Cleans and sanitizes CPAP mask and accessories

# LUMIN<sup>®</sup> USER MANUAL



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Thank you for your recent purchase of the Lumin CPAP Mask and Accessories Sanitizer. The Lumin was developed by 3B Medical, a manufacturer and distributor of CPAP devices and masks.

The Lumin device may be used with all brands of masks and accessories.

The Lumin disinfects using a very specialized and high powered UVC light source, the same type of light source used in hospital operating rooms and sterile clean rooms. UVC light will disinfect up to 99% of harmful bacteria, pathogens and fungi that can cause infection and illness. UV light is also the safest disinfection option on the market, there is NO HARMFUL OZONE. Ozone has been shown by the EPA to irritate the lungs and the respiratory system, making it extra harmful for people with respiratory illness..

The 3B Lumin is intended to supplement your CPAP accessory manufacturers cleaning recommendations.

Please read and follow all directions in this user manual. Any questions can be directed to TechSupport@3Bproducts.com.



#### **Helpful Hint:**

We recommend disinfecting CPAP masks and accessories. along with any other personal care items twice weekly, and daily during cold and flu season.

# Indications for Use

The Lumin is a device intended to disinfect Continuous Positive Airway Pressure (CPAP) accessories, including mask and water chamber. A person using a PAP device to treat Obstructive Sleep Apnea (OSA) may use Lumin to sanitize their mask and water chamber to augment their PAP equipment manufacturer's recommended cleaning instructions. The Lumin is intended for home use. The Lumin may also be useful as a multi-purpose disinfecting device for other personal care products (i.e. electric toothbrush, toys, cell phones, etc).



Warning - the Lumin is not a toy and is not intended to be used by children.



Warning - the Lumin has a powerful UV light bulb included, use with care in case of broken glass.



Warning - do not use in or around sinks, tubs, pools or any bodies of water.

Warning - the UV that is emitted in the closed chamber is not compatible with life, never place living creatures in the Lumin.



Warning - do not stack objects on top of your Lumin.

- Warning use this device only for its intended use as described in this manual. If the equipment is not used in the manner specified, the protection provided by the equipment may be impaired.
- Warning Do not attempt to operate this device with the drawer open. The device was designed to shut off automatically when the drawer is open. It is important not to defeat or tamper with this safety feature as UVC light can cause damage to eyesight.
- Warning The Lumin plugs into an outlet. Disconnect the device by unplugging. Do not plug the device into an outlet that is difficult to access.

# **SPECIFICATIONS**

LM3000
5.5 lbs
12.25 x 8.5 x 7.75"
AC 110 V 60Hz
AC 220 V 50Hz
13W
nditions: erature: 0° to 120° F / -18° to 49° C nperature: 20° to 100° F / 7° to 38° C to 93%, non-condensing

## **EXPLANATION OF SYMBOLS USED**

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L	_		

Equipment protected throughout by double insulation or reinforced insulation



Refer to instruction manual

Important information concerning your safety or the operation of your device

## **FEATURES**

Your healthy choice in CPAP accessory disinfection with simple one-touch operation.



## **Understanding Your Lumin Cleaner**

The Lumin operates using a specialized high powered germicidal UV bulb. The drawer is made of polished aluminum which reflects the UV light to improve coverage. UV disinfection is effective on bacteria, viruses, mold and fungi and is well suited for keeping your CPAP mask and humidifier water chamber free from bacteria that can make you sick. CPAP masks and the humidifier are in contact with warm moist air throughout the night, the ideal environment for breeding bacteria. Daily use of the Lumin will help keep you healthy and compliant with your CPAP equipment.

Because the Lumin operates using a form of high energy light, it is very effective in disinfecting your CPAP accessories. To keep your mask, hose and water chamber clean and reduce the risk of infections, we recommend using Lumin twice weekly on your mask, water chamber and hose. Disassembly of your mask is not required for routine disinfection. If visible debris is present remember to wash or use a CPAP wipe on the mask prior to disinfection. A disassembled mask can be placed in the Lumin for an even more thorough disinfection. Hoses do benefit from Lumin disinfection, and the minimum recommendation of twice weekly will prevent build-up of biofilm in the hard to reach areas. Maintain healthy breathing with quarterly replacement of your CPAP hose. 3B's Ultra Noir CPAP hose is available from your Lumin reseller or online at 3BLumin.com.



#### **Helpful Hint:**

The Lumin can disinfect a variety of other products safely, including dentures, hearing aids, and toothbrushes!

## **Using Your Lumin RACK**

Use of the clear Lumin RACK is suggested to improve disinfection. Set your mask and accessories on the RACK to allow greater penetration of the underside of the article being sanitized. If your item is large, use of the Lumin RACK is optional and it may be removed.

# **Using your Lumin**

- 1. Plug the Lumin power cord in a wall outlet.
- For your humidifier water chamber, open the water chamber and lay both sides facing up. For your CPAP mask lay the mask with the inside facing up and laying flat for maximum UV penetration
- 3. If your mask or accessories are visibly soiled please first wipe thoroughly with a damp cloth or a CPAP wipe.
- 4. Close the Lumin chamber drawer
- 5. Press round power button, the Cycle-On red light will turn on indicating that the 5 minute disinfection cycle has started.
- 6. A light glow of UV Light will be visible through the tinted oval window on the top of the unit while disinfection is occurring
- 7. After 5 minutes the Lumin will emit a beep and the UV light will no longer be visible. A green light will indicate completion of the cleaning cycle. You may now remove your equipment. No waiting period is necessary and your mask and equipment are now ready to use.





