



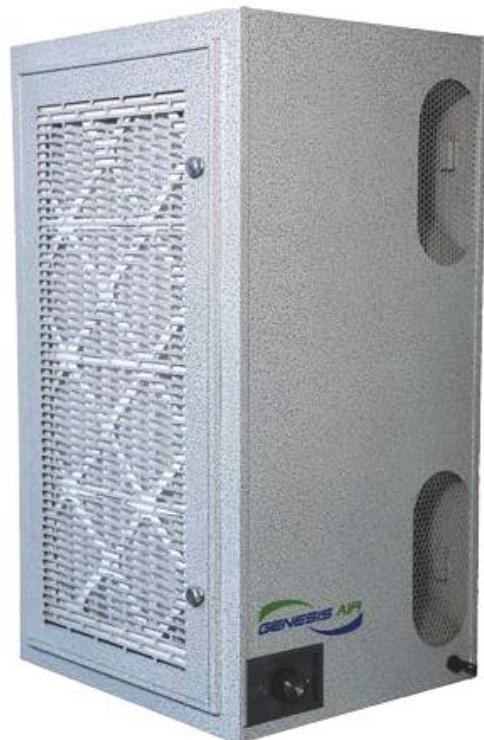
Indoor Air Purifier

RGS

Standalone / Portable

Commercial / Residential

CenterPoint Photocatalytic Oxidation Technology



Product Description

The RGS is a stand-alone unit used to reduce the levels of Volatile Organic Compounds (VOC's) and viable airborne biological contaminants. The unit may be utilized as a portable "point-of-use" air purifier or may be permanently wall mounted. The RGS uses (1) 1221 Populated Catalyst Panel. The RGS is suitable for spaces between 700 and 2,400 square feet. For recommend configurations, consult the manufacturer's engineering department. The RGS incorporates 3-step GAP™ Technology: MERV Filtration, UVGI Lamps, and Photocatalyst. The catalyst panel can also be replaced with a 6" HEPA filter.

** Refer to page 8 for performance in different room sizes.*

Suitable Locations

- Medical Facilities, Education Facilities, Restaurants, Hotels, Smoking Environments, Office Spaces, Residential, Green Houses, and Hydroponics Facilities.

Shipping and Packing List

Standard Equipment:

- (1) RGS Housing
- (1) 1221 PCP with 12" x 24" UV Shielding
- (1) 12" x 24" x 4" MERV 13 Pre-filter

Features:

- Variable Speed Control
- Powder Coated Exterior

Optional Equipment:

- 12" x 24" x 2" Carbon filter and 12" x 24" x 2" MERV 13 filter
- 12" x 24" x 6" HEPA filter

Copyright

Genesis Air, Inc. is the owner of this document and the information it contains. The manufacturer reserves the right to revise this publication at any time and make changes to its content without obligation to notify any person of such revision or change.

Revision Summary

Original IOM manual create in June 2021.

Current manual last revised on June 24th, 2022.

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Safety Certifications

UL File No. E326567

ETL Control No. 5021974

FIFRA....EPA EST No. 87747--TX--001

CARB Certified Air Cleaning Device....EO No. G-11-040



UL Requirements



- 105°C minimum supply connection rating.
- For catalyst marked "XXXX", 50°C/122°F maximum ambient temperature. For those marked "XXXX-E", 80°C/176°F maximum ambient temperature.
- Suitable for air-handling units.
- Access above ceiling may be required.
- The health aspects associated with the use of this product and its ability to aid in disinfection of environment air have not been investigated by UL.
- Only use type T5 lamps specified by the PCP manufactured by First Light Technologies, Inc or UV Engineering Solutions LLC.
- **Caution:** *Equipment Damage Hazard. Ultraviolet light can cause color shift or surface degradation and sometimes structural degradation of non-metallic components. Select mounting location rubber hoses, wiring insulation, filtration media, etc. If mounting options are limited, items above should be protected with ultraviolet resistant materials such as aluminum foil, aluminum duct tape or metallic shields.*

ETL Requirements

- WARNING – Skin or eye damage may result from directly viewing the light produced by the lamp in this apparatus. Always disconnect power before relamping or servicing. Replace Lamp with lamp Model No. 2813, Manufactured by First Light Technologies, Inc. or lamps with Model No. GEN9093, Manufactured by UV Engineering Solutions, LLC.
- AVERTISSEMENT - Des dommages à la peau ou aux yeux peuvent résulter de la visualisation directe de la lumière produite par la lampe dans cet appareil. Débranchez toujours l'alimentation avant de le relamping ou de l'entretien. Remplacer lampe avec lampe modèle No. 2813, Fabriqué par First Light Technologies, Inc. ou les lampes par le modèle No. GEN9093, Fabriqué par UV Engineering Solutions, LLC.

**Meets California ozone emissions
limit: CARB certified**

Applicable Warning Labels

	<p>⚠️ WARNING</p>	<p>⚠️ WARNING</p>
	<p>⚠️ WARNING</p>	
<p>⚠️ WARNING</p>	<p>⚠️ WARNING</p>	
<p>Mercury Hazard Do not break lamps. Each UVC lamp contains a small amount of Mercury. In case of breakage use proper lamp disposal techniques on page 13.</p>	<p>Improper installation, adjustment, alteration, service, or maintenance can cause property damage, personal injury, or death. Installation and service must be performed by a qualified installer or service agency.</p>	
<p>⚠️ WARNING</p>		
<p>TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:</p> <p>a.) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.</p> <p>b.) Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag to the service panel.</p>		

⚠️ WARNING

Use of accessories, transducers, and cables other than those specified or provided by the manufacture of this equipment could result in increased electromagnetic emissions or decrease electromagnetic immunity of this equipment and result in improper operation.

⚠️ WARNING

Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the unit, including cables specified by the manufacture. Otherwise, degradation of the performance of this equipment could result.

⚠️ WARNING

Keep Away from Water Danger

As with most electrical appliances, electrical parts in this device are electrically live even when dial is switched off. To reduce risk of death by electric shock:

1. Always “unplug it” after use
2. Do not place or store where device can fall or be pulled into water.
3. do not use near or place in water.
4. If device falls into water, unplug immediately. Do not reach into water.

⚠️ WARNING

Children should be supervised to ensure that they do not play with the appliance.

NOTICE

Do Not Block Air Grille

Blocking inlet or exhaust grilles may result in improper operation of air cleaning equipment. Overheating may result and cause permanent damage to equipment.

⚠️ WARNING

Do Not Stack

Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.



Product Overview

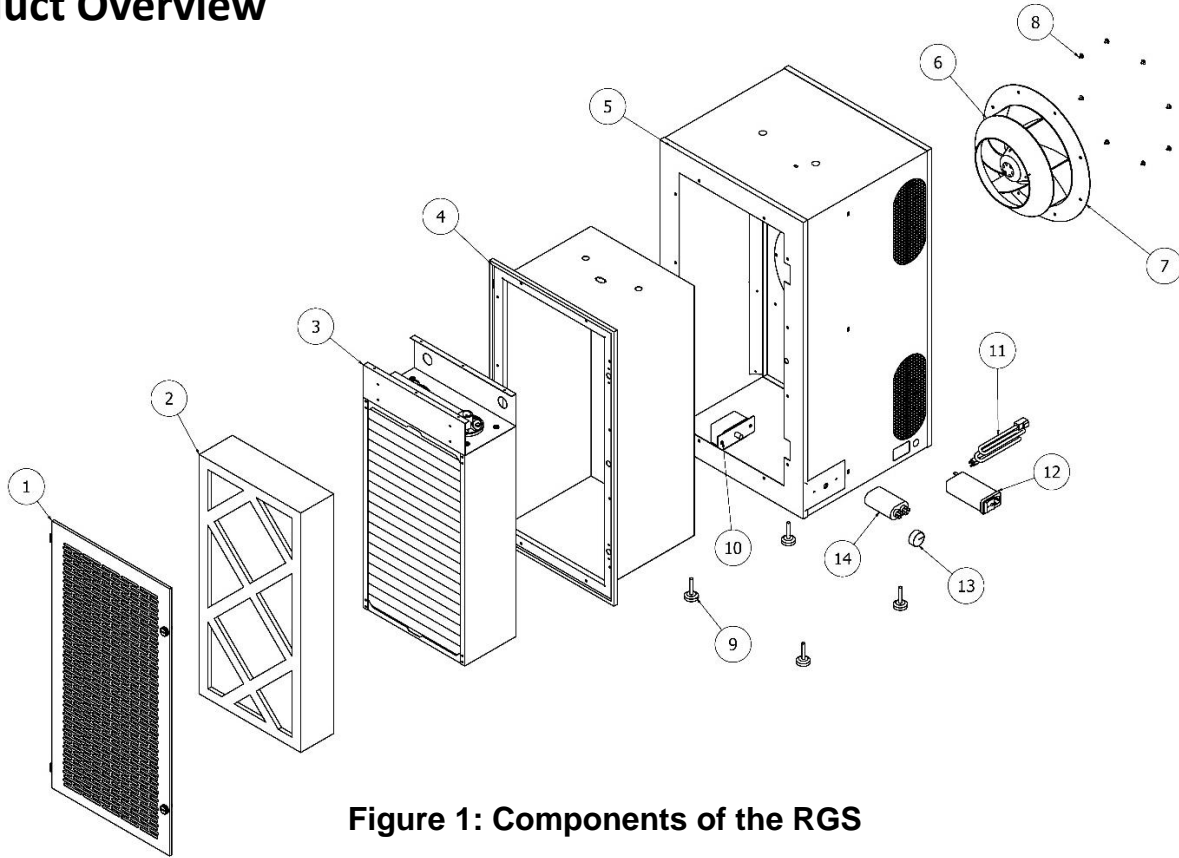


Figure 1: Components of the RGS

Report missing or damaged parts to the manufacturer. Refer to warranty for more information.

- 1.) **Filter Grille** – Gives access to pre-filter and catalyst panel.
- 2.) **Pre-filter** – 12" x 24" x 4" MERV 13. Removes large particles from air stream. May be replaced with a 2" Carbon filter and 2" MERV filter.
- 3.) **1221 PCP** – CenterPoint Technology. Contains ballast tray, UVC lamps, catalyst mesh, and UVC shielding. This is not a particle filter. May be replaced with a 6" HEPA filter.
- 4.) **Insert** – Separates particle filter and catalyst panel from electrical components.
- 5.) **Shell** – Housing which contains all components.
- 6.) **Fan Motor** – Conveys air through the unit.
- 7.) **Backplate** – Holds the fan motor in place.
- 8.) **Backplate Screws** – (8) screws that hold fan motor into place.
- 9.) **Leveling Feet** – (4) Leveling mounts to prevent damage to surface RGS is placed onto.
- 10.) **Steady State Speed Controller** – Controls the fan speed.
- 11.) **Power Cord** – 120 Volt AC type C13 power cord.
- 12.) **Power Entry Module** – Power cord terminal. Main power ON / OFF switch.
- 13.) **Speed Control Knob** – Controls the fan speed.
- 14.) **Capacitor** – Works in conjunction with the fan motor.

