

## Air Scrubber Owner's Manual

**Model:**

**AP-1500 Series, AP-1800 Series, AP-2500 Series**

220-240V~, 50Hz

Read and save these instructions



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[www.xpower.com](http://www.xpower.com) | [www.tx-5.com.hk](http://www.tx-5.com.hk)

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# Safety Instructions

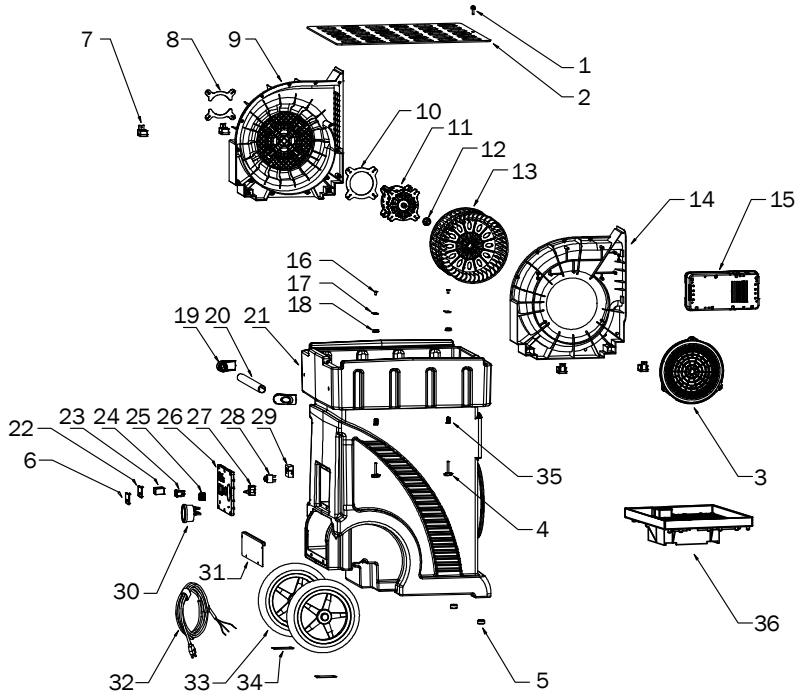
## **WARNING - READ AND SAVE THIS INSTRUCTIONS BEFORE USING THIS PRODUCT.**

The user of electrical products may create hazards that include, but are not limited to injury, fire, electrical shock. Failure to follow these instructions may damage and/or impair its operation and void the warranty.

- Before operating, remove all packaging material and check for any damage that may have occurred during shipping or any missing items.
- Check power supply to ensure it matches the appliance's specification.
- **DO NOT** operate any fan with a damaged cord or plug. Discard fan or return it to an authorized service facility for examination and/or repair.
- Use only on GFCI protected receptacles. Please contact a qualified electrician for verification and / or installation of a GFCI receptacle if necessary.
- **DO NOT** run cord under carpeting. **DO NOT** cover cord with throw rugs, runners, or similar coverings. **DO NOT** route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.
- To reduce the risk of fire or electric shock, **DO NOT** use this machine with any solid-state speed control device.
- **DO NOT** touch this appliance or the plug with wet hands or while standing in water.
- **DO NOT** operate the appliance in any pooled water.
- **DO NOT** use the product in areas where gasoline, paint or other flammable goods and objects are used or stored.
- **DO NOT** insert or allow objects to enter any ventilation or exhaust opening as this may damage the appliance and void the warranty.
- **DO NOT** cover the air inlet or outlet on the appliance.
- **DO NOT** direct the air flow at human faces or bodies.
- **DO NOT** allow children to play with this appliance.
- **AUTOMATICALLY OPERATED DEVICE** – To reduce the risk of injury, disconnect from power supply before servicing.
- Remove the power cord from the electrical receptacle by grasping and pulling on the power cord plug-end only, **DO NOT** pull the cord directly.
- **DO NOT** attempt to repair or adjust any electrical or mechanical functions of this appliance, as this may cause danger and void the warranty.
- If the appliance is damaged or it malfunctions, **DO NOT** continue to use it. Unplug the product from the electrical outlet. Refer to troubleshooting guide or contact XPOWER.
- Store in a dry area, away from exposure to sunlight, extreme temperature and humidity, or other extreme environments, when not in use.
- An electronic instruction manual can be obtained through website: [www.xpower.com](http://www.xpower.com).

