CREATING CLEAN AIR TO BREATHE

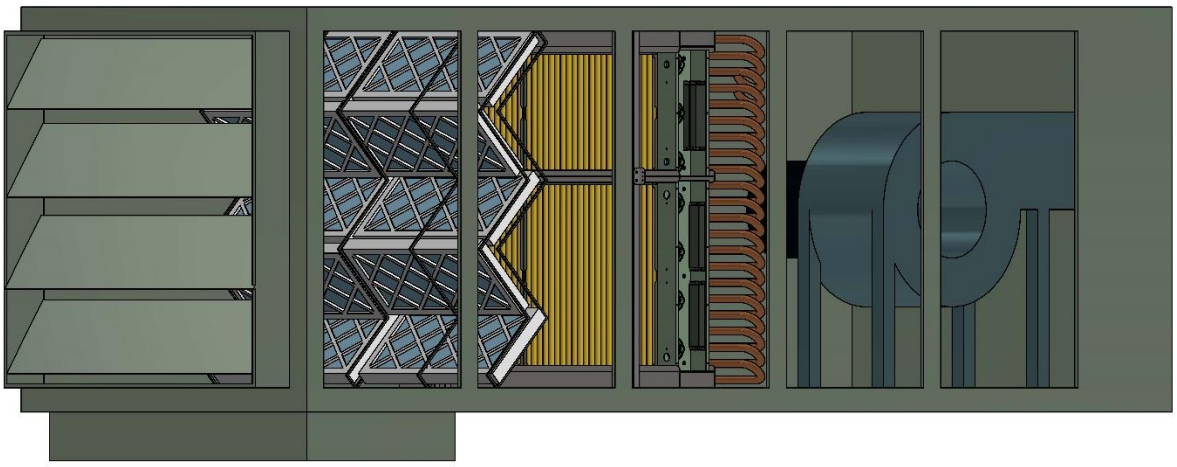
Indoor Air Purifiers

Custom Free-Standing Rack

Air Handler / Integrated

Commercial

CenterPoint Photocatalytic Oxidation Technology



July 2022 07012200

Product Description

The Free-Standing Rack is an air handler mounted shelving system designed to hold Populated Catalyst Panels (PCP). PCPs are used to reduce the levels of Volatile Organic Compounds (VOC's) and viable airborne biological contaminants in the air stream. The Free-Standing Rack uses a combination of one or more catalyst panels. These racks can be configured to fit into most commercial air handlers in a side load or front load configuration. In retrofits that involve removing the existing filter section, the Free-Standing Rack can be designed with a slot to hold 2" or 4" MERV rated pre-filters. Free-Standing Racks have been tested to comply with OSHPD regulations. For recommend configurations and custom builds, consult the manufacturer's engineering department.

Shipping and Packing List

Standard Equipment:

(1) Free-Standing Rack

(1) Array of Catalyst Panels

(1) Honeywell Door Switch

(1) Control Box

Optional Equipment:

- UV Shielding
- Slots for 2" or 4" MERV rated pre-filter

Rack and Panel Material Choices:

- Galvanized Steel (standard)
- 304 Stainless Steel
- 5052 Aluminum

Copyright

Revision Summary

Original IOM manual create in November 2019.

Current manual last revised on July 1st, 2022.

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Safety Certifications

UL Classified UL File No. E326567

OSHPD Compliance 0307-10

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 catalyst panel manufactured by First Light Technologies, Inc or UV Engineering Solutions LLC.
- **Warning:** *The electrical supply circuit connected to this UV appliance must be routed through an electrical interlock switch placed on the HVAC system duct access panels and doors to prevent accidental UV exposure when servicing the air ducts or equipment.*
- **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.*

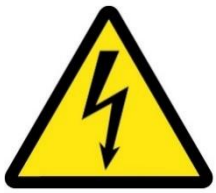
OSHPD Requirements in California

- Hospitals as defined in Section 129725 and licensed pursuant to subdivision (a) of section 125 of the Health & Safety Code shall comply with the regulations developed by OSHPD as mandated by SB 1953. Most OSHPD program regulations are found in Division 7 of Title 22 of the California Code of Regulations (CCR), commencing with §90001.

CARB Requirements

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

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

Product Overview

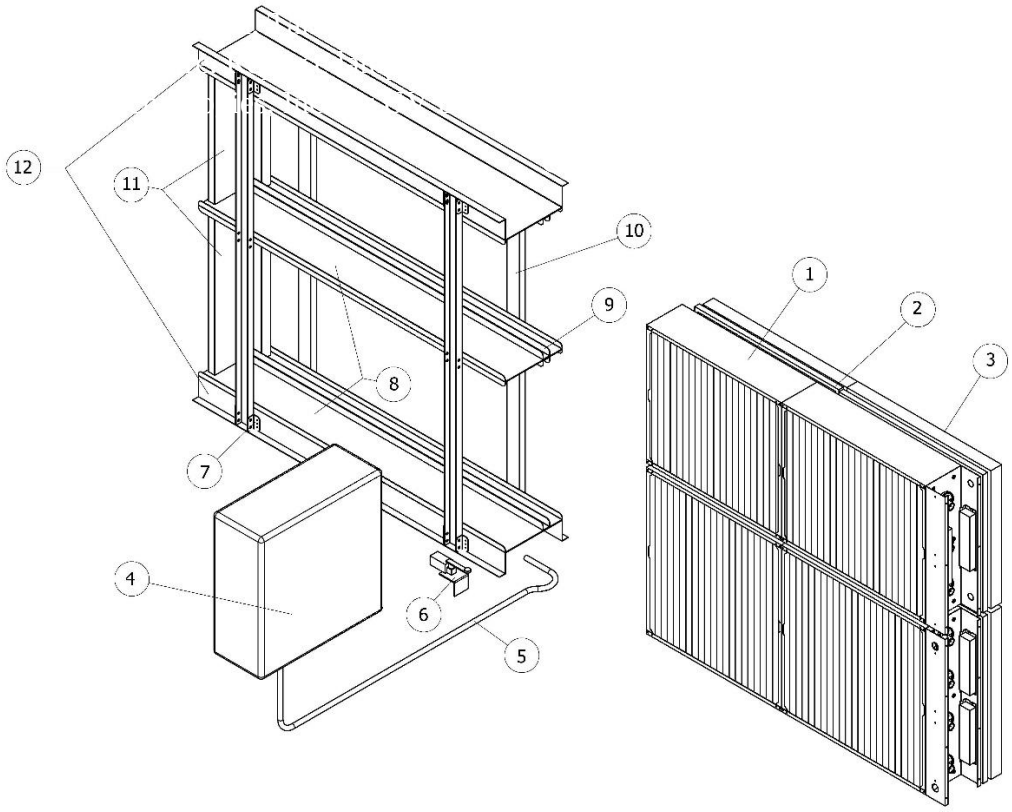


Figure 1: Components of Custom Free-Standing Rack

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

1.) PCP – CenterPoint Technology catalyst panel. Contains ballast tray, UVC lamps and Catalyst mesh. This is not a particle filter. 6 inches thick. Pressure drop of 0.05” W.C.

2.) UV Shielding – Designed to block UV radiation to protect particle filters. 1” thick. Pressure drop of 0.25” W.C.

3.) Pre-filter – MERV 8 to 13 filters used to remove particles from the air stream. Can be specified as 2” or 4” thick, depending on system requirements.

4.) Control Box – Powers and controls operation of lamps used in the catalyst panels. Contains 120 VAC to 24 VAC transformer, pressure sensor, current sensor, fuses, and 120V to 24V contactor switch.

5.) Conduit – Supplies power from control box to catalyst panel array.

6.) Door Switch – 24V Honeywell Door Switch. Deactivates lamps when access door is opened.

7.) Bracket **8.) Dividers** **9.) C-Channels** **10.) Uprights**

11.) Spacers **12.) Hat-Channels**

Specifications

U.S. Patent Number: 10946116

Model Names: Custom Free-Standing Rack

Maximum Air Speed: 500 ft/min

Total Pressure Drop (at 500 ft/min):

Without Pre-filter	0.05 in H_2O
With UV Shielding & 2” MERV 13 Filters	0.70 in H_2O

Minimum Relative Humidity: 7%

Power Requirements: 120 Volts, 60 Hertz

UVGI Life Cycle: 12,000 operational hours or 16 months

Catalyst Panel Life Cycle: 15 years*

Minimum Particulate Filtration: MERV 8 (MERV 13 recommended)

Temperature Rating: -20°F to 122°F

Preferred Install Location: Saturated zone downstream of the coils

Rack Types

Front-load

- Racks without a pre-filter are 10” in the direction of air flow.
- Racks with a 2” pre-filter are 13” in the direction of air flow.
- Require 30” in the direction of air flow to maintain.
- Typically, in spaces taller than 6 ft.

Side-load

- Racks without pre-filter are 8” in the direction of air flow.
- Racks with 2” pre-filter are 11” in the direction of air flow.
- Racks with UV shielding are 9” in the direction of air flow.
- Require 8” in the direction of air flow to maintain.
- Requires side clearance so that panels can be removed.
- Requires full height door (door height is within inches of interior floor and ceiling.)
- Typically, in spaces shorter that 6 ft.

** CenterPoint 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.*

Product Labeling Nomenclature

Ex: 2041PCP(55)GS

Nominal Panel Height (inches)

Nominal Panel Length (inches)

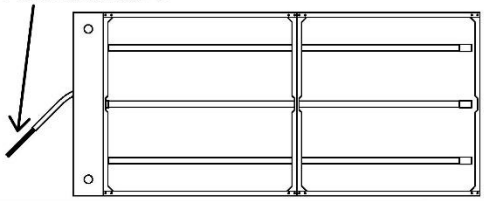
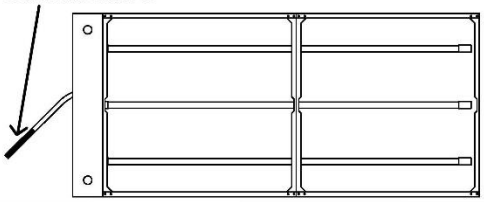
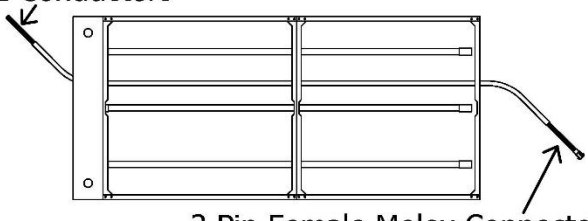
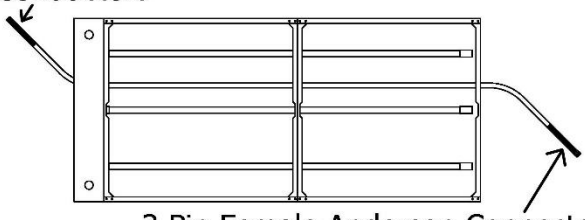
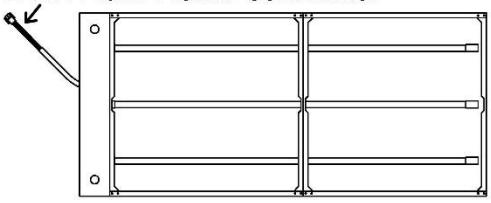
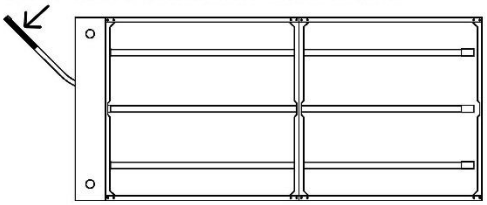
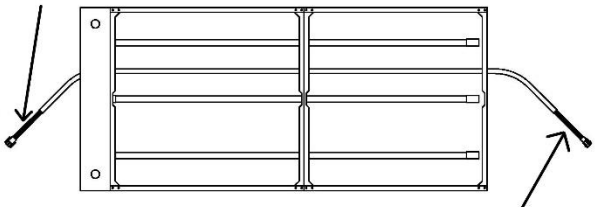
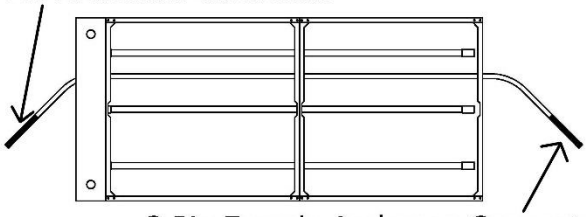
**Electrical Style

