



# **OMNIAIRE 2500 Series** **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.



CONFORMS TO UL STD 507:  
2017 Ed.10+R:27May2020

CERTIFIED TO CAN/CSA STD  
C22.2 NO. 113-M2018

## **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 simili- laires. Éloigner le cordon des endroits passants et où il n'est pas un risque de déclenchement.

The OmniAire 2500 series is family of construction grade negative air machines, featuring three models with progressive features. These machines contain a powerful blower and a 24"x24" HEPA, either 6" or 12" deep. These machines, along with their many accessories can be used to remove airborne particulates and biocontaminants in many applications, including abatement and construction. These machines can create positive or negative pressure for containment areas when required. For collection of construction dust from cutting or grinding of concrete, wood or plaster, the HEPA filter can be replaced with an economical multi-pocket bag filter. For VOCs and odor control, VaporTrap or OdorGuard activated carbon filters can be quickly installed.

## OmniAire 2500 Family Specifications

	OA2500 Prime	OA2500 Plus	OA2500 Pro
Airflow (CFM) – with originally installed HEPA Filter – TrueCFM™ *	1000 – Low 1600 – High	1800 – Low 2200 – High	1200 – 2500, Variable speed
Primary Filter	HEPA 6" Particle Board Frame, 99.97% efficiency @ 0.3u	HEPA 12" Particle Board Frame, 99.97% efficiency @ 0.3u	HEPA 12" Metal Frame, High Capacity 99.97% efficiency @ 0.3u
Secondary Filter(s)	MERV-8 Pleated Filter, 1" thick	MERV-8 Pleated Filter, 1" thick	MERV-8 Pleated Filter, 1" thick
Noise**	70-74dB (at 6')	70-74dB (at 6')	70-74dB (at 6')
Negative Pressure Ready	Yes	Yes	Yes
Power Requirements	115 VAC/60 Hz/12A	115 VAC/60 Hz/12A	115 VAC/60 Hz/12A
Size	36"W x 28"H x 31"L	36"W x 28"H x 31"L	36"W x 28"H x 31"L
Housing	Aircraft Grade Aluminum	Aircraft Grade Aluminum	Aircraft Grade Aluminum
Speed Options	2-Speed	2-Speed	Variable
HEPA Filter Change Indicator	Yes	Yes	Yes
Run Meter		X	X
Audio Alarm		Optional (-A model)	
Pressure Gauge			X

\* OmniTec machines with a TrueCFM™ air flow specification have undergone a rigorous and precise method for CFM measurements that is transparent and repeatable by any qualified third party. TrueCFM™ specifications are established using a new (unloaded), factory-certified HEPA filter, installed in the applicable OmniTec machine. For details regarding test setup and procedures, you may contact us at [info@omnicleanair.com](mailto:info@omnicleanair.com)

## Receiving Instructions

Visually inspect the unit for damage. Remove the secondary filter and ensure that the HEPA filter is tight in place. The HEPA filter should be sitting on the filter guides and the filter tabs that hold the HEPA filter in place should be tight. 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 (see section below for photos and information on removal/installation of the HEPA filter). Tighten as necessary.

