



**Installation and Operation Manual
for Perenio® PEACG01
Control Gateway**

Introduction

The Control Gateway is specially designed to monitor and manage operation of all connected sensors and other ZigBee devices without passing commands to third party servers. It is used as part of the **Perenio Smart Building Management System** and acts as a ZigBee Coordinator ensuring a reliable wireless data transmission.

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

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Any eventual mentioning of other company names and equipment in the present document is made solely for the purpose of clarifying and describing the device operation and shall not infringe on the third party's intellectual property rights.

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of the User, and shall not be responsible for any potential negative consequences which may arise from the use of an outdated version of the document, as well as for any possible technical and/or typographical errors, either omitted or accidental, or any related damage that may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

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 7 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

Conformance to Standards



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

- 2014/53/EU Radio Equipment Directive (RED);
- 2014/35/EU Low Voltage Directive;
- 2004/30/EC Electromagnetic Compatibility Directive.



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



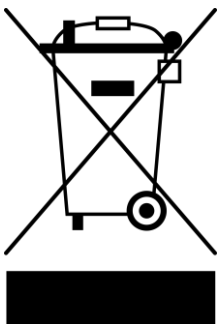
The device complies with the requirements of Restriction of the Use of Certain Hazardous Substances in Electronic and Electrical Equipment (2011/65/EU Directive)



The device complies with the requirements to the level of electromagnetic interference by the Federal Communications Commission



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



The device and supplied batteries must not be disposed of as a household waste in accordance with the Waste Electrical and Electronic Equipment Directive (2002/96/EC)

For the purpose of protection of the environment and human health, both the device and batteries must be disposed of in accordance with approved instructions on safe disposal. For more information on proper disposal, please contact your device supplier or local authorities responsible for waste management

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**.

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1 General Description and Specifications

1.1 Device Purpose

The **Perenio® PEACG01** Control Gateway (hereinafter referred to as the CG) is designed to join operation of ZigBee devices within the **Perenio Smart Building Management System**, as well as to collect data and alert Users in the event of alarm. The Control Gateway searches for and manages devices via the Mobile App.

Key features of the **PEACG01** Control Gateway are as follows:

- Support for Wi-Fi, Ethernet and ZigBee;
- iOS (10.1 and higher) and Android (5.1 and higher) smartphone compatibility;
- Possibility to connect up to 100 ZigBee devices located within the radius of 40 meters;
- Support for cloud services, collection and analysis of data;
- Remote control via a free Mobile App.



Figure 1 - The Control Gateway Exterior

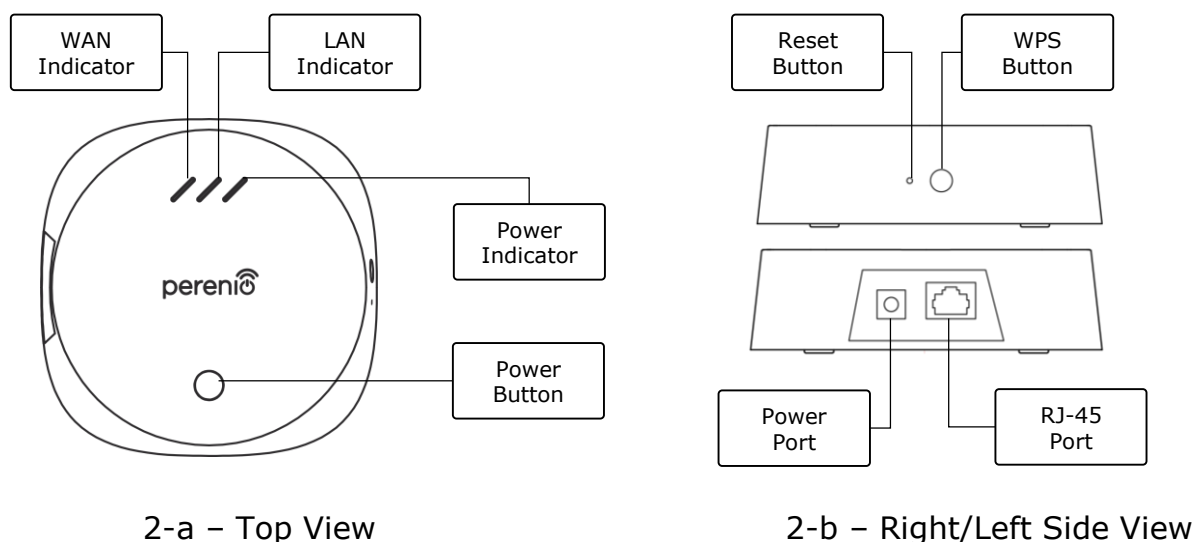


Figure 2 - Buttons, Ports and Indicators

Buttons, Ports and Indicators

WAN Indicator	It lights up in the case of connection to the Remote Server
LAN Indicator	It lights up in the case of connection via the Ethernet Cable
Power Indicator	It lights up in the case of connection to the mains
Power Button	The button used to power on/off the Control Gateway
WPS Button	The button used for quick wireless network setup
Reset Button	The button used to reset the device to factory settings. After resetting, the User shall connect the Control Gateway to the Internet and then start the sensor search process
Power Port	The port for connecting the Control Gateway to the mains
RJ-45 Port	The cable port used for connection of the Control Gateway to the Ethernet-router

