



# Installation and Operation Instructions

## POWER SUPPLY CABINET (PSC)

Made in USA

**NOTE: Read this entire instruction sheet before starting the installation.**

*Emitters and Cables Sold Separately*

### IMPORTANT CONSIDERATIONS

Follow all safety codes and any warnings or cautions attached to any accessed area. Consult local building codes and the National Electrical Code (NEC) for electrical wiring requirements.

Improper installation, adjustment, alteration, service, maintenance, or use can cause fire, electrical shock, or other conditions which may cause personal injury or property damage. Consult a qualified installer, service agency, or your supplier for information or assistance. Regarding the statements below, understand the signal words **DANGER**, **WARNING**, or **CAUTION**. These words are universally used for overall safety. **DANGER** identifies the most serious hazards which will result in severe personal injury or death. **WARNING** signifies hazards, which could result in personal injury or death. **CAUTION** is used to identify unsafe practices, which would result in minor personal injury or product and property damage.

**WARNING:** Before installing Emitter and Mounting System or performing maintenance or service on fixture, turn off main power switch to unit. Electrical shock can cause injury or death. There may be more than one disconnect switch.

#### CAUTIONS:

- The remote safety interlock switch must be installed at AHU access doors/panels to ensure electrical power to the UVC Emitters is automatically disconnected any time the AHU doors/panels are opened. Maintenance personnel must ensure that the UV light is off prior to working inside the AHU. Never expose eyes or skin to UVC light from any source, as personal injury may result. Wear gloves, face shield/glasses (per ANSI Z87.1) and cover all exposed skin.
- Use only specified high-output, low temperature Steril-Aire Emitters with this system. Use of a lower wattage or incorrect Emitter can result in damage to fixture or

Emitter and cause a loss of operational efficiency.

- Voltages outside of the operating range of the unit will void the warranty and will cause permanent damage to the unit.
- Emitter contains a small quantity of mercury. If an Emitter breaks, clean and dispose of with care.
- UVC energy may cause damage to non-metallic components except for some UV-rated materials. Select mounting locations that prevent exposure to vulnerable components. If mounting locations are limited, such components shall be protected with UV resistant material such as aluminum foil, aluminum duct tape, metallic shields, etc.
- Recommend installing a control panel to be integrated with the building management system to alert of failure and recommend maintenance of Emitters.

# INSTALLATION & OPERATION

**NOTE: ENSURE THAT EMITTERS ARE INSTALLED BEFORE POWER IS APPLIED. INSTALLING EMITTERS AFTER POWER HAS BEEN APPLIED WILL TRIGGER THE “END-OF-LAMP-LIFE CIRCUIT” AND THE EMITTERS WILL FAIL TO LIGHT! IF THIS HAPPENS, SHUT OFF POWER FOR 10 SECONDS AND THEN TURN POWER ON. EMITTERS WILL THEN LIGHT.**

1. Install a properly protected disconnect for each Power Supply Cabinet. Install the optional view port (recommended) in the center of a wall panel or door, away from the panel edges or internal struts. Ensure that the location provides an unobstructed view of the Emitters.

**Disconnect should be sized for 150W per power supply. Example: PSC 4 – 4 x 150W = 600W.**

2. Determine the location to mount the Power Supply Cabinet. The Power Supply Cabinet can be mounted inside or outside of the air handlers.

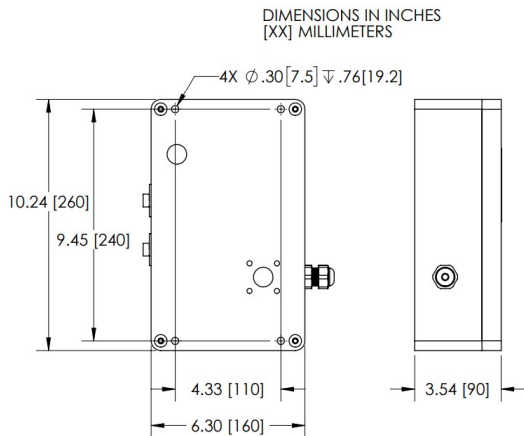
### Recommended Location Selection

- Strong enough wall to support the PSC weight.
- Well ventilated area.

