Perenio Smart: Building Management System Mobile App Manual

(For smartphones based on iOS 12.1 and higher)

August, 2021

Introduction

Perenio Smart Building Management System (hereinafter referred to as the Perenio Smart) is a mobile application for smartphones based on Android and iOS operating systems that is specifically designed for remote control of **Perenio®** Devices.

The mobile application is free and available for download on Google Play and App Store.

The present Manual contains a detailed description of the User interface, as well as steps for installation and configuration of the same.

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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of the User, and shall not be responsible for any potential negative consequences which may arise from the use of an outdated version of the document, as well as for any possible technical and/or typographical errors, either omitted or accidental, or any related damage that may result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 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 3 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.
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perenio.com

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Figures, Tables and the Mobile App Guides

1 General Description of the Perenio Smart App

1.1 Description and Intended Use

The **Perenio Smart Building Management System** mobile application allows Users to remotely control and manage all connected devices from a single or several User Accounts, as well as optimize their operation based on requirements for a particular room/building.

A simple and intuitive interface makes it possible to combine a large number of surveillance cameras, sensors and other security devices into a single harmonized system, while notifications of various severity, as well as distribution of devices by Locations simplify identification of incoming alarms.

The **Perenio Smart** mobile app interface consists of the following five tabs and a side menu:

1. Devices.
2. Scenarios.
3. Rooms.
4. Statistics.
5. History.
6. Left Side Menu.

Each tab contains general and special icons and buttons of specific functionality.

For a detailed description of each tab, see Section 2 of the present document.

> **ATTENTION!** All Products and the Mobile Application of the Company (including any future software and hardware whether in-house or third-party developed) are not intended for emergency responses and cannot be used as fire-extinguishing equipment and/or for emergency intervention, including but not limited to fires, flooding, gas leaks or explosions, burglary and theft, as well as natural disasters and other force majeure circumstances leading to damage and/or losses incurred by the Client or caused to their estates, personal property and/or other products, devices, personal data and privacy.

1.2 Hardware and Software Requirements

For installation and stable operation of the **Perenio Smart** Mobile App, the User will need a smartphone based on the iOS 12.1 operating system and higher with the Internet access allowed.

1.3 Installation of the Mobile Application

Perenio® devices are managed through a free mobile application available for downloading from the App Store (iOS). To install the application on a mobile device, follow the steps below:

- Connect your smartphone to Wi-Fi Network;
- Switch to App Store and enter the mobile app name (**Perenio Smart**) in the search bar;
- Download the **Perenio Smart Building Management System** App.

1.4 Safe Operation Rules

To improve safety when using the **Perenio Smart** app, it is recommended that you observe the following rules:

- Use only the official Perenio IoT apps available on the App Store for downloading;
- Install antivirus software on your smartphone and update it on time;
- Do not leave your smartphone unattended to prevent third parties from using the app;
- not to disclose your account username and password to unauthorized persons;
- Do not give access to **Perenio®** devices to persons who might use them for purposes other than their intended use.

NOTE. To log in to the **Perenio Smart** app, only the email address and password you provided during registration are used. If an application starts requesting permissions that are suspicious or clearly inconsistent with its functionality, it is better to refuse to issue them.

2 Perenio Smart App Operation
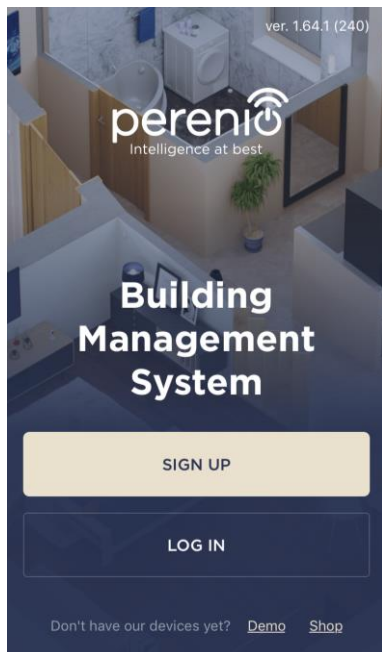
The remote control of purchased **Perenio®** devices shall be performed from the **Perenio Smart** User Account. To get started with the mobile application, the following steps shall be performed:

- Login in to your User Account;
- Activate Wi-Fi Devices (IoT Router, Control Gateway, Cameras, Power Link Wi-Fi, Eco Smart Heater, and/or IR Remote Control);
- Connect sensors, Power Link (Zigbee) and/or other ZigBee devices to the Control Gateway or the IoT Router.

For further settings, creation of custom scenarios and more, see par. 2.6 below.

2.1 Logging in to the User Account

A. NEW USER ACCOUNT REGISTRATION

a. Start the Perenio Smart App and click on the "**SIGN UP**" Button;
b. Fill in your e-mail address, user name and password (8 or more symbols including at least one uppercase letter, one lowercase letter, and one number), then select the country of residence;
c. Agree to General Terms and Conditions, Privacy Policy and provisions for personal data protection (accessible by the link);
d. Click on the "**SIGN UP**" button. The User will receive an email to verify the User Account (Follow the link);
e. Login in to the User Account.

B. LOGGING IN TO THE EXISTING USER ACCOUNT
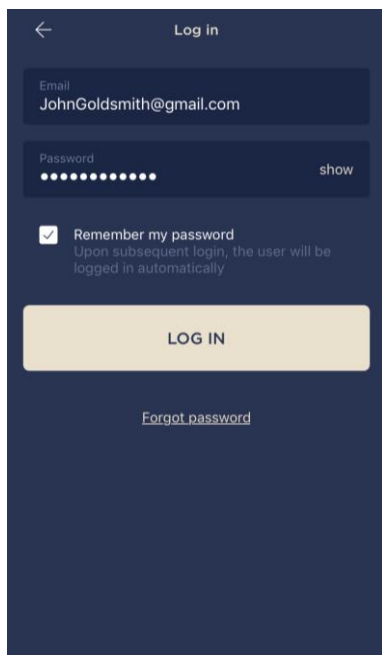
a. Start the Perenio Smart App and click on "**LOG IN**" button;

b. Enter your e-mail address and password in the login screen.

c. Click on the "**LOG IN**" button.

NOTE. If the password was 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, to which instructions on changing the password will be sent.

2.2 Types of Perenio® Devices

Click on the "+" icon in the right upper corner of the "Devices" tab to open the list of **Perenio®** devices. In the mobile app, all devices are grouped by categories. Each category has its own color indication, namely:

- **Control** (Purple): Control Gateway, IoT Router, Power Plug (Power Link Wi-Fi and Power Link Zigbee), IR Remote Control and Eco Smart Heater;
- **Video surveillance** (Green): Cameras;
- **Security** (Orange): Sensors (Motion Sensor, Smoke Sensor, Door & Window Sensor, Leak Sensor);
- **Energy saving** (Blue): Temperature & Humidity Sensor.

Color indication may help you to quickly and clearly identify the devices in the application (See par. 2.6.3 and par. 2.6.5 below).
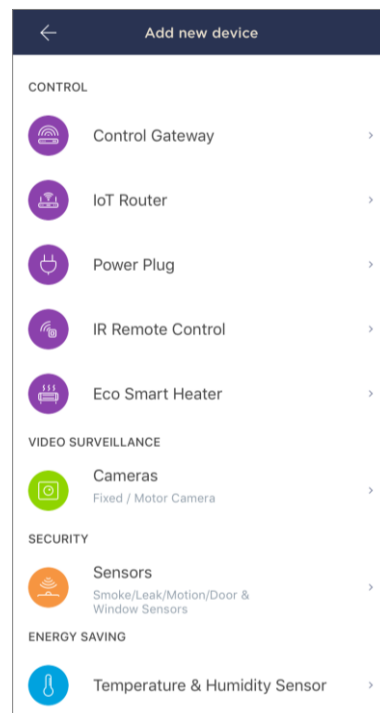
Depending on the connection method, all devices are divided into two groups:

- **Wi-Fi devices:**

  o With the QR code (**Perenio®** IoT Router, Control Gateway, Cameras);
  o Without the QR code (Power Link Wi-Fi, IR Remote Control, Eco Smart Heater).

- **Zigbee devices:**

  o Sensors, Power Link (Zigbee).

2.3 Wi-Fi Device Activation in the Mobile App

2.3.1 How to Connect a Wi-Fi Device with the QR Code

The activation process for Wi-Fi devices is almost the same, so the process of connecting a Control Gateway is described below as an example.

To activate the Control Gateway in the **Perenio Smart** app, the User shall perform the following steps:

1. Unpack the Control Gateway and connect it to the power source.
2. In the side menu of the mobile application, select the desired Location to activate the device in.
3. Activate the device in the mobile app using QR Code (See par. **C** below).
4. Enter the Wi-Fi network credentials (See par. **D** below). Please refer to par. 2.5 for the Wi-Fi network frequency selection.
5. Enter the desired device name and Room (See par. **E** below).

IMPORTANT! The Control Gateway firmware update process may be started upon its initial activation in the mobile application. **It is not allowed to power off the device after the firmware update process is started!**

The Device must not be switched off or disconnected from the mains for at least **5 minutes** after the RESET Button is pressed.

C. DEVICE ACTIVATION BY QR CODE SCANNING

a. Switch to the QR Scan screen as follows:
- **For new Users:** The QR Scan screen will be displayed immediately after the first login to the Perenio Smart App User Account;
- **For existing Users:** After login to the Perenio Smart App User Account, click on the "+" icon in the upper right corner of the Devices tab and then the device in the list.

b. Click on the "**SCAN QR CODE**" button;

c. Confirm the permission to access your device in the pop-up window (It may not be available for certain smartphone models);
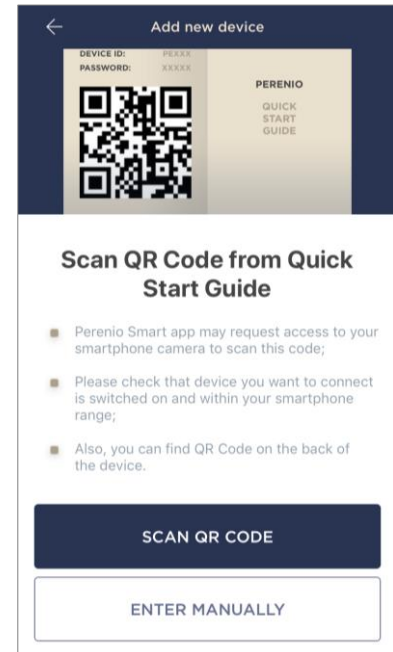
**d.** Find the QR Code sticker on the back of the Quick Start Guide supplied with the Control Gateway or on the bottom of the Control Gateway and place your smartphone 15-20 cm away from it, so that the QR Code is completely visible on the smartphone screen (See the picture on the left).

NOTE. In the event that the QR Code can't be scanned, you may activate the device manually (see par. **C.1.** below).