# Parts Description

## Machine

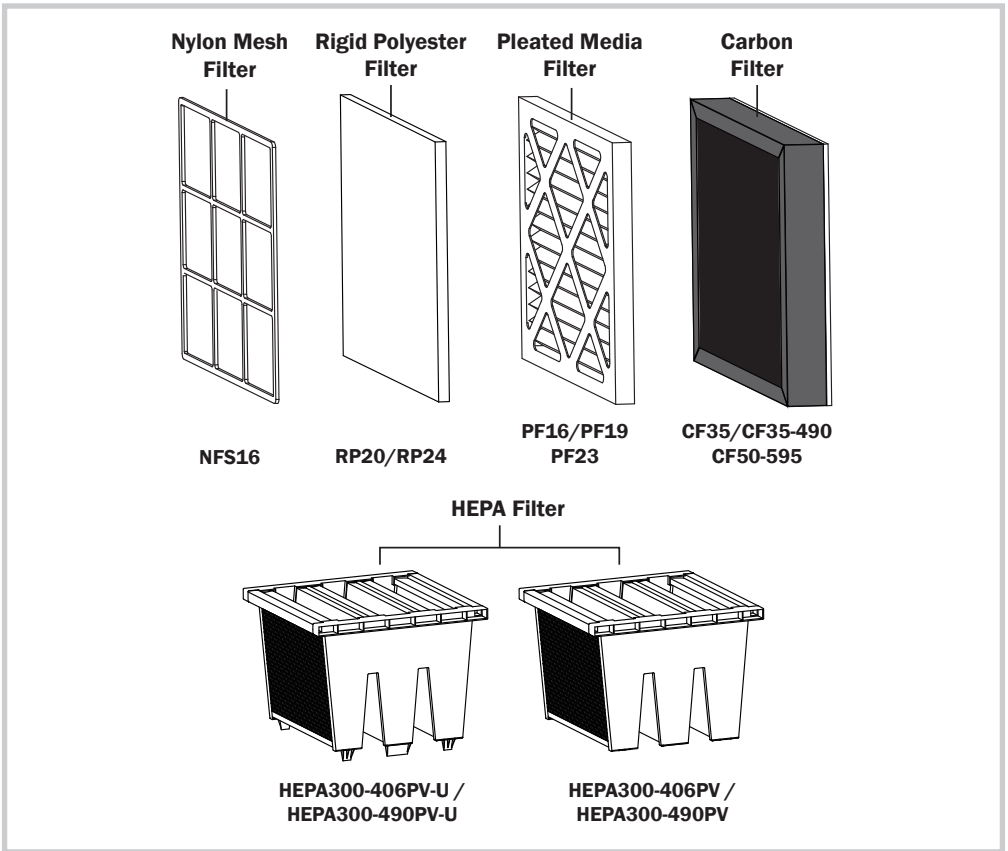


- |                                    |   |                                 |
|------------------------------------|---|---------------------------------|
| (1) Inlet Grille Cover Screw       | (14) Motor Left Housing                   | (27) Speed Switch Circuit Board |
| (2) Inlet Grille Cover             | (15) Motor Control Circuit Board Assembly | (28) Circuit Breaker            |
| (3) Handle Screw                   | (16) Rivet Nut                            | (29) Air Quality Sensor Box     |
| (4) Rubber Pad                     | (17) Filter Fixator                       | (30) Pressure Gauge             |
| (5) Motor Inlet Grille Cover       | (18) Flange Nut                           | (31) Power Cord Container Cover |
| (6) Time Meter*                    | (19) Handle Cover                         | (32) Power Cord                 |
| (7) Motor Housing Fixator Assembly | (20) Handle Tube                          | (33) Wheel Assmeby              |
| (8) Motor Fixator                  | (21) Housing                              | (34) Wheel Chassis              |
| (9) Motor Right Housing            | (22) Air Quality Sensor Cover             | (35) Handle Screw Sleeve        |
| (10) Heat Insulation Plate         | (23) Air Quality Sensor                   | (36) UV Light Assembly**        |
| (11) Motor                         | (24) Power Switch                         |                                 |
| (12) Bushing                       | (25) Speed Switch Knob                    |                                 |
| (13) Fan                           | (26) Control Panel                        |                                 |

\* For model AP-1500DM, AP-1800DM, AP-2500DM only.

