



**Installation and Operation Manual for
Perenio® Portable UV Lamp
UV Mini Indigo**

(Article: PEMUV01, PEMUV02)

Introduction

The Portable UV Lamp is a low-pressure mercury lamp designed to kill germs and dust mites with ultraviolet radiation at the site of installation.

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

Copyrights

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Any unauthorized usage of materials contained herein may lead to civil liability and criminal prosecution in accordance with applicable laws.

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.

Responsibility and Technical Support

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

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of the User, and shall not be responsible for any potential negative consequences which may arise from the use of an outdated version of the document, as well as for any possible technical and/or typographical errors, either omitted or accidental, or any related damage that may result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

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

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

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

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

Manufacturer:

Perenio IoT spol s r.o.

Na Dlouhem 79, Ricany – Jazlovice 251 01, Czech Republic

perenio.com

Conformance to Standards

CE

The device is CE certified and complies with the 2014/30/EU Electromagnetic Compatibility Directive of the European Union

UK

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

CA

EAC

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

RoHS

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



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

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

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

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

Information about certificates received is indicated in section 7 of this document. Copies of certificated and declarations can be found in the appropriate section on the website **perenio.com**

Warnings and Restrictions

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

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

Safety Operation Rules

1. The device shall be used as described in this manual only. Any other use not specified therein may cause fire and other hazards, as well as injury to persons.
2. Ventilate the room for at least 30 minutes after the UV lamp stops working.
3. It is forbidden to operate the device, if any part of the device is damaged or cracked.
4. The device shall not be installed outdoors, or near water including humidifiers.
5. The device shall be kept away from direct sunlight, moisture and vibration.
6. It is not allowed to drop or throw the device, as well as attempt to repair it on one's own.
7. It is not allowed to use the device with a damaged USB-MicroUSB cable, or put this cable near radiators, stoves or heaters.
8. It is not allowed to use detergents to clean any part of the device.
9. If the UV tube is broken, all particles shall be swept into a plastic bag, sealed and disposed of properly, as well as the room must be well-ventilated, because the device contains mercury. Do not use a vacuum cleaner to pick up the waste and glass particles. Contact your local waste collection agency for proper disposal procedures.
10. Keep children away from the device, because it may emit a light attractive to them. Serious injury and electrocution might be possible. This device is intended to be operated by adults only.

Warnings and Precautions

1. **The Portable UV Lamp is not a medical device.**
2. People, pets and plants must not be present in the room under UVC and/or ozone exposure.
3. **It is forbidden to look at the working UV tube, as any exposure to ultraviolet radiation will cause serious damage to the eyes and may lead to skin damage. Therefore, when the device is turned on, wear appropriate eye and skin protection from UV rays.**
4. Ingestion or contact with mercury or its vapor is hazardous to health.
5. It is forbidden to touch the UV tube with wet hands.

6. The device is not intended to be used for removal of active mold growth. The UVC light exposure to existing mold growth can cause respiratory irritation and allergic symptoms.
7. The UVC light exposure may also cause fabric and painting discoloration.
8. The UVC light of the device does not provide a tanning effect, while its exposure to uncovered skin areas for more than 2-3 minutes will cause burns.
9. Do not use incompatible USB Charger to recharge the device.
10. Do not use a UV lamp to sterilize medical instruments.

Warnings related to Ozone and UV

The germicidal effect of the Portable UV Lamp **UV Mini Indigo** is provided by the use of UVC wavelengths of 185nm and 253.7nm. UV light with a wavelength of 253.7nm is one of the most effective in destroying cells of pathogenic organisms. And UV light with a wavelength of 185 nm produces ozone in the air, which is effective in destroying microorganisms and removing odors. This type of disinfection does not harm the environment and does not require special maintenance and storage conditions. However, ozone is highly toxic and can have adverse effects on human health, such as:

- Chest pains, cough, shortness of breath, and throat irritation;
- Chronic respiratory diseases such as asthma;
- Decreased ability of the body to fight respiratory infections;
- Inflammation and damage to the mucous membrane of the lungs.

Exposure to ultraviolet radiation can cause the following adverse effects:

- Skin and eye burns;
- Various mutations (skin cancer, skin melanoma, premature aging).

Therefore, extreme care and precautions must be taken when using Portable UV Lamp **UV Mini Indigo**. All instructions from this document must be followed.