C.1. MANUAL ACTIVATION OF THE DEVICE

If the QR Code was damaged or lost, you can enter the device data manually as follows:

a. Click on the "**ENTER MANUALLY**" button at the bottom of the QR Code scan screen (See the figure in par. **C**);
b. Enter the Device ID and the Password specified in the Quick Start Guide or on the bottom of the device (ID and Password lines next to the QR Code);
c. Click on the "**CONNECT**" button.
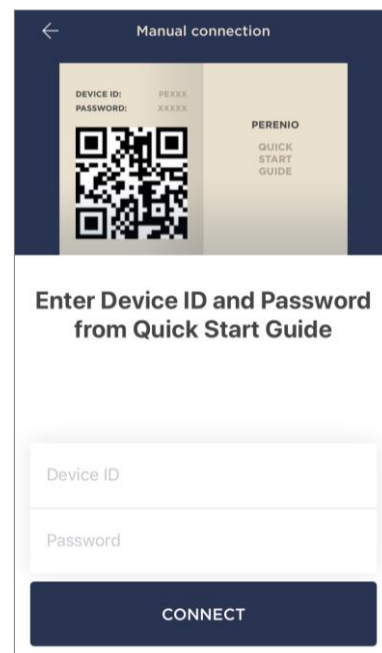
D. SENDING WI-FI NETWORK DATA TO THE DEVICE
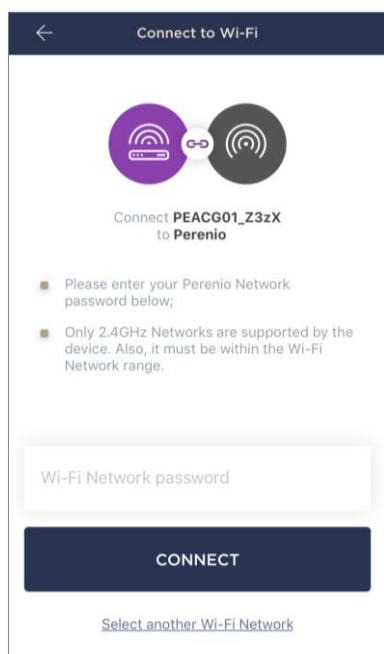
Do as follows after the screen to connect the device to the Wi-Fi Network will be displayed:

a. 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 (See par. 2.5 below).

b. Click on the "**CONNECT**" button.

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

D.1. CONNECTION ERRORS

The connection failure of the device may occur due to one of the following reasons:

a. The device is switched off or at a too long distance from the smartphone;
b. The device was already activated in the current or some other User Account;
c. The device ID and/or password or Wi-Fi Network data was entered incorrectly;
d. Internet Provider failures.

NOTE. To eliminate connection failures, follow instructions specified on corresponding screens of the smartphone.
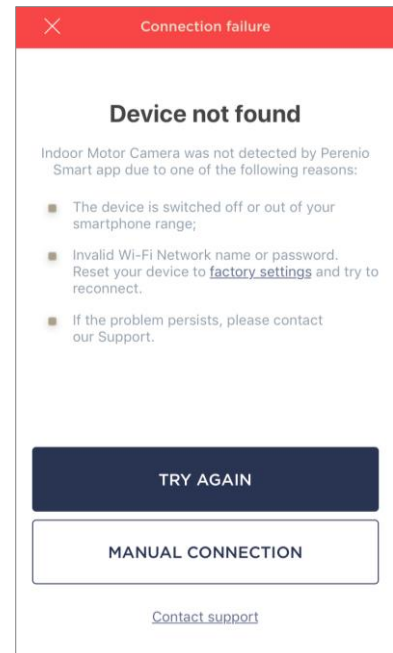
E. DEVICE SETTINGS
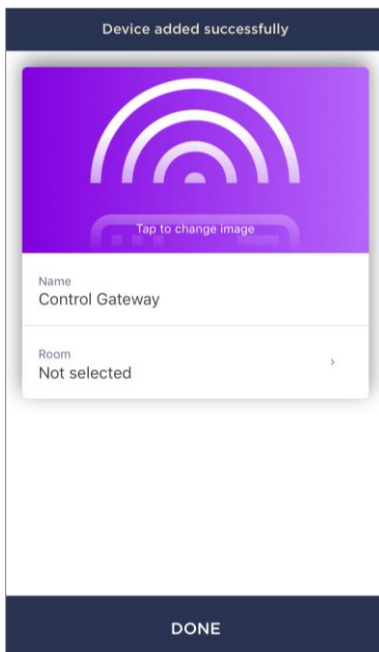
After successful connection of the device, the User may specify the following:

a. Device name;
b. Room.

You can also select an image for the device by clicking on the "Tap to change image" link.

After completion, click on the "**DONE**" button.

The Control Gateway will be displayed in the "Devices" tab.

The entire process of the Control Gateway activation in the Mobile App is shown below.

Figure 1 – Control Gateway activation process

2.3.2 How to connect a Wi-Fi device without a QR code

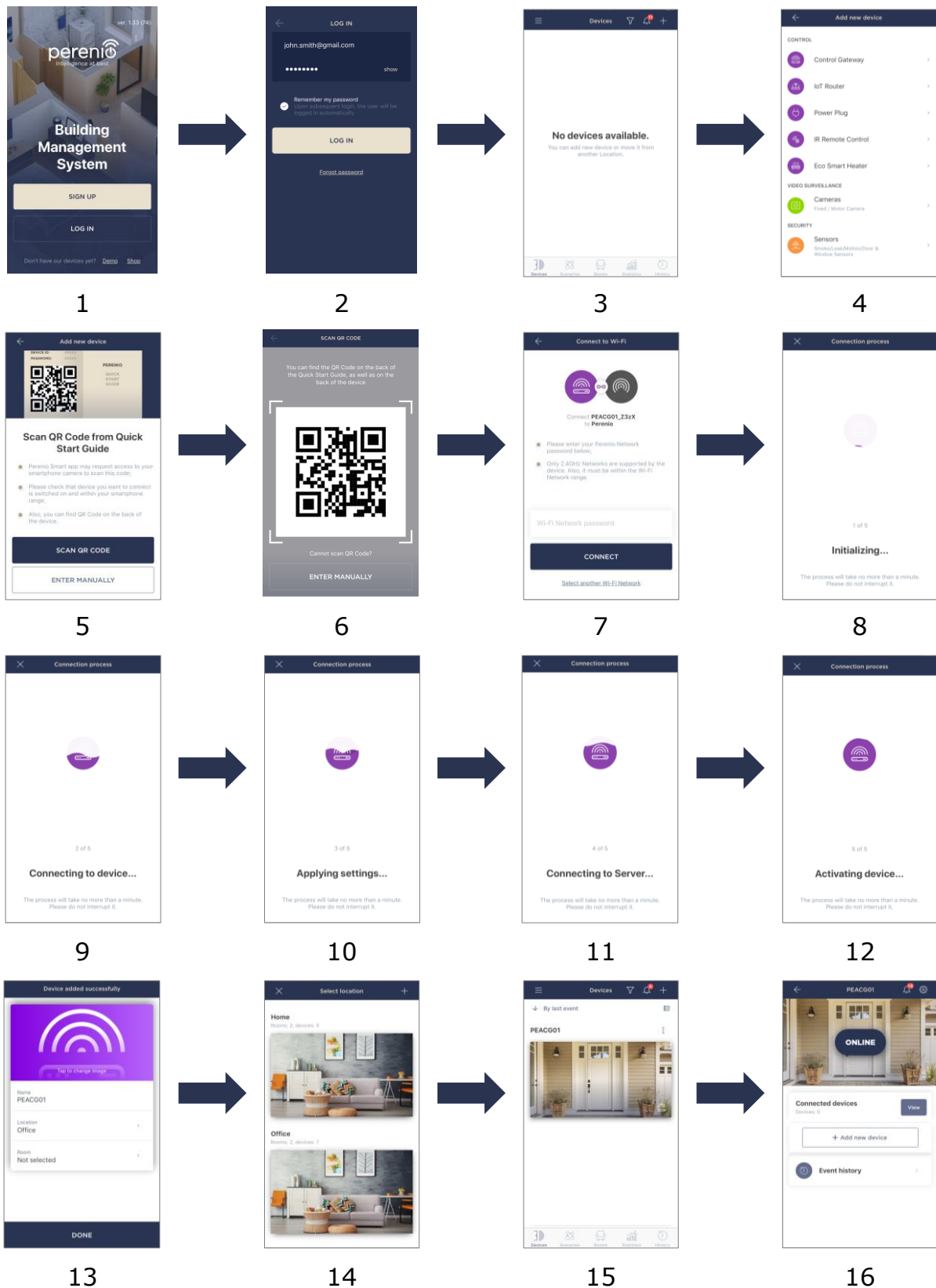The activation process for Wi-Fi devices without the QR Code is almost the same, so the process of connecting the Power Link Wi-Fi is described below as an example.

To activate the Power Link (Wi-Fi) in the **Perenio Smart** app, the User shall perform the following steps

1. Unpack the power plug and connect it to the 220V power source.
2. In the side menu of the mobile application, select the desired Location to activate the device in.
3. Select the device type (See par. **F** below).
4. Enter the Wi-Fi network credentials (See par. **G** below). Please refer to par. 2.5 for the Wi-Fi network frequency selection.
5. Enter the desired device name and Room (See par. **H** below).

F. SELECTION OF THE DEVICE TYPE

e. After login to the Perenio Smart App User Account, click on the "+" icon in the upper right corner of the "Devices" tab and select the Power Plug in the list (See Figure on the right);

f. Select the device type (Power Link (Wi-Fi));

g. Confirm the permission to access your device in the pop-up window (It may not be available for certain smartphone models);
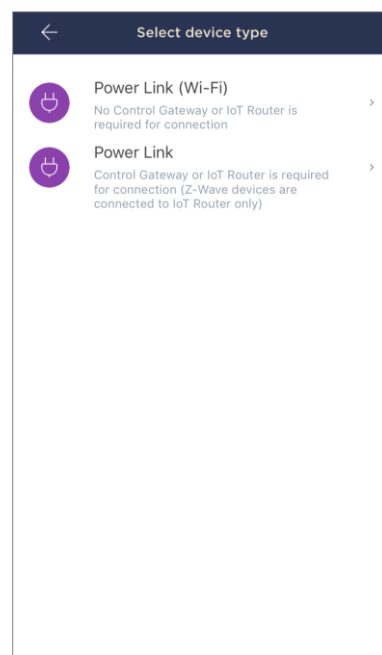
G. SENDING WI-FI NETWORK DATA TO THE DEVICE
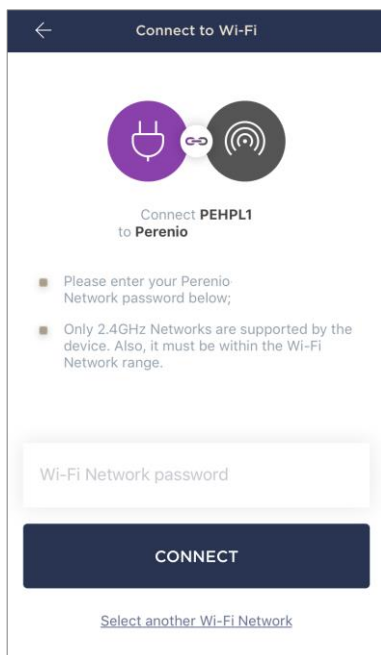
Do as follows after the screen to connect the device to the Wi-Fi Network will be displayed:

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 (See par. 2.5 below).

