GENESIS AIR

CREATING CLEAN AIR TO BREATHE

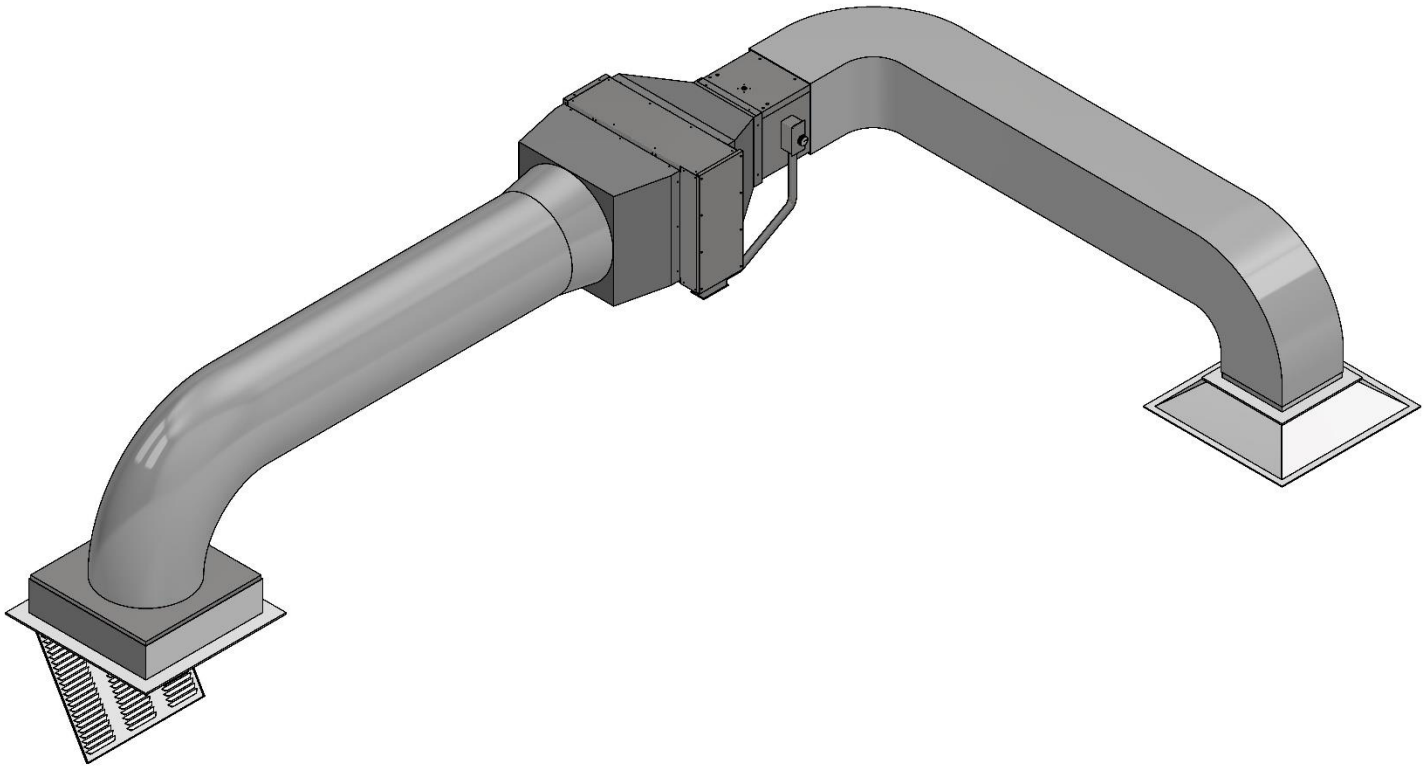
Indoor Air Purifiers

DT-FP

Standalone / Ducted

Commercial / Residential

CenterPoint™ Photocatalytic Oxidation Technology



June 2021 06242200

Product Description

The DT-FP unit is a stand-alone unit used to reduce the levels of Volatile Organic Compounds (VOC's) and viable airborne biological contaminants. The unit is intended to be permanently ducted into a building. The DT-FP uses (1) 1620 Populated Catalyst Panel. The DT-FP is suitable for spaces between 700 and 2400 square feet. For recommend configurations, consult with the manufacturer's engineering department. The DT-FP incorporates 3-step GAP™ Technology: MERV Filtration, UVGI Lamps, and Photocatalyst.

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

Shipping and Packing List

Standard Equipment:

(1) DT-FP Housing

(1) 1620 CU-S Housing

(1) 1620 PCP

(1) 20" x 20" x 4" MERV 13 Particle Filter

Features:

- Variable Speed Control

Optional Equipment:

- 20" x 20" x 4" Return Filter Grille
- Supply Grille

Copyright

Revision Summary

Original IOM manual create in November 2019.

Current manual last revised on June 24th, 2022.

Table of Contents

Safety Certifications

UL Classified UL File No. E326567

FIFRA….EPA EST No. 87747--TX--001

<u>UL Requirements</u>

- 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 catalyst panel 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.*

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

Meets California ozone emissions limit: CARB certified

Applicable Warning Labels

⚠WARNING

Electric / Shock Hazard
Electrical Shock can cause serious injury or death. Disconnect all remote electrical power supplies before servicing.

⚠WARNING

To reduce the potential of electric shock or fire, the wiring required by this manual should be performed by a licensed electrician in accordance with applicable National Electric Code, NFPA 70, and local codes.

⚠WARNING

UVC Light hazard. UVC light can cause temporary or permanent loss of vision and sunburn. Take proper precautions to protect eyes and skin from direct exposure. Replace lamp with Model No. 2813, Manufactured by First Light Technologies, Inc., or lamp with Model No. GEN9093, Manufactured by UV Engineering Solutions LLC.

⚠WARNING

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.

⚠WARNING

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.

⚠WARNING

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

a.) Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.

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 waring device, such as a tag to the service panel.

⚠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

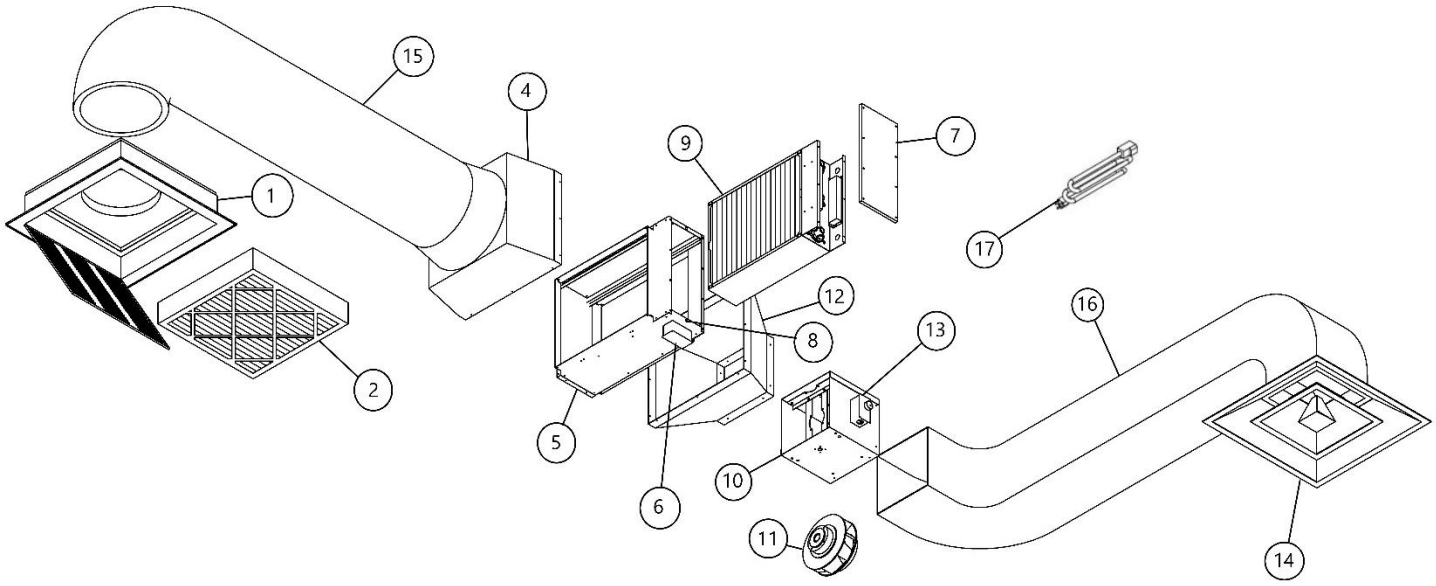


Figure 1: Components of the DT-FP

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

1.) Return Filter Grille – Ceiling mounted air inlet. Houses pre-filter.

2.) Pre-filter – 20” x 20” x 4” MERV 13. Removes particle from air stream.

4.) Return Transition – Transition duct cross-section from 14” diameter circle to 16” x 20” rectangle.

5.) 1620 CU-S – Houses 1620 PCP.

6.) Junction Box – 4” x 2” typical junction box with lid.

7.) CU Access Cover – Allows easy access to catalyst panel for maintenance.

8.) Safety Switch – E14 switch to cut off power when CU access panel is removed. 15-amp rating.

9.) 1620 PCP – CenterPoint Technology catalyst panel. Contains ballast tray, UVC lamps, Catalyst mesh, and UVC shielding. This is not a particle filter.

10.) Fan Motor Housing – Houses fan motor.

