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# UV-C LAMP SANITIZER

TO AID IN HELPING ELIMINATE THE SPREAD OF BACTERIA & VIRUSES IN BUSINESSES AND THE HOME



# Introduction

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### TAKE SANITIZATION TO A NEW LEVEL.

Sanitize surfaces in all areas of your business with the power of UV-C light. Introducing the UV-C Light Surface Sanitizer Kit by ACDisplays.

Research shows that UV-C technology emits shortwave ultraviolet light to kill or inactivate microbes.¹ Our handheld UV-C light helps your team reduce cleaning time while maximizing disinfectant results. This light doesn't use chemicals or heat so it reduces our exposure to irritants in everyday cleaners.

Our UV-C lamp is simple and versatile when used safely in any commercial or home setting. Simply plug it in, put on your protective glasses and switch it on. Quickly & effectively sanitize a variety of surfaces: plastics, cardboard, glass, varnished wood, and metal.

We've included with your Surface Sanitizer Kit: glasses & storage sleeve for UV-C protection and UV-C test labels to test strength of germicidal irradiation of the UV-C bulb. Glasses must be worn at all times when UV-C lamp is in use.

## **DESIGNED FOR**

- Small Business Applications
- Hotels/Hospitality
- Retail & Grocery Settings
- Financial & Banking Institutions
- Malls & Shopping Centers
- Subway & Transportation Stations
- Airport Terminals
- Waiting Rooms & Show Rooms



Reed, Nicholas G. "The history of ultraviolet germicidal irradiation for air disinfection." Public health reports (Washington, D.C.: 1974) vol. 125,1 (2010): 15-27. doi:10.1177/003335491012500105

# UV-C Light Kit Includes

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### **UV-C LIGHT SURFACE SANITIZER**

The Surface Sanitizer works quickly to kill bacteria on various surfaces, safe to use on plastic, wood and metal. The closer the light is held to the surface or item being cleaned, the better the effect will be for mitigating the threat.

- Lightweight & portable design
- UL rated socket
- 6 foot power cord
- Size: approx. 18"x5"
- Hook on handle for easy storage
- Bulb cage for protection
- · Easy order additional light bulbs





# **UV-C LIGHT BULB**

Fast, safe and effective. For UV-C lamps, max bactericidal effect occurs at 240-280 nm<sup>5</sup>. This bulb has no secondary pollution, no residue and no use of chemical agents.

- AC110 voltage
- 36 watt
- 8000 hour lifetime
- 253.7 nm

### **SAFETY GLASSES**

Must use safety glasses every time you use the UV-C Light Surface Sanitizer to protect your eyes from the strong UV rays.

- Storage sleeve included
- EN207 CE certified
- Adjustable stems
- US 2016/425 Personal Protective Equipment (PPE)

### **INTENSITY LABELS**

You won't have to worry about the strength of your surface sanitizing bulb. Use the intensity labels to understand and monitor the intensity of your unit.

- Allows in-house testing
- Visual indication of UV intensity
- Determines degradation or inconsistency

# Benefits

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**GERMICIDAL IRRADIATION** 

#### TRUSTED TECHNOLOGY

#### **USEFUL IN ALL SETTINGS**

### **KILLS BACTERIA**

- UV-C radiation light inactivates viruses and bacteria<sup>1</sup>
- Disinfects air, water and nonporous surfaces<sup>2</sup>
- Reduces spread of bacteria
- · Gets rid of fungus and mold
- Limited but potentially effective against SARS-CoV-2<sup>3</sup>
- Does not containt harsh chemicals that come in contact with skin
- Can protect from pathogens and allergens<sup>4</sup>

#### **FAST & EFFECTIVE**

- Trusted Technology: has been used for decades<sup>2</sup>
- Light only needs to be exposed for seconds to minutes to begin inactivating viruses & bacteria.
- Exposure length can increase the amount of effectiveness the light has on inactivation.
- Mobility device can be taken to the site of contamination

### **VERSATILE**

- Sanitizes plastics, cardboard, glass, varnished wood, and metal.
- Used in all settings: offices, indoor restaurants, warehouses, industrial settings, retail stores and more
- Lightweight: easy to carry around and effectively reach every surface
- Portable: long cord to allow flexible movement from corner-to-corner
- Easy setup and replacement: insert UV-C bulb into socket and screw in, plug in unit to turn on/off for use.

