

Rapid Install Kit (RIK[®]) Installation and Operation Instructions 120-277 V 50/60Hz

PN 1180xxxx

Patents 5,817,276/ 6,245,293/ 6,267,924/ 6,280,686/ 6,313,470/ 6,423,882/
6,500,267 /6,589,476/ 6,627,000/ 6,783,578/ 7,140,749/ 7,282,728/ 7,459,694 &
others pending

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

Made in the USA

IMPORTANT CONSIDERATIONS

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 your supplier or Steril-Aire for information or assistance.

Understand the signal words **DANGER**, **WARNING**, and **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 resulting in minor personal injury or product and property damage.

⚠ WARNING:

Before performing maintenance or service on fixture, ensure unit is unplugged. Electrical shock can cause injury or death.

⚠ CAUTIONS:

- Never expose eyes or skin to UVC light. Wear gloves, face shield/glasses (per ANSI Z87.1) and cover all exposed skin.
- Do not touch UVC Emitter[®] germicidal lamp without gloves. Damage to Emitter may result. Oil from fingerprints will permanently etch glass of Emitter and weaken structure. If necessary, clean Emitter using a Steril-Aire cleaning kit (included), isopropyl alcohol and a lint-free wipe may be substituted.

- UVC Emitters are fragile. To prevent accidental breakage handle the UVC Emitter with care.
- Voltages outside of the range designed for the unit will void the warranty and do permanent damage to the entire unit.
- Emitter contains a small quantity of mercury. If an Emitter breaks, clean and dispose of with the same care as a fluorescent lamp.
- UVC energy may cause damage to non-metallic components. Such components shall be protected with UV resistant material such as aluminum foil, aluminum duct tape, metallic shields, etc.
- The qualified installer or agency must use factory kits and accessories when installing this product.

For your safety ensure that the Kit is electrically connected to a proper power source, on/off switch, interlock switch (or control panel) and fuse.

Upon completing the installation, the UVC Emitters should be operated continuously, 24/7, to preclude the development of mold and bacteria.

Dispose of used Emitters in accordance with local regulations regarding the disposal of fluorescent lamps.

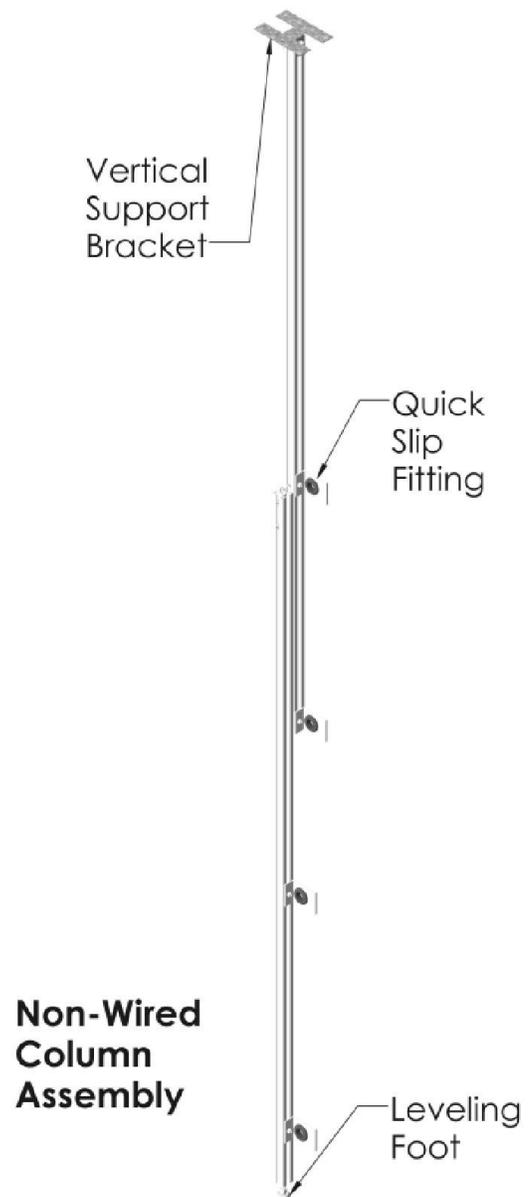
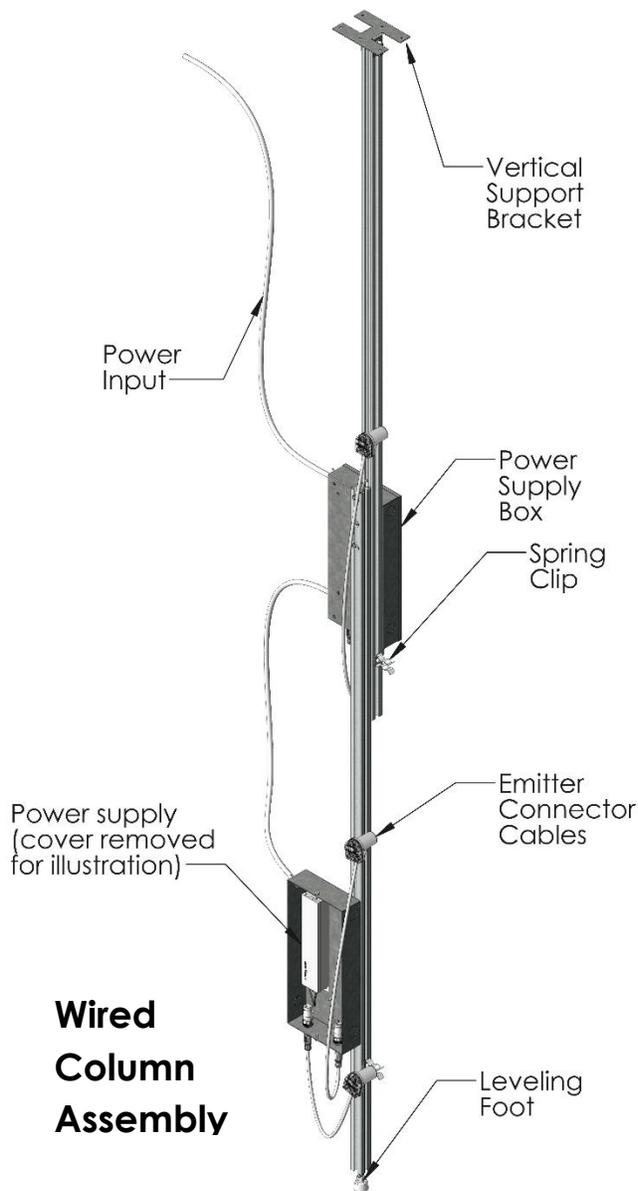
INSTALLATION & OPERATION

