



# PRODUCT INSTRUCTIONS

*Thank you for purchasing ductless fume hood / medicine cabinet.*  
Before use, please read this manual carefully for safe and correct use.  
Please keep it in a place where users can see it at any time.

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# Preface

## About the instruction manual

- Before use, please read this instruction manual carefully, and strictly observe the safe operating rules of the equipment.
- The company does not provide any safety guarantee for the purpose and method of use beyond the requirements of the instruction manual.
- Please keep the instruction manual in a convenient place for use when needed.
- If there are garbled characters or typos in the instruction manual, please contact our sales department or dealer.
- Regarding the contents of the manual, we hope to be complete and correct. When you find incompleteness, errors or omissions, please contact our sales department or distributor.
- No part of this manual may be reproduced in any form without the written permission of the company.

## About warranty card

- The product comes with a warranty card and a warranty registration certificate. Please complete the warranty registration within 3 months of purchasing this product.
- Please confirm the contents of the warranty card carefully, as it cannot be reissued, please keep it in a safe place.
- If the warranty card is missing or not registered for warranty, the corresponding repair fee will be charged even if the repair is declared during the free repair period (within one year after purchase).

## Confidentiality of user information

- We will properly manage the registered user name, address, telephone number and other information when performing free repair or after-sales service during the warranty period. The company will not provide any user information to third parties without the user's consent, business entrustment, or the obligation to provide the above information in accordance with national laws and regulations.
- We will properly manage the customer information recorded in the warranty registration returned after the product is set up. The company will not provide any customer information to third parties without the consent of the user, business entrustment, or the obligation to provide the above information in accordance with national laws and regulations.

## About storage of valuables

- This product is equipped with various elements with alarm and security functions. In addition, in order to prevent the material in the cabinet from being protected in the event of an accident, users can purchase a variety of retail products, including remote alarm systems, automatic temperature recording, and convenience for after-sales maintenance.

# Code of Safe Operation

**This manual contains important safety regulations. Users must follow them.**

The precautions and procedures described here are for the correct and safe use of this equipment. Follow the precautions described below to protect users and others from possible harm.

The "Warning" and "Attention" signs are as follows:


## **Caveat**

Failure to follow the warning signs may cause harm and cause serious personal injury or death.

## **Note**

Failure to follow the precautions may result in personal injury and property damage such as equipment damage.

Meaning of logo:

 Show the contents of urging warning attention

 Show prohibited behavior

 Show mandatory behavior content

**Be sure to keep this manual in a convenient place for the user of the equipment.**

## **Label on the device**

This label is marked on the electrical cover of the high voltage part to prevent accidents from electric shock. This appliance cover should only be opened by professional engineers or service personnel.

# Code of Safe Operation

## **Caveat**

-  **Do not use this equipment in the open air.**  
[When the device is wet with rain, it may cause electric leakage or electric shock.]
-  **Only professional engineering and technical personnel or maintenance personnel can install this equipment.**  
[Installation by non-professionals may cause electric shock or fire.]
-  **Always place the device on a solid floor.**  
[If the ground is not firm or placed properly, it will cause the equipment to fall over or overturn and cause personal injury.]
-  **Do not place the device in a humid place or a place subject to splash water.**  
[Otherwise, accidents such as leakage or electric shock may occur due to reduced insulation.]
-  **Do not install this equipment in a place where flammable or volatile materials are stored.**  
[Otherwise it may cause an explosion or fire.]
-  **Do not install this equipment in a place with acid or corrosive gas.**  
[Otherwise, it may cause leakage or electric shock due to corrosion.]
-  **Use a grounded power outlet to prevent electric shock.**  
[If the power socket is not grounded, it must be installed by a professional engineering technician.]
-  **Do not ground this equipment through gas, water pipes, telephone lines, or lightning rods.**  
[The above-mentioned grounding method may cause electric shock if the pipes and lines are incomplete.]
-  **Connect the device to the power source indicated on the device nameplate.**  
[Using power supplies with other voltages or frequencies than those indicated on the nameplate may cause fire and electric shock.]
-  **Do not store volatile or flammable items in this device.**  
[Otherwise, it may cause an explosion or fire.]
-  **Do not insert metal objects, such as nails or wires, into any openings, gaps, or vents on the device.**  
[Otherwise, accidental contact with the moving parts mentioned above may cause electric shock or personal injury.]
-  **Use this equipment in a safe area when storing toxic, harmful or radioactive materials.**  
[Improper use may cause harm to human health or the environment.]
-  **Always disconnect power to the equipment before performing any repairs or maintenance on this equipment.**  
[To prevent electric shock or personal injury.]

