the Eco Smart Heater at a specified time on specified days of the week.

By default, no timers are available as presets for the device.



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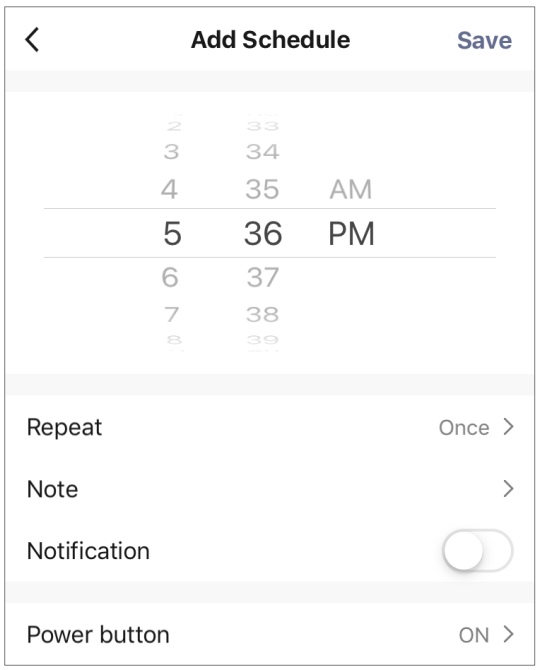
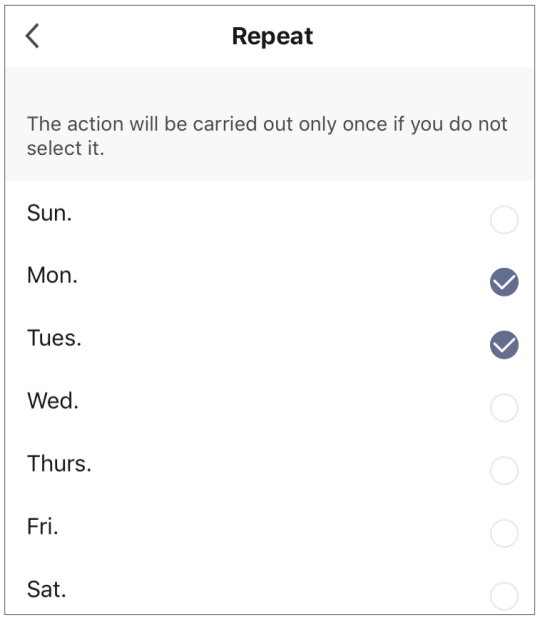
To create a new timer, please follow the below steps:

1. Press the "Add" button in the "Timer" tab screen. The setting window will be displayed.



2. Select the time to switch the device on or off.
3. Press the "Repeat" button to select days of the week when the Eco Smart Heater shall operate on a timer.



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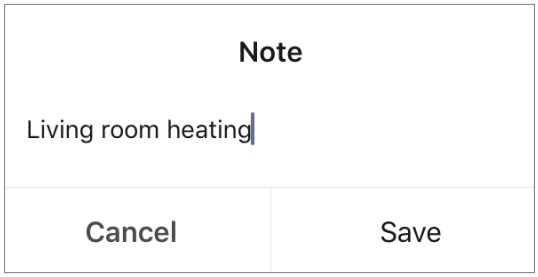
4. Enter any necessary information in as a note (e.g. the timer name), if required.

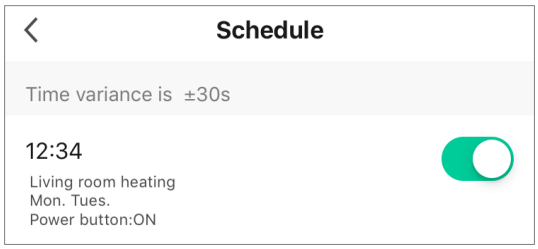


5. Activate push-notifications for the timer, if necessary.

NOTE. Notes and push-notification are optional.

6. Select the action to be performed by timer (i.e. switching the Eco Smart Heater on or off).

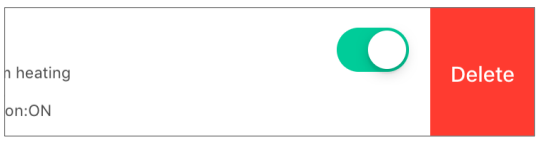
7. Press the "Save" button.
8. Activate the timer in the list.