Table 1 – Control Gateway LED Indicator Statuses

Indicator	Status	Description
WAN Indicator	Light is on	The CG is connected to the Remote Server
	Light is off	The CG is disconnected from the Remote Server
LAN Indicator	Light is on	The CG is Ethernet-connected to the network
	Light is off	The CG is not Ethernet-connected to the network
Power Indicator	Light is on	The power is on
	Light is off	The power is off

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 Technical Specification

Table 2 – Basic Technical Specifications of the Control Gateway

Parameter	Value
Item Number	PEACG01
Operating System	Linux
Communication Technology	Wi-Fi (IEEE 802.11b/g/n), ZigBee 3.0 (IEEE 802.15.4), Ethernet (10/100Mbps RJ-45)
Bit Rate	802.11b (11 Mbps max), 802.11g (54 Mbps max), 802.11n (300 Mbps max), 802.15.4 (250 Kbps)
WEP/WPA2 Encryption	Support of 128-bit encryption
Supported Protocol	TCP/IP
IoT Protocols	MQTT and CoAP
Compatibility	iOS (10.1 and higher) and Android (5.1 and higher)
SoC	QCA4531 (Wi-Fi), EFR32/Cortex-M4 (ZigBee)
Flash Memory	NAND Flash: 128MB NOR Flash: 512KB
ZigBee Coverage	up to 40 m (open area)
ZigBee Antenna	Type: Built-in Max RF Output Power: 10dBm Receiver Sensitivity: -93dBm Antenna Gain: 1dBi
Wi-Fi Antenna	Type: Built-in Max RF Output Power: 16dBm Receiver Sensitivity: -83dBm Antenna Gain: 2.5dBi
Operating Frequency Band	2400MHz – 2483.5MHz
Server	Remote Server
Power	Output: DC 5V/0.7A Power Consumption: 5W (max)
Operating Temperature	0°C to +40°C

Parameter	Value
Operating Humidity	5% to 85% RH
Storage Temperature	-20°C to +70°C
Storage Humidity	5% to 85% RH
Casing Protection Class	IP21
Connected Devices	up to 100 ZigBee devices
RTC Module	Built-in
Installation	On a horizontal surface (For indoor installation only)
Casing Material	PC (Polycarbonate)
Color	White
Dimensions (L x W x H)	110 x 110 x 31 mm
Weight	123.7 g (259 g with accessories)
Warranty Period	24 months
Service Life	24 months
Certification	CE, EAC, RoHS, UA.TR
Data Protection	GDPR Compliance

1.3 Scope of Delivery

The following items and accessories are supplied within the **Perenio® PEACG01** Control Gateway package:

1. PEACG01 Control Gateway (1 pc.)
2. Ethernet Cable (Length: 1.0 m) (1 pc.)
3. Power Adapter (Output: 5V) (1 pc.)
4. Quick Start Guide (1 pc.)
5. Warranty Card (1 pc.)
6. Stickers (2 pcs.)



Figure 3 - Scope of Supply*

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

1.4 Packaging and Labelling

The **Perenio® PEACG01 Control Gateway** is supplied in a carton Gift Box of 159 x 159 x 72 mm (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 manufacturing plant of devices.

Weights of the package are as follows:

- Net weight: 259 g;
- Gross weight: 454 g.

1.5 Safe Operation Rules

For the proper and safe operation of **Perenio®** Control Gateway, follow the instructions and safety procedures described in the present Manual. The Manufacturer shall not be liable for any damage caused as a result of improper operation of devices.

Safe Operation Conditions

1. The device shall be installed indoors only.
2. Users shall observe storage/transportation conditions, as well as the operating temperature mode of the device as declared by the Manufacturer.
3. Users must not disassemble or attempt to repair the device on their own.
4. Users must not drop, throw or bend the device.
5. In order to avoid personal injury, it shall not be allowed to use the cracked or in any other way damaged device.
6. Use dry cloth or cloth soaked in a small amount of water for cleaning (don't use harsh chemicals/cleaning agents). The device must be powered off before cleaning.