Warnings related to the use of a power adapter

1. Only a suitable power adapter* shall be used to charge the device.
2. It is not allowed to connect a USB-PD (Power Delivery rapid charge standard) power adapter to the device.
3. The manufacturer shall not be liable for any consequences, whether direct or indirect, arising from the use of an incompatible adapter to supply power or recharge the device.

NOTE. If a portable charger is used to recharge the UV lamp, make ensure that the charger output parameters meet the UV lamp power source requirements*.

* For more information on the charger, please see the description in the table of specifications.

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1 General Description and Specifications

1.1 Device Purpose

Perenio® Smart Health UV Mini Indigo Portable UV Lamp is a low pressure mercury lamp designed to destroy bacteria*, germs and dust mites with ultraviolet radiation and ozone at the site of installation.

The lamp operates at short-wave ultraviolet light.

The 253.7nm wave destroys microorganisms by irradiating their DNA and chromosomes, while the 187nm wave produces ozone, which oxidizes the air, thereby destroying bacteria and germs, and removing odor even in places that are hard to reach.

Key functional features of the Portable UV Lamp are:

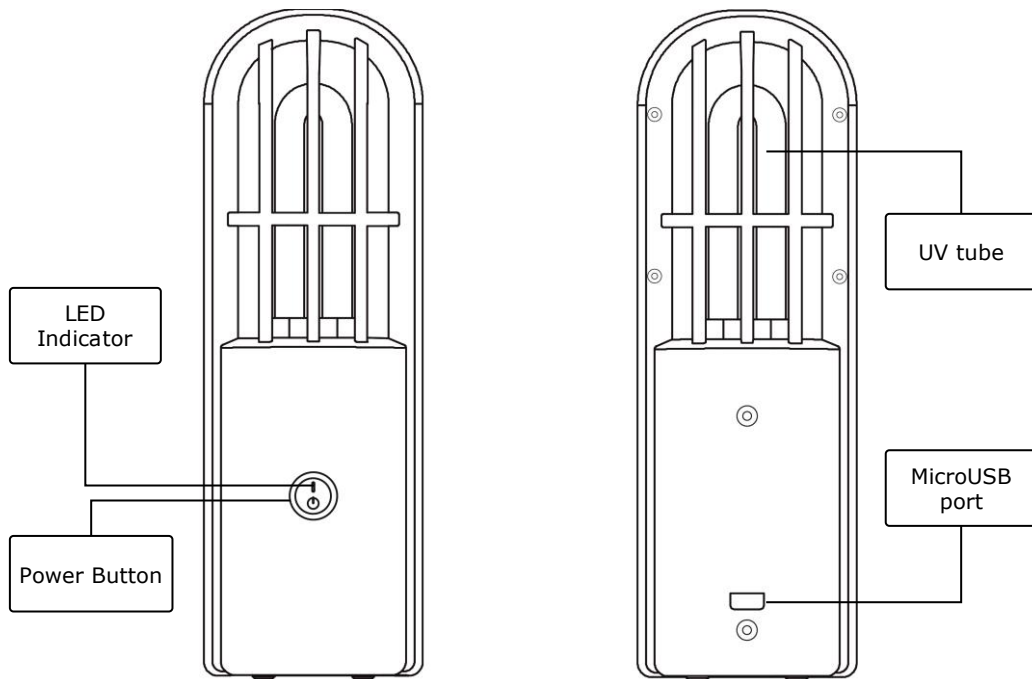
- Disinfection by ultraviolet and ozone;
- UV tube lifespan – up to 15000 hours;
- Operation from a built-in battery and/or an external power source;
- The ability to recharge from other compatible devices (Laptop, PC, portable charging devices);
- Automatic turn-on delay timer (15 seconds);
- Automatic shutdown of the UV Lamp after 30 minutes of operation;
- Ease of use – no configuration required;
- Compact design and the ability to destroy germs and odors in small objects (Wardrobe, fridge, car).

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.

* The maximum death rate of Escherichia coli and Staphylococcus aureus bacteria (up to 99.9%) is achieved when being exposed to the UV lamp for 30 minutes at a distance of 5 cm from the UV tube.