9. You can make changes to the created timer by clicking on it in the list of timers.

How to delete the timer

Swipe from right to left on the desired timer in the "Timer" tab, and press "Delete".



NOTE. An activated timer can also be deleted.

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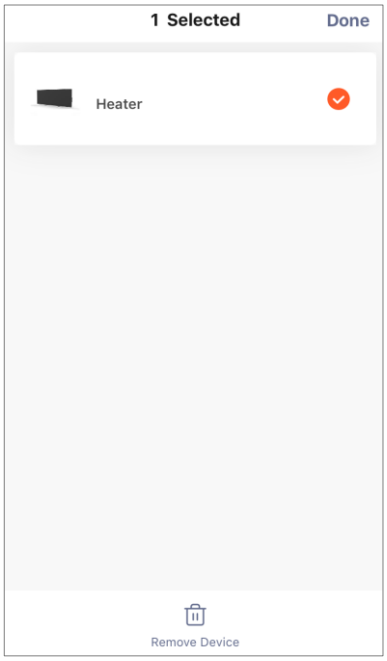
2.6.8 Removing the Device from the Account

To remove the Eco Smart Heater from the User account, press and hold your finger on the name of the Eco Smart Heater in the "Home" tab for a few seconds.

A new window will be displayed with an option to delete the device.

Press the "Delete device" button to delete all device data from your account.



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3 Maintenance and Repair

The **Perenio® Joule** Eco Smart Heater does not require special maintenance in the normal course of operation. However, in order to maintain the proper state and stable operation of the device it is recommended to perform the following actions from time to time:

- Follow rules of safe operation of the device;
- Clean the device casing from dirt and dust from time to time;
- Check for updates of the mobile app (If auto update is not enabled);
- Repair mechanical damages to devices (in Service Centers).

The **Perenio® Joule** Eco Smart Heater repairs shall be carried out in Service Centers.

In the case of warranty repairs or replacement, the User shall provide the Seller with the sales receipt and the purchased device.

For details on the replacement and repairs of the **Perenio® Joule** Eco Smart Heater, please contact your local Company representative or the Tech Support Department at **perenio.com.**

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4 Warranty Obligations

The warranty period for the **Perenio® Joule** Eco Smart Heater shall be **one (1) year** from the date of sale to the End User, while the service life shall be two (2) years.

The Warranty Card shall be deemed valid provided that it is correctly and completely filled in by the Seller. Upon the purchase, the Customer shall check that both the Serial Number and the Model name of the device correspond to those indicated in the Warranty Card.

Incomplete or illegible Warranty Card shall be deemed not valid. In this case, it is recommended to contact the Seller and ask for a duly filled in Warranty Card. It shall be also allowed to provide the original of the sales/cashier's receipt or such other documentary evidence of the fact and the date of sale of the device. The date of sale shall be the date indicated on the sales/cashier's receipt or other relevant document. If the date of sale is not possible to be determined, the start of the warranty period shall be the date of manufacture of the device.

The Manufacturer shall guarantee that all materials, components and assemblies of **Perenio®** devices are free from defects under normal operation within the warranty period. The limited warranty shall be applied to the first End Customer of **Perenio®** devices only and cannot be transferred to a subsequent customer.

For warranty replacement, the device must be returned to the Seller along with its receipt. Warranty obligations for **Perenio®** devices shall be provided in the country of their purchase only.

WARRANTY SERVICE PROCEDURE

In the case of any alleged defect or deficiency of the device detected, the Customer shall contact the Authorized Service Center before the warranty period expiration and provide the following:

1. The device with an alleged defect or deficiency.
2. The Warranty Card filled out in accordance with the applicable legal requirements, or the original of the document confirming the purchase of the device, including clear indication of the name and the address of the Seller, as well as the date when this device was sold.