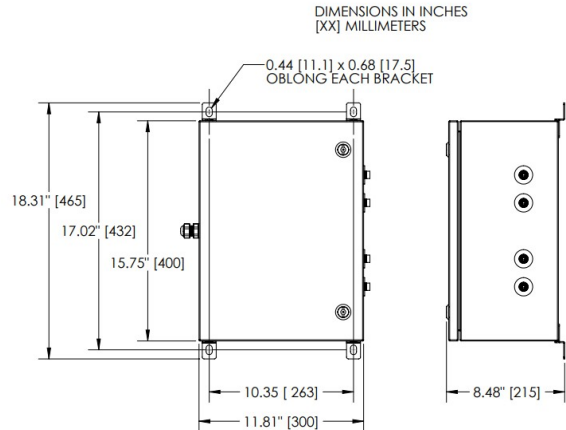
3. Run a cable from the disconnect box to the wall where the Power Supply Cabinet will be mounted. Make sure that the power is off and test wires for voltage before handling them.

**Minimum: 16AWG 3/C Cable rated for 300V & 90C**  
**Example: 14AWG Cu THHN 3/C Stranded Cable**

4. Mount and wire Power Supply Cabinet per local building codes and the National Electrical Code (NEC) for electrical wiring requirements
5. For PSC 1-2, using the mounting holes for on the Power Supply Cabinet, mark up the mounting hole locations.



For PSC 3-8, use the mounting brackets for on the Power Supply Cabinet, mark up the mounting hole locations.



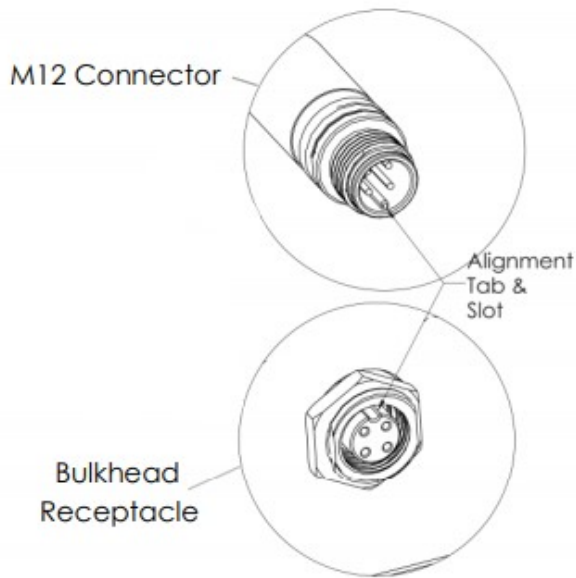
6. Mount the Power Supply Cabinet to the wall. For the PSC 1-2, 1/4" fasteners recommended. For the PSC 4-8, 3/8" fasteners recommended.
7. For PSC1-2, remove the wire nuts from the package and connect the black, white, and green wires with the field supplied power.

For PSC 3-8, insert the wires into the butt splice from the terminal board and crimp.



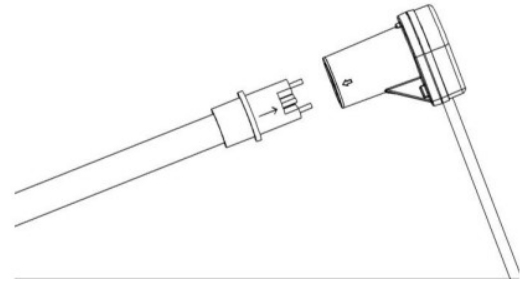
8. Tighten the cable gland over the cable with a wrench to seal the enclosure.
9. For each Emitter Connection Cable, align the slot and tab and screw in the M12 Connector on the wire lead to the Bulkhead Receptacle on the Power Supply Cabinet. Reference Figure 2.