Figure 1 - Exterior



2-a – Front View

2-b – Back View

Figure 2 – Buttons, Ports and Indicators

Buttons, Ports and Indicators

LED Indicator	Indicator of various device states (See Table 1)
Power Button	Button used to turn on and off the UV Lamp
UV Tube	UV Lamp element made of quartz glass that generates UV rays and ozone
MicroUSB Port	Port for connecting the device to a power source

Table 1 – Portable UV Lamp LED Indicator statuses

Indicator	Status	Description
Blue	Blinking	Turn-on delay timer is running
	On	UV treatment is in progress
	Off	Device is turned off
		Damage to the UV tube if the indicator goes out in 15 seconds after the lamp is turned on
	Damage to the UV Lamp or built-in battery, if the indicator does not light up at all after pressing the power button	
Red	Blinking	Device is discharged
		Charging in progress

1.2 Technical Specification

Table 2 – Basic Technical Specifications of the Portable UV Lamp

Parameter	Value
Article	PEMUV01 (white color), PEMUV02 (black color)
Type	Low pressure mercury lamp
UV tube	Bulb type: T5 (Gas: Argon)
Type of radiation	UV-C
Radiation wavelengths	187nm, 253.7nm

Parameter	Value
Radiation intensity	2,100 μ w/cm ²
Mercury Content	0.35mg/kg
Ozone Generation	0.017mg/m ³ (in 30 minutes in a 3 m ³ chamber)
Coverage Area	6m ² to 9m ² , 360°
Power	Power: 2.5W Input Voltage: 5V Input Current: 0.5A Frequency: 50/60Hz
Built-in Battery	Type: Lithium-ion Capacity: 2,000mAh Charge Time: 4 hours Discharge Time: 2 hours
Operating Temperature	0°C to +40°C
Operating Humidity	10% to 50% RH (non-condensing)
Storage Temperature	-30°C to +60°C
Storage Humidity	20% to 90% RH (non-condensing)
Timers	Built-in turn-on delay timer (15 seconds) Built-in operation timer (30 minutes)
Installation	On a horizontal surface
Casing Material	UV Lamp body: ABS Plastic UV Tube: Quartz glass
Color	White/Black
Dimensions (L x W x H)	50mm x 60mm x 182mm
Casing Protection Class	IP20
Weight	150g (170g with accessories)
Warranty Period	2 years
Service Life	UV Tube: 15,000 hours Battery: 350 recharge cycles
Certification	CE, EAC, RoHS

1.3 Scope of Delivery

The following items and accessories are supplied within the **Perenio® Smart Health UV Mini Indigo** package:

1. Portable UV Lamp **UV Mini Indigo** (1 pc.)
2. USB-MicroUSB cable (0.6m) (1 pc.)
3. Quick Start Guide (1 pc.)
4. Warranty Card (1 pc.)



Figure 3 – Scope of Supply*

* Images of accessories are provided for informational purposes only

1.4 Packaging and Labelling

The **Perenio® Smart Health UV Mini Indigo** Portable UV Lamp is supplied in a carton gift box of 100mm x 56mm x 232mm (LxWxH) 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: 150g;
- Gross weight: 200g.

1.5 The Use of Power Adapters

Only the original power adapter included in the delivery package, or some other adapter recommended by *Perenio IoT* shall be used to power or charge the device. This is due to the fact that an incompatible power adapter can cause longer charging time, or a device failure, or a fire, whereas the original power adapter considers all the mandatory technical parameters, namely:

- a. **Voltage** the power supply output (See "OUTPUT, V" parameters on the adapter body);

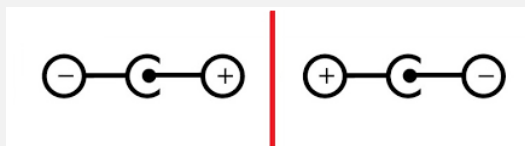
ATTENTION! The output voltage of the power adapter must strictly correspond to the voltage consumed by the main device.

- b. **Current** at the power supply output (See "OUTPUT, A/mA" on the adaptor body);

NOTE. The current delivered by the power adapter must be equal to or slightly higher than the rated current for the main device.

- c. **Polarity** on the connector (pin) of the power adapter;

NOTE. The polarity indicates the part (external or internal) of the connector that receives positive current.



The dot in the above image represents the connector's inner contact, and the crescent moon represents the outer contact. Most connectors have two contacts. One contact carries a voltage ("+"), while the other – zero ("-").