Specifications

U.S. Patent Number: 10946116

Model Name: RGS

Volumetric Flow Rate (CFM): 275 (Low Speed) – 825 (High Speed)

Power Requirements: 120 Volts, 60 Hertz

Current (amps): 3.40

Weight (lbs.): 58.2

Size: 15" x 16.25" x 33.25"

Number of Lamps: 2

UVGI Life Cycle: 12,000 operational hours

PCP Life Cycle: 5 years*

Standard Pre-filter: 12" x 24" x 4" MERV 13

Installation Type: Portable or Wall Mounted

Temperature Rating: -20°F to 122°F

Sound Level (dB from 3 ft away): 48 (Low Speed) – 65 (Mid-Range) – 74 (High Speed)

Equipment must be properly maintained to allow catalyst panels to last the full 5-year warranty period. If pre-filters are not used or are not replaced at the appropriate intervals, the life of the catalyst panels will be reduced. If PCPs are cleaned incorrectly or too frequently, the life of the catalyst panels will be reduced. **High pressure spray cannot be used directly on catalyst panels. Performing maintenance improperly will result in a voided product warranty. Catalyst can exceed warranty and last up to 15 years if well maintained.*

Trim Levels

- Recommended: 12" x 24" x 4" MERV 13 filter and 1221 PCP
- Ultimate: 12" x 24" x 2" MERV 13 filter, 12" x 24" x 2" Carbon filter (Honeycomb), and 1221 PCP
- Advanced Odor Protection: 12" x 24" x 2" MERV 13 filter, 12" x 24" x 2" Carbon filter (Honeycomb), and 12" x 24" x 6" HEPA filter
- Particle Catcher: 12" x 24" x 4" MERV 13 filter and 12" x 24" x 6" HEPA filter

UV Lamp Safety Information

Ultraviolet germicidal irradiation (UVGI) is used for the activation of the PCO Catalyst. The residual light presents a variety of potential health hazards to humans. These hazards include eye damage, skin burns, and the potential to cause skin cancer. Because germicidal UV rays are invisible to the human eye, personnel may be subjected to a hazardous dose of UV without warning. There is no Occupational Safety and Health Administration standard for exposure to ultraviolet light. UV can be associated with adverse health effects depending on duration of exposure and wavelength. These adverse health effects include erythema (sunburn), photokeratitis (a feeling of sand in the eyes), skin cancer, melanoma, cataracts, and retinal burns. Ideally, activated UV sources should be attended by knowledgeable personnel at all times.

The UVC lamps in CenterPoint™ products do not produce ozone! The lamps provide a minimum intensity of 775 microwatts/cm² at 10.77 cm to activate the catalyst effectively to maintain tested performance. Lamps may not be substituted with an unapproved manufacturer. These lamps provide UV-C light at a wavelength of 254 nm. Despite their appearance to the naked eye, the lamp intensity will reduce over time. All lamps must be replaced every 16 months (12,000 hrs.) of continuous use to maintain intensity requirements. Lamps provided contain trace amounts of mercury. Lamps include a Teflon case to encapsulate the lamp and reduce the risk of exposing the consumer and environment to mercury.

Personal Protective Equipment

While in normal operation, the unit will not emit harmful levels of UV radiation to the surrounding area. When checking for proper lamp connection, you may be exposed to harmful levels of UV radiation. If you must have the lamps on to check for proper operation, follow these instructions.

- All personnel exposed to UV radiation must wear UV protective glasses.
- All personnel exposed to UV radiation must protect exposed skin with UV resistant clothing.

Installation

The RGS is designed to be utilized either as a portable or permanently installed unit. Installation must be completed by competent personnel. The manufacturer assumes no liability for damages or injuries sustained from installations done by persons other than qualified technicians who are employed by the manufacturer.

Portable Installation

Make the following considerations when choosing an appropriate placement location.

- Choose a suitable location on the ground or on furniture within a room or corridor.
- Ensure that the intake and outlet grills of the unit are not blocked by adjacent furniture or walls.
- Ensure that the placement of the unit does not interfere with the flow of foot traffic or block entrances or exits to rooms within the building.
- Placing air purifier too close to a window or door may cause unit to suck in outdoor air rather than recirculate air in the room.

Caution: *Placing the unit in a location on the floor that impede foot traffic may be considered a fire hazard. Consults local building and fire codes to find a suitable floor location.*

- Choose a location that has access to a 120V power outlet. An extension cord with ground pin may be used if the supplied power cable is too short for your application.

Permanent Wall Mount

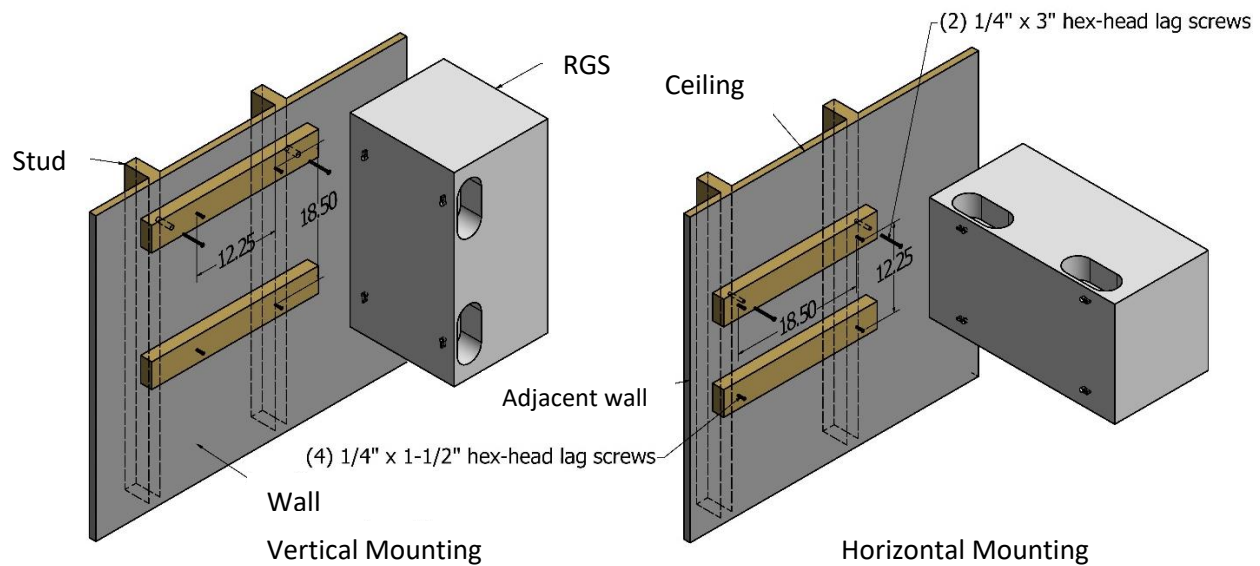


Figure 2: Wall Mounting

** Recommended hardware is not included. All measurements written in inches.*

1.) Determine an adequate mounting location. Identify a place on the wall that has space for the RGS.

2.) If mounting vertically, the RGS should be hung a minimum of 12" from any adjacent wall or furniture, and a minimum of 1" from the ceiling.

If mounting horizontally, the RGS should be mounted a minimum of 1" from any adjacent wall or furniture, and a minimum of 12" from the ceiling.

3.) Locate 2 neighboring wall studs using a stud finder. Use a standard 2" x 4" as a mounting cleat as shown in the drawing.

4.) (2) 1/4" x 3" hex-head lag screws are recommended to hand the RGS from the top cleat.

5.) (2) 1/4" x 1-1/2" hex-head lag screws are recommended to fasten the bottom cleat to the wall.

6.) (2) 1/4" x 1-1/2" hex-head lag screws are recommended to fasten the bottom cleat to the wall. The bottom cleat is indented to prevent the unit from swinging while in operation. Ensure that all wall anchors used are rated for 75 lbs.

7.) Hang the RGS on the wall anchors. This will require 2 people to lift the unit into place.

8.) Plug in the unit to a 120V AC power source. Run the unit at all speeds, ensuring the fan has not become bound during shipping.

Operation

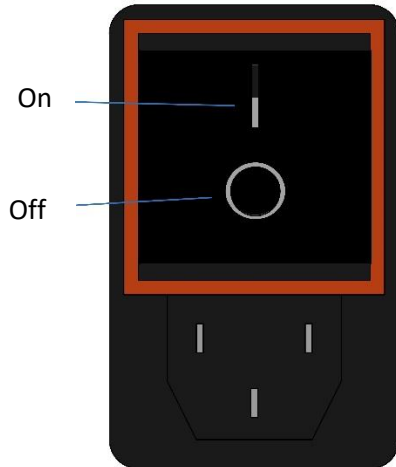


Figure 3: Power Entry Module

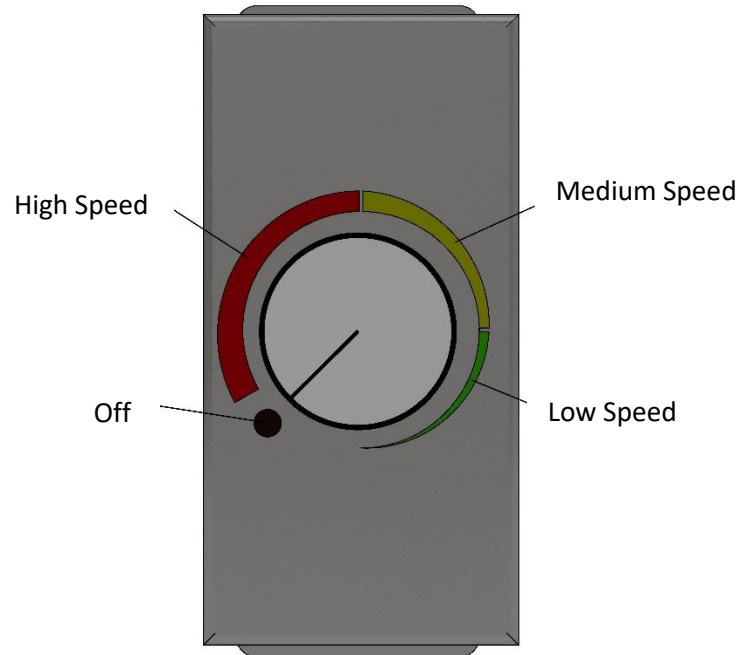


Figure 4: Motor Controller

- The Power Entry Module is the main power switch for the unit. Click to the “I” position to turn on and turn to the “O” position to turn off. See Fuse Replacement instructions for more information.
- Turn the knob on the Motor Controller to adjust the fan speed of the air purifier.
- Note that when turned from Off to On, the fan will start in the high-speed position.
- When turning off fan, be sure to feel knob “Click” to off position.
- See Air Changes Per Hour Chart to determine appropriate air flow rate and fan speed.
- For most applications, the manufacturer recommends 6 Total Air Changes Per Hour.
- Total Air Changes Per Hour = Air Changes provided by HVAC system + Air Changes provided by in room Air Purifier.