7. Children shall not be allowed to use the device unsupervised and/or play with it.

1.6 Why ZigBee

The use of ZigBee 3.0 allows Users to organize a convenient, safe and energy-efficient environment. The key feature of the ZigBee Protocol is that devices (those which are signal repeaters) do not need to directly contact the Control Gateway in order to transmit a signal, since they can transmit it to another device within the network (See Figure 4). So, in the case of failure of any node, the network will automatically be restored by establishing new routes for data transfer. This increases the reliability and flexibility of the system making it possible to install sensors at larger distance from the Control Gateway even in the presence of obstacles (for example, reinforced concrete walls).

It should also be noted that the ZigBee Protocol has several levels of security and uses the AES-128 encryption algorithm (used by banking and government agencies), which indicates a high level of the transmitted signal protection.

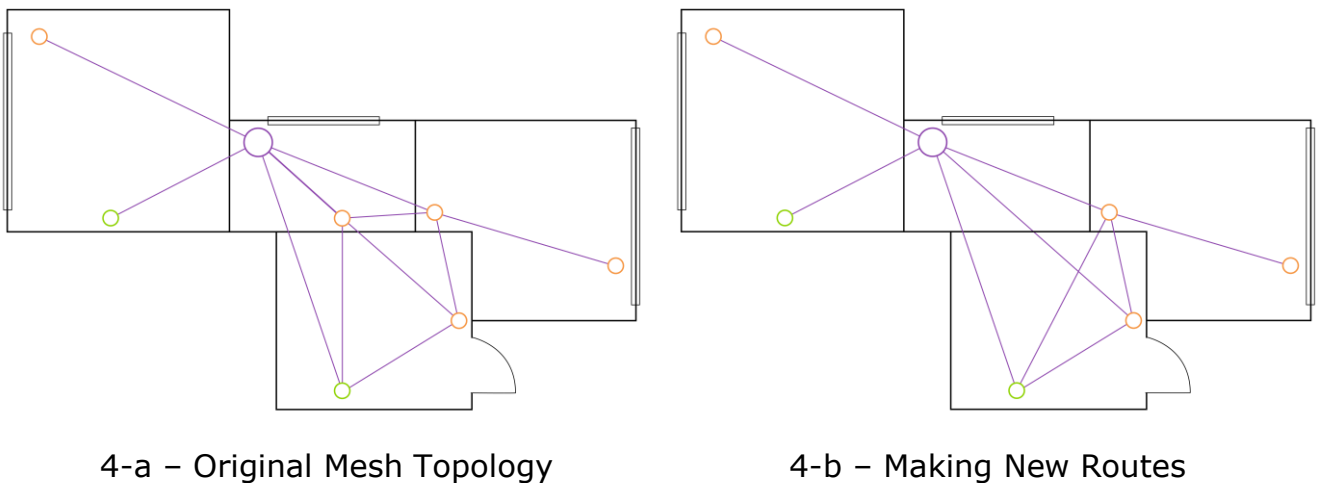


Figure 4 – Self-Recovery of ZigBee Network

Thus, the advantages of using ZigBee 3.0 include the following:

- Data transmission over long distances and protection of transmitted data;
- Ultra-low power consumption and self-recovery of the network;
- Possibility of expanding the network to 65,000 devices and data exchange rate of up to 250 kbps.

NOTE. Sensors and other battery-powered **Perenio®** devices do not have a signal repeating function.

2 Installation and Setup

Before installation, the User shall select one of possible CG locations on a horizontal surface (floor, table, stand, etc.), as well as make sure that the selected location meets the following requirements:

- Availability of a mains socket near the installation site of the Control Gateway;
- Flat and stable surface in the installation site of the Control Gateway.

NOTE. 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 distance of wireless signal transmission.

It is recommended to install the Control Gateway so that it is at the minimum possible distance from sensors and other ZigBee devices.

Below see possible locations for the Control Gateway:



Figure 5 - Example of the Control Gateway Installation*

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

The entire setting-up process can be divided into several key steps as follows:

- Installation of the Control Gateway in the selected location;
- Logging in to the **Perenio Smart** User Account;
- Activation of the Control Gateway via the Mobile App.

NOTE. The *Perenio Smart: Building Management System Mobile App Manual* document is available for downloading at the web-site.

