

CleanWave

The word "CleanWave" is written in a large, bold, sans-serif font. To the right of the word "Wave" is a registered trademark symbol (®) and a graphic icon consisting of several horizontal, wavy lines.

Sanitizing Light Wand

VH11



Dear Customer,

Thank you for purchasing the Verilux® CleanWave® Sanitizing Light Wand. You have received an innovative and quality manufactured product, backed by a one-year limited warranty.

Many other healthy lighting products are available through our catalog and online. Visit us on the web at www.Verilux.com to request a free catalog and learn more about all our quality Verilux® products, or call our toll-free number 1-888-544-4865.

As a Verilux® customer, your satisfaction means everything to us. We look forward to serving you now and in the future.

Have a bright day!

A handwritten signature in black ink that reads "Nicholas Harmon". The signature is written in a cursive, flowing style.

Nicholas Harmon
President

Contents

Warnings and Precautions	4
Introduction	6
Sanitizing Light Wand Features	6
Initial Set-Up	9
Operation.	9
Guidelines for Use	10
Technical Specifications	11
Warranty	12

Warnings and Precautions

- To prevent fire or shock hazard, do not expose this product to rain or excessive moisture.
- Do not leave product unattended while on.
- Parts are not serviceable.
- CleanWave® wands shall not be exposed to dripping or splashing. No objects filled with liquids, such as vases, shall be placed on the apparatus.
- This unit should not be handled by children under 12 years of age without adult supervision due to the danger of accidental direct exposure to UV rays.
- Always direct the UV rays away from the eyes and skin.
- Never use this device on pets.
- Care should be taken to prevent bulb breakage.
- Allow bulb to cool before replacing.

WARNING: These lamps can cause serious skin burn and eye inflammation from short wave ultraviolet radiation. Radiation from these lamps is harmful to the eyes and skin.

WARNING: Mercury Hazard. Be careful to not break the bulb during replacement. UV-C bulbs contain a small amount of mercury which can cause injury if inhaled or ingested. For more information on clean up and disposal, see www.lamprecycle.org

CAUTION: UV-C light may degrade plastic and rubber over time.

DANGER

Ultraviolet (UV-C) Radiation Hazard

Over exposure will cause significant eye damage and may cause skin damage.

Do not look into UV light source.

WARNING POTENTIAL MOLD SPORE RELEASE

Application of UV-C light to existing mold growth can cause respiratory irritation and allergic symptoms. Do not use UV-C light where active mold growth exists. Remove active mold growth from surfaces prior to exposure.

SAVE THESE INSTRUCTIONS

Warnings and Precautions continued

FCC INFORMATION

This device complies with Part 18 of the FCC Rules. This product may cause interference to radio communications and should not be installed near maritime safety communications equipment or other critical navigation or communication equipment operating between 0.45 - 30 MHz.

Warning: Changes or modifications to these units not expressly approved by the party responsible for compliance could void the user's authority to operate equipment.

This device complies with part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy. 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. 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.

Introduction

Your new Verilux® CleanWave® UV-C Sanitizing Light Wand is one of the best protections against dangerous allergies, bacteria and viruses that live on surfaces in your house, your office and your car.

We hope you enjoy this product and use it frequently. **Your results will be cumulative – your “kill rate” may be 90% during your first use on a surface, then “90% of the remaining 10%” on your next use.**

About Light and UV-C Light

Visible light is electromagnetic radiation in wavelengths visible to the human eye. The wavelength of visible light, in nanometers, is about 400nm to 750nm. A nanometer is one billionth of a standard metric meter.

Ultraviolet or UV light is the part of the electromagnetic spectrum that contains frequencies just higher than visible light from about 10nm to 400nm. Above ultraviolet rays are X-rays, and above X-rays are gamma rays – the highest and highest energy waves yet found.

Ultraviolet light was discovered by German physicist Johann Ritter. In 1801, Ritter was experimenting with silver chloride, a chemical known to break down when exposed to sunlight. He found that light at the blue end of the spectrum increased the reaction.

Experimenting further, he discovered that the reaction was even more efficient when exposed to radiation beyond blue (radiation that was invisible). He called this new type of radiation ultraviolet, meaning “beyond the violet.” (Ultra comes from the Latin for “beyond”).

UV light is invisible to humans, but birds and some species of insects, snakes, turtles and fish can see ultraviolet light.

UV light can be divided into various wavelength bands with differing characteristics.

The sun emits ultraviolet radiation in UV-A, UV-B and UV-C bands, but because of absorption in the ozone layer, 99% of the ultraviolet radiation that reaches earth is “long wave” UV-A.

UV-A, also known as “black light,” creates fluorescent effects at your local disco and “midnight bowling” sessions as UV light (which cannot be seen) is absorbed by materials and re-emitted in the visible range.

UV-B “medium wave” rays both help and hurt. Too much UV-B exposure causes sunburn and can damage human tissue. Too little UV-B exposure leads to a lack of Vitamin D absorption in animals.

