## THE WORLD LEADER IN CLEAN AIR SOLUTIONS

# PurAir® 350C Instruction Guide

# PurAir® 350C Instruction Guide



- Thank you very much for purchasing PurAir 350C ceiling mounted commercial air purifier (hereinafter referred to as ceiling machine)
- For your correct use to exert the optimal performances of the product, please read this instruction guide carefully before use.
- Please keep this instruction guide properly for your late reference in repair and check.
- The contents of this instruction guide are subject to change without notice.
- When part replacement must be done in machine set repair or in case of fault, please provide the following information.
  - · Product model and machine number.
  - Fault contents (including machine running status before and after fault occurrence).

When ordering a part, please provide the part name indicated in the instruction guide to the service personnel.

Please read this instruction guide carefully and keep it properly, for late reference in repair.

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The contents of this instruction guide include the methods for installation, use, repair and check of the product; the product is installed in a suspended ceiling, to filter off the particles in room air via a filter screen; for the purpose of ensuring that the equipment performance is exerted stably and safely, please read this instruction guide carefully before using the product.

#### 1. General

1.1 PurAir 350C ceiling mounted commercial air purifier

PurAir 350C is widely used in such places as hotel, hospital, airport, and office, it is a kind of air purifier installed in suspended ceiling, and it filters dirty air through HEPA filter screen and chemical filter, and regenerates and supplies clean air.

#### **Product Parameters**

Rated voltage: 220V~Rated frequency: 50/60Hz

• Rated power: 25W

Dimensions of machine body: (900+94) x (295+50) x 298mm
Clean air delivery rate with particulate matters removed: 354 m³/h

• Clean air delivery rate with formaldehyde removed: 130 m³/h

• Noise (acoustic power): 37-65dBA

Net weight: 23kgGross weight: 25kg

## Scope of application

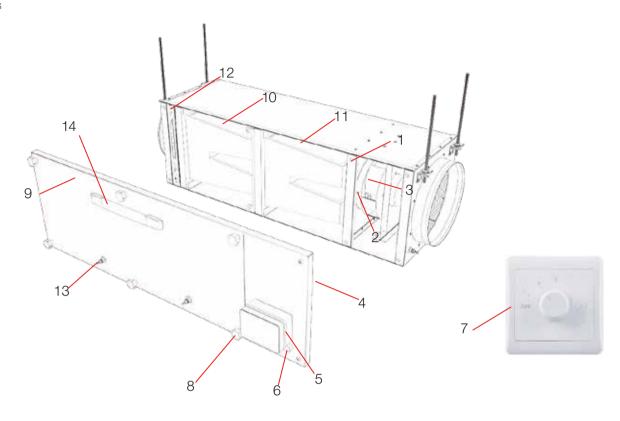
- Applicable temperature: -25-60°C
- Applicable humidity: Below 85%RH (non-condensing)
- Ambient air: General indoor air (for indoor air containing organic solvent, plasticizer, acidic substance, alkaline substance, or any chemical, the product can be used only if corresponding chemical filter is equipped.)
- Please avoid repeated ON/OFF operation of the machine.

If this product is used in an environment not meeting the above conditions, the machine performance will be influenced, and electrical short circuit phenomenon may occur, causing damage to electrical parts, and shortening the useful life of the product.

To safely and effectively use this product, please refer to "Important Safety Points".

## 1.2 Structure and features

1) Main components



Schematic diagram of PurAir® 350C ceiling machine

## 2) Component names and functions

Table 1. Component names and functions

No.	Components Name	Function	Notes
1	Suction canal	Used to protect the motor, fix the wind guide, and prevent foreign matters from entering the machine	
2	Wind guide	Used to guide the flow direction of the air flowing into the motor	
3	Motor	Main component for air circulation	Single phase DC
4	Motor compartment cover	Used for motor overhaul	
5	Electrical box	There are control PCBA and power supply terminals mounted in it	
6	Power indicator	When the machine is powered on, the indicator lights up	
7	86 box tap position switch	Used to control the rotation speed of the DC motor through the signal voltage tap position	4 tap positions
8	Fixing bolt	Used to fasten the filter compartment cover	
9	Filter compartment cover	Used to replace and fix the filter	
10	Chemical filter	Used to filter harmful gaseous pollutants	Multiple functions for selection
11	High efficiency filters	Used to filter fine particulate matters and pathogenic microorganisms	Multiple efficiencies for selection
12	Primary Filters	Used to filter large-grained dust	Multiple efficiencies for selection
13	Air pipe connector	Used to inspect the resistance and tightness of the filter cartridge	
14	Handle	Used to facilitate the removal and mounting of filter compartment cover	