## **Caring for your Lumin Device**

The Lumin bulb is designed to exceed the life of your device so changing the bulb should not be necessary. If, however, it does become necessary, the bulb is removed by simply grabbing the base and pulling firmly. The bulb is easily replaced by inserting the new bulb and pushing it into the socket. If you are in need of a replacement bulb please contact 3B Medical at 863-226-6285 for a replacement bulb. Alternatively you may also log on to www.3BLumin.com and order a bulb or email support@3Bproducts.com.

The Lumin drawer is lined with polished aluminum. Do not use baking soda or other alkali-based cleaners on aluminum as it can cause discoloration. Aluminum scratches fairly easily, so avoid abrasive cleaners and scrubbers when cleaning and polishing. If using a metal or glass cleaner, test the cleaner on a small portion of the drawer. Polish with a soft lint free cloth.

Should the casing of your 3B Lumin become soiled you may wipe down with any moist cloth. Do not immerse your Lumin into water or any cleaning solvents. Place your Lumin on a level counter or tabletop. Do not drop your Lumin or the bulb and or glass drawer may shatter.

## **Frequently Asked Questions**

#### How does Lumin work?

Lumin works by emitting high energy light within a narrow spectrum referred to as UV-C. The Lumin relies on a low-pressure, mercuryarc germicidal lamp designed to produce the highest amounts of UV energy – where 90% of energy is generated around 254nm. This light is very close to the peak of the germicidal effectiveness curve of 265nm, the most lethal wave to microorganisms. The dose of UV-C emitted in one 5 minute cycle is sufficient to kill most bacteria and mold on a surface. The use of UV-C is environmentally friendly, leaves no residue or toxic gases or chemicals. UV-C systems are currently in use to disinfect operating rooms, ambulances, emergency service vehicles and other high touch areas.

#### Why doesn't the Lumin use Ozone, like other CPAP cleaners?

Because 3B Medical is a manufacturer of CPAP equipment, masks and accessories, we have a heightened level of commitment and concern for our patients. We did not feel that the safety concerns of ozone being used in the home were being adequately disclosed. Due to the lifestyles of many of our patients, we also had concerns that the two hour wait period in using CPAP equipment might be ignored and harmful OZONE inhaled. The U.S. EPA published a serious warning about use of ozone in a home environment:

"When inhaled, ozone can damage the lungs. Relatively low amounts can cause chest pain, coughing, shortness of breath and throat irritation. Ozone may also worsen chronic respiratory diseases such as asthma and compromise the ability of the body to fight respiratory infections."

#### https://www.epa.gov/indoor-air-quality-iaq/ozone-generators-are-sold-air-cleaners

For that reason, in designing the Lumin, care was taken to find the safest and fastest way to disinfect CPAP accessories. UV-C was by far the best solution.

#### Why should I disinfect my mask and water chamber?

Moisture left in your mask or humidifier becomes a breeding ground for bacteria, germs and mold. Keeping your CPAP mask and humidifier free of harmful germs and bacteria helps avoid getting sick from a dirty CPAP.

#### Are there any supplies that need to be reordered?

No. The Lumin requires no replacement supplies whatsoever. The Lumin relies on a special germicidal UV-C bulb that is rated to easily outlast the life of the device and should not require changing. In the event the bulb is damaged or does require replacement, low cost replacement bulbs are available directly from 3B Medical.

#### How do I use the Lumin?

The Lumin is a single button device. It really could not be any easier. First wipe the inside of your mask and cushion with a CPAP wipe to remove any physical residue. If disinfecting your humidifier water chamber, open the chamber and place in the drawer face up. If disinfecting your mask, lay your mask in the drawer face up. Close the drawer and press the button. In 5 minutes the cycle is complete and your mask and water chamber are ready for use. Because UV-C disinfection involves light waves, it operates in "line of sight" fashion, only irradiating surfaces within its sightlines. If there is heightened need for disinfection, the mask can be disassembled or a second cycle used after flipping the object over. For general daily use, only one cycle is necessary.

## WARRANTY

Your Lumin is warranted for a period of 2 years from time of purchase to be free from manufacturer defect or workmanship. Should you encounter a warranty issue please contact 3B Medical at www.3BLumin. com to submit a return authorization or email support@3bproducts.com.

It is at the discretion of 3B Medical to repair, replace or exchange your Lumin unit should it be necessary. 3B Medical is not liable for misuse, mishandling or breach of this written guarantee. Attempts to alter the Lumin in any way will void warranty. This product is not intended to diagnose, treat, cure or prevent any disease or medical condition. Remember to always consult a physician prior to using any medical device, the information provided herein is not to be construed as a medical diagnosis or medical advice. No medical claims are implied or intended with the sale of this device. Purchaser accepts responsibility for correct and proper use of device.

#### Please register your Lumin at www.3BLumin.com

#### Lumin CPAP Mask Cleaner Model No.: LM3000



This equipment has been tested and found to comply with the limits for a Consumer ISM equipment, pursuant to Part 18 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation."

Please note that changes or modifications of this product is not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This product may cause interference to radio equipment and should not be installed near maritime safety communications equipment, ships at sea or other critical navigation or communications equipment operating between 0.45-30 MHz.



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