airwash®
PRO

PRODUCT MANUAL FOR Airwash®PRO
HEPA AIR FILTRATION SYSTEM

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Rules for Safe Operation

READ AND SAVE THESE INSTRUCTIONS!

Please read instructions before using the HEPA Air Filtration System (HEPA system).

1. For safety and optimized performance of the HEPA system, this equipment should be operated by trained personnel only.
2. Read this manual carefully. Failure to follow these rules and instructions could cause a malfunction of the air filter or unsatisfactory service and could void the warranty.
3. Follow a regular service and maintenance schedule to ensure efficient operation.

Shipping and Packing List

Package 1 of 1 contains:
1 - HEPA System
1 - HEPA Cartridge
1 - Installation Instructions (this manual)
1 - Registration Card

⚠ WARNING

High Speed Rotating Parts Hazard.

Can cause injury on upon contact.

Disconnect all electrical power supplies and wait for rotating parts to completely stop before servicing.

Do not operate equipment without all access panels and components in place.

⚠ WARNING

Electrical Shock Hazard.

Can cause injury or death.

Disconnect all electrical power supplies before servicing.

Do not operate equipment without access panels and fan guard in place.

⚠ WARNING

Risk of Dust Explosion.

Disconnect all electrical power supplies and wait for rotating parts to still before servicing.

Do not operate equipment without access panels in place.

⚠ WARNING

Risk of Airborne Contaminants Exposure.

Can cause respiratory problems.

Can cause illness.

Do not operate equipment without access panel in place.

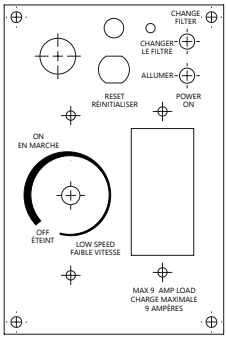
Wear appropriate protective clothing and mask when servicing filters.

⚠ WARNING

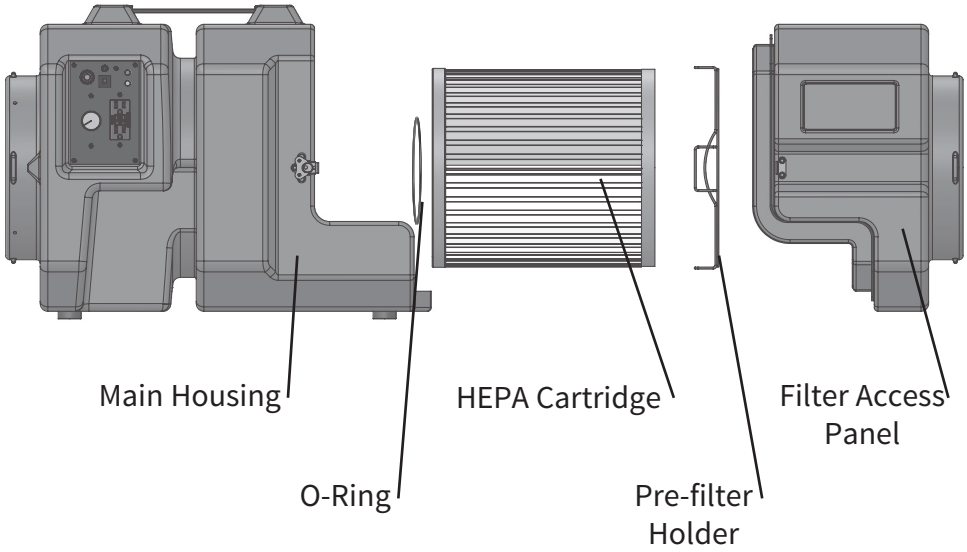
During operation, do NOT stack units more than 2 high.