Note: *The air changes provided by HVAC system will vary throughout the year. Normally, 100% recirculating HVAC system will provide more air changes per hour during the summer and winter, and fewer air changes per hour in the spring and autumn. Systems that have mixed outdoor air and recirculating air will have more consistent air changes throughout the year.*

Air Changes Per Hour

Volumetric Flow Rate (CFM)									Low Speed
Room Square Footage			Air Changes Per Hour						Medium Speed
(8 ft ceiling)	(9 ft ceiling)	(10 ft ceiling)	1	2	3	4	5	6	High Speed
875	778	700	117	233	350	467	583	700	
1000	889	800	133	267	400	533	667	800	
1125	1000	900	150	300	450	600	750	900	
1250	1111	1000	167	333	500	667	833	1000	
1500	1333	1200	200	400	600	800	1000	1200	
1750	1556	1400	233	467	700	933	1167	1400	
2000	1778	1600	267	533	800	1067	1333	1600	
2250	2000	1800	300	600	900	1200	1500	1800	
2500	2222	2000	333	667	1000	1333	1667	2000	
3000	2667	2400	400	800	1200	1600	2000	2400	
3500	3111	2800	467	933	1400	1867	2333	2800	
4000	3556	3200	533	1067	1600	2133	2667	3200	
4500	4000	3600	600	1200	1800	2400	3000	3600	
5000	4444	4000	667	1333	2000	2667	3333	4000	
5500	4889	4400	733	1467	2200	2933	3667	4400	
6000	5333	4800	800	1600	2400	3200	4000	4800	
7000	6222	5600	933	1867	2800	3733	4667	5600	

Table 1: Air changes per hour at varying flow rates

Note: Highlighted Cells indicate unit range. See ASHRAE standard 62.1 for required ventilation for acceptable indoor air quality. CenterPoint devices do not deactivate or oxidize 100% of all contaminants in the air. Lower air speeds increase the effectiveness of the air purifier.

Note: CFM range shown for standard equipment. Air flow rate through customized units may vary.

Maintenance

Pre-filter Replacement

The RGS includes a pre-filter to remove large particles from the air stream. This prevents the buildup of debris on the catalyst panel. The pre-filter should be replaced when it has become built up with dirt and other contaminants. The manufacturer recommends replacing pre-filters with a 12" x 24" x 4" MERV 13. This filter may also be replaced with a combination of a 12" x 24" x 2" MERV filter and a 12" x 24" x 2" carbon filter. MERV filters should be replaced once every 3 months. Carbon filters should be replaced once every 12 months.

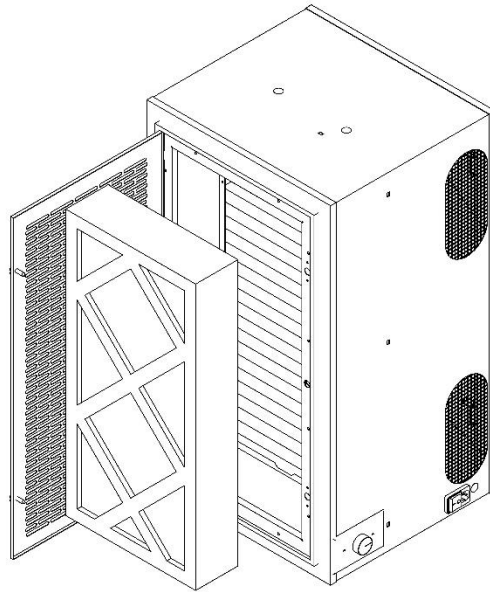


Figure 5

Pre-filter Replacement Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on while the filter grille is opened, a safety switch will break power.*

Caution: *Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.*

2.) Open filter grille by loosening (2) knobs by hand or with a coin.

3.) Remove old air filter.

4.) Insert new air filter. Ensure that arrows on filter match the direction of air flow.

Note: *Air will move in through the filter grille and exhaust out the sides of the unit.*

5.) Close filter grille and tighten knobs.

6.) Plug-in unit and power on to ensure that the unit works properly.

HEPA Filter Replacement (if applicable)

Some devices include a 12" x 24" x 6" HEPA Filter. The manufacturer recommends replacing HEPA filters once every 12 months.

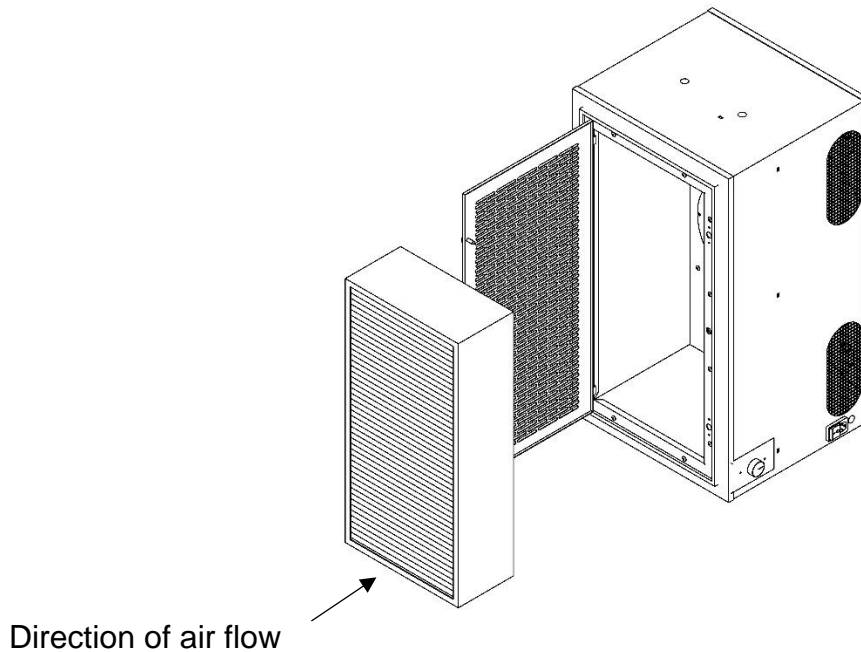


Figure 6

HEPA Filter Replacement Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on while the access panel is removed, a safety switch will break power.*

Caution: *Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.*

2.) Open filter grille by loosening (2) knobs by hand or with a coin.

3.) Remove pre-filter. See Figure 5.

4.) Remove old HEPA filter. See Figure 6.

5.) Compare new filter to original filter to ensure that it is the same size (12" x 24" x 6").

6.) Insert new filter and ensure the arrows on filter are pointed down to match the direction of air flow.

Note: *Air will move in through the filter grille and exhaust out the sides of the unit.*

7.) Reinsert pre-filter. See Figure 5.

Note: *Air will move in through the filter grille and exhaust out the sides of the unit.*

8.) Close filter grille and tighten knobs.

9.) Plug-in unit and power on to ensure that the unit works properly.

Lamp Replacement

The RGS includes (2) 20" UVC lamps. UV lamps are used to energize the catalyst. These lamps will either be manufactured by First Light Technologies, Inc or UV Engineering Solutions LLC. Lamps must be replaced after 12,000 hours of continuous use. The manufacturer recommends replacing lamps once a year.

Lamp Replacement Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on while the filter grille is opened, a safety switch will break power.*

Caution: *Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.*

2.) Open filter grille by loosening (2) knobs by hand or with a coin.

3.) Remove pre-filter. See Figure 5.

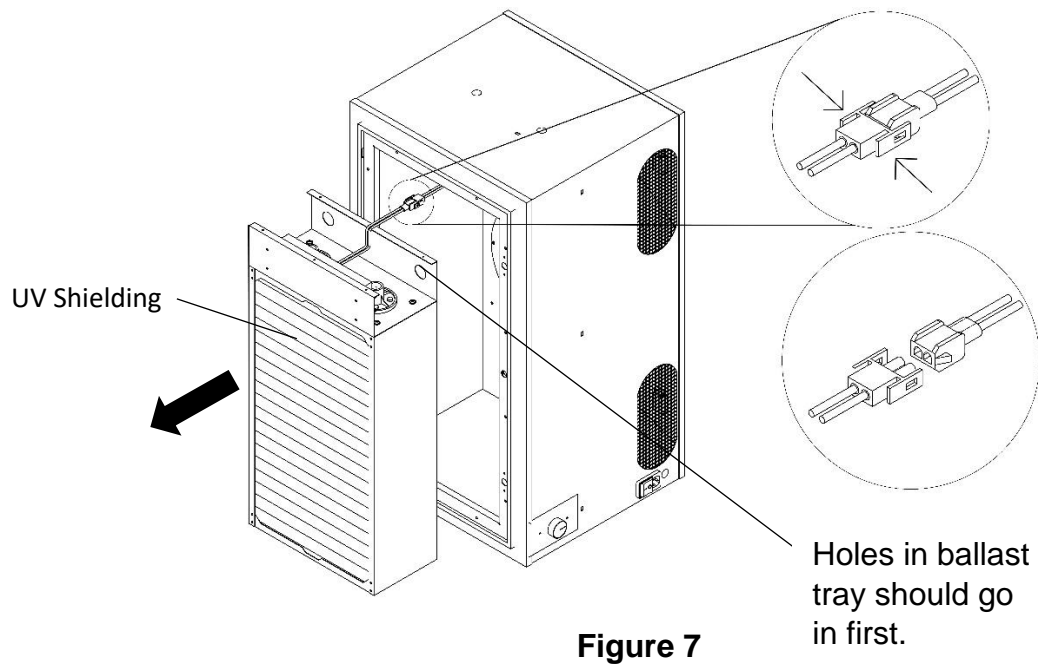


Figure 7

4.) Remove catalyst panel. See Figure 7.

5.) Disconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

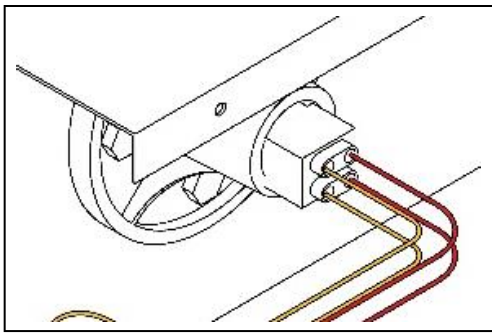


Figure 8

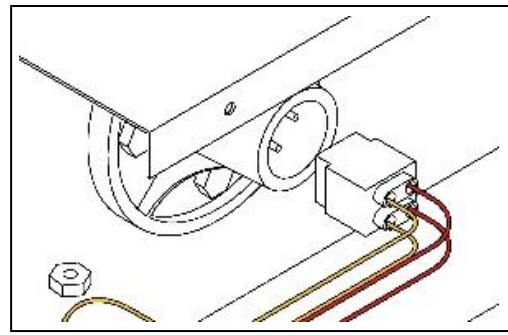


Figure 9

6.) Disconnect lamp plugs from lamps that will be replaced. See Figures 8 and 9.

