

# AIRTECH

## Instruction Manual for Clean Viewer

### Applicable models



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The content of this manual is based on our standard equipment and related devices.

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## 1. Preface

Thank you for purchasing our company's CLEAN VIEWER.

- Please read the instruction manual carefully for improper operation might lead to serious accidents.
- Be sure to notify the operation personnel of this equipment use.
- Do not remove 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 notice

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

## 3. Notice of safety

### 3-1 Label description





- Please read the "safety instructions" carefully before using equipment.
- Please be sure to follow the precautions set out herein.
- Indications and descriptions are shown in below figure below.

Label	Description
 Risk	Failure to comply will result in serious harm!
 Attention	Failure to comply may result in minor injuries and/or machine failures.
 Prohibited	Indicates a prohibited item (Counter-indication)
 Compliance	Indicates the matter to be enforced.





## | 3-2 Precautions during installation

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### Dangerous

-  Installation in environments prone to fire or detonation is strictly prohibited.
  - This device is not explosion-proof-specified.
  - Installation in environments prone to fire and filled with detonating gases is prohibited.
-  Wiring jobs are to be performed by professionals.
  - There may be a risk of electrical shock.
-  Install where the baseplate strength is sufficient.
  - Please make sure to dispose in an area that can carry the weight of this equipment.
-  Install the device before plugging in 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 where the gas is heavy or easy to produce water vapor.
  - Places that are prone to dust accumulation.
  - An outdoor space that can be blown by the wind and rain.
  - If you want to install it in a special environment, first contact our company for advice.
-  Install the device in a secure position.
  - If the equipment is installed in an uneven position, it may cause problems in the operation of the blower.
-  Do not block the return air outlet.
  - Blockages result in a reduction in return airflow, resulting in reduced equipment performance.
-  Confirm the voltage specifications.
  - Please confirm that the input power supply is the same as the specifications of the equipment to avoid the risk of parts catching fire and burning.







### | 3-3 Precautions when using

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#### Dangerous

-  Please turn off the power supply first when performing the inspection.
  - Sudden operation of the device may cause an electric shock accident.


#### Note

-  Be careful of electric shock.
  - Do not operate the device with wet hands, which may cause an electric shock accident.
-  Do not toggle the switch multiple times in a short period of time.
  - Repeated switching of the power switch for a short period of time may cause burnout of the blower or electronic control parts.
-  Do not touch the electronically controlled parts.
  - Do not touch the electronic control parts inside the device, and if you have to, first cut off the power supply.
-  Do not damage the power cord.
  - Do not press heavy objects onto the power cord or leave them haphazardly
  - Damage to the power cord can cause accidents such as fire or electric shock.
-  Do not modify the device.
  - Accidents such as electric shock, fire, and reduced equipment efficiency may occur.
-  It is forbidden to use volatile oils or thinners to clean the equipment.
  - Do not wipe the device with volatile oil or thinner to avoid fading and flaking of the coating.


### | 3-4 Precautions for Device exception

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#### Dangerous

-  Self-disassembly and repair are prohibited.
  - Improper handling will cause electric shock, fire and other accidents, disassembly and repair should be handed over to the company to deal with.

#### Note

-  Do not use in case of exception.
  - Operating in an abnormal state can cause accidents such as electric shock or fire.
  - In the event of an abnormality, please stop the operation immediately, cut off the main power supply and contact the company's customer service personnel.

## 4. Features and Specifications

### 4-1 System Composition

Our CLEAN VIEWER (Pure Water Micro Mist AirFlow Visualization Device) is a device that uses ultrasonic waves to vibrate pure water and generate water mist, which is exported by the air supply unit through the spray pipe. It enables the visualization of the water mist, which can be used to observe the flow state of the air flow in the clean room.

### 4-2 Standard Accessories

This equipment parts are as follows:

- a. CLEAN VIEWER host body x 1 unit.
- b. Hose (3m) x 1 strip.
- c. porous spray tube (60 cm), conical tube, and articulation tube each.
- d. Power cord(3m)(with plug) x 1.
- e. manual x 1.

