

# **UVC Surface Sanitizer with Motion Sensor Shut-off**



SKU: 201283

## **USER MANUAL**

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# **General UV-C Germicidal Information**

UV-C germicidal technology utilizes ultraviolet (UV) light in the short wavelength range between 200 to 280 nanometers to destroy the genetic material of these pathogens, rendering them unable to replicate and cause infections.

#### **Key Characteristics of UV-C Germicidal Light:**

- 1. Wavelength: UV-C light has a wavelength of 200 to 280 nanometers, falling within the germicidal range. This range is highly effective in disrupting the DNA and RNA of microorganisms, preventing their growth and reproduction.
- **2. Germicidal Effectiveness:** UV-C light is known for its high germicidal effectiveness. It can inactivate a wide range of microorganisms, including bacteria, viruses, fungi, and mold spores. It has been successfully used to combat pathogens such as E. coli, influenza, norovirus, MRSA, and more.
- **3. Disinfection Mechanism:** When microorganisms are exposed to UV-C light, the energy from the light disrupts their genetic material, specifically damaging their DNA or RNA. This prevents them from replicating and renders them harmless.
- **4. Dosage and Exposure Time:** The effectiveness of UV-C germicidal light is influenced by the dosage and exposure time. Higher dosages and longer exposure times generally result in higher germicidal efficacy. The required dosage varies depending on the specific microorganism being targeted.
- **5. Application Areas:** UV-C germicidal technology finds applications in various industries, including healthcare, food processing, water treatment, HVAC systems, and laboratories. It is used for surface disinfection, air purification, and water sterilization purposes.
- **6. Safety Considerations:** UV-C light is harmful to human skin and eyes. Direct exposure to UV-C light can cause burns and eye damage. Therefore, it is crucial to follow safety guidelines and use appropriate protective measures, such as wearing protective eyewear and ensuring that humans are not present in the vicinity during UV-C disinfection cycles.

- 7. **Proper Equipment:** UV-C germicidal light is typically emitted by specialized bulbs or devices designed specifically for disinfection purposes. These devices may vary in terms of output power, bulb type (low-pressure mercury bulbs, pulsed xenon bulbs), and design. It is essential to choose the appropriate equipment for specific applications and follow the manufacturer's instructions.
- **8. Supplemental Cleaning:** While UV-C germicidal light is highly effective against microorganisms, it should be considered as a supplemental method to traditional cleaning and disinfection practices. Regular cleaning and good hygiene practices should still be maintained to ensure overall cleanliness and prevent the buildup of bio-films or other organic matter that can shield microorganisms from UV-C light.
- **9. Maintenance and Monitoring:** Proper maintenance and monitoring of UV-C germicidal equipment are essential to ensure optimal performance. Regular bulb replacement, cleaning of lamp surfaces, and periodic monitoring of UV-C output levels are necessary to maintain effectiveness.

UV-C germicidal technology offers a powerful tool for disinfection and sterilization in various settings. However, it is important to utilize it responsibly, following safety guidelines and incorporating it into a comprehensive approach to infection control. Consulting with experts in the field is recommended to ensure the proper implementation and effective use of UV-C germicidal light.

## **UV-C Germicidal Safety**

UV-C germicidal technology is highly effective in neutralizing microorganisms; however, it is important to prioritize safety when working with UV-C light due to its potential harmful effects on human health. Here is some important safety information to consider:

- 1. Human Exposure: UV-C light can cause damage to the skin and eyes upon direct exposure. It is crucial to ensure that humans are not present in the vicinity during UV-C disinfection cycles. Clear signage and safety protocols should be in place to prevent accidental exposure.
- 2. Protective Measures: When working with UV-C germicidal devices, it is important to wear appropriate personal protective equipment (PPE) to shield the skin and eyes. Protective eye wear that blocks UV-C light is essential to prevent eye damage. Gloves and other protective clothing may also be necessary, depending on the specific application.
- **3. Manufacturer Guidelines:** Always follow the manufacturer's guidelines and instructions when operating UV-C germicidal equipment. This includes proper installation, maintenance, and usage protocols. Adhering to these guidelines ensures the safe and effective use of the equipment.
- **4. Room Ventilation:** Adequate room ventilation is important during UV-C disinfection to prevent the accumulation of ozone, a byproduct that can be produced when UV-C light interacts with air. Proper ventilation helps to dissipate ozone and maintain a safe environment.
- **5. Monitoring Devices:** UV-C germicidal devices may come equipped with safety features such as motion sensors or timers that automatically turn off the lights when human presence is detected. Utilize these features to enhance safety and prevent accidental exposure.
- **6. Training and Awareness:** Ensure that personnel responsible for operating UV-C germicidal equipment are properly trained on safety procedures and protocols. They should be aware of the potential risks associated with UV-C light and how to mitigate them effectively.
- **7. Maintenance and Inspections:** Regularly inspect and maintain UV-C germicidal equipment to ensure it is functioning properly and safely. This includes checking the condition of bulbs, cleaning bulb surfaces, and replacing bulbs as recommended by the manufacturer.
- **8. Keep Out of Reach:** UV-C germicidal devices should be installed in areas inaccessible to unauthorized personnel, particularly in public spaces or areas where children may be present. Secure the equipment to prevent tampering or accidental exposure.

