

REV.20.5.1

X270-1

UVC LED handheld Disinfectant
with LED flash light
with Built-in Safety Feature

ULTRA S FETY

OWNER'S MANUAL

www.ultrastarters.com

FCC ID NOTICE

This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the part responsible for compliance void the user's authority to operate this device.

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WARRANTY (USA & CANADA)

The manufacturer warrants to the original purchaser of the UVC LED Wand that the product shall be free from defects in material and workmanship. However, should this product be proven to be defective, within a (1) year period from the original date of purchase, the manufacturer will, without charge to the purchaser (excluding any charges incurred to have the product delivered to the manufacturer), repair or replace any part of the UVC LED Wand which the manufacturer agrees to be defective. After the initial 1 year period the manufacture shall repair or replace defective products with a nominal processing fee of \$30.00 USD. All warranties apply to the original purchaser ONLY. Repairs or replacement of defective modules shall remain at the discretion of the manufacturer. All other parts, components, accessories and/or optional equipment are not included in the manufacturer's warranty. **This warranty is non-transferable.** Request for warranty service from any Factory Authorized Dealer **must be accompanied with the original purchase receipt or have product registered by authorized dealer on manufacturer's website.** *Failure to comply with any of these conditions may result in warranty being voided.* This warranty does not cover the following: removal and reinstall labor charges, shipping charges, abuse, misuse, and/or parts thereof. This warranty is void upon modification, repairs, or alterations of any part of the product. The manufacturer shall not be held liable for any consequential damages due to breach of this or any other warranty, expressed, or implied. This warranty gives you specific legal rights. Your specific legal rights may vary for each region.

CERTAIN DAMAGES EXCLUDED - The manufacturer expressly disclaims any liability or responsibility for incidental damages caused by the product, including economic loss, loss of use of the product, or any other costs relating to the care and custody of the product. The manufacturer disclaims liability or responsibility for any consequential damages caused by the product or resulting from its use, including the cost of repairing or replacing other property damaged by the product or caused by its use, whether or not the product is working properly. The manufacturer shall not warrant that the product is fool-safe against human error or misuse.

IMPORTANT NOTES

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ATTENTION

Please take a moment to review the safety precautions before operating your system.

1) In rare instances of **prolonged direct exposure** to UVC light, temporary eye and skin damage has been exhibited, such as cornea injury (sometimes referred to as “welder’s eye”) although this generally heals after a couple of days. Therefore, safety recommendations with UVC LEDs include **protecting skin (in particular open wounds) and, most importantly, the eyes from UVC radiation.** UV radiation is easily absorbed by clothing, plastic or glass. Once absorbed, UV radiation is no longer active. When working with open UV radiation, personal protective equipment covering all exposed areas is recommended. When working around UVC devices, one should:

1. Use UV goggles and/or full-face shields.
2. Cover any exposed skin

X270-1 has an additional safety feature to minimize the exposure of UV radiation. Our unique sensor will sense where the UV light is shining and will turn off if it is tilted upward from the treatment surface to eliminate any harm to you.

- 2) Please keep the X270-1 away from the reach of children.
- 3) Please use 5V 1A USB adaptor to charge the unit. Please fully charge the unit before the first use. (it may take up to 3 hours)
- 4) In some instances, you may hear the buzz sound during the operation.

What is UV light and how does UV light sanitize?

UV light has three wavelength categories: UV-A, UV-B, and UV-C. UV-C light is a short-wavelength, ultraviolet light that breaks apart germ DNA, leaving it unable to function or reproduce. In other words, UVC light is germicidal (UVA and UVB light are not).

UVC LEDs are compact, durable and well suited to battery powered operation for point-of-care tools. These devices quickly and reliably provide low to high level disinfection on a range of surfaces.

Why UVC disinfection?

Almost all current surface disinfection methods use chemical agents. Chemical disinfection can be confusing and inconsistent because of the many products available. To ensure proper disinfection, the selected agent, manner of use (immersion vs contact) and the treatment time must be correctly and consistently applied. Deep ultraviolet light, albeit in the form of germicidal mercury lamps, has been used and proven over the past 100 years to be effective as part of high level disinfection protocols.

Are UVC LEDs effective against COVID-19 (Coronavirus) ?