NOTE: Ensure that Emitter is installed before power is applied. Installing Emitter after power has been applied may trigger the “end-of-lamp-life circuit” and the Emitter may fail to light. If this happens, shut off power for 10 seconds and then turn power back on. Emitter will then light.

CAUTION: Do not drill into coil, refrigerant lines or other mechanical equipment. Consult all applicable codes before installing. Check power supply housing label for the correct power requirements. Obtain power from a suitable, protected (fused) and grounded power source.

The Rapid Install Kit (RIK) is comprised of the following components, *Emitters are not included but sold separately.*

The access door or panel to the location within the Air Handler (AHU) in which the RIK is to be installed should be interlocked with the power source to turn Emitter(s) off when the AHU door or access panel is opened. The door should have a sign posted in appropriate languages alerting maintenance personnel to the possible hazard of looking at or exposing skin to UVC energy. Service accesses may be equipped with a glass window to view Emitters. UVC energy does not penetrate common glass. Viewports are available through Steril-Aire as an accessory.



INSTALLATION SPECIFICATIONS

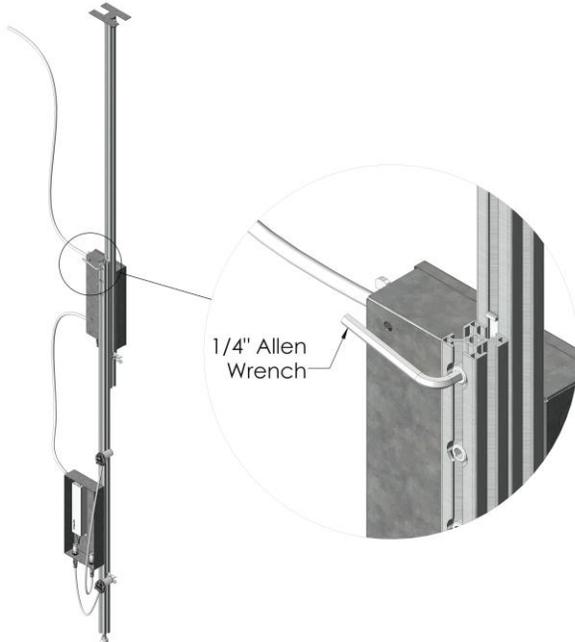
The RIK is installed downstream from the coil. If downstream space is unavailable, install the RIK upstream.

The Emitter should be at least 1" away from any heating coil and not make contact with the AHU blower.

INSTALLATION INSTRUCTIONS

⚠ WARNING: Before performing maintenance or service on fixture, ensure unit is unplugged. Electrical shock can cause injury or death.

