

Intelligent UV & Ozone Disinfection Cabinet 60L / 120L

UVP111H / UVP112H



2
years
warranty



WARNING HARMFUL OZONE may be created by this product. Follow installation and operating instructions.

WARNING UV-C emitted from this product. Avoid eye and skin exposure to unshielded product. Follow installation instructions and user manual.

Hg Breakable Glass Hazard. Can cause personal injury. Be careful when inserting bulb(s) into lamp base. Wear protective gloves when handling bulb(s).

OZONE can cause color shift or structural degradation of leatherwear. High concentrations of ozone for a long time can cause electronic products function damaged.



www.uvpluss.com



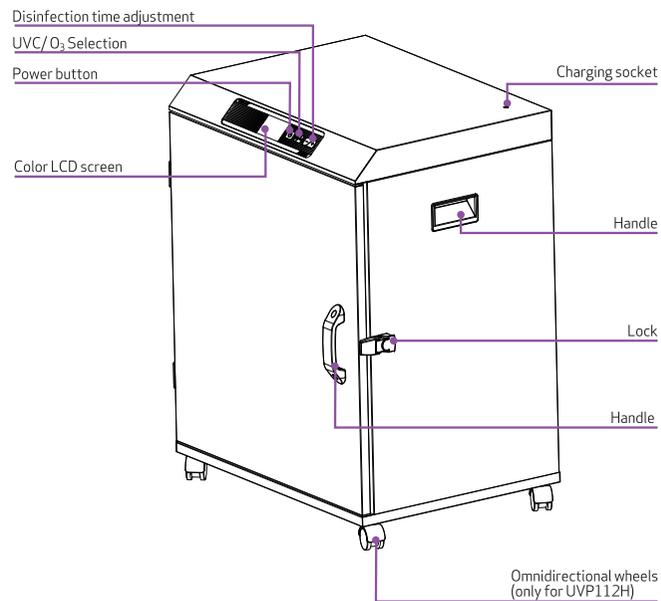
AEC Lighting Solutions Co., Ltd
Add: 2548 Bao'an Highway, Jiading District, Shanghai 201801, China
Tel: 400-063-6757
www.aeclight-ree.com

VF006E

 24W UVC bulb	 254nm UVC	 Average Irradiance: 3030µW/cm² (UVP111H) 5000µW/cm² (UVP112H)	 60mg/m³ 27ppm
 14.8V/5200 mAh Li-ion	 3h (UVP111H) 1.5h (UVP112H)	 3-4h	 IP20
 490x634x482mm (UVP111H) 770x634x482mm (UVP112H)	 25kg (UVP111H) 47kg (UVP112H)	 20V≈2.5A(UVP111H) 20V≈5A(UVP112H)	 Max 35W (UVP111H) Max 59W (UVP112H) <small>Work light specifications</small>

Product Features:

- Dual-effect disinfection combination, fully reflects the high efficiency of UV disinfection and ozone's no blind angle 360 degrees disinfection
- Smart button interface for autonomous selection and adjustment of disinfection mode and disinfection time
- Color LCD screen can display the information e.g. disinfection mode, disinfection time and state of charge etc. in real time
- The disinfection cabinet has a memory function. After each power-on, the screen shows the preset mode and time of the last disinfection operation



The reminding of damage about the disinfected objects:

- The effects of ozone on a variety of substances vary considerably. Glass, stainless steel, butyl rubber, silicone, polycarbonate, and ABS plastics are better at ozone resistance, but nylon, zinc, glass-fibre-added plastics, and natural materials such as natural rubber and leather, are less resistant to ozone.
- In order to ensure the service life, this product is designed with ozone-resistant materials.
- In order to examine the accelerated aging effect of ozone on substances, the substance was tested for 60 minutes at a time using ozone concentrations of 35PPM.
- After 10 tests of six different leather material colors samples, the results show color fading and hardening of the material, especially the brighter samples, whose fading was more pronounced
- The same conditions were tested on stainless steel, aluminum, gold-plated PIN needles, silicone, cotton pads, cotton and ABS plastics, and no significant decomposition was found
- It is recommended to avoid ozone disinfection of brightly colored leather, silk and other items. Some highly aged items, such as natural rubber, are also recommended to not undergo ozone disinfection. Since ozone has an oxidative effect on most metals, users should not use ozone disinfection on electronic products to avoid ozone damage to devices containing metal substances, such as circuit boards in electronic products.