Parts Identification Diagram - Airwash®PRO Portable Filtration System

Cabinet Parts



Control Panel Front



Main Housing

O-Ring

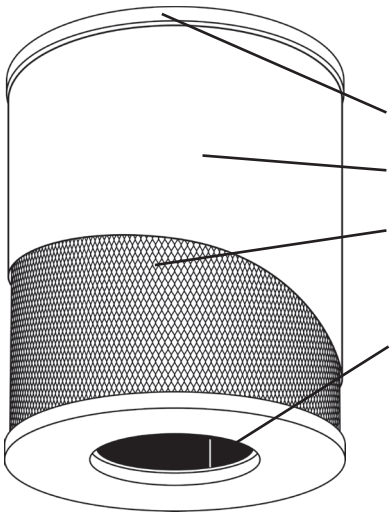
HEPA Cartridge

Pre-filter Holder

Filter Access Panel

Filter Parts Identification

HEPA Cartridge Parts



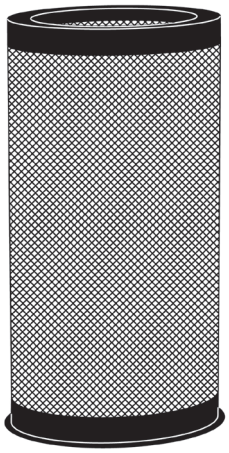
HEPA Filter

Pre-Filter - Foam

HEPA Filter Mesh (Protects HEPA Filter)

Inner Carbon Blanket - 3rd Stage Filter

Optional Carbon Canister



For third stage increased removal of chemicals and odors.

Located inside the HEPA filter.

Discard inner carbon filter when using the optional carbon canister.

Operating Instructions

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Risk of Airborne Contaminants Exposure.

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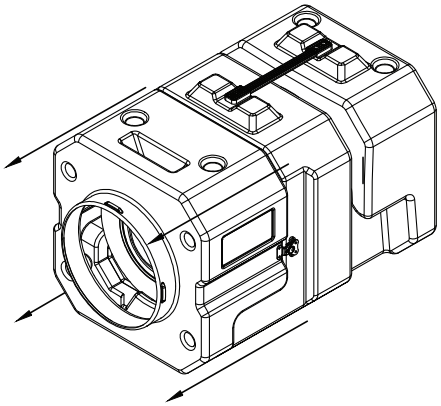
Do not operate equipment without access panel in place.

Wear appropriate protective clothing and mask when servicing filters.

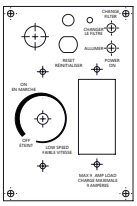


1. Pre-Start:

a. Unplug the unit.
b. Access the cabinet interior by releasing the 2 side mounted clamps and removing the filter access panel.
c. Confirm the interior of the unit is clean and free of contaminants.
d. The selected HEPA cartridge should be secured to the bulkhead and sealed with a bottom O-Ring.
e. Confirm the selected pre-filter is clean and fitted with the pre-filter holder firmly inside of the filter access panel.
f. Fit the filter access panel to the main housing and secure the 2 side clamps.

2. Operation:

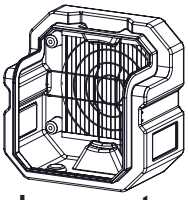
a. Plug the unit power cord into a suitable supply receptacle. The amber “Power On” LED should illuminate to indicate power to the unit controls.



b. Rotate the speed control fully clockwise to the lowest operating speed. Air is drawn into the unit, first through any pre-filters and then through the HEPA cartridge. The clean air is exhausted through the fan guard at the main housing outlet.
c. Rotate the control knob counter clockwise to increase the amount of airflow. A red ”Change Filter” LED will illuminate to indicate reduced airflow through the unit. The unit will continue to operate with reduced CFM until the cause of the restriction has been remedied.
d. To stop the operation, rotate the control knob, fully counter clock-wise.
e. Check operating speed, individual filter loading and inlet port for blockage.

3. Filter Inspection or Replacement:

a. Unplug the unit from the electrical supply.
b. Release the 2 side clamps and remove the filter access panel.
c. Use caution and established procedures to avoid unnecessary release of contaminants from the housing, pre-filters and HEPA filter cartridge during inspection or filter replacement.
d. Dispose of used filters carefully using appropriate procedures.
e. Foam sleeve and blanket type pre-filters can be rolled inside out as they are removed from service.