## Code of Safe Operation

### ⚠ Note

- ⊘ **Do not touch electrical components and power switches with wet hands.**  
[To prevent electric shock.]
- ⚠ **Make sure that you do not inhale drugs and dust suspended around the device during repairs and maintenance.**  
[Otherwise there may be danger to health.]
- ⊘ **Do not pour water directly onto the device.**  
[It may cause electric shock or short circuit.]
- ⊘ **Do not place water containers or heavy objects on the device.**  
[If the item falls, it may cause personal injury, and the outflow of water will reduce the insulation and cause leakage or electric shock.]
- ⊘ **Do not bundle, process or step on the power supply wires by yourself, or damage the power plug.**  
[A damaged power cord or power plug may cause electric shock or fire.]
- ⊘ **Do not use a power cord with a missing plug.**  
[May cause electric shock or fire.]
- ⊘ **The user must not disassemble, repair or modify the equipment by himself.**  
[If any of the above operations are performed by unauthorized personnel, improper operation may cause fire or personal injury.]
- ⊘ **If the device is not operating properly, unplug it.**  
[Continued operation under abnormal conditions may cause electric shock or fire.]
- ⚠ **When disconnecting the plug from the power outlet, hold the power plug firmly.**  
[Do not pull the power plug lead. If you pull the wire by hand, it may cause electric shock or fire due to short circuit.]
- ⊘ **Unplug the power plug before moving the device. Be sure not to damage the power cord.**  
[A damaged power cord may cause electric leakage or fire.]
- ⊘ **When the equipment is not in use for a long time, unplug the power plug.**  
[To prevent electric shock, leakage, or fire due to aging insulators.]
- ⚠ **If the device is left unattended for an extended period of time, make sure that children do not approach the device and that the door is not completely closed.**
- ⚠ **Disposal of equipment should be performed by qualified personnel. The box door should be removed.**  
[To prevent accidents such as suffocation.]
- ⊘ **Do not place plastic bags outside the reach of children.**  
[Plastic bags may cause choking accidents.]

## Code of Safe Operation

### ⚠ Note

- ⚠ **Please use the specified power source (equipped with a disconnecter).**  
[Observe the equipment nameplate and do not use the power strip to split the power supply, otherwise it may cause fire due to overheating.]
- ⚠ **Connect the power plug to the power source after wiping off the dust.**  
[Dust accumulation and insecure connection may cause heat generation and fire.]
- ⊘ **Do not store non-tight acidic and alkaline samples.**  
[It will corrode the inner wall of the medicine cabinet and electrical components.]
- ⚠ **When restarting the device after power failure or power off, you need to check the settings.**  
[Changes in settings may destroy previously saved items.]
- ⚠ **When moving the device, be careful not to tip the device over.**  
[In case of equipment damage or personal injury.]
- ⚠ **When there is an emergency failure of this product, please do not repair it by yourself, please notify professional maintenance technicians in time.**  
[When any repair or maintenance work is required on the equipment, for the safety of the maintenance personnel, please fill out the "Safety Confirmation".]



## Environmental Conditions

This equipment is designed in accordance with the following conditions, and it is safe to operate at least under the following conditions.

1. Suitable for indoor use and placed vertically on the floor;
2. Use and storage temperature: -20 °C ~ 30 °C;
3. Relative humidity: 10% ~ 80%;
4. Applicable objects: conventional laboratory chemicals, including organics, acids, inorganic salts, excluding radioactive chemicals;

### Transportation environment

1. The ambient temperature during transportation is -30 °C ~ 40 °C.
2. The altitude is not higher than 3000 meters.
3. The inclination cannot be greater than 30 degrees.
4. Lift it from the bottom when carrying it, and carry it gently.

### Storage environment

1. Away from heat source, ambient temperature is -30 °C ~ 40 °C.
2. The altitude is not higher than 3000 meters.
3. Do not place in a place subject to moisture or splashing water.
4. Avoid direct sunlight.

