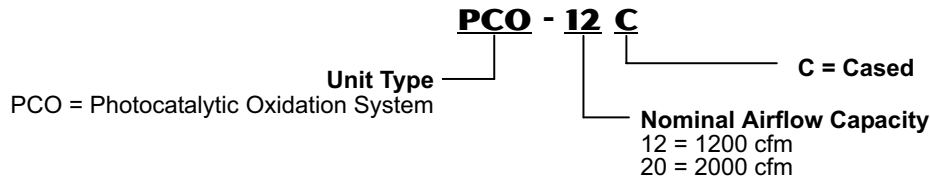




MODEL NUMBER IDENTIFICATION



FEATURES

CONTENTS

Applications Page 5
 Dimensions Page 5
 Features Pages 1-3
 Filter Air Resistance Page 3
 Minimum Filter Efficiency Page 3
 Model Number Identification Page 1
 Specifications Page 4

APPROVALS

ETL Listed

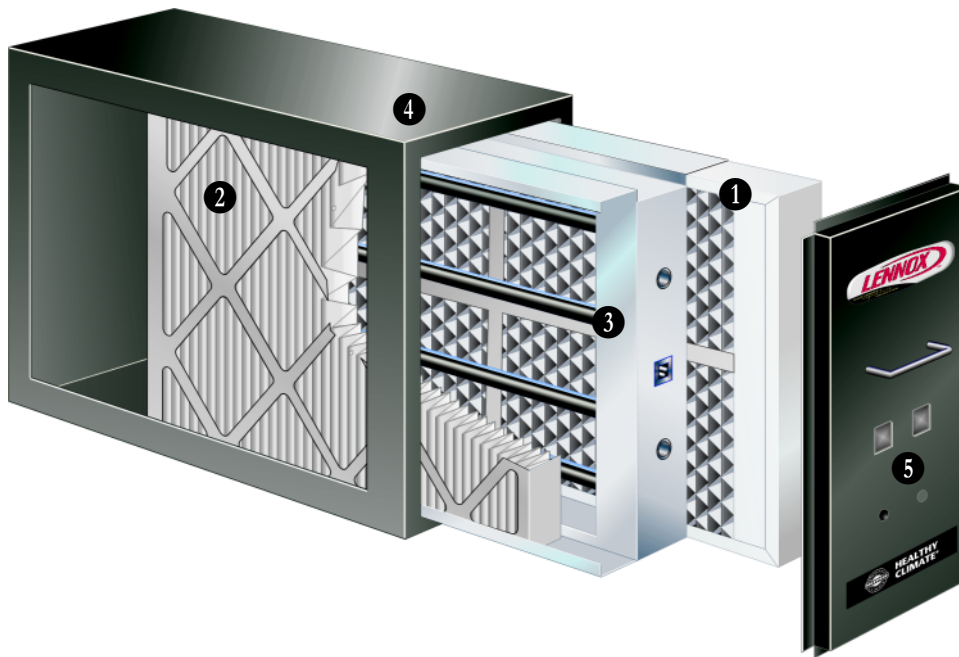
WARRANTY

All covered components have a limited warranty for five years in residential applications, one year in non-residential applications.
 Lamps, pleated filters and PCO metal inserts are routine maintenance items and are not covered under the warranty.
 Refer to the Lennox Limited Warranty certificate included with the unit for additional details.

OPERATION

The UVA lamps activate the catalyst on the PCO metal insert that captures and destroys chemicals as they flow through the system, turning them into carbon dioxide and water vapor.
 The system uses light, which reacts with a titanium dioxide-based chemical catalyst as air passes through it. The result is oxidation.
 Contaminants are destroyed rather than transferred. No toxic chemicals are used.
 Pollutants are adsorbed (accumulated gases, liquids, or solids on the surface of a solid or liquid) on the surface of the catalyst and oxidized to carbon dioxide (CO₂) and water (H₂O).
 Small amounts of moisture are catalytically split into hydroxyl radicals (OH⁻) that oxidize chemicals on the surface of the catalyst.
 Rather than just absorbing gaseous pollutants (as in carbon systems), PCO provides a reduction of absolute toxicity as the gaseous products from the complete photocatalytic oxidation of volatile organic compounds are carbon dioxide and water.