ATTENTION! The poles must not be interchanged.

Some devices are charged by or run on an AC power adapter. In this case, the adapter has no indication of the polarity, and the AC "~" symbol is shown next to the indicated output voltage.

- d. **Configuration** and size of the power adapter cable connector;

NOTE. Geometric shape, outer/inner diameter size and length of the power adapter cable connector must match the parameters of the power port connector of the main device.

Power adapters supplied by *Perenio IoT* with the devices have one of the following types of cable connectors:

1. Standard cylindrical shaped connectors for powering the Indoor Motor Camera and the Control Gateway.
2. USB connectors for powering the Indoor Fixed Camera, the IoT Router and the Ion Diffuser (MicroUSB, Type-C).

There are also devices that are supplied only with a cable (without a power adapter), such as Red Atom device and UV Mini Indigo lamp). Power cables for such devices are also equipped with the second type of the connector.

Table 3 – Types of connectors and USB Standards

Standard	Parameters	Description
USB1.0	5V, up to 150mA 0.75W DTS*: 12Mbps	Obsolete standard of information exchange and connection methods (not used due to too low data transfer rate)
USB2.0	5V, up to 500mA 2.5W DTS*: 480Mbps	Suitable for devices with low power consumption, but data can only be transmitted in one direction at a time
USB3.0	5V, up to 900mA 4.5W DTS*: 5Gbps	It supports backward compatibility with the old standard. It has the same shape as USB2.0 Type-A, but colored blue. Data can be transmitted in both directions at the same time
USB Type-C (without PD**)	Up to 5V, up to 3A 15W DTS*: 10Gbps	This is an oval shaped connector with reversible key. It can be used for data transfer of the USB3.1 interface
USB-PD	Up to 20V, up to 5A 100W DTS*: 10Gbps	This is a USB Type-C with a power transfer function up to 100W. This option is suitable for powerful devices (laptops, large tablets), but may not be suitable for less powerful devices.

Standard	Parameters	Description
		Therefore, it is not used with Perenio[®] devices

* DTS means data transfer speed

**PD means Power Delivery protocol

NOTE. USB Type-C is not USB3.1, because USB2.0, USB 3.0 or USB3.1 can be used to supply power. On the other hand, USB Type-C is not USB Power Delivery and does not necessarily support USB Power Delivery or USB3.1.

ATTENTION! Currently, *Perenio IoT* **does not supply** power adapters with connectors that support USB-PD.

ATTENTION! Do not connect a USB-PD compatible power adapter (Power Delivery fast charging standard) to the device. It is also not permitted to use the charger to power or recharge incompatible devices (For more information on the charger, see the technical specifications).

The manufacturer shall not be liable for any consequences, whether direct or indirect, arising from the use of the power adapter for purposes other than its intended use, or to supply power or charge the device not included in the scope of delivery.

As the power adapter cable connectors are subjected to daily stress, they can become damaged over time. Below see basic signs of a faulty charger connector:

- Unreasonable switching off of the device;
- Unreasonable switching of the device to the battery mode;
- Overheating of the USB plug;
- Periodical switching off of the device in the absence of the mains failure;
- Start of the charging process only after the cable is additionally fixed, or the plug is reconnected;
- No battery charging process when the power adapter is connected.

ATTENTION! Do not charge your device from external devices such as PC, laptop, tablet or smartphone if the maximum current of 500mA/900mA (USB2.0 and USB3.0 ports, respectively) is insufficient to provide the required power input level to the device.

2 Installation and Setup

Before starting to use the device, it is required to choose one of the possible locations for the UV Lamp on a horizontal surface. Make sure that the selected room or the object to be UV irradiated can be tightly closed (windows, doors, covers are tightly closed).

ATTENTION! Prolonged exposure to UV light can cause painting and fabric discoloration.