Studies have confirmed that UVC light can be effective for combating SARS-COV

(<https://www.tandfonline.com/doi/full/10.1080/15459620701329012>).

However, additional studies are needed to determine and confirm the specific dose response required to inactivate COVID-19 on different surfaces and materials.

UVC BASICS

OWNER'S MANUAL

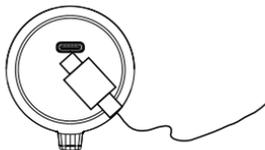
Surface Disinfection

As the threat of antibiotic resistant microorganisms increases, UVC LEDs are becoming the method of choice to deliver on demand, quantifiable surface disinfection at the point-of-need.

Additional Information

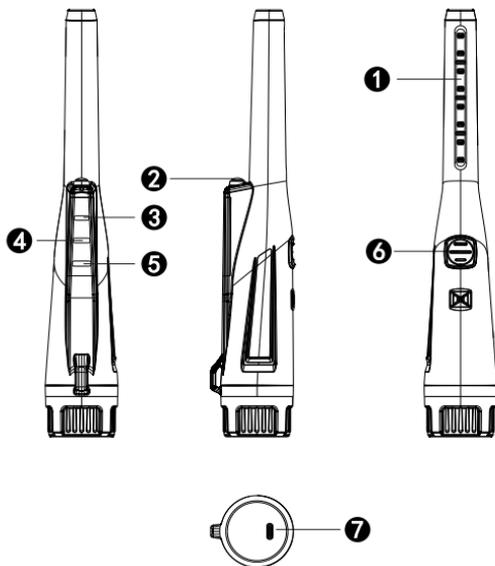
Ultraviolet germicidal irradiation (UVGI) is a disinfection method where UVC light is used to inactivate microorganisms by disrupting their DNA/RNA and leaving them unable to reproduce.

A 2014 study in the *American Journal of Infection Control* found that a portable wand killed 100 percent of several types of bacteria commonly found on surfaces after just five seconds, and inactivated 90 % of especially hardy spore-forming bacteria after 40 seconds. According to the researchers, a UVC device is a reasonable alternative to using chemicals to disinfect surfaces.

CHARGING THE UNIT

Please use the cable provided to fully charge the UVC wand. Plug the one side of the cable to the unit and the other side to a USB power adaptor (USB power adaptor not included). USB power adaptor should be rated at 5V (1A).

Product Overview



- 1 UVC LED
- 2 LED Flash Light
- 3 UVC ON/OFF STATUS
- 4 CHARGING COMPLETED
- 5 CHARGING
- 6 OPERATION BUTTON
- 7 CHARGING PORT

STATUS LED



STATUS LED



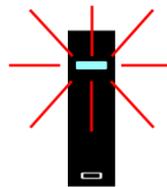
CHARGING



CHARGING COMPLETED



UVC LED ON



LOW BATTERY

FLASH LIGHT OPERATION

1. Press and release the operation button **6** once.
2. The white LED flashlight **2** will turn on.
3. Press and hold the operation button **6** for 2 seconds.
4. The white LED flashlight **2** will turn off.

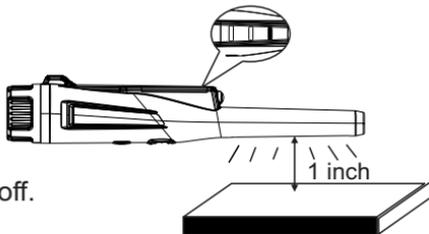
UVC LED DISINFECTION OPERATION

TO TURN ON

1. Point the UVC LED **1** toward the surface to disinfect. The operation button **6** should be facing toward the surface and the Status LED should be visible.
2. Press and release the operation button 2 times. .
If the White LED was off, the White LED flashlight will turn on briefly, then turn off.
If the White LED was on, then the White LED flashlight will turn off.
3. The UVC LED Disinfection light will turn on for 5 minutes.
4. The Status Blue light **3** will turn on while the UVC LED Disinfection light is on.
5. Scan the infected surface back and forth 5 to 10 times slowly to complete the disinfecting process. (20 - 30 second UVC exposure)

TO TURN OFF

1. Press and hold the operation button **6** for 2 seconds.
2. The UVC LED Disinfection light will turn off.
3. The Status Blue light **3** will turn off.





<http://www.ultrastarters.com/ultra-safety>

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