The fan motor, filter, indicator, and tap position switch, etc. may vary with the specifications selected in purchase; for details, refer to the schematic diagram of machine.

## 2. Important Safety Points

Improper use of this product will cause that the optimal performance of the machine cannot be achieved. Make sure to follow the instructions below during use:

#### 2.1 Environment for installation and use

- The installation place shall be far away from such heat sources as heating furnace, and steam.
- •There shall be no materials that are flammable, and explosive, etc. in the installation place, to avoid occurrence of fire.
- Do not use volatile chemicals near the machine; if the machine sucks such chemicals, this may cause accidents, such as fire, or explosion.
- Do not use chemicals containing sulfuric acid, hydrochloric acid or bleach, and other corrosive chemicals, near the machine; use of these chemicals may cause corrosion and damage to the machine.

#### 2.2 Transport and installation

- Please handle the product with the packaging in good condition, and be sure to keep the product level in handling; if handling the product with a tool, e.g., handcart, please ensure that the case is fully within the borders of the handcart, to avoid slipping down or edge collision, which may cause deformation of the case. When placing the case and filter onto the floor temporarily, please ensure that they are placed stably, without hidden trouble of falling down, to avoid damage to the case and filter (for details, refer to the precautions for installation.)
- After the case is mounted, confirm that the access hole is in the filter compartment cover side of the case, to facilitate future filter replacement and machine overhaul; if it is not ensured that the access hole is in the filter compartment cover side of the case, it will fail to repair the machine and replace components.
- Do not use a sharp object to touch the filter, avoiding damage to the filter, which may cause leakage and failure to ensure the CADR of the indoor air.
- After opening the packaging of the case and filter, please retain the packaging plastic bags; when placing the case and filter onto the
  floor temporarily, please ensure that the floor is flat, lay a clean protective plate first and then place the case and filter onto the protective plate, to avoid contamination to the case and filter.
- Before powering on for running, ensure that the power wires and signal wires on the terminal blocks are connected well, without coming off; check to confirm that the air switch or tap position switch is in off state; the indicator is in good condition, without damage.

#### 2.3 Precautions for installation and use

During construction

Do not jump down from a ladder, to avoid human injury.

Do not damage such objects in the equipment as wiring pipes, pipes, and machine parts.

Please wear a safety cap, to avoid collision damage to your head in installation; fasten a safety harness, and be careful not to drop your tools.

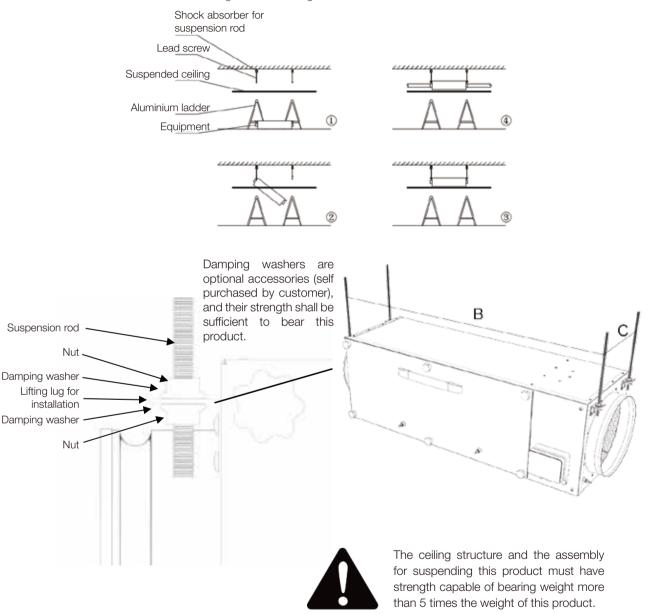
- Never directly apply a heavy load onto the case, to prevent the weight from exceeding the strength range of the lifting lugs.
- Do not operate the machine with wet hands, to avoid danger of electric shock.
- Do not place large objects at the downstream of the air outlet, to avoid obstruction of stable air flow of air, which may cause failure of the air cleanliness to meet the requirements.
- Do not block the air inlet and air outlet of the machine; if the air inlet and air outlet of the ceiling machine are blocked, the performance of the fan will not be exerted normally, causing abnormal operating of the fan or damage to electrical parts.
- Each ceiling machine must be provided with a residual current circuit breaker with proper capacity on the power supply side, to avoid electric shock or fire.
- Grounding is needed, to avoid danger of electric shock.

