



## 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.

### 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 a 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.

### Is UVC Safe ?

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 Once absorbed, UV radiation is no longer active.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.  
Prescription glasses and normal safety glasses do not protect eyes from UV exposure
2. Cover any exposed skin



Los Angeles, CA





Contaminated surfaces are everywhere — Steering Wheel, Seats, living rooms, and virtually any public place. While efforts are made to properly disinfect they often fall short of total elimination of the most virulent contaminants.

Disinfection is the process of reducing the number of viable microorganisms and can also be referred to as “sanitization.” This differs from sterilization which is the process for killing all microorganisms commonly achieved by heat or harsh chemicals reserved for critical care medical instruments which enter sterile tissue or fluids.

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.

## X270-2

### UVC LED handheld Sterilizer with Built-in Safety Feature

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.



Power	6W
Wavelength	260nm-290nm
Effective Range	0.7” - 2” (best at 1”)
Power Supply	USB Rechargeable
Battery Size	1200mAh Lion Battery
Average usage per charge	80 times (5 Min Cycle)
Working Temperature	14F to 140F (-10C to +60C)
Size	10” x 1.6”
Construction	ABS Plastic

