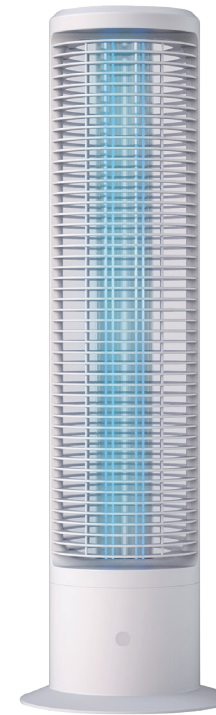


The Apollo UV-C Disinfection Lamp

Instruction Manual



Smart UV
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Product Specifications

Product Name: The Apollo UV-C Disinfection Lamp

Power: 60 Watts

Input voltage: 110 Volts

Color: Black / white

Product weight: 1800g

Product size: diameter 180 * 530mm

Scope of application: home use, office, etc

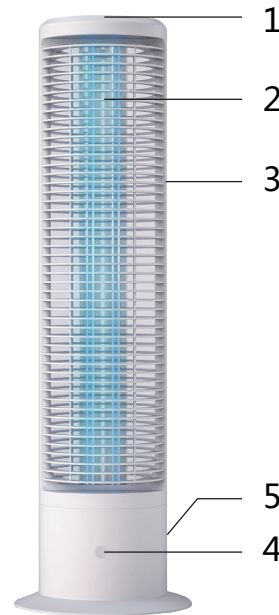
Control operation mode: touch the key

Product Details

- 1、 Customizable Timers and Operational Indicator Lights
- 2、 Dual UV-C Emitting Bulbs
- 3、 Protective Outer Casing
- 4、 5-Meter Motion Sensor
- 5、 110V Wall Socket Plug-in

How To Use

1. Press and hold the power button for 3 seconds to start it up
2. To turn off the Apollo hold the power button for 3 seconds
3. The default cycle duration is 15 minutes and does not need to be selected after the power-up
4. To Select exposure time greater than 15 minutes (30/45/60 minutes) tap the power key once to select a 30-minute cycle, twice for a 45-minute cycle, thrice for 60 minutes, and 4 times to revert to the 15-minute cycle
5. Once the desired duration is selected leave the room and shut the door. 10 seconds timer will turn the lamp on automatically. The disinfection process will begin allowing you enough time to leave the room.
6. Do not enter the room during the disinfection process.
7. Allow the lamp to cool down for 10 minutes after each disinfection is completed.



⚠ WARNING

When turning on the light, please leave the room. You can not be in the room during operation. UV-C light is dangerous to people, pets, and plants. Please use with care.



Safety Feature Information

The Apollo is equipped with a 5-meter automatic shut off motion detection sensor. This helps protect unexpected visitors and pets. If they enter the room when The Apollo is running, it will shut off to protect them from the UV-C light. The Apollo turns back on after the visitor or pet leaves the room, with a 10-second delay. The Apollo will then operate for the remainder of the set sterilization time.

Best Practices & Safety Protocols

1. Keep out of reach from children. During use, do not touch the lamp body or have direct contact with the UV-C light on skin, animals, or plants. Precious painting materials should not be present.
2. Before turning on The Apollo, please close all doors and windows. After turning on The Apollo please leave the room. Enclosing the room helps the disinfection process. After sterilization, we recommend ventilating the room by opening the doors and windows.
3. In case of a malfunction or control failure of The Apollo, or an emergency shut off is needed - cover up with long sleeves and cover the face and wear UV-C protective eyeglasses. Then enter the room and unplug The Apollo. In the case of a malfunction please reach out to the Smart UV team to go over your warranty.
4. When The Apollo is not in use, please disconnect the power supply and place in a dry environment to ensure the health of your product.

Introduction to Apollo

The Apollo user manual will guide you to use your UV-C lamp use.

Thank you for your purchase. Read these instructions thoroughly and keep them for future reference before using the Apollo UV-C lamp.
What is UV-C.

Ultraviolet radiation is segmented into three regions: UV-A: 315-400 nm, UV-B: 280-315 nm, and UV-C: 100-280 nm.

Ultraviolet radiation can be linked with detrimental health effects dependent on the exposure time and wavelength.

The adverse health effects that could occur are erythema (sunburn), photokeratitis (a feeling of sand in the eyes) skin cancer, melanoma, cataracts and retinal burns.

Band	Wavelength	Primary Visual Hazard	Other Visual Hazards	Other Hazards
UV-C	100-280nm	corneal injuries	photo keratitis	erythema, skin cancer

Warning! Save and Read these instructions.

Failure to follow the instructions below may result in fire, electric shock and or serious personal injury.

The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur.

The operator must exercise common sense when using the Apollo UV-C lamp.

The germicidal lamp is not a toy. Keep children away from germicidal lamps. Serious injury and electrocution might be possible. This unit has to be operated by an adult only.

Caution: The unit is provided with a short power cord to mitigate the risk of personal injuries. An extension cord may be used if necessary.

If the cord is required, special caution and care is suggested.

Keep in mind that the cord must not be arranged to drape over a countertop, table top or where it can be pulled on by children or become a tripping hazard.

1. Plug Apollo directly into power outlet to avoid shock hazard and fire.
2. Do not operate unit or use if cord or plug is damaged.
3. Cord should not be placed in heavy traffic areas. To avoid fire never place cord near heat registers, stoves, under rugs, heaters and radiators.
4. Always place the Apollo lamp on a sturdy surface where it is not easily knocked over by persons in a business or household.
5. Never use a germicidal lamp near water.
6. Never touch the UV-C lamp if your hands are wet.

