

NEW!

In-Duct Breathe Easy Air Purifier

Stops Odors & Reduces Unhealthy Contaminants



In-Duct Breathe Easy Air Purifier

Customer Comment:

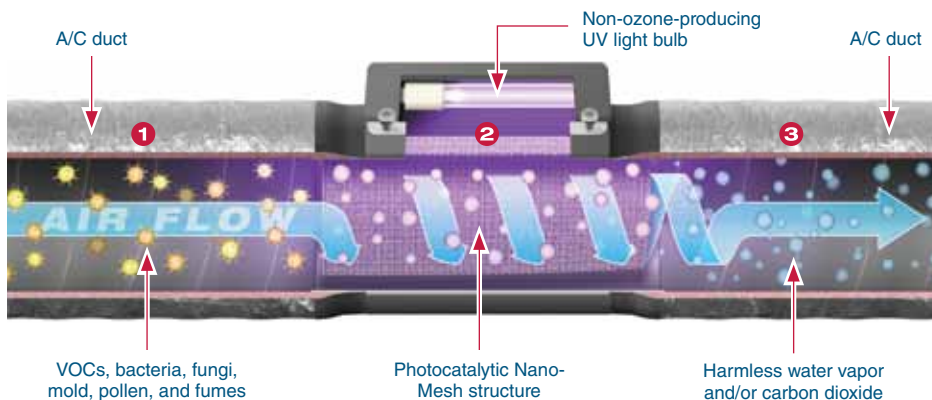
"The crew had consistent problems with sore throats and coughs. So we've gone to Dometic. We discovered the air...went from being almost heavy and saturated to being a lot lighter. It was easier to breathe...cleaner. It's fantastic."

— James Rose-Innes, First Mate, 95 ft. motor yacht
Fort Lauderdale, FL

Reduce the odors of tobacco smoke, mildew, mustiness, chemical vapors and toilets, and inhale fresher, cleaner, healthier air. The in-duct Breathe Easy Air Purifier uses innovative Photocatalytic Nano-Mesh technology with ultraviolet (UV) light to improve air quality. The UV bulb inside uses a specific frequency of light that produces no harmful ozone.

How It Works

- 1 Biological contaminants like VOCs, mold spores, bacteria, and viruses pass through the air conditioning duct and into the air purifier system.
- 2 UV light energy activates the titanium-dioxide catalyst on the surface of the nano-mesh structure. The molecules of pollutants and odors that come in contact with the catalytic nano-mesh structure are reconfigured into non-toxic elements. Vortex action maximizes air contact with the catalytic surface.
- 3 Significantly cleaner, healthier air exits the photocatalytic air purifier.

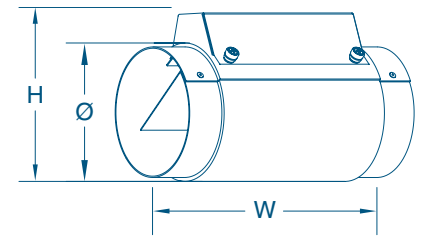


Key Advantages

- Reduces mold spores, bacteria, viruses, and fumes.
- Eliminates unpleasant odors.
- Uses an intense UV light that produces no harmful ozone.
- Enhances air quality.
- Cleaner air may lessen allergy and asthma symptoms.
- Silent operation.
- Up to 100% reduction in diesel fumes, acetone, benzene, formaldehyde, and other VOCs.
- Up to 100% reduction in bacteria, fungi, mold, and pollen.
- Photocatalytic Nano-Mesh structure is safe and powerful.
- Photocatalytic Nano-Mesh structure does not degrade under intense UV light.
- UV bulb is easy to replace.
- Tube sizes for common duct diameters.

Technical Specifications for In-Duct Breathe Easy Air Purifiers

Model	4" In-Duct Tube	5" In-Duct Tube	6" In-Duct Tube	7" In-Duct Tube	8" In-Duct Tube
Capacity ⁽¹⁾	6K BTU/hr	7K - 8K BTU/hr	10K - 12K BTU/hr	14K - 16K BTU/hr	24K BTU/hr
Volts/Hz/mA	115/60/200 220/50/350 230/60/200	115/60/200 220/50/350 230/60/200	115/60/200 220/50/350 230/60/200	115/60/250 220/50/350 230/60/225	115/60/250 220/50/350 230/60/225
UV Bulb Watts	12	12	12	20	20
Ø (in/mm) ⁽²⁾	4.50/114	5.50/140	6.50/165	7.50/191	8.50/216
Height (in/mm) ⁽²⁾	5.25/133	6.50/165	7.50/191	8.50/216	9.50/241
Width (in/mm) ⁽²⁾	10.50/267	10.50/267	10.50/267	13.50/343	13.50/343



Notes:

⁽¹⁾ Purification capacity of in-duct units equals or exceeds the airflow and BTU capability of its duct size.

