AIR FILTRATION - MANUAL

PMCG ORIGINAL INSTRUCTIONS

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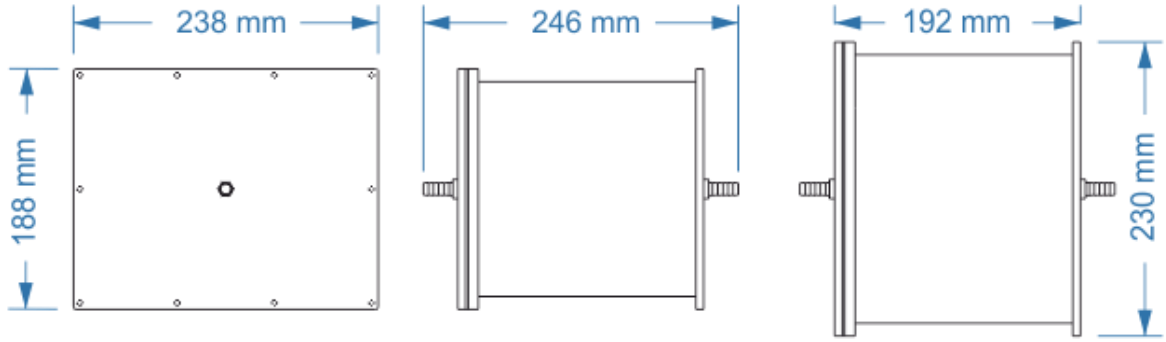
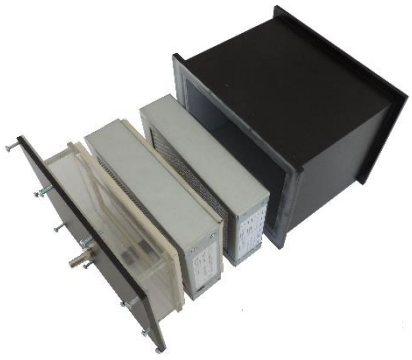
INTRODUCTION

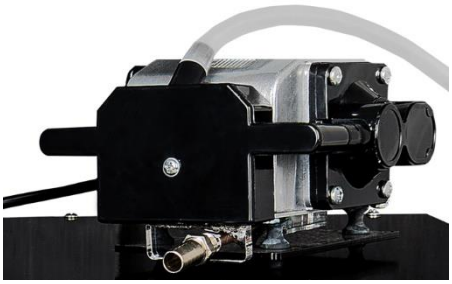
Our stand alone, positive pressure filtration system is designed to deliver clean air to display cases or other small enclosures. A positive pressure system not only delivers a stream of clean air but also prevents dust and other pollutants from entering case from outside.

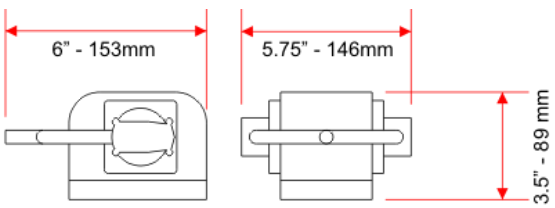
The system includes a filter housing ready to accept two filtering cartridges and air pump. The most common configuration consists of one activated carbon and one dust cartridge.



Housing is built from non-off gassing plexiglass painted black.







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CARTRIDGES

Activated Carbon

Activated carbon cartridges are made of galvanized steel, sheet and mesh. On one side a silicone gasket is included.

Size: 200 mm x 150 mm x 50 mm

For adsorbent ability for activated carbon cartridges, please visit our site: http://www.preservatech.com/downloads/

Dust

Dust cartridges are made of galvanized steel, sheet and mesh. On one side a silicone gasket is included.

Size: 200 mm x 150 mm x 50 mm

Dust filters are produced in two classes: F-7 and H-14 (absolute filter).

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Class	Efficiency	Typical controlled contaminants
F7	80%-80%	Particle size within 0.3µm-1.0µm, all bacteria, cooking oil, most smoke, copier tonner, most paint pigments.
H14	≥ 99.995%	Particle size bigger than 0.3µm Virus [unattached], all combustion smoke, Radon progeny

Note: Higher grade filters require changing the cartridges more often.

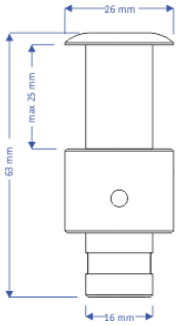
PACKING LIST

- Housing with installed 2 cartridges (as per client's specification.
- Air pump
- Silicone (8mm diameter) hose to connect air pump with filter (1m)
- Silicone hose (16 mm diameter) to connect filter with display case. (2m)
- Brass air connector
- Optionally: switch if filter is used with air quality sensor.

INSTALLATION

Air Hoses

Filter housing has two fittings installed on both ends: smaller one (on the removable side) is an input from air pump, larger one is an output.