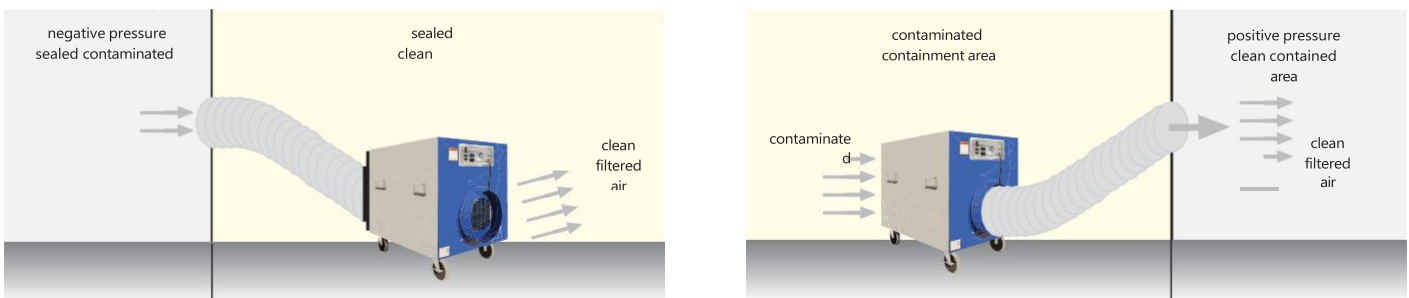
## Start the machine

The OA2500 PRIME and OA2500 PLUS models have a two-speed switch; place the switch in the HIGH or LOW position to turn the machine on. The OA2500 PRO model has a dial to turn on the machine and adjust the speed as needed. When filters are clean, the REPLACE FILTER indicator light will be off. As the filters fill with dust the efficiency of the filters improve, but the air flow will decrease and the differential pressure across the filter increases. Change the secondary filter frequently to protect the HEPA and to get more air flow. When REPLACE FILTER indicator light comes on, the HEPA filter may need to be replaced to increase the air flow. Additional accessories such as an optional intake manifold can be used on the suction side of the unit providing 12" connection for the flex duct. The discharge side of the unit has a 12" diameter ring for a flex duct.

## Application Requirements/Examples:

For Asbestos and mold abatement, the machine must be operated with a HEPA filter in place. Also, it is recommended to use the secondary filter and replace it frequently to extend the life of the HEPA.

## Creating Positive or Negative Pressure:



To create **NEGATIVE PRESSURE** inside the containment, more air must be exhausted compared to air entering the containment area. 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 gone through the filters.

To create **POSITIVE PRESSURE** inside the containment, more air must enter the space compared to the area leaking out of the containment area. 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)

## Bag Filter Usage (Option)

Bag filters have a large dust holding capacity and require replacement when the airflow of the machine drops below required minimum flow. Even when the filter is fully loaded it is still removing the particulates from the air at the rated efficiency but at a reduced airflow.

## Vapor Trap Carbon Filter (Option)

Activated carbon filters are designed to remove odors and gaseous pollutants from air. These filters are an effective and quick solution to your VOCs and odor problems. The selection of the carbon filter depends on the type and amount of the gaseous pollutants. You will need to determine the requirements of your application. The Vapor Trap is a disposable V-Bank, 24"x24"x12" filter and contains 36lb of activated granular carbon. It can be installed in place of a HEPA filter. We recommend the secondary filter in front of the Vapor Trap to extend its odor absorption capacity.

## Maintenance

The blower and motor require no maintenance when the machine is operated with proper filters in place.

## Prefilter Replacement

The secondary filter should be changed when the filter shows signs of load. Simply raise the screen in the back of the machine and swap out the filter. **NOTE for OA2500 PRIME users or other users with a 6" Deep HEPA:** In this case there will be a gap between the HEPA filter and the back edge of the unit. You can keep the prefilter in place by rotating the HEPA clips for the 12" deep HEPA to hold the prefilter in place, as illustrated below:



## HEPA Filter

Your OmniAire Negative Air Machine comes equipped with a pressure sensor that will notify you when your HEPA filter is nearing its full capacity. When this occurs a "change filter" indicator light on the front panel turns on (and will stay on). This indicates the HEPA is nearing its capacity limit. During this time, the machine will continue to effectively capture particles (in fact it will increase the percentage of particles being captured), but air flow will be reduced. The HEPA can and should be replaced sometime after this indicator light has been turned on when airflow has been reduced to a point where the airflow is less than required for the application. Note that a full prefilter may prematurely trigger this change filter indicator as well, always replace the prefilter(s) first.

To replace the HEPA filter unplug the machine and remove the screen/manifold, then remove the secondary filter. You will see 4 filter tabs holding the HEPA filter in place (see photo). These tabs are held in place by 10mm bolts. Use a 10mm driver to remove all four bolts and tabs and set aside. 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. Tighten the tabs so that the gasket is compressed approximately  $\frac{1}{2}$  of the thickness. This allows for the filter to be reseated and tightened at a later time if necessary.

As this machine can take several different HEPA filter models, adjustment of the pressure sensor is recommended if you install a different HEPA filter (in terms of depth and/or capacity), or whenever you use a non-OCA branded HEPA. Replacement with the same specifications should not require an adjustment of this sensor.

Depending on the manufacturing date of this machine, the OA2500's pressure sensor is either inside the machine, behind the HEPA filter, or accessible from the front of the machine. Follow the procedure based on which machine configuration you have.