## Structure and Composition

The product consists of a cabinet, a control panel, a fan, a filter, a door lock, a box door, and a unit.



## Product Features



### A. Digital tube display

Display cumulative working time countdown (unit:hour) and fan speed (unit:revolutions per minute), switch to display two different parameters every 30 seconds, four digits display h + space +99,

### B. Fan speed adjustment

Rotate the knob clockwise to adjust the fan speed. It is advisable to adjust the fan speed to reach the surface wind speed display of 0.4-0.6m / s;

### C. Alarm and Reset

When 99 hours accumulated to 0, light alarm About 10 seconds, and then reset automatically; when the filter reaches the end of its life, and the light will be flash continuously. After replacing the new filter, you need to manually press and hold for about 5 seconds to reset;

### D. Power

Press the key, the light is on and the fan is running;

### E. Air Velometer

(optional)An analog air velocity meter in the field of vision of the user

### F. Nylon Hinge

High strength, strong chemical resistance

### G. Wire hole

Convenient for other power lines to enter

### H. Work surface

The internal work surface can be fitted with an optional polypropylene tray see accessories.

## Installation Site

In order to make the equipment operate normally and obtain the best cooling performance, the equipment installation site should meet the following conditions:

- **No direct sunlight**

If installed in a place exposed to direct sunlight, sufficient cooling performance cannot be obtained.

- **Good ventilation**

A clearance of at least 10 cm should be left around the device for ventilation.

- **Keep away from heat sources**

Avoid installing the equipment near a heat radiation device such as a gas stove. Heat can cause inefficient cooling.

- **With a solid, level floor**

Be sure to install the equipment on a flat, solid floor. Uneven ground and inclined installation may cause malfunction or injury. At the same time, unstable installation will cause vibration and noise.

### **Caveat**

Install the equipment on a solid ground. If the ground is not solid enough or the installation location is improper, personal injury may result from the equipment falling over or overturning. Please choose a level, ground-mounted device. This measure will prevent the equipment from tipping over and overturning. Improper installation may cause water leakage or personal injury.

- **Not easy to form high humidity environment**

The relative humidity of the setting environment cannot easily exceed 80%. High humidity environment is prone to leakage or electric shock.

### **Caveat**

This equipment must not be used outdoors. If the device gets wet with rain, it may cause electric leakage or electric shock. This device must not be installed in a humid place or a place where it may be splashed with water, otherwise it will cause leakage or electric shock due to the reduced insulation.

- **No flammable or corrosive gas**





Do not install the device in a place where flammable or volatile gas is present, otherwise it may cause explosion, fire or leakage or electric shock due to corrosion of the device.

- **Less likely to drop items**





Avoid installing the device in a place where the objects are easy to fall, which may cause the device to malfunction or fail to operate.

## Operation Panel Instructions

### Fume hood:

1.  **Power**  
Press the key, the light is on and the fan will run;
2.  **Timer**  
Display cumulative working time countdown (unit hour) and fan speed (unit revolutions per minute), switch to display two different parameters every 30 seconds, four digits display h + space +99, when 99 hours accumulated to 0, sound and light alarm About 10 seconds, and then reset automatically;
3.  **Alarm and Reset**  
When the filter reaches the end of its life, an alarm will be issued, and the audible and visual alarm will continue. After replacing the new filter, you need to manually press and hold for about 5 seconds to reset;
4.  **Fan Speed**  
Rotate the knob clockwise to adjust the fan speed. It is advisable to adjust the fan speed to reach the surface wind speed display of 0.4-0.6m / s;