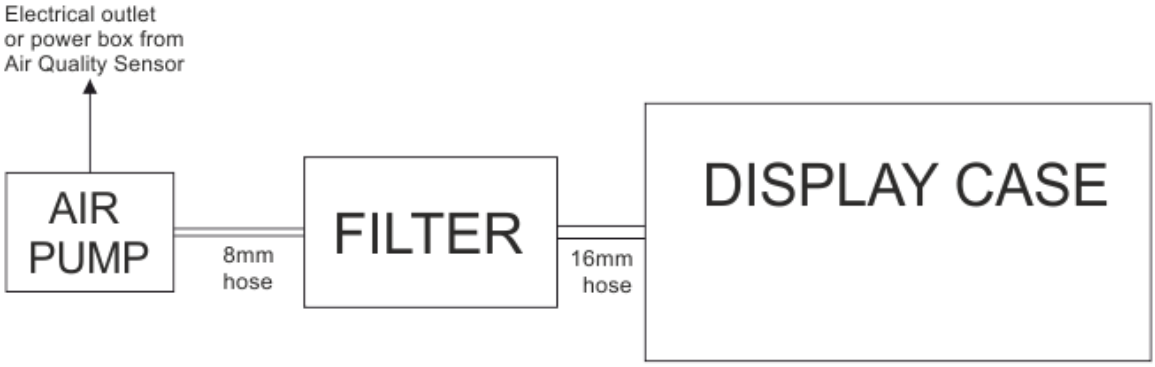
Input must be connected to the air pump using 8 mm ID supplied silicone hose and output must be connected to the display case using supplied 16 mm ID silicone hose.

On the display case, hose should be connected using supplied brass fitting. For installation of this fitting a hole 16-20 mm must be drilled in the case wall.

THE AIR FROM THE FILTER SHOULD ENTER DIRECTLY INTO THE VITRINE FOR OPTIMAL PERFORMANCE. AIR DIRECTED INTO THE SUB FLOOR MAY LIMIT THE PERFORMANCE OF THE FILTER, ESPECIALLY IN LARGE OR LEAKY ENCLOSURES.

Electrical Connection

Air pump must be connected to a 110-220VAC receptacle. If a Air Quality Sensor is in use, the air pump power cord must be connected to the power connector supplied with the Air Quality Sensor.



REPLACING CARTRIDGES

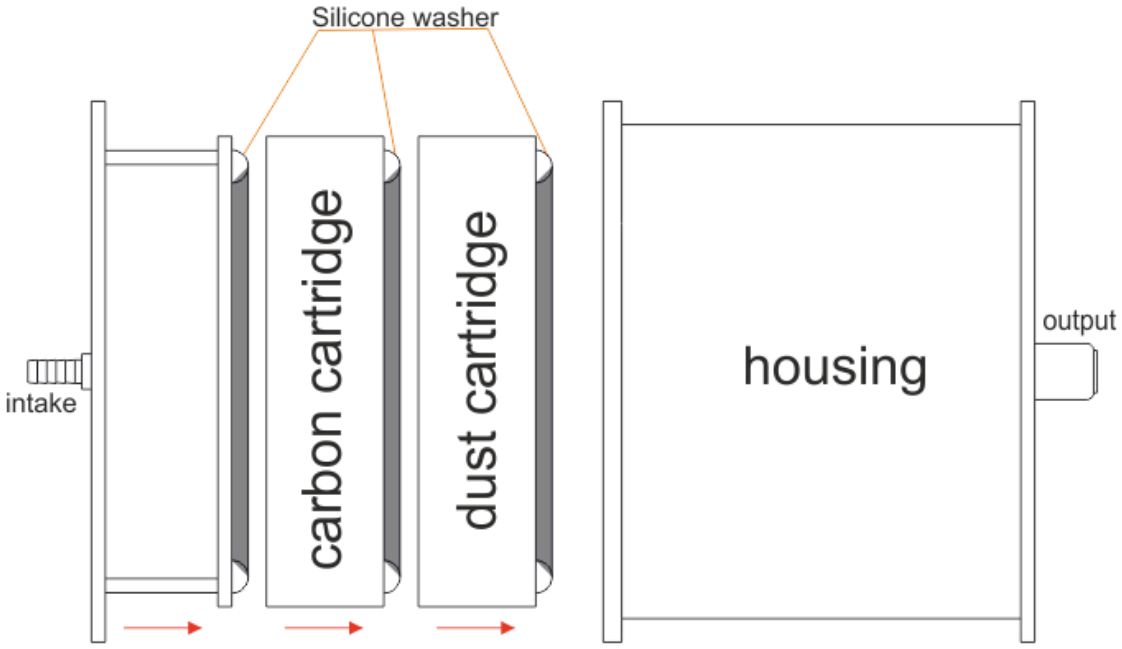
Without a air quality sensor installed inside the display case it is hard to define when the cartridges need to be replaced. The life expectancy of the filters depends on a few factors including quality of air outside, expected level of purity inside the case and what kind of pollutants exist in the ambient air. If there is no possibility of measuring pollutants inside the case and the air quality in the surrounding area is fair, we are recommend replacing the

carbon filter every 6-12 months, dust filter class F7 every 6-8 months and H14 every 4-6 months.

The housing is built for two cartridges. Most commonly one filter is a dust filter and the second filter is activated carbon. In this configuration the filter from the input side should be the carbon filter cartridge and from the output side the dust filter cartridge.

(air from pump flows through carbon filter first followed by the dust filter.)

Cartridges are supplied with a silicon gasket on one side. Cartridges must be installed as shown below.



1. Unscrew cover
2. Remove cover with silicone washer.
3. Carefully remove both old cartridges.
4. Insert new cartridges, first dust followed by the carbon cartridge.
5. Install and screw cover with silicone washer.
6. Unscrew cover
7. Remove cover with silicone washer.
8. Carefully remove both old cartridges.
9. Insert new cartridges, first dust one and later carbon one.
10. Install and screw cover with silicone gasket.

USING AIR QUALITY SENSORS WITH FILTERING SYSTEM.

If the air quality sensor is used inside the case, then it can be connected to the filtering system and activates only when the quality of the air inside the case falls below a certain level.

USING FILTERS IN CONJUCTION WITH MINI ONE UNIT.

Filter unit can be used with Mini One machine. Its installed between air pump and machine.