LIMITATION OF LIABILITY

Perenio® devices SHALL NOT BE SUBJECT TO a free warranty service in the case of identification of at least one of the following damages or defects:

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- Any damage caused by force majeure, accidents, and willful or careless acts (omissions) of the Customer or third parties;
- Any damage caused by the impact of other objects including but not limited to exposure to moisture, dampness, extreme temperatures or environmental conditions (or jumps in such conditions), corrosion and oxidation, as well as penetration of food or liquid, and the effects of chemicals, animals, insects and byproducts thereof;
- In the event when the device (accessories and/or components) was unsealed (the seal integrity was violated), modified or repaired by any party other than the Authorized Service Center, including repair works using unauthorized spare parts;
- Any defects or damage caused by improper or unintended use of the device, including operation contrary to available manuals;
- Any defects caused by attempts to connect to incompatible software;
- Any defects caused by natural wear and tear of Products, including bags, casings, batteries or Installation and Operation Manuals;
- In the event when the Serial Number (Name Plates), the date of manufacture or the Model name on the device casing was in any way removed, erased, affected, altered or made illegible;
- In the case of violation of operating procedures and conditions, as well as the device installation instructions described in relevant Manuals;
- Cracks, scratches and other defects caused as a result of transportation and/or operation of the device by the Customer or acts of negligence on their part;
- Mechanical damages that occurred after transferal of the device to the Customer including damage caused by sharp objects, bending, squeezing, falling, etc.;
- Any damage caused by non-conformity with the standards of power supply, telecommunication and cable networks or similar external factors.

THE PRESENT LIMITED WARRANTY IS AN EXCLUSIVE AND THE ONLY PROVIDED GUARANTEE THAT SHALL REPLACE ANY OTHER EXPRESS AND IMPLIED GUARANTEES. THE MANUFACTURER SHALL PROVIDE NO GUARANTEES, WHETHER EXPRESS OR IMPLIED, BEYOND THE DESCRIPTION CONTAINED IN THE PRESENT DOCUMENT, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE CUSTOMER MAY USE DEFECTIVE OR INAPPLICABLE DEVICE AT HIS/HER OWN DISCRETION. THE MANUFACTURER SHALL NOT BE RESPONSIBLE FOR DAMAGE TO OTHER PROPERTY CAUSED BY DEVICE DEFECTS, THE LOSS OF USABILITY OR TIME OR FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGE OR LOSS INCLUDING BUT NOT LIMITED TO COMMERCIAL LOSS, LOSS OF PROFITS, LOSS OF CONFIDENTIAL OR OTHER INFORMATION, AS WELL AS DAMAGES CAUSED BY BREAKS IN COMMERCIAL OR PRODUCTION ACTIVITIES DUE

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TO THE FACT THAT THE DEVICE WAS RECOGNIZED AS FAULTY, DEFECTIVE OR NOT ALLOWED FOR USAGE.

The present limited warranty shall provide the Customer with certain legal rights. The Customer may also have other rights in accordance with the local consumer protection laws that vary from country to country and may not coincide with this limited warranty. For full understanding of the Customer's rights, you shall read local acts.

NOTE. The Manufacturer does not produce equipment for *Vital Tasks*. Vital Task Products shall include life support systems, medical equipment, implantation-related medical devices, commercial transportation, nuclear equipment or systems, and any other fields of application where equipment failures may do harm to a humans' health or cause their deaths, as well as result in a property damage.

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5 Storage, Transportation and Disposal of Devices

The device is not intended for use in areas exposed to hazardous and harmful factors.

Long-term storage is only permitted in the original packaging in dark, dry, clean, and well-ventilated enclosed areas. To prevent damage to the glass heating element, it is recommended to store the device in one layer, either vertically or horizontally.

In accordance with the Waste Electrical and Electronic Equipment (WEEE)* regulations, all electrical and electronic products must be collected separately at the end of their service life, and cannot be disposed of together with unsorted household waste.

Parts of worn out devices must be separated and sorted by the material type. In this way, every user can contribute to reuse, recycling and other forms of recovery of waste electrical and electronic equipment. Proper collection, recycling, and disposal of such devices will help avoid potential environmental and health impacts from the harmful substances they contain.

To dispose of the device, it must be returned to the point of sale, or to a local waste collection and recycling company recommended by the state or local authorities. Disposal is carried out in accordance with the applicable laws and regulations of the respective country.