*Material / Electrical

* Material / Ballast:

- GS – Galvanized Steel Frame
- SS – Stainless Steel Frame
- AL – Aluminum Frame
- LEX – Galvanized Steel Frame and Ground wire included

** Electrical Style:

	For Designations: GS, SS, and AL	For Designations: LEX
(55)	2 Conductors 	3 Conductors 
(56)	2 Conductors  2 Pin Female Molex Connector	3 Conductors  3 Pin Female Anderson Connector
(57)	2 Pin Male Molex Connector 	3 Pin Male Anderson Connector 
(58)	2 Pin Molex Connector  2 Pin Female Molex Connector	3 Pin Anderson Connector  3 Pin Female Anderson Connector

Pressure Drop

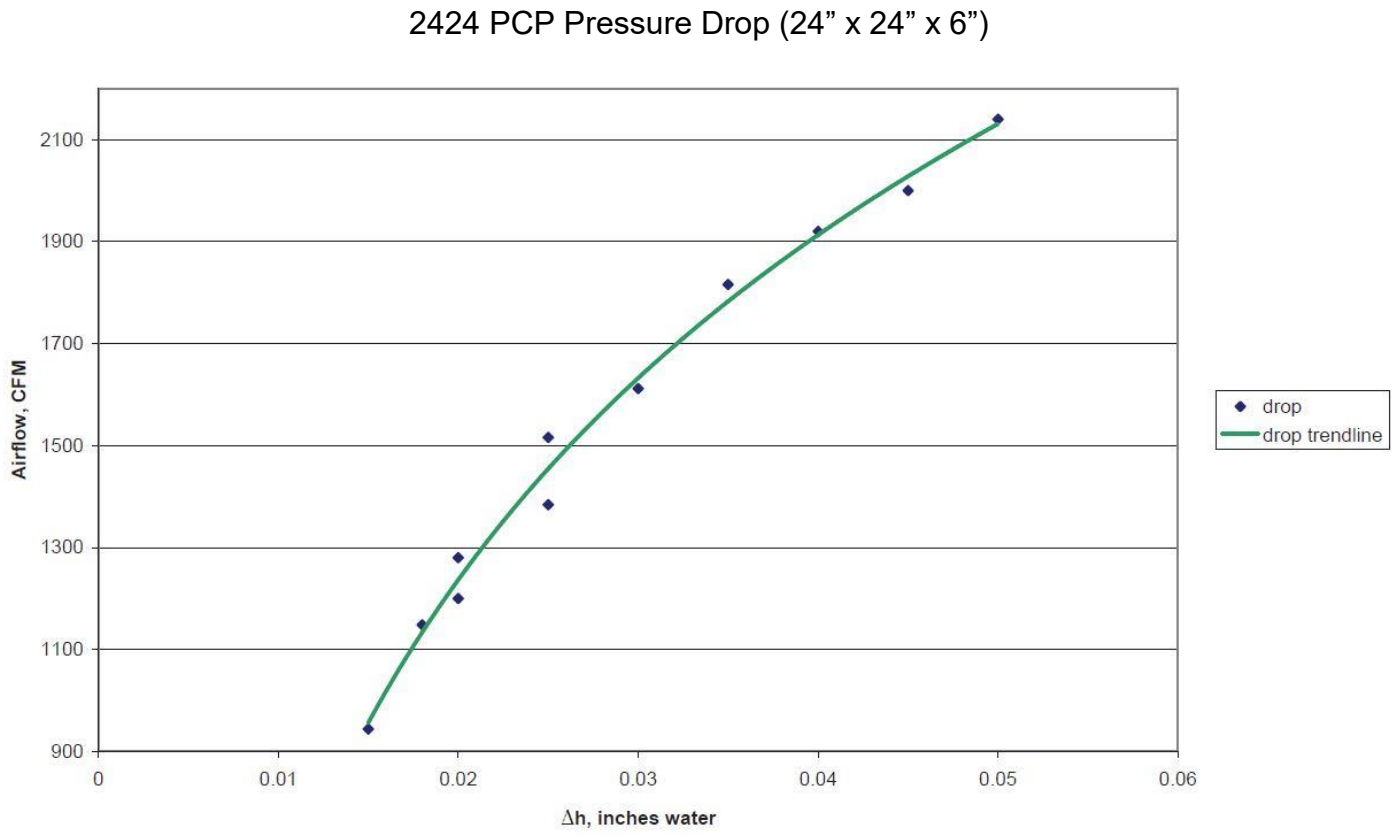


Figure 2: Pressure Drop vs Volumetric Flow Rate

Air Velocity (ft/min)	Volumetric Flow Rate (CFM)	Δh (in H2O)
236	944	0.015
287	1148	0.018
300	1200	0.020
346	1384	0.025
379	1516	0.025
403	1612	0.030
454	1816	0.035
480	1920	0.040
500	2000	0.045
535	2140	0.050

This test was performed by Genesis Air, Inc. on Thursday, June 05, 2008.

Air conditions:

Temperature: 74

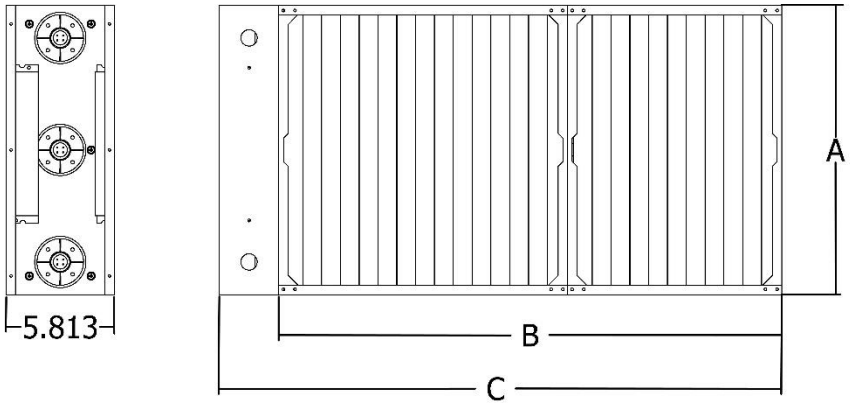
Relative Humidity: 38.4°F

Dew Point: 47.1°F

Pressure Meter: Dwyer Magnehelic 1” scale ± 0.02”

Table 1: Pressure Drop

PCP Size Chart



PCP Size Chart

Model	A (inches)	B (inches)	C (inches)	Number of Lamps	Lamp Length	Current (Amps)
1212	11.5	12	14.938	2	12"	0.32
1216	11.5	16	18.938	2	16"	0.42
1220	11.5	20	22.938	2	20"	0.70
1221	11.5	21	24.063	2	20"	0.70
1224	11.5	24	26.938	2	24"	0.88
1228	11.5	28	30.438	2	28"	0.92
1232	11.5	32	34.438	2	31"	1.12
1233	11.5	33	35.938	2	31"	1.12
1236	11.5	36	38.438	2	36"	1.34
1237	11.5	37	39.688	2	36"	1.34
1240	11.5	40	42.438	2	40"	1.48
1241	11.5	41	43.563	2	40"	1.48
1244	11.5	44	46.438	2	44"	1.50
1245	11.5	45	47.563	2	44"	1.50
1246	11.5	46	48.938	2	44"	1.50
1248	11.5	48	50.438	2	48"	1.62
1252	11.5	52	53.938	2	51.5"	1.82
1253	11.5	53	55.438	2	51.5"	1.82
1256	11.5	56	57.938	2	55"	2.02
1257	11.5	57	59.438	2	55"	2.02
1259	11.5	59	61.688	2	59"	2.30
1260	11.5	60	61.938	2	59"	2.30
1261	11.5	61	63.438	2	59"	2.30
1262	11.5	62	64.188	2	59"	2.30
1612	15.5	12	14.938	3	12"	0.48
1616	15.5	16	18.938	3	16"	0.63
1620	15.5	20	22.938	3	20"	1.05

Model	A (inches)	B (inches)	C (inches)	Number of Lamps	Lamp Length	Current (Amps)
1621	15.5	21	24.063	3	20"	1.05
1624	15.5	24	26.938	3	24"	1.32
1628	15.5	28	30.438	3	28"	1.38
1632	15.5	32	34.438	3	31"	1.68
1633	15.5	33	35.938	3	31"	1.68
1636	15.5	36	38.438	3	36"	2.01
1637	15.5	37	39.688	3	36"	2.01
1640	15.5	40	42.438	3	40"	2.22
1641	15.5	41	43.563	3	40"	2.22
1644	15.5	44	46.438	3	44"	2.25
1645	15.5	45	47.563	3	44"	2.25
1646	15.5	46	48.938	3	44"	2.25
1648	15.5	48	50.438	3	48"	2.43
1652	15.5	52	53.938	3	51.5"	2.73
1653	15.5	53	55.438	3	51.5"	2.73
1656	15.5	56	57.938	3	55"	3.03
1657	15.5	57	59.438	3	55"	3.03
1659	15.5	59	61.688	3	59"	3.45
1660	15.5	60	61.938	3	59"	3.45
1661	15.5	61	63.438	3	59"	3.45
1662	15.5	62	64.188	3	59"	3.45
2012	19.5	12	14.938	3	12"	0.48
2016	19.5	16	18.938	3	16"	0.63
2020	19.5	20	22.938	3	20"	1.05
2021	19.5	21	24.063	3	20"	1.05
2024	19.5	24	26.938	3	24"	1.32
2028	19.5	28	30.438	3	28"	1.38
2032	19.5	32	34.438	3	31"	1.68
2033	19.5	33	35.938	3	31"	1.68
2036	19.5	36	38.438	3	36"	2.01
2037	19.5	37	39.688	3	36"	2.01
2040	19.5	40	42.438	3	40"	2.22
2041	19.5	41	43.563	3	40"	2.22
2044	19.5	44	46.438	3	44"	2.25
2045	19.5	45	47.563	3	44"	2.25
2046	19.5	46	48.938	3	44"	2.25
2048	19.5	48	50.438	3	48"	2.43
2052	19.5	52	53.938	3	51.5"	2.73
2053	19.5	53	55.438	3	51.5"	2.73
2056	19.5	56	57.438	3	55"	3.03
2057	19.5	57	59.438	3	55"	3.03
2059	19.5	59	61.688	3	59"	3.45
2060	19.5	60	61.938	3	59"	3.45
2061	19.5	61	63.438	3	59"	3.45