The higher-energy “short wave” UV-C band rays (100 to 280 nanometers) are highly lethal to microorganisms. This range is known as the Germicidal Spectrum.

Introduction cont.

UV-C light sterilizes microorganisms and biological pollutants, including viruses, bacteria and mold by penetrating their cell membranes and attacking and deactivating their cellular DNA, stopping their reproductive capabilities and killing them.

The scientific community has long known that UV-C light acts as a natural sterilization system. Hospitals, food processing facilities, scientific laboratories, water treatment plants and air-handling systems use UV-C light to eliminate contaminants and germs that can cause disease, colds, asthma, allergies and infections.

The Verilux® CleanWave® Wand provides that same UV-C ultraviolet technology for use in your home and on the road.

It is important to mention that cleaning is not disinfecting. Cleaning only removes some of the germs while disinfecting and sterilizing actually destroys them. Therefore, through its “Ounce of Prevention” campaign, the U.S. Centers for Disease Control and Prevention stresses that it is important to both routinely clean and disinfect surfaces.

The “Ultraviolet” article at Wikipedia (<http://en.wikipedia.org/wiki/Ultraviolet>) offers a wealth of additional information and a comprehensive list of “See Also” links and References.

Benefits of Using UV-C Light

- **No Chemicals.** Your home may contain more deadly chemicals than laboratories did 50 years ago. With Verilux’s CleanWave® Technology, you can clean and sanitize surfaces effectively and safely without chemicals and chemical residues. The CleanWave® disinfects and eliminates bacteria, viruses, germs, fungus, allergens and mold with no chemical residue.
- **Cleaning with UV-C light means you don’t need harsh chemicals that pollute our water and add unnecessary product packaging to our landfills.** Reduced production of household cleansers means fewer chemicals in our environment and reduced fuel expenditures for transporting them to the marketplace.
- **Odor elimination.** Bedding and couches will smell and feel fresh with consistent use of the Sanitizing Wand. Because CleanWave® eliminates biological material that causes odors, musty smells and pet odors are virtually eliminated.
- **The Sanitizing Light Wand emits a visible blue light to help you see the surface area you are cleaning.** Indirectly contacting or viewing the blue light produced by the lamp does not expose you to UV-C.

Sanitizing Light Wand Features

Your new Verilux® CleanWave® UV-C Sanitizing Light Wand offers effective protection from germs, viruses, bacteria and mold throughout your home. Use regularly on surfaces throughout your home to disinfect and help keep your home germ-free without the risk of chemical contamination.

- A powerful Ultraviolet (UV-C) illumination system that eliminates bacteria, viruses, fungus and mold spores.
- Removes odors and dangerous allergens including those that can cause pneumonia, asthma, and other conditions.
- Perfect for use on bedding, in closets, on counters, as well as sofas and chairs.
- Hand-held design is easy to operate.
- The 6-inch UV-C bulb allows wide coverage and makes sanitizing large areas quick and easy.

Safety Feature

- **Important Note:** An internal safety switch will automatically turn off the Wand if the light source is turned upward.

Three Operating Modes

- Convenient LED display with three operating modes: 5 minutes, 30 minutes and 60 minutes.

Initial Set-Up

1. Connect the charger into the port on the back of the Wand recharging stand. (see photo under **Operating your CleanWave® Sanitizing Light Wand**)
2. Plug the charger into a 110V grounded outlet.
3. Place Wand in charging stand and charge the internal batteries for 12 hours prior to first use. A red LED light will indicate that the battery is being charged. Light will change to green once the battery has been charged.

Operating your CleanWave® Sanitizing Light Wand

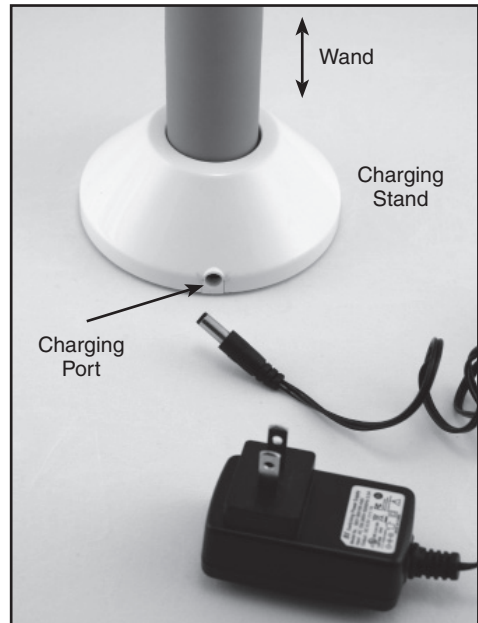
When the light on the Wand turns green, use as follows:

1. Remove the Wand from the charger (see photo).
2. Press and hold the blue button until you hear an audible beep and “00” shows in the display.
3. Press the blue button once to begin a five minute cycle, twice to begin a 30 minute cycle, and three times to begin a 60 minute cycle. The bulb may take a moment to light. Do not expose your eyes or skin direction to UV-C light.