11.) Fan Motor – Conveys air through the unit.

12.) Motor Transition – Transitions duct cross-section from 16” x 20” rectangle to 10” x 10” square.

13.) Motor Controller – Changes the speed of the fan motor.

14.) Supply Grille – (Not Provided) Ceiling mounted air outlet for DT-FP unit. Style can be matched to rooms existing supply ducts.

15.) Return Duct – (Not Provided) Conveys air from the return duct to the DT-FP unit.

16.) Supply Duct – (Not Provided) Conveys air from the DT-FP unit to Supply Duct.

17.) Power Cord – 120V AC Type B power cord. Can be replace with hard wired connection.

Product Specifications

U.S. Patent Number: 10946116

Model Name: DT-FP

Volumetric Flow Rate (CFM): 400 (Low Speed) – 830 (High Speed)

Power Requirements: 120 Volts, 60 Hertz

Current (amps): 4.7

Weight (lbs.):

Size: 24” x 41” x 18”

Number of Lamps: 3

UVGI Life Cycle: 12,000 operational hours

Catalyst Panel Life Cycle: 5 years*

Particle Filter: MERV 13 up to HEPA

Installation Type: Mounted Above Ceiling

Temperature Rating: -20°F to 122°F

** Equipment must be properly maintained to allow catalyst panels to last the full 5-year warranty period. If MERV particle 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.*** *Preforming maintenance improperly will result in a voided product warranty. Catalyst can exceed warranty and last up to 15 years if well maintained.*

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/cm^2 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, these units 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

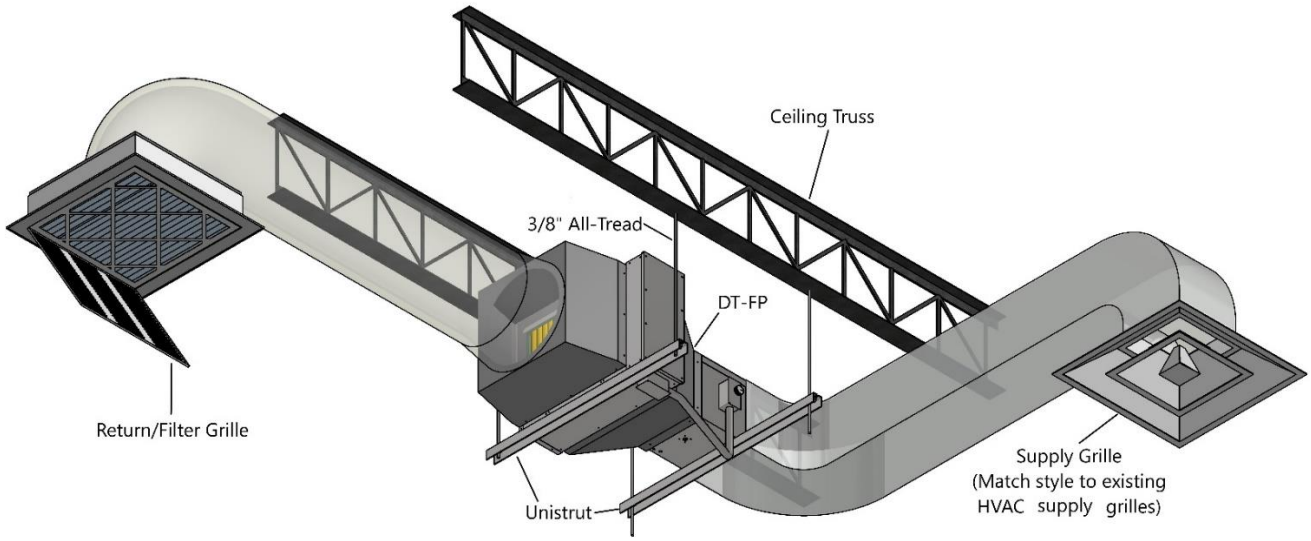


Figure 2: Ducted Above Ceiling Diagram

WARNING!

Sharp Edges Hazard

Equipment with sharp edges can cause injuries. Use protective gloves when grasping the edges of equipment.

WARNING!

Do not use silicone to seal DT-FP unit to ductwork. The presence of silicone in UV light will pollute the catalyst.

The DT-FP unit is designed to be permanently installed above the ceiling tiles of a room. 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.

Permanent Ceiling Installation

Make the following considerations when choosing an appropriate placement location.

- The presents of structural components that will be needed to hold the DT-FP unit in place.
- Access to 120V AC power supply.
- Other fixtures in the vicinity of installation.
- Clearance from preexisting ductwork, beams, sprinklers, lights, or other above-ceiling fixtures.
- Return and supply grille locations.
- Ease of access for maintenance personnel.
- Install supply grille at least 10 feet away from return/filter grille.

1.) Determine a location for the DT-FP unit, above the ceiling for drop-tile or in free air for warehouse.

2.) Bolt 3/8” All-Tread to the roof trusses. It is recommended to cut (4) rods to 24” length. If there is no place to bolt all-thread rods on the roof trusses, Unistrut can be attached to the roof trusses. The 3/8” All-tread rods can then be bolted to this Unistrut.

3.) (2) section of Unistrut will be used to support the DT-FP. These sections should extend 4” on either side of the unit and be able to support the weight of the unit.

4.) Make an opening in the ceiling grid to allow the DT-FP to be lifted into place. (24” x 41” minimum)

6.) Lift the DT-FP into position. The unit should be installed so that the access cover and motor controller can be easily accessed for maintenance and changing fan speed.

7.) Run the (2) sections of Unistrut through the 3/8” All-thread and fasten with bolts. Ensure that the unit is level and not twisted.

8.) Locate a place to install the return grill near the DT-FP unit intake. Be sure to use good judgement by choosing a location with clearance from permanent duct work, beams, lights, sprinklers, or other above-ceiling fixtures.

9.) Lift the return/filter grill section up above the ceiling tiles. You may need to angle the grille so that it will fit thought the ceiling grid. Set the grill unit onto the grid carefully. You should see the 4” particulate filter from the ground. Use the same guidelines to add more returns and supply(s) as needed.

Note: *Supply grille is not included. For consistency, it is normally recommended to choose a supply grille that matches the preexisting HVAC system supply grilles.*

10.) Attach ductwork as shown in Figure 13. Insulate the exterior of DT-FP units that are installed in locations that are not climate controlled. These locations include ducts in attics, on top of roofs, and on the side of buildings.

Caution: *DT-FP units that are exposed to fluctuating temperatures may allow water vapor to condense on the interior or exterior of the duct. Condensation can cause corrosion of duct components and electrical components.*

Caution: *Uninsulated ductwork can allow heat to be transferred between the duct and external air. This can result in an unnecessary strain on the buildings HVAC system.*

Check for leaks in the ductwork. All leaks should be sealed with Aluminum tape and insulated.

Caution: *Leaks in ductwork can result in attic air being pulled into DT-FP unit. This can result in an unnecessary strain on the buildings HVAC system.*

Note: *If ductwork is altered, installer must ensure that no leakage of UV light occurs because of ductwork modifications! The DT-FP Unit is not designed to be integrated into the existing building HVAC system!*

11.) Connect unit to power. Plug in power cord to a 120 VAC power supply. The DT-FP can also be hard wired. See Hard Wiring Instructions.

12.) Power on unit and check for leaks in duct work. All leaks should be sealed with Aluminum tape and insulated.