Model	A (inches)	B (inches)	C (inches)	Number of Lamps	Lamp Length	Current (Amps)
2062	19.5	62	64.188	3	59"	3.45
2412	23.5	12	14.938	4	12"	0.64
2416	23.5	16	18.938	4	16"	0.84
2420	23.5	20	22.938	4	20"	1.40
2421	23.5	21	24.063	4	20"	1.40
2424	23.5	24	26.938	4	24"	1.76
2428	23.5	28	30.438	4	28"	1.84
2432	23.5	32	34.438	4	31"	2.24
2433	23.5	33	35.938	4	31"	2.24
2436	23.5	36	38.438	4	36"	2.68
2437	23.5	37	39.688	4	36"	2.68
2440	23.5	40	42.438	4	40"	2.96
2441	23.5	41	43.563	4	40"	2.96
2444	23.5	44	46.438	4	44"	3.00
2445	23.5	45	47.563	4	44"	3.00
2446	23.5	46	48.938	4	44"	3.00
2448	23.5	48	50.438	4	48"	3.24
2452	23.5	52	53.938	4	51.5"	3.64
2453	23.5	53	55.438	4	51.5"	3.64
2456	23.5	56	57.938	4	55"	4.04
2457	23.5	57	59.438	4	55"	4.04
2459	23.5	59	61.688	4	59"	4.60
2460	23.5	60	61.938	4	59"	4.60
2461	23.5	61	63.438	4	59"	4.60
2462	23.5	62	64.188	4	59"	4.60

Table 2: PCP Sizes

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 always attended by knowledgeable personnel.

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, 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

Figure 3: Side Load

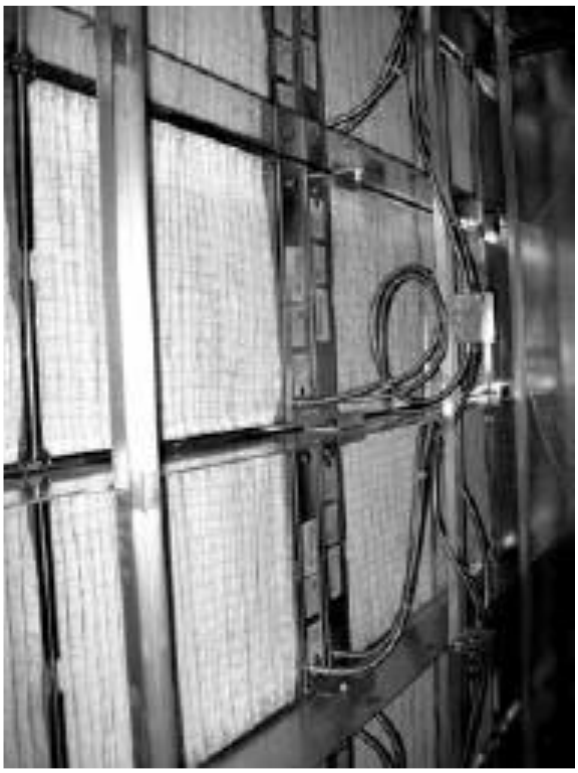


Figure 4: Front Load

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 catalyst racks to floor or ceiling. The presence of silicone in UV light will pollute the catalyst.

WARNING!

Unpacking Required

Remove all protective packing material from the box before removal of catalyst panel. All packing material should be discarded properly.

WARNING!

Lamps Contain Mercury

Ingestion or contact with mercury of mercury vapor is hazardous to your health. Take care when handling lamps. If broken, avoid contact with mercury.

The Custom Free-Standing Rack is designed to be installed permanently in the new or existing air handler(s) of a building. Installation must be completed by competent personnel. It is recommended that the installation of the free-standing rack be performed by an HVAC contractor. 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.

Suitable Locations

There are 2 main locations within an air handler that a Custom Free-Standing Rack can be installed in. The diagram below can be used as guidance on which configuration best suits a given air handler.

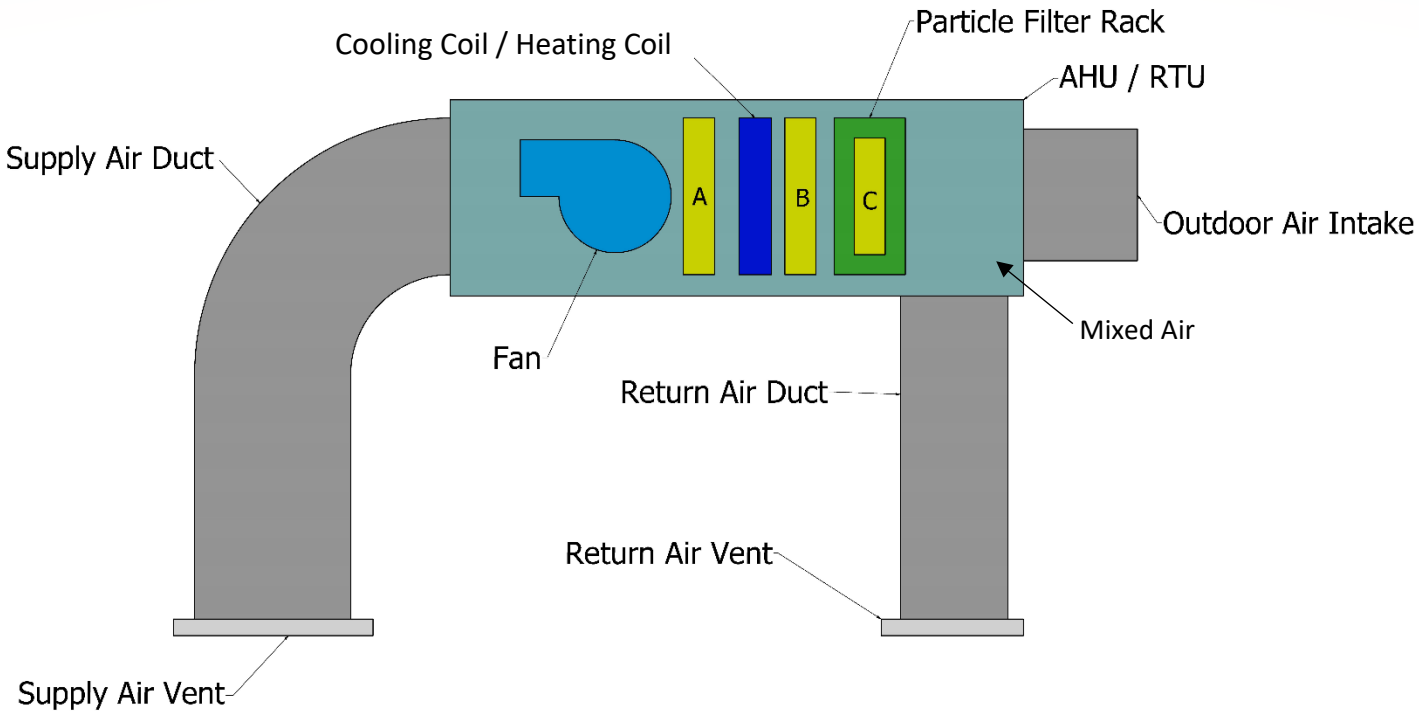


Figure 5: CU location with respect to AHU

Location	Description
• Location A • Install rack between the fan and the evaporator coil.	• **Preferred location due to the higher humidity in the saturated zone downstream of the coil.** • Can be easily accessed through the fan access door. • Can be a face loading or side loading rack. • Good alternative for air handlers without access to section B.
• Location B • Install rack between evaporator coil and preexisting filter rack.	• Most efficient and cost-effective solution. • Can be a face loading or side loading rack. • Higher humidity in this location allows for higher air cleaning efficiency.
• Location C • Demolish existing filter rack and install a rack with a new filter section.	• Can be built with a slot for 2” or 4” particle filters. • Can be a face loading or side loading rack. • Good alternative for air handlers without access to section B.

Table 3: CU Installation Considerations

Installation

Find a suitable location along the length of the air handler where room is available for installation and servicing. Installation should be performed by a trained HVAC technician. Make the following considerations.

- Clearance for door switch.
- Access to 120V AC power supply.
- Clearance from preexisting components inside the air handler.
- Best rack location and orientation to allow removal of catalyst panels and pre-filters for maintenance.
- Ease of access for maintenance personnel.