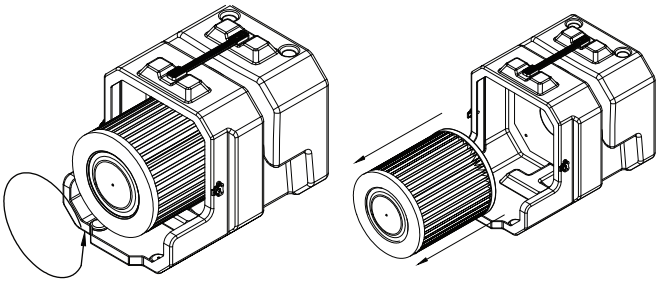


4. Pre-Filter Replacement:

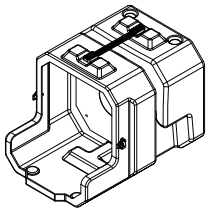
a. Access the pre-filter holder from the interior of the filter access panel. Note the operating position and orientation of the assembled pre-filter. (See Figure #1)
b. To remove, first rotate the pre-filter holder counter-clockwise to release the compression fit.
c. Lift the holder carefully from the filter access panel.
d. Removed pre-filter packs should be bagged and disposed with suitable procedures.
e. Clean the empty filter access panel and holder before fitting the selected replacement pre-filter pack into position.
f. Orient the pre-filter holder with the open slot at the top and the single vertical wire face towards the inlet.
g. Position the holder down onto the pre-filter and push down as the cage is rotated clockwise to engage the compression fit within the filter access panel.
h. Confirm the pre-filter packs are oriented correctly in the assembly, cover the 12 inch diameter inlet opening and are firmly in position.

5. HEPA Cartridge:

a. Inspect the HEPA cartridge with the filter access panel removed.



b. With the main housing secure, place hands flat against the smooth metal end cap of the HEPA cartridge to grip and rotate the cartridge counter clockwise to release it from the bulkhead.
c. The Loaded HEPA cartridge and O-ring should be bagged and disposed with suitable procedures.



d. Clean the empty housing before fitting the replacement O-ring and HEPA cartridge.
e. Press firmly to compress the O-ring as the HEPA cartridge is rotated clockwise to lock it on the bulkhead.

6. VOC Blanket (optional):

a. With the HEPA cartridge removed from the bulkhead, look inside the HEPA cartridge to locate the two ends of the VOC blanket.
b. Pull one end of the old inner carbon filter in and bend it into a loose roll so it can be removed.
c. Remove the inner carbon filter from the HEPA cartridge.
d. Remove plastic shrink wrap from the new inner carbon filter.
e. Unroll the inner carbon filter and roll it up in the opposite direction (this makes the filter follow a more contoured profile against the inner HEPA filter surfaces and helps keep it in place), place the rolled inner carbon filter inside the HEPA cartridge and gently unroll it until the ends 'butt' together and the filter is snug against the HEPA filter.

7. VOC Canister (optional):

a. Remove old carbon canister (if installed) by pulling it out from the inside of the HEPA filter.
b. If replacing an inner carbon filter with the carbon canister, remove inner carbon filter by following the steps a. to c. in section 6 (above).
c. Remove the plastic shrink wrap from the new carbon canister.
d. Slide the carbon canister into the HEPA cartridge, smaller end first. The carbon canister should slide all the way in until the metal edges at the base meet the HEPA filter.
e. Support the carbon canister with your fingers so it does not slide out when replacing the HEPA cartridge assembly into the unit.

Troubleshooting

Circuit Breaker:

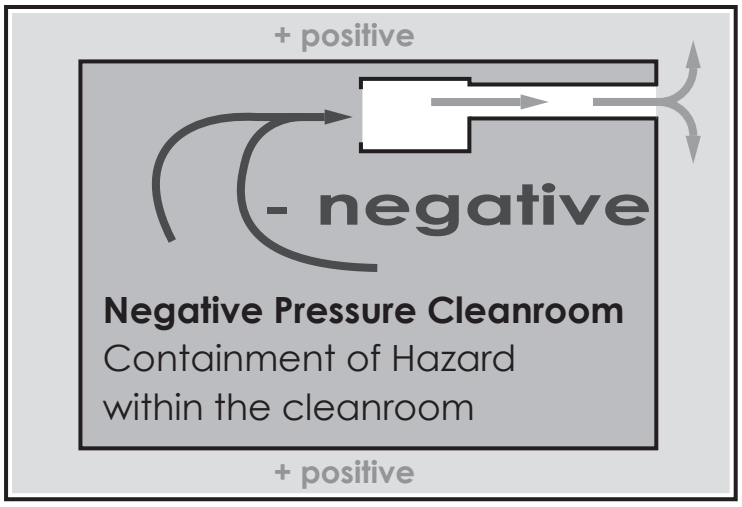
Onboard overload protection is set to trip at 12 amps. If tripped, all power will be lost to the unit and accessories connected to the duplex receptacle on the affected unit. Turn the unit control knob to the off position and unplug all accessory loads. Push the button on the circuit breaker to reset and the amber indicating light should illuminate to confirm power has been restored.

GFCI Trip Indicator:

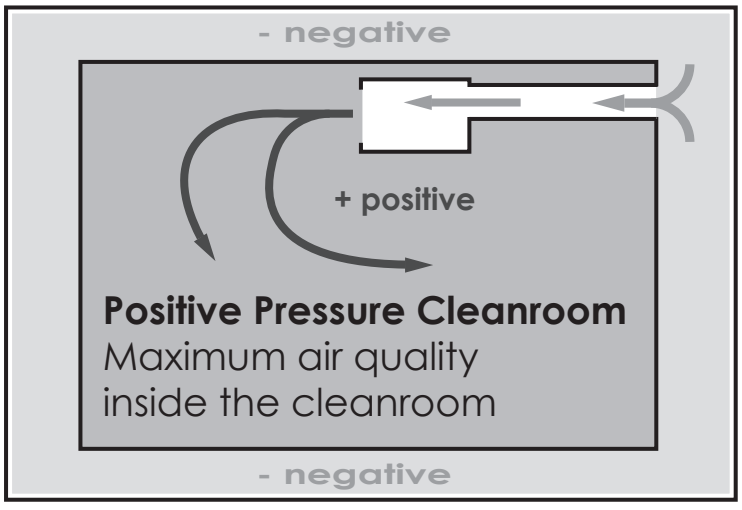
Press the TEST button every month to assure proper operation. A duplex receptacle located with the unit controls can be used to power additional equipment. The receptacle has ground fault circuit protection with light indication, test and reset buttons. To test operation, ensure the main assembly is plugged in to a live circuit and the power on LED is illuminated. Plug a test lamp into the GFCI receptacle and this light should remain on. Push the “TEST” button located on the GFCI receptacle to trip the device. The test lamp should remain off until you firmly push the RESET button located beside the “TEST” button. Power will be restored to the duplex receptacle.

Product Application Guidelines

To Create a Negative Pressure Environment



To Create a Positive Pressure Environment



Electrical Diagram - Control Detail

⚠ WARNING

Electrical Shock Hazard.

Can cause injury or death.

Disconnect all electrical power supplies before servicing.

Do no operate equipment without access panels in place.

Do not use this fan with any solid-state speed control device.