Hard Wiring Instructions

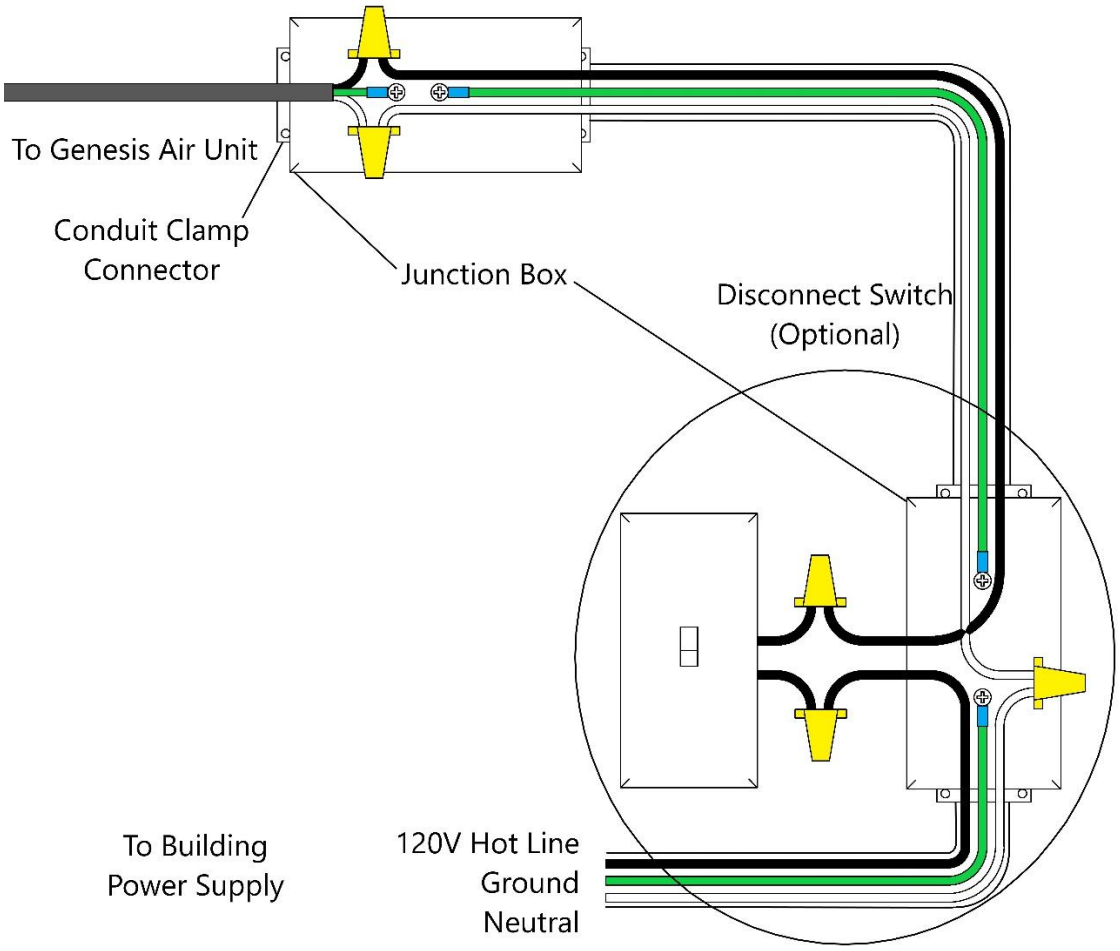


Figure 3: Hard Wiring Diagram

Caution: *To reduce the potential of electric shock or fire, the wiring required by this manual should be performed by a licensed electrician in accordance with applicable National Electric Code, NFPA 70, and local codes.*

- Have an electrician run 120V AC power to the location of the DT-FP unit and install a junction box. Use a minimum of 16 AWG cable. 14 AWG is preferable.
- Disconnect the power running to the junction box at the building fuse box before wiring.
- Cut Plug off DT-FP power cord. Peel off insulation to expose wires. Run power cord to the junction box.
- Use wire nuts to connect the ends of the power cord to the leads in the junction box. Line to line (Black), neutral to neutral (White), and ground to ground (Green).
- Reconnect power once all wires have been connected and exposed wire has been insulated.

Operation

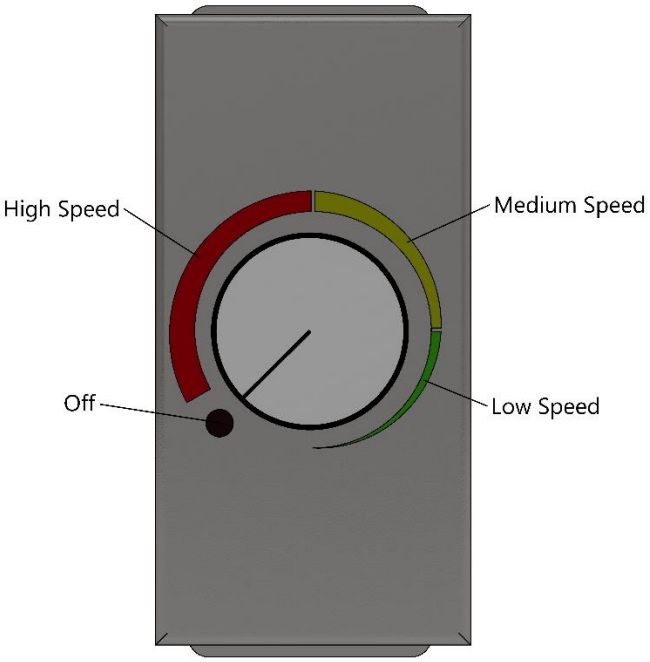


Figure 4: Motor Controller

- 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									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	7000	6222	

Table 1: Air changes per hour at different 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.*

Maintenance

Filter Replacement

The DT-FP unit 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 filter with a 20” x 22” x 4” MERV 13 after 3 months of continuous use.

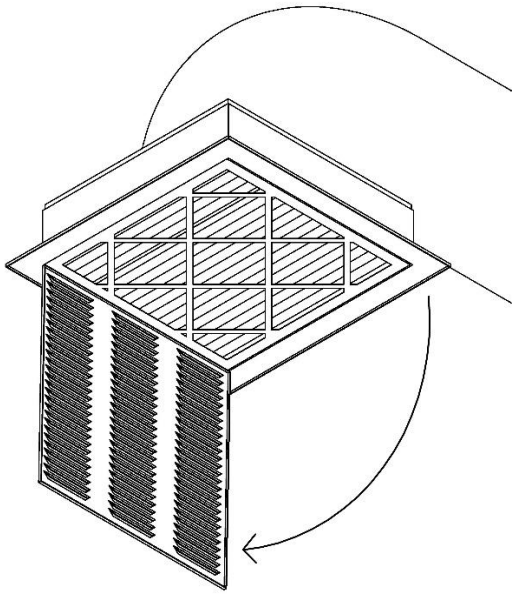


Figure 5

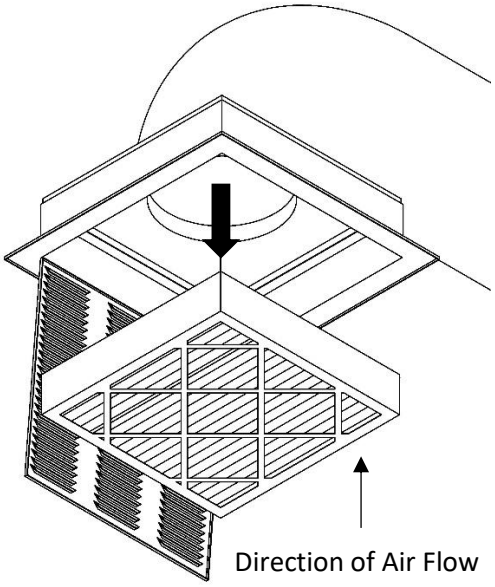


Figure 6

Filter Replacement Procedure

1.) Open return filter grille. See Figure 5.

2.) Remove old air filter. See Figure 6.

3.) Inspect the new filter to ensure that it is the same size as the old filter (20” x 20” x 4”).

4.) Insert new air filter. Ensure that arrows on filter match the direction of air flow. See Figure 6.

5.) Close return filter grille.

Lamp Replacement

The DT-FP unit includes (3) 20” UV-C lamps manufactured by First Light Technologies, Inc or UV Engineering Solutions LLC. These lamps are used to energize the catalyst. Lamps must be replaced after 12,000 hours of continuous use. The manufacturer recommends replacing lamps every 16 months or once a year. Purchase lamps from your CenterPoint device supplier.

Lamp Replacement Procedure

1.) Disconnect unit from power supply.

2.) Remove access panel by loosening (6) screws with a Philips-Head screwdriver.

Note: *If the unit is powered on during cover removal, a safety switch will break power.*

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

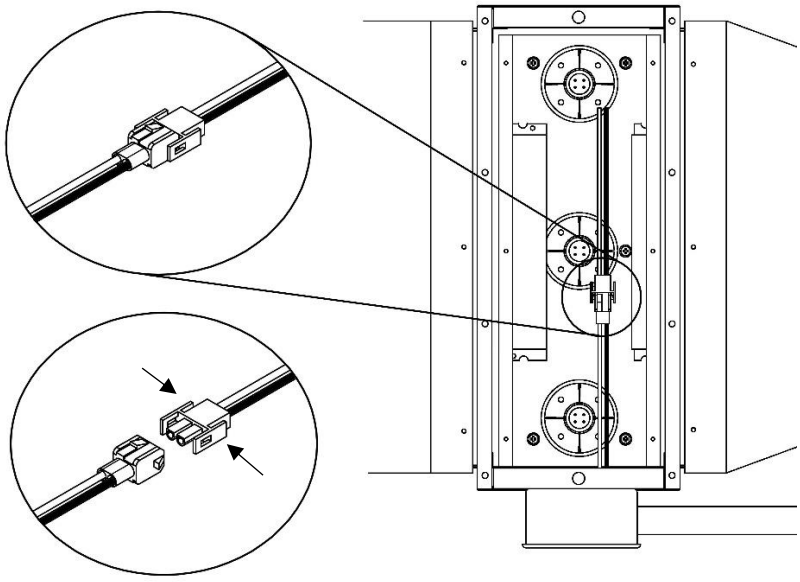


Figure 7: MOLEX Style Connection

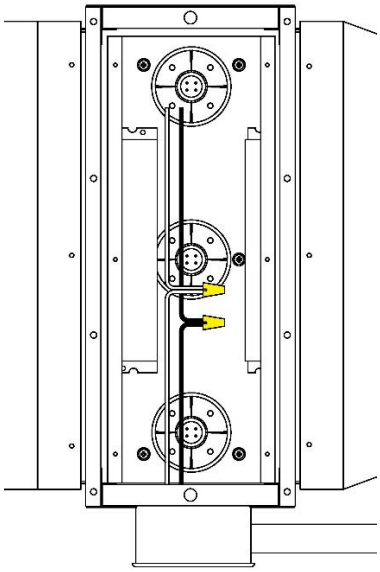


Figure 8: Wire Nut Style Connection

3.) Disconnect MOLEX connectors powering catalyst panels. See Figure 7. Older models may use wire nuts. See Figure 8. Take note of when each wire is connected. They will need to be rewired in the same way once panel is put back into place.

