

AIRTECH

SHOWER PASS BOX

USER MANUAL



This manual is for standard product reference only.

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1. *Foreword*

Thank you for purchasing our SHOWER PASS BOX this time.

- Please read the instruction manual carefully and use the product correctly.
- Improper operation will cause serious accidents.
- Please be sure to designate the operation and management personnel of this equipment. If an abnormal accident occurs, please report to the management personnel immediately.
- Do not tear off the specification label on the device.
- This manual is written for standard equipment, but special specifications can also be used as a reference.





2. *Receiving instructions*

- Please check carefully and confirm whether the product is damaged due to the shipping process.
- Please confirm whether the product and the order content are consistent.
- The company's products are strictly controlled from production, inspection, packaging to shipment. If there is any problem with the product, please contact us within 3 days of arrival. If the product is improperly used or modified, it will not be covered by our warranty.

3. *Safety instructions*





| 3-1 Marking description

- Please read the "Safety Instructions" carefully before using the product and use the product correctly.
- Please follow the precautions described here.
- The label and description are shown in the figure below.


Label	Description
 Danger	It will damage human body if do not comply with Safety Notice.
 Caution	It will cause malfunction if do not comply with Safety Notice.
 Prohibition	Prohibition
 Conformation	Conformation

3-2 Precautions during installation

Danger

-  It is forbidden to install in an environment prone to fire or explosion
 - This equipment is not explosion-proof.
 - It is forbidden to install in an environment prone to fire and full of explosive gas.
-  Wiring work is performed by professionals
 - There may be a risk of electric shock.
-  Install in a place where the base plate is strong enough
 - Please install it in a location that can bear the weight of this equipment.
-  Install the equipment before connecting the power line
 - Avoid electric shock accidents.
 - Be sure to ground.

Note

-  Do not use in the following places to avoid machine failure
 - Places with low or high temperatures.
 - Places with heavy moisture or moisture easily.
 - Places likely to cause dust accumulation.
 - An outdoor space that is exposed to wind and rain.
 - If you want to install in a special environment, please contact our company to discuss opinions.

- ❗ Install the device in a stable location
 - If the equipment is installed in an unstable position and tilted, it may cause problems in the operation of the blower.
- ❗ Do not block the return air outlet
 - Blocking will reduce the return air volume, resulting in reduced equipment performance.
- ❗ Plan maintenance work area
 - The filter must be replaced regularly, and maintenance work such as the blower and electrical wiring must be maintained.
- ❗ Confirm voltage specifications
 - Please confirm whether the input power is the same as the equipment specifications to avoid the danger of fire and combustion of parts.

| 3-3 Precautions when using

⚠ Danger

- ❗ Please cut off the power when checking
 - Sudden operation of the equipment may cause electric shock accidents.
- ❗ When replacing the primary filter, please stop the blower first
 - Prevent the blower from inhaling foreign objects or causing personal injury.

⚠ Note

- ⊘ Caution electricity
 - Do not operate the device with wet hands, as this may cause electric shock.
- ⊘ Do not switch the switch multiple times within one minute
 - Switching the power switch repeatedly for a short time may cause the blower or electric control parts to burn out.
- ⊘ Do not touch the electronic control parts
 - Do not touch the electronic control parts inside the device. If you have to, please cut off the power first.

- ⊘ Do not damage the power cord
 - Do not put heavy objects on the power cord or place them randomly.
 - Damage to the power cord may cause accidents such as fire or electric shock.
- ⊘ Do not modify the equipment
 - It may cause accidents such as electric shock, fire, and equipment performance degradation.
- ⊘ It is forbidden to use volatile oil or thinner to clean the equipment
 - Do not use volatile oil or thinner to wipe the equipment to avoid the fading and peeling of the coating.
- ⚠ Please clean and replace the filter of this equipment regularly
 - Please follow the operation method described later to clean and replace.

| 3-4 Precautions when abnormal

⚠ Danger

- ⊘ Prohibit self-disassembly and repair
 - Improper handling may cause electric shock, fire and other accidents. Please hand over to our company for disassembly and repair.

⚠ Note

- ⊘ Do not use when abnormal
 - Operating under abnormal conditions may cause electric shock or fire accidents.
 - In the event of an abnormality, please stop the operation immediately, cut off the main power supply and contact our customer service staff.

4. Features and specifications

4-1 Function

This product has the following functions, please use it as a reference.

