

UV Air Purifier Technology

UV Air Purifier Technology

GeneralAire® UV Air Purifiers

GeneralAire® UV Air Purifier Technology

Light Wavelengths in Nanometers (nm)

| | |
|---------------|---------------|
| Cosmic Rays | 0 nm |
| Gamma Rays | 25 to 50 nm |
| X-Rays | 50 to 100 nm |
| UVV | 100 to 200 nm |
| UVC | 200 to 280nm |
| UVB | 280 to 315nm |
| UVA | 315 to 400nm |
| Visible Light | 400 nm |
| Infrared | 700 nm |
| Radio Waves | 1200nm |

All ultraviolet (UV) light is measured in units called nanometers. A nanometer (nm) is a wavelength of light approximately 1/25,000,000 inch or a billionth of a meter. Wavelengths of visible light range from about 400 to 700nm. UV wavelengths range from about 1 to 400nm. The UV wavelength is shorter than visual light and is rendered invisible to the human eye.



Let the Sunshine In!

The daylight sun delivers UVC energy that protects us from germs, bacteria, viruses, and other destructive bioaerosols outdoors.

Installed on your HVAC distribution system, a GeneralAire® UV Air Purifier boasts an intensely effective 16 inch 36 watt germicidal H-lamp (UVV16HC). The 36 watt lamp radiates a high output germ-killing ultraviolet light into your duct work to treat your indoor air, imitating the air purifying intensity of the sun. The germicidal bandwidth C (UVC) measuring 200 to 280 nanometers is effective at killing germs and bacteria in your home and will significantly reduce the levels of harmful bioaerosols (viruses, fungi, mold, and allergens).

How are Bioaerosols Eliminated?

The high output UVC energy in your GeneralAire® UVC Air Purifier will break down the electron bonds of an organic molecule. This intense energy penetrates airborne microorganisms, causing cellular and genetic damage that either destroys the microorganism or renders it harmless by robbing it with the ability to reproduce.

What is Super Plasma?

Plasma is an excitation of gas by the energy from ultraviolet light. Wavelengths of ultraviolet light measuring 100 to 200 nanometers bandwidth generate highly reactive triatomic molecules. The aggressive ionized gas has the ability to destroy organic contaminants photochemically by the formation of atomic oxygen, molecular singlet oxygen, activated oxygen, and ozonides (O3-). This formation interacts with organic contaminants breaking them down to harmless carbon and water, producing cleaner, healthier air.

GeneralAire® UV Air Purifier Accessories



AG2436 Regulating Electric Ballast for MS24 / MS24OZ (GFI #4883)

AGMGF Magnetic Mounting Bracket for MS24 / MS24OZ For Mounting Unit Inside Duct (GFI #4889)



AGL36 Replacement Lamp for MS24 & MS24OZ (GFI #4886)

LT50 UVC Replacement Lamp for PCO2450 (GFI #4448)



LSK36 Replacement Lamp for GUV25403A & GUV100A83 (GFI #4447)



UVV5CL Replacement Lamp for GUV25403A (GFI #4870). The UVV5CL lamp is rated to produce 50 milligrams of O3 at high output and test measures well below F.D.A. regulations of .05 ppm.

Dealer Imprint

- Purchase replacement parts at your local dealer or online: www.parts.generalair.com.
- Visit www.generalair.com (Click on "Literature") to download GeneralAire® brochures, installation & owner's manuals and product guides.
- Watch, Tweet, Follow & Like Us!

GeneralAire®
Fresh Indoor Air Quality
General Filters, Inc. 43800
Grand River Avenue Novi, MI 48375
Toll Free (866) 476-5101
Fax (248) 349-2366
sales@generalfilters.com

CGF PRODUCTS
Canadian General Filters, Ltd.
400 Midwest Rd.
Toronto, ON M1P3A9
Phone (416) 757-3691
Fax (416) 757-4687
sales@cgfproducts.com



Our Other Brands:



3-2014 GFI / JPF

Subject to change without notice.