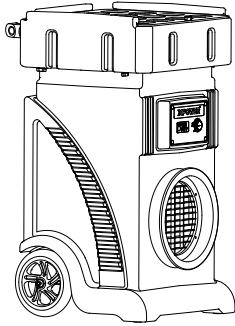
\*\* For model AP-1500U, AP-1800U only.

## Filters



MODEL NUMBER	AP-1500D / AP-1500DM	AP-1500U	AP-1800D / AP-1800DM	AP-1800U	AP-2500 Series
First Stage Filter	NFS16		RP20		RP24
Second Stage Filter	PF16		PF19		PF23
Third Stage Filter	CF35		CF35-490		CF50-595 (Optional)
Fourth Stage Filter	HEPA300-406PV	HEPA300-406PV-U	HEPA300-490PV	HEPA300-490PV-U	HEPA300-PV

## Items Included



• Air Scrubber x 1



• Hex Screws x 2



• Nuts x 2



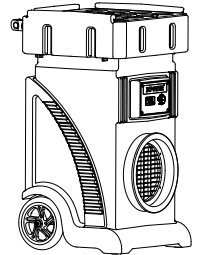
• Handle x 1



• Owner's Manual x 1

## Air Scrubber Introduction

- XPOWER's unique and highly innovative Air Scrubbers create a fresh and clean environment for various purposes.
- With a special designed powerful motor, XPOWER Air Scrubbers are able to provide suction in even difficult areas.
- The included filtration system can capture a wide range of compounds and prevents organism migration from location to location.



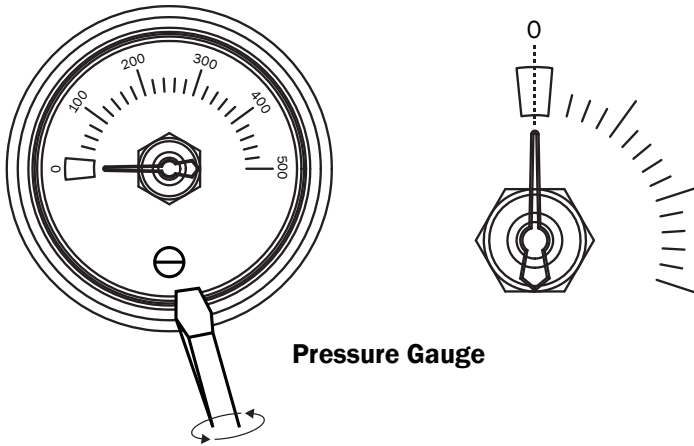
# Installation and Operation Guide

## Remove Filter Package (If Any)

Remove the packages of the filter before the first usage.

## Zero Setting

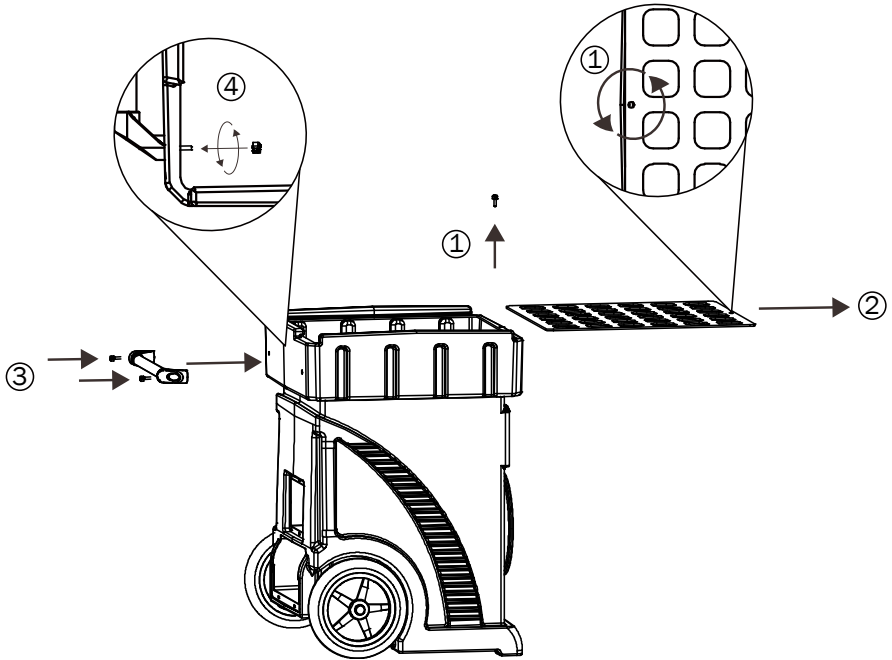
- The accuracy of the pressure gauge might be affected by transportation.
- Before the first usage, you should zero the pressure gauge in order to ensure the accuracy of the measurement.