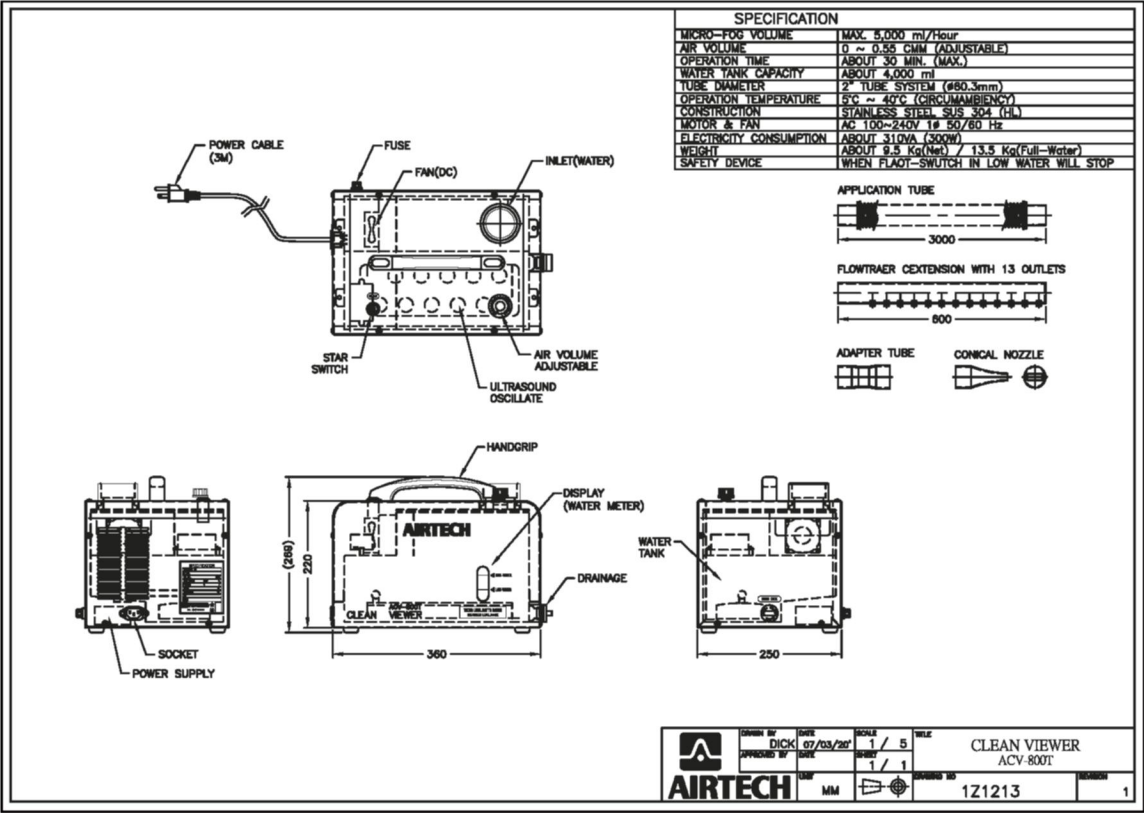
### 4-3 Specification

Specification	
Product	CLEAN VIEWER
Model	ACV-800T
Micro-fog volume	Max 5000 ml/hr
Air volume	ABOUT 30 MIN.(MAX.)
Power supply	AC 110-240V 50/60HZ
Electricity consumption	300W
Temperature conditions	5°C~40°C (ambient air)
Protector	When the water level is low, the float switches and switches, and the ultrasonic oscillator is stopped immediately.
Water tank Capacity	May vary
Weight	ABOUT 9.5 kg (Net) / 13.5 Kg (Full-Water)

\* If the specifications are subject to change, please refer to the specification drawings provided at the time of quotation without prior notice.



規格圖



## 5. *Installation method*

### 5-1 Equipment installation

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- Please install in a horizontal state in the installation position, if the installation position is not stable, please use the gasket to maintain the level of the equipment.

### 5-2 Precautions

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- The wiring of the power supply should be according to the voltage indicated on the specifications, and it must be grounded.
- This product uses a DC motor, and the steering does not change due to the phase sequence of the power wiring.



### 6-1 Precautions before use

- a. Check whether the drainage plug is tight.
- b. Check whether there is obstruction in the inhalation port of external air.

### 6-2 Sequence of operations

- a. Pour in pure water in water supply port collapse. (High-water level).
- b. After assembling the hose and spray pipe, properly connect it with the water outlet of the CLEAN VIEWER host.
- c. Plug the power cord into the power outlet after properly connecting it to the power connector of the host computer.
- d. Please use the fan (FAN SW) → adjust the air volume in the order in which it is used.
- e. When shutting down, adjust the air volume to the minimum speed → the order of shutting down the fan (FAN SW).

※ The ultrasonic vibrator is cooled by the ventilation of the main fan, so please make sure to start atomization in the air supply state.