Breathe Healthier

- Reduces levels of air borne bacteria, fungus, mold, and other infestations.
- Deconstructs gaseous contaminants and toxic organic molecules to carbon and water.
- Neutralizes odors from tobacco, garbage, animals, pet dander and other volatile organic compounds (VOC).

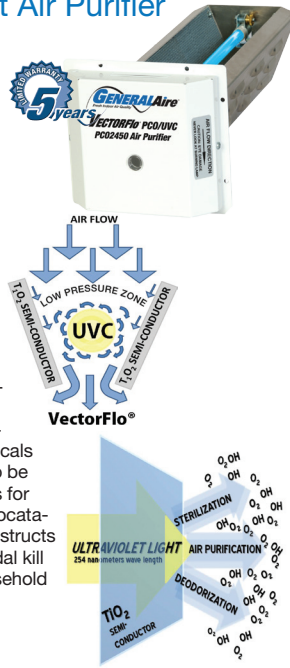


GeneralAire® UV Air Purifier Models

PCO2450 *VECTORFlo*® (GFI #4840) Photocatalytic Ultraviolet Air Purifier

The GeneralAire® VectorFlo® PCO2450 (Photocatalytic Oxidation) Air Purifier features the patented VectorFlo® semi-conductor, designed to deliver a high performance kill rate unmatched by other ultraviolet air treatment brands. The VectorFlo® creates a low pressure zone around a high output UVC germicidal lamp. Airborne germs, bacteria, and gaseous contaminants are slowed in the air stream increasing the exposure time interval where it is introduced to a highly effective photocatalytic air purifying process.

A photo chemical reaction occurs when UVC light is absorbed by the photocatalytic Titanium Dioxide Anatase TiO_2 semi-conductor. An advanced oxidation conversion process occurs creating hydroxyl radicals (OH) and super oxide anions (O_2^-) known to be among the most powerful oxidizing agents for fighting airborne contamination. This photocatalytic oxidation process aggressively deconstructs gaseous contaminants, increases germicidal kill rates and safely eliminates unwanted household odors in the air you breathe at home.



GeneralAire® VectorFlo® PCO2450 Specifications

- 8-1/2" W x 7-3/8" H x 2" D
- 50 Watt 18 inch UVC Lamp
- 135 $\mu\text{W}/\text{cm}^2$ @ 1 meter UVC Output Potency
- High Output Temperature Compensating (HOTC) 120v / 240v Ballast
- 24 SQFT Titanium Dioxide TiO_2 Anatase Semi-conductor
- Max 2000 CFM or 4000 SQFT
- QuartzCoat® Durability
- Effective Lamp Life 18,000 hours (2 year lamp replacement)
- Power Cord Disconnect (Appliance Coupler Design)
- 5 Year Ballast Warranty

(GFI #4442)

MSP180 MicrobSable Plus

GeneralAire® MS24OZ & MS24 Specifications

- Dimensions:
- Duct Mounting Hole: 1.92" x 1.13"
 - UVC H-Lamp: 16"

- Weight:
- UVC H-Lamp Assembly: 6 oz

- Electrical:
- 24 VAC, 2 Amp
 - UL Listed Electronic Ballast

- UVC H-Lamp Potency:
- 36 watt, 180 $\mu\text{W}/\text{cm}^2$ @ 1 meter

- Effective Lamp Life:
- 9,000 hours

Transformer NOT included
50 VA Required
Use GeneralAire GA3501 (TR50VA12024)

MS24 *MICROBESwatter*® MS24OZ *MICROBESwatter*® SweetShot

2-3 Times MORE Germicidal Output Intensity Than Other Brands

The GeneralAire® MicrobeSwatter® MS24 and MS24OZ utilizes the contaminant fighting technology of ultraviolet light to dramatically reduce harmful airborne microorganisms circulating through a heating and air conditioning system. The MicrobeSwatter® is 2 to 3 times more powerful than many commonly used ultraviolet light products. This enhanced power provides far greater bio-contaminant destruction and results in significantly improved indoor air quality.



Indoor Air As Fresh As After A Soft Summer Rain!