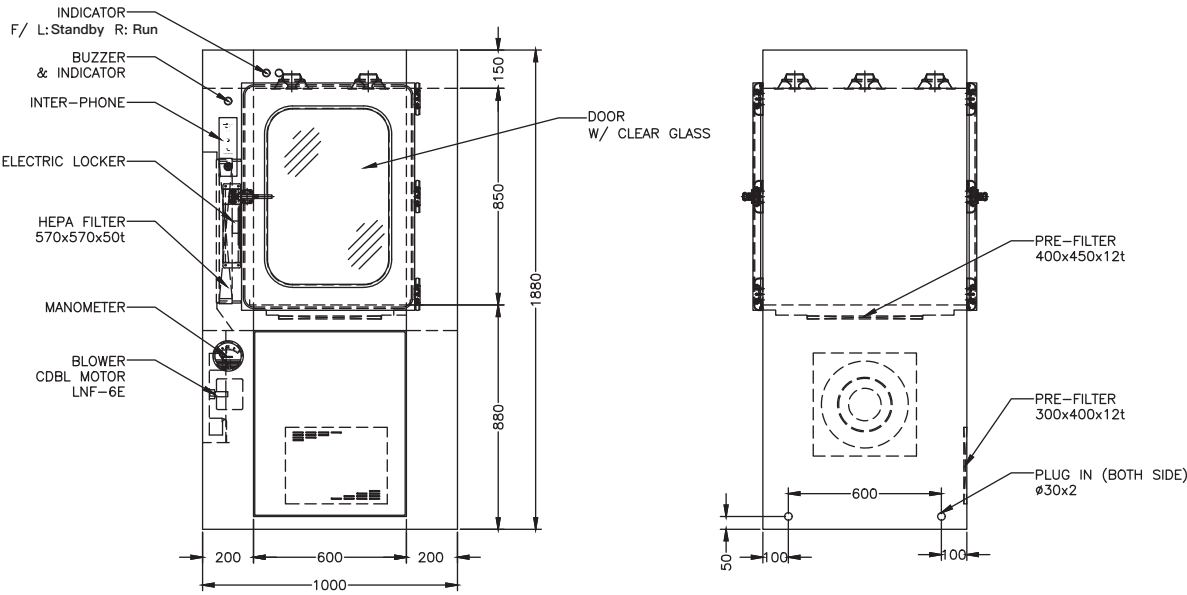
- When items enter and exit the clean room, dust pollution can be prevented and reduced.
- Can use DC blower and LED lighting to save electricity.
- The intelligent control system automatically enters the energy-saving mode under long-term standby.
- The airflow of the circulating wind can speed up the internal cleaning speed after dust removal.

4-2 Specifications

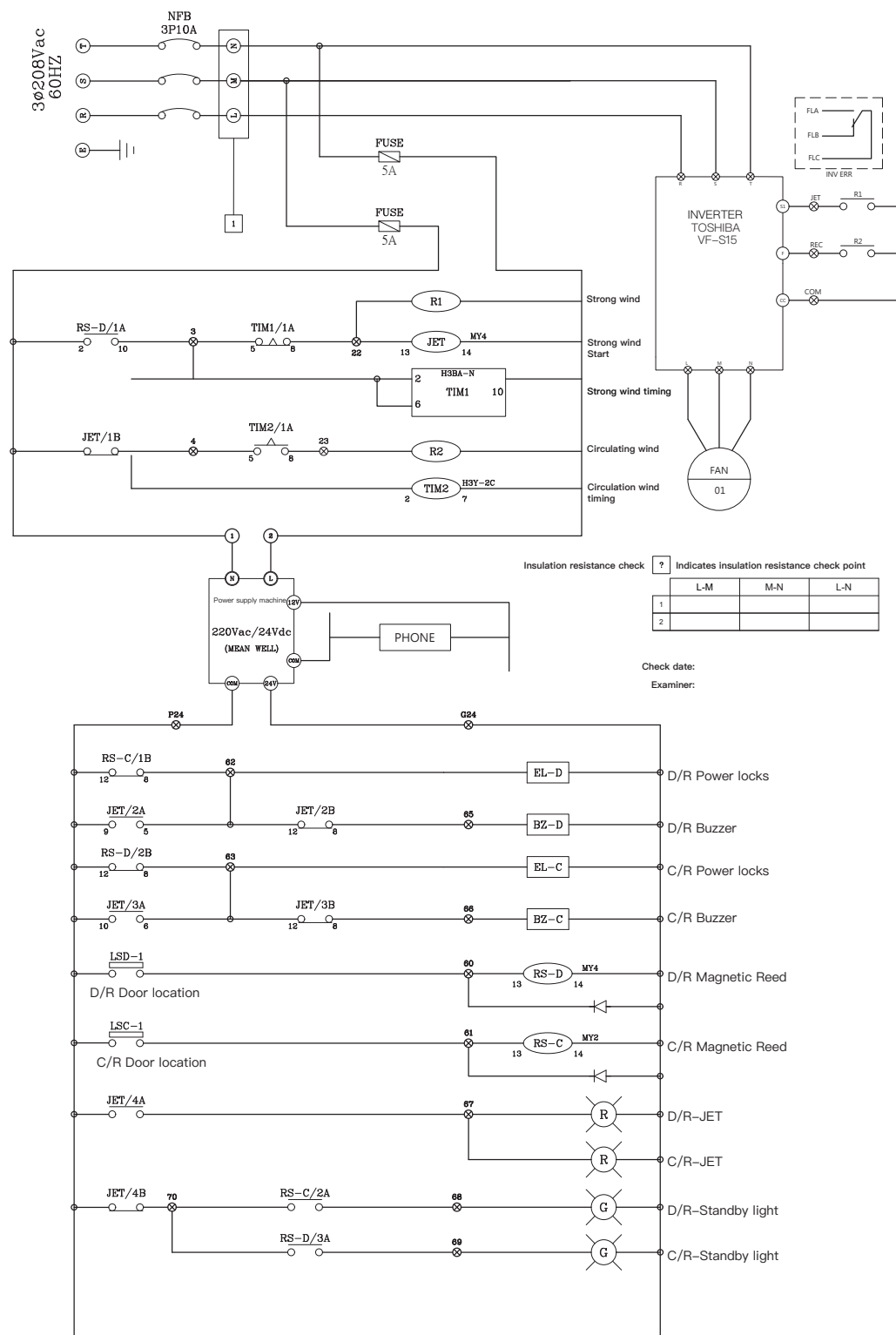
The following is a reference model, can be customized according to the actual needs of customers.