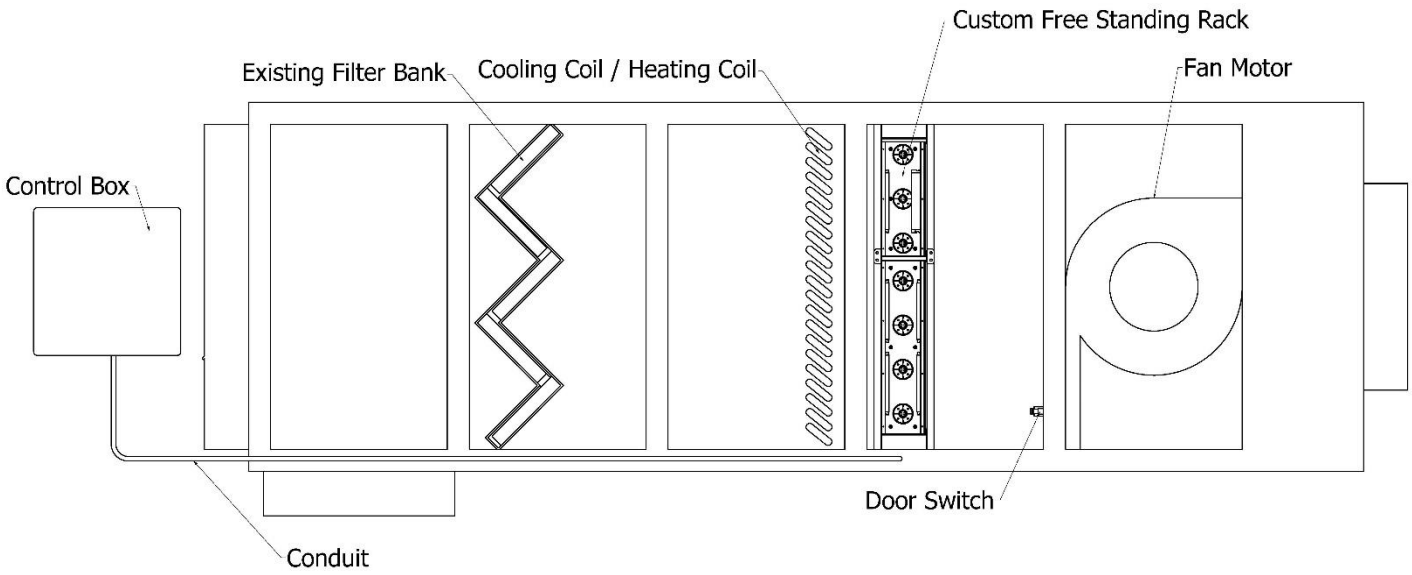


Figure 6: Location A Installation

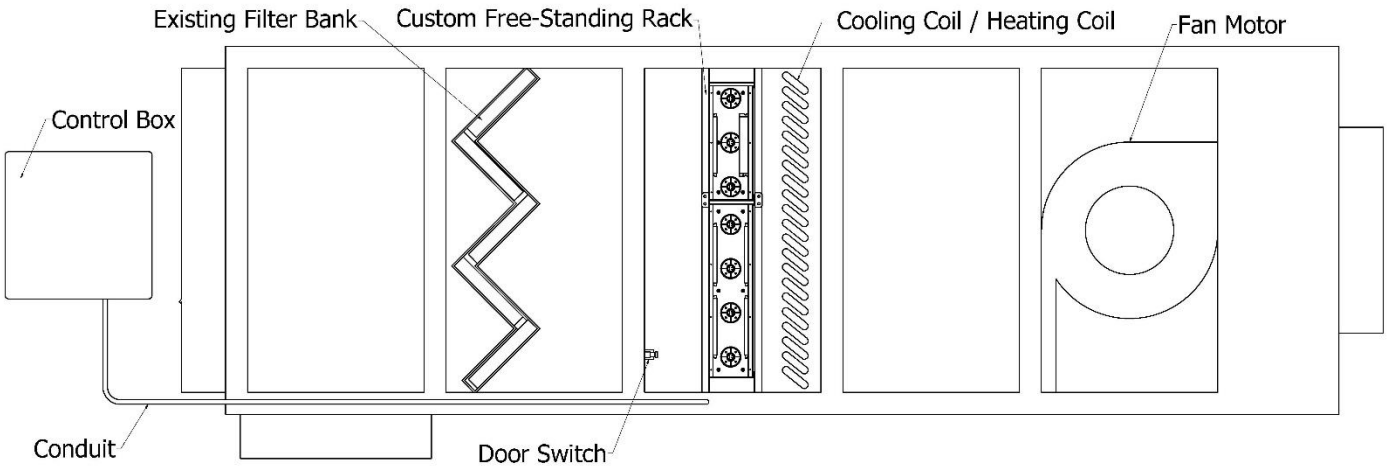


Figure 7: Location B Installation

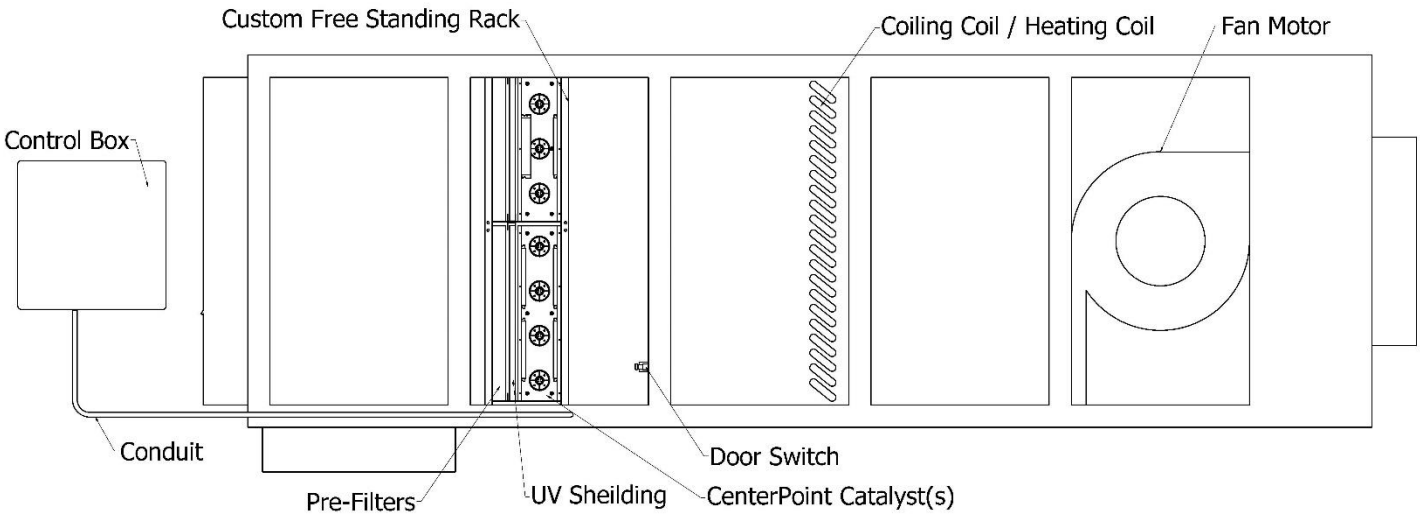


Figure 8: Location C Installation

Mechanical Installation

1.) Check to ensure that all parts have been accounted for.

2.) Turn off air handler.

3.) Fasten rack to ceiling and floor of air handler using a combination of self-tapping screws, aluminum tape, and any other needed supports.

4.) Assemble rack inside air handler using provided bolts and brackets.

5.) Insert spacers, catalyst panel(s), UV shielding, and pre-filter(s) (if applicable) into rack. For side load applications, connect electrical Molex connectors on the ends of the panels. Use catalyst clips to link panels together. For front load applications, secure catalyst panels in place with cotter pins.

Note: On Side Load applications, b*e sure that there is clearance to remove panels for maintenance. Pull distance is equal to maximum nominal catalyst panel length plus 5 inches.*

Note: *UV Shielding will be need if the rack is mounted within "eyesight" of pre-filter section.*

6.) Use a ¼" copper tube to plumb the Pressure Switch into the air handler. Tubes must be metallic to prevent deterioration due to UV light.

If the air handler only contains one fan wall, sample air flow after filtration with the low-pressure side of the switch and leave the high-pressure side vented to atmosphere.

If the air handler has a return fan and supply fan, sample air flow after the supply fan with the high-pressure side of the switch and leave the low-pressure side vented to atmosphere.

Warning: *If pressure switch plumbing is preformed incorrectly, contactor and lamps may short cycle (Chatter). This will cause lamp life to be shortened and increase needed lamp changes. This will not be covered under product warranty.*

Electrical Installation

1.) Have an electrician run 120V AC power to Control Box from building breaker box. See Table 2 for current draw of each individual panel. See submittal provided by for recommended circuit configuration. Use current draw to determine an appropriate gauge of electrical cable.

2.) Find a suitable location to mount the control box on the outside of the air handler.

Caution: *to prevent electrocution during installation, be sure that the fuse(s) are disconnected so that the circuit is not live.*

3.) Mount junction box(es) inside air hander in appropriate locations to provide power to all panels. See Free-Standing Rack submittal for reference on number of circuits and current draw to determine appropriate gauge of wire.

4.) Run conduit from all catalyst panels to junction box(es). Screw ballast covers onto panels with a Phillips head drill.

5.) Run electrical wires from door switch to a junction box.

6.) Run electrical conduit from junction box(es) to control box. At this step, be sure to connect door switch(es) to junction box. If the air handler has multiple access doors that would expose workers to UV light when opened, multiple door switches will be needed. Connect these switches in series with one another.

Caution: *Do not use large quantities of silicone to seal ductwork in the vicinity of the catalyst panels. The presence of silicone in UV light will pollute the catalyst.*

7.) Make all necessary electrical connections inside control box. See Figure 9 to reference on how to wire the control box.

8.) Once the Free-Standing Rack is installed be sure to test the unit immediately upon completion. Open air handler access door and power on the system at the Service Disconnect Switch (if applicable).

9.) Briefly press in the bypass switch. Look at the green lamp sleeves attached to each lamp. If these sleeves glow, the lamps are working. If the sleaves do not glow, the lamps are not working.

Caution: *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.*

10.) Check the electrical connections to any inoperable lamps. If all connections appear correct, proceed to Ballast Troubleshooting section for diagnosing ballast faults.

Note: *If a unit is installed and UV lights are not illuminated, the manufacture warranty will be voided if damage occurs to the catalyst panel while in the air stream.*

11.) Optionally, connect current sensing relays to low voltage BMS. Be sure that current sensors are calibrated to the correct current draw. This system will indicate that one or more lamps are out by opening the monitoring circuit when the current drops below the calibrated level.

