

PHOVIA

LED lamp

Instructions for Use

Please read this document in conjunction with the PHOVIA KIT instructions before use



For use on dogs and cats only



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DEVICE DESCRIPTION

The PHOVIA LED Lamp delivers non-coherent blue light at a single peak wavelength, with a maximum emission between 440-460nm. Its power density ranges from 55-129 mW/cm² at 5cm on a 50cm² round illuminated surface. The lamp is equipped with a 2-minute timer and a blue cone.

The portable PHOVIA LED Lamp is powered by rechargeable batteries. It is packaged with two protective goggles, instructions for use, a charging dock, a 12V DC adapter with NEMA/B5/CEE/CEI plugs for each region and a Portable Lamp 12V Car Power Adapter.

INSTRUCTIONS FOR USE

The PHOVIA LED Lamp is a device to be used as part of the PHOVIA System. The PHOVIA System reduces healing time by up to 50% compared to traditional methods.

WARNINGS AND PRECAUTIONS

Before using the PHOVIA LED Lamp, it is important to read and understand the warnings, precautions, and the use of the lamp, all found within this document.

1. Do not use if the animal:
 - a) has photosensitivity due to a condition or is taking medicines/products known to induce photosensitivity reactions;
 - b) has known skin hypersensitivity;
 - c) has known porphyria condition.
2. This product has not been tested in pregnant or lactating animals. The veterinarian should apply a risk benefit judgment when considering using the product.
3. **EXPLOSION HAZARD. DO NOT USE ELECTRICAL EQUIPMENT IN THE PRESENCE OF FLAMMABLE GASES SUCH AS ANESTHETIC MIXTURE WITH AIR, WITH OXYGEN OR NITROUS OXIDE.**
4. To avoid risk of electrical shock, this equipment must only be connected to a main supply with protective earth.
5. Do not look directly at the light source. Do not use this device without suitable eye protection for the operator, any other person in the room and the animal. The blue light emitted does not pose a retinal hazard when used as directed.
6. Ensure that the lamp cannot be turned on when stored long-term or being transported.
7. Do not hold the lens of the functioning light (without the blue cone) against any portion of the animal's body as this could result in the risk of burning. The blue cone should always be on the lamp when in use.
8. The lamp has no serviceable parts.
9. Use only the cables, accessories or replacement parts provided by the manufacturer of this lamp.
10. Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

11. The PHOVIA LED Lamp should be used by a licensed veterinarian or in accordance with current legislation, a suitable trained person under the veterinary surgeon's supervision.
12. Use of this equipment adjacent to or in conjunction with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be checked to verify that they are operating normally.
13. Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the PHOVIA LED Lamp, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
14. When the PHOVIA LED Lamp is moved from a cold place to a warm humid place, condensation could occur and cause permanent damage. To avoid condensation on electronic circuits, the system lamp should be at room temperature before turning it on.
15. This equipment conforms to the directive 2014/30/EU in relation to Electromagnetic Compatibility (EMC). All electrical equipment produces interference. However, do not use in proximity to sensitive devices.
16. Clean and decontaminate the device with disinfectant agent (see section **DEVICE CLEANING**) between use to prevent cross-contamination by contact with skin.
17. In case of faulty cooling, the LED window may become hot during use (up to 51°C/123°F). Avoid contact exceeding 1 second.
18. In case of faulty cooling, lamp enclosure handles may become hot during use (up to 51°C/123°F). Avoid contact exceeding 10 seconds.
19. PHOVIA LED Lamp is not intended to be sterile. Do not sterilize the lamp or the accessories.
20. This equipment may cause radio interference or may disrupt the operation of nearby equipment.
21. When using the lamp in an environment above 30°C/86°F, the user should allow a 60 seconds cooling time between use. The thermal sensors protect and prevent the lamp being used when the internal temperature exceeds a pre-set danger limit.
22. If charging the lamp in the car using the included car charger, ensure the car is running. There is a risk of depleting the car's battery if the motor is turned off.
23. Keep away from children.