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

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

c. Press and hold the power button until the LED indicator starts blinking;
d. Clink on "**START SEARCHING**" button;
e. Wait for the connection process to be completed.
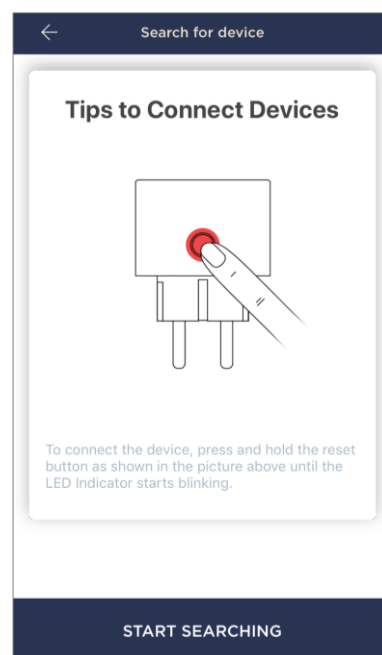
G.1. CONNECTION ERRORS
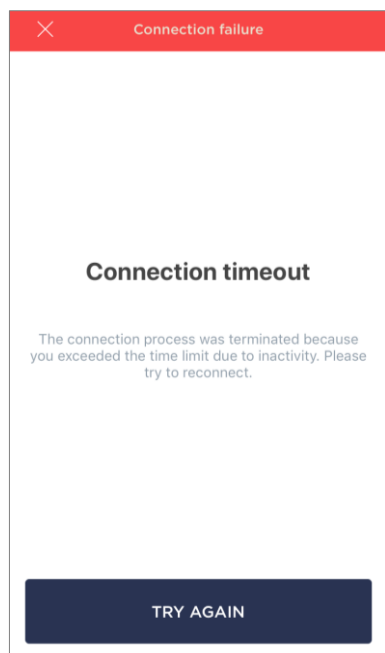
The connection failure of the device may occur due to one of the following reasons:

a. The device is switched off or at a too long distance from the smartphone;
b. The device was already activated in the current or some other User Account;
c. The device ID and/or password or Wi-Fi Network data was entered incorrectly;
d. Internet Provider failures.

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

H. LOCATION AND ROOM SETTING

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

a. Image;
**b.** Device name;
c. Room;
d. If necessary, enable warning messages for power plug which is to be used to automate operation of some dangerous device (UV lamp, ozone generator).

After completion, click on the "**DONE**" button.

NOTE that all the above data may be entered or edited on a later basis in the device control panel.
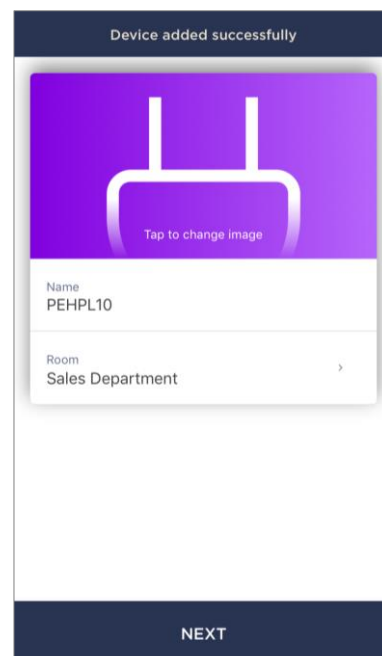
The entire process of the Power Link Wi-Fi connection in the Mobile App is shown below.
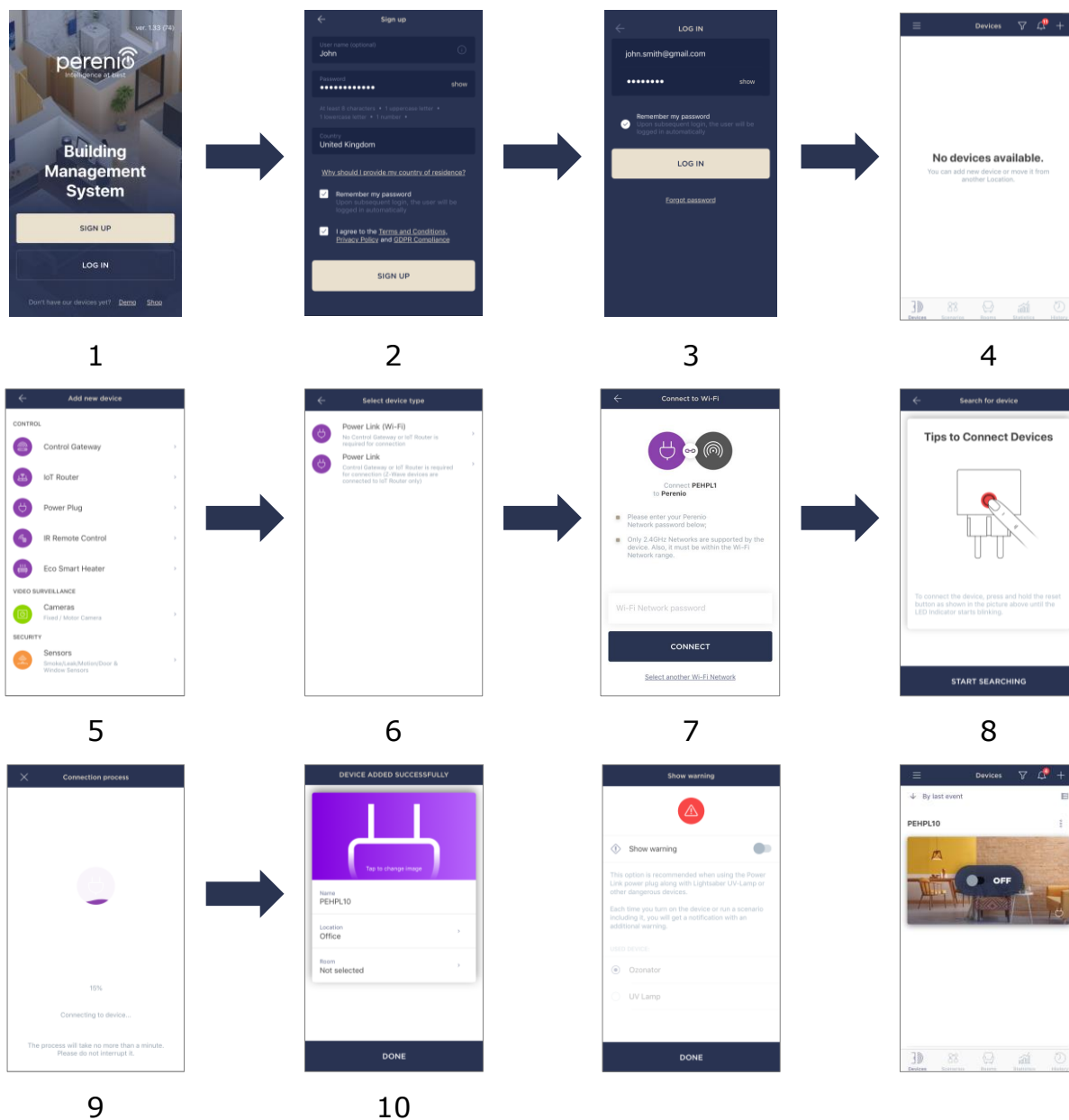
Figure 2 – Power Link Wi-Fi activation process

2.4 Activation of Zigbee Device in the Mobile App

Currently, **Perenio®** Zigbee devices (sensors and Power Link (Zigbee)) are only activated in the mobile app via a pre-activated IoT Router or Control Gateway.

The activation process for the sensor is almost the same, so the process of connecting the Smoke Sensor is described below as an example.

In order to connect the sensor, it is necessary to perform the following steps:

1. Unpack the Sensor and power it on.
2. Connect the Smoke Sensor to the Mobile App (See par. **I** below).
3. Enter the desired Sensor name and select the Room of installation.
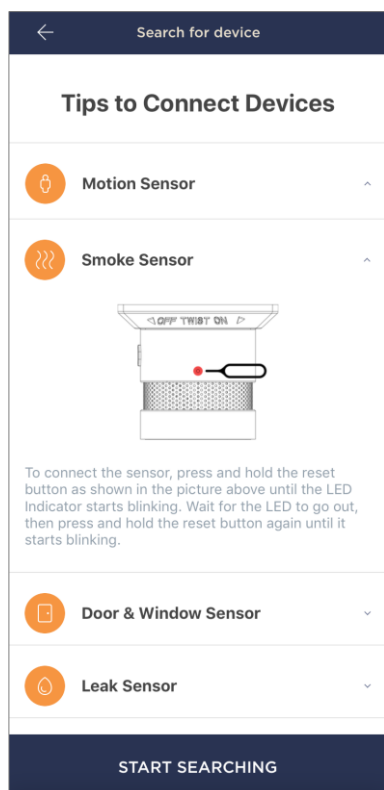4. Install the Sensor in the selected room.

I. CONNECTING SENSORS TO A WI-FI DEVICE

a. Click on the "+" icon in the upper right corner of the Devices tab and select the Sensor in the list;

b. Select the Control Gateway/IoT Router to which the Sensor shall be connected (This screen will be displayed, only if there are several Control Gateways/IoT Routers activated in the User Account).

NOTE. The Control Gateway/IoT Router must be connected to the mains and the Internet, as well as activated in the Perenio Smart App.

c. Start searching for Sensors;

d. If the LED flashes slowly after the first power on of the device, proceed to the **Step e**, otherwise press and hold the reset button as specified in the screen.

NOTE. Several sensors may be connected to the Control Gateway/IoT Router at once.

e. After successful connection, enter the Sensor's name and select the Room.

I.1. CONNECTION ERRORS

The connection failure of the device may occur due to one of the following reasons:

a. The device is switched off or at a too long distance from the Control Gateway/IoT Router (4.5 meters);

b. The Control Gateway/IoT Router is offline;

c. The LED Indicator was blinking fast before start of the sensor connection (You should remove the sensor battery and insert it back into the casing).