Control Box

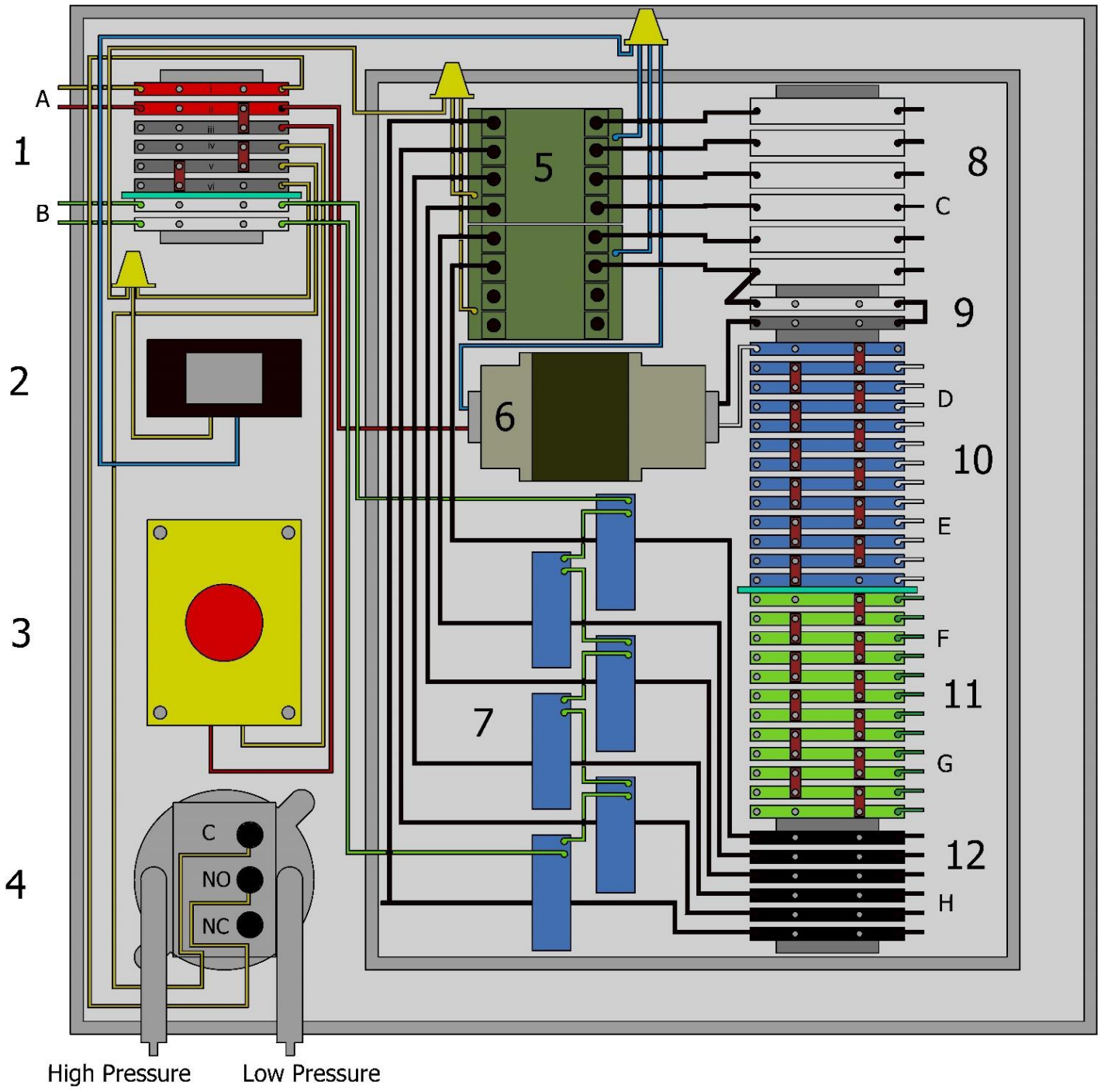


Figure 9: 6-Circuit Control Box

1.) 24V Buss Block	10.) Neutral Buss Block	G.) Ground to Array
2.) Timer	11.) Ground Buss Block	H.) 120V Power to Array
3.) Bypass Switch	12.) Load Buss Block	i.) Door Switch 24V Output / Pressure Switch 24V Input
4.) Pressure Switch	A.) To 24V Door Switch	ii.) Door Switch 24V Input
5.) Lighting Contactor	B.) Input to BMS (optional)	iii.) Bypass Switch 24V Input
6.) Control Transformer	C.) 120V Power Input	iv.) Bypass Switch 24V Output
7.) Current Sensor(s)	D.) Neutral Input	v.) Pressure Switch 24V Output
8.) Fuse Holder(s)	E.) Neutral to Array	vi.) Timer 24V Input / Contactor 24V Input
9.) Transformer Fuse Holder	F.) Ground Input	

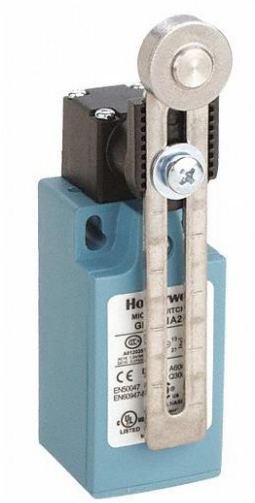
Table 4: Control Box Legend

Fan Proof Accessory

Dwyer Fan Proof Specifications

Service: Air and non combustible gases.
Wetted Materials: Consult Dwyer
Temerature Limits: -30 to 180F (34 to 82C) (32F for non dry air)
Pressure Limits: 45" w.c. continuous 10 psig surge
Switch Type: Single-pole double-throw (SPDT)
Repeatability: +- 3%
Electrical Rating: 15A@ 120-480 VAC, 60Hz. Resistive 1/8 HP @ 125VAC, 1/4 HP @250 VAC,60 Hz. Derate to 10 A for operation at high cycle rates.
Electrical Connection: 3 screw type, common, normally open and normally closed.
Process Connections: 1/8" NPT
Mounting Orientation: Diaphragm in vertical position. Consult Dwyer for other position orentations
Agency Approvals: CE, UL, CSA,FM.

Figure 10: Pressure Switch



Honeywell Micro Limit Switch

Model Number: GLLA01A2B

Construction: Thermoplastic reinforced with glass fiber

Voltage Rating: 600V AC, 250V DC

Current Rating: 1.2A AC, 0.27A DC

Switch Types: NO or NC

Short Circuit Protected: Class J Fuse rated 10A, 600V

Sealing: IP66, NEMA 1, 12, 13

Agency Approvals: CE, UL, CCC, CSA, ASME

Figure 11: Door Switch

Senva Current Sensing Relay

Model Number: C-2320

Sensing Current Range: 1A – 100A

Sensor Output Type: NO, Solid-state FET

Electrical Rating: 1.0A @ 30V AC/DC 50/60Hz

Temperature Rating: -15 to 60*C

Insulation Class: 600V RMS. For use on insulated conductors only! Use minimum 75*C insulated conductor.

Sensor Power: Induced

Description: Current under the specified limit will open the switch to the monitoring circuit.

Figure 12: Current Sensor

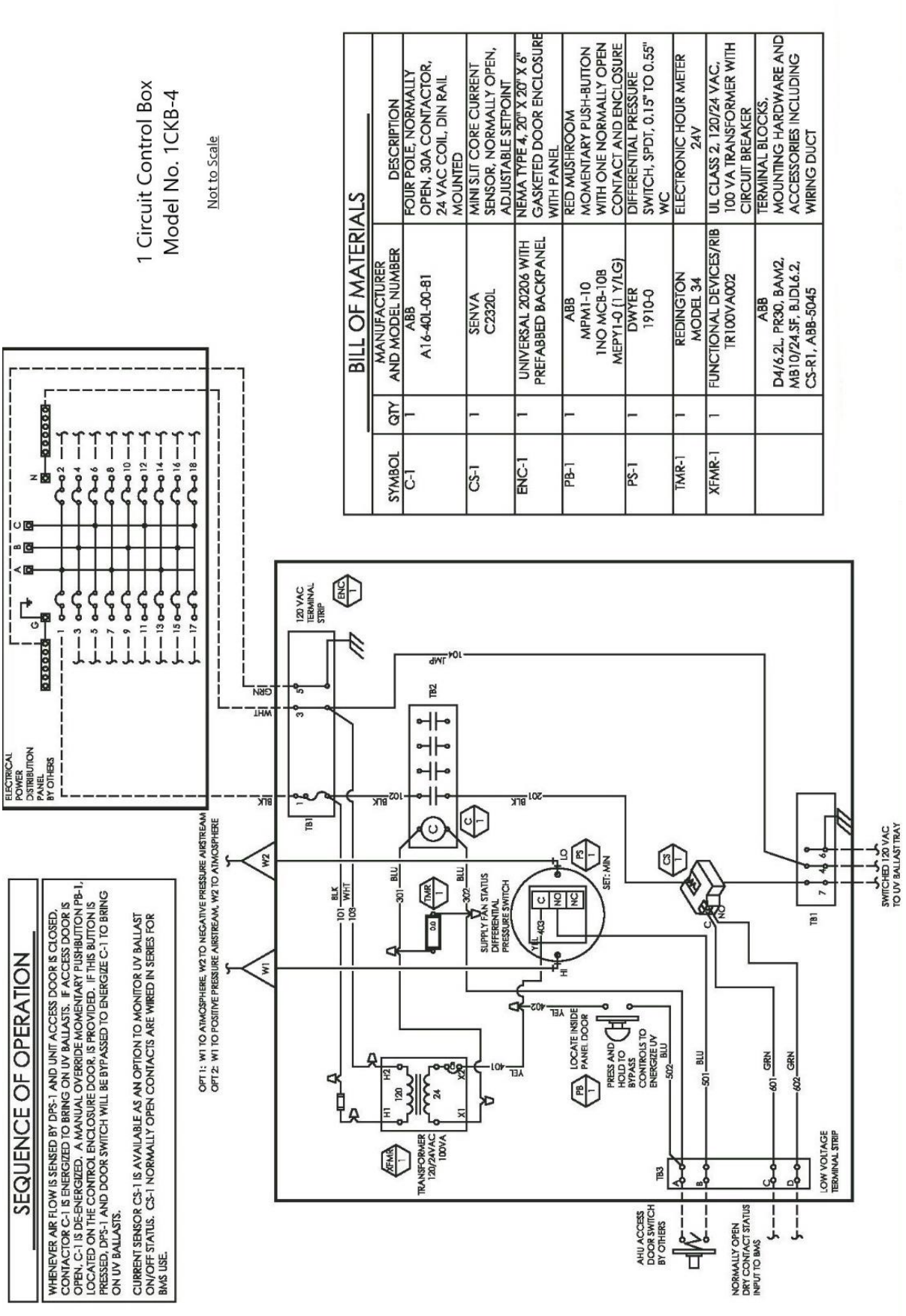
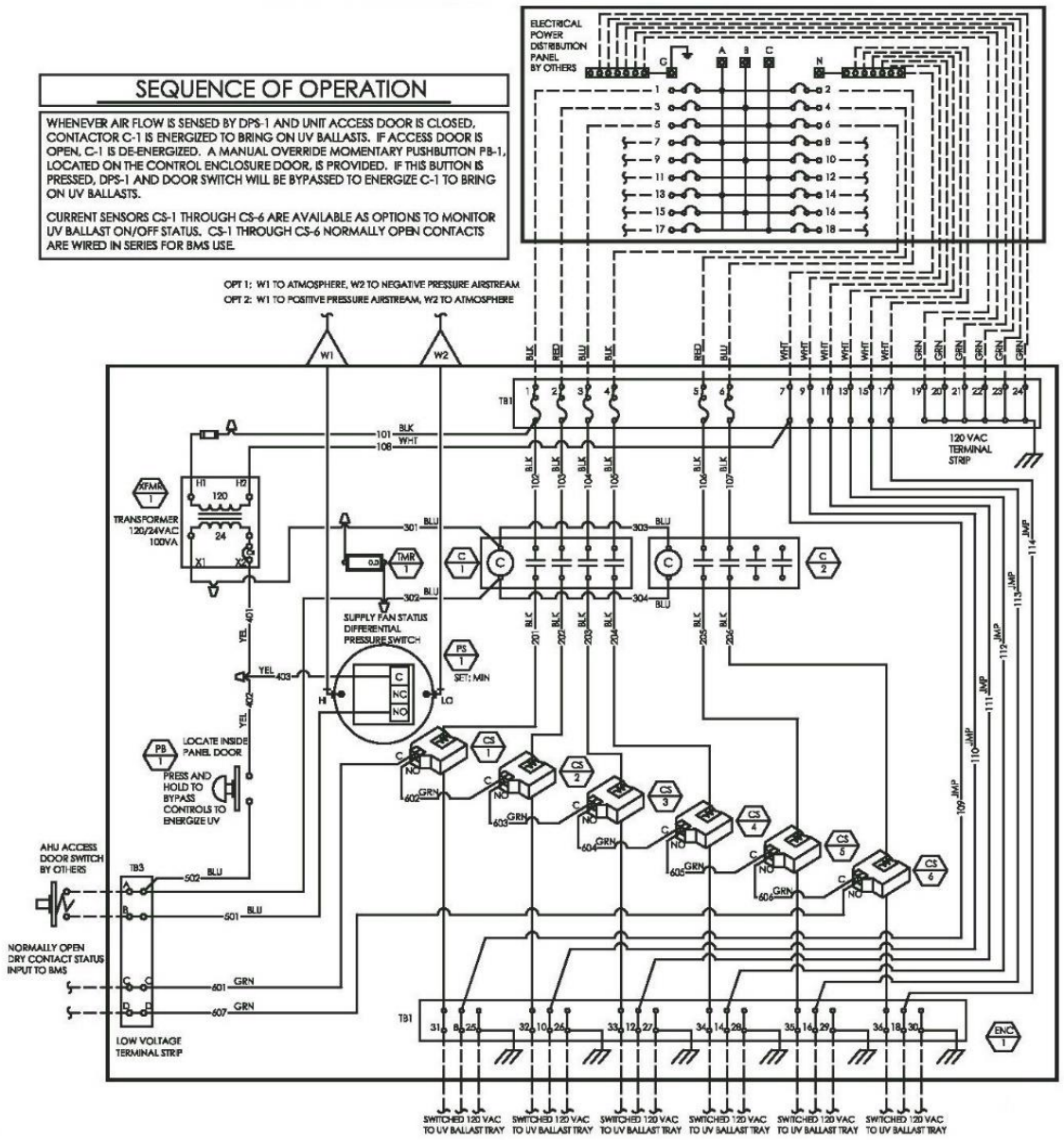


Figure 13: 1 Circuit Control Box (min.)