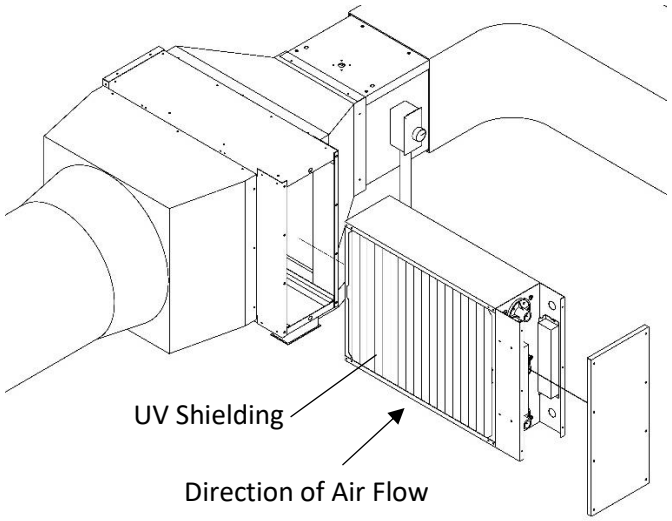


Figure 9

4.) Remove catalyst panel. See Figure 9.

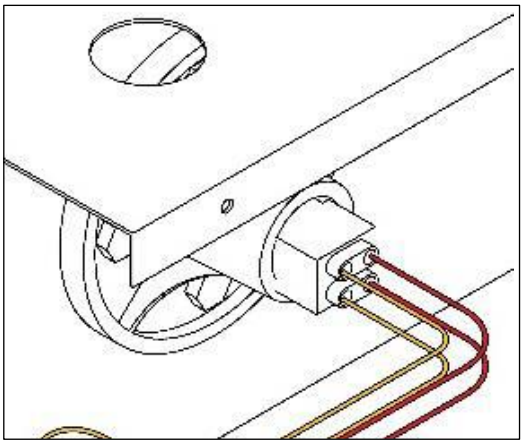


Figure 10

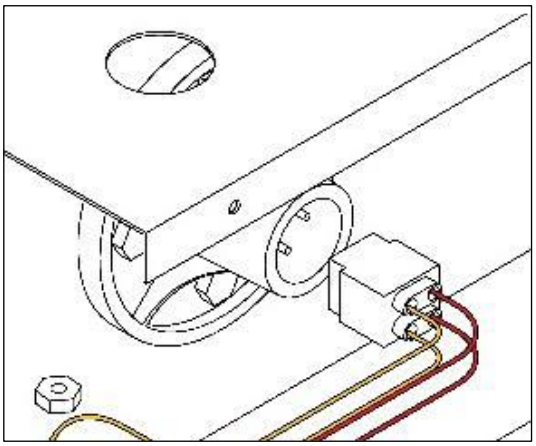


Figure 11

5.) Disconnect lamp plugs from lamps that will be replaced. See Figures 10 and 11.

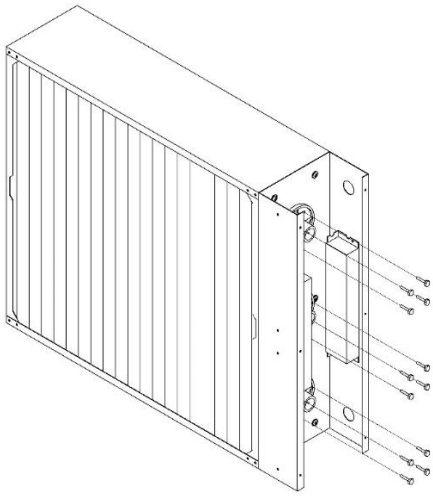


Figure 12

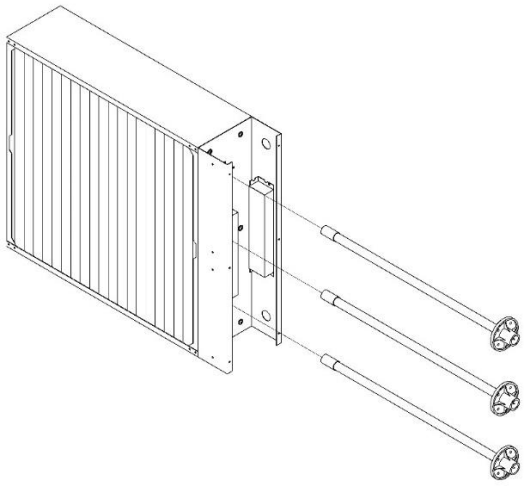


Figure 13

6.) Lamps are attached to catalyst panel with (4) 10-16 Self-Drilling screws per lamp. Remove the screws using a 5/16” socket. See Figure 12.

7.) 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 13.

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

8.) Inspect new lamp to ensure that it matches the length of the original lamp (20”).

9.) 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 13.

10.) Reinsert (4) screws per lamp using a 5/16” socket. See Figure 12.

11.) Reconnect lamp plugs. See Figures 10 and 11.

12.) Place catalyst panel back into DT-FP. Be sure that arrows on panel point in the direction of air flow. See Figure 9.

Note: *Air flows through catalyst panel first, then through fan motor housing.*

13.) Using MOLEX connectors or wire nuts, wire catalyst panel in the same way they were originally wired. See Figures 7 and 8.

14.) Before reattaching cover, check to make sure that lamps operate. Reconnect unit to power and turn on. Briefly press in safety switch with your hand or with a tool. If lamps are operating correctly, a green glow will illuminate from green lamp sleeve.

Caution: *Exposure to UV light is dangerous. Be sure to wear proper PPE when inspecting lamps.*

15.) Once lamp operation is verified, reattach access cover. Reinsert (6) screws and tighten with a Phillips-Head screwdriver.

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 spend 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 dure 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:

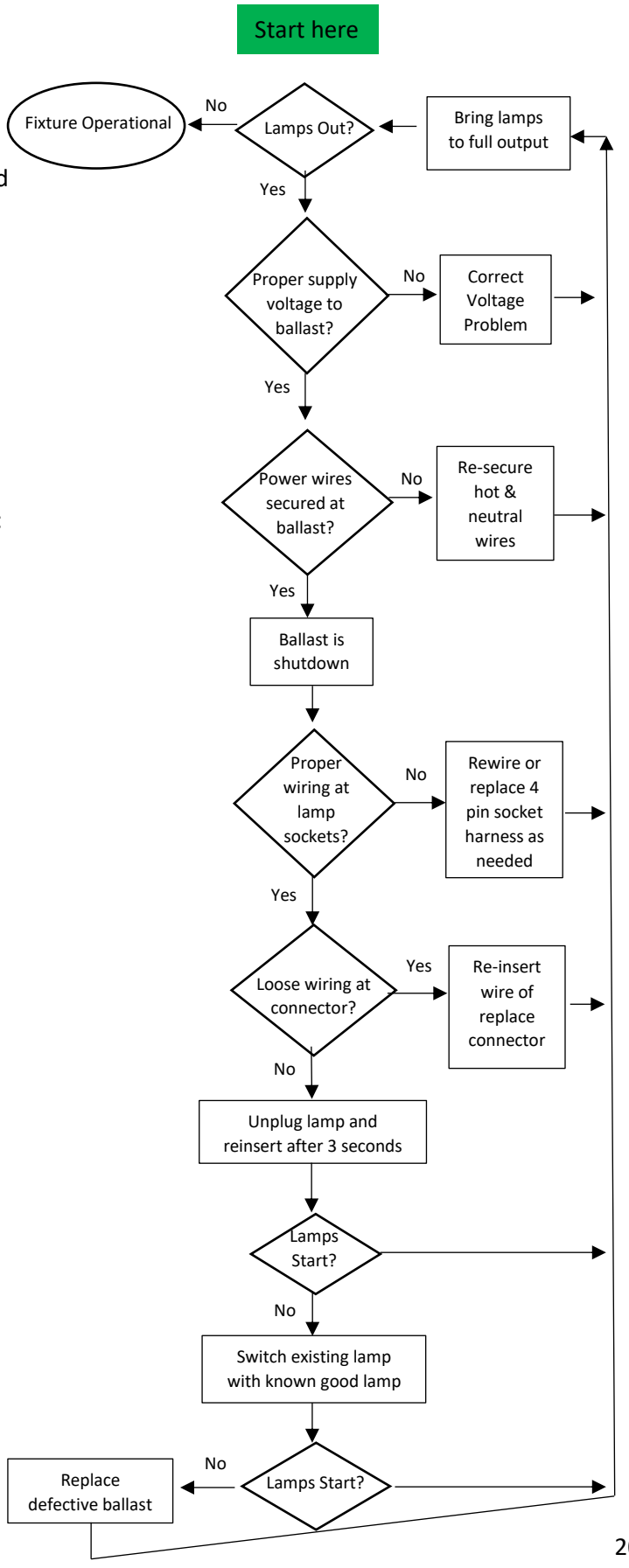
1.) Replace or check all lamps to ensure satisfactory operation.

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 suing 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 prow 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 dure 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. Purchase replacement ballasts through your CenterPoint devices supplier. See Ballast Troubleshooting for diagnosing ballast faults.