### Medicine cabinet, Fire cabinet filtration system, Mobile universal exhaust hood:

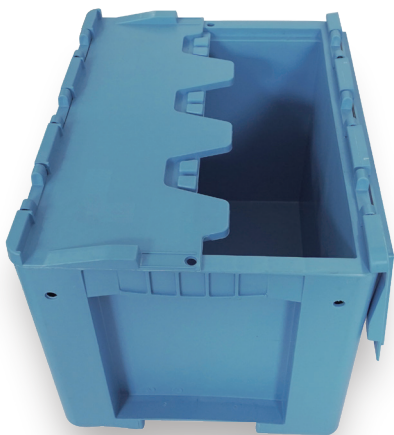
1.  **Power**  
Press the key, the fan will run;
2.  **Timer**  
Display 365-day cumulative working time countdown (unit day) and fan speed (unit revolutions per minute), switch to display two different parameters every 30 seconds, four-digit display h + 365.
3.  **Alarm and Reset**  
When the 365 days accumulate to 0, the filter needs to be replaced Device. At this time, the audible and visual alarms continue. After replacing the new filter, you need to manually press and hold for about 5 seconds to reset;
4.  **Fan Speed**  
Turn the knob clockwise to adjust the fan speed. The fan speed should reach 1400-1700 revolutions per minute.





## Alarm and Safety Functions

Type of alert	Status	Express	Buzzing	Alert code
Filter saturation alarm	Filter saturation sensor actual value is greater than or equal to the set value	Buzzer sounds and alarm light flashes	Continuous, to replace the filter, manual reset to eliminate the alarm	No
Accumulation of fume hood work Time alarm	The accumulated hours of fume hood working hours reach the set value	Buzzer sounds and alarm light flashes	30-second delay beep, system resets to reset time	No
365 days of medicine cabinet Working time alarm	The cumulative number of working hours of the medicine cabinet reaches the set value	Buzzer sounds and alarm light flashes	Continuous, to replace the filter, manual reset to eliminate the alarm	No



## Daily Maintenance and Upkeep

### **Caveat**

To prevent electric shock or injury, be sure to disconnect the power supply before any repair or maintenance. Make sure that you do not inhale the drugs and dust suspended around the device when maintaining the device, otherwise it will endanger your health.

- If you encounter chemicals directly in contact with the product, you should wipe them as soon as possible
- When storing medicine cabinets, make sure that the bottle caps are tightened as much as possible. The less the volatile amount of chemicals, the longer the filter life.
- When using the fume hood, under the premise of satisfying the experimental operation, the chemical volatilization should be reduced as much as possible, which will help to extend the life of the filter.
- After the filter life expires, please replace the filter in time to ensure the occupational health of laboratory personnel and product parts such as fans, TVOC sensors, etc.

### Filter replacement

**When the filter is used for 12 months or the filter is saturated with light flash continuously, the filter needs to be replaced.**

The replacement steps are as follows:

- 1, cut off the equipment power;
2. Remove the filter to be replaced according to the operation video;
3. Put the new filter in place, pay attention to the filter model and the up and down direction of the filter;
4. Turn on the power and use it normally.

## Troubleshooting

If the equipment fails, check the following possible points of failure before notifying service personnel:

Fault content	Confirmation / check points
Fan does not work when connected to power	<ul style="list-style-type: none"> <li>• Whether the line is properly connected</li> <li>• The line falls off or not</li> </ul>
Continuous alarm, the measured value of TOVC reaches the highest value	<ul style="list-style-type: none"> <li>• TVOC sensor failure</li> </ul>
Motherboard does not light up	<ul style="list-style-type: none"> <li>• Intentional conversion of power</li> <li>• Lines are loose</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• The fan runs against other components or not</li> </ul>

Note: If the fault is still not resolved after checking the above items, or the content of the fault exceeds the types listed in the table above, please contact our distributor.

## Disposal of Equipment Scrap

### **Caveat**

Failure to follow the warning signs may cause harm and cause serious personal injury or death.

## After Sales Service

This product comes with a warranty card. After confirming the contents of the warranty card, please keep it in a safe place. For warranty and warranty registration, please refer to the random warranty card and warranty registration.

- This warranty only applies to this product. The samples and reagents stored in this product are not covered by the warranty.
- For repairs after the warranty period, please contact the purchaser. If the product's performance can be maintained through repairs, you can perform paid repairs according to customer needs.
- The user must submit a warranty card when entrusting repair service, so please keep it in a safe place and not lose it.
- Please read carefully the items on the warranty card.

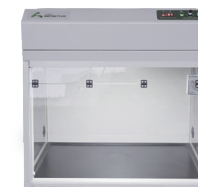
## Product Model



**MODEL:**  
DF101



**MODEL:**  
S81N



**MODEL:**  
S161N



**MODEL:**  
VH400



**MODEL:**  
MH460