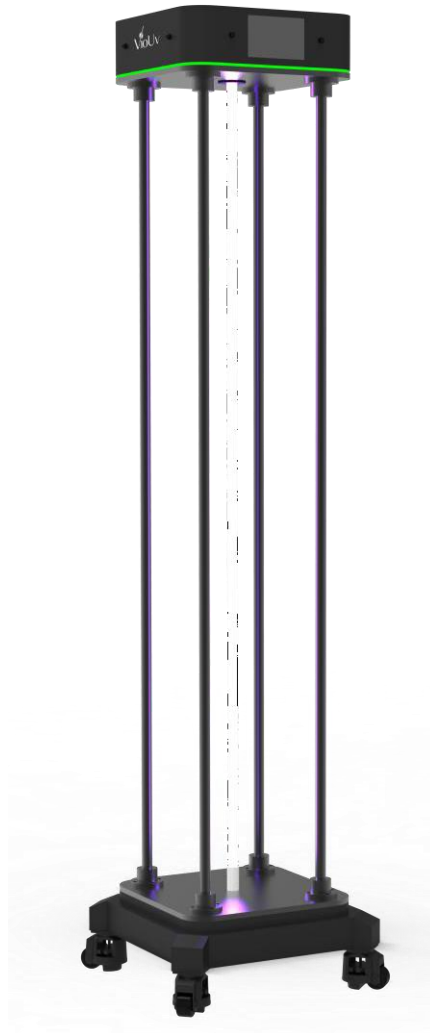




## **Operating Instructions**

### **UV-C light Disinfection**

Model No.:VIO-325



**Please read these instructions completely before operating this unit.**

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# Safety Requirements and Notes

**Please read this manual carefully prior to using the device!**

This instrument is strictly forbidden to be used in flammable, explosive and other dangerous environments.

The instrument must be properly grounded before using.

In order to extend the service life of the lamp and the instrument, please turn off the power at the unit when not in use.

After the UV lamp is turned on, do not touch any part of the unit as the surface temperature of the UV output part will exceed **41 ° C or (106 degrees Fahrenheit)**



- ◆ Failure to control, adjust or operate the machine in accordance with the requirements of this manual may cause accidents. Therefore, users and technicians who operate or maintain the VioUv device must be familiar with the safety requirements and operating procedures before turning it on.
- ◆ No one is allowed to overhaul the inner structure of the machine except for those technicians authorized by VioUv. This Device Contains HIGH VOLTAGE COMPONENTS.
- ◆ Make sure that the rated voltage of this machine matches the voltage of your country (AC100-240V / 50-60Hz)
- ◆ Disconnect the power supply before cleaning and maintenance, otherwise physical injury or equipment damage may be caused
- ◆ The VioUv device should be placed on a flat ground and ensure that the working environment is clean and free of dust;
- ◆ The lamp emits ultraviolet light. To avoid eye injury, do not look directly at the tube. Necessary protective measures should be taken during use, like protecting the skin and wearing protective glasses.
- ◆ VioUv should be used in addition to your facilities disinfection, and sanitizing protocols.
- ◆ All cabinets and drawers should be open for treatment to allow as much UV-C light exposure as possible.
- ◆ After use, only use 75% alcohol to keep the UV surface clean. Generally, clean the surface of the lamp tube with alcohol cotton balls once a week.

- ◆ When disinfecting indoor air with ultraviolet rays, the room should be kept clean and dry to reduce dust and water mist. The temperature should be higher than 20°C or 68 degrees and lower than 40°C 104 degrees, and the relative humidity is less than 60%. After scrubbing the floors, wait for the floors to dry before disinfecting with VioLight.
- ◆ Do not use in an environment with flammable or explosive materials such as anesthetics to prevent fire or explosion.



## **SAFETY PRECAUTIONS**

**Avoid exposure to UV light. Germicidal ultraviolet rays are harmful to the eyes and skin. Check the room to clear it of people, animals, and plants before using.**

**Manage in accordance with your local disposal laws, see: [www.lamprecycle.org](http://www.lamprecycle.org)**

### **1. Product Introduction**

This is a general description of the UV-C lamp.

#### **1.1 Introduction**

The VioUv UV-C Disinfection System is a mobile “open cavity” system which has been designed to reduce viruses and harmful bacteria that can exist in the air and on hard surfaces. By using the “line of sight principle” and using a high-powered UV-C lamp produced by Philips the device emits concentrated Ultraviolet Rays at a wavelength of 253.7 nanometers that can disinfect rooms with various surfaces. It is suitable for use in clinics, hospitals, research laboratories and Physician offices. Height 72 inches- This allows greater coverage in minimal time, up to 1,200 square feet in 25 minutes.

