OMNIAIRE MiniForce II

HEPA Air Filtration Machine

Operation and Maintenance Manual

WARNING

Do not use with combustible or explosive material. Do not expose to water or rain. Connect only to grounded outlet with GFCI device. Disconnect power for cleaning and servicing. This equipment to be operated only by trained personnel. High intensity Ultraviolet light. Avoid eye and skin exposure.Do not operate without coverings. Do not look directly at UV light source. Wear UV eye protection.

CONFORMS TO UL STD 507
CERTIFIED TO CAN/CSA STD
C22.2 NO. 113-M1984

Safety Warning Instructions:

READ AND SAVE THESE INSTRUCTIONS

This equipment to be operated only by trained personnel.

Do not use with combustible or explosive material.

Do not expose to water or rain.

Connect only to grounded outlet with GFCI device.

Disconnect power for cleaning and servicing.

Do not operate if cord or plug is damaged. Contact a authorized service facility for examination and/or repair.

Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Arrange cord away from traffic areas and where it is not a tripping hazard.

Avertissement de sécurité Instructions:

LIRE ET CONSERVER CES INSTRUCTIONS

Cet équipement doit être utilisé que par un personnel formé.

Ne pas utiliser avec des matières combustibles ou explosives.

Ne pas exposer à l'eau ou à la pluie.

Connectez uniquement à une prise mise à la terre avec un dispositif GFCI.

Coupez l'alimentation électrique pour le nettoyage et l'entretien.

Ne pas utiliser si le cordon ou la fiche est endommagé. Contactez un centre de service autorisé pour examen et / ou réparation.

Ne pas passer le cordon sous un tapis. Ne pas couvrir le cordon avec des carpettes, les coureurs, ou revêtements similaires. Éloigner le cordon des endroits passants et où il n'est pas un risque de déclenchement.

The MiniForce II is a compact, portable HEPA air scrubber built on aircraft–grade aluminum housing, with four non-marking rubber casters, for easy deployment at your jobsite. It is used for removal of toxic mold, asbestos and lead dust during renovation and abatement projects, and for purifying air in commercial, factory sites and medical facilities. It can be used with multiple filter options such as HEPA, activated carbon plus MERV 9 primary/secondary filter. Additional accessoriesinclude intake manifold, flex ducting and quick clamps.

MiniForce II Specifications

Airflow: 325/375 CFM
Power Requirements: 115VAC/60 Hz/1.6 Amp
Filtration: HEPA filter 99.97% 0.3µ; MERV 9 primary/secondary filter Optional: MERV 11 pleated filter; OdorGuard 600 activated carbon filter; HEPA filter 99.99% 0.3µ
Recessed Controls: speed selector switch - HIGH/OFF/LOW,0-3" W.C. pressure gauge
Housing: aircraft grade aluminum; silicone sealed before riveting; 8" outlet; (1) rubber grip handle; (4) 3" hospital grade locking casters
Exhaust Collar: 8" diameter
Size/Weight with Filters: 15"W x 18"H x 27"L; 45 lbs.

Receiving Instructions

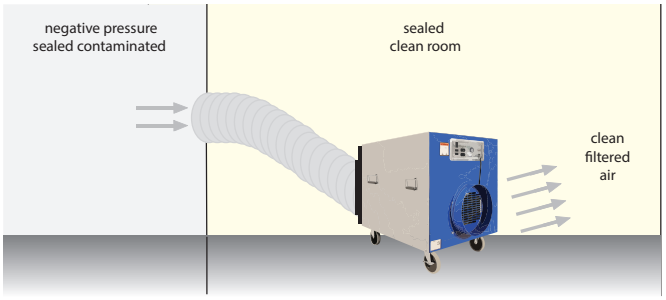
Visually inspect the unit for damage. Remove the primary/secondary filter and ensure that the HEPA filter has not been dislodged during shipping. The HEPA filter should be sitting on the filter guides and the filter tabs that hold the HEPA filter in place should be tight. TIP: Due to tolerance issues in the zeroing of the water column gauge, we recommend you note the initial reading of the water column gauge with the machine in HIGH SPEED and place the reading on the machine.

If the filter is not seated correctly then remove the filter tabs, reposition the filter, and reinstall the filter tabs before operation to ensure that there is no bypass around the filter. If the filter tabs are loose verify that the filter is in the correct position and retighten the filter tab nuts.