MERCURY NOTICE:

This device contains mercury in the sealed ultraviolet bulb(s). Do not place your used bulb(s) in the trash. Dispose of properly Broken Bulb Cleanup. Do not use a household vacuum. Sweep debris into a plastic bag and dispose of properly. Contact your local waste management authority for instructions regarding recycling and the proper disposal of old bulb(s). Breakable Glass Hazard. Can cause personal injury. Be careful when inserting bulb(s) into lamp base. Wear protective gloves when handling bulb(s).

Equipment maintenance, please contact professional after-sales service stores or professionals

Warranty:

Two-year warranty (The battery and accessory shall not belong to the scope of warranty). As for the product damage caused by the improper usage or the operation of not complying with this User Manual, our company will not undertake the corresponding responsibilities.

- The user use 3M8514 welding protection mask (or equal grade protection masks) when use ozone to disinfect, and can process ozone protection which at 10 times occupation touch limit potency under 1PPM
- In order to ensure the safety of the user, this product has set up a full safety device. Daily spot checks are necessary to ensure the safe use of equipment. Check as required by the specification and stop using the device immediately if the problem is identified. In the use of ozone disinfection, or equipment regular inspection, the use of 3M8514 welded protective mask (or similar grade protective mask), can be 10 times the occupational contact limit concentration (1PPM) ozone protection. When repairing the equipment, in addition to wearing the above protective mask, the equipment should be kept in a well ventilated environment
- Because of the instability of ozone, ultraviolet light accelerates the decomposition of ozone and converts it back to oxygen. After the ozone work is completed, the equipment switches to UV mode to quickly reduce the ozone concentration in the equipment. The user must never open the cabinet doors before the device has completed the ozone disinfection operation (before the end of the timer countdown in the monitor)
- Users are advised to equip users with ozone concentration detection instruments to regularly detect whether the leaked ozone value of the equipment exceeds the safe value: long term populated enclosed spaces, such as houses, apartments, hospitals and offices, ozone must be less than 0.1PPM in English. If ozone leakage value is found to have exceeded the above standard, the equipment must be immediately stopped

To guarantee the disinfect effect of UVC:

- Whether UV light can effective disinfect depends on the amount of exposure received by the disinfection object, which depends on the radiation power of the UV light source, the distance of the disinfection object from the UV light source, and the duration of the exposure to UV light
- When killing common microorganisms, the irradiated dose should reach 10,000 uW/cm²; 100,000 uW/cm² is the recommended dose to kill bacterial spores. The radiation dose should not be less than 100,000 uW/cm² when the target microorganism for disinfection is unknown
- According to the radiation intensity of the UV light source of this product and the general distance of the UV light source from the irradiated object, it is recommended that:
 - 1) In order to achieve the radiation dose of 10,000 uW/cm² to meet the general needs of daily use, the exposure time should be at least above 3s (UVP111H) or 2s (UVP112H)
 - 2) In order to achieve the radiation dose of 100,000 uW/cm² to meet the needs of the professional environment, the exposure time should be at least above 30s (UVP111H) or 20s (UVP112H)

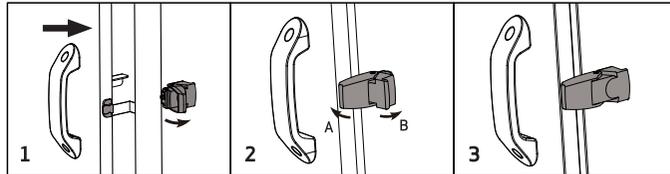
To guarantee the ozone disinfect effect:

- Ozone can kill bacterial reproductions, viruses, fungi, etc., and can destroy botulinum toxin. In order for ozone to be effective as a disinfectant, its concentration must be much higher than that that can be safely tolerated by humans and animals. Ozone has a powerful killing effect on microorganisms in the air, and at the same time has the odor-removal characteristics, 30minutes of 20mg/m³ (9.35PPM) concentration of ozone in a sealed environments can achieve disinfection effect. Ozone on the surface of the items of the microorganism also has a killing effect, requiring 60mg/m³ (28.04PPM), relative humidity of 70%, and exposure of 60 minutes to 120 minutes, to achieve disinfection effect.
- If the equipment is stopped in the middle of the operation, the disinfection effect cannot be guaranteed, a new disinfection session from the start will be necessary.