Illuminating Engineering Society Photobiology Committee. "Germicidal Ultraviolet (GUV) - Frequently Asked Questions." 15 Apr. 2020. https://media.ies.org/docs/standards/IES-CR-2-20-V1-6d.pdf

<sup>2</sup>Center for Devices and Radiological Health. "UV Lights and Lamps: Ultraviolet-C Radiation, Disinfection, and Corona." U.S. Food and Drug Administration, FDA, 19 Aug. 2020, www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/uv-lights-and-lamps-ultraviolet-c-radiation-disinfection-and-coronavirus.

<sup>3</sup>Buonanno, Manuela, et al. "Far-UVC Light (222nm) Efficiently and Safely Inactivates Airborne Human Coronaviruses." Scientific Reports, 2020. https://www.nature.com/articles/s41598-020-67211-2.pdf

<sup>4</sup>Www.bosstar.com. "E27 Remote Type Germicidal Lamp - BOSSTAR Technology Co., Ltd." E27 Remote Type Germicidal Lamp, BOSSTAR Technology Co., Ltd., www.bosstar.com/en/product-597106/E27-Remote-Type-germicidal-lamp.html.

<sup>5</sup>CDC. "Miscellaneous Inactivating Agents." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 18 Sept. 2016, www. cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/miscellaneous.html.

# What is UV-C Technology?

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#### ULTRAVIOLET WAVE SPECTRUM

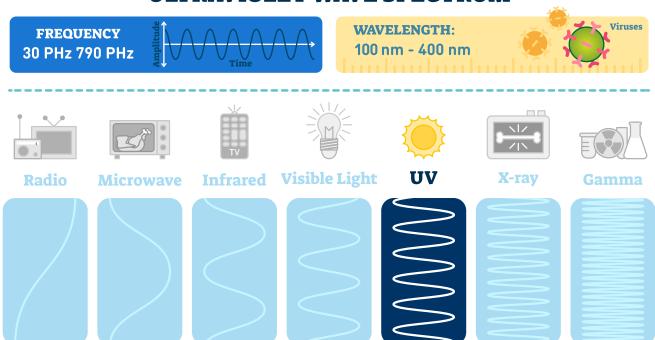


Figure 1: Representation of Electromagnetic Spectrum

# Tried and Trusted Technology.

With increasing need for sanitization amidst lockdowns & social distancing, ultraviolet lighting for disinfection is garnering increased interest. As the world finds more ways for technology to keep us safe, AGDisplays brings the Surface Sanitizer to consumers & business owners alike.

Knowledge of UV-C light for germicidal irradiation spans over 100 years. Over decades of research, UV-C light has been discovered to inactivate bacteria & viruses; and even be effective in inactivating E. coli and tuberculosis<sup>1</sup>.

UV radiation is a form of energy that is measured on a scientific scale called the electromagnetic spectrum (see figure 1).

Ultraviolet light is broken up into 3 sections: A, B & C. UV-C lamp is categorized at 100-400 nanometers on the electromagnetic

spectrum. In order to inactivate microorganisms for sterilization purposes, UV-C light must be between 240-280 nm<sup>2</sup>.

Every UV-C lamp emits a specific wavelength nanometers, which may inhibit effectiveness. At 253.7 nm, UV-C light is within the range of maximum bactericidal effectiveness. Virus & bacteria are only inactivated when directly exposed to the UV-C light. It is important for UV-C lamp to be used on surfaces that are not covered in dust/soil. Please read ALL instructions before using the UV-C lamp.

<sup>1</sup>(Reed 2010). "The History of Ultraviolet Germicidal Irradiation for Air Disinfection." Public Health Reports Vol. 125: 16-24.

<sup>2</sup>CDC. "Miscellaneous Inactivating Agents." Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, 18 Sept. 2016, www.cdc.gov/infectioncontrol/guidelines/disinfection/disinfection-methods/miscellaneous.html.