#### 3.Installation and use

#### 3.1 Installation Instructions

## 1) Installation sequence:

Planning design → Clearing and cleaning → Wiring check → Equipment installation → Equipment wiring → Wind pipe connection → Check and clearing → Trial running



Code	Model	Suspension dimensions (BxC) mm	Suspension rod diameter mm
E4080001	PA.350C- (900+94) × (295+50) ×298-PG10-C1	929×212	M8

#### 3.2 Check points before running

Check the following precautions first before product running:

- Whether the incoming power supply wires are connected, and whether the power supply matches with the power supply requirement.
- Whether the leakage protector for power supply has been installed.
- Whether the grounding protection devices have been installed.
- Whether there are foreign matters entering the air inlet.
- · Whether the case has been mounted securely.
- Whether the tap position switch has been thrown to tap position 0.
- Whether the protective film for the filter has been removed.

#### 3.3 Precautions in running

- 1) Start to run
- When the tap position switch is adjusted to tap position 1 or above, the machine starts to run.
- Whether the rotation direction of the fan is clockwise.
- Please confirm whether there is abnormal phenomenon after the running is started.
- Whether there is electric leakage phenomenon after the running is started.
- 2) When the machine cannot run normally in any of the following cases, please contact corresponding salesperson.
- There is electric wire coming off or connector loosening in the machine.
- The machine cannot run, as the leakage protection switch trips.
- The fan rotates reversely, that is, rotates counterclockwise.
- There is strong harsh noise existing during machine running.
- The motor does not run after power-on and tap position switch adjustment.

#### 4. Repair and check

- Please conduct daily check since the date of purchase, and contact professional after-sales personnel for regular check.
- Except for professional after-sales personnel, do not disassemble and repair the product without authorization, to avoid electric shock or fire
- Be sure to cut off the power supply before repair and check, to avoid danger of electric shock.
- After repair and check are completed, please adjust the air switch or tap position switch to OFF position before power-on.
- After repair is completed, ensure that there is no part missing in the motor compartment.
- When replacing components, e.g., filter, please place the filter compartment cover and motor compartment cover properly, to prevent falling off, which may cause human damage.

#### 4.1 Daily repair and check

Before starting work every day, please check all of the following items according to Table 2; if finding any abnormal situation, immediately cut off the power supply and take corrective actions.

Table 2. Daily check items

NO.	Check items	Check standard
1	Fan	Whether the fan runs normally, and whether there is abnormal noise; if there is abnormal noise, please check whether there are foreign matters entering the case or the suction canal; if the motor has a problem, please contact after-sales personnel.
2	Air Outlet	Whether the air flow rate at the air outlet decreases or there is no air flow at the air outlet.
3	Air inlet	Whether there are foreign matters blocking the air inlet.

#### 4.2 Regular repair and check

1) Regular check

Please conduct regular check of the product according to the items in Table 3; when the useful life of a component expires, please replace the component immediately.

(the useful life of a component may vary with use environment)

2) When the machine is restarted after being stopped by an accident, e.g., force majeure (earthquake, fire, and sudden blackout, etc.), or chemical spill, be sure to conduct the same check.