- **9. Risk Assessment:** Conduct a thorough risk assessment before implementing UV-C germicidal technology. Identify potential hazards, evaluate safety measures, and develop appropriate protocols to minimize risks.
- **10. Regulatory Compliance:** Be aware of any relevant regulations or guidelines related to UV-C germicidal technology in your specific industry or region. Comply with these regulations to ensure the safe and legal use of UV-C equipment.

By following these safety guidelines and prioritizing the well-being of individuals, UV-C germicidal technology can be utilized effectively to create a safer and cleaner environment.

## **User Manual**

# Double-tube Carbon Steel UV Lamp Trolley with Infrared Sensor

### **Product Description:**

The Double-tube Carbon Steel UV Lamp Trolley with Infrared Sensor is a powerful disinfection device that utilizes high-intensity ultraviolet (UV) light to eliminate microorganisms and pathogens. It is equipped with two 30-watt UV bulbs that emit a total of 60-watt UV-C energy, effectively killing bacteria, viruses, and molds.

This versatile trolley can be used in various settings such as hospitals, schools, hotels, clinics, homes, cinemas, buildings, food manufacturing companies, and offices. With its laboratory-tested and recommended design, it provides quick and effective disinfection to all surfaces and air within minutes.

#### **Specifications:**

Lamp Power: 30w

Number of Bulbs: 2

Total Power: 38 w

• **Disinfection Range:** 350 sq ft

• Voltage: 110v

• **Input power**: 80w

• **UV wavelength:** 253.7nm

• Lamp arm positions: 90°, 135°, 180°

• **Timer:** 15, 30, 60, 90 min.

Start-up delay: 10 sec.

• Bulb Effective Lifespan: 2,000 hours

• **Infrared motion sensor:** PIR with 110° x 70° detection range

## **Method of Usage:**

- **1.** To use the trolley, make sure the safety door is closed to avoid damaging the bulbs.
- **2.** The lamp arm can be adjusted to the desired angle.
- **3.** The trolley can be used with both tubes or as a single tube light, depending on your needs.
- **4.** Before each use, ensure the surface of the UV lamp is clean for optimal performance.
- **5.** Plug the trolley into a compatible power outlet.
- **6.** Set the desired sterilization time using the timer: 15, 30, 60, or 90 minutes.
- 7. The circuit will automatically cut off the power when the set time elapses.
- **8.** After use, switch off the trolley and remove the plug from the socket.

#### Caution:

- **1.** Ensure that the voltage range is within 10% of the specified value to prevent damage or affect the lamp's rated life.
- **2.** The lamp arm can be adjusted to various angles for convenience and effective disinfection.
- **3.** The sterilization timer can be set, and the power will automatically cut off when the time is up.
- **4.** Regularly clean the surface of the UV lamp to maintain its performance.
- **5.** Always turn off the power and remove the plug after each use.
- **6.** Store the trolley in a dry and clean place.
- **7.** Replace the UV lamp after approximately 2000 hours of use to ensure optimal disinfection performance.

<u>Note:</u> The product comes with a US standard plug (3 pins) or EU standard plug (2 pins) or UK standard plug (3 pins) with the wire installed to prevent electric shock.

For any further assistance or technical support, please refer to the manufacturer or authorized service center.

Disclaimer: The Double-tube Carbon Steel UV Lamp Trolley with Infrared Sensor should be used according to the provided instructions and guidelines. The manufacturer is not responsible for any misuse or improper handling of the product.