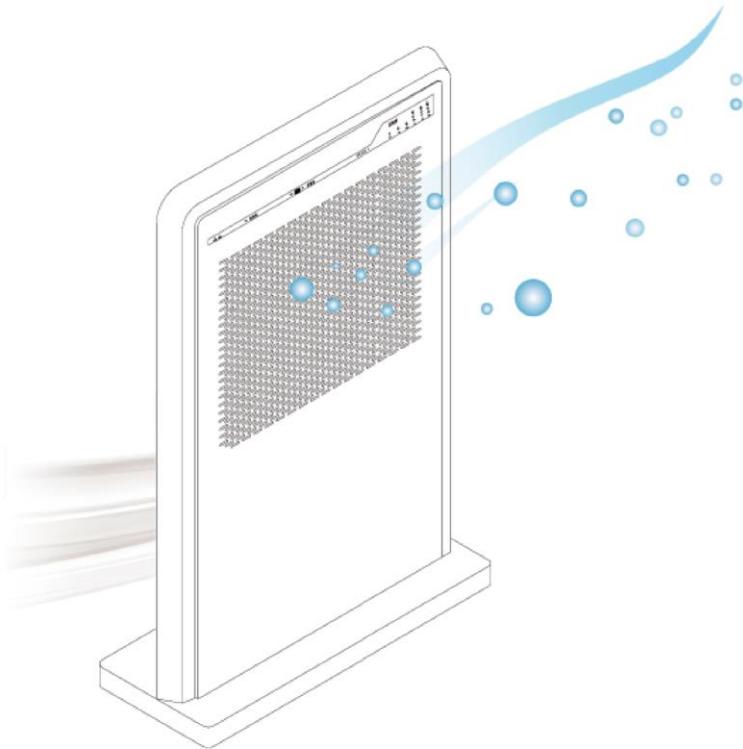




Medical Grade Air Purifier User Manual

Suitable for: D-Guard 5



Thank you for choosing Clean Room Air brand.

- Please read this manual carefully before use.
 - Please take note on safety pre-cautions to ensure safety.
 - Please keep this user manual properly for future reference purpose.
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Preface

- Thank you for choosing the products of Clean Room Air. Clean Room Air medical grade air purifier D-Guard 5 is a green product which is designed to provide you with the cleanest indoor air.
- To ensure that this product works in its most efficient performance, please read this user manual carefully and familiarize yourself with the product and keep it in a convenient place for future reference.
- To ensure that the product is safe and reliable, assign a trained professional as the operating manager of the product. If you have any questions or suggestions about how to use this product, repair and troubleshooting, please report it to your manager immediately or contact the Company. We will be happy to provide you with quality services.

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Reminder & Tips

Clean Room Air medical grade air purifiers are very convenient and easy to use. First, depending on your room size and preferences, select the model with the appropriate air purification capacity, and then periodically replace the filter according to the recommended filter replacement time. Remember, similar to air conditioners and heaters, air purifiers have coverage area based on their air handling volume. Here are some tips for the application of commercial air purifiers to protect your and your family's breathing health.

Optimum Usage Condition:

- **Always Keep The Doors Closed:** When you are using an air conditioner in Summer, you do not usually open the window, as the opening of window will cause hot air to flow into your room, resulting in the ineffectiveness of the air conditioning effect. Same applies to air purifier, opening the window or door will allow polluted dirty air to enter the room, causing the air purifier fail to effectively purify all the air in your room. Applying an air purifier in a tightly sealed room is important for relieving nighttime asthma and allergies.
- **Operated 24 Hours A Day:** To provide you with the cleanest and healthiest indoor air, we recommend that you operate the air purifier 24 hours a day and do not shut it down.

1. General Knowledge

The air purifier can efficiently purify particulate particles and gaseous pollutants in the air and equipped with sterilization function to achieve the purification. Based on requirements of the indoor environment, the quality of indoor air need to achieve and maintain an excellent level. While purifying the air, it does not cause any further pollution to the surrounding environment.