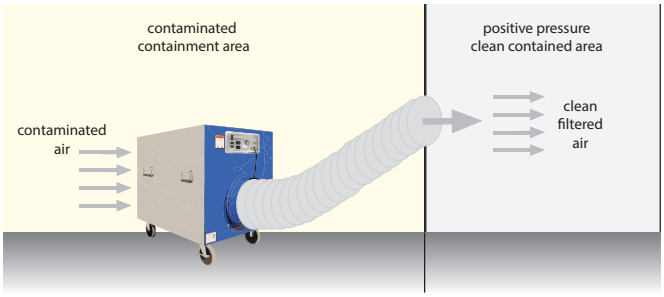
Maintenance of the MiniForce II

Due to tolerance issues in the zeroing of the water column gauge please note the initial reading of the water column gauge with the machine in HIGH SPEED operation.

Application Examples



To create ***NEGATIVE PRESSURE*** inside the containment, more air has to be exhausted out than leaks into the containment. Place the machine inside the containment and hook a flexible duct to the outlet ring of the machine exhausting to outside the containment. (See Above) All of the air being exhausted has been treated by the HEPA filter so no contaminants are being exhausted from the containment.



To create ***POSITIVE PRESSURE*** inside the containment, more air has to be pumped in than leaks out of the containment. Place the machine outside the containment and hook a flexible duct to the outlet ring of the machine ducting the exhaust into the containment. (See Above)

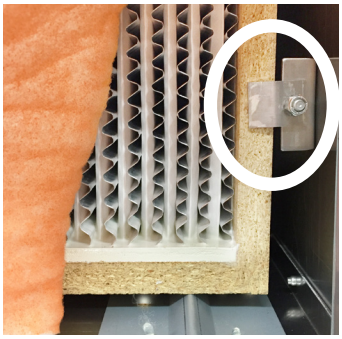
Prefilter Replacement

Once the gauge reads 0.2 above the initial reading with the machine in HIGH SPEED then the prefilter must be replaced. When replacing the prefilter ensure that the orange side of the prefilter is facing the HEPA filter. At this time the gauge reading will drop.

When the gauge reading does NOT drop after replacing the prefilter then the HEPA filter is full and must be replaced to maintain airflow.

Please note that even though the HEPA filter is fully loaded the filter is still removing the particulates from the air, but at a reduced airflow which will affect the ability of the machine to provide positive or negative pressure within the containment.

HEPA Filter Replacement



filter tab

To replace the HEPA filter remove the screen/manifold and remove the prefilter. You will see 4 filter tabs holding the HEPA filter in place (see photo). These tabs are secured with 1/4-20 Nylock nuts, which require a 7/16" wrench or socket to remove them. Remove all 4 filter tab retaining nuts and remove the filter tabs as well. Slide the HEPA filter out along the filter guides and remove it from the machine. **ALWAYS TREAT THE USED HEPA FILTER AS HAZMAT AND PROCESS IT ACCORDING TO YOUR ESTABLISHED HAZMAT PROCEDURES.**

To replace the HEPA filter ensure that the gasket on the HEPA filter faces inwards toward the flange, slide the filter in place along the filter guides and re-install the filter tabs and filter tab securing nuts. The nuts should initially be tightened to where the stud is flush with the end of the nut. This will compress the gasket on the filter approximately 1/2 of the thickness. This allows for the filter to be reseated and tightened at a later time if necessary.

Troubleshooting

Your Omnitec Design machine is designed and engineered to provide years of trouble free service. Occasionally though problems do occur. Here are some helpful tips and solutions to common problems.

The machine does not start or just hums when turned on

1. Check the circuit you have the machine on and ensure that it has power.
2. Remove the HEPA filter and push the blower wheel by hand. If it does not move freely or if you hear a grinding/scraping noise as you spin it then the blower wheel is touching the side of the blower housing. The most common reason for this is that due to an impact of some kind the motor mounts have been bent. Remove the motor/blower assembly and replace the bent motor mounts.
3. If the blower wheel spins freely the next thing to check is the capacitor. With the HEPA filter still removed from the machine push the blower wheel and as it is spinning turn the power switch on. If the machine runs at this point then the problem is in the capacitor. Ensure that the wiring connected to the capacitor is plugged in and not broken. If the wiring is correct, then the capacitor is faulty. Replace the capacitor.

The machine will run for a few minutes then turn off

1. This machine MUST be run with a HEPA filter in place. If you are trying to run it without a filter in place the motor will overheat within a few minutes and the thermal overload in the motor will engage. Let the motor cool off for 30 minutes, install the filter and try running the machine again.
2. If the filter is in place and the machine still shuts off after a few minutes then the motor is faulty. Replace the motor.