Specification	
Model	APB-S-0608CET-08
Particle efficiency	Above 99.99% Efficient on 0.3μm Particles
Pre-Filter	Primary filter non-woven filter, 300x400x12t x 1 piece
	Non-woven filter screen, 400x450x12t x 1 piece
Main Filter	HEPA Filter 570x570x50t x 1 piece
Nozzles Qty.	Stainless steel nozzles 6
Air Velocity (m/s)	Wind speed when blowing strong wind: about 25 m/s
Air Volume (CMM)	When strong wind: about 6 CMM, when circulating: about 3 CMM
Cycle (times/hour)	Strong wind: about 880 times/hour, cycle time: about 440 times/hour
Blower	LNF-6E x 1
Illumination	LED 10W x 1
Power	AC 220Vac 3Φ 50/60Hz
Power consumption	When strong wind: about 1050 VA, when circulating: about 155 VA
Operation switch	strong wind, circulating wind switch, timing setting, lighting switch
Structure	Main body: steel sheet baking varnish, inner sheet: stainless steel
Door lock	INTER-LOCK function to ensure that it is not contaminated.

Drawing



Electrical Diagram



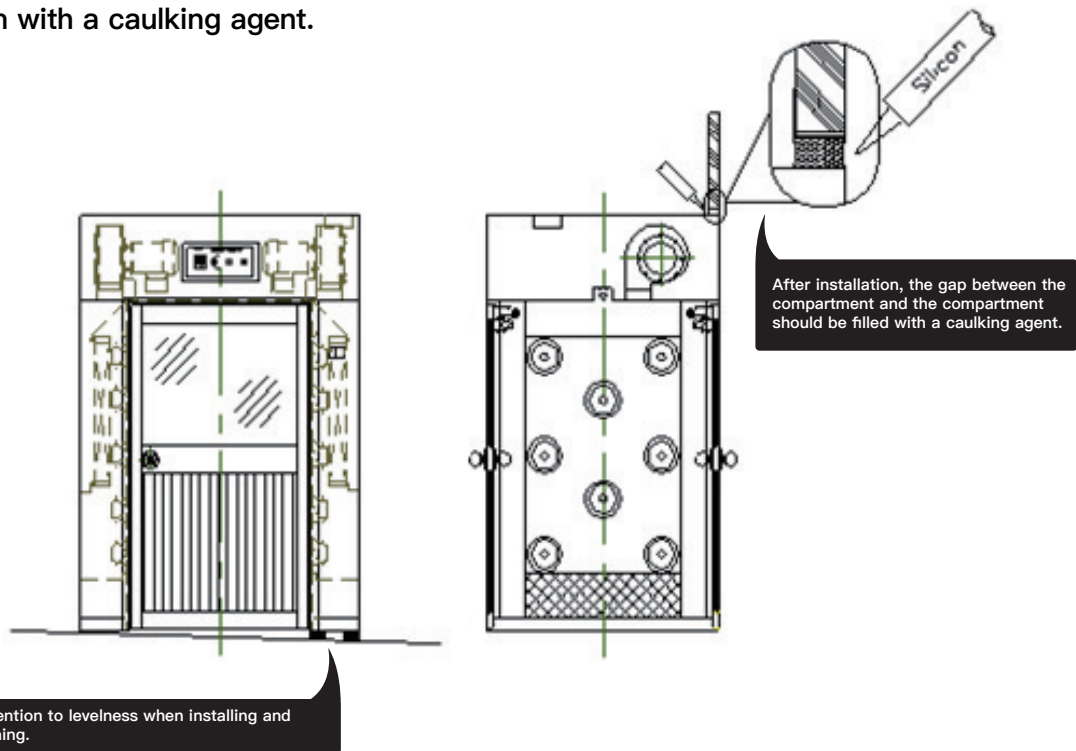
5. Installation method

5-1 Equipment installation

- Please pay attention to the level of equipment installation.

5-2 Notes

- a. If this equipment is installed at the entrance of the clean room, there should be no gap between it and the wall panel of the clean room. If there is air leakage, please trim with a caulking agent.



- b. Please use within the allowable range of power supply voltage $\pm 10\%$, frequency 60Hz.
- c. If the control system adopts a single-chip system, the signal connection line between the main CPU board and the operation display board should be kept away from the power line to avoid interference.
- d. If the control system adopts a single chip system, when testing the insulation resistance of the power line and motor line with an insulation resistance meter, please isolate the electronic control circuit of the main CPU board to avoid damage.
- e. Do not allow metal sheets and other conductive objects to fall or leave in the electronic control circuit of the main CPU board or switchboard to prevent short circuits.

f. Any line connection and disassembly must be carried out in a power-off state to avoid danger.

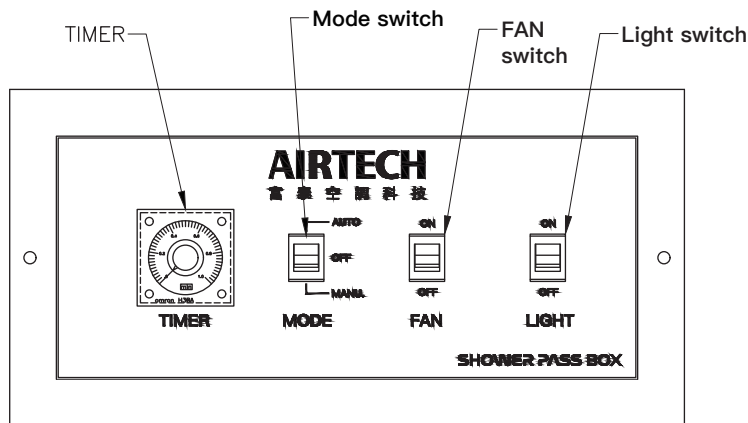
g. Please avoid placing the equipment in the following places