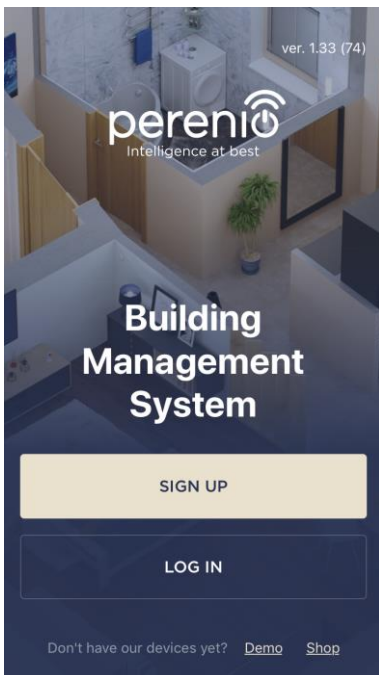
2.1 Initial Installation and Configuration

To ensure proper installation and operation of the Control Gateway, the User shall perform the following steps:

1. Unpack the Control Gateway, install it on a stable flat surface and connect to the mains (220V) using the power adapter supplied.
2. Install the **Perenio Smart Building Management System** mobile application on your smartphone and log in to the User Account (See par. **A** below).
3. Scan the QR Code, or enter CG data manually (See par. **B** below).
4. Enter your Wi-Fi Network data (See par. **C**, as well as par. 2.4 for Network frequency selection).
5. Enter the desired Control Gateway name, Location and Room (See par. **D** below).

ATTENTION! The Device must not be switched off or disconnected from the mains for at least **5 MINUTES** after the RESET Button is pressed, as well as for at least **10 MINUTES** after the firmware update process is started.

A. INSTALLATION OF THE PERENIO SMART MOBILE APP



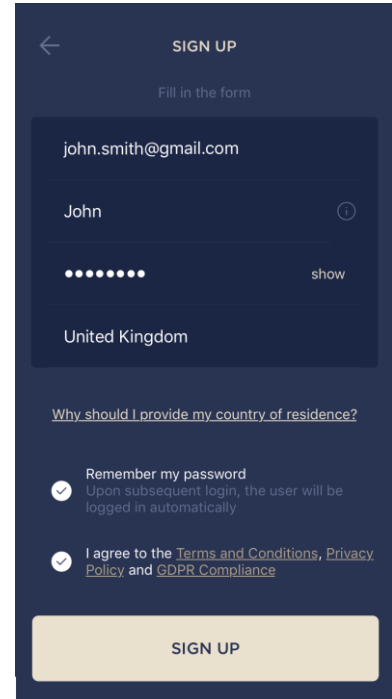
The Control Gateway shall be managed through a free mobile application available for downloading in Google Play or Apple Store.

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

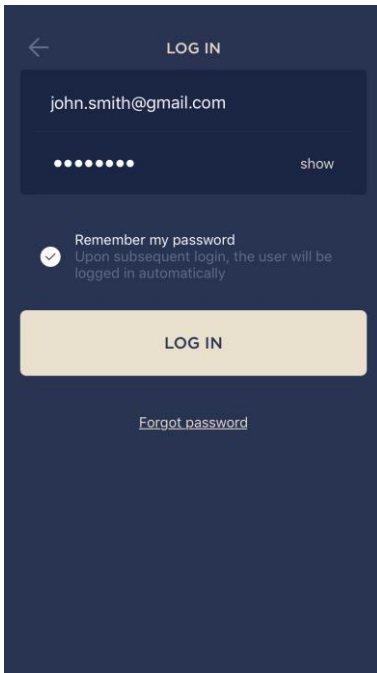
- a. Connect your smartphone to the Wi-Fi Network and download the **Perenio Smart Building Management System** app from Google Play or Apple Store;
- b. Register a new User Account (See par. **A.1.** below) or sign in to an existing User Account (See par. **A.2.** below).

A.1. NEW USER ACCOUNT REGISTRATION

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



A.2. LOGGING IN TO THE EXISTING USER ACCOUNT



- a. Enter your e-mail address and password in the login screen.
- b. Click on the **LOG IN** button.

NOTE. 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.

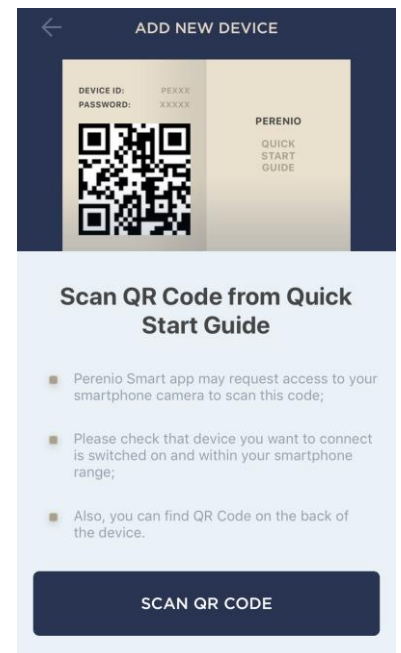
B. DEVICE ACTIVATION BY QR CODE SCANNING

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, select "Add new device" and then the "Control Gateway" device in the list (See Figure 6).