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

3-a	3-b	3-c	3-d
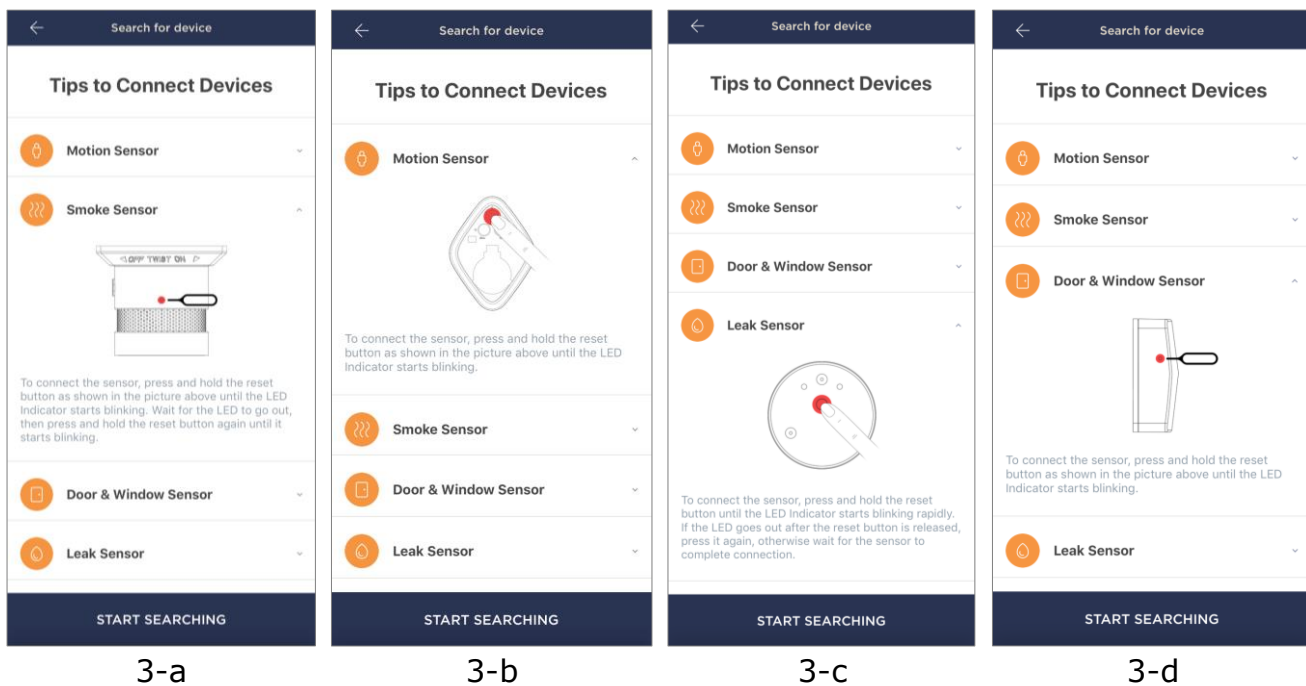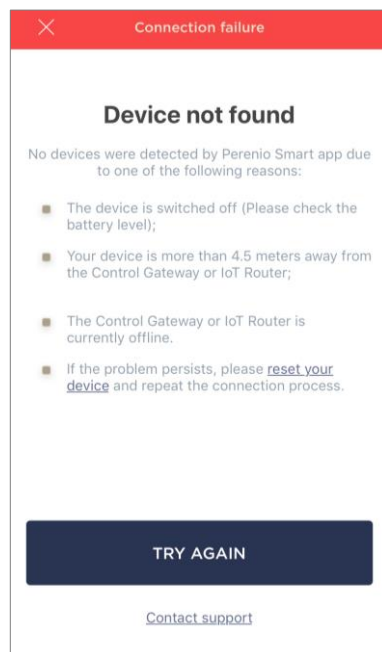
Figure 3 – Location of the reset buttons on the sensors

The entire process of the Sensor connection in the Mobile App is shown below.
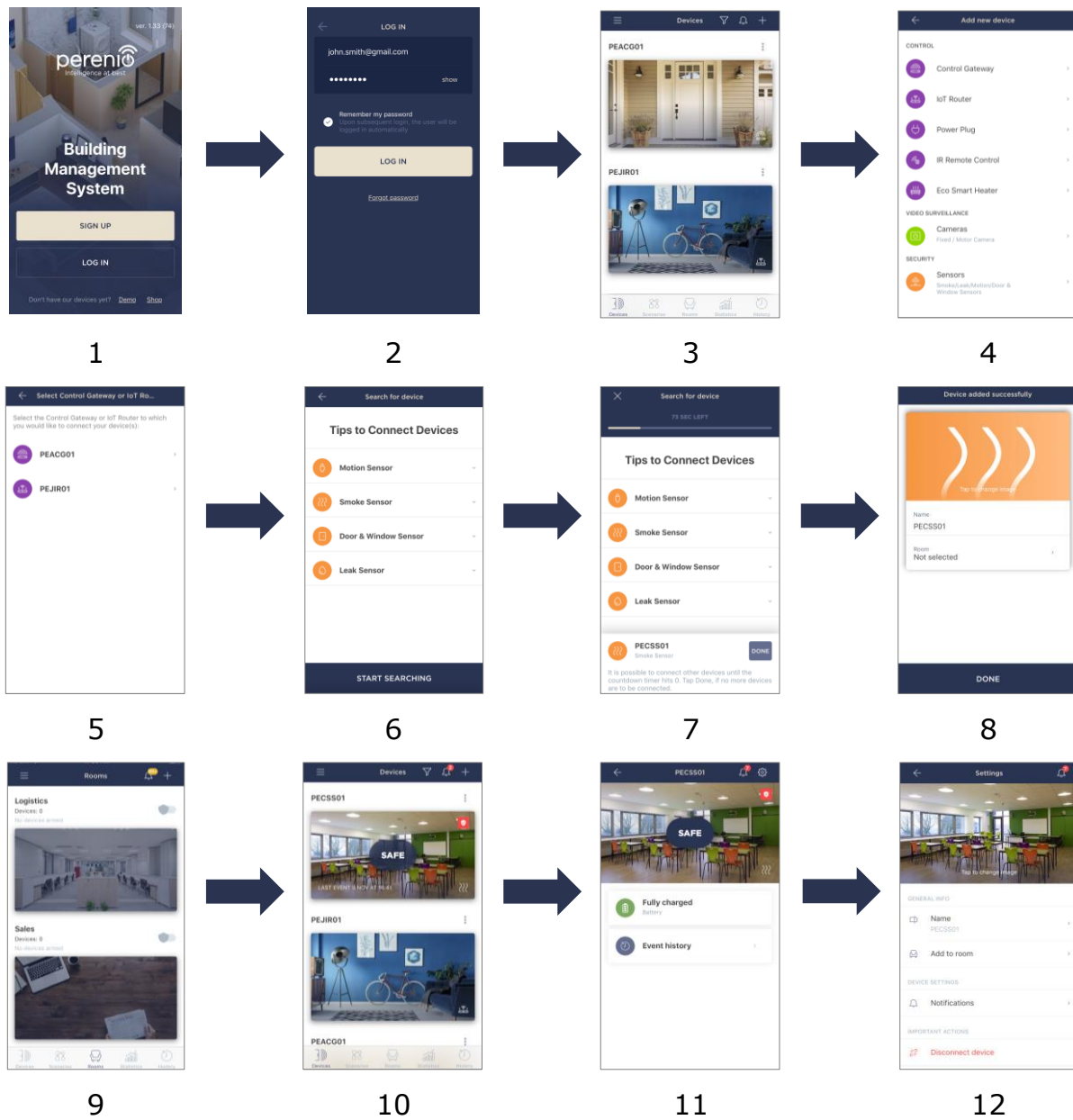
Figure 4 – The process of adding the Smoke Sensor

To connect the Power Link device, the User shall perform the following steps:

1. Unpack the device and plug it into the source of power.
2. Login in to the **Perenio Smart Building Management System** User Account (See par. **B** above).
3. Activate the device in the application (See par. **J** below).
4. Enter the desired power plug name and select the Room of installation.

J. POWER LINK (ZIGBEE) ACTIVATION
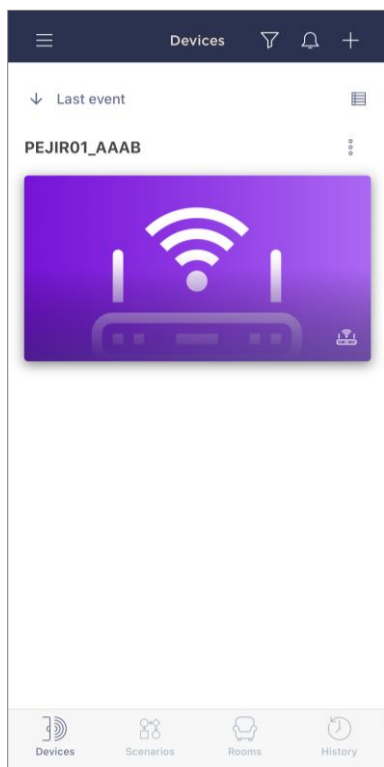
a. Make sure the Control Gateway/IoT Router is activated and "Online" in the mobile app;

b. Click on the "+" icon in the upper right corner of the Devices tab, select "Add new device" and then the Power Link device in the list;

c. Select the Control Gateway/IoT Router to which the power plug shall be connected (This screen will be displayed, only if there are several Control Gateways/IoT Routers activated in the User Account);

**NOTE.** The Control Gateway/IoT Router must be connected to the mains and the Internet, as well as activated in the **Perenio Smart** App.

d. Start searching for devices;

e. Press and hold the reset button until the LED Indicator starts blinking violet;

NOTE. Several smart plugs and other Zigbee devices may be connected to the Control Gateway/IoT Router at once.
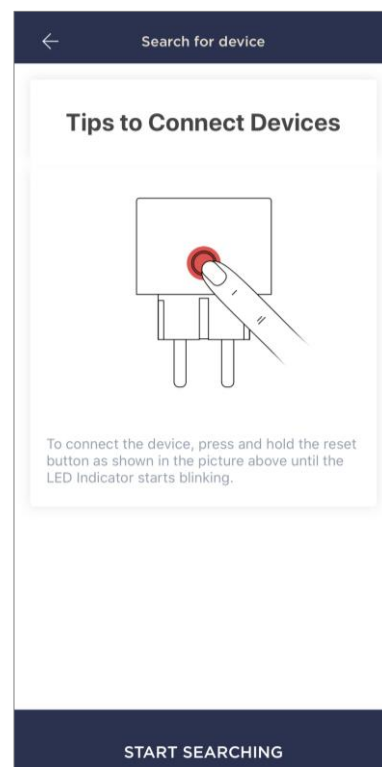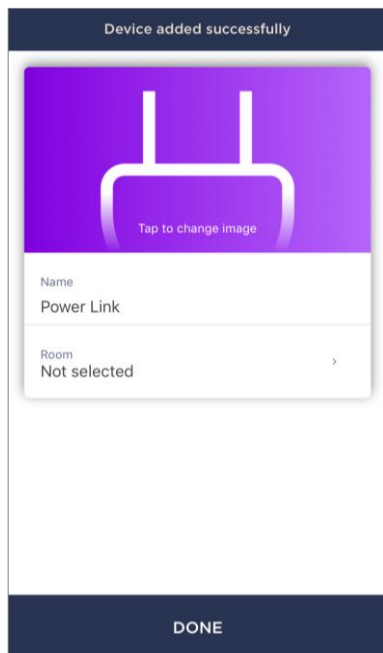
f. After the Power Link device being detected, click on **"DONE"**;

g. To complete the connection process, the following shall be entered:

- Device name;
- Room of installation;
- Image (optional).

NOTE. All the above data may be entered or edited later in Settings Section of the Power Link device.

J.1. CONNECTION ERRORS

The connection failure of the device may occur due to one of the following reasons:

a. The device is switched off or at a too long distance from the Control Gateway/IoT Router (4.5 meters);

b. The Control Gateway/IoT Router is offline;

c. The LED Indicator was blinking before start of the device connection.