**Version 1: Your machine has a small black access plug on the front of the machine next to the control panel as shown:**



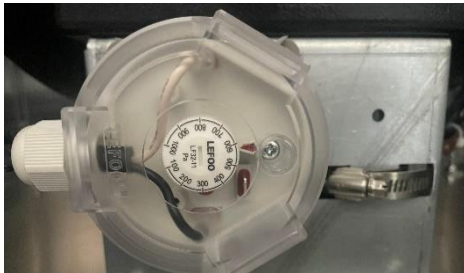
The OA2500 model's pressure sensor can be adjusted after removing the black plug. This calibration can be done while the machine is running. Using a piece of cardboard, cover about half of the back (intake) area of the machine see below. As you slide the cardboard to cover more of the machine, the change filter light should go on when about 80% of the full intake is covered. You can use a small flat head screwdriver to adjust the sensor to ensure the light turns on at that point.





**Version 2: Your machine does not have a small black access plug on the front of the machine:**

The OA2500 model's pressure sensor is inside the machine, behind the HEPA filter. When you remove the old HEPA filter to be replaced, take note of the value of the pressure sensor. The image at right shows a photo of the interior of the machine with the HEPA removed. The Pressure Sensor is shown at the bottom of the photo (and in this photo the clear cover for the sensor has been removed). The clear cover can be removed using a Philips head screwdriver.



The image above shows a close-up of the sensor itself with the clear cover in place.

Before adjusting this sensor, take note of the current setting as read from the dial. The table below shows a recommended setting range based on the different HEPA filters that are compatible with this machine. After adjusting the sensor, replace the clear cover, install the HEPA, the pre-filter, and the back gate to prepare the machine for use. If the light is on, then adjustment to a lower value is required.

HEPA Model #	Specifications	Likely Pressure Sensor Range
OAH2424-10	6" Depth, Standard Capacity, 99.97% Efficiency	550-580
OAH2424-20	12" Depth, Standard Capacity, 99.97% Efficiency	500-550
OAH2424-30	12" Depth, High Capacity, 99.97% Efficiency	480-530
OAH2424-40	12" Depth, Standard Capacity, 99.99% Efficiency	480-530
OAH2424-50	12" Depth, High Capacity, 99.99% Efficiency	480-530

Additional adjustment may be necessary, and a further level of fine-tuning can optionally be done. To fully calibrate the sensor, after replacing the HEPA, pre-filter, and back screen, turn the unit on at HIGH or full speed, and after 30 seconds, place a piece of cardboard covering 50% of the back screen as shown in the image to the right. As you slide the cardboard to cover more of the space, the light should turn on when you cover between 80% and 90% of the open space. This is your ideal setting and it may take several iterations. If the light comes on too late, then the sensor value must be adjusted to a higher value. If the light comes on too early, then the sensor value must be adjusted to a lower value.



## Bag Filter Replacement



The bag filter housing is pre-installed using filter tabs and nuts, making your machine ready to use. The bag filter is secured inside the housing with 4 P-clips. To remove the bag filter, turn P-clips 90 degrees and pull it out. Then install the new bag filter and secure it using the same P-clips.

## V-Bank Carbon Filter Replacement

This machine can operate with two types of Carbon Filter banks. One is removed/installed the same way as the HEPA filter. The other is placed inside the Bag Filter housing. Refer to the appropriate previous section for removal/replacement procedure.



# Troubleshooting

Your OmniAire machine is designed and engineered to provide years of trouble free service. Occasionally problems occur. Here are some helpful tips and solutions.

## ***The machine does not start***

1. Check that the unit is plugged in and there is 115VAC available. Select either LOW or HIGH speed to turn the machine on (PRIME/PLUS), or turn dial to power on the unit (PRO)
2. Check the circuit breaker and reset if necessary.
3. Contact Omni CleanAir technical support to troubleshoot further.

## ***The machine just hums when turned on***

1. Unplug the unit.
2. Remove the HEPA filter and push the blower wheel by hand. If it does not move freely or if you hear a grinding/ scrapping noise as you spin it, then the blower wheel is touching the side of the blower housing. This may be due to an impact of some kind and the motor mounts have been bent. Contact Omni CleanAir technical support.

## ***The machine will run for a few minutes then turn off***

1. The machine must have a HEPA (or Bag or VBANK) filter installed to operate properly. If you are trying to run it without a filter in place, the motor may overheat within a few minutes and the circuit breaker may trip. Reset the circuit breaker, let the motor cool off for 30 minutes, install the primary filter and try running the machine again.
2. Contact Omni CleanAir technical support to troubleshoot further.