**NOTE: To remove the Emitter connection cable, completely unscrew the connector before unplugging.**



10. Using socket end of the emitter connection cable, connect the lead socket to Emitter by aligning the

arrows.



11. Test all circuits and turn system on. A "blue hue" will glow from Emitters indicating each fixture is working. **Caution: View Emitters through view port or if inside the system, with all skin covered and use full face mask.**
12. Affix the included "**WARNING LABEL**" and "**NON STERIL-AIRE WARNING LABEL**" in plain sight to the A/C unit. Protect labels against poor conditions; replace when worn.
13. Affix the included Change Date Label; write today's date on the label and place it outside of the Power Supply Housing or onto another easily seen location near system or HVAC unit access door.

## MAINTENANCE

Emitters need to be periodically replaced with Genuine Steril-Aire Emitters to maintain design output. Emitters should be replaced after 9000 hours of use (1-year).

## TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Emitter does not light	Momentary loss of power.	<u>Reset Power</u> Turn off power for 10 Seconds, and then turn power on.
	Poor connection	Check connection to Emitter. Check wiring connections. Reset Power
	Incorrect wiring	Inspect circuit to wiring diagram.
	Dirty pins	Clean pins. Reset Power
	System malfunction	Check system components, interlock door switches, relays, motion detectors, etc.
	Emitter reaching end of life	Replace with new Emitter. Reset Power
	Defective Power supply	Replace Power Supply.
Low Radiometer Reading or Visibly Weak Emitter Light	Dirty Emitter or Radiometer	Clean Emitter. Clean Radiometer lens
	Bad Wiring	Check wiring to Emitter
	Emitter reaching end of life	Replace Emitter
	Emitter too Cold	If emitter is at or below 35°F(1°C), Emitter is too cold to operate properly.
Red/Orange Emitter	Emitter reaching end of life	Replace Emitter
	Defective Emitter	

## SPARE, REPLACEMENT AND OPTIONAL PARTS/ACCESSORIES

Description	P/N
Preassembled Power Supply Cabinet (1 Power supply)	11000755-1
Preassembled Power Supply Cabinet (2 Power supplies)	11000755-2
Preassembled Power Supply Cabinet (3 Power supplies)	11000755-3
Preassembled Power Supply Cabinet (4 Power supplies)	11000755-4
Preassembled Power Supply Cabinet (5 Power supplies)	11000755-5
Preassembled Power Supply Cabinet (6 Power supplies)	11000755-6
Preassembled Power Supply Cabinet (7 Power supplies)	11000755-7
Preassembled Power Supply Cabinet (8 Power supplies)	11000755-8
3 Foot Enhanced Emitter Connection Cable	50000130-03
M12 Extension Cable ...XX = 05, 10, 20, or 30 (length in feet)	50000135-XX
Interlock Switch	90000119
Power Supply Replacement	10000187
"C" Clip Kit, SE Framing Assem	90000815
H-Bracket Kit, Single	15000147
Quick Slip Fitting	15000160
Quick Slip/Spring clip Mounting Kit	15000165
U-Bracket/Cantilever	15000144
Adjustable Framing w/ 2 H-Brackets 24" TO 42"	15000151-1
Adjustable Framing w/ 2 H-Brackets 36" TO 67"	15000151-2
Adjustable Framing w/ 2 H-Brackets 65" TO 112"	15000151-3
Adjustable Framing w/ 2 H-Brackets 102" TO 180"	15000151-6
Adjustable Framing w/H-Bracket & Foot 24" TO 42"	15000150-1
Adjustable Framing w/H-Bracket & Foot 36" TO 67"	15000150-2
Adjustable Framing w/H-Bracket & Foot 65" TO 112"	15000150-3
Adjustable Framing w/H-Bracket & Foot 102" TO 180"	15000150-6