360 Degree Motion Detection- If the device senses movement while the lamp is on it will turn-off automatically.

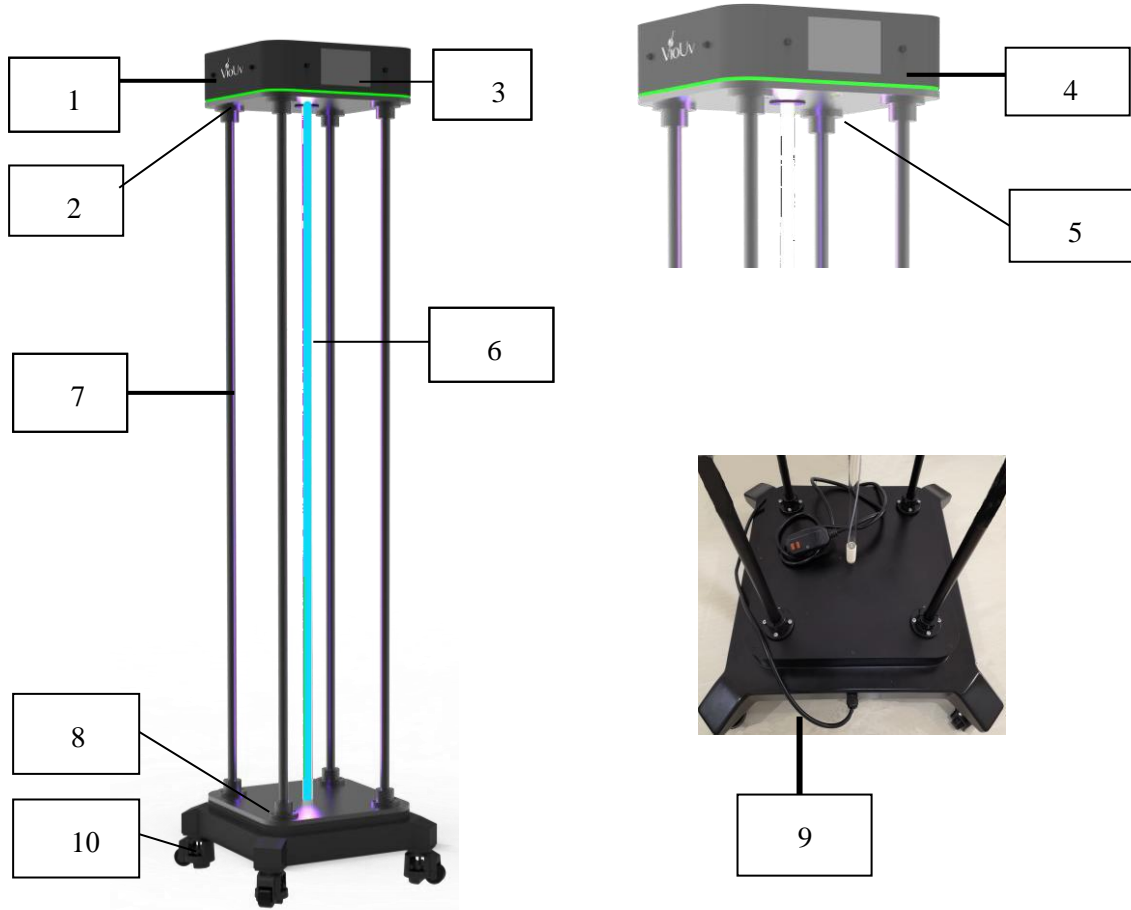
Dual Safety Locks- Prevents operation of the UV lamp unless the unit is in stand-by mode. This prevents the device user from exposure to UV-C light.

The device operations are controlled by a small 8-bit micro-controller which controls the following functions:

- Exposure timer
- Dosage setting
- LED status indicator (Delayed Start with audible countdown)

## 1.2 Outline of the Product

The VioUv-C lamp is mainly composed of the following parts: upper and Lower Modules, lamp tube, display screen, support rod, etc.