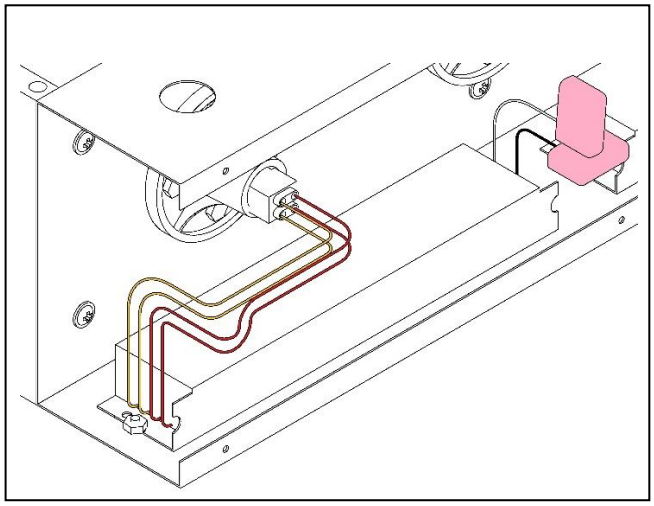


Figure 14

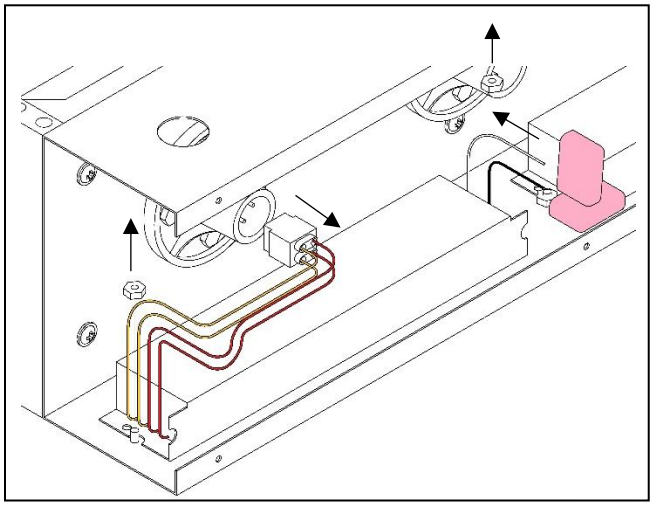


Figure 15

Ballast Replacement Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on during cover removal, a safety switch will disconnect power.*

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

2.) Remove access cover by loosening (6) screws with a Phillips-Head screwdriver.

3.) Disconnect MOLEX connectors powering catalyst panels. See Figures 7. Older models may use wire nuts. See Figure 8. Take note of where each wire is connected. They will need to be rewired in the same way once panel is put back into place.

4.) Remove catalyst panel. See Figure 9.

5.) 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 14 and 15.

6.) Use an 11/32” socket wrench to remove the (2) nuts holding the ballast into place.

7.) Inspect the new ballast and ensure that it matches the original one being replaced.

8.) Reinsert and tighten the (2) nuts that hold the ballast in place with an 11/32” socket wrench. See Figures 14 and 15.

9.) Reconnect the lamp plugs and reconnect ballast wires into push-in connectors. See Figures 14 and 15.

10.) Place catalyst panel back into DT-FP. Be sure that arrows on panel point in the direction of air flow. See Figure 9.

Note: *Air flows through catalyst panel first, then through fan motor housing.*

11.) Using MOLEX connectors or wire nuts, wire catalyst panel in the same way they were originally wired. See Figures 7 and 8.

12.) Before reattaching cover, check to make sure that lamps operate. Reconnect unit to power and turn on. Briefly press in safety switch with your hand or with a tool. If lamps are operating correctly, a green glow will illuminate from green lamp sleeve.

Caution: *Exposure to UV light is dangerous. Be sure to wear proper PPE when inspecting lamps.* *See page 9.*

13.) Once lamp operation is verified, reattach access cover. Reinsert (6) screws and tighten with a Phillips-Head screwdriver.

Fan Motor Replacement

The fan motor used in the DT-FP is designed to last the lifetime of the unit. However, if the fan motor fails prematurely, it will need to be replaced. Always replace with fan motors sold through you CenterPoint air purifier supplier.

Fan Motor Replacement Procedure

1.) Disconnect unit from power supply. If unit is hardwired, disconnected electrical conduit from power supply.

Caution: *Electrical plug or building electrical circuit must be disconnected before servicing. A break in power caused by the safety switch is not consider disconnecting power.*

Caution: *Safety switch will not disconnect power for the fan replacement operation.*

2.) Remove CU junction box cover and disconnect wire nuts connecting catalyst panels to auxiliary circuit. Unscrew nut on conduit adapter and pull wires out of junction box.

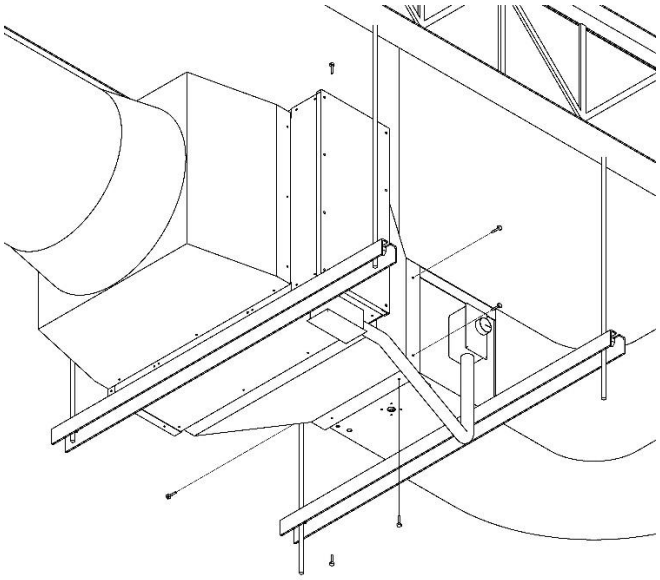


Figure 16

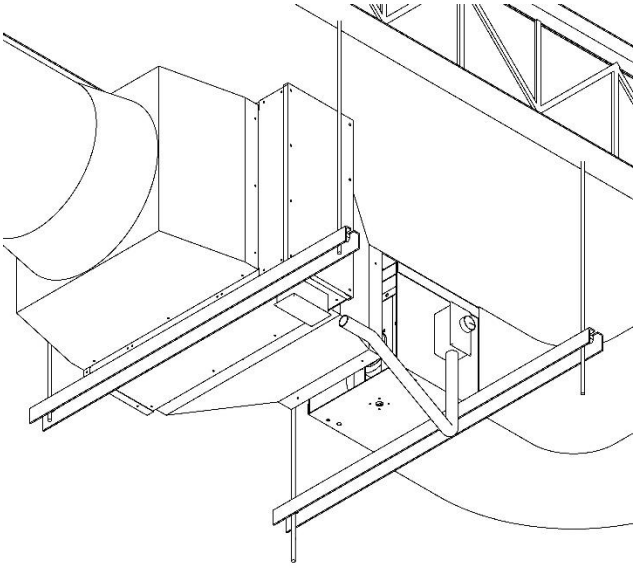


Figure 17

3.) Remove (8) screws attaching motor housing to transition. See Figure 16.

4.) Pull motor housing out of transition. See Figure 17.

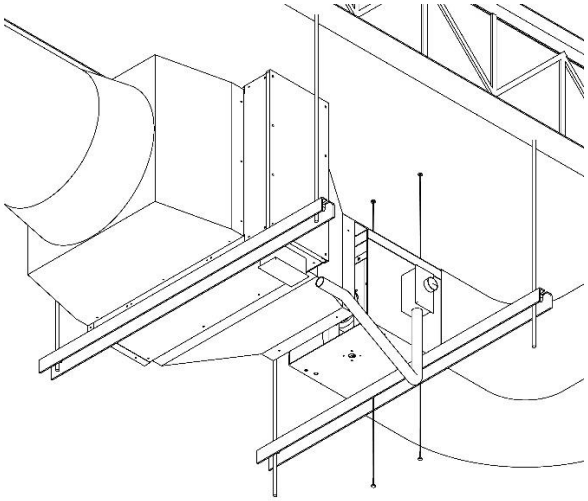


Figure 18

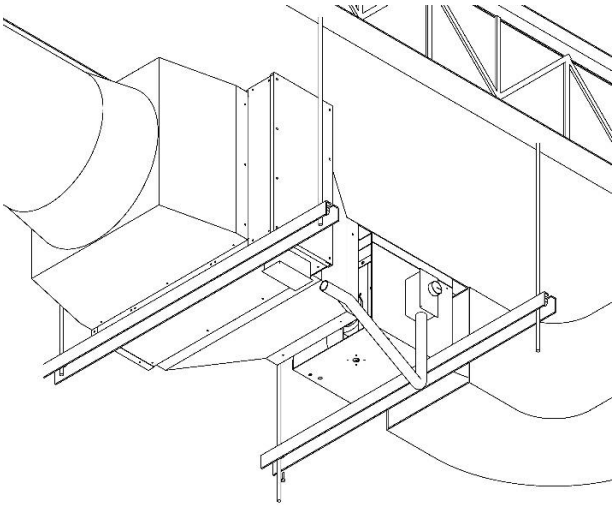


Figure 19

5.) Remove the remaining screws holding motor housing to duct. See Figure 18.

6.) Pull motor housing out of duct adapter. See Figure 19. Lower motor housing to ground or work surface.