**Pressure Gauge**

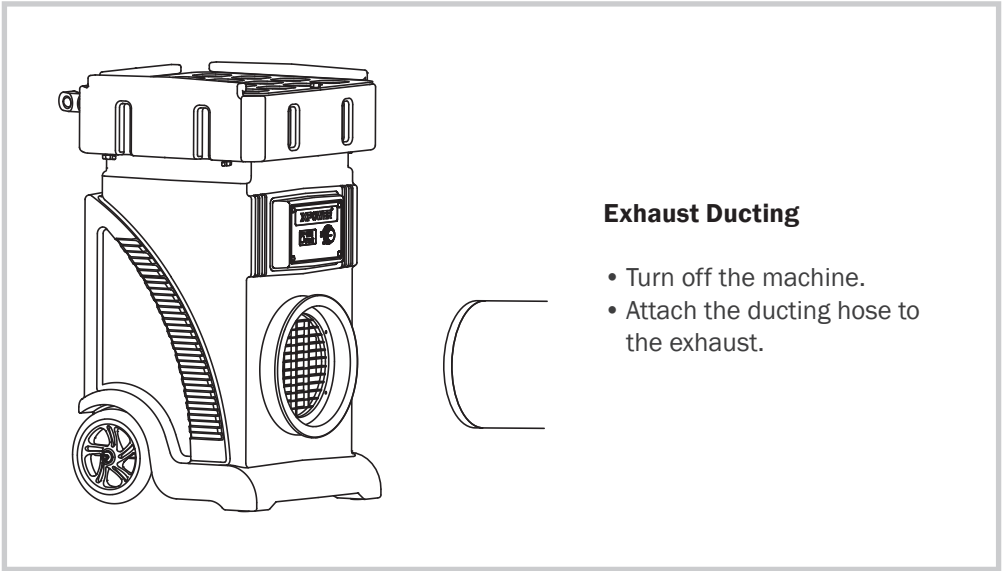
- Use a straight screwdriver to adjust the zero setting screw on the pressure gauge, until the pointer stays in the middle of the zero sector.

## Installing the Handle



- (1) Screw off the hex screw with a hex screw driver on the inlet grill cover.
- (2) Take out the inlet grill cover.
- (3) Put the screws through the holes on handle and the back of the machine housing.
- (4) Fasten the screws with the nuts from the inner surface of the machine.

## Extension Setup (Optional)



### Exhaust Ducting

- Turn off the machine.
- Attach the ducting hose to the exhaust.