1.1 Operating Condition

- a) Temperature: 5°C~40°C
- b) Humidity: ≤90%
- c) Surrounding Pressure: 86kPa~106kPa
- d) Power Supply: AC 120V

1.2 Safety Precaution

1.2.1 Basic Safety Info

- This product is suitable for indoor use, do not use at outdoor.
- This product does not have explosion-proof capability, strictly prohibited to use in flammable and explosive environment.
- It is prohibited to use in the following places: low temperature, high temperature, high humidity, dust, oil mist, chemical corrosion.
- Do not wipe with organic solvents to avoid damage to the surface of the product.
- If the product is installed in a tilted state, it will cause deformation of the box and enclosure.
- Please spare some space for maintenance when install the product in place.

1.2.2 Electrical Safety

- The product must be fixed in place before powering up.
- The product must be reliably grounded in order to ensure the safe use of the product.
- Before starting and running, please determine whether the rated operating voltage and frequency of this product match the parameters of the input power supply, so as not to damage electrical components or even cause a fire.
- It is strictly forbidden to modify the electrical wiring of this product without authorization.
- Do not place heavy objects on the power supply leads, do not clamp the power supply leads, so as not to cause fire and electric shock due to broken power supply leads.
- During maintenance of replacing the fuse core, it is important to ensure that its capacity specifications and types are the same as before, and that the capacity must not be changed without authorization.
- When the product is expected to out of service for a long time, cut off the power supply.

1.2.3 Operation Safety Matters

- It is forbidden to repeatedly operate all switches within a minute to avoid damaging the controller parts due to frequent movements. Prohibit the placement of items at the air purifier inlets so as not to affect the amount of air intake。
- When the filter needs to be replaced, cut off the power supply first and replace it after the fan stops running。
- In the event of an abnormal situation during operation, you should first stop running and cut off the power supply (i.e. turn off the fan switch), and then notify the professional for repair or troubleshoot, or contact the product dealer or the Company.

- If the equipment is used in a special environment with high dust level, the manufacturer shall notify after-sales for recommended replacement cycle. HEPA filter needs to be checked and replaced in a timely manner. Failure to replace the over-time period can cause a severe blockage of the filter, which can cause damage to the fan motor.
- If there are any other malfunctions, turn off the machine immediately.

2. Technical Features

Product Model	D-Guard
Gear Setting	High-Medium-Low
Control Panel	Touch Sensor On/Off
Rated Voltage/Frequency	1PH/120V/60Hz
Rated Power	15-206W
CADR of Particulate Matter	1159.92m³/h
Energy Efficiency of Particulate Matter Removal	5.58 m³/(h×W)/HEPA
Formaldehyde (CADR Formaldehyde)	615m³/h
Energy Efficiency of Formaldehyde Removal	2.96 m³/(h×W)/HEPA
Formaldehyde Purification Efficiency 30m³, 1h	99%
PM2.5 Filtration Efficiency 30m³, 20min	99.90%
Sterilization Rate (White Staphylococcus) 30m³,	99.89%
Noise (Sound pressure Level)	32-61dB(A)
Suitable Area	±100 m²
Dimension (W×H×D) /Weight	1010×1585×170mm/85kg
Acquired Certifications	AHAM/Energy Star/EMC/CE

*** The product is constantly update and the data is subject to change without notice.**

3. Product Structure & Working Principle

3.1 Product Structural

The air purifier shown in Figure 1 is stand-alone type and consists of main body, filters, control panel, fan component and base.