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

The entire process of the Power Link connection in the Mobile App is shown below.
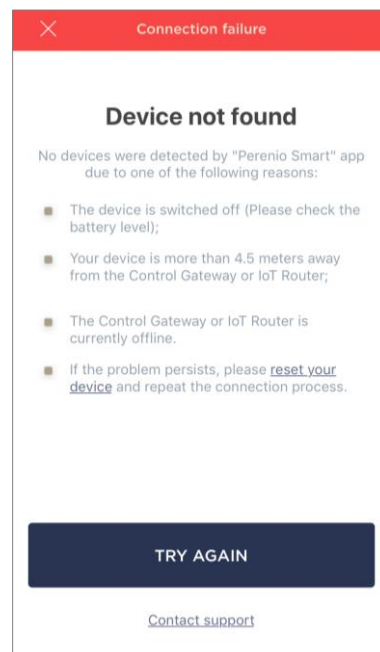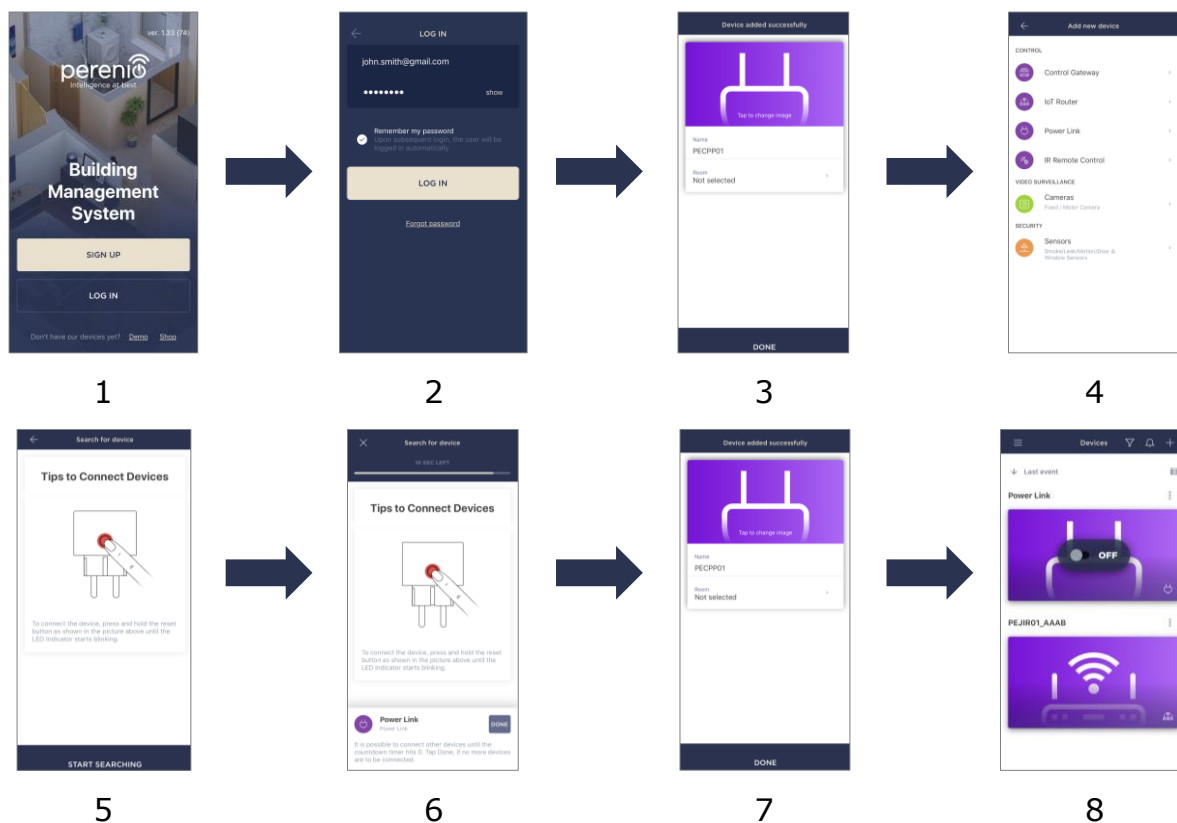
Figure 5 – Activation of Power Link (Zigbee)

> **NOTE.** To change the IoT Router/Control center without changing the room/location, you must disconnect the device from the IoT router/control center and then reactivate the device in the app.

2.5 Frequency selection on the Wi-Fi router

Most of **Perenio®** Wi-Fi Devices may be connected to the Wi-Fi Network of 2.4GHz only. Due to this fact, the User shall make sure that your Wi-Fi Router is set to the above frequency before proceeding to par. **D.** and **G. "SENDING WI-FI NETWORK DATA TO THE DEVICE"**.

Currently, Wi-Fi routers of most manufacturers support both frequencies, but in the case your local Wi-Fi is set to 5GHz only, it is necessary to add the access point of 2.4GHz as well.

2.6 Perenio Smart App User Interface

For easy navigation and use of the **Perenio Smart** application, several tabs and Left Side Menu are provided therein. See detailed description in sub-pars. 2.6.1 to 2.6.6 of the document.

2.6.1 Devices Tab
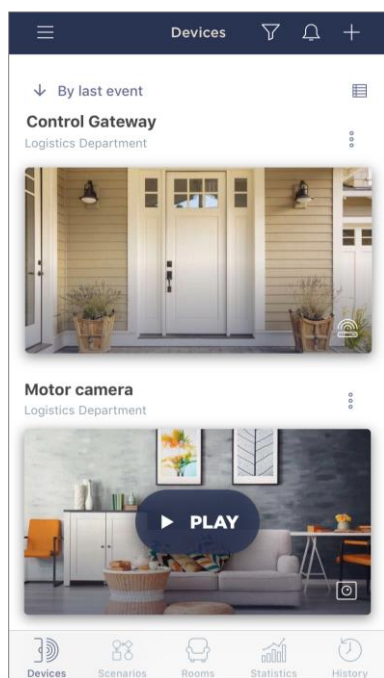
Information about all device located in the current Location is automatically displayed in the "Devices" tab after logging in to the User Account.

The tab functionality is as follows:

- Sort devices by name or by last event;
- Change the way to display devices (Full or compact view);
- View general information about devices within the Location (device name, date and time of the last event);
- View the status or actions of the connected devices in the Location (this field values depend on the device);
- Switch to the control panel of the device;
- Switch to the settings menu of the device;
- Filter devices (See par. 2.12);
- View system notifications and alarms;
- Add new devices;
- Switch to the side menu (See par. 2.6.6).

The Table below contains a detailed description of icons and buttons.

Table 1 – Buttons and icons of the "Device" tab

Icon	Description
☰	Switching to the Left Side Menu of the **Perenio Smart** app
▽	Option to search for and filter the list of displayed devices

Icon	Description
🔔	The list of unread messages and notifications
+	The icon to activate a new device in the Location
☷	The icon to select full or compact view
⋮	Switching to the settings window of the connected device

DEVICE CONTROL PANELS

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

DEVICE CONTROL PANEL (CAMERA)

The following tabs are available in the control panel:

- **Control**: Management of the device;
- **Presets**: Predefined position of the camera rotary head;
- **Records**: The list of video records taken from the Camera.
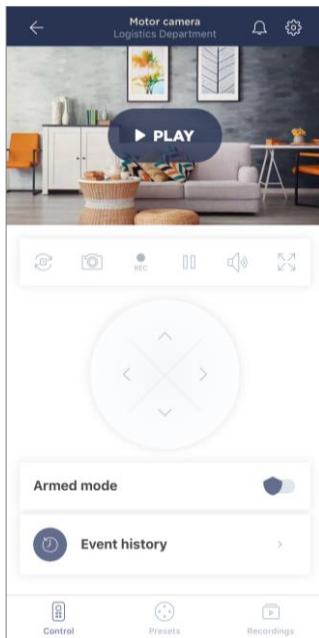
| 6-a – Control | 6-b – Presets | 6-c – Records |

Figure 6 - Camera control panel tabs

*Presets are only available for Motor Cameras

Table 2 – Buttons and icons of the Camera control panel

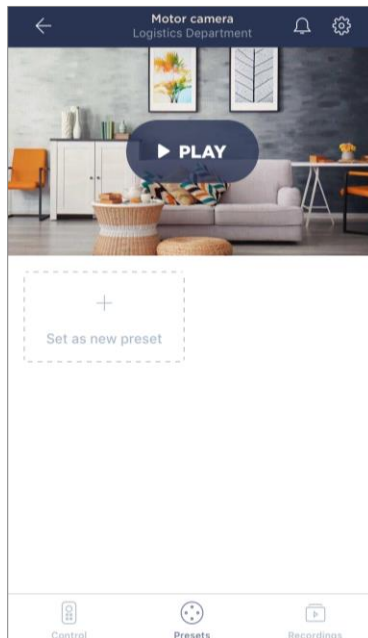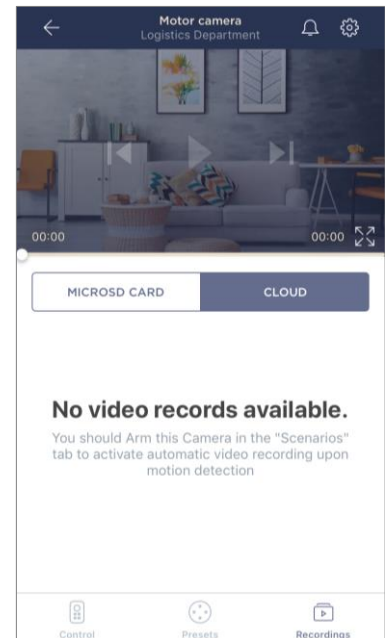| Icon	Description
←	Return to the list of devices
⌂	The list of unread messages and notifications
⚙	Device settings. In this tab, you can make the following settings: • Set or change the screen saver (image) for easier identification of the camera in the list of connected devices; • Change the device name; • Add the device to the Room or change the Room; • Select the resolution for photos and video files; • Choose video storage option (Cloud, Gallery, microSD Card); • Select the length of the files to record video; • Enable or disable the sound of push notifications; • Set the delay for alarms sent to the user's smartphone; • Remove the device from the Room; • Reset devices; • Remove the device from the User account; • View the unique device ID and the current firmware version.
⏸	Stop video streaming
↻	Rotate the screen 90°
🔊	Enable/disable camera speaker
⤢	Expand image to full screen
⎙	Take a picture from the camera
‹ˆ›	Virtual joystick to rotate the Camera head (Displayed for Motor Cameras only)
●REC	Start video recording
◁	Scroll the video back
▶	Play video or start live streaming
▷|	Scroll the video forward

> **NOTE.** A preset is a predefined angle of pan/tilt of the Camera to which it will automatically return after a specified period of time if it was changed by the User.

The user may view video from the camera in real time.

The microphone allows you to hear what is going on in the room where the camera is installed. When navigating to the video preview screen, please note that the camera microphone **is on** by default. To view the video without sound, you must turn it off by clicking on the corresponding "🔊" icon in the camera control panel.

The speaker allows you to send voice messages and thus communicate with people in the room, as well as with pets. This feature is not currently available.

Photos and videos recorded with the camera can be stored on a microSD card that is out of scope of the delivery package. To start using the MicroSD card, the User shall purchase one and insert it into a special slot in the device casing.

> **NOTE.** Refer to the camera installation and operation manuals for the recommended MicroSD card class and memory capacity.

With the appropriate settings in the **Perenio Smart** account you can automatically save video recordings to the MicroSD card in case of motion detection.

Note, however, that when storing video and images on the MicroSD card, the number of files that can be stored will depend on the size of the card (the card size may vary depending on the type of camera), as well as the duration and quality of the recorded video files.

> **ATTENTION!** It is not possible to view third-party files from the SD Card via the **Perenio Smart** mobile app.

> **NOTE.** For more information about the cameras, see the "Installation and Operation Manual for the Perenio® PEIFC01 Indoor Fixed Camera" and the "Installation and Operation Manual for the Perenio® PEIRC01 Indoor Motor Camera".