6 Circuit Control Box
Model No. 6CKB-4

Not to Scale

BILL OF MATERIALS

SYMBOL	QTY	MANUFACTURER AND MODEL NUMBER	DESCRIPTION
C-1, 2	2	ABB A16-40L-00-81	FOUR POLE, NORMALLY OPEN, 30A CONTACTOR, 24 VAC COIL, DIN RAIL MOUNTED
CS-1 THRU CS-6	6	SENVA C2320L	MINI SLIT CORE CURRENT SENSOR, NORMALLY OPEN, ADJUSTABLE SETPOINT
ENC-1	1	UNIVERSAL 20206 WITH PREFABBED BACKPANEL	NEMA TYPE 4, 20" X 20" X 6" GASKETED DOOR ENCLOSURE WITH PANEL
PB-1	1	ABB MPM1-10 1NO MCB-10B MEPY1-0 (1 Y/LG)	RED MUSHROOM MOMENTARY PUSH-BUTTON WITH ONE NORMALLY OPEN CONTACT AND ENCLOSURE
PS-1	1	DWYER 1910-0	DIFFERENTIAL PRESSURE SWITCH, SPDT, 0.15" TO 0.55" WC
TMR-1	1	REDINGTON MODEL 34	ELECTRONIC HOUR METER 24VAC
XFMR-1	1	FUNCTIONAL DEVICES/RIB TR100VA002	UL CLASS 2, 120/24 VAC, 100 VA TRANSFORMER WITH CIRCUIT BREAKER
		ABB D4/6.2L, PR30, BAM2, MB10/24.SF, BJDL6.2, CS-R1, ABB-5045	TERMINAL BLOCKS, MOUNTING HARDWARE AND ACCESSORIES INCLUDING WIRING DUCT

Figure 14: 6 Circuit Control Box (max.)

Maintenance

Pre-filter Replacement

Some Free-Standing Racks may include a pre-filter (MERV 8 to 13) section to remove large particle from the air stream. This prevents the buildup of debris on the catalyst panel(s). The manufacturer recommends replacing filters every 3 months with a MERV 13 rated filter. Regardless of rack configuration, **particle filters must be used and replaced on a regular basis to maintain factory warranty**.

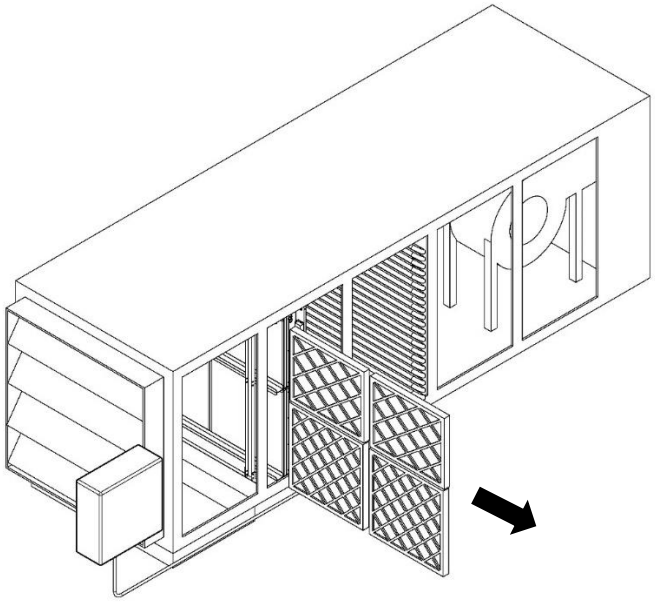


Figure 15: Filter Removal

Lamp Replacement

The Free-Standing Rack contains catalyst panels that require UV lamps of various lengths. UV lamps are used to energize the catalyst. These lamps are either 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 every 16 months or once per year.

<u>Lamp Replacement Procedure</u>

1.) If applicable, switch Free-Standing Rack OFF at service disconnect.

2.) Open air handler access door and remove fuses for each circuit in the array.

Note: *If the Free-Standing Rack is powered on while door is opened, a door switch will break power.*

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

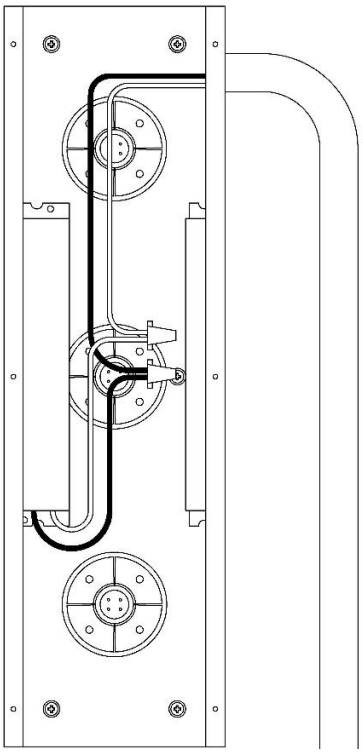


Figure 16

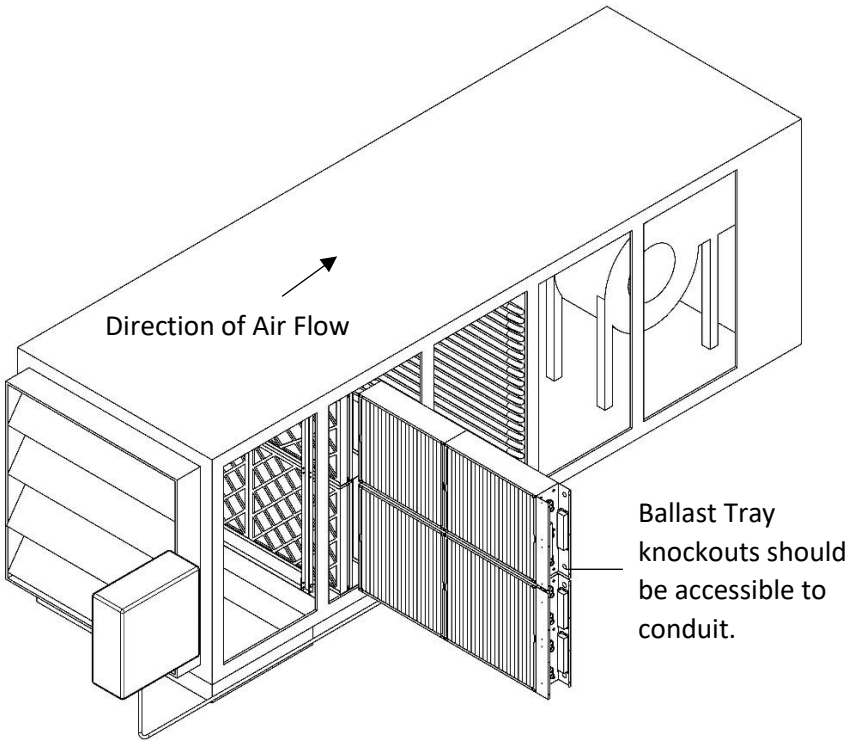


Figure 17

3.) Disconnect wire nuts powering catalyst panels. Remove conduit connectors from ballast tray. See Figure 16. 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 panel(s). Take note of the location of each catalyst panel for when they will be reinserted back into their original places. See Figure 17.

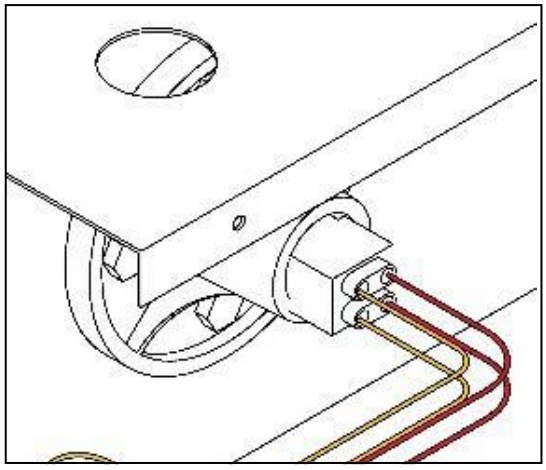


Figure 18

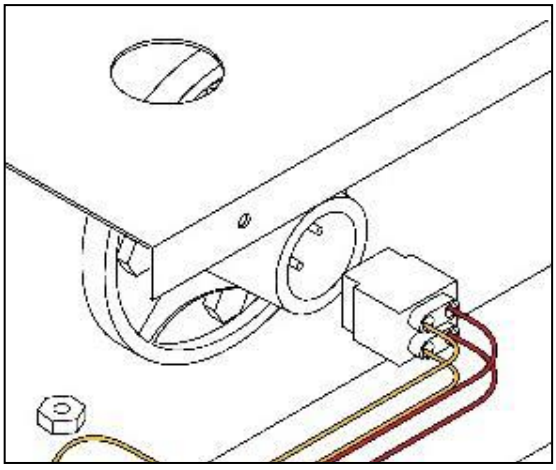


Figure 19

5.) Disconnect lamp plugs from lamps that will be replaced. See Figures 18 and 19.