⁽²⁾ Dimensions are overall, including grommets, insulation, and duct rings.

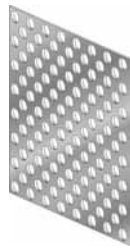
Competitive Advantages

Photocatalytic Nano-Mesh Technology

- A 3-dimensional Photocatalytic Nano-Mesh structure coated with titanium-dioxide (TiO₂) provides maximum surface area for maximum destruction of airborne contaminants that come in contact with it.
- Little or no reduction in air flow because the Photocatalytic Nano-Mesh structure creates very little static pressure.
- Does not need to be cleaned, maintained, or replaced.



Dometic's Photocatalytic Nano-Mesh structure



Competitor's screen structure

UV Lamps

- Sized for the dimensions of the Photocatalytic Nano-Mesh structure, a single UV bulb with dual tubes provides greater intensity and service coverage to activate more of the photocatalytic material for high-performance results.

Safe & Effective Catalyst

Titanium-dioxide is in many common products, including pigments, processed foods, toothpaste and cosmetics. It is harmless to people, pets, plants, and the environment.

Laboratory Test Results

Testing of the Breathe Easy Air Purifier performed by Environmental Diagnostics Laboratory showed up to **98% reduction** in volatile organic compounds (VOCs) and up to **100% reduction** in bacteria, fungi, mold, and pollen grains.

The Power of Photocatalytic Nano-Mesh Technology

Photocatalytic Nano-Mesh technology removes airborne contaminants that pass through the system and contact the photocatalytic surface. As air re-circulates it makes multiple passes through the system for continuously improving purification levels.

Photocatalytic air purification only occurs when airborne contaminants physically touch the catalyst. Innovative Photocatalytic Nano-Mesh technology creates a much greater contact surface for much greater results.

The Breathe Easy Air Purifier's three-dimensional Photocatalytic Nano-Mesh structure is constructed of metalized foam. This minutely intricate construction provides **2200%** more surface area for holding the molecular catalytic coating than is possible with a simple screen structure. This unique design also provides scant air resistance, so there is no noticeable decrease in air flow.

In addition, through the science of nanotechnology, the titanium-dioxide catalyst is restructured at the molecular level to have an increased number of contact surfaces. This formation puts 70% larger molecules on the contact surface and dramatically improves reactivity with contaminants.

Two Innovative Models

- **In-Duct Tube:** Air purifier tube is installed within ducting line and uses the air-conditioning system's blower to move air past the UV light and Photocatalytic Nano-Mesh structure. Available in tube sizes to fit all common duct diameters.
- **Portable:** Small and lightweight, the portable air purifier can be situated anywhere and uses an internal fan to move air past the UV light and Photocatalytic Nano-Mesh structure. It is suitable for areas up to 100 sq. ft. (9.3 sq. m.) and operates on both DC and AC voltages.

Note: The Breathe Easy Air Purifier does not fix the source of ongoing odor problems. For example, a leak that caused mold must be repaired and the mold must be removed.

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Environmentally Responsible

Dealer:

CLEANING

Nano-Mesh Structure

Normally the nano-mesh structure of the Breathe Easy Air Purifier is self cleaning and needs no maintenance. In rare instances, however, if debris accumulates and air purification decreases you may need to clean it. **Make sure power is disconnected before opening the tube.** (See "Replacing the UV Bulb" for opening and closing instructions.) Blow away debris with canned air suitable for use on computers.

UV Bulb

Air purification effectiveness will decrease if the UV bulb is dirty, and under extreme conditions you may need to clean it. **Make sure power is disconnected before opening the tube.** (See "Replacing the UV Bulb" for opening and closing instructions.) Gently clean the bulb using rubbing alcohol on a soft cloth.

TROUBLESHOOTING

No power, unit does not turn on (no blue glow).

1. Make sure the unit is wired to the breaker of the air conditioning system's incoming terminal strip and the breaker is on.
2. Verify that the power source is working.
3. UV bulb is not seated correctly in the socket (see "Replacing the UV Bulb").
4. UV bulb needs to be replaced (see "Replacing the UV Bulb").
5. Blue light on the ballast is not lit (see "Replacing the UV Bulb").
6. Replace ballast if you have a known good bulb and power is on to ballast (confirmed with a volt meter at power terminals).
7. **The unit is configured for 230V/50Hz or 60Hz as a default. If it is to be used for 120V/60Hz the switch on the ballast must be switched to the left to the 120V/60Hz position.**

Output seems ineffective.