For example: places exposed to direct sunlight, places with high temperature and humidity, places with corrosive or explosive gases, places with high vibration.

6. Operation method

6-1 Operation interface

- Please select the appropriate pipe diameter according to the specifications ordered.



CONTROL PANEL DETAIL

6-2 Button description

- TIMER: Set the dust bath time for AIR JET.
- Mode switch: switch between "AUTO", "MANU" and "OFF" states.
- FAN switch: start and stop the low-speed circulating windmill.
- Light switch: switch the light "ON" or "OFF".

6-3 Action description

- When the mode switch is at "MANU", it is the forced high-speed wind mode, and the jet nozzle starts blowing high-speed strong wind to clean the bath dust until it switches to other modes.
- When the mode switch is set to "AUTO", when the article passes through the dust-bath transfer box, it passes through the photoelectric sensor switch. After induction, the automatic jet blowing strong wind dust-bath is started (when the door is completely closed), until the TIMER setting time expires, Then it turns to the circulating wind state (when the wind is strong, the doors on both sides are in the INTER-LOCK state). The direction of the jet hole can be adjusted according to the situation.
- When switched to OFF state, the windmill stops running.

| 6-4 Precautions

- a. Generally speaking, the injection time of SHOWER PASS BOX is about 15~20 seconds. However, the effect is better if the items are placed in a loose air bath dust.
- b. The standard product of this device is equipped with an electrical lock interlock device (ELECTRICAL INTER-LOCK), so when one door is opened, the other door cannot be opened, and the two doors are closed at the same time to perform the dust bathing action (if both doors are turned on, the air in the contaminated area and the clean area will circulate, and the clean area will be contaminated).
- c. This device can optionally be equipped with a buzzer alarm device. When one door is opened, the opposite alarm will sound to inform the other party that the door has been opened. This alarm will continue to sound when the door is open, so after the item is delivered, Be sure to close the door, otherwise the beeping will continue.
- d. This device is equipped with a visual window, please use it carefully, and do not improperly bump it, which may cause the window to break.