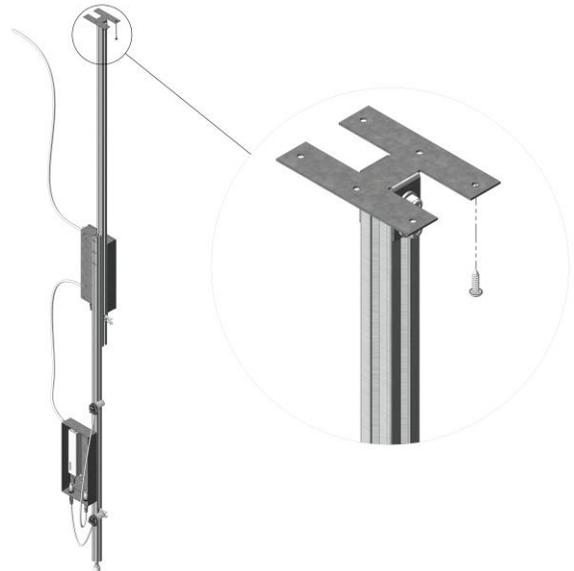
1. Measure inside plenum height and cooling coil.
2. Do not fold, kink or stretch the wire that connects the power supply housings.



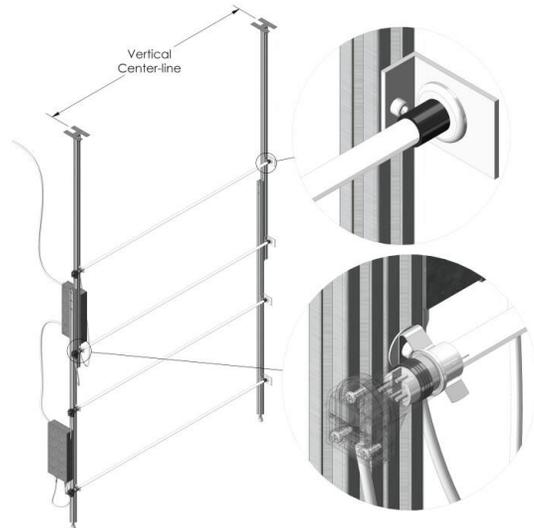
3. Extend the Wired Column by loosening the height adjustment screws and pulling it to the height of the plenum to prepare them for installation. Use a hex wrench to then re-tighten them.

Emitter	Description	Vertical Centerline
EGTS 61 VO	61" single end	59.5 +/- .25
EGTS 50 VO	50" Single End	48.5 +/- .25
EGTS 42 VO	42" Single End	40.25 +/- .25
EGTS 36 VO	36" Single End	34.5 +/- .25
EGTS 30 VO	30" Single End	28.5 +/- .25
EGTS 24 VO	24" Single End	22.5 +/- .25

Table 1(Centerline column spacing)