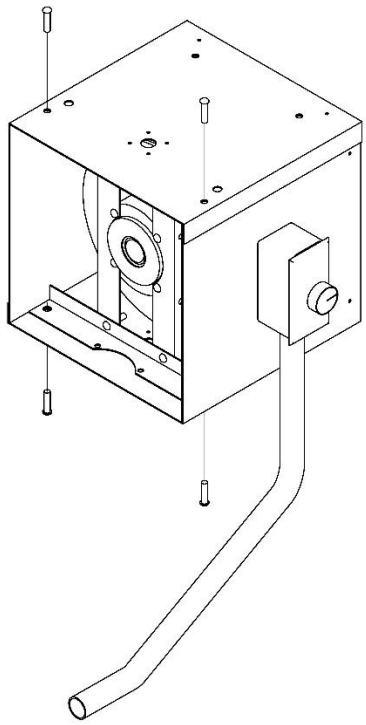


Figure 20

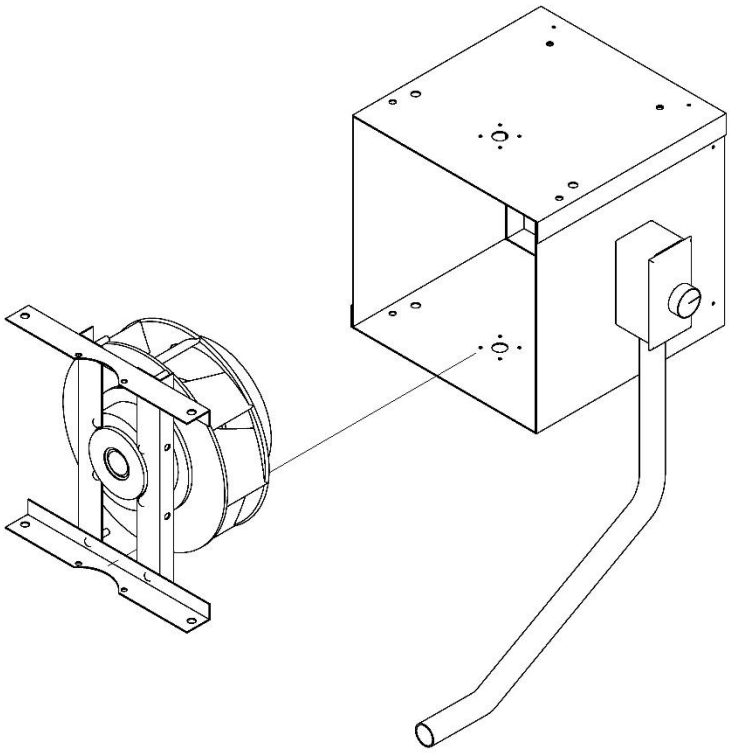


Figure 21

7.) Remove (4) screws holding fan motor bracket in place. See Figure 20.

8.) Disconnect wires powering fan by unscrewing wire nuts.

9.) Remove fan motor assembly from fan housing. See Figure 21.

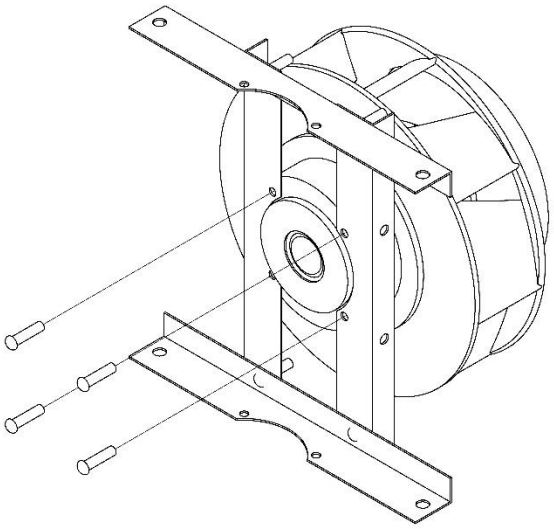


Figure 22

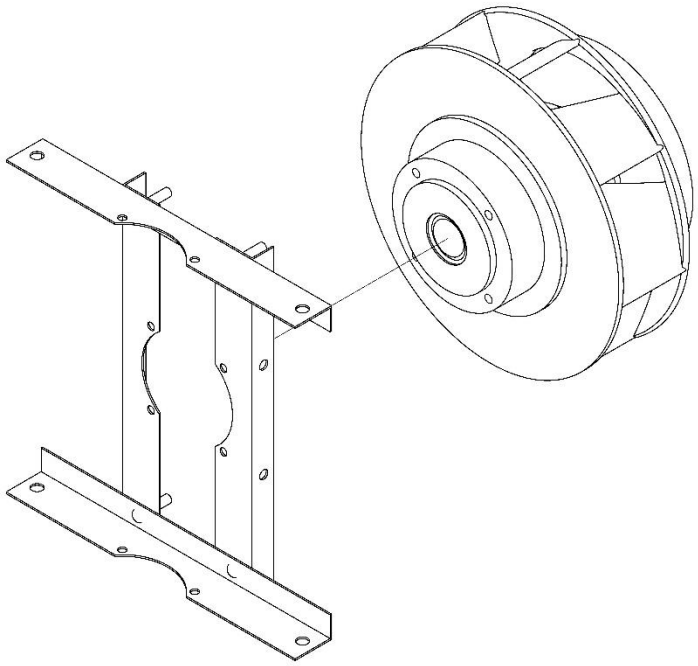


Figure 23

10.) Remove (4) screws holding fan motor to fan motor bracket. See Figure 22.

11.) Remove old fan motor. See Figure 23.

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

13.) Attach fan motor to fan bracket with (4) screws. See Figures 22 and 23.

14.) Attach fan motor assembly to fan motor housing with (4) screws. See Figures 20 and 21.

15.) Use wire nuts to reconnect fan motor wires to wiring harness.

16.) Raise fan motor housing into place and attach one side of the housing to the duct. Attach with screws. See Figure 18 and 19.

17.) Attach other side of motor housing to Transition with (8) screws. See Figures 16 and 17.

18.) Reconnect conduit to CU junction box. Using wire nuts, reconnect wires.

19.) Plug in unit or reconnect to 120V power supply.

20.) Turn on unit and check to ensure fan and lamps are operational. If fan rubs against fan shroud, the motor may need to be repositioned.

21.) Reseal joints with silver tape.

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 particle filter replacement.

Catalyst Inspection Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on during cover removal, a safety switch will disconnect power.*

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

2.) Remove access cover by loosening (6) screws with a Phillips-Head screwdriver.

3.) Disconnect MOLEX connectors powering catalyst panels. See Figure 7. Older models may use wire nuts. See Figure 8. Take note of when each wire is connected. They will need to be rewired in the same way once panel is put back into place.

4.) Remove catalyst panel. See Figure 9.

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

6.) 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.

7.) Place catalyst panel back into DT-FP. Be sure that arrows on panel point in the direction of air flow. See Figure 9.

Note: *Air flows through catalyst panel first, then through fan motor housing.*

8.) Using MOLEX connectors or wire nuts, wire catalyst panel in the same way they were originally wired. See Figures 7 and 8.

9.) Before reattaching cover, check to make sure that lamps operate. Reconnect unit to power and turn on. Briefly press in safety switch with your hand or with a tool. If lamps are operating correctly, a green glow will illuminate from green lamp sleeve.

Caution: *Exposure to UV light is dangerous. Be sure to wear proper PPE when inspecting lamps. See page 9.*

10.) Once lamp operation is verified, reattach access cover. Reinsert (6) screws and tighten with a Phillips-Head screwdriver.

Catalyst Cleaning Procedure

1.) Disconnect unit from power supply.

Note: *If the unit is powered on during cover removal, a safety switch will disconnect power.*

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

2.) Remove access cover by loosening (6) screws with a Phillips-Head screwdriver.

3.) Disconnect MOLEX connectors powering catalyst panels. See Figure 7. Older models may use wire nuts. See Figure 8. Take note of when each wire is connected. They will need to be rewired in the same way once panel is put back into place.

4.) Remove catalyst panel. See Figure 9.

5.) 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.*

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

7.) Place catalyst panel back into DT-FP. Be sure that arrows on panel point in the direction of air flow. See Figure 9.

Note: *Air flows through catalyst panel first, then through fan motor housing.*

8.) Using MOLEX connectors or wire nuts, wire catalyst panel in the same way they were originally wired. See Figures 7 and 8.