Table 3. Regular check items

Components Name	Symptoms and Possible Causes	Evaluation Criteria, Confirmation Points	Number of Check Times	Useful Life of Component
Fan	Deformation of fan causes unstable running     Bearing damage causes unsmooth running or locking of motor     Motor stall or insulation defect causes motor overheating	Check whether the fan runs stably, whether the fan impeller is deformed Confirm whether there is harsh noise or too large vibration during motor running Check whether the temperature of motor is below 40°C, and whether the rotation speed of the motor is normal	Once per year	70,000 hours
Electrical box	Insulation defect, terminal loosening, short circuit or burnout of PCBA	Check whether the fuse in the electrical box is in good condition Record whether there is tripping phenomenon occurring frequently Check whether there is appearance damage phenomenon	Once per year	5 years
Tap position switch	Wire coming off in the connection place of the tap position switch 2. Frequent on-off operations cause knob loosening or damage 3. The resistor of the tap position switch is damaged	Check whether tap position adjustment and OFF operations are normal Rotate the knob to check whether it is normal Visually check whether the rotation speed of the motor changes after tap position change	Once per year	5 years
Power indicator	1. The power indicator goes out	Check whether the indicator has appearance damage Check whether the fuse in the electrical box is in good condition Check whether the controller has burnout sign Check whether the useful life of the indicator has expired	Once per year	5 years
FILTER	Reduction in air flow speed     The purification effect is poor	Check whether the rotation speed of the fan is adjusted too low Check whether there is dust clogging phenomenon Check whether the useful life has been expired Check whether the filter paper is pierced by a sharp object Che whether the filter paper of the filter is damaged by chemical corrosion	Once per year	6–12 months
Case and other components	The case is deformed, damaged     The case rusts     The case has too large vibration	Check whether the case is corroded by chemical Check whether there is high-temperature, high-humidity gas or liquid flowing through the case Check whether the case is stable, and whether there is a large object blocking the air inlet	Once per year	10 years

Note: The life of a component is the normal useful life but not quality warranty period. It is recommended to clean the coarse filter every 3 months.

#### 4.3 Troubleshooting

• In case of any of the following phenomena, please provide your product model, machine number, motor model and defect phenomenon, and contact professional after-sales personnel to take proper improvement actions.

Phenomena	Possible Causes	Improvement Actions
The fan does not run	The leakage protection switch for power supply trips The air switch or speed adjuster of the machine is not turned on The PCBA or speed adjuster is burnt out The motor is defective	Check to determine the electricity leakage phenomenon; after repair, turn on the protection switch The air switch or speed adjuster of the machine is not turned on Replace the PCBA or speed adjuster Replace the motor
The power indicator goes out	The controller is damaged The motor has a fault	Replace the controller Check the motor and remove the fault
Abnormality occurs during fan running	The suction canal is blocked by an object The suction canal is deformed, causing friction with the fan	Remove the blocking object Contact after-sales personnel to take proper improvement actions

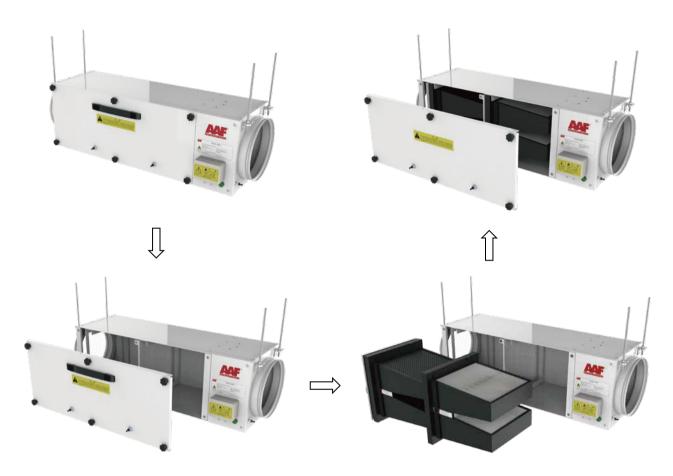
• Do not disassemble, repair or alter the machine by any person other than after-sales technician, to avoid serious accident; in case of an fault, please contact the after-sales personnel.