DEVICE CONTROL PANEL (IOT ROUTER, CONTROL GATEWAY)
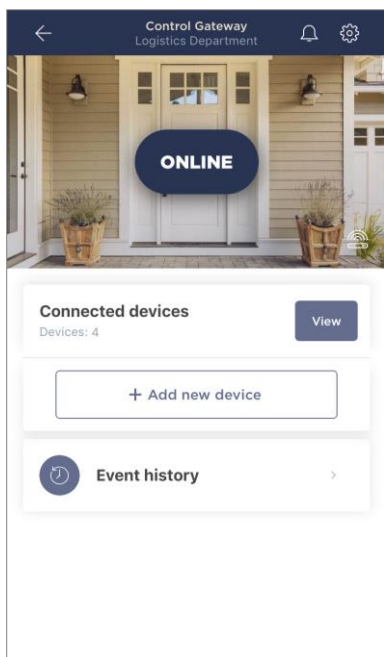
In the control panel of the IoT Router/Control Gateway, the user can perform the following actions:

- View the number of connected Zigbee devices;
- Connect a new device to the IoT Router/Control Gateway;
- View the history of events;
- Perform additional settings.

The following settings are also available for the IoT Router/Control Gateway:

- Set or change the screen saver (image) to make it easier to identify the IoT Router/Control Gateway in the list of connected devices;
- Change the device name;
- Add the device to the Room or change the room of installation;
- Remove the device from the Room;
- Reset the device to factory settings;
- Delete the device from the account;
- View the device ID and its current firmware version.

NOTE. For more information about the IoT Router/Control Gateway, see the "Installation and Operation Manual for the **Perenio®** Elegance Multifunction IoT Router" (Article: PEJIR01) and the "Installation and Operation Manual for the **Perenio®** PEACG01 Control Gateway".

DEVICE CONTROL PANEL (SENSOR)

In the sensor control panel, the user may perform the following actions:

- View the current status of the device;
- Enable and disable the Armed mode (For the Motion Sensor and Door & Window Sensor only. The Smoke and the Leak Sensors are always in the Armed mode);
- View the battery level;
- View the history of events;
- View the scenarios with the sensor (For the Motion Sensor and Door & Window Sensor only);
- Make additional settings for the sensor.

The color indication of the sensor's battery in the **Perenio Smart** mobile app changes according to the battery level. In the table below, you may see description of the battery level vs. the battery color indication in the sensor control panel of the mobile app.
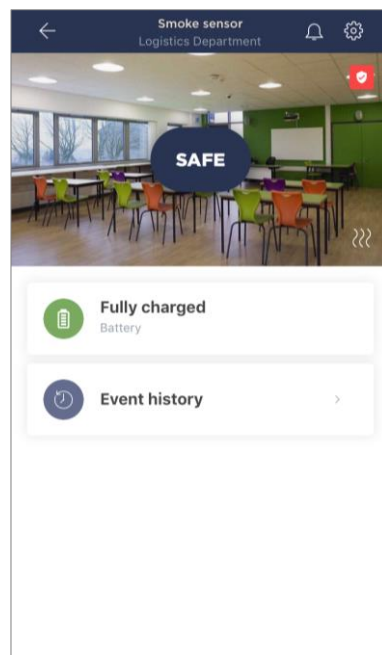
Table 3 – Battery levels and color indication

Color Indication	Description	Charge Level
	Fully charged	95% to 100%
	High charge level	75% to 94%
	Average charge level	31% to 74%
	Low charge level	11% to 30%
	Discharged	0% to 10%

NOTE. Keep in mind that battery life can depend on below factors:

- Ambient temperature during operation;
- Expiration date;
- Manufacturer;
- Frequency of notifications received from the sensor.

Considering all the above factors, it is recommended to purchase additional batteries when the level of battery in use is 30% in order to ensure uninterrupted operation of the sensors.

The following settings are available for the sensors:

- Set or change the screen saver (image) to make it easier to identify the sensor in the list of connected devices;
- Change the name of the sensor;
- Add the sensor to the Room or change the Room of installation;
- Enable or disable the sound of push notifications;
- Set the delay time for alarms sent to the user's smartphone (For the Motion Sensor and Door & Window Sensor only);
- Remove the sensor from the Room;
- Remove the sensor from the account;
- View the device ID and its current firmware version.

NOTE. For more information about the sensors, see the "Installation and Operation Manual for the **Perenio®** PECMS01 Motion Sensor", "Installation and Operation Manual for the **Perenio®** PECWS01 Door & Window Sensor", "Installation and Operation Manual for the **Perenio®** PECLS01 Leak Sensor" and "Installation and Operation Manual for the **Perenio®** PECSS01 Smoke Sensor".

DEVICE CONTROL PANEL (POWER PLUG)
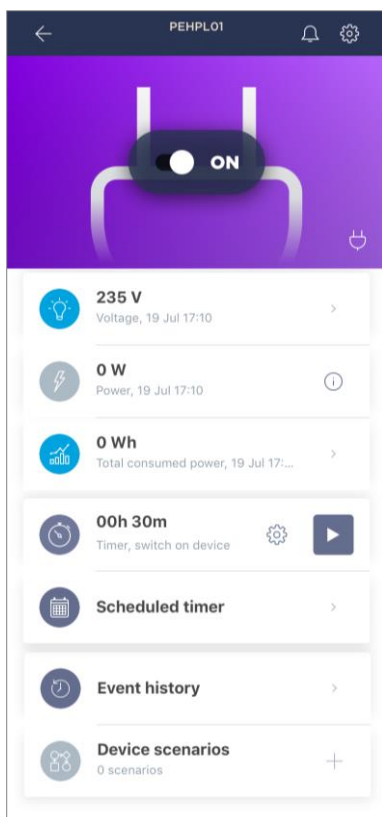
In the **Power Link** (Zigbee) control panel, the user may do the following:

- Switch the power plug on and off remotely by moving the slider to the right or left, respectively;
- View the mains voltage and power data online;
- View power consumption statistics of connected devices;
- Set the countdown timer and set the schedule for turning on/off the device;
- Set the scheduled timer;
- View the history of events;
- Create scenarios with the device.

The Power Link (Zigbee) device has more functions than the Power Link (Wi-Fi) device (at the time of publication of this manual). For example, the Power Link (Zigbee) device may be added to preset scenarios, so as to automate the operation of multiple **Perenio®** devices. The Power Link (Zigbee) device is also equipped with over-voltage, over-current and over-heat protection, while the color of the power button changes depending on the power range.

NOTE. For more information about smart plugs, see the "Installation and Operation Manual for the **Perenio®** Power Link" and the "Installation and Operation Manual for the **Perenio®** Power Link Wi-Fi" (Article: PEHPL10).

DEVICE CONTROL PANEL (ECO SMART HEATER)

In the control panel of the **Joule** Eco Smart Heater, the user may perform the following actions:

- Turn the device on and off by moving the slider to the right or left, accordingly;
- Enable or disable the automatic temperature maintenance function;
- Change the desired room heating temperature;
- View data on the current room temperature;
- View statistics of energy consumption;
- Switch the device on/off automatically after a set time interval (the minimum time interval change is one (1) hour);
- Set timers on a schedule;
- View the history of events.

> **NOTE.** For more information about the Eco Smart Heater, see the "Installation and Operation Manual for the **Perenio®** Joule Eco Smart Heater" (Article: PEJPH01-PEJPH04).
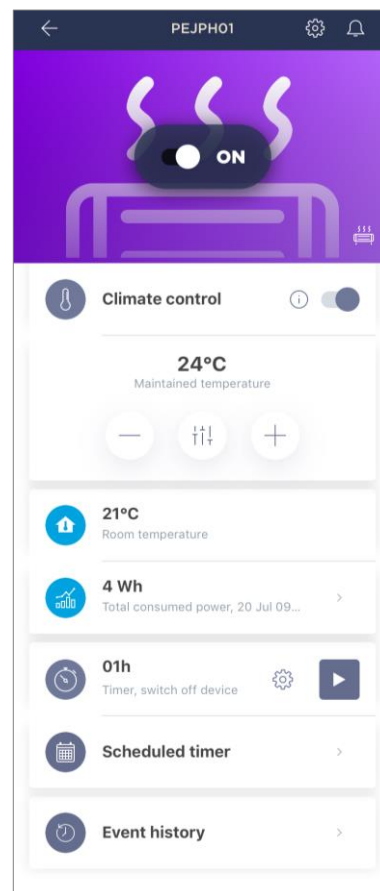
DEVICE CONTROL PANEL (INFRARED REMOTE CONTROL)
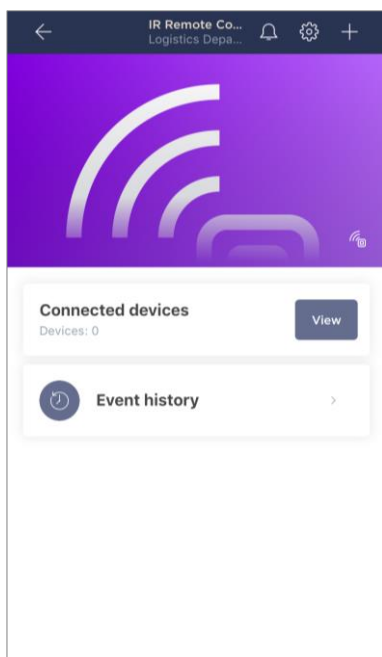
In the control panel of the **Red Atom** device, the user may perform the following actions:

- Connect IR-controlled equipment to the Remote Control;
- View the list of connected devices;
- View the history of events on the device;
- Set the countdown timer and set the schedule for turning on/off the device;
- Set the scheduled timer;
- Create scenarios with the device.

NOTE. For more information about the infrared remote control, see the "Installation and Operation Manual for the **Perenio®** Red Atom" (Article: PETRA01).

2.6.2 Scenarios Tab

In the "Scenarios" tab, the user may view all the scenarios with the connected devices.

The following actions are possible:

- View the name of the scenario, as well as the number and types of devices added to it;
- View the number of devices being Armed;
- View the current status of the scenario ("Disarmed", "Armed", "Run", "Stop"), as well as run or stop it;
- Switch to the scenario panel by clicking on its image;
- Change the way scenarios are displayed (Full or compact view);
- Filter scenarios (See par. 2.12);
- View new notifications;
- Create a new scenario;
- Switch to the side menu (See par. 2.6.6 below).
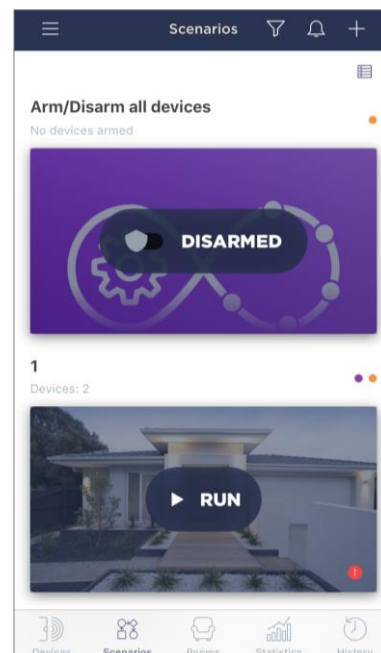
The following scenarios are available:

1. **Arm/Disarm all devices:** This scenario is set by default and by dragging the slider to the right or left allows you to arm or disarm all devices in the Location that support this mode.

> **NOTE.** The Smoke and Leak Sensors are always armed, regardless of this scenario.

   If enabled, the user will receive all alarms as push notifications to smartphone when devices are triggered. If the Armed mode is disabled, all notifications on sensor triggering, device firmware update, low battery, etc. will be displayed in the "History" tab.

2. **Power Plug + Motion Sensor Scenario:** This scenario allows you to turn the smart plug on or off when the sensor detects motion.

3. **Power Plug + Door & Window Sensor Scenario:** This scenario allows you to turn the smart plug on or off when the door or window opens/closes.