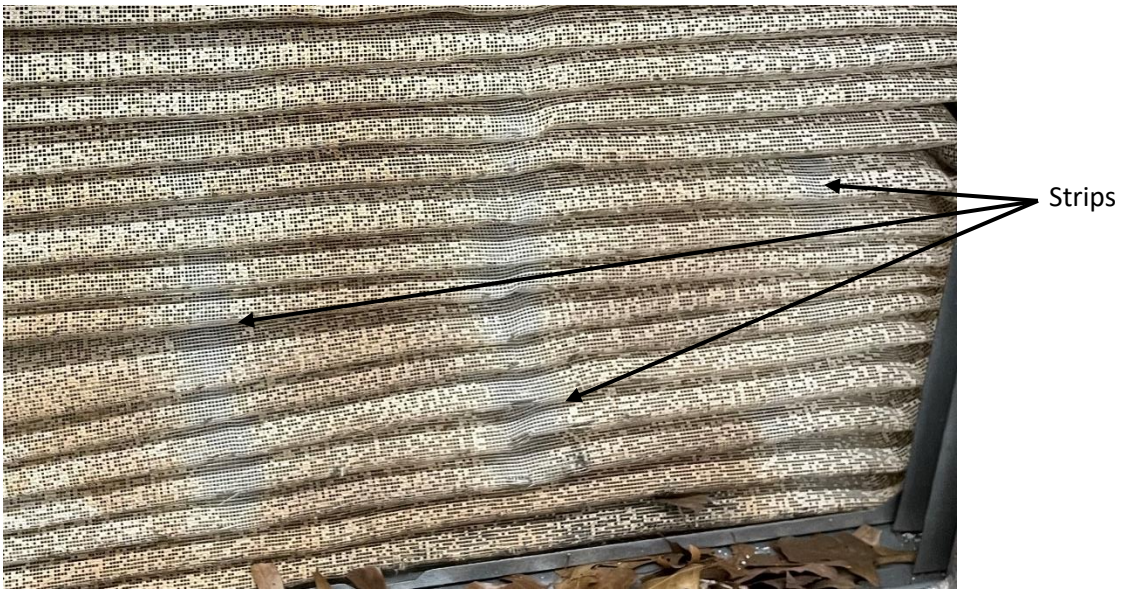
9.) Before reattaching cover, check to make sure that lamps operate. Reconnect unit to power and turn on. Briefly press in safety switch with your hand or with a tool. If lamps are operating correctly, a green glow will illuminate from green lamp sleeve.

Caution: *Exposure to UV light is dangerous. Be sure to wear proper PPE when inspecting lamps. See page 9.*

10.) Once lamp operation is verified, reattach access cover. Reinsert (6) screws and tighten with a Phillips-Head screwdriver.

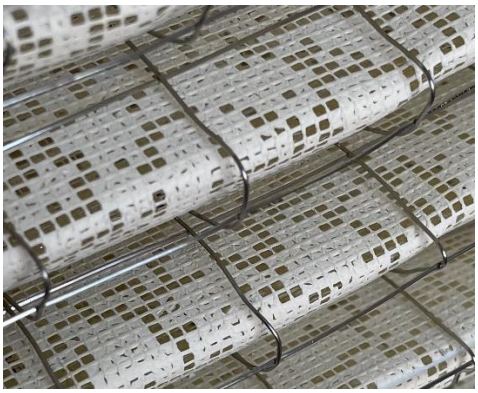
Catalyst Replacement

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 24, notice the stripes in the mesh created by the lamps. It is time to replace the catalyst when these stripes appear. Figures 25 and 26 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 24

Used Catalyst Windowing: Figure 25



New Catalyst Windowing: Figure 26

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.

2.) Remove access panel by loosening (6) screws with a Philips-Head screwdriver.

Note: *If the unit is powered on during cover removal, a safety switch will break power.*

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

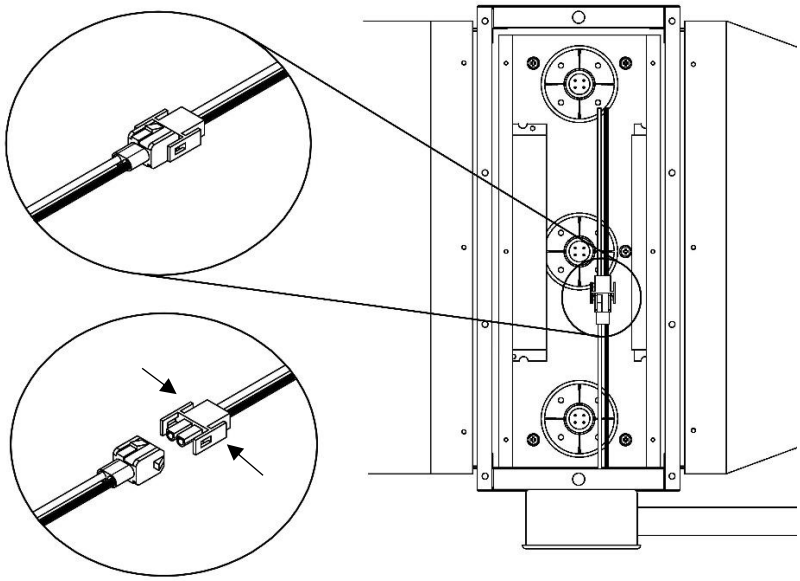


Figure 27: MOLEX Style Connection

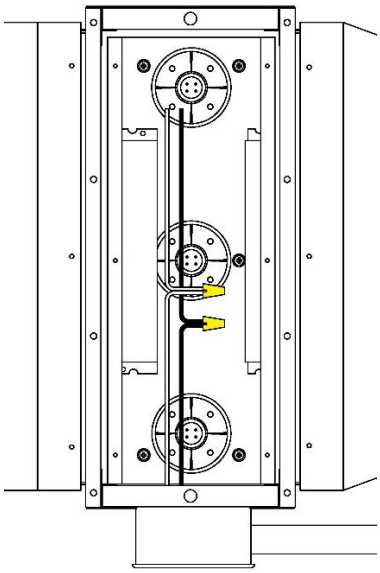


Figure 28: Wire Nut Style Connection

3.) Disconnect MOLEX connectors powering catalyst panels. See Figure 27. Older models may use wire nuts. See Figure 28. Take note of when each wire is connected. They will need to be rewired in the same way once the new panel is put into place.

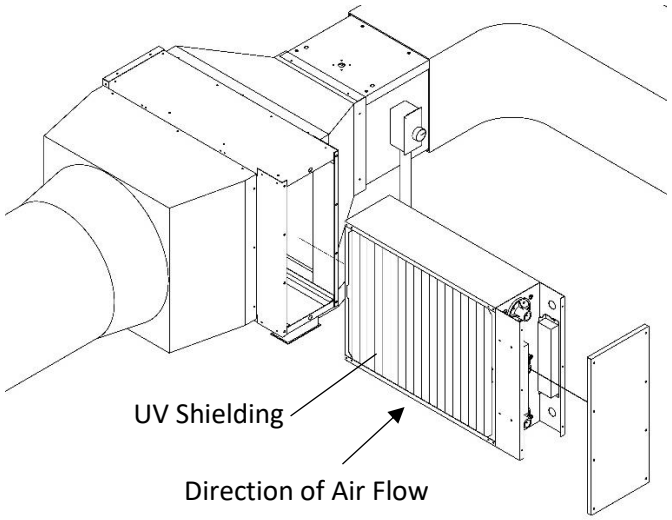


Figure 29

4.) Remove catalyst panel. See Figure 29.

5.) Place new catalyst panel into DT-FP. Be sure that arrows on panel point in the direction of air flow. See Figure 29.

Note: *Air flows through catalyst panel first, then through fan motor housing.*

6.) Using MOLEX connectors or wire nuts, wire catalyst panel in the same way they were originally wired. See Figures 27 and 28.

7.) Before reattaching cover, check to make sure that lamps operate. Reconnect unit to power and turn on. Briefly press in safety switch with your hand or with a tool. If lamps are operating correctly, a green glow will illuminate from green lamp sleeve.

Caution: *Exposure to UV light is dangerous. Be sure to wear proper PPE when inspecting lamps.*

8.) Once lamp operation is verified, reattach access cover. Reinsert (6) screws and tighten with a Phillips-Head screwdriver.

Replacement Parts

Part	Description	Name / Model Number
Ballast	120 VAC, 60 Hz	Fulham WH-5
Catalyst	15.5” x 23” x 5.8”	1620 PCP
Particle Filter	20” x 20” x 4”	20” x 20” x 4” MERV 13
Motor Assembly	Small AC Fan, CFM	TMK225-4-11
UVGI Lamps	20” UV-C Lamp	First Light Technologies, Inc. PN: 2813 UV Engineering Solutions, LLC. PN: GEN9093
Capacitor		
Power Cord	16 AWG, Type B	US Standard 120V AC power cord
Motor Controller	Steady State Speed Controller	KBWC-115K
Lamp Screws	Hex Screw	10-16 Self-Drilling Screw
Catalyst Cover Screws	Philips Head Screw	PPH ½” Self-Drilling Screw