PRODUCT SPECIFICATIONS - PART 1

The PHOVIA LED Lamp is an electrical and internally powered device designed for indoor or outdoor use with an operating temperature between +5°C to +35°C (equivalent to 41°F to 95°F). The irradiance or power density of the PHOVIA LED Lamp light ranges from 55-129 mW/cm² at 5 cm from the light source. This is within acceptable safety limits according to the ANSI Z.136 International Standard Regulations on optical exposure to skin.

Portable PHOVIA LED Lamp

The lamp consists of the following parts:

1. Portable PHOVIA LED Lamp
2. 12V power cable with NEMA/BS/CEE/CEI plugs
3. Portable Lamp 12V Car Power Adapter
4. Portable Lamp Charging Dock
5. 2 Pairs of Protective Goggles
6. Instructions for Use



ACCESSORIES



PHOVIA LAMP SPECIFICATION

- **Dimensions:** 222mm length, 110mm width, 140mm height
- **Weight:** 650g
- **Batteries:** 3 Batteries: 3.7V lithium-ion cells **Battery Current Rating:** 3A max
- **Firmware stored on integrated microcontroller**
- **LEDs:** 12 LEDs CREE Royal Blue

Heat Generation:

- **If used as per instructions, the temperature of the skin covered or not covered with gel will not exceed safety limits.**

Degree of Protection against Harmful Ingress of Liquids: IP23

- **Degree of Safety in the Presence of Flammable Anesthetic Mixture with Air or with Oxygen or Nitrous Oxide:** Not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.

Operating Conditions:

- **Exposure area:** round surface of 50cm²
- **Distance between source and gel (working distance):** ideally 5cm meaning rubber cone being as close as possible to the skin surface.
- **Operating temperature:** +5oC to +35oC (equivalent to 41oF to 95oF), 0-80% RH non-condensing
- **Atmospheric pressure rating:** 700 hPa to 1060 hPa

Transport and Storage Conditions:

- **Storage and Transport:** -10oC to +50oC (equivalent to 14oF to 122oF), 0-80% RH non-condensing
- **Atmospheric pressure rating:** 700 hPa to 1060 hPa

When the PHOVIA LED Lamp is moved from a cold place to a warm humid place, condensation could occur and cause permanent damage. To avoid condensation on electronic circuits, the lamp should be at room temperature before turning it on.

Cleaning and Maintenance:

- The lamp can be disinfected with 70% isopropanol or 70% ethanol, or chlorhexidine.

CHARGING DOCK SPECIFICATION

- **Dimensions:** 180mm length, 80mm width, 44mm height
- **Weight:** 385g
- **Current Rating:** 12V, 2A

Operating Conditions:

- **Operating temperature:** +5oC to +35oC (equivalent to 41oF to 95oF), 0-80% RH non-condensing
- **Atmospheric pressure rating:** 700 hPa to 1060 hPa

Transport and Storage Conditions:

- **Storage and Transport:** -10oC to +50oC (equivalent to 14oF to 122oF), 0-80% RH non-condensing
- **Atmospheric pressure rating:** 700 hPa to 1060 hPa

Cleaning and Maintenance:

- The dock can be disinfected with 70% isopropanol or 70% ethanol, or chlorhexidine.

12V POWER CABLE WITH NEMA/BS/CEE/CEI PLUGS SPECIFICATION

- **Dimensions:** 1.22m (4 ft)
- **Weight:** 160g
- **Current Rating:** 12V, 2A

PORTABLE LAMP 12V CAR POWER ADAPTER SPECIFICATION

- **Dimensions:** 1.5m (5 ft)
- **Weight:** 50g
- **Current Rating:** 12V, 2A

PROTECTIVE GOGGLES SPECIFICATION

- **Description:** Protective goggles (Orange OD2+) -U60 Medium Fit over 49% Orange
- **Optical Properties:** Luminous Transmittance NA 57%
- **Material:** Polycarbonate

LITHIUM BATTERIES SPECIFICATION

- **Description:** Rechargeable Lithium Ion battery pack
- **Capacity:** 2200mAh
- **Nominal Voltage:** 3.6V

PRODUCT SPECIFICATIONS - PART 2

LAMP-USER INTERFACE

1. START/STOP BUTTON

To start and stop the illumination period. The lamp will emit a sound indicating the start of the illumination.