FEATURES



APPLICATIONS

Combines multiple air purification technologies into a single, state-of-the-art, air purifier.

The PureAir system operates with a MERV 16 Precision Pleat™ media filter, UVA lamps, and a PCO metal insert that contains a catalyst for elimination of odors and chemicals.

Particles and bioaerosols are captured on the filter. The UVA lamps activate the catalyst on the PCO metal insert that captures and destroys chemicals as they flow through the system turning them into carbon dioxide and water vapor.

Self-cleaning process does not reintroduce toxic, post-process residue into the air.

The toxicity of the treated air stream is reduced, allowing the photocatalytic reactor to operate as a self-cleaning filter relative to organic material on the catalyst surface.

Will remove a portion of volatile organic compounds (VOC's), bioaerosols (dander, pollen, molds, spores, etc.), bacteria, and fungi.

The use of ultra-violet (UVA) radiation combined with a titanium dioxide catalytic surface has shown overall reduction of VOC's in the air.

Low maintenance cost.

No toxic chemicals.

No ozone is produced.

The PureAir system works by:

Filtration - media filter stops particles from passing through the filter.

Photocatalytic Oxidation - small amounts of moisture are catalytically split into hydroxyl radicals (OH-) that oxidize chemicals on the surface of the catalyst.

Must be installed in the return air duct, allow 30 in. service access in front of the unit. 120V power receptacle must be available.

Unit must stay on continuously (lamps are always on) for destruction of contaminants adsorbed on the catalyst surface and for extended lamp life. It is recommended that the air handler be set to run continuously.

Multi-position unit can be installation in the return air side of all types of central units and easily adapts to up-flow, down-flow or horizontal unit applications. The unit can be installed in the vertical or horizontal position.

FEATURES

COMPONENTS

1 PCO Metal Insert

Titanium dioxide coated PCO metal insert.
Insert is vacuum packaged.

PCO metal insert should be replaced every two years.

2 MERV 16 Precision Pleat™ Media Filter

Disposable pleated MERV 16 filter (Minimum Efficiency Reporting Value based on ASHRAE 52.2).

Filter is packaged in plastic bag.

MERV (Minimum Efficiency Reporting Value) is a rating by ASHRAE that measures the removal of airborne contaminants.

The MERV rating of a filter describes the size of the holes in the filter that allow air to pass through. The higher the MERV rating, the smaller the holes in the filter providing enhanced filtration. The dirtier the filter, the better the filtration, however, the filters need to be replaced annually to prevent excess pressure drop and for maximum efficiency. More frequent filter changes may be required in situations with high dust or dirt loads. Particles and bioaerosols are captured on the filter.

3 UVA Lamps

17 watt florescent, low power consumption, UVA output. 4 bulbs in PCO-12C, 6 bulbs in PCO-20C, blackened lamps (on one side).

NOTE - The MERV 16 filter cannot tolerate direct exposure to UVA light. Black side of lamp always faces toward filter to protect it.

Recommended replacement every two years.

4 CABINET

Pre-painted steel cabinet.

Multi-position.

5

Front of unit is removable for service access.
Three-prong, detachable 6-foot power cord for plug-in 120V electrical connection.

SAFETY FEATURES

Power cord must be completely removed from the front of the unit before the cover can be removed.

MAINTENANCE SUPPLIES - MUST BE ORDERED EXTRA

MERV 16 Precision Pleat™ Media Air Filter

Recommended annual replacement of the filter.

Alternate Replacement MERV 10 Pleated Air Filter

A MERV 10 filter is also available as an alternative to the standard MERV 16 filter above.

Recommended annual replacement of the filter.

Replacement PCO Metal Insert

Recommended replacement of the insert every two years.

Replacement UVA Lamp

Recommended replacement of the lamps every two years.

Pre-Packaged Maintenance Kits

A selection of pre-packaged replacement components for easy PCO maintenance.

Kits consist of:

- Pleated filters (choice of MERV 16 or MERV 10).
- UV-A lamps (quantity in kit is based on size of PCO).
- Choice of with or without PCO Metal Insert (MERV 16 kits only).