<sup>3</sup>Center for Devices and Radiological Health. "UV Lights and Lamps: Ultraviolet-C Radiation, Disinfection, and Corona." U.S. Food and Drug Administration, FDA, 19 Aug. 2020, www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/uv-lights-and-lamps-ultraviolet-c-radiation-disinfection-and-coronavirus.

# Important SafeGuards





# READ SAFEGUARDS CAREFULLY BEFORE USING PRODUCT

**WARNING:** WHEN USING THE UV-C LAMP, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE TAKEN, INCLUDING THE SAFEGUARDS BELOW.

NOT TO BE USED BY CHILDREN. KEEP UV-C LAMP AND ALL COMPONENTS OUT OF REACH OF CHILDREN. THIS LAMP IS NOT A TOY. Please carefully follow the risk-factors outlined below for your safety and those around you while using the device.

**NEVER** look directly at UV-C bulb while it is on. Looking directly at the UV-C light can cause temporary to severe eye injuries. Temporary blindness can occur. <sup>1,2</sup>

**DO NOT** use UV-C light to disinfect hands or any other part of the body. Just a few moments of direct exposure to skin can cause severe skin burns.<sup>2</sup>

**DO NOT** handle light bulb aggressively. Some UV-C light bulbs contain mercury inside, which is toxic even in small amounts.<sup>2</sup>

**DO NOT** touch tubing of the bulb. Natural oils from our hands can cause a "hot spot" in the bulb and reduce the bulb's lifespan. When installing bulb, handle the plastic base only.

**DO NOT** operate this lamp if it has a damaged cord or plug.

To protect against the risk of electrical shock or injury, **NEVER** submerge power cord plug or main unit in water or other liquid.

**DO** wear safety glasses with every use of the UV-C lamp. Always put on the provided safety glasses before turning on the UV-C lamp for sanitizing. Turn off lamp before removing safety glasses.

**DO** position the lamp facing away from the face, skin and body before turning on. ALWAYS cover exposed skin with clothing before using UV-C sanitizers.

**DO** use caution and alertness while using this UV-C lamp for exposing surfaces. Be mindful of reflective surfaces. When using UV-C sanitizers over shiny or metallic objects, utilize a face shield (along with glasses) and cover exposed skin from reflected light.

**DO** immediately discontinue use of the UV-C lamp if you experience eye pain or skin burns.

**DO** exercise extreme caution if UV-C light bulb breaks. Clean up broken bulb with extreme care and with hand protection.

<sup>1</sup>U.S. Food & Drug Administration. "UV Lights and Lamps: Ultraviolet-C Radiation, Disinfection, and Corona." 19 Aug. 2020, www.fda.gov/medical-devices/coronavirus-covid-19-and-medical-devices/uv-lights-and-lamps-ultraviolet-c-radiation-disinfection-and-coronavirus.

<sup>2</sup>U.S. Food & Drug Administration. "Ultraviolet (UV) Radiation." 19 Aug. 2020, https://www.fda.gov/radiation-emitting-products/tanning/ultraviolet-uv-radiation#UVCrisks.

# Thank You

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### **ABOUT AGDISPLAYS**

AGDisplays works one-on-one with Military and Industrial customers to create leading LCD solutions that are properly suited to their application & environment.

Whether we are met with a new project or challenged with improving an existing design, customer designs are uniquely crafted to protect displays while also enhancing LCD performance. Our work within the Military segment brings advanced LCD builds compatible with night vision technology. Ranging from wet climates to off road terrain, our high quality workmanship & progressive design solutions improve functionality, performance and durability of your LCD equipment.

Designs are assembled in Greensburg, PA, under high quality control testing and troubleshooting. ACD partners benefit from our efficient and knowledgeable design process and our dedication to creating quality design solutions.







## **CERTIFICATIONS**

AGDisplays values high-quality working and design standards. We support your teams with the knowledge & expertise needed to make the strategic design and manufacturing decisions.



CERTIFICATED PART 145 REPAIR STATION







AGI GROUP, INC. IS ISO 14001, 45001 & R2 CERTIFIED

### **CONTACT US**

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