Below see possible locations for Portable UV Lamp:

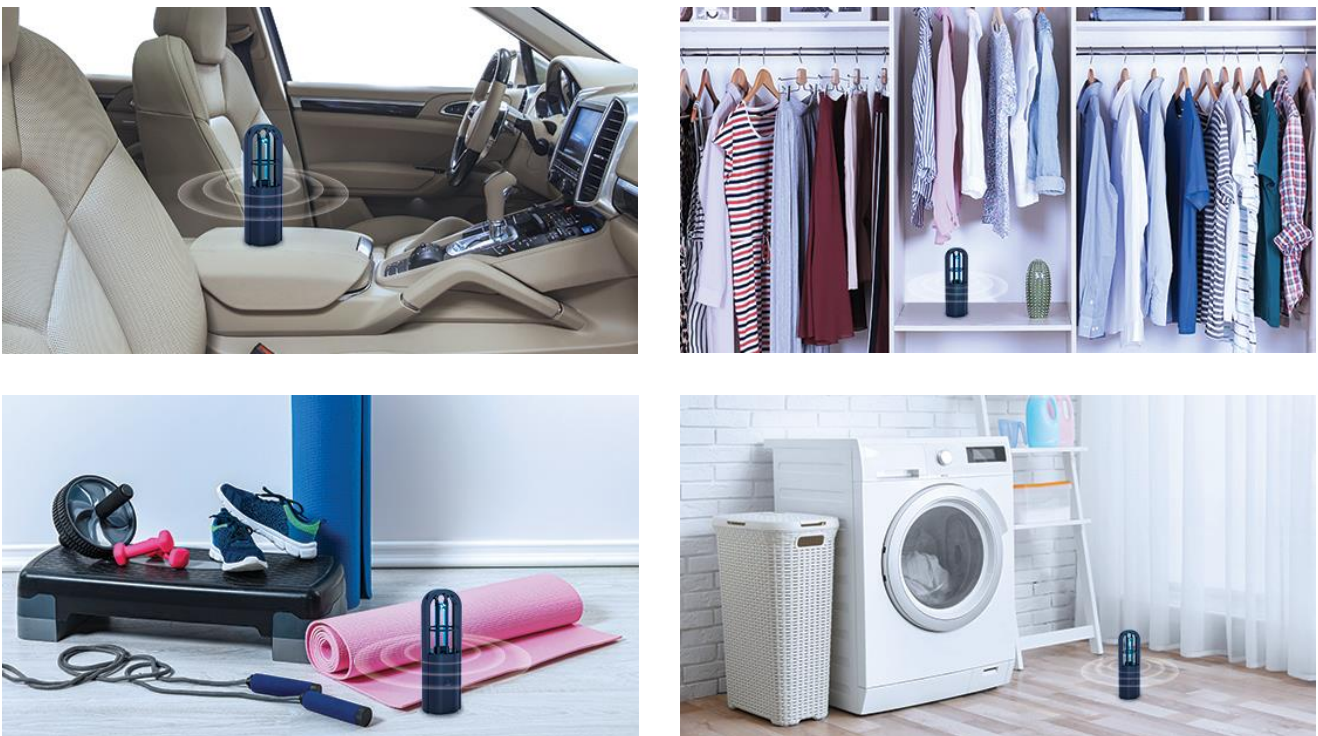


Figure 4 – Examples of installation*

* Images are provided for informational purposes only

2.1 Preconditions for UV Treatment

1. Unpack the **UV Mini Indigo** Portable UV Lamp and connect it to the power source using USB-MicroUSB Cable.

NOTE. Any suitable USB Charger (**output: 5V/0.5A**) can be used to connect to the mains. Charger is not included in the scope of supply.

2. Wait for the battery to be recharged (This process usually takes no more than four (4) hours).

NOTE. When battery is fully charged, the LED Indicator of the Power Button will stop flashing red (See Table 1 above).

3. Disconnect the UV Lamp from the source of power and install it on a flat horizontal surface in the desired area to be treated by UV and Ozone.
4. Close all windows tightly, turn off the air conditioners, block the air ducts at the area of exposure.

NOTE. The most effective way to use the UV Lamp in rooms without air circulation at temperatures from +24°C to +26°C.

2.2 UV Treatment Process

ATTENTION! Carefully read the "Warnings and Restrictions" Section of this document before turning on the device.

1. Press the Power Button to start the UV treatment process.

NOTE. The UV irradiation process will start 15 seconds after pressing the Power Button, which allows the User to safely leave the room, or switch off the device during this period.

ATTENTION! The LED Indicator **will be blinking blue** during the 15-second delay period.

2. Leave the room immediately.
3. The UV Lamp will automatically switch off 30 minutes after the UV treatment process is started. Switch it on again, if required.