Note: A safety switch will automatically turn off the wand if the light source is turned upward. It will go back on when the light source is once again lowered.

Refer to **Guidelines for Use** on the next page for sanitizing various surfaces.

4. A built-in timer will count down minute-by-minute and turn the light off when the cycle is complete. If you wish to stop the cycle at any time, press the button until a long beep is heard, and the wand will shut down.
5. Replace the Wand in the charging stand by lining up the arrow on the base of the handle with the arrow on the charging stand.



Guidelines For Use

- **Bedding/Mattresses:** With the Wand as close as possible and no more than one-half inch above the mattress or bedding, gradually and evenly move over the entire surface. For optimum kill, expose each area for 10-15 seconds. After disinfecting, vacuum the mattress. Because dust mites lay eggs often, repeat three times a week for two weeks for maximum effectiveness. Then clean monthly to keep mattresses feeling and smelling fresh!
- **Kitchen utensils and personal hygiene items** (brushes, toothbrushes, earrings, razors, contact lens cases): Place items on counter away from any liquid and hold the Wand as close as possible and no more than one-half inch from the surface of each item.
- **Counters and bathroom fixtures:** Hold the Sanitizing Light Wand as close as possible and no more than one-half inch above the surface and allow UV light to expose surface for 20 seconds.
- **Curtains, chair and sofa backs:** Because of the automatic shut-off switch, curtains and drapes should be placed on a horizontal surface to sanitize. To sanitize the back of chairs or sofas, tilt them so the Wand points down during cleaning.
- **Shoes:** Expose inside of shoes to UV light for 5 minutes once each week to eliminate athlete's foot fungus and odors.
- **Other uses for the Sanitizing Wand:** Computer keyboard and mouse; baby changing stations, bottle nipples and pacifiers; children's toys and stuffed animals; pet areas and pet bedding; auto seats and steering wheel; furniture, throw rugs, teakettle handle, handrails, faucets and showers.

Technical Specifications

Environment

- Operating Temperature: 15°C to 35°C (59°F to 95°F)
- Storage Temperature: 0°C to 40°C (32°F to 104°F)
- Relative Humidity: 5% to 95% non-condensing

UV-C Bulb

- 6 Watt UV-C Fluorescent
- Expected lifetime: 10,000 hours

Battery

- 4.8V, 1500mAh NiMH battery pack

Power Adapter

- Bi-Switching Power Supply
- UL Approved
- Input Power: AC 100-240V, 50/60Hz, 0.5A
- Output Power: DC 6.5V 1A

Warning: *This product contains a chemical known to the state of California to cause birth defects or other reproductive harm. For information on the care and handling of items with Mercury, visit www.lamprecycle.org.*

One-Year Limited Warranty

ATTENTION! FOR REPAIR OR REPLACEMENT, ONCE OPENED, PLEASE **DO NOT** RETURN THIS PRODUCT TO THE STORE WHERE IT WAS PURCHASED.

Many questions may be answered by visiting www.Verilux.com, or you may call our customer service department at 1-888-544-4865.

This limited warranty is provided by:

Verilux, Inc., 340 Mad River Park, Waitsfield, VT 05673

Verilux® warrants this product to be free from defects in material and workmanship for a period of one year from the date of the original retail purchase. During the limited warranty period, Verilux, Inc. will, at its option, repair or replace defective parts of this product, at no charge to the customer, subject to the following limitations. This limited warranty does not include any postage, freight, insurance or delivery fees. This warranty does not cover damage, defect or failure caused by or resulting from accident, external destruction, alteration, modification, abuse, misuse, or misapplication of this product.

If, during the first year of ownership, this product fails to operate properly, it should be returned as specified below:

Please pack the defective product in its original protective packing and box, with a copy of your name, address, telephone number and sales receipt, along with \$9.95 (check or money order to cover shipping and handling), and send to:

**For U.S. Postal Service Only:
Verilux Warranty**

Service Center, c/o WTB

P.O. Box 119, West Redding, CT 06896

**For Fed Ex & UPS Only:
Verilux Warranty**

Service Center, c/o WTB

32 Henry Street, Bldg 17A, Bethel, CT 06801

Please allow 4-6 weeks before you receive the repaired or replaced product.

ATTENTION: When returning a product, be aware that damage during shipping is the responsibility of the purchaser and will void any warranty claim. We recommend that you insure the shipment by shipper when returning this product or any parts. Be sure to return product in original packaging.

Note: Verilux® recommends using a quality surge suppressor on all electronics equipment. Voltage variations and spikes can damage electronic components in any system. A quality suppressor can eliminate the vast majority of failures attributed to surges and may be purchased at electronics stores.

Due to ongoing improvements, actual product may have slight variations from the product described in this manual.

Please visit our web site at: www.Verilux.com

Call our Customer Service Department at

1-888-544-4865

(Representatives are available 8 a.m. – 10 p.m. M – S 9 a.m. – 8 p.m. Sunday Eastern)

verilux®

340 Mad River Park, Waitsfield, VT 05673