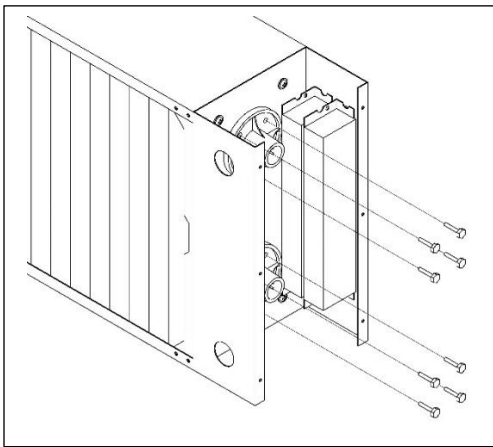


Figure 10

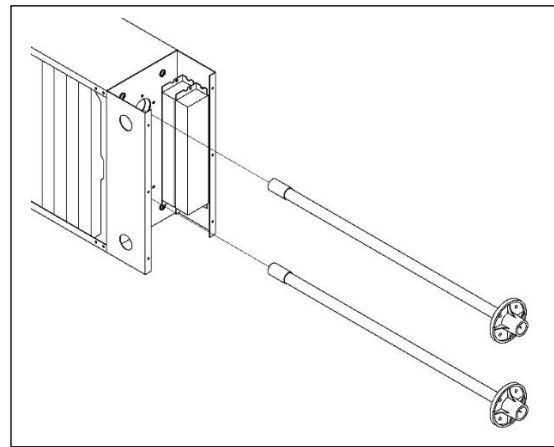


Figure 11

7.) Lamps are attached to catalyst panel with (4) 10-16 Self-Drilling screws per lamp. Remove the screws using a 5/16" socket wrench. See Figure 10.

8.) Remove lamps by alternating a quarter turn clockwise and a quarter turn counterclockwise as it is pulled out. This will prevent the lamp from becoming bound up in the catalyst media. See Figure 11.

Caution: *Lamps may be hot if recently in operation. Allow lamps to cool before removing or wear heat insulating gloves to protect hands.*

9.) Inspect new lamp to ensure that it matches the length of the original lamp.

10.) Replace lamps by alternating a quarter turn clockwise and a quarter turn counterclockwise as it is pushed in. This will prevent the lamp from becoming bound up in the catalyst media. See Figure 11.

11.) Reinsert (4) screws per lamp using a 5/16" socket wrench. See Figure 10.

12.) Reconnect lamp plugs. See Figures 8 and 9.

13.) Reconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

14.) Reinsert catalyst panel. Ensure that arrows on catalyst panel match the direction of air flow. See Figure 7.

Note: Air will move in through the filter grille and exhaust out the sides of the unit.

15.) Reinsert pre-filter. Ensure that arrows on filter match the direction of air flow. See Figure 5.

16.) Reattach the lid and tighten knobs.

17.) Plug-in unit and power on to ensure that the unit works properly.

Lamp Disposal

Products containing Mercury are considered hazardous waste. Since January 1, 2000, the United States Environmental Protection Agency (EPA) has allowed for spent lamps to be managed as Universal Wastes. The Universal Waste Rules (UWR) are designed in part to simplify the management of mercury containing wastes, including spent fluorescent lamps. The Rules are also intended to encourage recycling, thereby reducing mercury emissions to the environment.

As an alternative to managing lamps as universal wastes, a facility may elect to manage its spent lamps as hazardous wastes. Hazardous waste rules, like the universal waste rules, are promulgated under the federal Resource Conservation Recovery Act (RCRA) and state laws equivalent to RCRA. RCRA regulates hazardous wastes from the cradle to the grave. RCRA Subtitle C requires a waste generator to properly identify, treat, store, transport, and delegate to the States the responsibility for the day-to-day management of the program.

List of Lamp Recycling Facilities in the US

- AERC Recycling Solutions – Hayward, CA ; West Melbourne, FL ; Allentown, PA
- Universal Recycling Technologies – Dover, NH ; Clackamas, OR ; Fort Worth, TX ; Janesville, WI
- Veolia ES – Phoenix, AZ ; Tallahassee, FL ; Stoughton, MA ; Port Washington, WI

Go online to find you nearest lamp recycling facility.

Ballast Tray Troubleshooting Procedure

Troubleshooting All Fluorescent Fixtures

Safety First: Voltage and current measurements present the possibility of exposure to hazardous voltages and should be performed only by qualified personnel. Many troubleshooting techniques require measurements with input voltages applied requiring extra precautions to avoid electrical shock. Use proper safety equipment such as eye protection and gloves when performing electrical measurements.

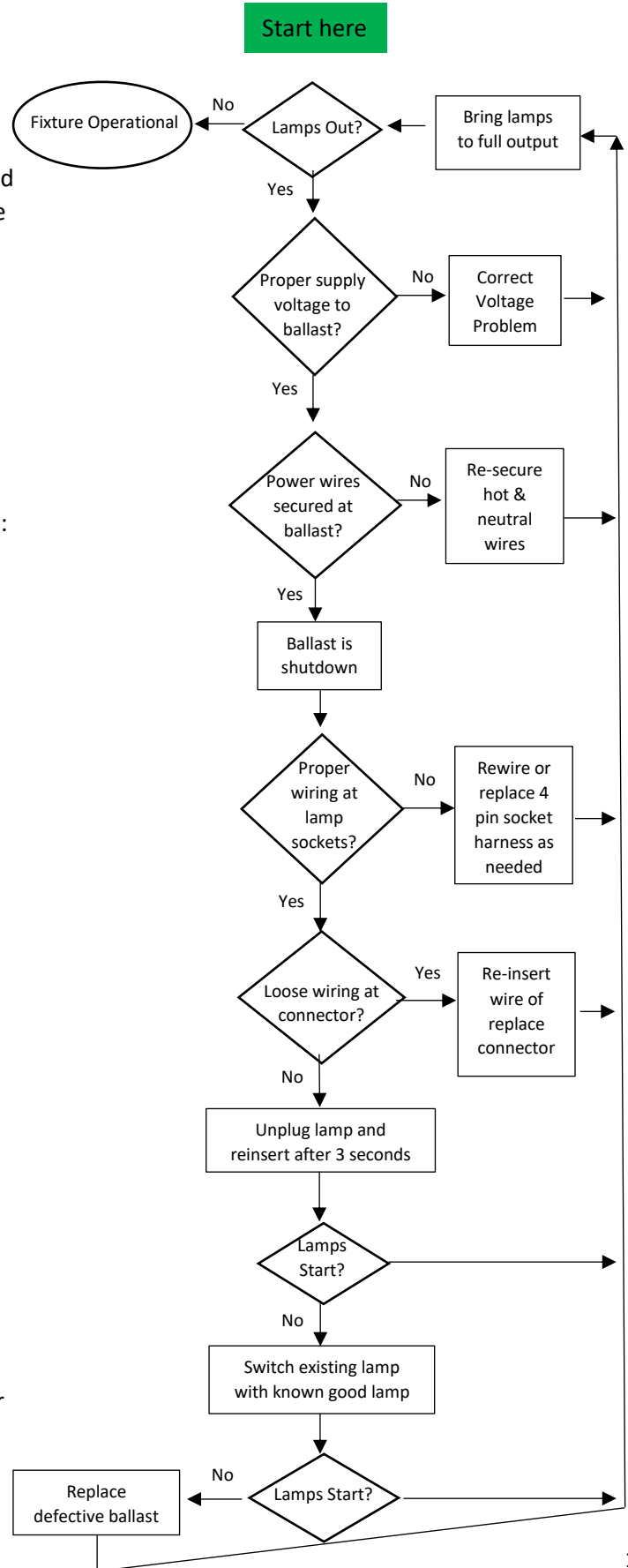
Inoperative Fixture:

Often, a fixture becomes inoperative due to causes not attributable to the ballast. It is therefore important to examine all fixture components before removing the ballast for replacement. We recommend the following general procedure for both magnetic and electric ballasts:

- 1.) **Replace or check all lamps to ensure satisfactory operation.**
- 2.) **As lamps are removed, examine all sockets to ensure they are not damaged or broken and are making proper and positive contact with the lamps.**
- 3.) **examine all electrical connection within the fixture, including at the lamp socket, to ensure conformance with the wiring diagram (see Wiring Diagram).**

To left is a systematic approach for troubleshooting most problems than arise regarding fixture using ballasts with startup protection. For those situations when this document does not assist in correcting the problem, the manufacture should be contacted.

Note: Programmed Start Ballasts include lamp end-of-life circuitry. This circuit is included to maximize lamp life when one lamp frails in the circuit. The feature enables the ballast to detect when lamps fail and safely removes power for the lamp by going into a shutdown mode. The ballast also goes into a shutdown mode when it detects lamps not properly placed in the sockets. When troubleshooting the circuit, make sure lamps are placed properly in the sockets. Programmed Start ballasts also include a re-strike feature that will restart the lamps after the failed lamp has been replaced. Open circuit voltage cannot be measured due to lamp end-of-life circuitry.



Ballast Replacement.

There is not a set lifetime for ballasts. Ballasts are intended to last the life of the unit. However, ballasts can fail prematurely and will need to be replaced. Contact your CenterPoint air purifier supplier for replacement ballasts. See Ballast Troubleshooting Chart for diagnosing ballast faults.

Ballast Replacement Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on while the filter grille is opened, a safety switch will break power.*

Caution: Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.

2.) Open filter grille by loosening (2) knobs by hand or with a coin.

3.) Remove pre-filter. See Figure 5.

4.) Remove catalyst panel. See Figure 7.

5.) Disconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

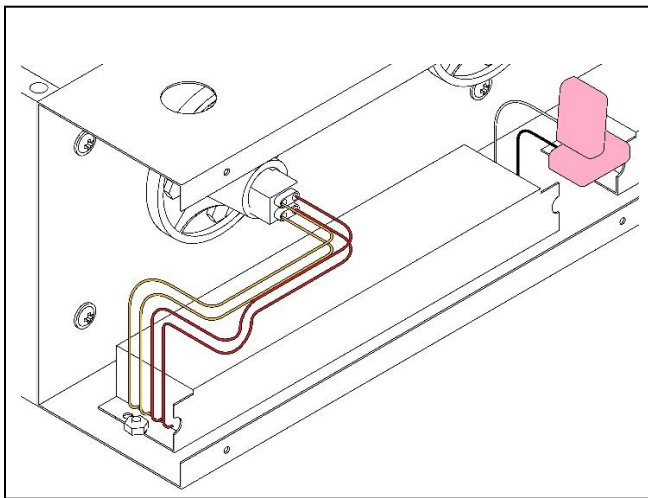


Figure 12

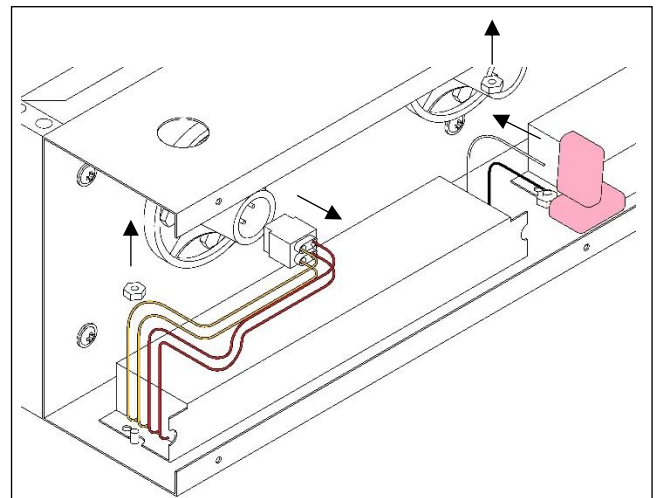


Figure 13

6.) Disconnect lamp plug and power attached to defective ballast. Take note of which terminals power the defective ballast so the new one can be wired correctly. See Figures 12 and 13.