Ways to create a new scenario are as follows:

- **In the "Scenarios" tab:** Click on the "+" icon in the upper right corner of the "Scenarios" tab to display a pop-up window with the list of scenario templates.

Then, select the necessary scenario template and follow the instructions on the smartphone screen;

- **In the power plug control panel:** In the "Devices" tab, select the connected smart plug and switch to its control panel. Click on the "+" icon in the "Device scenarios" line.
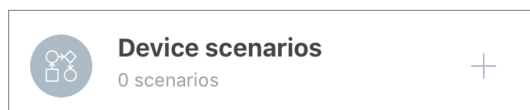
In the opened screen, select a suitable scenario template.

NOTE. If one of the devices required to create and run the scenario is missing, the "DEVICES MISSING" message will light up.
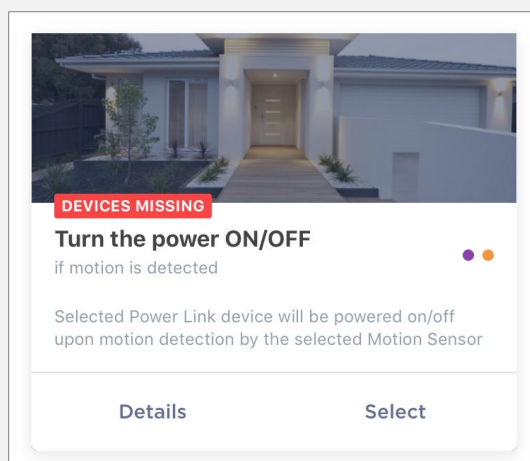
To view the list of required devices, click on the "Details" button under the description of the scenario.

Next, the user shall configure the scenario as required based on available devices.

Scenario option: Switching on the power plug after motion detection.

In this case, the user shall select the sensor or sensors that will serve as a trigger for running the scenario, and click the "Next" button.

Select the "Turn on power" action, and then select the power plug and click "Next".

SELECT ACTION

☑ Turn on the power

☐ Turn off the power

SELECT POWER LINK

☑ 🔌 **PEHPL01**

Enter the scenario name and click "Save".

Name
Motion sensor

IF THIS EVENT OCCURS:

PECMS01　　　　　Motion detected　>

THEN:

🔌 **PEHPL01**　　　　　Switch on　>

You can run the created scenario by clicking a corresponding button in the "Scenarios" tab.

Motion sensor
Devices: 2

▶ RUN
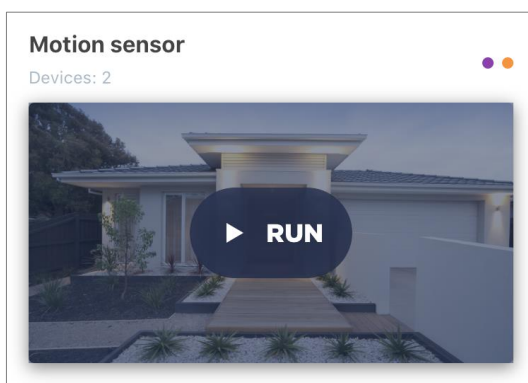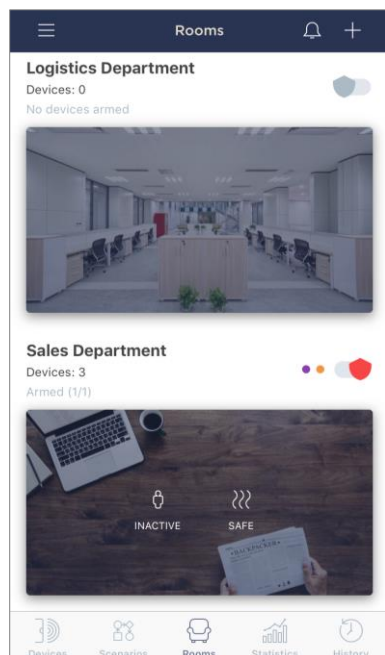
2.6.3 Rooms Tab

In the "Rooms" tab, the user may get information about all the Rooms created in the Location.

Functionality is as follows:

- Viewing the Room name;
- Viewing the number and the type of devices in the Room. Colored dots near the Arming/Disarming toggle switch indicate the connected devices in a particular Room. The color depends on the device type (See par. 2.2 above);
- Viewing and changing the current status of the Room ("Disarmed" or "Armed");
- Viewing the number of devices Armed;
- Viewing the last three statuses of devices in the Room;
- Switching to the Room panel by clicking on its image.

In the Room control panel, the user may view all the devices added to the Room and/or switch to the Room settings screen. The following actions are available in the Room settings screen:

- o Change the Room image;
- o Edit the Room name;
- o Remove the Room from the Location.
- Viewing new notifications;
- Adding a new Room;
- Switching to the side menu (See par. 2.6.6).

Click on the "+" icon in the upper right corner of the "Rooms" tab to open a screen for creating a new Room. Then, specify the Room name and, if necessary, change the image. After that, click on the **"CREATE ROOM"** button.

During operation of the devices, it may be necessary to change their room of installation. To do this, the user shall switch to the device settings screen in the mobile app and either select another installation Room or remove the device from the Room.

2.6.4 Statistics Tab

In the "Statistics" tab, the user may view saved statistics data from devices and analyze collected information.

Statistics are grouped by days of the week.

NOTE. Statistics data are stored for a maximum of 7 days, so the dates available for comparison are limited to a period of one week.

The following information is available for viewing in the tab:

- Data output date;
- Related device name and Location;
- Statistics diagram.
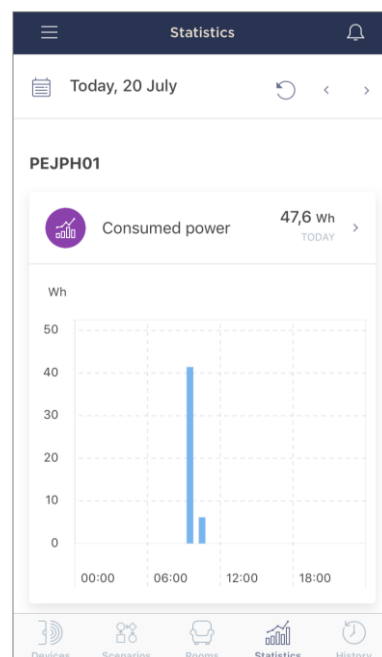
2.6.5 History Tab
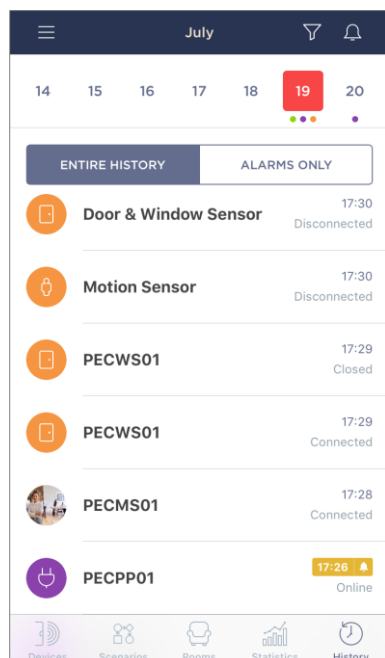
The "History" tab is a record log where information about various events is stored, namely:

- Change of the device statuses;
- Start and completion of firmware updates, etc.;
- Device triggering events;
- Low battery notifications and other messages.

Functions shall be as follows:

- Under the calendar dates, you may find colored dots which indicate received notifications from devices on a particular day. The color depends on the category of related devices (See par. 2.2 above);
- Select a date for displaying the list of notifications.

NOTE. The date on the calendar is marked red if an alarm notification was received on that day.

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Event information is available to the user for the duration of the **Perenio®** Subscription package. The User may view the history for seven (7) calendar days as standard;

- View the type of devices from which notifications were received on a particular day;
- View the entire history (notifications of all types of events, including alarms, important messages, and standard events), or alarms only;
- View basic information about objects from which notifications were received (name, image, status, installation location);
- View the time when notifications were received;
- Filter event (See par. 2.12);
- Switch to the side menu (See par. 2.6.6).

2.6.6 Side Menu

The side menu is used for navigation through common sections of the application, viewing the current user account, Location and the mobile app version.

The following sections are available:

- **My account** where the current user account name is displayed, as well as the total number of all available Locations, connected devices and new notifications from devices in this user account. The following actions are possible:
  - Change the current user account;
  - Add new user account.

The mobile app can be used on multiple smartphones. You can use the same username and password for your account on multiple smartphones, or you may create multiple accounts and give access rights to other users to view data on different devices.

- **Location** where the current Location name is displayed, as well as the total number of available Rooms, connected and armed devices and new notifications from devices in this Location. The following actions are possible:
  - Change the current Location;
  - Change Location image, name, time zone, or delete it;
  - Create a new Location.
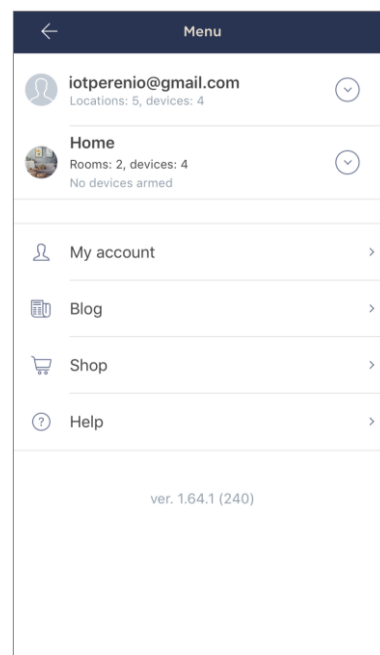
NOTE. In order to change the device Location in the app, the user shall first delete the device from their user account.

In the Side Menu, the user shall select the desired Location for the device.

Then, the user shall activate the device in the mobile app according to par. 2.3 "Wi-Fi Device Activation in the Mobile App" or par. 2.4 "Activation of Zigbee Device in the Mobile App".

- **My Account** where the current user account settings are displayed. The following actions are possible:
    - View the email registered in the user account;
    - View, edit or delete the username;
    - View the country registered in the user account;
    - Sign out of the user account;
    - Delete the user account.

NOTE. Account data is stored by *Perenio IoT* for the next 90 days after the user account is deleted from the mobile app.

After the specified period is over, the data is deleted permanently.

- **Blog** that is the link to the *Perenio IoT* website;
- **Shop** that is the link to the online store where you can purchase **Perenio®** products;
- **Help** that is the link to the helpdesk section of the *Perenio IoT* website.

2.7 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).

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.

Standard events. Various news and other information from *Perenio IoT*, as well as alerts from both the Door&Window Sensor and the Motion Sensor when in the Disarmed mode.

2.8 Setting the Time Zone

The user can set the time zone for new and existing Locations, which allows events and notifications to be displayed correctly.