### 6-3 Equipment installation

#### 6-3-1 The hose must remain horizontal

When the water is in use or the water tank has not been emptied and needs to be carried, the hose must be kept horizontal at all times. If the hose is too skewed, failures can happen as follow:

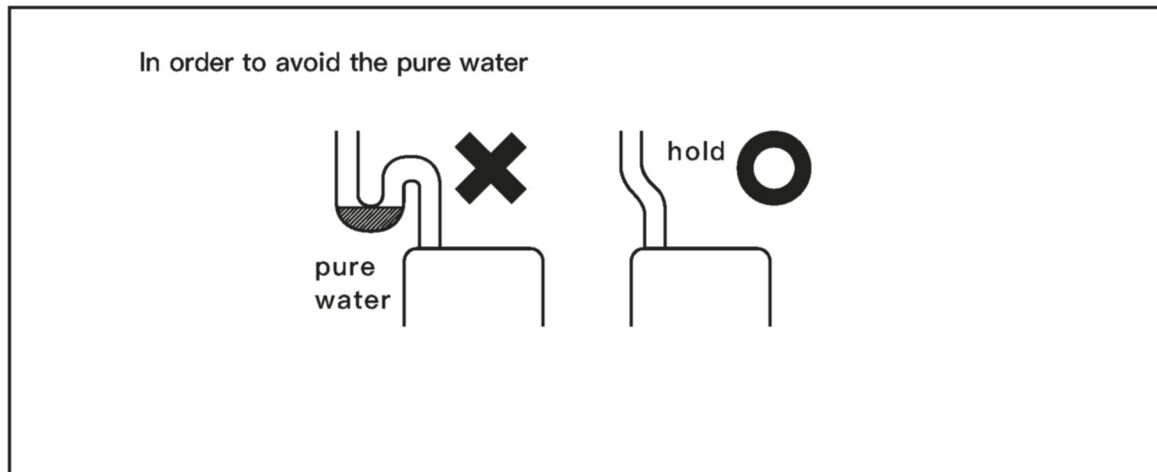
- a. The ultrasonic vibrator is damaged due to water loss and no load.
- b. Overflow leakage occurs in the hidden water tank of the main machine. The most severe case may damage the main unit and injure the personnel by a short circuit due to leakage.

#### 6-3-2 There is no foreign body in the inhalation port of external air.

Avoid blockage of external air inhalation or inhalation of foreign objects causing fan failure.

6-3-3 The height of the spray pipe and hose shall be kept higher than the feed outlet.

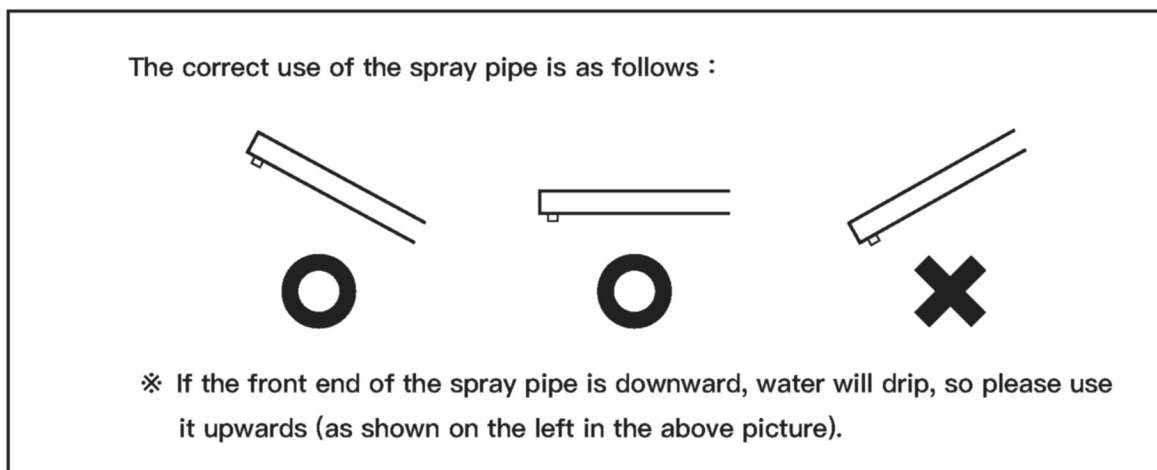
The water mist in the spray pipe and hose will re-converge into pure water due to agglutination, so whether in use, suspension or when the use is complete, in order to avoid the pure water agglutinated in the tube dripping out or the water mist supply air supply is blocked due to the water in the pipe, please hold the front end of the spray pipe high, so that the pure water condensed in the tube can completely return to the host tank.



6-3-4 The user should confirm the time when the water drop falls.

If you want to use it in a place where there is no water falling, please confirm the time of the water drop in advance.

- ※ The time of water dripping varies depending on the indoor temperature, humidity, visual amount of water mist generated, the shape and direction of the spray pipe, and other factors.
- ※ However, if used, when the spray pipe is used horizontally downwards at rest, the water droplet drops down for about 10 minutes.



6-3-5 Please pay attention to the water level gauge at all times.

Before use, please pay attention to the water level of the main tank at any time, and supplement the pure water in a timely and appropriate amount according to the water level gauge.