1. Make sure unit is servicing an enclosed area.
2. Remove any obstructions in the air stream's input and output vents.
3. Clean the air filter of the air conditioning system.
4. Is it time for a new bulb? The UV bulb should be replaced each year (see "Replacing the UV Bulb").
5. Replace bulb if it is glowing red, not blue (see "Replacing the UV Bulb").
6. Clean the Nano-Mesh structure (see "Cleaning").
7. Clean the UV bulb (see "Cleaning").

REPLACEMENT PARTS

Replacement parts can be ordered from any Dometic dealer. To find a dealer near you, go to: www.dometicusa.com

BREATHE EASY AIR PURIFIER TUBE DIAMETER	UV BULB REPLACEMENT PART NUMBER	REPLACEMENT PART DESCRIPTION
4", 5", or 6" diameter	4210800	UV Bulb, 5-inch
7" or 8" diameter	4210802	UV Bulb, 8-inch

WARRANTY

The In-Duct Dometic Breathe Easy Air Purifier is covered by a limited warranty against defective material for 1 year from date of purchase. This warranty covers electronic parts only and **does not include the UV bulb.** The original product sales receipt is required as proof of purchase.

This warranty does not apply if a unit has been dropped, damaged, or submerged in water.

To file a warranty claim, contact a Dometic dealer. To find a dealer near you, go to: www.dometicusa.com

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Breathe Easy Air Purifier In-Duct Model (white ballast)

Installation & Operation Manual

HOW IT WORKS

The In-Duct Dometic Breathe Easy Air Purifier uses your marine air conditioning system's blower to move air through the unit where ultraviolet (UV) light and innovative Photocatalytic Nano-Mesh technology improve air quality.

The unit uses a specific frequency of UV light that enables maximum effectiveness in reducing pollutants such as pollen, mold spores, bacteria, viruses, fumes, and odors, yet it produces no harmful ozone.

UV energy activates the titanium-dioxide catalyst on the surface of the nano-mesh structure. The molecules of pollutants that come in contact with the catalyst are reconfigured into nontoxic elements.

The density and quantity of pollutants present affect how rapidly the air will be cleaned. As air re-circulates and makes multiple passes through the system you will notice continuously improving purification levels.

NOTE: The air purifier does not fix the *source* of ongoing odor problems. For example, a leak that caused mold must be repaired and the mold must be removed.

SAFETY PRECAUTIONS



WARNING

- Do not use outdoors.
- Keep the cord away from heated surfaces.
- Never open the cover without turning off the main breaker.
- Never operate this unit if it has a damaged cord or plug.
- Never operate this unit if it has been damaged or submerged in water.
- Do not place in an area where uncured siliconized sealers are being used, as the vapors will inhibit the unit's photocatalytic capability.



DANGER

- Never look directly at a lit ultraviolet (UV) bulb. The direct power of the UV bulb can be harmful to the eyes. However, looking at the indirect blue glow from the bulb is safe.
- This equipment is not ignition protected per CFR 183.410 and may not be installed in areas that may be exposed to flammable gas.

SYSTEM SETUP

Selecting the Location

- This unit is designed for installation within the supply-air ducting of an air conditioning system positioned downstream of the blower.
- If there is a T-box or other diverter box attached to the blower, position the unit in line with the side that gets the most air. Or, relocate the diverter box away from the blower and place the Breathe Easy between the blower and the diverter. If the unit is installed downstream of a diverter box, be sure the diameter of the Breathe Easy matches the diameter of the outgoing duct. (For example, a diverter box could have 6" ducting going in, then have 2", 4", and 5" branches going out, so you would need a 5"-diameter unit instead of a 6"-diameter unit to place it on the outgoing branch that gets the most air.)
- Make sure the ducting that connects to the air purifier is UV-stable. If you can not confirm that it is, replace the ducting in the area stretching at least 3 feet (1m) before and 3 feet (1m) after the unit with UV-stable ducting to prevent eventual deterioration of the ducting. *Deteriorated ducting may create air leaks that could cause secondary condensation.*
- The ducting should service an indoor area.
- The unit requires annual replacement of the UV bulb, so situate the unit for easy access to both the bulb housing and the bulb ballast.
- The unit requires electricity and operates on 120V/60Hz, 220V/50Hz, or 230V/60Hz AC power. **The unit is configured for 230V/50Hz or 60Hz as a default. If it is to be used for 120V/60Hz the switch on the ballast must be switched to the left to the 120V/60Hz position.** See "Power" for electrical specifications.
- Do not install in areas that may be exposed to flammable gas.