ATTENTION! If the User needs to stop the UV treatment process before the UV lamp is automatically turned off, they shall wear special eye and skin protection before entering the room.

4. After turning off the UV lamp, please thoroughly ventilate the room of UV expose for at least 30 minutes.

ATTENTION! Prevent the presence of people or animals in an unventilated room, as inhalation of ozone can lead to respiratory damages.

2.2.1 Recommended Exposure Time

The UV treatment period depends on the room type and the area of installation of the device. See the approximate UV expose time for the **UV Mini Indigo** Portable UV Lamp in the table below.

Table 4 – Recommended Exposure Time

Area of Exposure	Recommended Exposure Time
2.5m ² max	30 minutes (1 operating cycle)
5m ² max	60 minutes (2 operating cycles)
7.5m ² max	90 minutes (3 operating cycles)

3 Maintenance and Repair

The **Perenio[®] Smart Health UV Mini Indigo** Portable UV Lamp does not require special maintenance in the normal course of operation. However, in order to maintain the proper state and stable operation of the device the User shall follow the safety operation rules, warnings, and precautions (See the "Warnings and Restrictions" Section).

The **Perenio[®] Smart Health** Portable UV Lamp repairs shall be carried out in Service Centers. The UV Tube cannot be repaired due to mercury content.

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

For details on the replacement and repairs of the **Perenio[®] Smart Health** Portable UV Lamp, please contact your local Company representative or the Tech Support Department at **perenio.com**.

4 Warranty Obligations

The warranty period for the **Perenio® Smart Health** Portable UV Lamp shall be **Twenty-Four (24) months** from the date of sale to the End User.

ATTENTION! The UV tube and the built-in battery are not covered by the warranty as they are subject to natural wear and tear and must be replaced from time to time at a Service Center.

The Manufacturer claims a device service life of **15,000 hours** for the UV tube and **350 recharge cycles** for the built-in battery.

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 corresponds 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 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 flood and 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 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[®] UV Mini Indigo** Portable UV Lamp 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.

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

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

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

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

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

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

To dispose of a device that contains mercury, the User must take it to their local recycling facility due to the following reasons:

- If the UV tube is damaged, mercury vapors will be released into the air, water and/or soil and contaminate it, as well as may bring harm to human health, if the vapors are inhaled;
- The UV lamp components may also need to be recycled.

If the User cannot dispose of the device in a specialized facility for recycling of lamps, then they can also take it to a hardware and household store, the local department of the Ministry of Emergencies or a similar institution.

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.

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

Importing Company

Name	<i>ASBISc Enterprises PLC</i>
Address	43 Kolonakiou Street, Diamond Court, Ayios Athanasios, 4103 Limassol, Cyprus

Quality Claims Acceptance and Warranty Service Company

Name	<i>ASBISc Enterprises PLC</i>
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Name	<i>ASBIS CZ, s.r.o.</i>
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Info on Certificates and Declarations

Certificates	TCT Certificate of Compliance #TCT200921E019C-1 as of September 29, 2020 TCT Certificate of Compliance #TCT200922C002C as of October 15, 2020
Declarations	EC Declaration of Conformity as of July 31, 2020 RoHS Compliance Declaration as of July 31, 2020

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

7 Troubleshooting

Table below shows typical errors and problems that may occur in the process of using the Portable UV Lamp.

Table 5 – Typical Errors and Troubleshooting Methods

Item No	Problem	Possible Reasons	Solution
1	UV Lamp does not turn on	Low battery level	Battery needs to be recharged
		Battery malfunction	Contact Tech Support Department
2	UV tube is not working	UV tube is damaged	Replace the UV tube
		Service life of the UV tube has ended	Replace the UV tube
3	The blue LED Indicator stops blinking 15 seconds after the UV lamp is turned on	UV-tube malfunction	Contact Tech Support Department

8 Glossary

UV-C	Electromagnetic spectrum of ultraviolet light, determined by the short-wave range with a wavelength of 280nm to 100nm
Argon	Gas used in the UV tube along with mercury vapor to generate UV light
IP20	The degree of protection of the device, indicating that parts inside the case are protected from the penetration of fingers or objects longer than 80mm and solid bodies larger than 12mm. No moisture protection
ABS Plastic	Modern synthetic polymer with a high level of impact resistance and elasticity