Items	Description	Function
1	Upper Module	Consist of (PCBA) Power Control Board Assembly and display interface.
2	Indicator Light	Indicates the different status's of the machine
3	Display	User Interface
4	Motion Sensor	To detect motion in the room
5	Power Button	To start the machine
6	Lamp	To emit UV-C light
7	Supporting Pole	To support the Upper Module
8	Lower Module	Consists of power supply, and Ballast resistor.
9	Power Cord	To connect the power supply
10	Trundle	Makes movement possible

### 1.3 Product Specifications

Please refer to the following table for more details.

Item	Specifications
Part No.	VIO-325
Wavelength	254nm
Power Supply	AC100-240V/50-60Hz
Input Power	350W
Power of the lamp	325W
Dimension	442mm×442mm×1801mm

#### Detailed Description of Product Use:

The following steps are to be followed when using the VioUv-C Disinfection System:

1. Place UV-C Dose confirmation strips in areas that produce shadows.
2. Plug the unit into a 110 outlet.
3. The lamp will have a warm-up period of 30 seconds. During the warm-up period, the two ends of the lamp will turn red until they are fully lit.
4. Position the unit in the center of the room to be disinfected (optimal line of sight)
5. Shield all items that could be adversely affected by the UV-C rays.
6. Clear the room of humans and animals.
7. Turn on the unit utilizing the remote control.
8. Set the delay with audible countdown (the 360-degree motion sensor activates automatically)
9. Set the exposure time
10. Press start and immediately leave the room.
11. Hang exposure UV warning sign on the exit door.
12. Prior to re-entry make sure the lamp is OFF before entering
  - 12 Turn the system to off and unplug from wall.



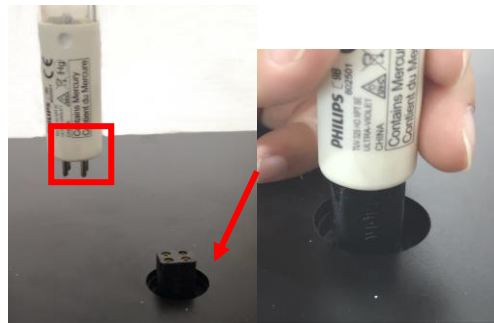
### Lamp Installation Instructions

As shown in the figure below, hold the lamp with both hands, insert the top of the lamp into the hole in the middle of the upper cover at a slight inclined angle, and then connect the pin at the end of the lamp with the hole in the middle of the lower assembly docking. Once the installation of the lamp is concluded the lamp must be cleaned of any residue. Please use an alcohol pad to wipe down the tube. Finish wiping the surface of the lamp with a clean microfiber cloth.

Fig.3.6



Fig.3.7



### Activating the Device

Connect the VioUv-C device with AC100-240V wall plug, press the Power Button (as shown in fig.4.1), the Indicator Light becomes green; the display is on (as shown in fig.4.2) and then enters to the main interface. The Indicator Light becomes red, if the Motion sensor detects motion or human body.

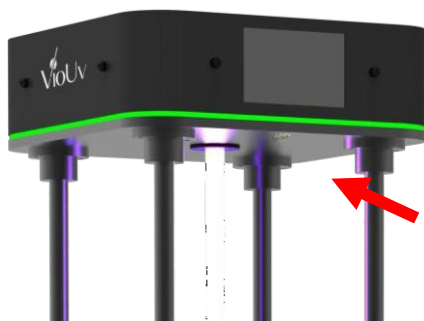


Fig. 4.1

Fig. 4.2

Note: Green light indicates the machine is well connected with the power supply; Blue light indicates the system is running and the lamp is lighting; Red light indicates human motion or human body detected by the motion sensor.

### Calibration Time

The time calibration can be done by pressing the time displayed on the upper left corner of the main interface. Set second-minute-hour-date-month-year, press Confirm to finish, then it will return back to the main interface automatically.

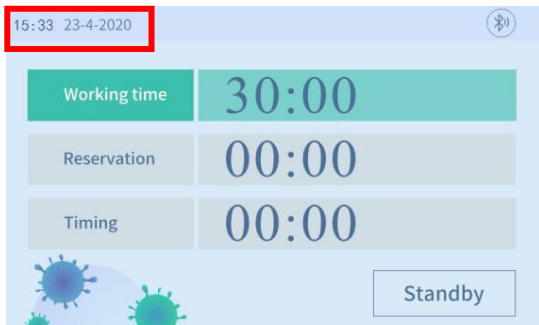


Fig.4.3

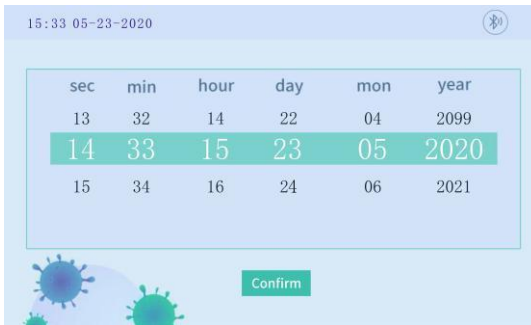


Fig.4.4

Note:Time Calibration is not needed for the intial starting of the machine.