MINIMUM FILTER EFFICIENCY

MERV Rating	1 Filter Efficiency (percentage)		
	E1 (0.3 to 1.0 microns)	E2 (1.0 to 3.0 microns)	E3 (3.0 to 10.0 microns)
MERV 16 (furnished)	95%	99%	99%
MERV 10 (alternate replacement)	30%	69%	90%

¹ Values are based on lab tests conducted with conditions included in ASHRAE Standard 52.2 1999.

AIR RESISTANCE

Air Volume cfm	PCO-12C in. w.g.	PCO-20C in. w.g.
800	0.14	0.10
1000	0.18	0.12
1200	0.22	0.15
1400	0.27	0.17
1600	Not Recommended	0.20
1800	Not Recommended	0.24
2000	Not Recommended	0.27

SPECIFICATIONS

Model No.	PCO-12C	PCO-20C
Acetone destruction rate (rated destruction tested between 40 and 5 PPM of acetone)	1.6 mg/min.	3.0 mg/min.
Number of lamps	4	6
Filter life	Up to 12 months	Up to 12 months
Shipping Weight	67 lbs.	76 lbs.
Electrical Data	120V - 1 phase - 60 hz	
Power Consumption	96 watts	144 watts

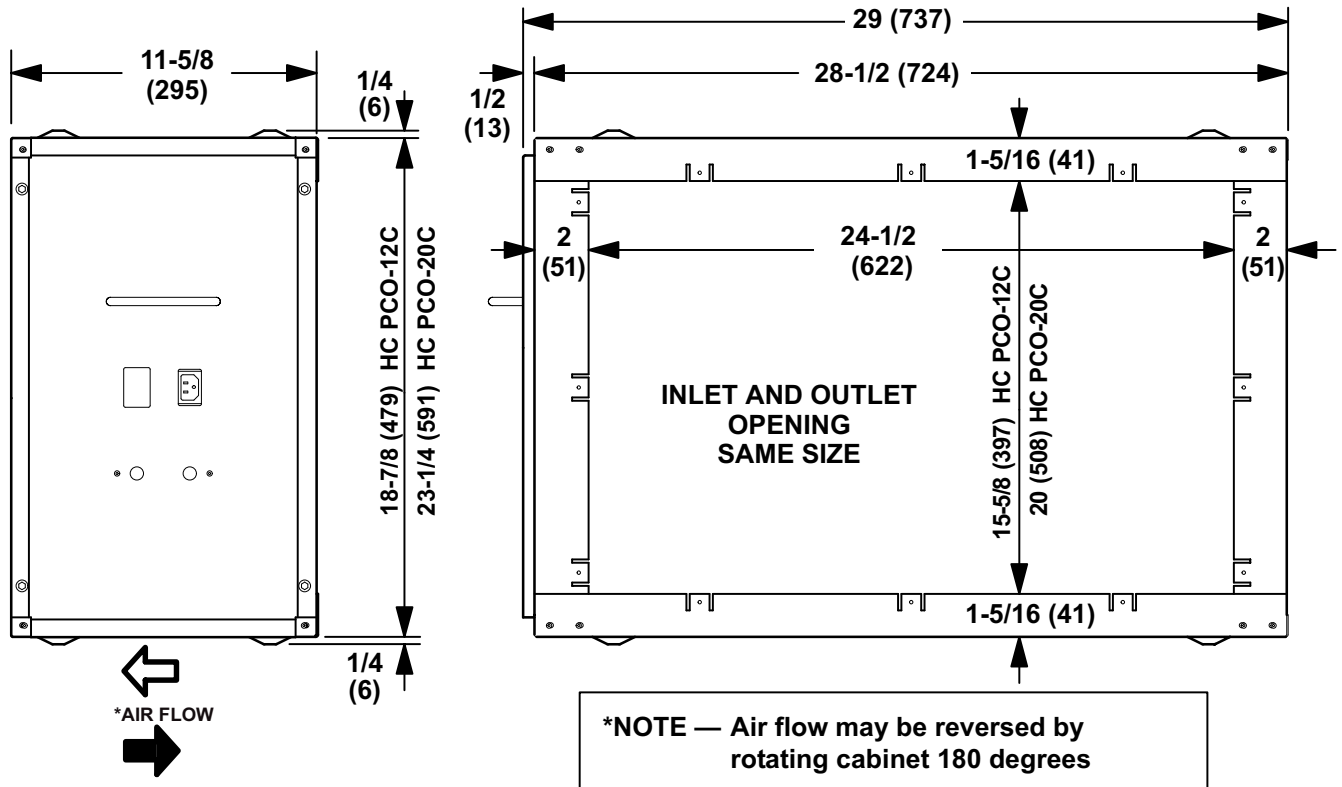
MAINTENANCE SUPPLIES - MUST BE ORDERED EXTRA