## Selecting a Location (Important)

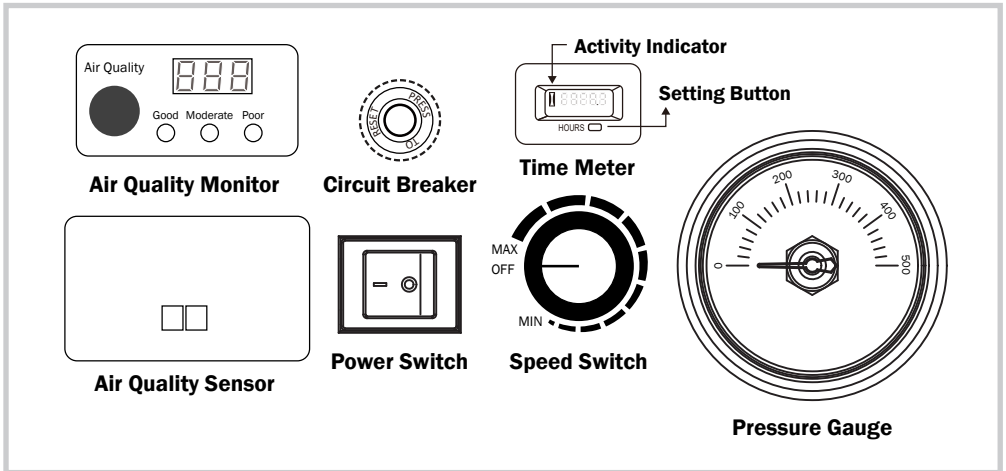
- **Enclosed Area:** For optimal efficiency and longer filter lifespan, the Air Scrubber should be operated in an enclosed area. Keep all doors, windows and other outside entrances to the room closed.
- **Air Circulation:** It's suggested to have a constant efficient air circulation inside your working area.
- **Environment Humidity:** For optimal efficiency and higher filter lifespan, the Air Scrubber should not be operated in an environment with a high relative humidity level. High humidity level could cause blockage and damage to filters.
- **Power Cord:** The power cord has a length of 25 feet (7.6 meters). Select a location where the power cord can reach the power source.
- **Inlet and Outlet Orientation:** Also pay attention to the orientation of the air inlet and air outlet. Make sure the airflow won't influence any object nearby the Air Scrubber.
- **IMPORTANT:** The effectiveness of the Air Scrubber can be influenced by different factors. You may also find that installing multiple Air Scrubbers may be required for larger enclosed areas.

## Special Safety Instructions for AP-1500U/AP-1800U only

Please use XPOWER HEPA filter to ensure UV lamp functions safely. Other kind of filters may cause a hazardous leakage of ultraviolet light.



## Control Panel



### Air Quality Monitor

- When this monitor blinks, it indicates the Air Quality Sensor is now preparing for detection.
- The digital display will show the concentration of fine particulate matter (PM<sub>2.5</sub>) in the environment in  $\mu\text{g}/\text{m}^3$ .
- The index light will indicate the air quality category of the environment. According to the Air Quality Index developed by the United States Environmental Protection Agency (EPA), the index light corresponds to different levels of health concern as below:

Index Light	Levels of Health Concern according to the AQI by EPA
Green / Good	Good
Orange (Yellow) / Moderate	Moderate or, Unhealthy for Sensitive Groups
Red / Poor	Unhealthy, or Very Unhealthy, or Hazardous

## Control Panel (Continued)

### Time Meter (For Model AP-1500DM, AP-1800DM and AP-2500DM Only)

- The time meter contains 3 meters. Press the setting button to switch the meters.
- The master meter shows the total running time from the first usage to the current moment. The value of the master meter can't be reset.
- The value of meter 1 and meter 2 can be reset. Press the setting button up to 5 seconds to reset the value.
- When the fan turns on, the activity indicator will blink. The running time starts to count. When the fan is off, the activity indicator will stay illuminated.
- When the value exceeds 9999.9 hours, it will start over from 0 again.

### Circuit Breaker

If the machine stops working, pressing the **RESET BUTTON** to reset the machine.

### Power Switch

- Turn to “**O**” position to switch the power OFF. Turn to “**I**” position to switch the power ON.

### Speed Switch

- Turn to “**OFF**” position to switch the fan OFF. Turn clock-wisely to any position between “**MAX**” and “**MIN**” to switch the fan ON.
- You can adjust to any desired speed variably. “**MAX**” is the highest speed and “**MIN**” is the lowest speed.

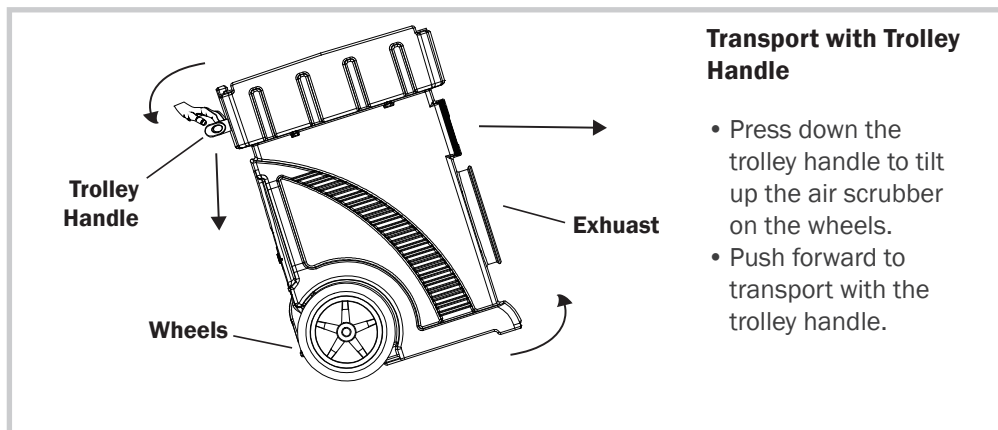
### Pressure Gauge

This measures the negative pressure between the motor inlet and filter outlet.