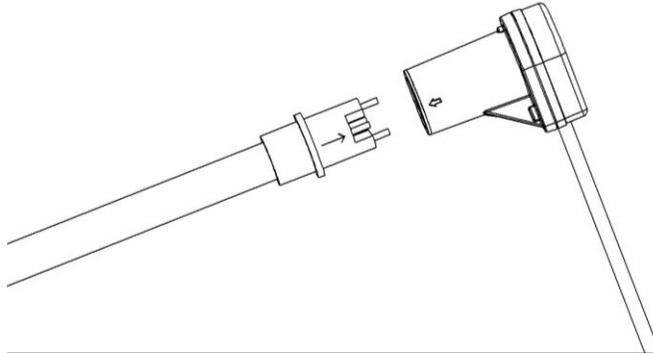


4. Using the appropriate hardware, attach the Vertical Support Bracket to the top of the Plenum.



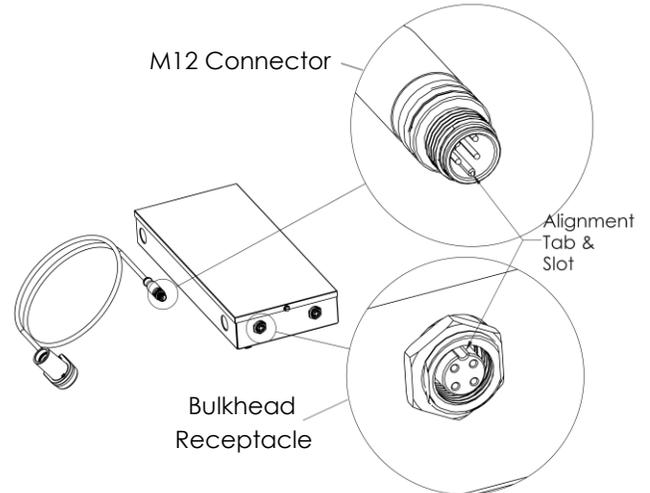
5. Install the Non-Wired column in a similar manner as the Wired column (see steps 3 & 4). Use the appropriate spacing to fit the Emitters with the spring clips attached to the ceramic at the connector end and through the Slip fitting at the far end. See Table 1 for appropriate centerline spacing.
6. Adjust spring clip and slip fitting up or down to evenly irradiate the coil. The spacing of the rows is equal to the number of Emitters divided by the height of the cooling coil. The bottom Emitter is located 1/4 to 1/2 of the overall Emitter row spacing above the bottom of the cooling coil. If installing multiple overlapping columns, spring clips must be offset on neighboring columns to make room for the emitters.
7. If installing multiple columns, it is permissible to overlap adjacent assemblies to fit the width of the plenum.

8. Adjust the leveling foot for a snug fit.
9. Install Emitter ceramic into the spring clips provided.
10. Using a qualified electrician, make the electrical connection to the electrical cable coming from power supply housing. **Don't turn on power.**
11. Connect lead socket to Emitter by aligning arrows.



12. Screw in the M12 Connector on the wire lead to the Bulkhead Receptacle on Power Supply enclosure aligning the tab & slot.
13. The power switch should be installed near the access panel of the AHU or near the air conditioner controls and power. Ensure the switch is in the "Off" position.
14. Connect power through the Steril-Aire optional safety options prior to the main junction box:
 - a. Steril-Aire control panel
 - b. Steril-Aire Interlock switch and/or
 - c. Steril-Aire UVC Watch Dog.
15. Do not connect to a cycled power source such as the fan motor.

16. Clean Emitters using Steril-Aire Cleaning Kits.
17. UVC energy may damage some plastics. Wrap suspect items with aluminum tape; use metallic conduit or other appropriate shielding when these items are in the line-of-sight of UVC energy.
18. Complete all power connections and turn power "On" to the AHU and RIK.
19. From behind an installed viewport, glass or other protective shield confirm that UVC Emitters are functioning properly. The Emitters should emit a bright blue hue if properly powered.



20. Attach the Caution Label and Change Date Label to the AHU access panel so they are clearly visible. Be sure to fill in the installation date and the replacement part numbers for the UVC Emitters.

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). If a Steril-Aire UVC Radiometer Kit is used the Emitters should be replaced when the output falls to 50% of initial output.

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. <u>Reset Power</u>
	Incorrect wiring	Inspect circuit to wiring diagram.
	Dirty pins	Clean pins. <u>Reset Power</u>
	System malfunction	Check system components, interlock door switches, relays, motion detectors, etc.
	Emitter reaching end of life	Replace with new Emitter. <u>Reset Power</u>
Visibly Weak Emitter Light	Defective Power supply	Replace Power Supply.
	Bad Wiring	Check wiring to Emitter
	Emitter reaching end of life	Replace Emitter
Red/Orange Emitter	Emitter too Cold	If Emitter is at or below 35°F(1°C), Emitter is too cold to operate properly.
	Emitter reaching end of life	Replace Emitter

SPARE OR REPLACEMENT PARTS

DESCRIPTION	PART Number
Power Supply	10000180
Spring Clip Kit	90000815
Quick Slip Fitting	15000160
EGTS 24 VO - Enhanced 24" Single Ended Emitter	21000310
EGTS 30 VO - Enhanced 30" Single Ended Emitter	21000410
EGTS 36 VO - Enhanced 36" Single Ended Emitter	21000510
EGTS 42 VO - Enhanced 42" Single Ended Emitter	21000610
EGTS 50 VO - Enhanced 50" Single Ended Emitter	21000910
EGTS 61 VO - Enhanced 61" Single Ended Emitter	21000810

ACCESSORIES

DESCRIPTION	PART Number
Hex Wrench Set 3/16" & 1/4"	15000139
Push Rod Actuator Interlock Switch	90000120
Adjustable Leaver Interlock Switch	90000119
AHU Viewport for 2" wall/panel	90000217
AHU Viewport Assembly for up to 3" wall/panel	90000227
UVC Watch Dog 120V	80000200
UVC Watch Dog 230V	80000201
Cleaning Kit	90000100

Thank you for choosing Steril-Aire, #1 "UVC for HVAC" solution provider worldwide. Please contact your local supplier or Steril-Aire directly if we can provide any further information or service. Your satisfaction is very important to us.

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The health aspects associated with the use of this product and its ability to aid in disinfection of environment air has not been investigated by UL.

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