2. POWER INDICATOR

Indication of battery state:

While operating:

Solid green: battery full
Blinking green: battery below 50%
Blinking yellow: <4 illumination cycles left

While charging:

Yellow LEDs: Charging mode on
Solid yellow and blinking white LEDs:
At least one cycle available.
Each bar represents 20% of battery capacity.
Solid green and solid white LED's: battery full

3. TIMER/BATTERY LEVEL INDICATOR

TIMER

When the illumination period starts the TIMER/BATTERY LEVEL INDICATOR is fully lit and the countdown starts. Each bar represents 24 seconds of the remaining time for a total of 2 minutes illumination period.

BATTERY LEVEL

When the illumination period stops, the lamp emits a double “beep” sound and the TIMER/BATTERY LEVEL INDICATOR will flash to indicate the battery level. Each illuminated flashing bar represents around 20% of charge.

4. AUDITORY SIGNALS

- An audible beep sounds when the illumination period starts.
- An audible beep sounds when the illumination period finishes.
- The lamp emits a distinguishable beep when shut down manually.
- An audible beep sounds when the battery is empty.
- An audible beep sounds when the battery or LEDs are hot (Front window will not exceed more the 50°C (122°F).
- An audible beep sounds when the battery is fully charged.
- An audible beep sounds when charging starts.
- An audible beep sounds when charging stops.

INTERNAL PARTS HEAT PROTECTION

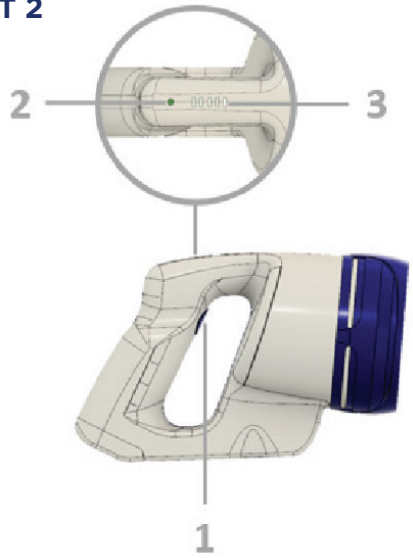
BATTERY

If the batteries exceed 60°C / 140°F, illumination is stopped even if in mid-cycle. If the batteries exceed 45°C/115°F during charging, charging will stop until batteries cool down.

LEDS

If the LEDs temperature exceeds 68°C /154°F at the end of an illumination cycle, the lamp will indicate the start of a forced cool-down period with a blinking of all colors and a series of beeps. Illumination is disabled until the LEDs cool down. The lamp will provide the same indication once illumination is re-enabled.

NOTE: If the lamp is to be used at ambient temperature exceeding 30°C / 86°F, a short cooling period should be used to prevent overheating.



ENVIRONMENTAL PROTECTION

The PHOVIA LED Lamp is rated IP23 and has been tested per IEC 60529-1. The device is sealed and protected against spraying water. Lint, dust and light (including sunlight) have minimal effects on the performance of the lamp.

BATTERY CHARGING

If the lamp doesn't turn-on when the START/STOP button is pressed and there is an audible beep, the batteries are empty. The lamp can be charged either with the 12V power cable or with the dock charger.

NOTE: The lamp cannot be used while charging.

CHARGING ON DOCK

1. Plug the 12V power cable with the suitable plug on a wall socket.
2. Insert the 12V power cable into the power connector on the back of the dock.
3. Place the lamp on the dock.

CHARGING WITH THE 12V POWER CABLE ALONE

1. Plug the 12V power cable with the suitable plug on a wall socket.
2. Insert the 12V power cable into the power connector located at the base of the lamp.
3. The lamp will emit an audible beep and the indicator will turn yellow signifying the lamp battery is charging.
4. When the lamp battery is fully charged, the lamp will emit an audible beep and the TIMER/BATTERY INDICATOR will be fully lit and turn green. Alternatively, the lamp battery can be charged in a car by using the 12V car power cable in the cigarette socket. The motor must be turned on while charging the lamp battery or it may potentially deplete the car battery.

