Hazards	silica exposure, electrical shock
Tools/Equipment	
Employee Group(s)	Facilities Management - Carpentry

Required PPE:

Safety Shoes

Ear Protection

SAFE WORK PRACTICES

- Do not perform the procedure or operate the equipment until you have been appropriately trained and authorized to do so by your supervisor.
- Inspect required personal protective equipment (PPE) and replace if required.
- For safety and optimized performance of the HEPA system, this equipment should be operated by trained personnel only.
- Follow "Procedures" on following pages. Failure to follow these rules and instructions could cause a malfunction of the air filter or unsatisfactory service and could void the warranty.
- Follow a regular service and maintenance schedule to ensure efficient operation.

Hazards:-

- High Speed Rotating Parts Hazard:-
  - Can cause injury 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.
- 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.
- 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.
- 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.

PROCEDURE

See the following manufacturer's operating instructions (pages 2, 3 and 4 attached).

⚠ WARNING

Electrical Shock Hazard.

Can cause injury or death.

Disconnect all electrical power supplies 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.

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 Cylinder 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.

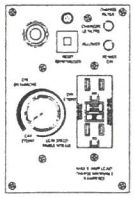

Figure 1.

   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 Cylinder. 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 or no airflow through the unit. The unit will continue to operate with reduced CFM until the cause of the restriction has been remedied. Check operating speed, individual filter loading and inlet port for blockage.
   d. Rotate the control knob counter clockwise to increase the amount of airflow. The red "change filter" LED should not be illuminated with clean filters when operating at full speed.
   e. To stop the operation, rotate the control knob, fully counter clock-wise.

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 (Fig. 2).
   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.

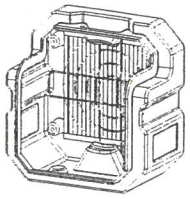

Figure 2.

4. Pre-Filter Replacement:

a. Access the pre-filter holder from the interior of the filter access panel (Fig. 2). Note the operating position and orientation of the assembled pre-filter (Fig. 3).

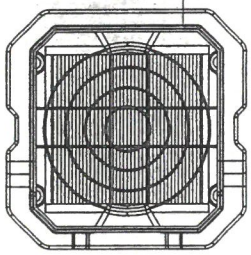

Figure 3.

b. To remove, first rotate the pre-filter holder counter-clockwise to release the compression fit (Fig. 4).

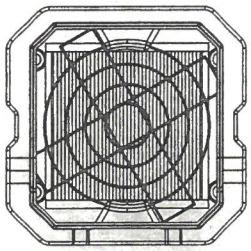

Figure 4.

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.

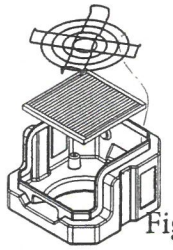

Figure 5.

f. Orient the pre-filter holder to provide secure compression fit for the selected pre-filter pack. (Fig. 5).
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 Cylinder:

a. Inspect the HEPA Cylinder with the filter access panel removed (Fig. 6).

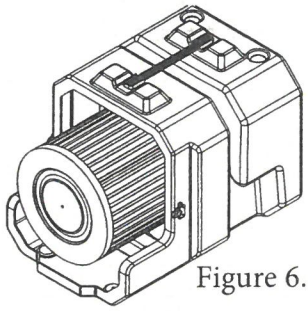

Figure 6.

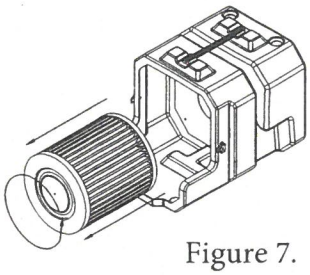

Figure 7.

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

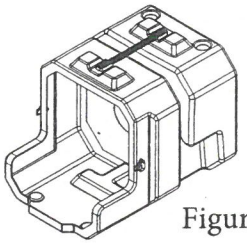

Figure 8.

d. Clean the empty housing (Fig. 8) before fitting the replacement O-ring and HEPA Cylinder.
e. Press firmly to compress the O-ring as the

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HEPA Cylinder is rotated clockwise to lock it on the bulkhead.

6. **VOC Blanket (optional):**
   a. With the HEPA Cylinder removed from the bulkhead, look inside the HEPA Cylinder 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 Cylinder and dispose.
   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 Cylinder 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 blanket 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 Cylinder, 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 Cylinder assembly into the unit.

Troubleshooting

If your issues continue to persist or are encountering other issues not listed below, please contact your local Hazmasters branch for further assistance. Contact information can be found on the last page in this manual.

Problem	Possible Cause	Solution
Unit does not operate	No power to the machine	Plug the unit into a wall outlet.
	Power cord damaged	Check to see if the cord is damaged, properly connected. If wires are exposed or cord is found to be damaged, please contact your local Hazmasters branch for servicing/repair.
	Switch not turned on	Turn the switch on.
	No power to outlet	Reset 12 amp breaker on control panel.
	GFCI tripped	Press the TEST button followed by the RESET button.
Filter change light is illuminated	HEPA filter is full	Replace filters.
	Air intake is restricted	Check ducting is free from bends and clear.
Circuit breaker has tripped	Power overload	Turn the unit off and push the button on the circuit breaker to reset the unit.