#### 4.4 Part installation and replacement

- 1) Installation steps for test port plugs
  - a) Install the test port plugs from the bagged accessories into 4 corresponding test ports. (If the test port plugs are not installed, this may have influence on the purification effect)



- 2) Filter installation and replacement steps
  - a) Prepare a new filter
  - b) Turn off the incoming power supply for the ceiling machine
  - c) Remove the studs for the filter compartment cover, and then remove the filter compartment cover.
  - d) Remove the used filter, and place in the new one.
  - e) Install the filter compartment cover
  - f) Turn on the incoming supply power for the ceiling machine



(The handles of the filters shall face outwards consistently after installed)

## 5. Quality warranty and service

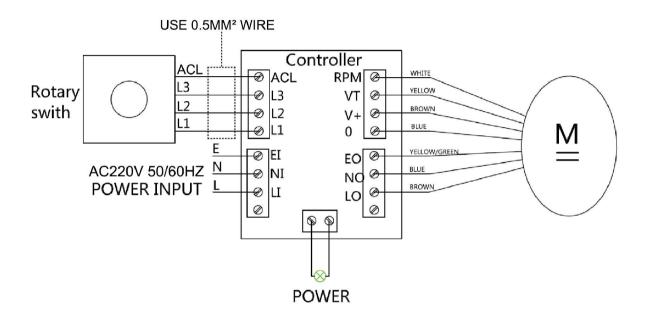
- Quality warranty period:
- If any fault occurs under normal use conditions within one year after the purchase date, please contact the salesperson for this product, and provide product model, machine number, motor model and fault occurrence date, so that the technicians conduct free repair and faulted component replacement.
- Please read the fault phenomena and possible causes listed in this instruction guide before contacting salesperson.

## 6. Part replacement

- •When a damaged component needs to be replaced, please provide the component name listed in Table 1 in this instruction guide to the service personnel.
- Any substitute not confirmed by the technicians may not only influence the performance of the product, but also cause fire, electric shock and other danger in serious cases.

## 7. Appendix

Electrical connection diagram of fan



List of bagged accesories

Instruction Guide 1 pc Warranty Card 1 рс Fixing bolt 1 units

Test port plug (Note: 4 out of 5 test port plugs need to be installed into the air pipe 5 units connectors of the purification machine, and the remaining one is 3-position 86 box tap position switch 1 units

used as a spare part)



## THE WORLD LEADER IN CLEAN AIR SOLUTIONS

# Warranty Card (product three guarantees voucher)

#### **Product Warranty Principles:**

- 1. Since the purchase date of the product (the time on the invoice shall prevail), the whole machine will be guaranteed for one year.
- 2. If there is no shopping invoice, the warranty date is calculated one month after the date of production.
- 3. The following circumstances are not included in the scope of warranty, but paid repair will be provided:
  - i. Damage caused by improper use, maintenance and storage of the consumer;
  - ii. (such as broken plastic parts, damage caused by chemicals not designated by AAF)
  - iii. Damage caused by the dismantling by repairer who does not undertake the three guarantees repair;
  - iv. No three guarantees voucher or valid invoice;
  - v. Three guarantees voucher number is inconsistent with the model of the product to be repaired or is altered;
  - vi. Damage caused by force majeure.

#### **Product Exchange and Return Principles:**

- 1. If the product has performance faults within 7 days after the purchase, the consumer can choose to return, replace or repair it;
- 2. If the product has performance faults within 15 days after the purchase, the consumer can choose to replace or repair it.

Website: www.aafchina.com

Service Hotline: 400-828-0661

## Service Record Sheet

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Repair Reporting Time				Purchase Date	
Customer Name		Contact Number		Contact Address	
Item No.		Machine Number		Failure	
Handling Measures	Handling Measures Repair □ Replacement □		Return		
Replaced Parts					
Signature of Customer				Signature of Service Personnel	
Repair Reporting Time				Purchase Date	
Customer Name		Contact Number		Contact Address	
Item No.		Machine Number		Failure	
Handling Measures	Repair 🗆	Rep	olacement 🗆	F	Return 🗆
Replaced Parts		·			
1					