MERV 16 Pleated Filter	Catalog Number	X6666	X6669
	Size - H x D x W - in.	16-5/8 x 26 x 4	21 x 26 x 4
MERV 10 Pleated Filter	Catalog Number	X6664	X6667
	Size - H x D x W - in.	16-5/8 x 26 x 4	21 x 26 x 4
UVA Lamps	Catalog Number	X8149	X8149
	Number of lamps required	4	6
PCO Metal Insert	Catalog Number	75X73	75X66
	Size - H x D x W - in.	16-5/8 x 26 x 2	21 x 26 x 2

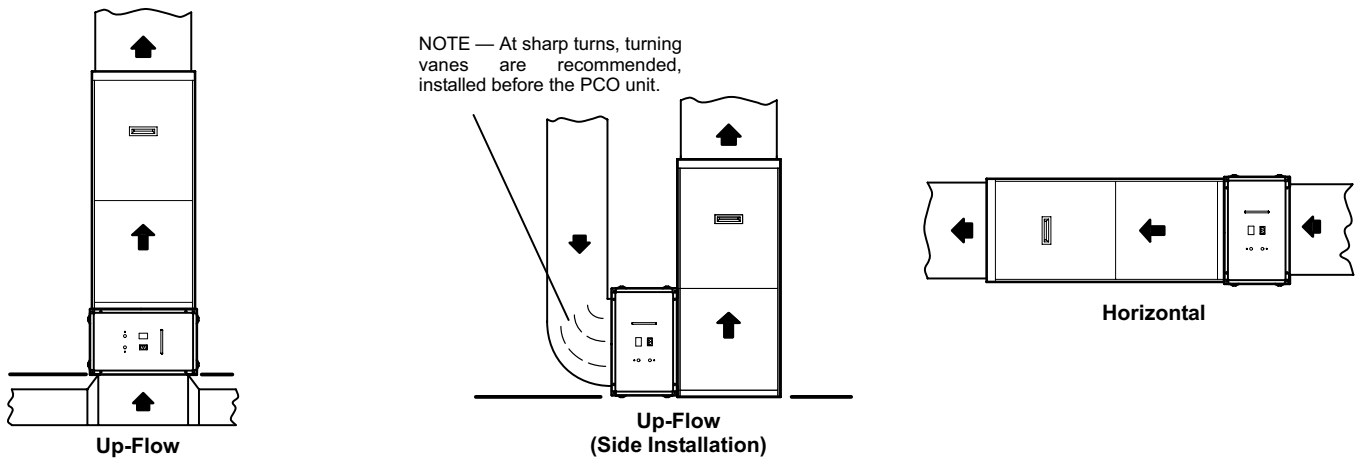
PRE-PACKAGED MAINTENANCE KITS - MUST BE ORDERED EXTRA

<u>Kit contains</u> MERV 16 Pleated Filter, UV-A Lamps, PCO Metal Insert	Catalog Number	X8347	X8345
	Number of lamps	4	6
<u>Kit contains</u> MERV 16 Pleated Filter, UV-A Lamps	Catalog Number	X8346	X8344
	Number of lamps	4	6
<u>Kit contains</u> MERV 10 Pleated Filter, UV-A Lamps, PCO Metal Insert	Catalog Number	X8349	X8348
	Number of lamps	4	6

DIMENSIONS - INCHES (MM)



APPLICATIONS





Visit us at www.lennox.com

For the latest technical information, www.lennoxravenet.com

Contact us at 1-800-4-LENNOX

NOTE - Due to an ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

©2006 Lennox Industries Inc.