- Before the first usage, you should zero the pressure gauge in order to ensure the accuracy of the measurement. (See Page 6: *Zero Setting*)
- Load all the filters, switch the power on and turn to the highest speed. If the negative pressure exceeds the values below, it indicates that the filters might have exceeded the maximum capacity of particles, and the filtration efficiency as well as the airflow have diminished. You should check, clean or replace the filters. (See Page 12: *Filter Maintenance*)
- Even if the pressure gauge shows negative pressure is still lower than the values below, it's suggested to check and replace the filters every 6 months. (See Page 12: *Filter Maintenance*)

	AP-1500 Series	AP-1800 Series	AP-2500 Series
Without Carbon Filter	270 Pa.	370 Pa.	340 Pa.
With Carbon Filter	350 Pa.	500 Pa.	500 Pa.

## Transportation



## User Maintenance Instructions

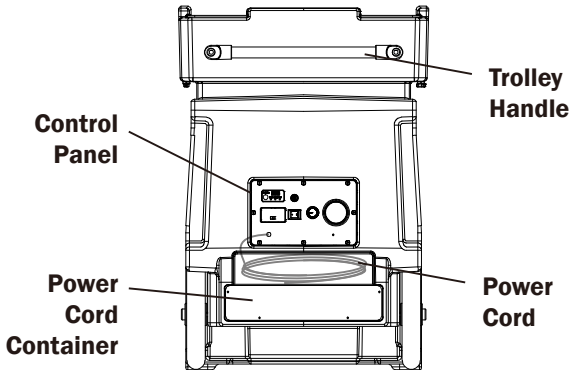
Frequent maintenance is recommended on this appliance. Failure to follow the maintenance instructions may cause failure of the appliance and void the warranty.

Before performing any maintenance or cleaning, always disconnect the Air Scrubber from its power source.

## Machine Maintenance

- When not in use, unplug, and uninstall power cords and all the extensions. Store the appliance in a dry and cool indoor place. Make sure it's out of reach of children.
- Use a damp cloth to wipe the surface of the housing. Do not clean the unit with water directly.
- Check if the grille covers are clean. Remove dirt or any other objects that could block the air inlet and air outlet.