Ways to set the time zone are as follows:
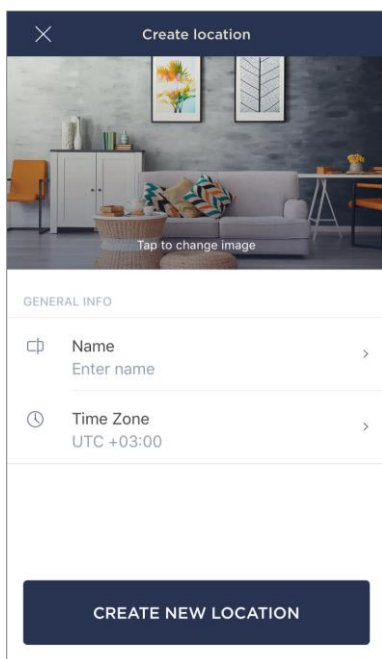
- **New Location**: Switch to the side menu and click on the current Location. The list of Locations will be displayed. Click the "+" icon in the upper right corner of the pop-up window. In the Location creation screen, click on the "Time Zone" section and enter the desired city (capital) in the search field. Then, select it from the list. After that, click on the **"CREATE NEW LOCATION"** button.
- **Existing Location**: Switch to the side menu and click on the current Location. The list of Locations will be displayed. Click on the "⚙" icon in the upper right corner of the desired Location. The Location settings screen will be displayed. Click on the "Time Zone" section to display a list of cities and their time zones. Enter the desired city (capital) in the search field and select it from the list. Exit the Location settings screen by clicking the arrow in the upper left corner of the screen.

2.9 Deleting the Device from the User Account

There are two following ways to disconnect a device from the **Perenio Smart** app:

1. Login to the **Perenio Smart** app and select the Location where the device is activated. In the "Devices" tab, find the desired device. Open the device settings by clicking on the "⚙" settings icon, and select "Disconnect device".
2. Disconnect the device manually. To do this, press and hold the reset button on the device until the LED flashes (It usually takes no more than 5 seconds).

To check that the device was disconnected, the user should update the list of devices in the "Devices" tab (Pull the screen down until the progress icon appears, and the data is updated). If a device is disconnected, it will disappear from the list of connected devices.

2.10 Filtering

The filtering function is implemented in the "Devices", "Scenarios" and "History" tabs.

To apply a filter to any of the screens, click the "▽" filter icon in the upper right corner of the screen, select the desired filters from the list, and click "Apply Filters".

You can reset the selected filter by pressing the "⋈" icon in the upper right corner of the screen and "Apply Filters" button.

The number of selected filters will be displayed next to the filter icon.

"DEVICES" TAB FILTERS

The following two types of filters are available in the "Devices" tab:

- Filter by device type (e.g. if you select to filter by the Door & Window Sensor, the list of all available Door & Window Sensors will be displayed);

- Filter by Room (e.g. if you select a particular Room, all devices linked to it will be displayed).
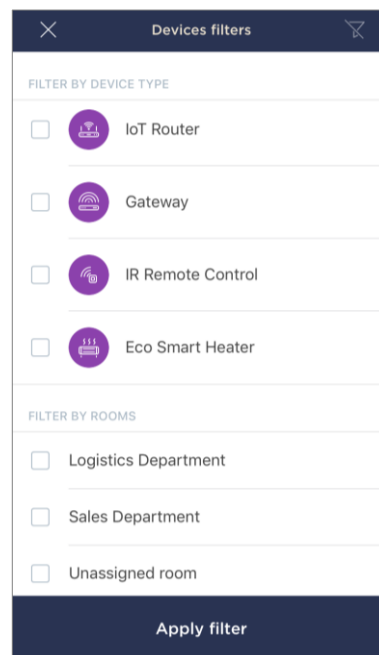
"SCENARIOS" TAB FILTERS
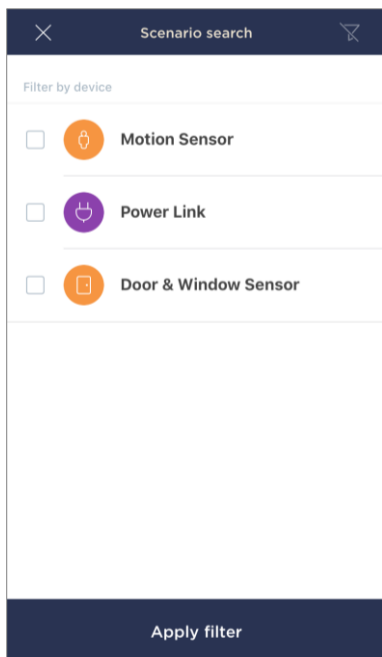
In the "Scenarios" tab, filtering **by device** is available. So, if you select a particular Motor Camera, the list of scenarios where such cameras are involved will be displayed.

"HISTORY" TAB FILTERS

In the "History" tab, the user may filter events by the following two types of filters:

- Filter by device type (e.g. if you select to filter by the Leak Sensor, all events for all Leak Sensors will be displayed);

- Filter by device (e.g. if you select a particular Leak Sensor, all events that come only to this device will be displayed).
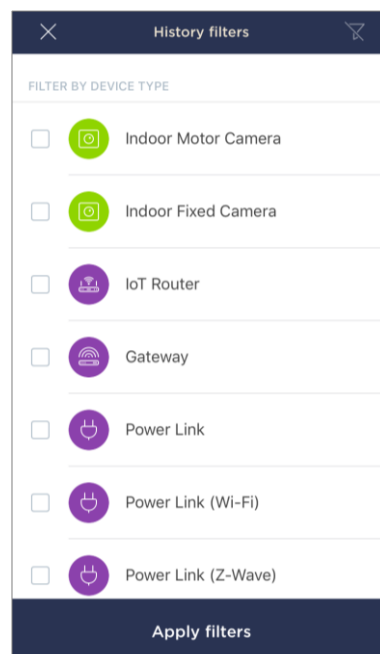
2.11 Signing Out and Deleting the User Account

The user may sign out or delete their user account via the side menu as follows:

- Switch to the side menu;
- Select "My Account" section from the list;
- Click on "Logout" to sing out of the user account (The user will have to re-enter the login and password at the next login session), or on "Delete Account" to delete the user account from the **Perenio Smart** app.

NOTE. Account data is stored by *Perenio IoT* for the next 90 days after the user account is deleted from the mobile app.

After the specified period is over, the data is deleted permanently.

2.12 Updating the Perenio Smart Mobile App

Perenio IoT is committed to continually improving the quality of its products, so an updated version of the **Perenio Smart Building Management System** app is regularly uploaded to the App Store.

Therefore, it is recommended that you allow automatic application updates on your mobile device.

3 Troubleshooting

The table below shows typical errors and problems that occur when connecting and configuring the **Perenio Smart** mobile app.

Table 4 – Typical errors and solutions

#	Problem	Possible Reasons	Solution
1	**Perenio® Sensors**		
1.1	Sensor suddenly disappears from the network	Low battery, or sensor is out of Zigbee range	Replace the battery or reduce the distance to the IoT Router/Control Gateway
1.2	Sensor does not connect to the IoT Router/Control Gateway	There are obstacles between the sensor and the IoT Router/Control Gateway; the distance between them is too long, or the sensor battery level is low	Remove obstacles; reduce the distance to the IoT Router/Control Gateway or replace the sensor battery
1.3	False alarms, or malfunction status displayed (Door & Window Sensor)	Distance between the sensor and the magnet exceeds 2 cm	Check that the window/door closes tightly and that the device is securely fastened to the window/door
		Damaged sensor or magnet	Contact Tech Support Department, or the authorized service center
1.4	Lack of notifications on sensor triggering (Door & Window/Motion Sensor)	The Location is Disarmed. In this case, notifications on the sensor triggering are displayed in the "History" tab only	Arm the Location

		Incorrect smartphone settings: Some smartphones block receival of push notifications from apps to save battery power	Check the mobile app settings in the smartphone settings and change them, if necessary
1.5	The sensor displays 100% battery level at all times	Sensors transmit their status once every 2-4 hours (depending on the sensor). If for some reason the IoT Router was offline at the time, the information may not be updated	Try manual triggering of the sensor. If the value has not changed, then the current battery status is displayed
2	**Perenio® Power Link Smart Plugs (Wi-Fi and Zigbee)**		
2.1	Timer settings are gone	The smart plug was reset to factory settings	Set the settings again
2.2	The smart plug suddenly disappears from the network	Power supply failure, or the smart plug is out of Zigbee/ Bluetooth range	Make sure that the power plug is plugged in and turned on; reduce the distance to the IoT Router/Control Gateway
3	**Perenio® Red Atom Infrared Remote Control**		
3.1	Remote control function does not work	Wrong virtual remote control was selected to control the device	Select another virtual remote control in the mobile app, or check that the distance from the IR Remote Control to the controlled device corresponds to the declared IR range

3.2	It is impossible to connect an IR device such as a sound amplifier or projector	Currently, the IR Remote Control can only control TV and air conditioners from different manufacturers	Select supported types of devices to control
3.3	The manufacturer of the device is not on the list of devices, or none of the suggested remotes are suitable	The manufacturer is not supported	Try to find a similar remote control from another manufacturer and configure it. A table of interchangeable brands can be found on the website in the "Downloads" section at https://perenio.ru/catalog/ infrakrasnyy-pult-red- atom-petra01
3.4	The device is not activated in the mobile app	Incorrect Wi-Fi router configuration	Add a 2.4GHz access point
4	**Motor/Fixed Cameras**		
4.1	Camera fails to initialize, or reboots	Failure of the power adapter or the power supply	Replace the power adapter or wait until a stable power supply is restored
4.2	The camera is slow, or the image disappears	Failure to connect to the camera and/or the Internet	Reconnect the camera or wait until the network connection is re- established
4.3	The camera is offline (video is not displayed)	Failure to connect to the camera and/or the Internet	Reconnect to the camera or wait until the network connection is re- established

5	**Perenio® Joule Eco Smart Heater**		
5.1	The heater does not respond to commands from the app	Network connection failure	Reconnect the device and the smartphone to the Wi-Fi hotspot
5.2	The heater does not activate in the app	Error of data processing by the server	Turn off the device. Wait for 10 minutes and reconnect
5.3	Heater operation is accompanied by audible and LED signals which are not described in the manual	Software failure during event processing	Remove the device from the account. Wait for 10 minutes and reconnect the device
5.4	The app displays irrelevant energy consumption data	The temperature sensor may be defective, or the ambient temperature may be lower than the operating temperature specified in the manual	Check the temperature in the room. If the temperature is within the permissible range, contact Tech Support Department, or the authorized service center
6	**Perenio® Control Gateway**		
6.1	Error of the initial connection to Wi-Fi	Incorrect settings of the Control Gateway	Reset the device to factory settings
6.2	The device does not activate in the mobile app when connected via network cable	This function is temporarily unavailable	Connect the device via Wi-Fi

4 Glossary

IoT	The Internet of Things is a system of Internet-connected devices able to collect and exchange data coming from built-in services
MicroSD	A small-sized electronic memory device that is used for storage of digital information
Perenio Smart	Software developed by *Perenio IoT* for remote control of devices from smartphones
QR Code	The quick response code which represents a matrix barcode containing information about the object to which it is linked
Zigbee	A network protocol designed for secure transmission of data at low speeds, which is recognized for an extremely low power consumption
Location	General term which means a building or a structure in which **Perenio®** Cameras, Control Gateways/IoT Routers and/or Sensors are installed
Preset	A predefined angle of pan/tilt of the Camera to which it will automatically return after a specified period of time if it was changed by the User.
Wi-Fi devices	IoT Router, cameras, IR Remote Control, Eco Smart Heater, Power Link (Wi-Fi) and **Perenio®** Control Gateway that connect to Wi-Fi and are activated in the mobile app by scanning a QR Code or entering identification data manually
Control Gateway	The **Perenio®** PEACG01 Control Gateway

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