For more details on how to properly dispose of your used device, please contact your device supplier, your waste disposal service or the local authorities responsible for waste disposal.

NOTE. The User must comply with the temperature and humidity conditions of storage and transportation specified in the Table of technical specifications of the present Installation and Operation Manual.

* Waste Electrical and Electronic Equipment, or WEEE, means used electrical or electronic equipment, including all components, assemblies, consumables that are part of the equipment at the time it is taken out of service (including supplied batteries (if any), components containing mercury, etc.).

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The device may be shipped by any kind of covered vehicles (by rail, or road or in sealed heated airplane compartments, etc.) in accordance with the requirements of current regulatory documents applicable to fragile goods sensitive to moisture.

The device and its accessories shall be kept in original packaging during transportation.

Similar conditions shall apply to the device storage at the Seller's warehouse.

If you need to move the assembled device, you should hold it by legs for floor installation.

Do not dispose of the device together with unsorted municipal waste as this would be harmful to the environment.

For the device disposal purposes, it shall be returned to the point of sale or to the local processing center.

For detailed information on recycling of the present device, please contact your waste management company.

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6 Other Information

Manufacturer

Name	*Perenio IoT spol s r.o.*
Address	Na Dlouhem 79, Ricany – Jazlovice 251 01, Czech Republic
Contact Info	perenio.com, info@perenio.com

Importing Company

Name	*ASBISc Enterprises PLC*
Address	43 Kolonakiou Street, Diamond Court, Ayios Athanasios, 4103 Limassol, Cyprus

Quality Claims Acceptance and Warranty Service Company

Name	*ASBISc Enterprises PLC*
Address	43 Kolonakiou Street, Diamond Court, Ayios Athanasios, 4103 Limassol, Cyprus
Czech Republic	
Name	*ASBIS CZ, s.r.o.*
Address	Obchodní 103, Čestlice, 25101

Info on Certificates and Declarations

Certificates	CE certificate of conformity 2008604723E/E20/48071 as of 22.10.2020 CE certificate of conformity 2008604723E/L20/48072 as of 22.10.2020 Certificate of conformity EEA RU No. 0267324 as of 24.09.2020
Declarations	RoHS Declaration of Conformity as of 24.12.2020 CE Declaration of Conformity as of 24.12.2020 EEA declaration of conformity as of 22.09.2020 Declaration of Conformity STB as of d 03.11.2020

Addresses of Service Centers are available at **perenio.com** in the 'Support' Section.

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7 Troubleshooting

Table below shows typical errors and problems that may occur in the process of connection and configuration of the Eco Smart Heater.

Table 5 - Typical Errors and Troubleshooting Methods

Item No	Problem	Possible Reasons	Solution
1	The Eco Smart Heater does not turn on	Power failure in the connected mains socket, or it is defective; damage of the power cable or plug	Check the mains voltage, or make sure the socket is in good operating condition; inspect the power cable or plug for continuity
2	The Eco Smart Heater does not generate heat when turned on	The desired temperature is set incorrectly	Change the desired temperature above the current value
3	The Eco Smart Heater does not respond to commands from the app	Network connection failure	Reconnect the device and restore the Wi-Fi connection
4	During operation, the Eco Smart Heater beeps and the LED flashes red	The Eco Smart Heater is tilted dangerously	Change orientation of the Eco Smart Heater to an upright position

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8 Glossary

Amazon Alexa	A virtual assistant that supports voice communication and control of smart home devices.
IoT	The Internet of Things is a system of Internet-connected devices able to collect and exchange data coming from built-in services
IP44	The degree of protection, which indicates that the device is only protected against occasional splashes (Small amounts of moisture). It allows the devices to be used primarily in rooms with a high level of humidity. The device with IP44 is not intended for outdoor use, as it is not protected against rain, snow or large amounts of dust
Perenio Lite	Simplified software developed by *Perenio IoT* for remote device management
Perenio Smart	Software developed by *Perenio IoT* for remote control of wireless Cameras from smartphones
Yandex Smart Home	An application that allows to control smart devices through the Alice voice assistant
Location	General term which means a building or a structure in which **Perenio®** devices are installed

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