Caution: *Do not operate Free-Standing Rack while one or more lamp plugs are loose. Loose lamp plugs may arc to metal frame, creating a short circuit.*

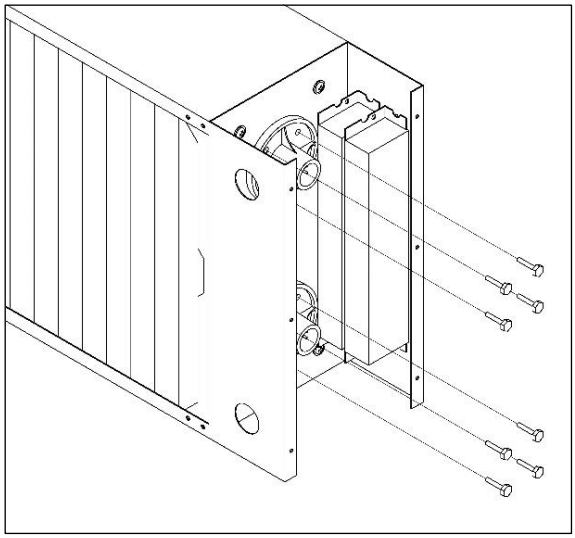


Figure 20

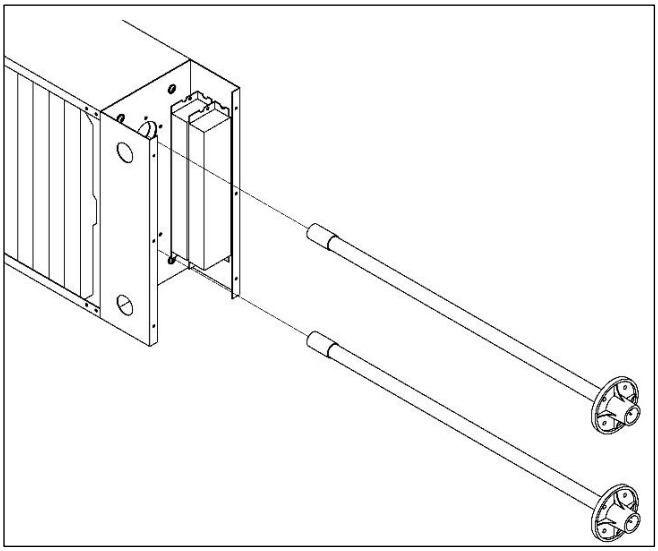


Figure 21

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 20.

7.) Remove lamp 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 21.

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.

9.) Replace lamp 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 22.

10.) Reinsert (4) screws per lamp using a 5/16” socket. See Figure 20.

11.) Reconnect lamp plugs. See Figures 18 and 19.

12.) Reinsert catalyst panel(s) into Free-Standing Rack in the same location they were removed from. Ensure that Ballast Tray knockouts are on the same side as the electrical conduit. See Figure 17. For side load applications, connect electrical Molex connectors on the ends of the panels. Use catalyst clips to link panels together.

13.) Using wire nuts and conduit connectors, wire catalyst panels in the same way they were originally wired. See Figure 16.

14.) While air handler door is still open, reinsert fuse(s) for each circuit in the array. Switch Free-Standing Rack ON at service disconnect switch if applicable.

15.) Test the Free-Standing Rack by briefly pressing the bypass switch. Look at the green lamp sleeves attached to each lamp. If these sleeves glow, the lamps are working. If the sleaves do not glow, the lamps are not working.

Caution: *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.*

16.) Check the electrical connections to any inoperable lamps. If all connections appear correct, proceed to Ballast Troubleshooting section for diagnosing ballast faults.

Note: *If a unit is installed and UV lights are not illuminated, the manufacture warranty will be voided if damage occurs to the catalyst panel while in the air stream.*

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 a 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:

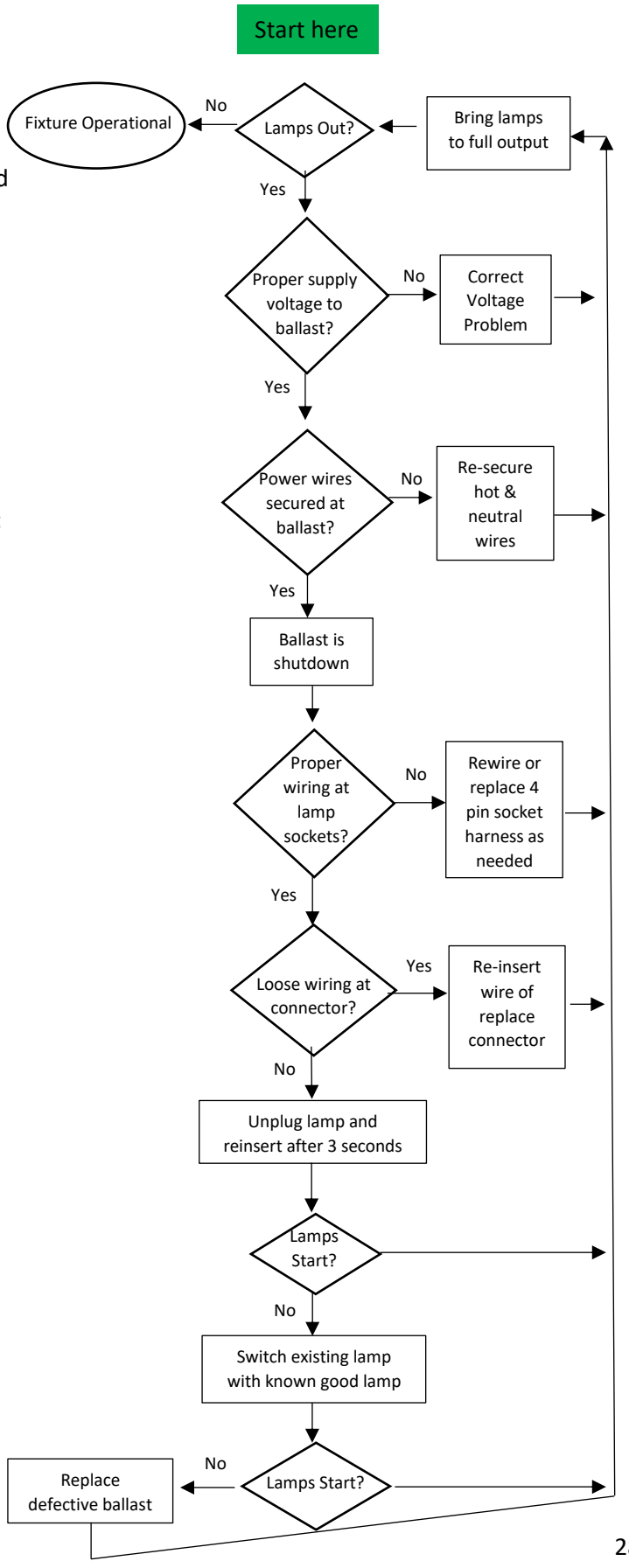
1.) Replace or check all lamps to ensure satisfactory operation.

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. Always replace with ballasts through your CenterPoint air purifier supplier. See Ballast Troubleshooting Chart for diagnosing ballast faults.

Ballast Replacement Procedure

1.) If applicable, switch Free-Standing Rack OFF at service disconnect.

2.) Open air handler access door and remove fuses for each circuit in the array.

Note: *If the Free-Standing Rack is powered on while door is opened, a door switch will break power.*

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

3.) Disconnect wire nuts powering catalyst panels. Remove conduit connectors from ballast tray. See Figure 16. 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 panel(s). Take note of the location of each catalyst panel for when they will be reinserted back into their original places. See Figure 17.

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 wire correctly. See Figures 18 and 19.

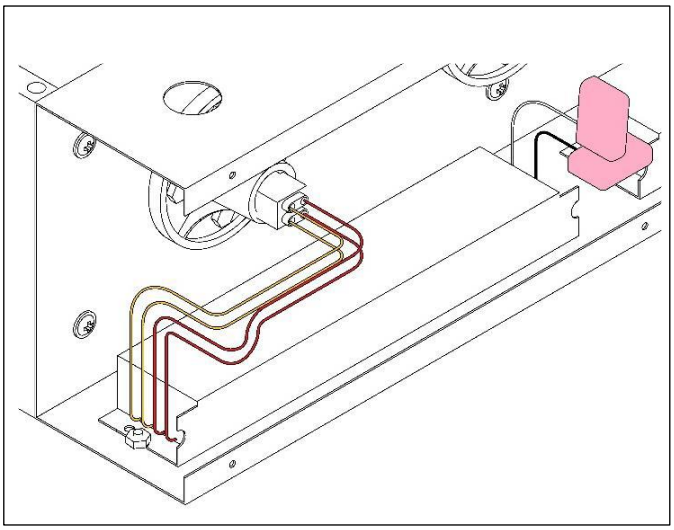


Figure 21

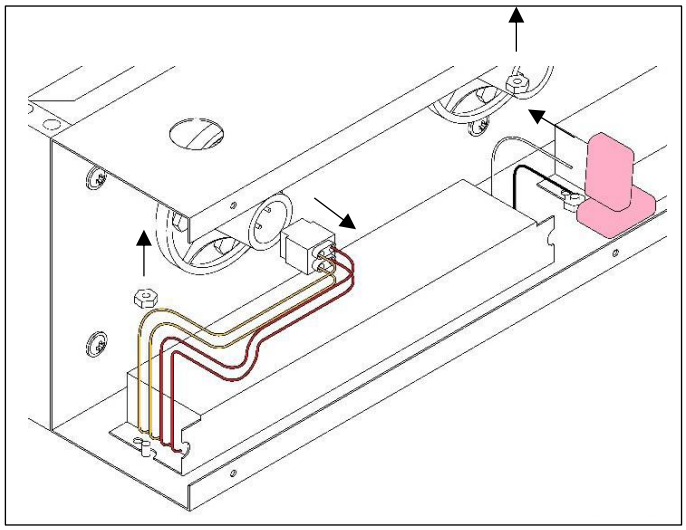


Figure 22

6.) Use an 11/32” socket wrench to remove the (2) nuts holding the ballast into place. See Figures 21 and 22.

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

8.) Reinstall the (2) nuts that hold the ballast in place. See Figures 21 and 22.

9.) Reconnect the lamp plug. Reconnect the wires powering the ballast. See Figures 18 and 19.

Caution: *Do not operate Free-Standing Rack while one or more lamp plugs are loose. Loose lamp plugs may arc to metal frame, creating a short circuit.*

10.) Reinsert catalyst panel(s) into Free-Standing Rack in the same location they were removed from. Ensure that Ballast Tray knockouts are on the same side as the electrical conduit. See Figure 17.

11.) Using wire nuts and conduit connectors, wire catalyst panels in the same way they were originally wired. See Figure 16.

12.) While air handler door is still open, reinsert fuse(s) for each circuit in the array. Switch Free-Standing Rack ON at service disconnect switch if applicable.

13.) Test the Free-Standing Rack by briefly pressing the bypass switch. Look at the green lamp sleeves attached to each lamp. If these sleeves glow, the lamps are working. If the sleaves do not glow, the lamps are not working.

Caution: *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.*

14.) Check the electrical connections to any inoperable lamps. If all connections appear correct, proceed to Ballast Troubleshooting section for diagnosing ballast faults.

Note: *If a unit is installed and UV lights are not illuminated, the manufacture warranty will be voided if damage occurs to the catalyst panel while in the air stream.*

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.) If applicable, switch Free-Standing Rack OFF at service disconnect.