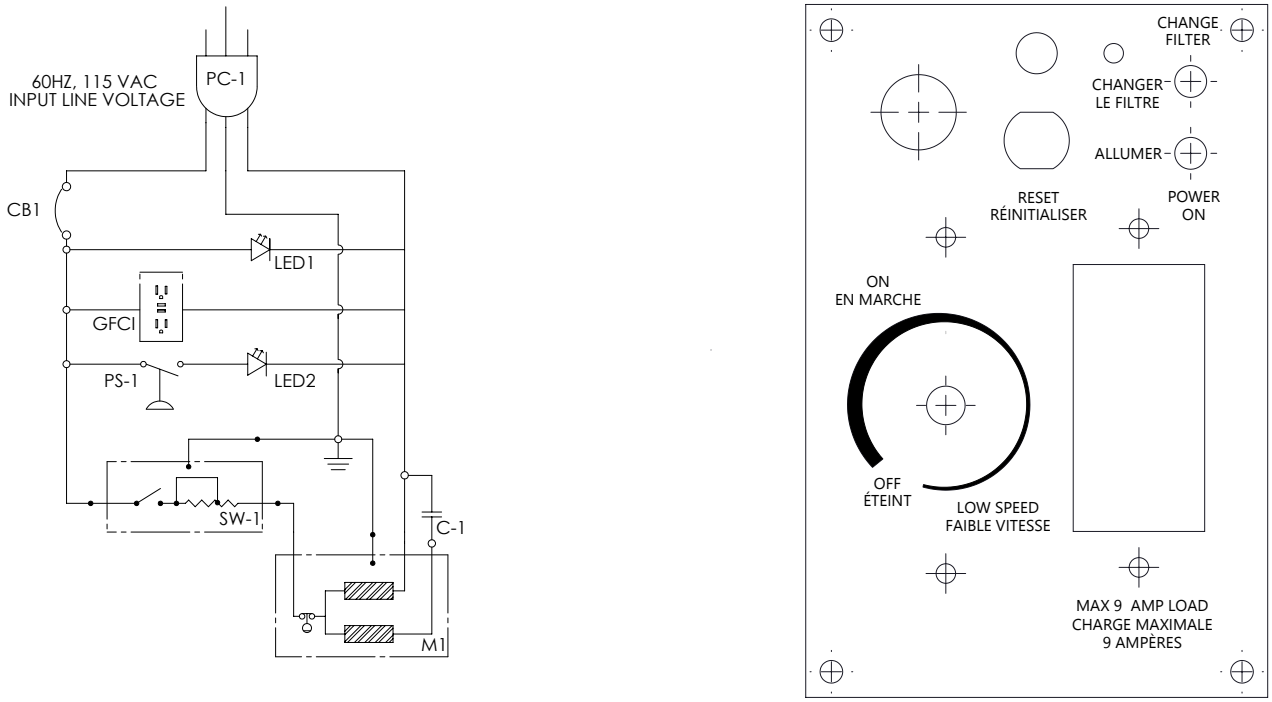


Figure 1.

ITEM NO.	PART NAME	DESCRIPTION	QTY
PC-1	Power cord		1
CB1	Circuit Breaker	12 Amps	1
GFCI	Duplex Receptacle	Ground Fault CI	1
PS-1	Pressure Switch		1
LED1	Amber LED	Power ON	1
LED2	Red LED	Change Filter	1
SW-1	Control Switch	Variable Speed Knob	1
C-1	Capacitor	25 µF	1
M1	Motor	250 Wheel/115V	1

Specifications - Airwash®PRO Portable Filtration System

Power Supply:	120 vac/1 ph. /60 Hz.
Operating Current:	2.6 amps. independent/11.6 amps with loaded receptacle
Variable Speed Control:	3050 RPM max.
Airflow:	690 cfm (1170 cu. m./hr.) nominal on high speed
HEPA Cartridge Efficiency:	99.97% minimum at 0.3 micron particle and above
Dimenstions:	19” W x 20” H x 32” L (482.6mm W x 508 mm H x 812.8 mm L)
Inlet/Outlet Connection:	12” dia. collar
Weight:	42 lb. (19 kg.)
STANDARDS:	This equipment meets the technical requirements of CSA C22.2 No. 113-15

Available Maintenance Parts

Item Number	Item Name	Item Description
90-H-14ME-ET	HEPA Cartridge	14” Easy Twist Filter with O-Ring Seal
91-H-1406-ET	1 “ Pleated Pre-filter	13” x 13” x 1” (1026454)

Optional Accessories

Item Number	Item Name	Item Description
92-H-1401-ET	VOC Blanket	14” Inner Carbon Blanket - Stage 3 filter
94-H-1402-ET	VOC Canister	14” ET Granulated Carbon Canister - Stage 3 filter
94-H-1402-UL	VOC Ultra Canister	25 lb. Granulated Carbon Canister