Operation Instruction:

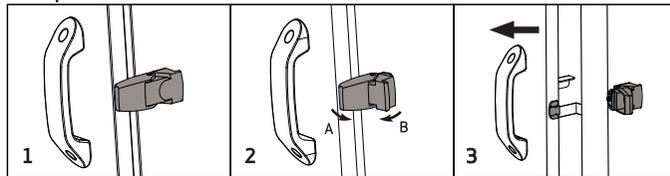
1. Press POWER button "⏻" 1s to turn on display screen. When display is on, press POWER button "⏻" to turn off display. The display screen will automatically close after 2 minutes of no operation.
2. Open the cabinet door; the "🔒" on the screen will change to "🔓".
3. Close the cabinet door after putting the objects which need be disinfected into cabinet; the "🔓" on the screen will then change to "🔒".
4. Short press button "🔁" to toggle between the disinfect mode selection, ultraviolet rays UVC or ozone O₃.
5. Short press button "🕒" to select disinfection time setting. Can select from 1-60 minutes time adjustment under the ultraviolet rays UVC mode; can select from 30-240 minutes time adjustment under the ozone O₃ mode.
6. Long press "🔁" button for 1.5s to start disinfect session after the disinfect mode and time settings are selected. The timer on the screen will start counting down; the "⚡UVC" or "🌫O₃" will change to "⚡UVC" or "🌫O₃" respectively according to different modes selected.
7. During O₃ disinfection in O₃ mode, ozone output will automatically stop within the last 10 minutes of the preset disinfection time, and then ultraviolet rays UVC will automatically start to decompose the ozone for 10 minutes..
8. When the timer counts down to 0 on the screen, the "⚡UVC" or "🌫O₃" will change to "⚡UVC" or "🌫O₃" at the same time, this means disinfection session is already finished, open the cabinet door, and pick out the disinfected objects.
9. Long press "⏻" button for 1.5s to stop the disinfection session. Pressing the power button for 1.5 seconds will also stop the disinfection session as well as turn off the display.
10. The battery power indicator will display the bar "🔋" in red when battery power is lower than 20%, charging will be necessary as soon as possible.
11. The disinfection cabinet has a memory function: after each power-on, the screen shows the preset mode and time of the last disinfection operation.
12. The display "9999h" on the screen is the working time counter of UVC lamp bulb, need to replace the UVC lamp tube after bulb working hours has reached 9,000 hours. If the hours counter exceeds 9000 hours, the text will become red and a warning sign will appear "Mercury lamp life exceeded, please replace the bulb with a new one, and then click the pushbutton ten times continuously to reset hours counter of the lamp bulb." when in UVC mode display. To reset the hours counter of the lamp bulb, short press the button "🔁" ten times continuously.

• **To close and lock the cabinet**



- 1 Push cabinet door into the cabinet and then pull front part of the lock in direction as shown in picture 1
- 2 Push front end of lock (A) and latch with door hook then press the lower end of the lock (B) towards the cabinet, as shown in picture 2
- 3 The cabinet door is now locked, picture 3

• **To open and unlock cabinet**



- 1 Pull lower half of the lock away from the cabinet (B) and then pull front end of lock (A) away from cabinet, as shown in picture 2
- 2 Pull cabinet door away from cabinet to open the door, picture 3

SAFETY WARNING:

- Please read and understand this user manual before use, to ensure that the product is safely and properly used
- Our Company shall not be liable for product damage and other injuries caused by improper use or failure to follow this User Manual.
- Strictly forbid any children 0-12 years old to use this product. Users should carefully select places without children before use and ensure that children do not touch the product.
- Avoid the risk of electric shock during use.
- The use of this product in gas, flammable and explosive substances, and heat source environments is prohibited.
- Don't use wet hand/s in operating the product. Please keep the operating environment dry
- Do not remove, repair and alter the product by oneself. Repairs and battery replacements can only be carried out by authorized service providers and manufacturers, and repair and replacement of batteries by authorized service providers and personnel other than manufacturers may result in injury. Replacing the battery with the wrong model is a risk of explosion
- Use the product only at specified voltages and frequencies
- UV Light Hazard. Harmful to bare skin and eyes. Can cause temporary or permanent loss of vision. Never look at the bulbs while illuminated. Any exposed skin must not be exposed to UV light

CAUTION:

UVC-Equipment Damage Hazard.

- Ultraviolet light can cause color shift or structural degradation of plastic materials
- Ultraviolet light can cause color shift or structural degradation of resin materials
- Ultraviolet light can cause color shift or structural degradation of leatherwear
- Ultraviolet light can cause color shift or structural degradation of organic compounds materials

OZONE-Equipment Damage Hazard.

- OZONE can cause color shift or structural degradation of plastic materials
- OZONE can cause color shift or structural degradation of resin materials
- OZONE can cause color shift or structural degradation of leatherwear
- OZONE can cause color shift or structural degradation of organic compounds materials
- High concentrations of ozone for a long time can cause electronic products function damaged

NOTES:

- The design of this product based on IEC 62471:2006 Photobiological safety of lamps and lamp systems and other international standards
- This product utilizes UVC bulbs to emit UV-C rays with peak value wave length at 254nm to disinfect
- Ultraviolet tube is a relatively tight and fragile electronic component, users should avoid the impact on the product resulting in product failure.
- The design of this product is according to Code of Federal Regulations Title 21, Volume 8 by US FDA, California Code of Regulations Title 17 Public Health, and IEC 62368-1[4] 7.3 and other international standards
- According to code of federal Regulations Title 21, Volume 8, ozone is a toxic gas, according to the FDA. Although ozone has been reported to have adverse physiological effects on the central nervous system, heart and vision, its main physiological effect is to stimulate the mucous membranes. Inhalation of ozone causes enough irritation to the lungs, leading to pulmonary edema. The onset of pulmonary edema is usually delayed by several hours after exposure; As the hazards of ozone are widely understood, people pay full attention to the use of ozone.
- At Ozone concentrations of 0.02PPM (0.04mg/m³), ozone can be smelled by people with acute olfactory senses, at 0.15PPM (0.32mg/m³), ozone can be smelled by the general population, at 1-10PPM (2.14 - 21.4mg/m³) ozone has reached the "stimulus range", and can be clearly smelled, at 10PPM (21.4mg/m³) ozone has reached the "toxic range" or more "poisonous range". The odor of ozone is not a reliable warning indicator due to the possibility of olfactory fatigue
- Long term occupied enclosed spaces, such as houses, apartments, hospitals and offices, should have ozone volumes below 0.1mg/m³ (0.05PPM). The ozone concentration in the workplace, i.e. occupational exposure limit, is 0.1PPM
- The amount of space used by the equipment used to place and use this device should not be less than 20 m³ to ensure that the ozone remaining in the equipment has sufficient space to be decomposed to a safe level when the cabinet door is opened
- When opening the equipment for ozone disinfection, make sure that the equipment is in a well ventilated environment. If the equipment cannot be ensured to be in a well-ventilated environment, only open the cabinet door at least 30 minutes after an ozone disinfection session has finished
- Ozone is unstable, breaks down rapidly at high temperatures, slowly breaks down to (oxygen) at room temperature, has a half-life of about 16 minutes in 1% of ozone solution and about 25 minutes in the air.
- Pure ozone, if receives impact or friction, will explode and decompose. High concentrations of ozone when heated is also prone to explosion. But as long as care is taken, such accidents are rather rare. Ozone should not have high concentrations of flammable and explosive gases at the disinfection site when it is used for air disinfection.