When the water level is too low, the float switch hidden in the tank will act to protect the ultrasonic atomization unit, and the visual water mist generation will be automatically stopped.

When the water level is too high (beyond the high-water indicator level), it will produce water leakage and overflowing, resulting in the above-mentioned failure or due to incomplete atomization of pure water, resulting in the phenomenon of unclear water mist.

## **| 6-4 Precautions when the water temperature rises**

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This device (CLEAN VIEWER: ACV-800T) has a built-in ultrasonic atomization unit, the heat generated by the heat sink is introduced into the sink and cooled by using the air flow during the fan supply air supply.

If the water temperature rises due to insufficient ventilation, the following problems will occur:

- a. Reduced atomization efficiency.
- b. The hose for fog conduction may cause heat distortion.

The following is an overview of the conditions that may cause the above problems:

When the air volume of the fan is adjusted to the minimum state (breeze) with a standard single-hole spray pipe, the cooling of the ultrasonic vibrator relies almost only on the pure water in the sink, so it will cause the water temperature to rise in a short period of time and reduce the atomization efficiency, and the fog hose will be deformed due to long-term overheating.

The extent of the expected increase in water temperature (set the initial water to 25°C). It is also possible to cool it by means of ventilation or by replacing pure water (room temperature).

If it is necessary to detect the breeze velocity and airflow, the nozzle of the spray pipe can be used in the opposite direction of the air outlet to be tested.

## | 6-5 Precautions for reuse

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Remember to lift the spray tube and hose high when you are done using it, and completely return the condensed water into the main tank. If pure water remains in the tube, the interval between water droplets falling off again becomes very short. (Water drops fall more frequently)

a. When you want to use it again after suspension.

※ If placed in a clean room→ can be reused.

※ If placed outside the clean room→ pure water must be replaced.

b. When you want to use it again after a long period of suspension.

※ If placed in a clean room→ pure water must be replaced.

※ If placed outside the clean room→ must wash the inside of the spray pipe, hose and storage tank with pure water more than twice.

## | 6-6 Precautions for storage

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First, the water in the spray pipe and hose is completely returned to the tank, and after the drainage plug is opened to completely drain the water, the spray pipe and hose are kept in their original state without disassembly (in the state of joining with the hose), turn off the power supply, and place it in the fixed point of natural air drying. Remove the fittings and power cords after completion, and store them in a clean room to avoid contamination.

## 7. Troubleshooting

Visualization water fog		Cause	Processing method
not	small amount		
<input type="radio"/>		No power.	Plug in the power supply.
<input type="radio"/>	<input type="radio"/>	The voltage is not normal	Check for fixes.
<input type="radio"/>		The fuse breaks.	Replace the fuse after checking the cause.
<input type="radio"/>	<input type="radio"/>	Too little pure water.	Replenish pure water to the prescribed water level (high water mark).
<input type="radio"/>	<input type="radio"/>	Too much pure water.	Drain pure water to the specified water level (high water mark).
<input type="radio"/>		Water accumulates in the hose.	Lift the hose to return stagnant water to the sink.
<input type="radio"/>	<input type="radio"/>	The host is not placed horizontally.	Place horizontally.
<input type="radio"/>	<input type="radio"/>	Insufficient air volume.	The airflow knob is turned to Max. (Highest).

※ If the reason is not listed above, please contact our customer service staff.

## **8. Maintenance**

If the fault occurs due to a defect in the structure of the equipment (i.e., its own poor quality) within one year after delivery, the Company shall be responsible for repairing it free of charge, but if the failure exceeds the warranty period or is still within the warranty period but is caused by the owner's improper operation or self-modification, the maintenance cost will be charged at its discretion.



## **9. Contact informat**

If there are any questions to AIRTECH, please contact us through our website, or call the customer service line for professional service for you.

**Contact address :**

- HsinChu 1st factory: No.58-1, Guangfu Road., Hsinchu Industrial Park, Hsinchu County
- HsinChu 2nd factory: No.84, Guangfu North Road., Hsinchu Industrial Park, Hsinchu County
- [www.air-tech.com.tw](http://www.air-tech.com.tw)
- TEL:+886-3-6105668
- Fax:+886-3-5972734
- Email:[info@air-tech.com.tw](mailto:info@air-tech.com.tw)



## CONTACT INFORMATION

**AIRTECH** AIRTECH SYSTEM CO., LTD.  
富泰空調科技股份有限公司

303-51 新竹縣新竹工業區光復路58-1號

No.58-1, Guangfu Road, Hsinchu Industrial Park. Hsinchu County 303-51, TAIWAN

**TEL** | +886-3-610-5668 **FAX** | +886-3-597-2734

**E-Mail** | [info@air-tech.com](mailto:info@air-tech.com) **Website** | [www.air-tech.com.tw](http://www.air-tech.com.tw)