7.) Use an 11/32" socket wrench to remove the (2) nuts holding the ballast into place. See Figures 12 and 13.

8.) Inspect the new ballast and ensure that it matches the original one.

9.) Reinstall the (2) nuts that hold the ballast in place using an 11/32" socket wrench. See Figures 12 and 13.

10.) Reconnect lamp plugs and wires powering ballast. See Figures 12 and 13.

11.) Reconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

12.) Reinsert catalyst panel. Ensure that arrows on catalyst panel match the direction of air flow.

See Figure 7.

Note: *Air will move in through the filter grille and exhaust out the sides of the unit.*

13.) Reinsert pre-filter. Ensure that arrows on filter match the direction of air flow. See Figure 5.

14.) Reattach the lid and tighten knobs.

15.) Plug-in unit and power on to ensure that the unit works properly.

Fan Motor Replacement

Fan motors are intended to last the life of the unit. However, fan motors can fail prematurely and will need to be replaced. Always acquire replacement fan motors from your CenterPoint air purifier supplier.

Fan Motor Replacement Procedure

Note: *Do not attach 4 pin male MOLEX connector to fan motor wires until wires have been feed through wire tube in step 15. MOLEX connector will not fit though wire tube. Attaching MOLEX connector beforehand will require a special tool to remove wire pins.*

1.) Disconnect unit from power supply.

Note: *If the unit is powered on while the filter grille is opened, a safety switch will break power.*

Caution: *Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.*

Caution: *Safety switch will not detect that motor has been removed. If unit is plugged into power source, there is a risk of getting fingers caught in moving fan blade.*

2.) Open filter grille by loosening (2) knobs by hand or with a coin.

3.) Remove pre-filter. See Figure 5.

4.) Remove catalyst panel. See Figure 7.

5.) Disconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

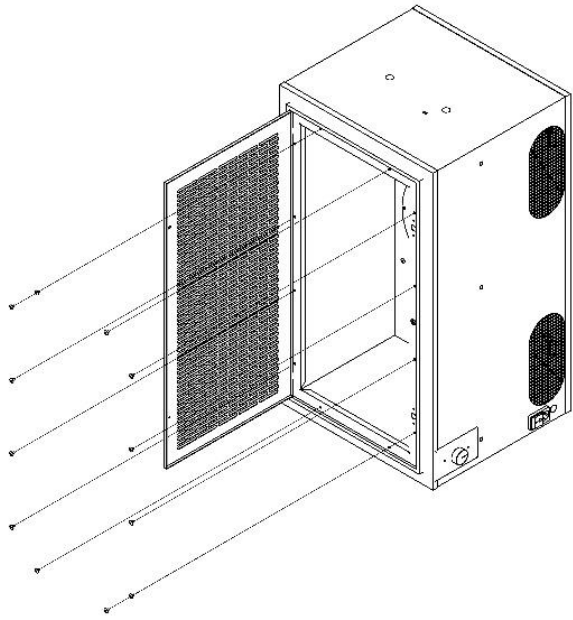


Figure 14

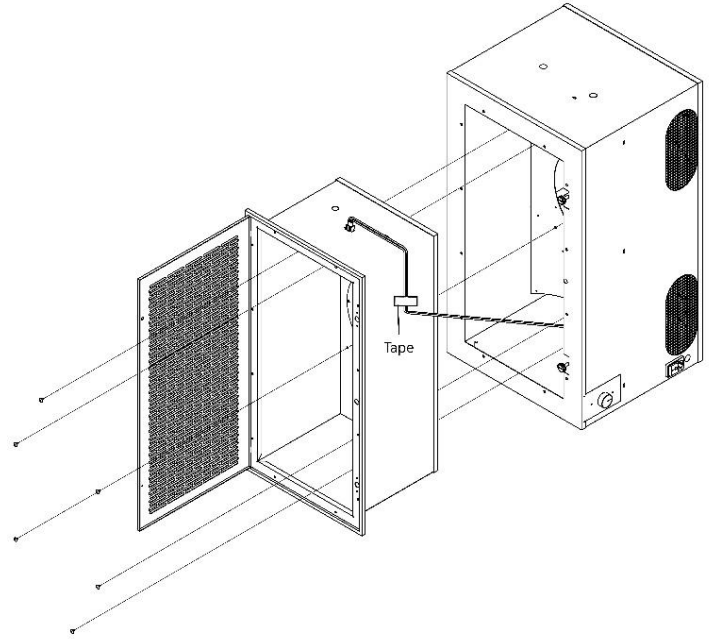


Figure 15

6.) Remove (12) M4 screws holding insert in place. Use a 2.5 mm Allen wrench. See Figure 14.

7.) Remove (6) more M4 screws holding insert in place. See Figure 15.

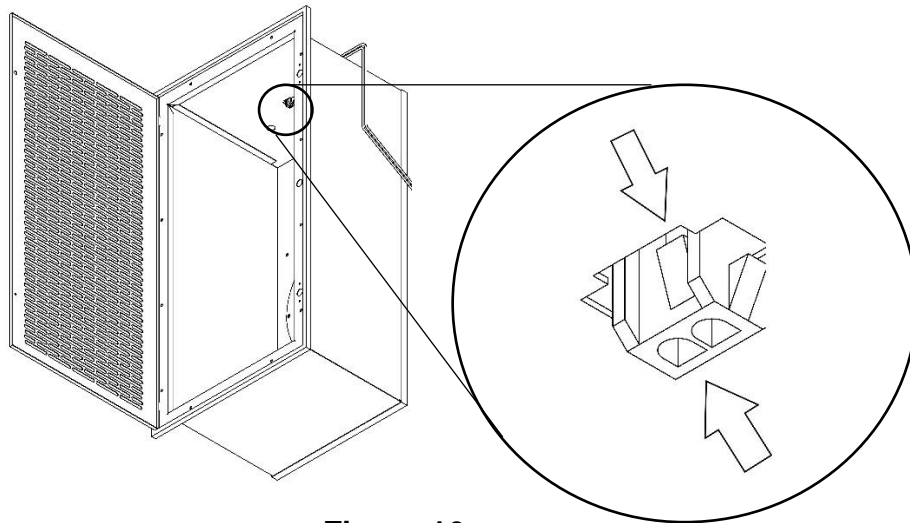


Figure 16

8.) Remove 2 pin MOLEX connector attached to insert. Apply a force using a flat head screws driver to pop out the back side first. Then, pop out the front side using the same technique. See Figure 16. This will provide better maneuverability for the next steps.

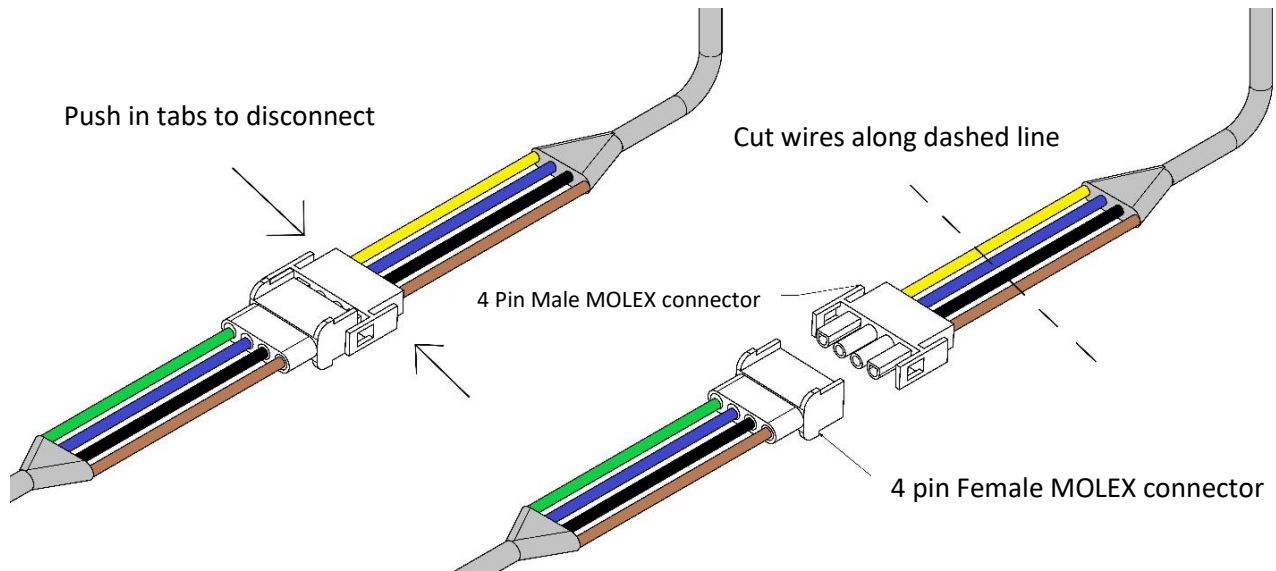


Figure 17

9.) Disconnect the 4 pin MOLEX connectors joining the fan motor to the wiring harness. Identify the wires that attach to the fan motor (side with male MOLEX connector). Cut these wires on the dashed line shown in Figure 17.