### Three Working Modes to Choose from

The VioUv device is designed with three modes, Working Time Mode, Reservation Mode and Timing.

To set up working time

Under any of the three modes, you need to set up working time as described below.

Press the numbers on the right of Working time Icon to set the disinfection time; slide up or down to choose the time needed ; and the numbers stands for minutes, press Confirm to finsih your setup, then the system will return back to the main interface.

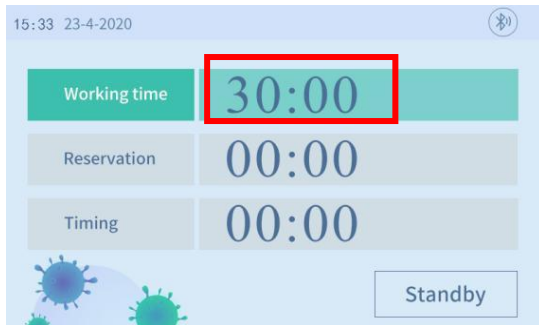


Fig 4.5



Fig 4.6



### Working time Mode

Under this mode, you can start the disinfection process immediately after setting up the disinfection time.

After setting the duration, immediately walk away and out of the sensing range, the Indicator light will illuminate as green; press ON button on the remote control, the Indicator light gets blue, the lamp starts lighting, and the color of the lamp gradually changes from pink to purple; when it begins to countdown, the system changes from Standby to Lighting. As shown in Fig4.8, the disinfection time is 30mins, and the duration can range from 1 to 60 minutes.



Fig 4.7

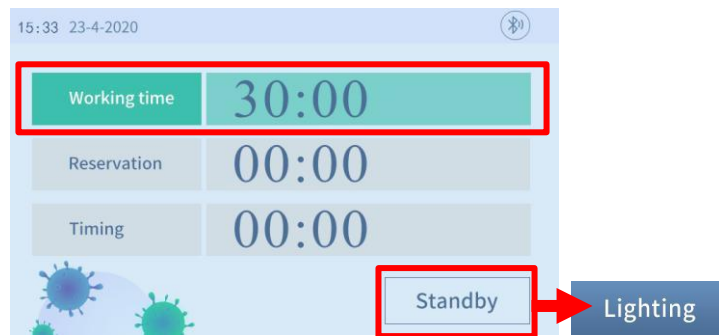


Fig 4.8

### Reservation Mode

Under this mode you can start disinfection after a pre-set delay.

Set up the working time, then press the Reservation icon, the icon gets green; press the numbers on the right of the icon to set the countdown numbers. After a few minutes, the the lamp begins lighting. When you are out of the sensing range, the Indicator light gets green; press the ON button on the remote control, the Indicator light gets blue, the device will change from Standby to Running. When the countdown is completed, the time will display “00: 00”,in the Lighting Status. As shown below, this means that the device will begin disinfection procedure after 1 minute and 30mins duration, the settings can range from 1 to 60 minutes.



Fig 4.9

## Timing

Under this mode you can set the exact time you would like it to start disinfection process. Set up the working time, then press the Timing icon, the icon gets green; press the numbers on the right of the icon to set the time. This number indicates at the exact time, the lamp will begin lighting. When the operator is out of the sensing range, the Indicator light illuminates green; press the ON button on the remote control, the Indicator light gets blue, the device will change from Standby to Running. When the exact time “08:00”, means the lamp will begin lighting at 8 am. It can be set from 00:00 to 23:59.