### REAR VIEW



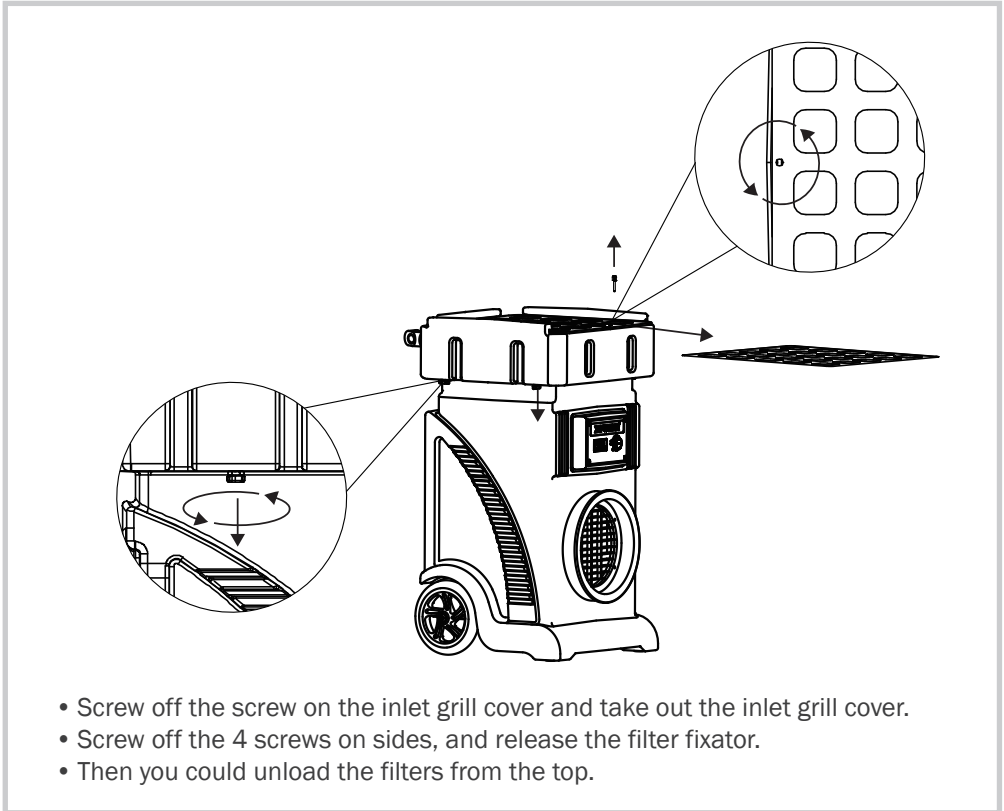
### Organize the Cord

- Power cord can be stored into the power cord container at the rear of the air scrubber.

## Filter Maintenance

To ensure the best filtration efficiency and to prevent secondary pollution of used filters, you should replace or clean the filters frequently or when the filter clean/change light illuminates. Please follow the instructions below.

### Unload the filters (See Also Page 3: Parts Description)



### Clean the filters (See Also Page 3: Parts Description)

- **Rigid Polyester Filters\***: These filters are washable with water. Use a vacuum or clean cloth to remove loose debris. And then further clean the filter with water. Use a cloth to remove the water on the filter and dry it naturally in the air.
- **Pleated Media Filters**: This filter is not washable. Use a vacuum to remove loose debris. If filter change light still illuminates, you might need to replace the filter.
- **HEPA Filters\***: This filter is not washable or reusable. Highly concentrated particles are captured by the HEPA filter and cleaning this filter can be hazardous to human health and contaminate the nearby environment. You must replace the filter if all the other filters are clean and however the pressure gauge still shows a high negative pressure value..

## Filter storage

- When not in use for a long time, you should store the filter separately from the machine.
- Always clean the filters before storage. Place the filters in a sealed plastic bag and store it in a dry and cool indoor place.

## Replace the filters periodically

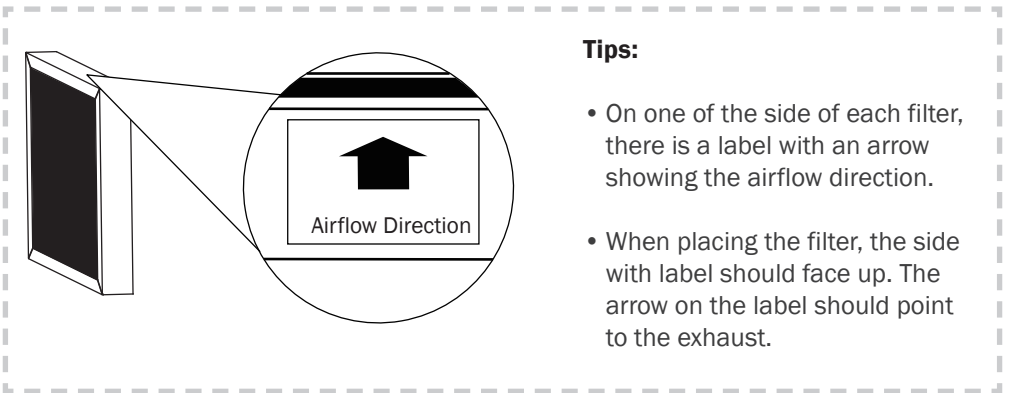
- Even if the pressure gauge shows negative pressure is still lower than the values below, it's suggested to check and replace the filters every 6 months.
- Stored or unused filters are also suggested to check and replace the filters every 6 months.

## **⚠ WARNING: DISPOSAL OF FILTERS NO LONGER IN USE**

The particles captured by a used filter can cause adverse human health effects and contaminate the nearby environment once the filter is exposed to the open air. Adequate personal protection equipment (PPE) is required during the whole process, for example, industry approved masks, eye protectors, gloves and coveralls. You should place the used filters in a sealed plastic bag before disposing. Follow local disposal regulations.