## ***The machine vibrates excessively when running***

1. This is an indication that the motor bearings may be worn out. If the machine continues 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. Contact Omni CleanAir technical support.

### Omni CleanAir LIMITED WARRANTY

This warranty policy covers Equipment (Machines and Accessories) sold by Omni CleanAir and applies to the OmniClean, OmniTec, and AgriAir portfolio of brands. Omni CleanAir warrants that our products are free from defects in workmanship and materials under normal use during the warranty period.

All OmniClean machines including the OCA500, 1200 and 1500 series, excluding consumables come with a standard two (2) year warranty. All OmniTec and AgriAir machines, excluding consumables come with a standard one (1) year warranty. Warranty covers parts and labor only, excluding consumables. Consumables (HEPA filters, prefilters, carbon filters, and UV light bulbs) carry no warranty other than to be free of defects upon arrival. Non-Consumable accessories come with a standard ninety (90) day warranty.

The warranty extends to the following parties:

- Customers (individuals or companies) to whom Omni CleanAir directly sells products covered by this policy.
- Customers (both individuals and companies) who purchase Omni CleanAir products from an authorized distributor or reseller.

This limited warranty is not transferrable or assignable to any subsequent purchaser and is only applicable in the country where the product was originally purchased.

The following circumstances are not covered by this warranty policy:

- Damage caused by an act of nature such as flood, fire, wind, earthquake or lightning.
- Damage caused during shipping or an impact event with other objects.
- Damage caused by improper care or negligence.
- Damage caused by misuse, abuse, mishandling or misapplication.
- Damage caused by alteration or adjustments by unauthorized personnel.

Under no circumstances shall Omni CleanAir or any supplier of Omni CleanAir be liable for any loss, damage or expense, including, but not limited to, loss or damage arising out of the failure of the products to operate for any period of time, inconvenience, the use of rental or replacement equipment, loss of profits or other economic loss, or general, direct, special, indirect, incidental or consequential damages or property damages.

Many states and localities have their own varied codes and regulations governing sales, construction, installation, and/or use of Equipment for certain purposes. While Omni CleanAir attempts to assure that its Equipment comply with such codes, it cannot guarantee compliance, and cannot be responsible for how Equipment is installed or used. Omni CleanAir recommends that, before purchasing and using Equipment, purchasers review the Equipment application, and federal, state and local regulations, to be sure that the Equipment, installation and use will comply with them.

Omni CleanAir offers extended warranty through the Gold Care Membership Program, for as long as membership status is maintained. For more information, please visit <https://www.omnicleanair.com/resources/gold-care-membership>.

### To Submit a Warranty Claim or Receive Technical Support

Contact our Technical Support Department at 425-512-0379 or by email at [support@omnicleanair.com](mailto:support@omnicleanair.com). Hours are Monday through Friday 7:30am – 4:00pm PST. Please have the product model name and serial number available, along with the purchase date and invoice number, if applicable. Our service technicians will work with you to diagnose your technical issue and recommend a suitable course of action to solve your problems swiftly and to your satisfaction.

If it is determined that your product is defective and under warranty, OmniClean will repair or replace, at our discretion, any faulty parts or equipment. A Return Merchandise Authorization (RMA) will be issued for the defective product.

Customer to arrange and ship the product to Omni CleanAir at the customer's expense and must use original packaging. For units that have failed within 30 days, Omni CleanAir will pay the cost of return shipping from the customer site. If Omni CleanAir determines that the Warranty Claim is valid, Omni CleanAir will be responsible for shipping the repaired product to the customer upon completion of any repairs or replacements.

In instances where equipment is damaged in transit either while being returned to Omni CleanAir or after repairs have been completed, Omni CleanAir and the customer will need to work together to resolve these situations with the freight carrier(s) involved.

- If a shipment is made on the customer's account with a third party freight carrier, the customer is responsible for filing any claim for reimbursement and will be responsible for any associated repairs or the replacement of the Equipment in question.
- If a shipment is made on Omni CleanAir's account with a third party freight carrier, and the Equipment arrives at the customer location clearly damaged, it is the responsibility of the Customer to reject the freight carrier's delivery. If the customer accepts the shipment and determines after the fact that the Equipment was damaged during shipment, the customer is responsible to provide photos, an inspection report, and any other information to Omni CleanAir within 14 days, in order for Omni CleanAir to file a claim with the third party freight carrier. Once the claim has been filed, Omni CleanAir will work with the customer to address the damage incurred.