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 manufacturer at

Phone: 806-745-7000

Website: www.genesisair.com

Physical Address: 5202 CR 7350 Suite D Lubbock, TX 79424

Wiring Diagram

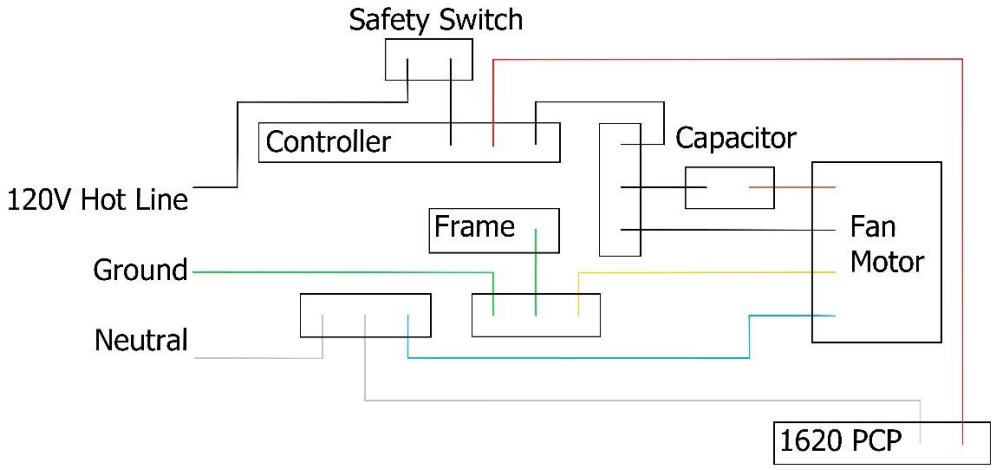


Figure 30: DT-FP Wiring Diagram

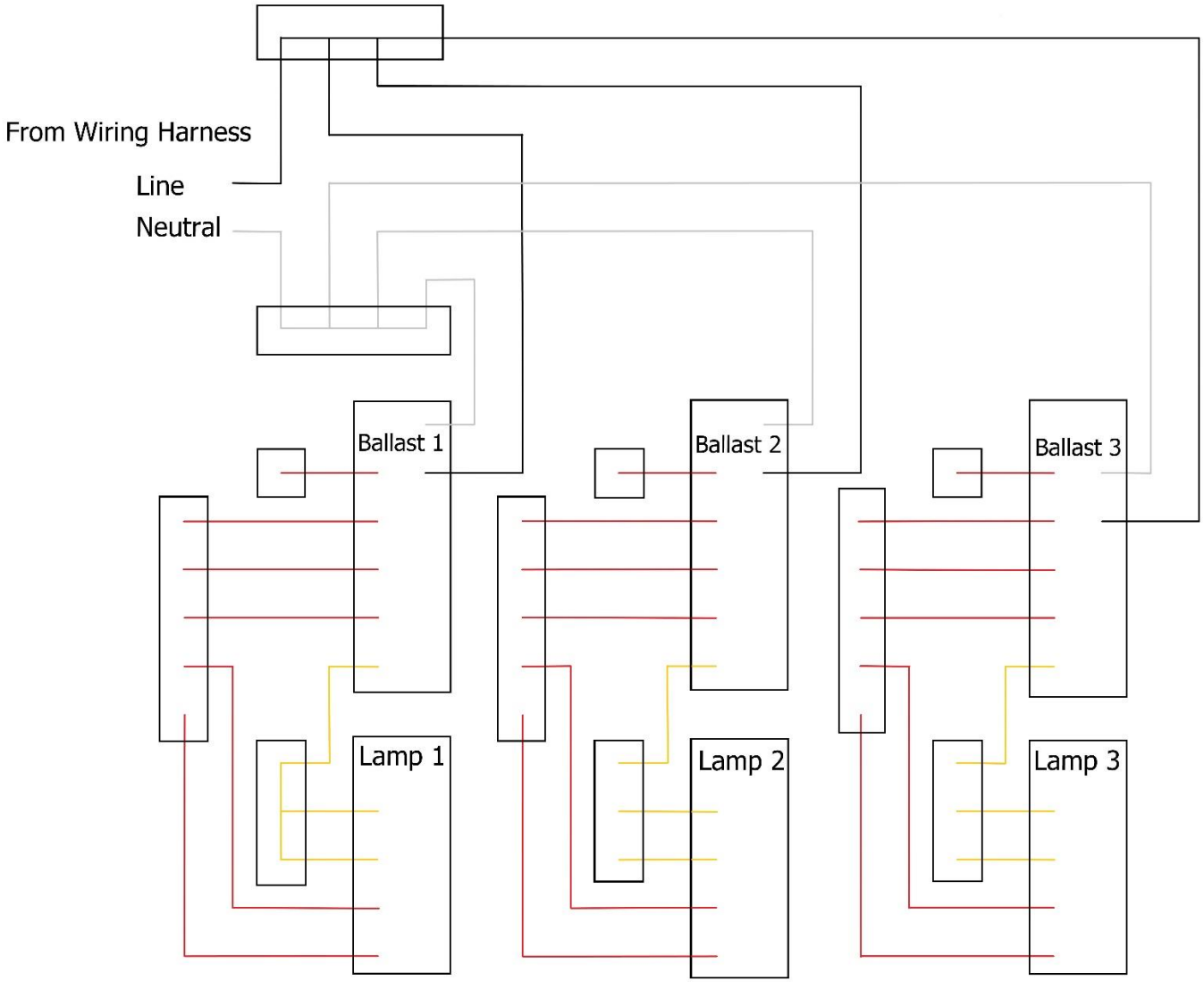
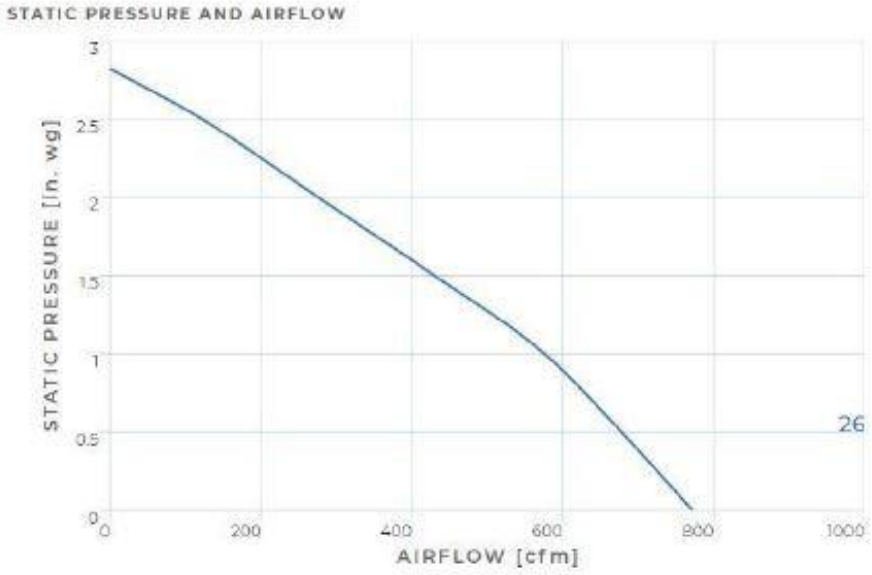
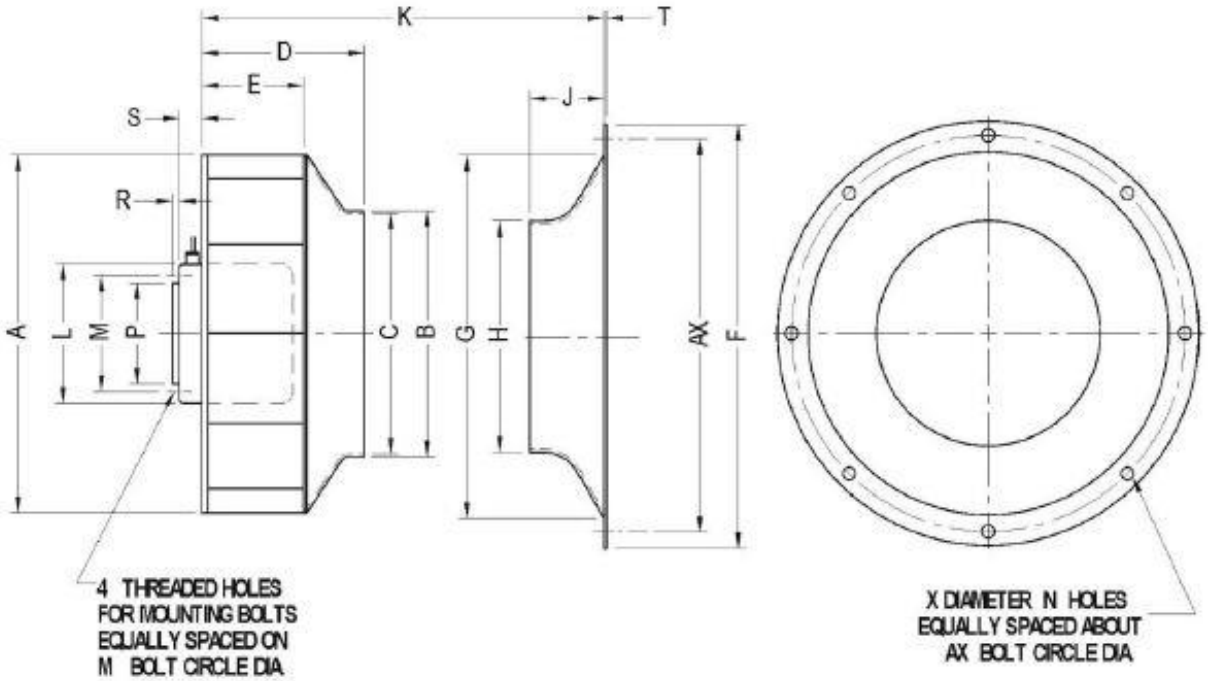


Figure 31: 1620 PCP Wiring Diagram

TMK Motorized Impellers: TMK225-2-11

Model No.	**TMK225-2-11 (115V)**
Max. Airflow	772 CFM @ 0 in H2O SP
Motor	345 watts
Max. Speed	2660 RPM
Voltage	115 volts
Phase	1
Cycle	50/60 Hz
Amperage	3 amps
Max. Temp.	
Capacitor	20 µF
Weight	7.72 lbs.





DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE.
DRAWING NOT TO BE USED FOR CONSTRUCTION.

A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S	T	X	AX
8.80	6.12	5.80	4.12	2.56	11.00	8.94	5.67	1.81	5.55	4.13	3.54	6.00	2.95	0.15	1.12	0.11	0.38	10.10

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@genesisair.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 to be in an air steam 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