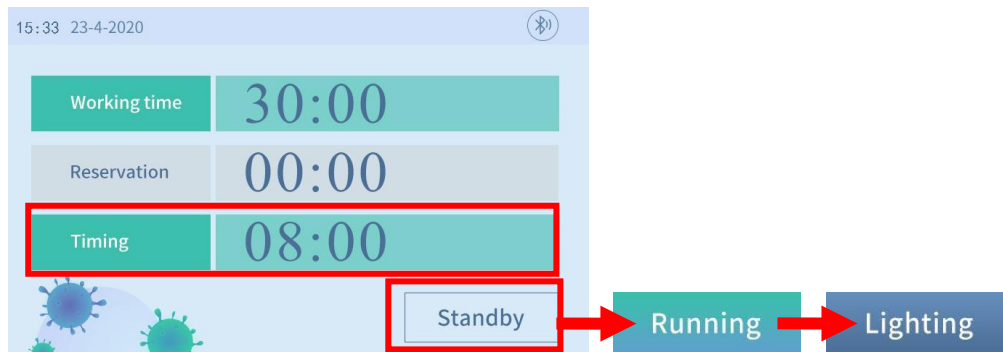


Fig 4.10

## Recommended Exposure Times:

Power (W)	325	325	325	325
Room Length (Ft)	43	65	86	114
Room Area (Sq. Ft)	172	387	688	1,208
Power Density (uW/cm <sup>2</sup> )	406	226	145	92
Covid-19(uJ/cm <sup>2</sup> )	200,000	200,000	200,000	200,000
Time (Minutes)	6	10	15	23
SARS (uJ/cm <sup>2</sup> )	162,000	162,000	162,000	162,000
Time (Minutes)	6	10	15	23
Virus (uJ/cm <sup>2</sup> )	10,000	10,000	10,000	10,000
Time (Minutes)	0.4	0.7	1.1	1.8

## 1. Maintenance and Troubleshooting

The following are suggestions for daily maintenance and solutions for common problems of the VioUv device. The maintenance below is allowed, other maintenance issues should only be addressed by authorized technicians of VioUv.

*Note: Disconnect the power supply before maintenance*

### Cleaning

We suggest to always use clean fabrics or clean gloves. The lamp is made of quartz and should not be touched with bare hands, as your hands will impart a residue on the lamp. If the lamp is accidentally touched by hand, it should be cleaned with alcohol before use. Clean the surface of this product with a soft damp cotton ball at least once a week. You can use neutral detergent or pure water to wipe off the stains. Acidic or alkaline detergents are strictly prohibited.

### Trouble Shooting

<b>Problem</b>	<b>Possible Cause</b>	<b>Solution</b>
No display	Not well-connected with the power supply	Confirm if the power supply is connected
	The Power Button is not pressed	Press the start button
No response when the interface is activated	System Failure	Contact our after-sales
Cannot proceed with the main interface	System Failure	Contact our after-sales
No response when pressing the On/Off Button of the remote controller	The remote control is not paired with the system	Contact our after-sales department.

# NINETY DAY LIMITED WARRANTY

## Warranty Description:

From the date of installation of the instrument, VioUv provides a 90-day limited warranty. Within the warranty period we will repair or replace products that are returned to us with shipping charges prepaid and that have been determined by VioUv to have a manufacturer defect. This warranty does not apply to products that have been mistreated, subject to misuse, negligence, or accident. This warranty does not apply to products that have been modified, improperly installed, repaired by third party or unauthorized person. Warranty will not apply to products that do not have the original product safety labels. This warranty excludes the cost of labor.

TO THE EXTENT PERMITTED BY LAW, THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES AND REMEDIES, AND WE SPECIFICALLY DISCLAIM ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND AGAINST HIDDEN OR LATENT DEFECTS. IF WE CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES, THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES SHALL BE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS LIMITED WARRANTY AND TO REPAIR OR REPLACEMENT SERVICE.

SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG A STATUTORY OR IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. WE ARE NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR UNDER ANY OTHER LEGAL THEORY. IN SOME JURISDICTIONS THE FOREGOING LIMITATION DOES NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS, OR ANY STATUTORY LIABILITY FOR INTENTIONAL AND GROSS NEGLIGENT ACTS AND/OR OMISSIONS, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF DIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. THIS "LIMITATIONS" SECTION DOES NOT APPLY TO CUSTOMERS IN THE EUROPEAN UNION.

## ● WE WILL NOT COVER THE FOLLOWING:

- Malfunctions caused by unauthorized disassembly and modification of the instrument.
- Failure caused by accidental knock or drop during use and handling.
- Failure caused by lack of reasonable maintenance or environmental requirements.
- Failure caused by incorrect operation according to the instruction manual
- Instrument and accessories damage caused by human reasons.
- Failure caused by self-repair without our company's permission.
- Instrument failure due to unstable local voltage.
- Fault or damage caused by force majeure such as fire, earthquake, etc.

## Contact Us:

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