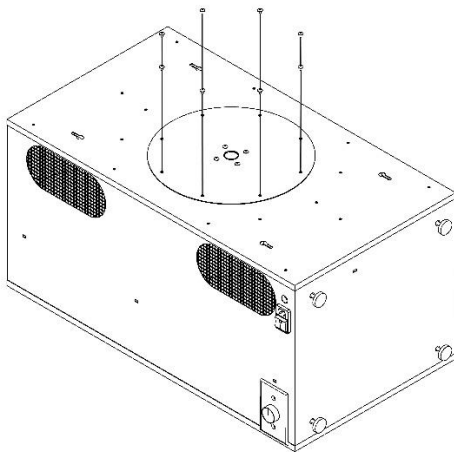


Figure 18

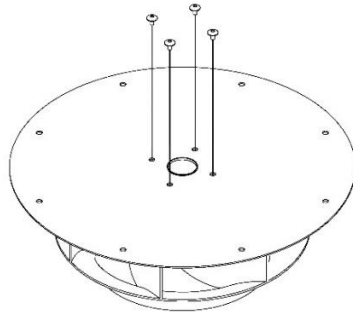


Figure 19

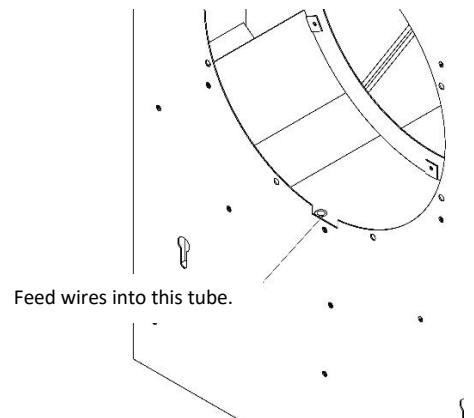


Figure 20

10.) Place the unit on its face as shown in Figure 18. Remove (8) M4 screws holding the backplate on with an Allen wrench.

11.) Remove backplate and pull fan motor wires out of unit.

12.) Remove (4) M4 screws holding fan motor onto backplate with an Allen wrench. See Figure 19.

13.) Inspect new fan motor and ensure that it matches the original fan motor.

- 14.) Using an Allen wrench, attach new fan motor to backplate with (4) M4 screws. See Figure 19.
- 15.) Feed wires into metal tube that runs down the inside of the unit housing. See Figure 20.
- 16.) Position backplate over unit as shown in Figure 18. Reattach backplate to unit housing with (8) M4 screws using an Allen wrench.
- 17.) Set unit upright on work surface.

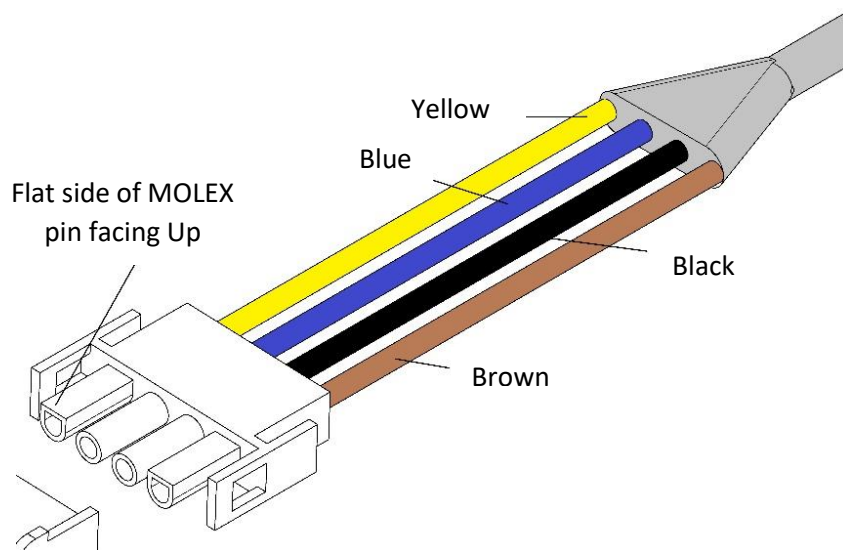


Figure 21

- 18.) Attach new 4 pin male MOLEX connector to fan motor wires. See Figure 21 for correct wire order.
 - 19.) Reconnect 4 pin MOLEX connectors, connecting fan motor to wiring harness.
 - 20.) Reinsert 2 pin MOLEX connector into the top of the housing Insert. The connector will snap when it is in place. See Figure 16.
 - 21.) Tape wire to the side of the housing insert. This will keep it from being wedged. See Figure 15.
 - 22.) Place insert back into housing. Attach with (18) M4 screws. See Figures 14 and 15. Unit may need to be placed on its back side to evenly align screws. Tighten screws in a crisscross pattern to prevent metal from binding.
 - 23.) Reconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.
 - 24.) Reinsert catalyst panel. Ensure that arrows on catalyst panel match the direction of air flow. See Figure 7.
 - 25.) Reinsert pre-filter. Ensure that arrows on filter match the direction of air flow. See Figure 5.
- Note:** Air will move in through the filter grille and exhaust out the sides of the unit.
- 26.) Reattach the lid and tighten knobs.
 - 27.) Plug-in unit and power on to ensure that the unit works properly.
- Note:** If motor is installed incorrectly, fan blade may rub on inlet ring. If this is the case, backplate may need to be removed and clocked 1/8th of a rotation before being reattached.

Catalyst Cleaning

As debris and contaminants accumulate on the catalyst, the effectiveness of the unit decreases. The catalyst must be inspected periodically for buildup. It is recommended that this inspection be performed during pre-filter replacement.

Catalyst Inspection Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on while the filter grille is opened, a safety switch will break power.*

Caution: *Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.*

2.) Open filter grille by loosening (2) knobs by hand or with a coin.

3.) Remove pre-filter. See Figure 5.

4.) Remove catalyst panel. See Figure 7.

5.) Disconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

6.) Using a flashlight, visually inspect catalyst. Look for clumps of dirt and debris.

7.) If catalyst appears clean and free of particulate, the catalyst will not need to be cleaned. Proceed to next step to reassemble. If catalyst has accumulated dirt and debris, the catalyst panel should be cleaned. Proceed to Catalyst Cleaning Procedure.

8.) Reconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

9.) Reinsert catalyst panel. Ensure that arrows on catalyst panel match the direction of air flow. See Figure 7.

Note: *Air will move in through the filter grille and exhaust out the sides of the unit.*

10.) Reinsert pre-filter. Ensure that arrows on filter match the direction of air flow. See Figure 5.

11.) Reattach the lid and tighten knobs.

12.) Plug-in unit and power on to ensure that the unit works properly.

Catalyst Cleaning Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on while the filter grille is opened, a safety switch will break power.*

Caution: *Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.*

2.) Open filter door by loosening (2) knobs by hand or with a coin.

3.) Remove pre-filter. See Figure 5.

4.) Remove catalyst panel. See Figure 7.

5.) Disconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

6.) If the catalyst has only light to moderated dust build up, use a pump-up spray bottle with water only to rinse the catalyst. Avoid heavy concentration of spray on ballast tray.

If catalyst is soiled with resin (E.T.S.) or grease, spray catalyst liberally with Nu-Calgon CalClean, Special HD, or another suitable coil cleaner. Do not spray ballast tray. Allow to sit for 15 minutes before rinsing with pump-up water spray bottle.

If catalyst has been discolored, a mixture of powered Oxiclean and water can be sprayed on the catalyst with a pump-up spray bottle. Allow to sit for 15 minutes before rinsing with pump up water spray bottle.

Caution: *Do not spray high-pressure water to clean catalyst. Excessive use of high-pressure water will remove catalyst coating. This type of damage will void the product warranty.*

7.) Allow catalyst to dry before reinserting into unit.

8.) Reconnect 2 pin MOLEX connector providing power to catalyst panel. See Figure 7.

9.) Reinsert catalyst panel. Ensure that arrows on catalyst panel match the direction of air flow. See Figure 7.

Note: *Air will move in through the filter grille and exhaust out the sides of the unit.*

10.) Reinsert pre-filter. Ensure that arrows on filter match the direction of air flow. See Figure 5.

11.) Reattach the lid and tighten knobs.

12.) Plug-in unit and power on to ensure that the unit works properly.

Catalyst Replacement

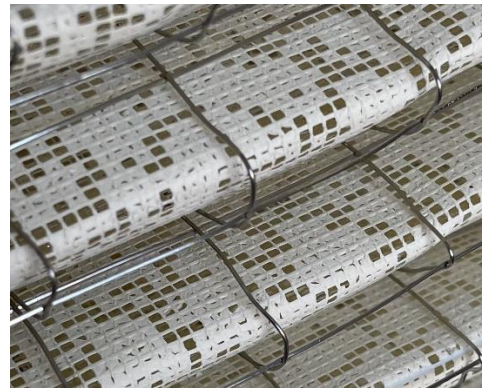
After 15 years of continuous use, the catalyst panel inside the unit will need to be replaced. Over time the UV lights will degrade the TiO₂ coating, exposing the fiberglass core. In Figure 22, notice the stripes in the mesh created by the lamps. It is time to replace the catalyst when these stripes appear. Figures 23 and 24 show the removal of catalyst windowing over time. When the windowing is removed, the catalyst is not effective at creating hydroxyl radicals.



Striped Catalyst: Figure 22



Used Catalyst Windowing: Figure 23



New Catalyst Windowing: Figure 24

Note: Upon initial startup, some window coating may be blown out of the panel due to excessive coating. At a minimum, 40% of windowing is required for the catalyst panels to meet factory specifications. If windowing drops below 40%, the catalyst panel should be replaced.

Catalyst Replacement Procedure

1.) Disconnect unit from power supply.

Note: If the unit is powered on while the filter grille is opened, a safety switch will break power.

Caution: Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.

2.) Open filter grille by loosening (2) knobs by hand or with a coin.

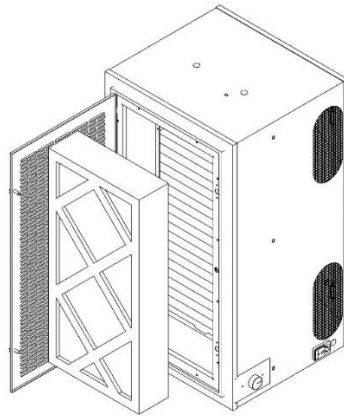


Figure 25

3.) Remove pre-filter. See Figure 25.

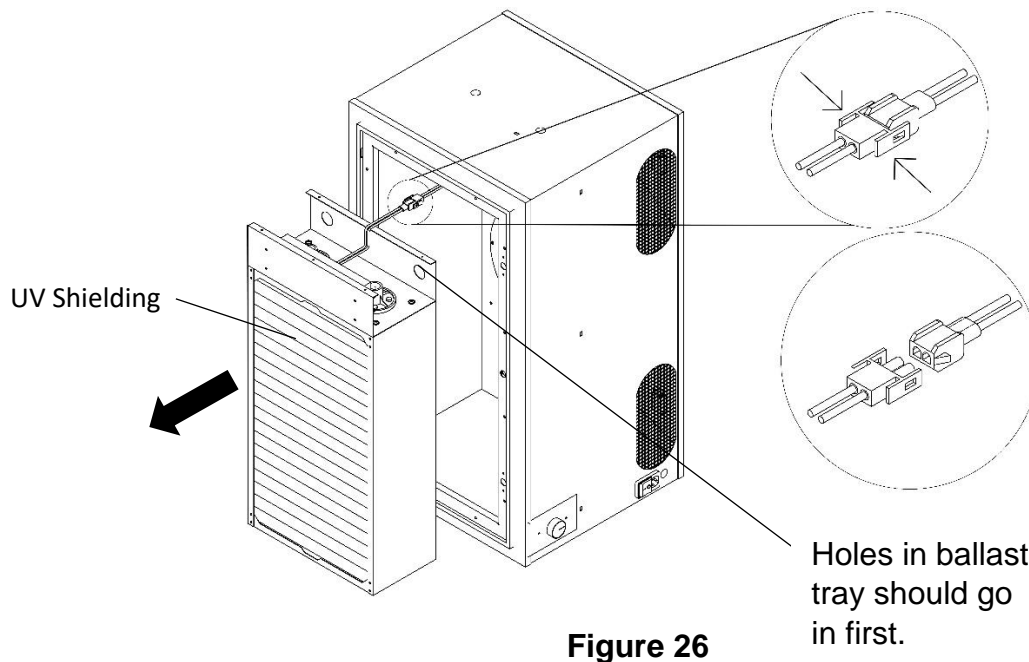


Figure 26

4.) Remove catalyst panel. See Figure 26.