Everyday the sun's ultra-violet rays battle to protect us from harmful germs, bacteria, and viruses outdoors. The sun also has the power to measure safe levels of ozone to freshen the air we breathe and break down dangerous gaseous contaminants. The GeneralAire® MicrobeSwatter® SweetShot MS24OZ acts like the sun indoors to bring you the same benefits we experience outdoors. The MicrobeSwatter® SweetShot fused lamp design delivers a safe measured amount of ozone (O_3). The SweetShot will break down gaseous compounds that create unwanted odors in your heating and air conditioning ducts. The SweetShot will leave your indoor air fresh and clean like after a soft summer rain.

GeneralAire® MS24OZ & MS24 Specifications

- Dimensions:
- Mounting Plate: 3" x 3"
 - UVC H-Lamp 1.75" x 16.25"
 - Duct Mounting Hole: 2"

- Weight:
- UVC H-Lamp Assembly: 6 oz

- Electrical:
- 24 VAC, 2 Amp
 - UL Listed Electronic Ballast

- Featuring Magnetic Strength Mounting for Secure, Convenient Lamp Placement
- Easy installation!

- UVC H-Lamp Potency:
- 36 watt, 105 $\mu\text{W}/\text{cm}^2$ @ 1 meter

- Effective Lamp Life:
- 9,000 hours

Transformer NOT included
50 VA Required
Use GeneralAire GA3501 (TR50VA12024)

GUV100A83 UV Air Purifier (GFI #4142)

Does Lamp Output Intensity Matter?
Yes. Ultraviolet lamp output intensity is measured in microwatts per square centimeter at 1 meter ($\mu\text{W}/\text{cm}^2$ @ 1 meter) from the lamp. The GeneralAire® H-lamp is rated at 180 $\mu\text{W}/\text{cm}^2$ @ 1 meter, delivering up to 100 times more germicidal output than other brands.

We achieve this powerful intensity rating by combining a high output 36 watt lamp with a multi-voltage regulating electronic ballast; the best performance for your home.

GeneralAire® GUV100A83 Specifications

- 4" x 8.75" x 2.75" (W x H x D)
- 36 watt, 16" UVC Germicidal H-lamp UVV16HC
- 180 $\mu\text{W}/\text{cm}^2$ @ 1 meter UVC Output Potency
- 120 VAC / 240 VAC Regulating Electronic Ballast
- QuartzCoat® Durability
- Effective Lamp Life 18,000 hours (2 year lamp replacement)
- Power Cord Disconnect (Appliance Coupler Design)
- Max 2000 CFM or 4500 SQFT
- 5 Year Ballast Warranty



GUV25403A (GFI #4835) Super Plasma UV Air Purifier

The Super Plasma UV Air Purifier applies a 2 step ultraviolet lamp process.

1. A high-output UVC Germicidal H-Lamp delivers up to 5 times more UVC energy than today's residential brands to destroy germs & bacteria.
2. The Super Plasma 5" broad spectrum ultraviolet lamp oxidizes gaseous contaminants in your home's air. The super plasma ozone output is controlled manually by the patented Oxy-Regulator, Lamp-in-Tube Design. The Oxy-Regulator allows you to set the intensity level of the oxidation process., which breaks down airborne gaseous contaminants to deodorize the air in your home.

GeneralAire® GUV25403A Specifications

- 4" x 11.75" x 2.75" (W x H x D)
- 36 watt, 16 inch Germicidal H-Lamp UVV16HC
- 180 $\mu\text{W}/\text{cm}^2$ @ 1 meter UVC Output Potency
- 8 watt, 5 inch Super Plasma Lamp UVV5CL
- 12 $\mu\text{W}/\text{cm}^2$ @ 1 meter UVV Lamp Intensity Rating
- 120 VAC / 240VAC Regulating Electronic Ballast
- QuartzCoat® Durability
- Effective Lamp Life 18,000 hours (2 year lamp replacement)
- Power Cord Disconnect (Appliance Coupler Design)
- Max 2000 CFM or 4500 SQFT
- 5 Year Ballast Warranty