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

c. Confirm permission to access your smartphone camera in the pop-up window (It may not be available for certain smartphone models);



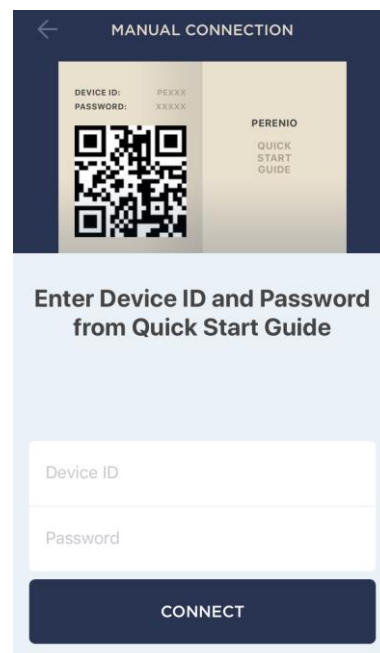
d. Find the QR Code sticker on the back of the Quick Start Guide supplied with the CG or on the bottom of the CG and place your smartphone 15-20 cm away from it, so that the QR Code is completely visible on the smartphone screen (See the picture on the left).

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

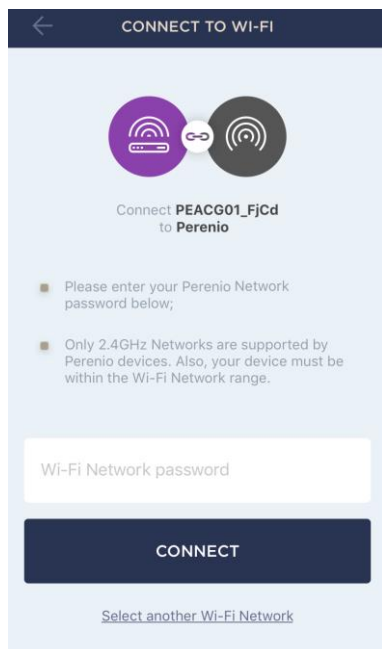
B.1. MANUAL ACTIVATION OF THE DEVICE

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. **B**);
- 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.



C. 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 **2.4 GHz** only.

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

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

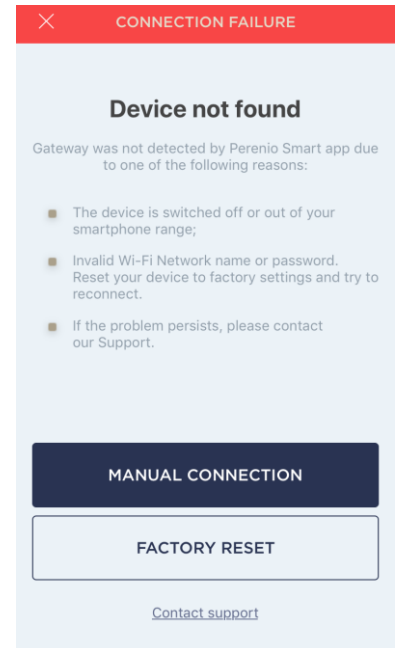
If the Wi-Fi Network password is incorrectly entered more than twice in a row, the Control Gateway may not return to the Access Point mode, which means that the reset to factory settings will be required (See par. 2.2 below).

C.1. CONNECTION ERRORS

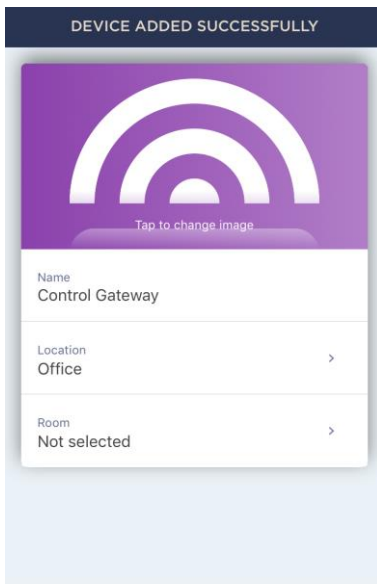
The connection failure of the device may occur due to one of the following reasons:

- 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.



D. LOCATION AND ROOM SETTING



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

- a.** Device name;
- b.** Device Location;
- c.** 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.