5.) Disconnect 2 pin MOLEX connector providing power to old catalyst panel. See Figure 26.

6.) Reconnect 2 pin MOLEX connector providing power to new catalyst panel. See Figure 26.

7.) Insert new catalyst panel. To align with air flow, ensure holes in ballast tray go in first.

Note: Air will move in through the filter grille and exhaust out the sides of the unit.

8.) Reinsert pre-filter. Ensure that arrows on filter match the direction of air flow. See Figure 25.

9.) Reattach the lid and tighten knobs.

10.) Plug-in unit and power on to ensure that the unit works properly.

Fuse Replacement (Not available with older models)

This unit utilizes two fuses to prevent high current flow if an electrical short were to occur. If the unit will not operate when power is turned ON, there is a possibility that there is a blown fuse. Each Power Entry Module (PEM) is equipped with one spare fuse. Replacement fuses should be 5 mm in diameter and 20 mm in length glass fuses with a current rating of 6 amps.

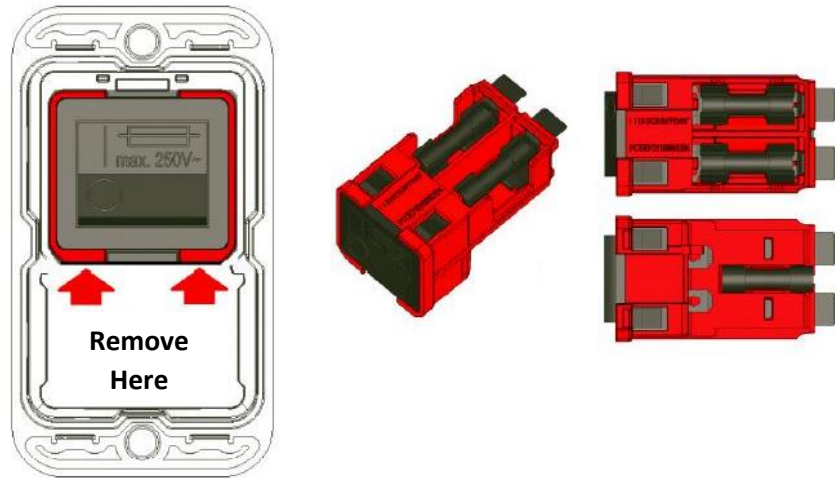


Figure 27

Fuse Replacement Procedure

1.) Disconnect power cord from unit.

Note: *The fuse holder cannot be removed unless the power cord is first removed.*

Caution: *Electrical plug must be disconnected before servicing. A break in power caused by the safety switch is not considered disconnecting power.*

2.) Place the end of a 1/8" flat head screwdriver into one of the holes in bottom of the fuse holder. Pry the fuse holder out of the power entry module. See Figure 27.

3.) Check the Power and Neutral wire fuses. If a fuse has blown, replace it with the spare fuse.

4.) Carefully place the fuse holder back into the power entry module.

5.) Plug-in unit and power on to ensure that the unit works properly.

Replacement Parts

Part	Description	Name / Model Number
Ballast	120 VAC, 60 Hz	Fulham WH-5
Catalyst	11.5" x 24" x 5.8"	1221 PCP
Standard Pre-filter	12" x 24" x 4"	12" x 24" x 4" MERV 13 Filter
Alternative Pre-filter	12" x 24" x 2"	12" x 24" x 2" MERV 13 Filter
Carbon Filter	12" x 24" x 2"	12" x 24" x 4" Carbon Filter
HEPA Filter	12" x 24" x 6"	12" x 24" x 6" HEPA Filter
Motor Assembly	ebm-papst backward curve fan motor	R2E225-RA40-21
Capacitor	15 μ F	Packard Titan Pro Capacitor
UVGI Lamps	20" UV-C Lamp	First Light 2813, UV Engineering GEN9093
UVGI Shielding	12" x 24"	RGS UV Shield
Power Cord	16 AWG	Qualtek Electronics Corp. 233058-01
Motor Controller	Steady State Speed Controller	KBWC-16LRK
Lamp Screws	Hex Screw	10-16 Self-Drilling Screw
Catalyst Cover Screws	Philips Head Screw	PPH 1/2" Self-Drilling Screw
Feet	RGS Feet	5/16" – 18 Leveling Mount
Backplate Screws	RGS Allen Screw	M4 x 0.7 x 6 mm SCS

Table 2: Replacement Parts

**Only use genuine replacement parts. Parts highlighted in gray may be substituted with other manufactures.*

To place an order for replacement parts, please contact the manufacture at

Phone: (806) 745-7000

Website: www.genesisair.com

Wiring Diagram

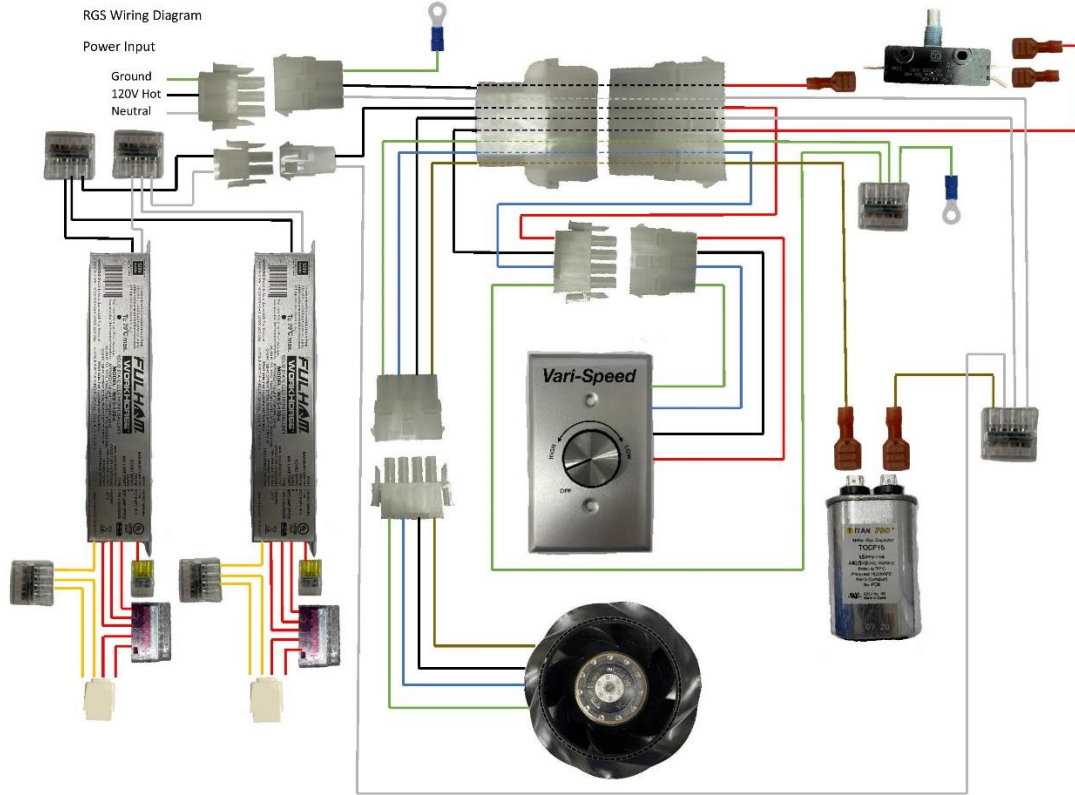


Figure 28: RGS Wiring Diagram

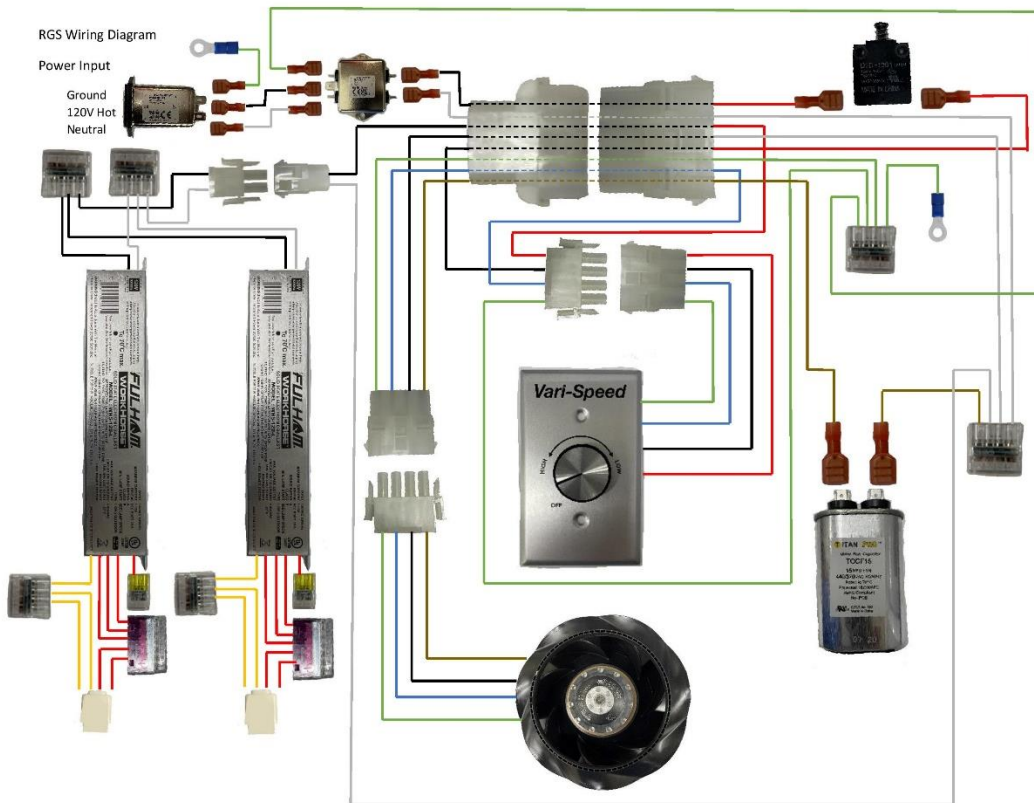


Figure 29: RGS (Medical) Wiring Diagram

AC centrifugal fans - RadiCal®

Series R2E225 RA Ø225 mm



Highlights:

- Backward curved
- 7-blade impeller, single phase motor
- Thermal overload protector (TOP) wired internally
- Mounting position: Any
- Condensate discharge holes: None
- Ingress protection of IP44; dependent on installation and position

Material: Fiberglass reinforced composite

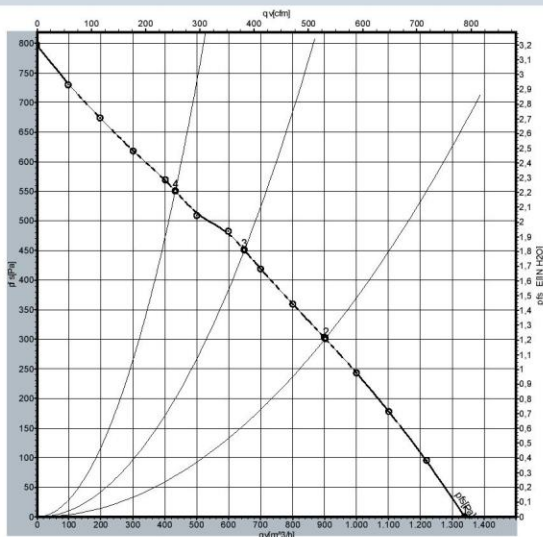
Impeller: PA

Direction of rotation: Clockwise, seen on rotor

Nominal Data	Air flow	Nominal voltage	Hertz	Ball bearings	Power input	Speed (1)	Temperature range (1)	Mass	Ingress Protection Rating	Capacitor	UL
	CFM	VAC									
R2E225-RA40-21	788.7	115	50/60	Yes	225	2,700	-25...40	2,300	IP44	14	Yes
R2E225-RA92-20	765.2	230	50/60	Yes	225	2,600	-25...45	2,300	IP44	3.5	Yes

(1) Nominal data at operating point with maximum load.

R2E225-RA40-21 Curves



Measurement: LU-128357

Air performance measured as per: ISO 5801, Installation category A, without protection against accidental contact.

Suction-side noise levels: LwA as per ISO 13347, LpA measured at 1m distance to fan axis.

The values given are valid under the measuring conditions mentioned and may vary according to the actual installation situation.

With any deviation to the standard set-up, the specific values have to be checked and reviewed once installed or fitted.

For detailed information on the measuring set-up, please contact ebm-papst.

	n	Pe	I	LwA
	rpm	W	A (115V)	dB(A)
Ⓐ 1	3025	187	1.61	76
Ⓐ 2	2700	225	1.95	70
Ⓐ 3	2765	218	1.89	69
Ⓐ 4	2890	204	1.76	71

Testing for Medical Requirements

Emission/Immunity test Standard refer to the normative references in IEC 60601-1-2 edition 4.0)	IEC 60601-1-2 Compliance Level		
Conducted and Radiated RF Emission <i>CISPR 11</i>	<i>Group 1 Class B</i>		
Harmonic Distortion <i>IEC 61000-3-2</i>	<i>Class A</i>		
Voltage Fluctuations/Flicker <i>IEC 61000-3-3</i>	<ul style="list-style-type: none"> • the value of P_{st} shall not be greater than 1,0; • the value of P_{lt} shall not be greater than 0,65; • T_{max}, the accumulated time value of $d(t)$ with a deviation exceeding 3,3 % during a single voltage change at the EUT terminals, shall not exceed 500 ms; • the maximum relative steady-state voltage change, d_c, shall not exceed 3,3 %; • the maximum relative voltage change d_{max}, shall not exceed: <ul style="list-style-type: none"> a) 4 % without additional conditions; b) 6 % for equipment which is: <ul style="list-style-type: none"> – switched manually, or – switched automatically more frequently than twice per day, and also has either a delayed restart (the delay being not less than a few tens of seconds), or manual restart, after a power supply interruption. 		
Electrostatic Discharge (ESD) <i>IEC 61000-4-2</i>	± 8 kV contact ± 2 kV, ± 4 kV, ± 8 kV, ± 15 kV air		
Radiated RF EM Fields <i>IEC 61000-4-3</i>	<i>10 V/m</i> <i>80 MHz to 2,7 GHz</i> <i>80% AM at 1KHz</i>		
Proximity fields from RF wireless communications equipment	<i>Test Frequency (MHz)</i>	<i>Band (MHz)</i>	<i>Immunity Test Level (V/m)</i>
	385	380-390	27
	450	430-470	28
	710	704-787	9
	745		
	780		
	810		
	870	800-960	28
	930		
	1720		
	1845	1700-1990	28
	1970		
	2450		
	5240	2400-2570	28
	5500	5100-5800	9
	5785		

Electrical Fast Transit/Burst <i>IEC 61000-4-4</i>	± 2 kV for power supply lines
Surge <i>IEC 61000-4-5</i>	± 1 kV line(s) to line(s) ± 2 kV line(s) to ground
Conducted Disturbances induced by RF <i>IEC 61000-4-6</i>	3 V 0,15 MHz – 80 MHz 6 V in ISM and Amateur bands between 0,15 MHz and 80 MHz 80 % AM at 1 kHz
Power Frequency Magnetic Field <i>IEC 61000-4-8</i>	30 A/m 50Hz or 60Hz
Voltage Dips, Interruptions and Voltage Variations <i>IEC 61000-4-11</i>	0 % UT; 0,5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° crossing 0 % UT; 1 cycle and 70 % UT; 25 cycles Single phase: at 0° crossing 0 % UT; 250 cycle

Air Purification Testing

The manufacturer has conducted numerous tests to authenticate that CenterPoint™ Technology is an effective means of reducing airborne indoor air contaminants. The manufacture of this device will make copies of test results available to those who request it.

Testing Protocol

There are two main types of tests that can be performed with air purifying equipment: single pass tests and chamber tests. A single pass test measures the contaminant level at the inlet of the equipment and compares that value to the level of contaminants at the outlet. A chamber test measures the change in contaminant level within an enclosed space over a given amount of time. Tests can measure volatile organic compound (VOCs) reduction, reduction of viable biological contaminants (bacteria, viruses, fungi), and particulate reduction.

CenterPoint equipment is intended to reduce VOCs and deactivate viable biological contaminants. **CenterPoint equipment is not intended to significantly reduce non-viable biological contaminants. CenterPoint equipment is not intended to significantly reduce particle contaminants.**

Many testing groups do not make a distinction between viable and non-viable biological contaminants. When testing CenterPoint equipment, a distinction must be made between viable and non-viable biological contaminant in the air. **Tests must only measure viable biological contaminants that appear in the air.** The bodies of inactivated biological contaminants will remain in the air. **Inactive bodies are incapable of reproducing or infecting persons occupying the space.**

For more information, please contact the manufacturer at

Email: information@genesisaair.com

LIMITED WARRANTY

FAILURE TO MAINTAIN YOUR EQUIPMENT WILL VOID THIS WARRANTY

Your CenterPoint™ purification system is expressly warranted from the date of installation to be free from manufacturing defects for the coverage period stated below. Defective parts must be returned by you to the installing contractor together with the CenterPoint™ purification system's model number, serial number, and documented installation date no later than thirty (30) days after the failure.

ONE (1) YEAR COVERAGE -- RESIDENTIAL AND COMMERCIAL APPLICATIONS

The covered equipment and covered components are warranted by Genesis Air for a period of ONE (1) year from the date of the original unit installation, when installed in a residential or commercial application. If during this period, a covered component fails because of a manufacturing defect, Genesis Air will provide a free replacement part. You must pay shipping charges and all other costs of warranty service. Genesis Air will not pay labor involved in diagnostic calls or in removing, repairing, servicing, or replacing parts. Such costs may be covered by a separate warranty provided by the installer. NOTE - If the date of original installation cannot be verified, the warranty period will be deemed to begin six (6) months after the date of manufacture.

EXCLUDED COMPONENTS

The following components are not covered by this warranty: the UVCGI lamps or the pleated photocatalytic material. These are replacement items, which must be replaced as stated in the Maintenance section of the installation instructions to ensure effective operation.

REPAIRS

All repairs of covered components must be made with authorized service parts by a qualified service dealer or contractor. Labor charges are not covered by this warranty.

WARRANTY LIMITATIONS

This warranty will be voided if the covered equipment is removed from the original installation site. This warranty does not cover damage or defect resulting from:

- 1** - Flood, wind, fire, or lightning damage. Storage, installation, or operation in a corrosive atmosphere (chlorine, fluorine, salt, recycled wastewater, urine, fertilizers, or other damaging chemicals).
- 2** - Accident, or neglect or unreasonable use or operation of the equipment, including operation of electrical equipment at voltages other than the range specified on the unit nameplate (Includes damages caused by brownouts).
- 3** - Modification, change or alteration of the equipment, except as directed by the manufacturer.
- 4** - Operation with system components (indoor unit and control devices), which do not match, or meet the specifications recommended by the manufacturer.
- 5** - Operation with system components (indoor unit and control devices), which exceed operational temperature range of; -20 F to 122F.
- 6** – **Cleaning equipment with high pressure water spray so that the PCP catalyst coating is damaged.**
- 7** – Damage caused by allowing non-functioning equipment in an air stream for a prolonged period. Air speeds above 600 ft/min will damage equipment beyond repair.

THIS WARRANTY SHALL NOT OBLIGATE THE MANUFACTURER FOR ANY LABOR COSTS AND SHALL NOT APPLY TO DEFECTS IN WORKMANSHIP OR MATERIALS FURNISHED BY THE INSTALLING CONTRACTOR AS CONTRASTED TO DEFECTS IN THE CENTERPOINT™ PURIFICATION SYSTEM ITSELF. IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID COVERAGE PERIOD. THE MANUFACTURER'S LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFORESAID IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT FROM FAILURE TO HAVE THIS UNIT INSTALLED BY A QUALIFIED HEATING AND AIR CONDITIONING CONTRACTOR. IF THE LIMITED WARRANTY IS VOID DUE TO FAILURE TO USE A QUALIFIED CONTRACTOR, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitations may not apply to you. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

Last Revision: 10/21/2021

To register your new CenterPoint™ Purification System, PLEASE CUT ON DOTTED LINE AND RETURN THE REGISTRATION FORM TO THE ADDRESS NOTED BELOW.

Customer Registration Form

Customer Name: _____ Address: _____

City: _____ State/Province: _____ Zip/Postal Code: _____

Home Phone: _____ E-mail: _____

Installing Contractor: _____ Phone: _____

Date of installation: _____ Model Number: _____ Serial Number: _____

Please send this completed form to the manufacturer.

Genesis Air, Inc.

5202 CR 7350, SUITE D LUBBOCK, TX 79424