2.) Open air handler access door and remove fuses for each circuit in the array.

Note: *If the Free-Standing Rack is powered on while door is opened, a door switch will break power.*

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

3.) Disconnect wire nuts powering catalyst panels. Remove conduit connectors from ballast tray. See Figure 16. 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 panel(s). Take note of the location of each catalyst panel for when they will be reinserted back into their original places. See Figure 17.

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.) Reinsert catalyst panel(s) into Free-Standing Rack in the same location they were removed from. Ensure that Ballast Tray knockouts are on the same side as the electrical conduit. See Figure 17. For side load applications, connect electrical Molex connectors on the ends of the panels. Use catalyst clips to link panels together.

8.) Using wire nuts and conduit connectors, wire catalyst panels in the same way they were originally wired. See Figure 16.

9.) While air handler door is still open, reinsert fuse(s) for each circuit in the array. Switch Free-Standing Rack ON at service disconnect switch if applicable.

Catalyst Cleaning Procedure

1.) If applicable, switch Free-Standing Rack OFF at service disconnect.

2.) Open air handler access door and remove fuses for each circuit in the array.

Note: *If the Free-Standing Rack is powered on while door is opened, a door switch will break power.*

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

3.) Disconnect wire nuts powering catalyst panels. Remove conduit connectors from ballast tray. See Figure 16. 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 panel(s). Take note of the location of each catalyst panel for when they will be reinserted back into their original places. See Figure 17.

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.) Reinsert catalyst panel(s) into Free-Standing Rack in the same location they were removed from. Ensure that Ballast Tray knockouts are on the same side as the electrical conduit. See Figure 17. For side load applications, connect electrical Molex connectors on the ends of the panels. Use catalyst clips to link panels together.

8.) Using wire nuts and conduit connectors, wire catalyst panels in the same way they were originally wired. See Figure 16.

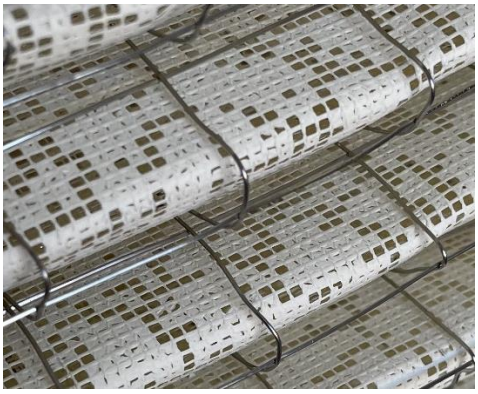
9.) While air handler door is still open, reinsert fuse(s) for each circuit in the array. Switch Free-Standing Rack ON at service disconnect switch if applicable.

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 23, notice the stripes in the mesh created by the lamps. It is time to replace the catalyst when these stripes appear. Figures 24 and 25 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 23

Used Catalyst Windowing: Figure 24



New Catalyst Windowing: Figure 25

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.*

1.) If applicable, switch Free-Standing Rack OFF at service disconnect.

2.) Open air handler access door and remove fuses for each circuit in the array.

Note: *If the Free-Standing Rack is powered on while door is opened, a door switch will break power.*

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

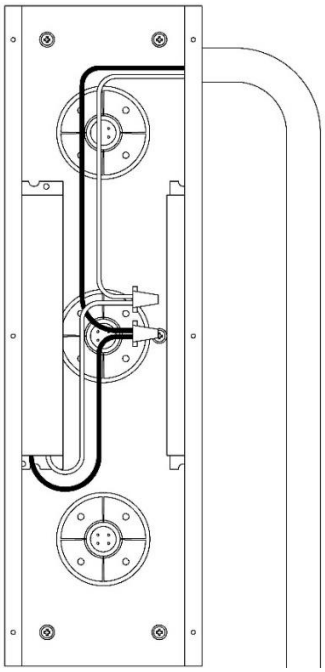


Figure 26

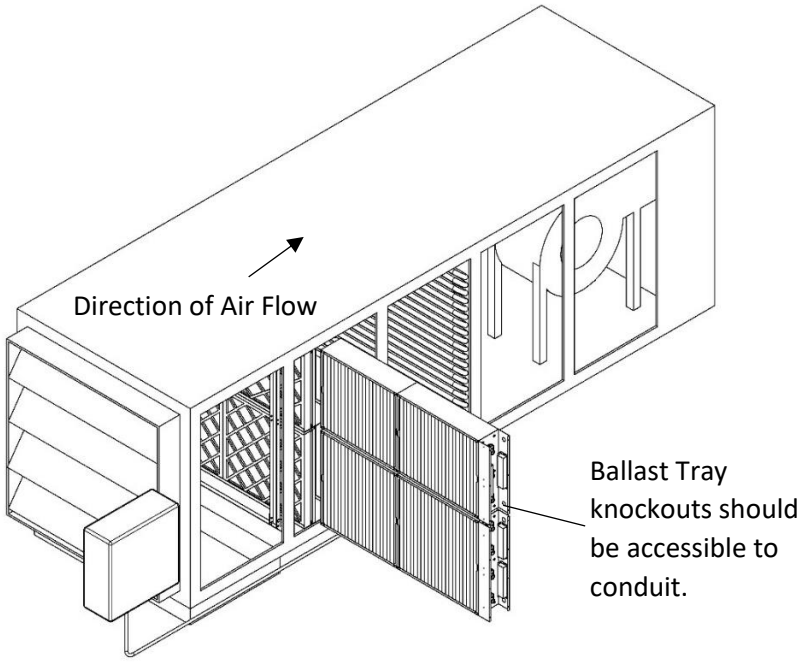


Figure 27

3.) Disconnect wire nuts powering catalyst panels. Remove conduit connectors from ballast tray. See Figure 26. 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 old panel(s). Take note of the size of each panel and their location. The new panels of corresponding size will need to be placed in the same location. See Figure 27.

5.) Reinsert catalyst panel(s) into Free-Standing Rack in the same location they were removed from. Ensure that Ballast Tray knockouts are on the same side as the electrical conduit. See Figure 27. For side load applications, connect electrical Molex connectors on the ends of the panels. Use catalyst clips to link panels together.

6.) Using wire nuts and conduit connectors, wire new catalyst panels in the same way that the old ones were originally wired. See Figure 26.

7.) While the air handler door is still open, reinsert fuse(s) for each circuit in the array. Switch Free-Standing Rack ON at service disconnect switch if applicable.

8.) Test the Free-Standing Rack by briefly pressing the bypass switch. Look at the green lamp sleeves attached to each lamp. If these sleeves glow, the lamps are working. If the sleaves do not glow, the lamps are not working.

Caution: *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.*

9.) Check the electrical connections to any inoperable lamps. If all connections appear correct, proceed to Ballast Troubleshooting section for diagnosing ballast faults.

Note: *If a unit is installed and UV lights are not illuminated, the manufacture warranty will be voided if damage occurs to the catalyst panel while in the air stream.*

Replacement Parts

Part	Description	Name / Model Number
Ballast	120 VAC, 60 Hz	Fulham WH-5
Catalyst	PCP (Sizes will vary. See Table 2 for PCP Sizes)	PCP
Particle Filter	(Sizes will vary)	MERV 8 to 13
UVGI Lamps	UV-C Lamp (Sizes will correspond to PCP size. See Table 2 for specific lamp size and quantity for each individual panel.)	First Light Technologies, Inc. or UV Engineering Solutions, LLC
UVGI Shielding	(Sizes will correspond to PCP size. See Table 2 for actual height and width dimensions.)	UV Shielding
Lamp Screws	Hex Screw	10-16 Self-Drilling Screw
Catalyst Cover Screws	Philips Head Screw	PPH ½" Self-Drilling Screw

Table 5: 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

Document Revision Date: September 07, 2021

The following is a guide specification for the CenterPoint PCP (Populated Catalyst Panel). This specification is not intended to be used without editing, as there are numerous choices throughout the document (enclosed in brackets "[ ]" & highlighted in blue) **that require decisions to be made by the specifying design professional. THE MANUFACTURER IS NOT RESPONSIBLE FOR THE USE OF SUPERCEDED OR INACCURATE SPECIFICATIONS BY OTHERS.** ***Designers are encouraged to check with their local Manufacturer's Representative, or with the manufacturer,*** to ensure that the guidance documents being used are the latest revision.

1.0 PHOTOCATALYTIC OXIDATION (PCO) UNIT

PCO unit shall be factory-fabricated and tested two-part integral assembly for treatment of air by: (1) Ultraviolet Germicidal Irradiation (UVGI) using UVC lamps; and (2) Photocatalytic Oxidation using TiO2 media. Assembly shall be housed in casing. The combination of UVC lamps and TiO2 media is intended to create hydroxyl radicals at the surface of the media (Passive) and not to broadcast radicals into the occupied spaces (Active).

1.1 Unit Casing

Casing shall be of single-wall construction, fabricated of [5052 aluminum] [24 gauge 304 stainless steel] [22 gauge galvanized steel]. All portions of the casing shall be free from sharp edges and burrs. Casing shall be 5 13/16" deep.

1.2 Unit Capacity

Unit shall be rated for a maximum velocity across the unit face of 500 feet per minute.

1.3 UL Certification

The entire PCP assembly shall bear the UL Classification Mark and be investigated in accordance with ANSI/UL 1598, "Luminaires," and ANSI/UL 1995, "Heating and Cooling Equipment," under the Air Duct Mounted Accessories category (ABQK). Compliance is to be verified by the UL Online Certifications Directory.

1.4 PCO Media

Media shall consist of six-inch (nominal) non-metallic media with face area to match casing opening, pleated at one pleat per inch (nominal), with a 40-200 nanometer TiO2 coating. PCO media shall be placed perpendicular to the air stream in the unit casing. Media shall have an internal mechanism to eliminate the silica produced by the oxidation of ethanol.

1.5 UVGI Lamps & Ballasts

Lamps and ballasts shall be designed specifically to provide type-C ultraviolet light with a wavelength at or near 253.7 nm. Lamps shall be non-ozone-producing. Lamps shall be Teflon-coated to reduce breakage. Sufficient lamps shall be provided and positioned center point through the media equidistant from edges to achieve a minimum coverage of 9.5 milliwatts per square inch of UVC light, upstream and downstream, across all exposed surfaces of the PCO media. Lamp UVC output shall not drop below 9.5 milliwatts per square inch over their usable 12000 hr. life.

1.6 Electrical

Unit shall be configured to operate with 120V/1φ/60Hz electrical power. Unit shall be provided with junction box for point of connection.

1.7 Racking System

The racking system shall be constructed as either a front-loading or side-loading design. Either system must show proof of conformance to ICB 2012, CBC 2010 and ICC AC-156 (2010). The catalyst and the racking system shall bear the OSP certification number.

1.8 Unit exemplified by:

Manufacturer: Genesis Air, Inc.

Model No.: [XXXX] [E] PCP Compound

Manufacturer's Website: www.genesisair.com

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 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