

**BOFA Filtration Systems**  
**Tips for Reading the Indicator Lights & Replacing the Filters**  
**(AD Base C180 and AD-350)**  
Used with the Library Innovation Studios Universal Laser Cutters

**Reading the Indicator Lights on AD Base C180 BOFA filter:**

(this BOFA is the one now owned by the libraries in Geneva, La Vista, and Bellevue)



When the filter is nearing full, a yellow light would be in the middle circle next to the “triangle with the!””. When this Yellow light it on, it means that at least one of the two filters is getting full (it first goes on when the filter is about 75 percent full). So it actually could be some time (perhaps months) before the red light comes on. However, once the yellow light comes on, it is a good time to ask for a replacement filter to have on hand. When the RED light goes on, it is time to stop using the Laser and Bofa and change one or both of the filters.

So Green Good.

Yellow--Please check to see if you have a replacement filter on hand--but you can still use the machine for now.

Red—Do not use the laser cutter when the Red light is on the BOFA filtration system. You need to change one or both filters.

In this BOFA system, there are two filters, the bag filter and the Combined Filter. It is possible that only the bag filter is full as that one generally fills up first. However, when the Combined Filter is full, it's best to change both filters (according to the BOFA's manual).

So how do you know which filter to change--the combined filter or the bag filter or both? First swap out the filter bag. Once installed, check to see if you get a green light. If all is well, you can use the laser and set aside the unused new combined filter until it is needed in the future. Take care to keep track of your replacement filters, these are expensive. If the light is not green, replace the combined filter as well. An indicator of the combined filter being at its end of life is odor. If you cut a piece of wood and the odor is strong, it is time to think about replacing this filter.

## **So how do you change the filter (or filters) when the red light goes on?**

Make sure you read the two paragraphs just above this question first. Then the next page shows the instructions from the BOFA manual for this model, However, read this entire document carefully before changing either filter.

**IMPORTANT NOTE:** When one of the Library Innovation Studio host libraries changed out the bag filter, somehow it was pushed to the side or back when they closed the BOFA. This shifted the bag filter and the red light soon came on again in a few weeks because the new filter really wasn't able to do its job. So be careful when installing the filter and closing the machine back up. However, a person with average mechanical skills should be able to change these filters if they read and follow the instructions in this document. Following the instructions should give you a proper installation.

After a new filter is successfully swapped out, place the old full filter in the empty box that the new filter came in and seal the box so that dust does not escape needlessly. Simply dispose the box with the used filter in the trash bin.

Instructions lifted from the BOFA manual for this model:

### **Filter Replacement C180**

#### **Bag replacement**

Isolate the electrical supply to the extractor

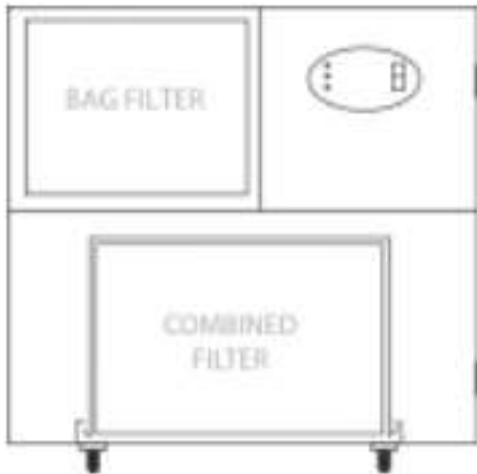
1. Undo the door knobs by turning through 90°, and open the door.
2. The bag filter is the highest of the filters (See fig 16) Slide the pre filter tray outwards from the extractor.
3. Remove the two locating lugs by the bag filter inlet, undo the two Velcro straps and separate the bag filter from the tray.
4. Replace with new bag filter ensuring Velcro straps are secure.
5. Press the locating lugs into place at the bag filter inlet, slide the tray into place. Close door fasten door knobs and reconnect the power supply.

#### **Combined Filter Replacement**

Isolate the electrical supply to the extractor.

1. Undo the door latches by turning through 90° and open the door.
2. The Combined filter is the lower of the two filters (see Fig 16).
3. Undo the clips either side of the filter, carefully remove the combined filter from the unit.
4. Replace with new and secure using the clips.
5. Close the door and turn door latches.
6. Reconnect power supply.

**Fig 16 - Base C180 filter layout**



**Vendors for BOFA Filters:**

NLC generally asked several sources for filter prices before purchasing. In the past we checked with those that follow:

Jeff Jarko, Laser Systems & Support, [jjarko@lasersystemsusa.com](mailto:jjarko@lasersystemsusa.com) (email)

Tim Watters, Mid-West 3D Solutions, [tim@mw3ds.com](mailto:tim@mw3ds.com) (email)

BOFA, [Bofainternational.com](http://Bofainternational.com) (website)

Midwest Technology, [Midwesttechnology.com](http://Midwesttechnology.com) (website)

If you are getting prices from vendors, make sure you know how much they are charging for shipping so you can really compare prices.

McCook has the AD350 BOFA and needs these filters:

		Price Around	
A1030056 - Pre Filter AD350		\$110.00	
A1030055 - Combined Filter AD350		\$305.00	

Geneva, La Vista, and Bellevue has the C180 BOFA and needs these filters:

		Price Around	
A1030050 - Combined Filter C180		\$265.00	
A1030077 - PreFilter C180		\$175.00	