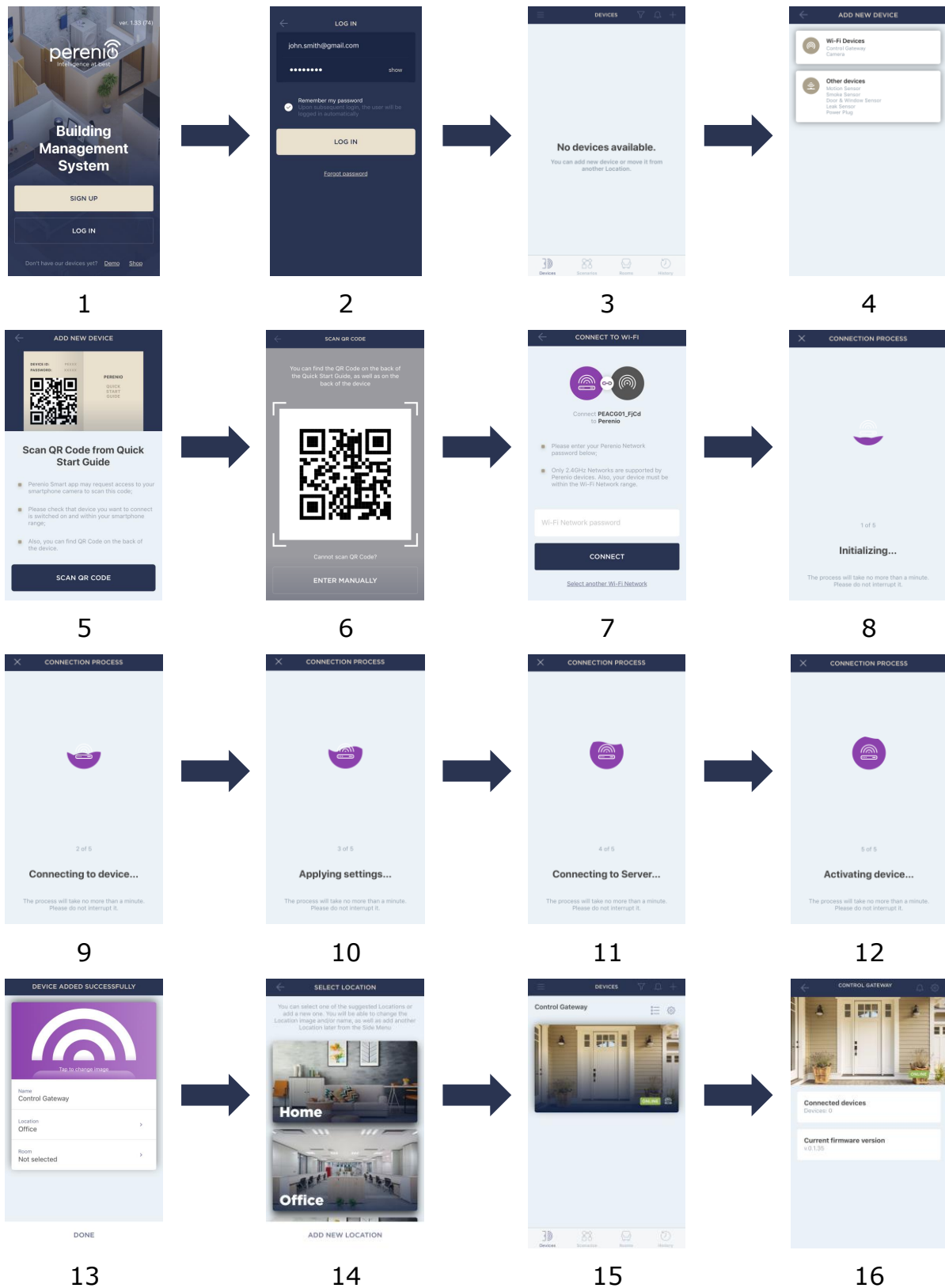


Figure 6 – Add new device procedure (The CG activation process)

2.2 Reset to Factory Settings

The reset to factory settings of the Control Gateway shall be performed in the case of any errors or connection failures occurred during the activation process. The reset to factory settings procedure shall be performed as follows:

1. Press and hold the Reset button for at least 10 seconds (You can find it on the side of the Control Gateway – see Figure 2).
2. Release the Reset button after all LED Indicators on the Control Gateway blink **three (3) times**. Wait until the Power Indicator lights up (For cases when the device was not activated in the Mobile App) and the CG reappears in the lists of available Wi-Fi Networks as an Access Point, or until both the WAN and the Power Indicators light up (For cases when the device was already activated in the Mobile App). As a rule, the reset to factory settings shall not take more than three (3) minutes.

After completion of the reset process, the Control Gateway is considered ready for operation or reactivation in the Mobile Application.

NOTE. The reset to factory settings is possible only if the Control Gateway is powered on, and there is no firmware update process.

It is not recommended to perform the factory reset until the Control Gateway is deactivated in the Mobile Application (Valid for Devices already being activated in the User Account).

2.3 Ethernet Connection

The Control Gateway can be connected to the Internet in one of the following ways:

- Wi-Fi Connection;
- Connection via an Ethernet cable.