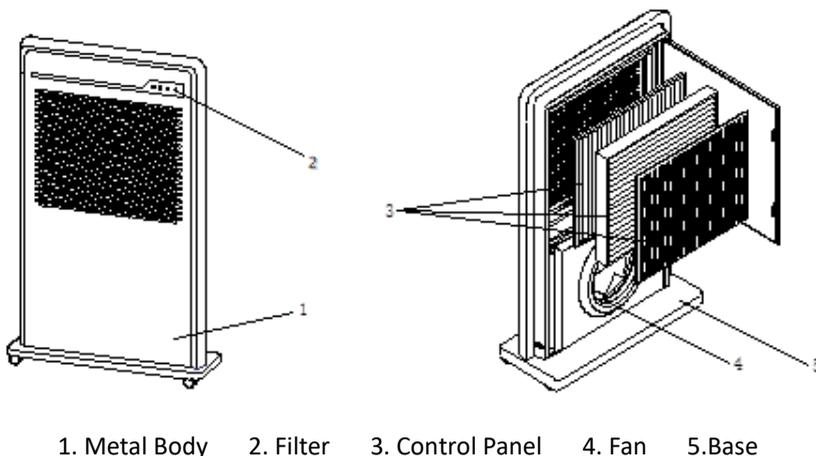


Figure 1: Product Structure

3.2 Working Principle

As shown in Figure 2, the air purifier utilizes recirculation system allowing the indoor air to pass through pre-filter to capture and collect various particles floating in the air, then second layer filtration uses M HEPA antibacterial high efficiency filter and lastly passing through M HECA chemical filter to remove VOC. During first used, in order to achieve fastest filtration efficiency for the air in your room, we recommend adjusting the air flow to the maximum (this can also be used during daytime or when the air is highly polluted). After 15mins operated in the high-speed gear ,adjust the machine to your desired air flow.

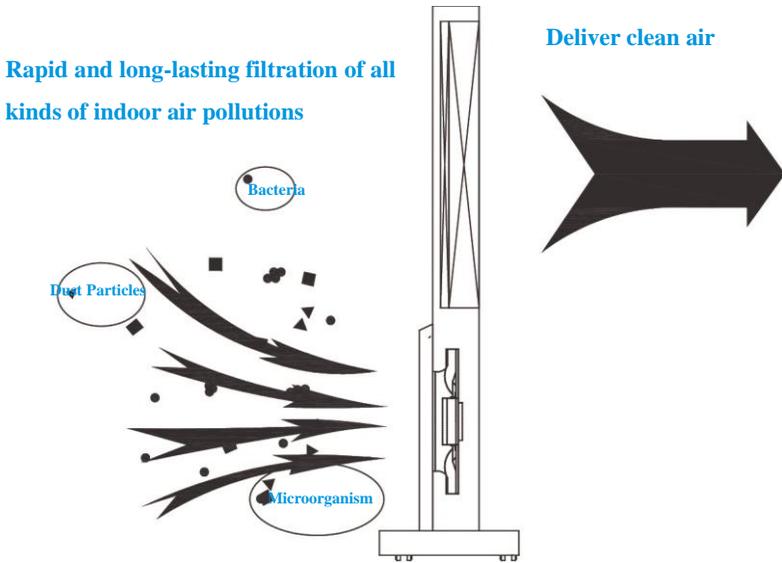


Figure 2 Working Principle

4. Installation

- 4.1 Once positioned in desire location, press the brake of the caster to prevent the product shifting around caused by external forces.
- 4.2 Do not step on the base or hit the air purifier with external forces; children must be accompanied by parent when operating the product.
- 4.3 As shown in Figure 3, insert the connection port of the external power cord tightly into the power cord socket on the side of the machine, and then plug the plug on the other end of the power cord into the power outlet. (Users in mainland China use 220V 50HZ AC power outlet)
- 4.4 It is recommended that the air inlet distance from the vertical surface to be more than 150mm (according to the fan's best performance description: the air intake distance of the fan should be greater than or equal to half the diameter of the fan blade)

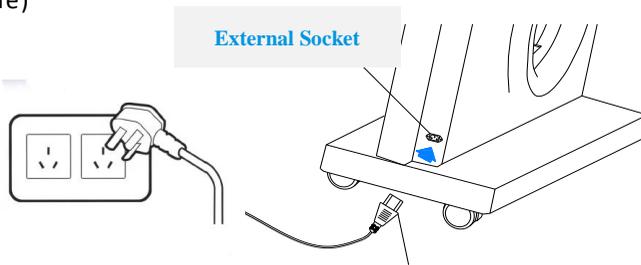


Figure 3 Power Connection Diagram

5. User Instruction

5.1 Control panel operating instructions

D-Guard series air purifier operates and controls through the front-panel interactive touch control panel, which includes:

- On/Off button
- Air flow control

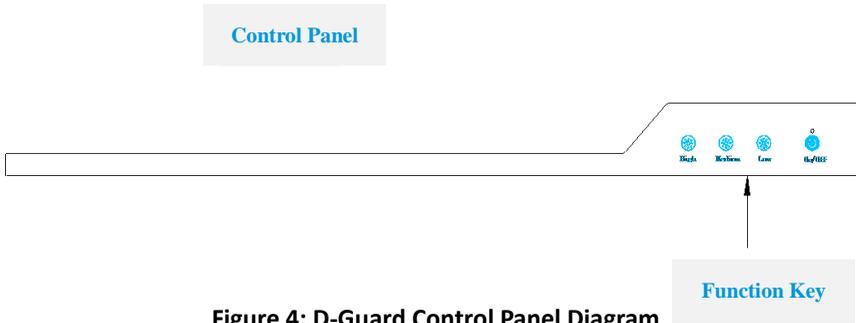
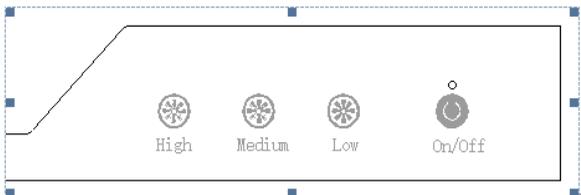


Figure 4: D-Guard Control Panel Diagram

5.2 Control Panel Instruction

5.2.1 Function key:



Power Button (On/Off): Controls the start-stop of the air purifier. When the air purifier is in standby mode, the blue light above the power button is in bright state.

Air Flow Button (Low; Medium; High) : Users can set different gears according to their needs and switch between different air volumes.

6. Troubleshooting

Fault	Possible Causes	Solution
<p>At startup, The power switch immediately trips.</p>	<ol style="list-style-type: none"> 1. The fan has an overcurrent overload fault such as fan blocking. 2. There is a short circuit or leakage fault in the internal line. 	<ol style="list-style-type: none"> 1. Check the fan bearings or replace the fan. 2. Check all wiring of the internal wiring and repair it.
<p>The touch button operation is not functioning.</p>	<ol style="list-style-type: none"> 1. The operating screen or control board line has failed. 	<ol style="list-style-type: none"> 1. Check the wiring between the circuit board or replace the circuit boards.
<p>Touch keys functioning, the fan does not run, no air blowing out.</p>	<ol style="list-style-type: none"> 1. Control circuit failure, no signal output. 2. The fan itself is faulty. 	<ol style="list-style-type: none"> 1. Check the control line and wiring, if necessary, replace the parts repair. 2. Check and replace the fan.
<p>The purification efficiency is low.</p>	<ol style="list-style-type: none"> 1. The filter is out of effect. 	<ol style="list-style-type: none"> 1. Cleaning or replacing the primary filter 2. Replace the HEPA filter 3. Replace THE HECA ACTIVATED CARBON FILTER