Power

The unit operates on 120V/60Hz, 220V/50Hz, or 230V/60Hz AC power and is wired to the incoming power of the air conditioning system. The unit is configured for 230V/50Hz or 60Hz as a default. If it is to be used for 120V/60Hz the switch on the ballast must be switched to the left to the 120V/60Hz position. See table below for electrical specifications and Figure 1 for wiring information. **Do NOT wire the unit to blower power, as this will significantly reduce the life of the UV bulb and cause damage to the ballast.**

ELECTRICAL SPECIFICATIONS	4" IN-DUCT MODEL	5" IN-DUCT MODEL	6" IN-DUCT MODEL	7" IN-DUCT MODEL	8" IN-DUCT MODEL
Volts/Hz/mA	115/60/200 220/50/350 230/60/200	115/60/200 220/50/350 230/60/200	115/60/200 220/50/350 230/60/200	115/60/250 220/50/350 230/60/225	115/60/250 220/50/350 230/60/225
UV Bulb Watts	12	12	12	20	20

Installation

- Determine the optimum location within the ducting route (see "Selecting the Location").
- Cut the ducting to make room for unit. Make sure the ducting in the areas 3 feet (1m) before and 3 feet (1m) after the unit is UV stable. If not, replace that area with ducting that is UV stable. When cutting the ducting leave enough length to cover the ends of the Breathe Easy tube without having to stretch the ducting, but no so much length that you create bends or kinks.
- Determine the direction of air flow and install the tube per the air-flow arrow on the bulb housing. Note that the incoming air enters the tube at the end opposite the power-cord end. (See Figure 2.)
- Position the unit so the bulb housing is easily accessible for annual bulb replacement (see Figure 2) and write in the in-service month and year on the "Replacement Due Date" sticker.
- Attach the UV-stable ducting to each end of the unit. Use at least 3 large-head screws per side to catch the ducting wire then use a tie strap around the connection. Finish with duct tape to ensure a good air-tight seal.

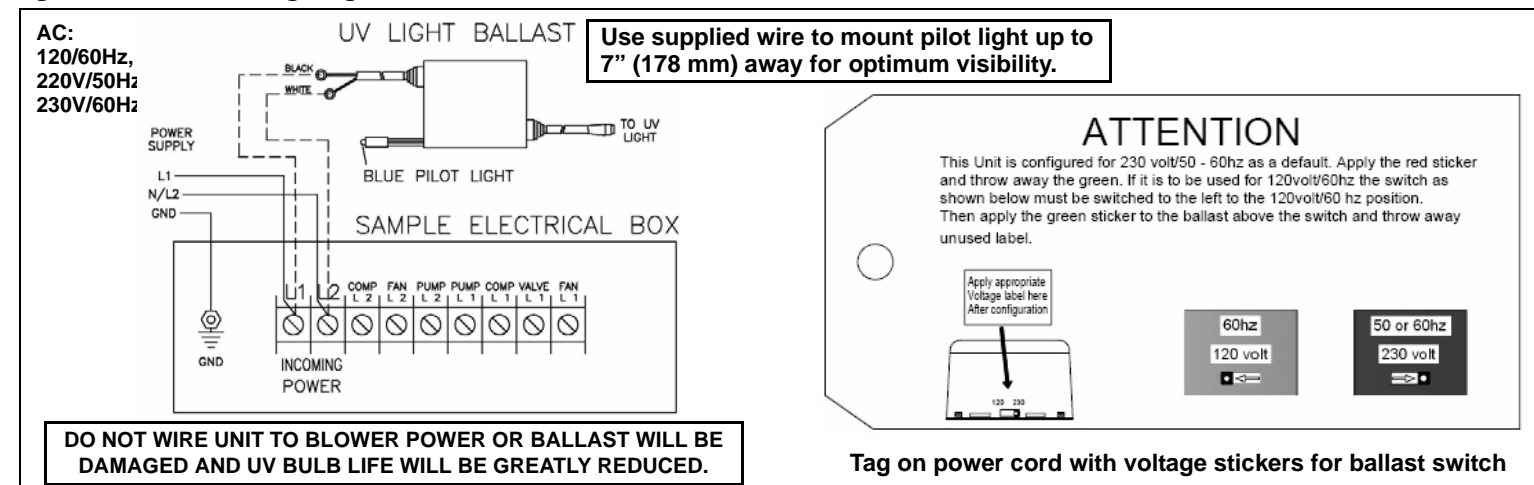


WARNING

An air leak at the duct connection could cause secondary condensation to form, resulting in drips & wetness in the surrounding area.