ATTENTION! The initial connection of the Control Gateway to the Perenio Smart App **MUST BE** performed over Wi-Fi, i.e. the Ethernet cable can be used when reconnecting the device.

2.4 Wi-Fi Router Frequency Settings



Perenio® PEACG01 Control Gateway may be connected to the Wi-Fi Network of 2.4 GHz 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. **C. 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 5 GHz only, it is necessary to add the access point of 2.4 GHz as well.

NOTE. Your router frequency settings shall be performed according to instructions of its manufacturer.

2.5 Changing the Room or Location for the Control Gateway

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

- 1. Change the room/location** (The Wi-Fi Network remains the same):
 - a. Disconnect the Control Gateway from the mains (The status of the device will be changed to "Offline");
 - b. Move the CG to another room/location and connect it to the mains;
 - c. Wait until the Control Gateway is rebooted (It usually takes no more than 2 minutes) and the status of the device is changed to "Online";
 - d. Change the Room/Location in the Control Gateway settings screen ().
- 2. Change the room/location** (The Wi-Fi Network will also be changed):
 - a. Log in to the Perenio Smart app and select the Location where the Control Gateway is activated;
 - b. In the 'Devices' tab, select the required Control Gateway from the list and click on the  icon (Settings);
 - c. In the pop-up window, choose 'Disconnect device';
 - d. Wait for around **3 minutes** in order for the Control Gateway to disconnect from the current Wi-Fi Network;
 - e. Disconnect the Control Gateway from the mains;
 - f. Move the CG to another room/location and connect it to the mains;

- g. Wait until the Control Gateway is rebooted (It usually takes no more than 2 minutes);
- h. In the User Account, select the Location where you want to move the Control Gateway;
- i. Activate the Control Gateway in the Mobile App according to par. 2.1 'First Installation and Configuration' (B-D) of this document.

2.6 History and Push-Notifications

All notifications and other messages including changes in **Perenio®** device statuses are displayed in the History tab. At the same time, the most important events are shown online in the notification window (🔔) in the User Account.

Available types of notifications are as follows:

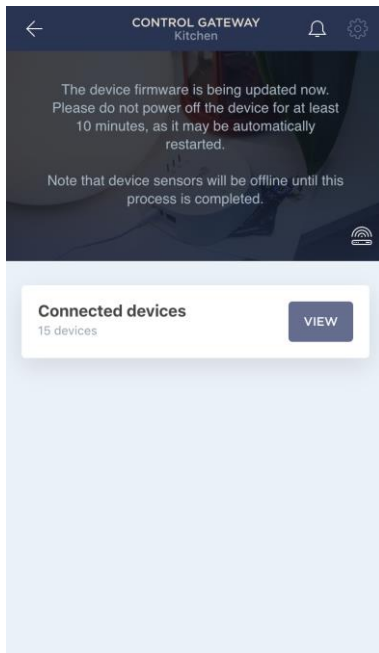
- Alarms (These are always received like push-notifications on a smartphone, as well as recorded in the notification window and in the History tab in the Mobile Application);
- Important messages (These are recorded in the notification window in the Armed Mode, as well as always recorded in the History tab);
- Standard events (These are recorded in the History tab only).

Alarms. The most important messages such as device actuation notifications when in the Armed mode, including all alarms from both the Smoke Sensor and the Leak Sensor (even if in the Disarmed mode), as well as changes in the Control Gateway Online/Offline status.

Important messages. Notifications of the start and completion of the Control Gateway firmware update process, as well as low battery notifications and changes of the Armed/Disarmed mode for the Location.

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.

2.7 Upgrading the Control Gateway Firmware



Perenio IoT strives to constantly improve the quality of its products, so an automatic software (firmware) update can be launched during the first activation of the Control Gateway, as well as during its normal operation.

In this case, the User will see a corresponding notification in the Control Gateway control panel in his/her User Account.

IMPORTANT! It is not allowed to disconnect the device from the power source for at least **10 minutes** after the firmware update process is started.

During the firmware update process, it will be impossible to view data on the Control Gateway, as well as sensors connected thereto. Also, the device may reboot repeatedly.

The User is allowed to disconnect the device and/or perform reset to factory settings only after receiving an appropriate push-notification to the his/her smartphone that the update process is successfully completed, and after the Camera becomes online (The black screen disappears, and the video stream becomes available again).

NOTE. In the event of any power failures during the firmware update process, the CG malfunctions may occur. In this case, you need to contact our Technical Support Service to restore factory settings.