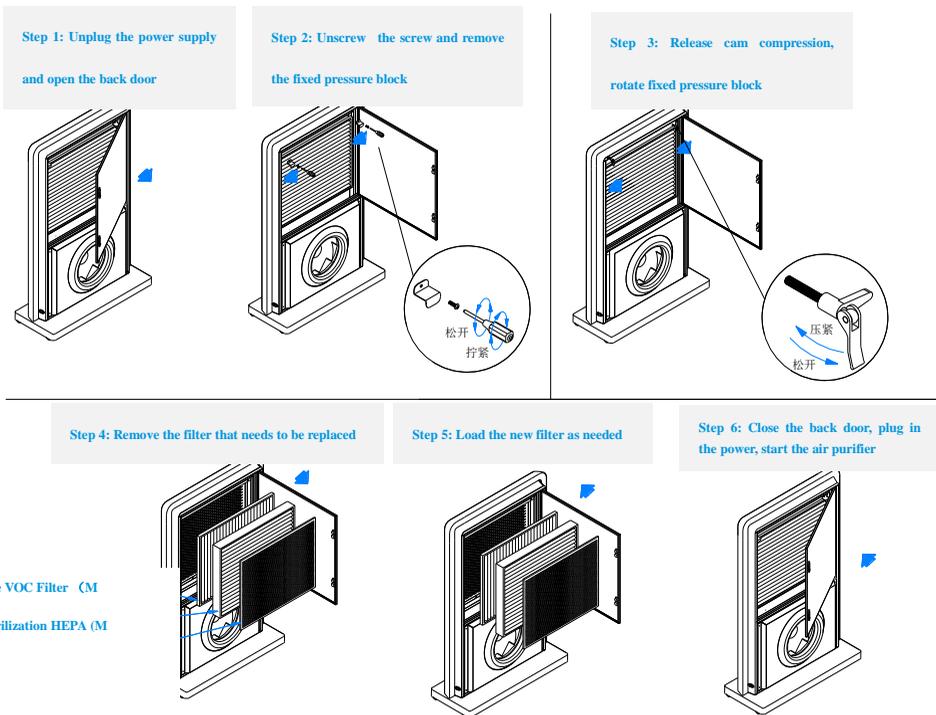
Note: If the problem cannot be resolved after the above treatment, please contact the dealer or contact the Company.

7. Maintenance and repair

7.1 Replacement of filters

D-Guard series air purifier requires regular maintenance.

- Compound primary nylon filter maintenance: about 2 weeks 1 time, please use clean water, dry after installation (when the nylon mesh surface has more dust or other debris, generally should be cleaned)
- Silver ion sterilization HEPA (M-HEPA) filter replacement cycle: about 1 year 1 time (3000 hours).
- Formaldehyde VOC filter (M-HECA) filter change interval: approximately 6 months 1 time (1500 hours).



- Please take note on the arrow mark on the HEPA efficiency filter should be consistent with the air flow of the purifier (the arrow markings of the high efficiency filter should point to the air outflow).
- The air purifier should stop and power off when replacing filters
- If operate in the environment that is just finish renovation or indoor decoration, paint and other materials used will lead to formaldehyde, TVOC and other gas pollution greatly increased, in the case of serious pollution, filter lifespan will be affected and replacement of filter might become shorter.

8. Delivery & Storage

- Air purifier is packed in cartons and wrapped in polyethylene film bags and placed on solid wooden pallets during transport. It is also lined in carton with polystyrene foaming material. For storage, please ensure that there is no water splashing on the product, so as not to cause damage such as rust.
- During transportation, the appropriate handling tool should be selected based on the weight of the product (to consider the weight of the package).

9. Unbox and Inspection

- During unboxing, please handle gently, not rough, brutal movements, so as not to hurt the main parts of the box or cause personal injury。
- After unboxing, first thing is to confirm whether this product is same as ordered, and then check against the packing list contents to check whether if there are any missing items, if there is damage, if found please contact the dealer or the company immediately after receiving this product.

Packing List Contents (D-Guard)	Quantity
Air Purifier	1pcs
Silver ion sterilization HEPA filter (M HEPA) 760x610x70mm (Loaded in Air Purifier)	1PCS
Formaldehyde VOC filter (M HECA) 760x610x20mm (Loaded in Air Purifier)	1PCS
Compound primary filter 760x610x10mm (Loaded in Air Purifier)	1PCS
Power cord	1pcs
Instructions (with warranty card)	1pcs

10. Service Description

Dear Valued Customer :

Thank you very much for choosing the products of Clean Room Air. We hope this product can meet your requirements . If you have any questions or needs for the repair and maintenance of this product , fault handling , please contact our company . We are dedicated to the specific situation to provide you with quality services . This product has a one -year warranty period (except unauthorized modifications).

Contact Details:



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Services Record

Product Name	D-Breath Medical Air Purifier	Code	
No	Maintenance services	Date	Remarks