- Turn off the breaker to the air conditioning system's incoming terminal strip.
- Connect the Breathe Easy to incoming AC power at the air conditioning system's incoming terminal strip and follow the wiring diagram shown in Figure 1. **Set ballast switch to right (white dot on right) if using the default 230V/50Hz or 60Hz, or to left (white dot on left) if using 120V/60Hz and apply appropriate sticker from tag on power cord. FAILURE TO DO SO WILL VOID THE WARRANTY.**
- Turn breaker on. Look for a blue glow coming from the unit. *Never look directly at a lit UV bulb!* Or, verify that the blue pilot light on the ballast is lit, which indicates the bulb is working. The blue pilot light will be lit only if power is applied to the unit **and** the bulb is operational (i.e., if the bulb is not properly seated but power is connected, the pilot light will not be lit). See the location of the pilot light in Figure 1.

Figure 1: Electrical Wiring Diagram



SYSTEM OPERATION

On

The Breathe Easy unit is in operational ready mode when power is supplied to the unit and the bulb is lit and the blue pilot light on the ballast is lit. The air purification process begins when the air conditioning system's blowers begin moving air through the tube.



NOTE

It is normal for the Breathe Easy UV bulb to remain lit as long as power is applied to the unit at the breaker, even if the AC unit is in OFF mode. This maximizes the life of the bulb. One hour of bulb life is lost each time it is turned on and off, which is why the unit should never be wired to blower power.

Off

Disconnect power to the unit by turning off the breaker to the air conditioning system's incoming terminal strip. **Always turn the unit off when performing maintenance.**

MAINTENANCE

Replacing the UV Bulb

Like all light bulbs, UV bulbs have a limited life span. Unlike regular light bulbs that work until they burn out, UV bulbs lose their germicidal effectiveness over time and must be replaced even though they may still produce light.

After approximately 1 year of continuous use (about 9,000 hours), the UV bulb will lose power and have to be replaced. **Replace with a new Dometic UV bulb (see "Replacement Parts"). Use of any other bulb will void the warranty.**



NOTE

The bulb will still glow blue after 9,000 hours of use, but the UV radiation will not be strong enough to be functional. If the bulb is glowing red or orange instead of a bright purple-blue, the bulb needs to be replaced immediately.

Refer to Figure 2 below and follow these steps to replace the bulb:

- Disconnect power to the unit by turning off the breaker to the air conditioning system's incoming terminal strip.
- Allow 5 minutes for the bulb (#1) to cool.
- Loosen the finger screws (#2) to open and lift out the bulb housing (#3).
- Pop the power-cord strain relief (#5) out of the housing (#3) to give easier access to the plug. Pull the bulb out of the power plug socket then twist the bulb to remove it from the bulb clips (#4).
- Take a new Dometic UV bulb (#1) (see "Replacement Parts") and twist the bulb to insert it into the bulb clips (#4) then slide it toward the power-cord strain relief (#5) end of the housing (#3) to **create a 3/16-inch (5mm) gap (#8) between it and the housing (#3)**. Write the in-service month and year on the "Replacement Due Date" sticker (included with the bulb) and attach it over the old sticker.
- Insert the bulb prongs firmly into the power plug socket. *If the prongs don't fit, rotate the socket 90 degrees.*
- Slide the power-cord strain relief (#5) back into the housing (#3) making sure to orient it as shown in Figure 2: The plug goes to the inside, the side of the strain relief with 2 pressure clips goes toward the open area of the housing and the side of the strain-relief with 1 pressure clip goes toward the closed area of the housing. *It is important to seat the power-cord strain relief correctly to avoid air leaks that could cause secondary condensation.*
- Insert the lip of the housing (#3) into the tube (#6), align the finger screws with the screw holes, then tighten the finger screws (#2). Check for any misalignment that could cause air leaks and correct any you find. *It is important to seat the housing correctly to avoid air leaks that could cause secondary condensation.*
- Reconnect power to the unit by turning on the breaker to the air conditioning system's incoming terminal strip.
- Look for a blue glow coming from the unit. *Never look directly at a lit UV bulb!* Or, verify that the blue pilot light on the ballast is lit, which indicates the bulb is working. (See the location of the pilot light in Figure 1.)

Figure 2: Diagram of the Breathe Easy In-Duct Tube