3 Maintenance and Repair

The **Perenio® PEACG01 Control Gateway** does not require special maintenance in the normal course of operation. However, in order to maintain the proper state and stable operation of devices it is recommended to perform the following actions from time to time:

- Clean the device casing from dirt and dust at least once every six months;
- Check for updates of the Perenio Smart app;
- Check for the power adapter condition and replace it in a timely manner;
- Repair mechanical damages to devices (in Service Centers).

The **Perenio®** Control Gateway repairs shall be carried out in Service Centers, because casings will have to be opened in the case of any element failure.

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 Control Gateway, please contact your local Company representative or the Tech Support Department at **perenio.com**

4 Warranty Obligations

The warranty period for the Control Gateway shall be **Twenty-Four (24) months** from the date of sale to the End User.

The warranty period for components and accessories shall be as follows:

- External chargers, cables and other accessories: Six (6) months from the date of sale to the End Customer.

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:

- 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 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.

5 Storage, Transportation and Disposal of Devices

The **Perenio®** Control Gateway 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.

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

It is also required to comply with the temperature and humidity conditions of storage and operation specified in the Table of technical specifications of the present Manual.

For disposal of devices and/or batteries, the User shall observe rules of the Directive on Waste Electrical and Electronic Equipment (WEEE) according to which all electric and electronic products, as well as batteries must be disposed of separately at the end of their service life. Such devices and accessories must not be disposed of together with unsorted municipal waste due to their potential to cause harm 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.

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.

6 Other Information

Manufacturer

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

Manufacturing Plant

Name	<i>LEEDARSON LIGHTING CO., LTD.</i>
Address	Xingtai Industrial Zone, Economic Development Zone, Changtai County, Zhangzhou City, Fujian Province, China

Importing Company

Croatia

Name	<i>ASBISc-CR d.o.o.</i>
Address	Slavonska avenija 24/6, 10000 Zagreb, RH

Czech Republic

Name	<i>ASBIS CZ, s.r.o.</i>
Address	Obchodní 103, Čestlice, 25101

Poland

Name	<i>ASBIS POLAND Sp. z o.o.</i>
Address	Ul. Szyszkowa 43, 02-285 Warszawa

Quality Claims Acceptance and Warranty Service Company

Croatia

Name	<i>ASBISc-CR d.o.o.</i>
Address	Slavonska avenija 24/6, 10000 Zagreb, RH

Czech Republic

Name	<i>ASBIS CZ, s.r.o.</i>
Address	Obchodní 103, Čestlice, 25101

Poland

Name	<i>ASBIS POLAND Sp. z o.o.</i>
Address	Ul. Szyszkowa 43, 02-285 Warszawa

Info on Certificates and Declarations

Declarations	Verification of Conformity to EC Council Directive 2014/53/EU (Report No. 50138967 001 as of 27/04/2018 and Report No. 50138967 002 as of 25/05/2018) by TUV Rheinland
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Addresses of Service Centers are available at perenio.com in the 'Support' Section.

7 Troubleshooting

Table 3 below shows typical errors and problems that may occur in the process of connection and configuration of the **Perenio® PEACG01 Control Gateway**.

Table 3 – Typical Errors and Troubleshooting Methods

Item No	Problem	Possible Reasons	Solution
1	Initial connection of the CG to Wi-Fi failed	Incorrect settings of the Control Gateway	Restore factory settings (See par. 2.2 herein)
2	The Control Gateway does not power up	Failure of the power supply of incorrect power supply range	Check power supply connections or power supply range
3	The CG does not activate in the app when Ethernet-connected	It is the initial connection of the CG or failure of the CG/network	The initial connection of the CG shall be to Wi-Fi. For further connections, check that both the CG and the network work normally. Power off the device and then restart it
4	The Sensor is not detected by the Control Gateway	The sensor is too far away from the CG	Reduce the distance between devices
		Low battery level of the sensor	Replace the sensor battery

8 Glossary

CG	The Perenio® PEACG01 Control Gateway
DSP	The Digital Signal Processor is a special microprocessor designed to ensure digitized signal handling (usually, in real time mode)
IoT	The Internet of Things is a system of Internet-connected devices able to collect and exchange data coming from built-in services
IP21	The class of protection of the device casing indicating that its internal parts are protected from penetration of fingers or objects longer than 80 mm, as well as solid bodies larger than 12 mm. Such device is protected from vertically falling drops and condensation and is suitable for unheated rooms
Location	General designation of a building or premises where the Perenio® Control Gateway
Perenio Smart	Software developed by <i>Perenio IoT</i> 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
RTC	The Real Time Clock is an electronic circuit for tracking the current time, date, day of the week, etc. As a rule, such a circuit has a self-contained power supply, which ensures operation even when the main device is turned off
ZigBee	A network protocol designed for secure transmission of data at low speeds, which is recognized for an extremely low power consumption