Warning! Save and Read these instructions.

7. All interactions with the Apollo UV-C Germinal Lamp should be with Dry hands.
8. Unplug the UV-C lamp always, prior to cleaning, substituting or exchanging parts or before moving to another location
9. Never place or drop any objects into the openings of the UV-C light.
10. This device should be only used indoors never outdoors.
11. The cord should not be used as a means to move the Apollo light. Never carry, drag, pull or lift the germicidal UV-C lamp with the power cord. The power cord should not be pulled around sharp corners or edges. This may result in injury to the use and or damage to the cord.
12. Do not block the air openings, or place on a soft surface, such as a bed or sofa, as this could cause the unit to fall over which could lead to a fire.
13. Never place anything on top or around the unit when disinfection is in progress.
14. Do not use any detergents to clean any part of the unit.
15. Do not pull the cord itself to unplug from the power outlet.
16. Always turn the unit off before unplugging
17. Always place the Apollo on a sturdy smooth flat level surface and away from direct sunlight. Keep the power plug away from heated surfaces and high traffic areas where the plug could be tripped over stepped on or walked over. Always unplug the Apollo when not in use and whenever you clean or move the unit.

Germicidal UV-C Light Notice.

Never directly look at the UV-C light while the unit is illuminated-doing so could result in temporarily or chronic damage to your eyesight or may even lead to loss of vision. UV light is harmful to exposed skin and eyes.

To prevent exposure to UV light, always disconnect the power to the unit once the disinfection process is finished. Do not use the unit if any part of the lamp is damaged or cracked.

Apollo Disposal

UV lamps as with fluorescent light bulbs contain mercury and must be disposed of properly. Therefore do not throw out old lamps into the trash.

Most communities have agencies that accept mercury along with other carcinogenic materials like old paint and solvent that requires special disposal.

Contact your municipal or county waste collection agency please for proper disposal procedure and guidance.

If a lamp is broken do not use a vacuum cleaner to pick up the waste. Rather, sweep up the waste contents into a plastic bag and seal.

Please contact your municipal or county waste collection agency for proper disposal procedures.

Signage

Posting a warning sign on the door when the lamp is operating is highly recommended. Most UV exposure accidents involve a party that was not aware of UV-C use in the room. The warning sign should include Caution: High Intensity Ultraviolet Energy. Protect Skin and Eyes.

Facility Safety Awareness

Maintenance and janitorial personnel may be accidentally exposed to the radiation of UV lamps while in the course of their duties, it is essential that all UV sources and facilities be adequately labeled to instruct personnel of the dangers of exposure.

Ideally, all activated UV sources should either be attended by knowledgeable personnel at all times, or the lamps should be housed in foolproof, interlocked enclosures.

However, warning signs are needed in both cases. Prominent activation warning lights are also helpful.

Personal Protective Equipment

Personal protective equipment must be worn by individuals exposing themselves to an operating UV lamp. The personal protective equipment must protect the eyes and skin. Appropriate PPE would include gloves, lab coat with no gap between the cuff and the glove, and a UV resistant face shield.

Suggested Disinfection Times

Disinfection times depend upon size of the room which requires disinfection. Please refer to table below as a guideline.

Room Area (ft ²)	Recommended Disinfection Time
160 ft ²	15 minutes
320 ft ²	30 minutes
480 ft ²	45 minutes
645 ft ²	60 minutes

Exposure time should be increased if:

1. Room temperature is below 68 degrees Fahrenheit
2. Room temperature is above 104 degrees Fahrenheit
3. Unit is operated in germ prone environment
4. Unit is operated in wet areas of your home (e.g. bathroom)

Maintenance/Monitoring

Unplug the unit before bulb replacement and cleaning. Bulbs should be wiped off on a quarterly basis with a soft cloth and dampened with ethanol. The bulb must not be operating and must be cool to the touch prior to wiping. A Bulbs life span is 9000 hours of use

Access to room

Access to the room must be strictly controlled while the lamps are operating to prevent employee exposure. The UV lamp should only be operational when the door is closed. It is recommended that the UV lamp should be used when employees are off site.

Analysis and Test Results for Apollo on pathogenic microbial strains.

Analysis and Test Results for Apollo on pathogenic microbial strains.					
Duration: 30min					
Distance: 30cm					
Test organism	Test Group	Average cfu of testing groups (cfu piece)	Average cfu of positive controls (cfu piece)	Sterilization logarithm (KL)	Sterilization Rate (%)
<i>Escherichia coli</i> 8099	1	<5	1.6x10 ⁶	>5.51	>99.9
	2	<5	1.7x10 ⁶	>5.51	>99.9
	3	<5	1.6x10 ⁶	>5.51	>99.9
	average		1.6x10 ⁶	>5.51	>99.9
<i>Staphylococcus aureus</i> ATCC 6538	1	<5	3.4x10 ⁶	>5.83	>99.9
	2	<5	3.2x10 ⁶	>5.83	>99.9
	3	<5	3.6x10 ⁶	>5.83	>99.9
	average		3.4x10 ⁶	>5.83	>99.9
<i>Candida albicans</i> ATCC 10231	1	10	8.0x10 ⁶	4.89	99.99
	2	5	8.0x10 ⁵	5.19	99.99
	3	10	7.5x10 ⁵	4.89	99.99
	average		7.8x10 ⁵	4.99	99.99