The machine vibrates excessively when running

1. This is an indication that the motor bearings are worn. If the machine is allowed to continue running at this point the vibration will cause the center hub of the blower wheel to separate from the wheel requiring replacement of both the motor and blower. Replace the motor.

If the machine does require electrical servicing of the motor or switches the see the wiring diagram to aid in repair or troubleshooting.

Ordering Info	Part #
OmniAire MiniForce	MF100C
OmniAire MiniForce 99.99% 0.3µ	MF100CMED
Primary/Secondary Two-Stage Filters (box of 20)	MFP1313
MERV 11 Pleated Filter	OPF1212
HEPA Filter 99.99%, 0.3µ (metal frame)	MFH12G
HEPA FILTER 99.97%, 0.3µ (pb frame)	MFH12
OdorGuard 600 Carbon Filter	OG1212
Intake Manifold Kit (Manifold, Clamp & 3' Duct)	MFIM8KIT
ABS Plastic Intake Manifold, 8" Dia.	MFIM8
Quick Clamp, 8"-10" Dia.	QCW12
Flexible Duct, 8" Dia. x 25' L	MD8

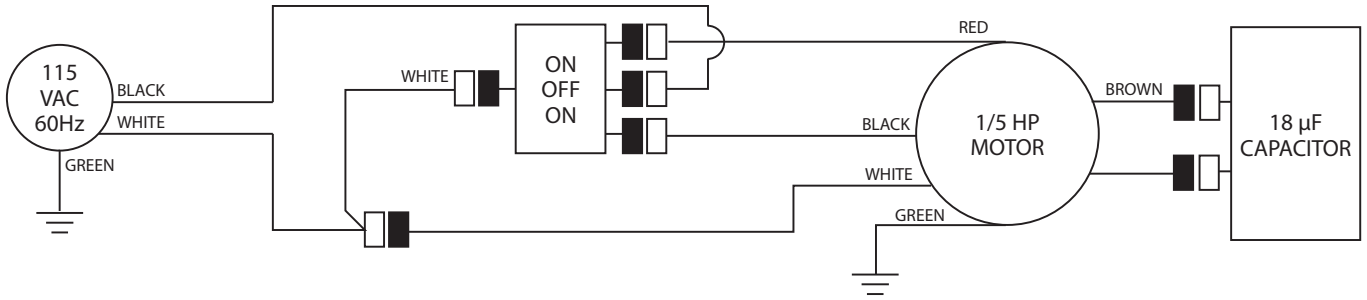


Diagram Legend

- Wiring Connector
- Terminated (Capped) Wire
- (R) Red LED Light
- (A) Amber LED Light
- (G) Green LED Light

OMNITEC DESIGN, INC.

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MODEL		
MF100C		
Wiring Diagram		
DRAWN BY: A. Briceno		REV: A
SCALE: Not to Scale	DATE: February 20, 2017	SHEET: 1 of 1

Omnitec Design Inc. LIMITED WARRANTY

Omnitec Design Inc warrants, for a period of twelve (12) months from the date of purchase, that all Products, component parts and accessories, excluding filters, will be free from defects in material and workmanship under normal use and service.

THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT OF DEFECTIVE PARTS F.O.B., Omnitec Design Inc 4640 Campus Place Ste. 100, Mukilteo, WA 98275 Phone: 425-290-3922

In order to keep this warranty in effect for the aforementioned twelve-month period, the purchaser must (i) promptly, i.e., immediately upon discovery, inform Omnitec Design Inc's customer service of any defects, and (ii) properly use and maintain the Product prior to the discovery of any defect.

This warranty does not cover normal wear and tear or defects caused by (i) improper or negligent handling or unauthorized modifications; (ii) defective or improper premises, chemical, or electrical influences; or (iii) weather or other forces of nature.

In order to provide the best customer service possible, Omnitec Design Inc requests that purchaser completes the enclosed LIMITED WARRANTY REGISTRATION FORM and returns it to Omnitec Design Inc within 30 days of purchase date.

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LIMITED WARRANTY REGISTRATION

The undersigned has read and understood the above Warranty and Limitation of Warranty and Limitation of Remedy.

PRODUCT # _____ SERIAL # _____

PURCHASED FROM _____ DATE _____

CUSTOMER INFORMATION

COMPANY _____ PHONE _____

STREET _____

CITY _____ STATE _____ ZIP CODE _____

BY _____ DATE _____

PLEASE SEND TO:
Omnitec Design Inc 4640 Campus Place Ste. 100 Mukilteo, WA 98275