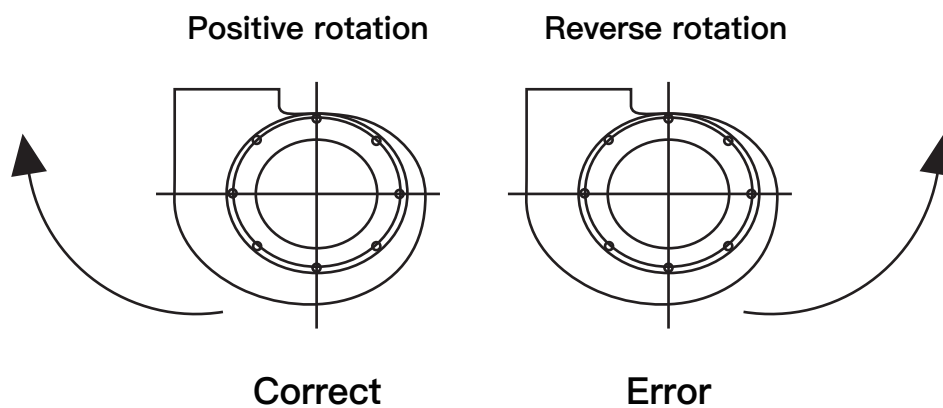
7. Troubleshooting

7-1 Simple troubleshooting

	Condition	Cause	Treatment Repair
Blower	The windmill does not start.	<ul style="list-style-type: none"> · The main power supply is not yet connected. · The circulating air is not started: the fan switch FAN SWITCH is in the "OFF" position. · High-speed strong wind does not start: the mode switch is in the "OFF" position. · The power cord wiring is loose. 	<ul style="list-style-type: none"> · The pre-filter (PRE-FILTER) is blocked. · The high efficiency filter (HEPA FILTER) is blocked. · Clean or replace the pre-filter (PRE-FILTER). · Replace the high efficiency filter (HEPA FILTER).
	Will start but the wind speed is slow	<ul style="list-style-type: none"> · The pre-filter (PRE-FILTER) is blocked. · The high efficiency filter (HEPA FILTER) is blocked. 	<ul style="list-style-type: none"> · Clean or replace the pre-filter (PRE-FILTER). · Replace the high efficiency filter (HEPA FILTER).
Lighting lamp	Lighting lamp or will flash off	<ul style="list-style-type: none"> · The lamp is broken. · The electronic ballast is broken. · Broken wire or loose or loose wiring. · The power supply capacity is insufficient. 	<ul style="list-style-type: none"> · Replace the lamp tube. · Replace the electronic ballast. · Check wiring. · Increase power supply capacity.

7-2 Check of the blower

- Please confirm whether the fan rotation direction is correct
- If you find that the fan rotates in the opposite direction (the wind speed is obviously insufficient), please swap any two-phase power cords in the three-phase power supply to determine the positive direction of rotation.



| 8-1 Function

- a. The transfer box needs to be kept clean, please wipe it with a dust-free cloth regularly.
- b. The glass windows in the transfer box should be cleaned regularly with a dust-free cloth (if the windows are anti-electric board or PVC board or acrylic board, do not wipe it with volatile solvents).
- c. Pre-filter (PRE-FILTER)
The pre-filter is generally under the equipment. The blockage of the pre-filter varies depending on the frequency of use and cleanliness. Please observe the blockage time at the beginning of use, so that you can clean it with compressed air, water washing, vacuum cleaning, etc. regularly. It is necessary to clean 2-3 times a month according to normal usage.
- d. MAIN FILTER
This filter is located after AIR NOZZLE. The renewal period can be based on the wind speed value detected by the anemometer (the wind speed value is halved) or the pressure difference measured by the differential pressure meter (the pressure difference value is doubled) to determine whether to replace or not. The detection cycle is about 2 per year. ~4 times.
- e. Since the return air part of the equipment is located under the machine, large pollutants will accumulate in the corners on the bottom plate, so please clean it with a vacuum cleaner more than once a day.

9. *Contact method*

If you have any questions about AIRTECH equipment, please contact us through our website or call the customer service. We'll server you as soon as possible.

Address :

- Plant 1 : No.58-1, Guangfu Rd., Hsinchu Industrial Park, Hsinchu County 303-51, Taiwan
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