

## **Adjustment of Pressure Sensor During HEPA Replacement (OA2500 Family and OA2000 PLUS/PRIME models)**

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.

As this machine can take several different HEPA filter models, adjustment of this 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 using a HEPA filter 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 in Figure 1 (below):**



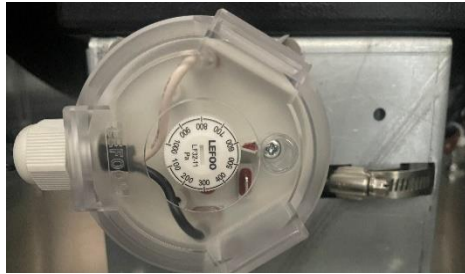
The OA2500 model’s pressure sensor can be adjusted after removing the black plug. This calibration can be done while the machine is running. Using a piece of cardboard, cover about half of the back (intake) area of the machine – Figure 2 (below). As you slide the cardboard to cover more of the machine, 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.



To replace the black plug, simply reinsert it back in the hole. You may need to squeeze the inner ring from one side and the apply pressure on the other side.

**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. Figure 3 (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. Figure 4 (below) 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 Figure 5, 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.