## Reload the filters

To ensure the best efficiency and lifespan, each filter must be reloaded in a correct position, sequence and orientation.



### Tips:

- On one of the side of each filter, there is a label with an arrow showing the airflow direction.
- When placing the filter, the side with label should face up. The arrow on the label should point to the exhaust.

\* All replacement filters are available on [www.xpower.com](http://www.xpower.com).

# Troubleshooting Guide

PROBLEM	POSSIBLE CAUSE	SOLUTION
Air Scrubber does not start	No electricity.	Check for power supply.
	The power cord is not properly plugged in.	Remove and reconnect the power cord.
	The circuit breaker on the additional electrical receptacle (Daisy chain) trips.	Remove all appliances on the additional electrical receptacle and press circuit reset button.
Unit runs but no or very low air movement	Air outlet is blocked.	Remove blockage.
	Filters are fully loaded. The filter clean/change light illuminates.	Clean or replace the loaded filters. (See <i>Page 12: Filter Maintenance</i> )
Unit runs and stops automatically and repeatedly	The input voltage is too low. The voltage protection within the unit triggers.	Check for power supply. Try to plug in another power outlet. Try to use an extension cord that is 16 AWG or larger and less than 25 feet.
The additional electrical receptacle has no power	The circuit breaker trips.	Press circuit reset button.

If troubleshooting does not resolve your problem, please contact XPOWER or other parties authorized by XPOWER for further instructions.

# Technical Specification

## Machine Specification

MODEL NUMBER	AP-1500D / AP-1500DM	AP-1500U	AP-1800D / AP-1800DM	AP-1800U	AP-2500D AP-2500DM
Voltage/ Frequency	220-240V~, 50Hz				
Power	200 W	220W	380 W	400 W	900 W
Speed Control	Variable Speeds				
Cord Length	4.0 m				7.6 m
Unit Dimension (L) x (W) x (H)	49.3 x 55.5 x 91.0 cm		57.4 x 63.9 x 94.6 cm		74.8 x 67.8 x 98.6 cm
Unit Weight	20.8 kg	22.9 kg	29.8 kg		43.13 kg



## Filter Specification

FILTER MODEL NUMBER	Type of Filter	Size	Thickness	Function
NFS16	Nylon Mesh Filter	16 x 16 in.	-	Primary filtration for visible and coarse particles.
RP20	Rigid Polyester Filter	20 x 20 in.	1 in.	
RP24		24 x 24 in.	1 in.	
PF16	Pleated Media Filter	16 x 16 in.	0.8 in.	Medium filtration for fine dust.
PF19		19 x 19 in.	1.4 in.	
PF23		23 x 23 in.	1.8 in.	
CF35	Carbon Filter	16 x 16 in.	1.4 in.	Filtration for gases.
CF35-490		19 x 19 in.	14 in.	
CF35-595		23 x 23 in.	14 in.	
HEPA300-406PV / HEPA300-406PV-U	Plastic V-Shaped HEPA Filter	16 x 16 in.	11.5 in.	Final filtration for micro particles.
HEPA300-490PV / HEPA300-490PV-U		19 x 19 in.	11.5 in.	
HEPA300-PV		23 x 23 in.	11.5 in.	

# XPOWER Limited Warranty

## **1 YEAR LIMITED WARRANTY**

XPOWER-branded products purchased in the U.S. from authorized distributors include a 1-year limited warranty. Contact XPOWER to confirm warranty information about your product(s).

This limited warranty covers defects in materials and workmanship in your XPOWER-branded products. Contact an XPOWER Distributor in your region for warranty service and parts replacement.

### **Items mentioned but not limited to below are not covered by warranty:**

- (1) Power cord, filters or any other components considered as a “consumable parts” by XPOWER.
- (2) Normal wear and tear.
- (3) Problems that result, directly or indirectly, at XPOWER’s sole discretion, from:
  - (3.1) External causes such as accident, abuse, misuse or problems with electrical power supply.
  - (3.2) Disassembling, servicing or modification not authorized by XPOWER.
  - (3.3) Usage that is not accordant with product instructions stated in Owner’s Manual.
  - (3.4) Failure to follow the product instructions or lack of necessary maintenance stated in Owner’s Manual.



**XPOWER Manufacture, INC.**

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