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Ultraviolet light refers to the light with wavelength of 10nm to 400nm in sunlight. The results showed that UV had the best germicidal efficacy in the wavelength range of 240nm ~ 280nm, especially in the wavelength of 253.7nm.

Ultraviolet sterilization principle:

The absorption of light wave by cells is the largest at 250 ~ 270nm. The absorbed ultraviolet rays act on DNA and play a photochemical role. The energy of ultraviolet rays is absorbed by the base pairs in DNA to change and destroy the tissue structure of microorganisms (DNA nucleic acid), resulting in the mutation of nucleic acid structure, the death or loss of replication ability of organisms, and the destruction of functions, so as to achieve the purpose of sterilization and disinfection.

ozone

Ozone is a kind of strong oxidant, which is obtained by high pressure ionization. Its production process is to decompose part of the oxygen in the air into oxygen atoms, which then polymerize with oxygen molecules to form ozone.

Ozone sterilization principle:

Ozone is a strong oxidant, and the sterilization process is a biochemical oxidation reaction. Ozone sterilization has the following three forms:

1. Ozone can oxidize and decompose the enzymes required for glucose degradation in bacteria, which makes TCA cycle unable to carry out, thus leading to the failure of ATP supply for cell life activities, and the inactivation and death of bacteria.
2. Directly interact with bacteria and viruses, destroy their organelles, DNA and RNA, destroy the metabolism of bacteria, and lead to the death of bacteria.
3. Through the cell membrane tissue, it invades into the cell, acts on the outer membrane lipoproteins and the inner lipopolysaccharide, causes the bacteria to have the permeability distortion and dissolve to death.

1. Inhibit the rapid growth of bacteria. According to a test conducted by the school of public health of Zhejiang Medical University in the air-conditioned room, the amount of floating bacteria in the room air within 30 minutes after using the negative ion product decreased by 54.94%, and the amount of bacteria in the room air decreased by 85.37% after one hour of operation. With the extension of time, the inhibition rate was stable between 85% and 92%. The mechanism of negative ion action is to reverse the electrical polarity of bacterial protein surface and inhibit bacterial growth.

2. It can settle the suspended particles in the air.

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Product introduction

1. A new generation of ozone plus UV-C ultraviolet integrated machine, with controllable ozone concentration, no direct ultraviolet radiation, and negative ions working immediately after startup, can continuously inhibit the growth of bacteria.

2. Intelligent control, ozone and ultraviolet alternate work, good sterilization effect, with negative ion antibacterial effect is better.

3. New air duct design makes ozone diffusion faster. Through the built-in fan, bacteria, viruses, molds and air containing allergens are inhaled into the machine for circulation elimination. At the same time, increase the indoor air circulation, so as to improve the sterilization speed in the unit space.

4. The DC power supply is more secure, with less power consumption, and can be turned on 24 hours.

5. This machine has no consumable design, which saves the trouble of replacing filter element.

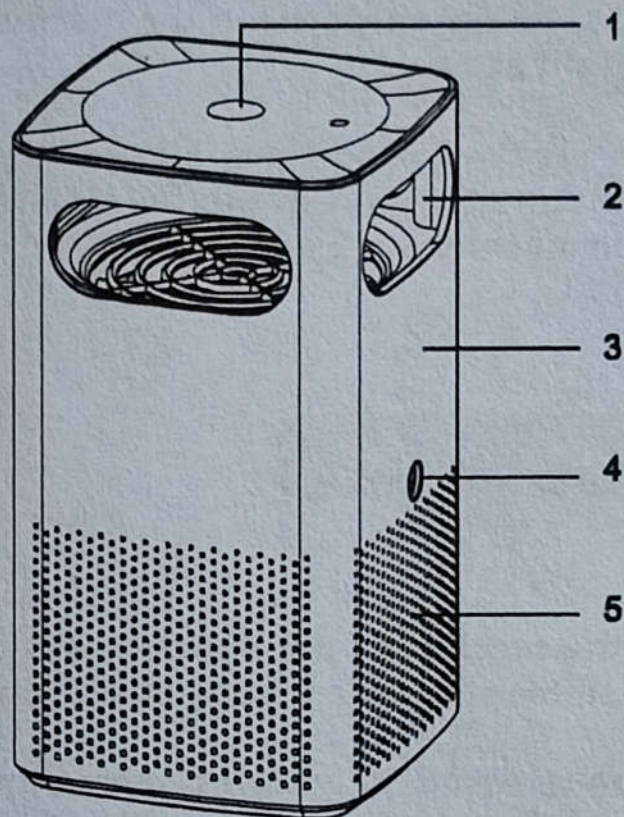
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Product parameters

Product Name: Freddie sterilization purifier

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Product list



- 1. Power switch
- 2. Air inlet
- 3. Body
- 4. USB interface
- 5. Air outlet

Main engine *1 USB line *1 specification *1

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Instructions

1. The hole in the upper part of the product is the air inlet of the purifier, please do not cover it.
2. High and low gear mode: plug the USB power cord into the DC5V interface, turn on the top switch - short press the button, the low gear starts to work (suitable for the space below 15m²), and then short press the button to turn to high gear (suitable for the space below 30m²); the high and low gears are ozone working for 30 minutes, then stop for 20 minutes, at the same time, the ultraviolet working for 20 minutes, then enter the 20 + 5 cycle mode, and the third time press the button, the machine will be shut down.

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Maintenance

1. Use soft cloth to clean around the machine regularly, and use soft cloth and neutral detergent to clean the machine body, so as to keep the machine bright as new.
2. When not in use for a long time, please put the machine into the packing box for storage, so as not to fall into the dust and affect the use effect of the machine.

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Precautions

1. Do not use the product in the environment of high heat and high temperature flammable gas (such as gas station).
2. Ozone will be released 30 minutes before the machine works. You can choose the high and low gear according to the size of the space.
3. This product uses USB DC 5V power supply, please do not connect to other working voltage.
4. Do not cover with cloth, towel and other things when the machine is on.
5. Don't let any liquid into the product to avoid failure.

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Product statement

1. This product is not a medical device and can not be used to replace any treatment plan.
2. This product does not guarantee to make you feel refreshed! The sensitivity of different groups of people to ozone is slightly different. It is recommended that users leave in high-end working mode.

Thank you for purchasing and using Zhangjing brand series purification products. The products you purchased enjoy a one-year free warranty from the date of purchase (appearance and gifts are not included in the scope of maintenance). If the product you purchased has quality problems during normal use, please take this service card and valid purchase certificate to the purchase point or agent point for free maintenance.

During the warranty period, our company will not be responsible for the repair under any of the following circumstances. In case of maintenance, the company will still provide free labor service for you, only charge for replacement parts:

1. All damages caused by human factors, including damages caused by using in abnormal working environment, not following the instructions and improper storage, etc.
2. The user disassembles the machine without permission, repairs or refits the machine by himself or has not been repaired by the unit authorized by the company, and has no warranty card or valid documents.
3. Damage caused by bad transportation or other irresistible factors (such as flood, fire, lightning, earthquake, etc.) after purchase.

The company reserves the right to modify and interpret the above terms

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Troubleshooting guide

common problem	Treatment method
Machine cannot be turned on	Please make sure the machine has power
light is not bright	Please make sure the machine is on
Air volume decrease	Please make sure that there is something in the air filter

Freddy sterilization purifier

Instruction manual