DIRECTIONS FOR USE

Please adhere to the following instructions and read the Warnings and Precautions on Page 3 before using the lamp, to ensure safe and proper use of the PHOVIA LED Lamp.

Please refer to the instructions for use of the PHOVIA Kit, which describes how to use and apply the gel prior to the use of the PHOVIA LED Lamp.

1. Check all lamp components for any damaged or missing parts.
2. Make sure the lamp has been cleaned and disinfected prior to use.
3. Verify the battery level of the lamp, ensure that the batteries have enough charge for the entire illumination period (several illumination cycles). It is recommended to only start a multi illumination period when the POWER INDICATOR is green.
4. Hold the lamp over the skin surface.
5. Follow PHOVIA LED Lamp instructions for use. The distance between the light source and the skin area is achieved by positioning the lamp's cone as close as possible to the skin without touching the skin. The LED's are 5 cm from the edge of the cone. Ensure that the distance is maintained throughout the illumination.
6. Press the START /STOP button to start the illumination period. The light will turn on and the timer will count down, starting from 2 minutes. Monitor the animal during the illumination cycle.

NOTE: During illumination, each illuminated bar of the TIMER/BATTERY LEVEL indicator represents 24 seconds of remaining time.

At the end of the 2 minute period, the light will shut off automatically.

The illumination should be carried-out without interruption.

INFORMATION

When the PHOVIA LED Lamp is fully charged, new batteries have sustainability of at least 50 minutes of illumination time. The user should be able to perform 25 treatment cycles. The lamp indicator will turn yellow when 4 cycles or less remain. When you see the yellow light, please charge the device.

DEVICE CLEANING

At the start and end of each usage:

The PHOVIA LED Lamp must be cleaned and wiped down with a non-fibrous wipe and disinfecting solution at the start and end of each usage.

In case of heavy contamination:

The lamp should be allowed to cool and then be cleaned and wiped down with a disinfecting solution before storage. However, if the lamp is judged to have become contaminated, the following procedure should be followed:

1. Allow the lamp to cool. Disinfecting starts with a non-fibrous wipe sprayed with a strong disinfectant solution (e.g. 70% isopropanol or 70% ethanol, or chlorhexidine). Gently wipe with slow regular strokes, across the entire surface of the lamp. A fresh spray of disinfectant shall be applied for each consecutive stroke.
2. After the application of the disinfectant, leave the lamp to stand for the recommended time by the disinfectant manufacturer or for at least 30 minutes.
3. Store the device appropriately to prevent contamination.
4. The lamp should be stored in compact position away from high traffic areas.

TROUBLESHOOTING

If the lamp, light, dock charger or power adapter cables fail to operate or appear damaged, contact Vetoquinol. For customer service call 1 (800) 267-5707.

There is no requirement for in-field calibration. The unit has been set to meet all specifications prior to shipping.

EXCERPT FROM WARRANTY POLICY

Vetoquinol warrants that the PHOVIA LED Lamp (the "Product") will be free from defects in material and workmanship for a certain period of time as defined in the "Warranty Policy" available at: <https://www.vetoquinol.com/phovia/warranty>.

If this Product does not conform to the warranty, Vetoquinol will send you, at its discretion, a replacement, a repair or refund your original purchase price upon receipt of the returned product, register receipt and proof of purchase.

This limited warranty does not cover products subject to accident, neglect, abuse, normal wear and tear, misuse or acts of God.

EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY.

LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES IS HEREBY EXPRESSLY EXCLUDED.

Some countries do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from country to country.

Dismantling the device will void the warranty. (There are no user repairable parts inside the product, repair and servicing shall only be done by the manufacturer.)

This product may be covered by one or more patents or pending patent applications.

See <https://www.vetoquinol.com/phovia/ip> for details and patent status.

DISPOSAL OF THE DEVICE

The unusable device should be disposed under the responsibility of the user and in accordance with the local requirements.

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