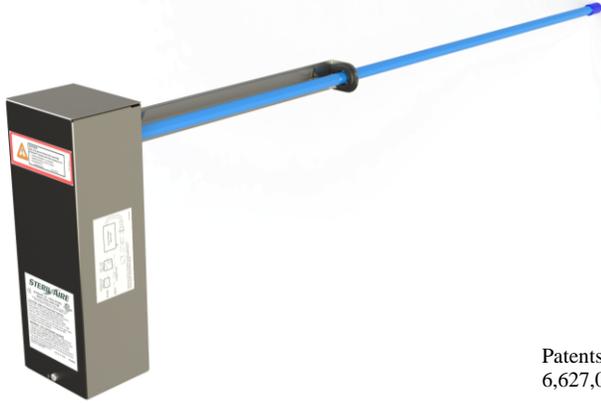




Installation and Operation Instructions



ESE 1 SERIES
ENHANCED SINGLE ENDED
FIXTURE, 24" – 61" EGTS
120-277 V
Part Number 11003000

Patents 6,297,924/ 6,280,686/ 6,313,470/ 6,372,186/ 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

Made in the USA

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

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**, 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 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 Emitter™ glass 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,

isopropyl alcohol and a lint-free wipe may be substituted.

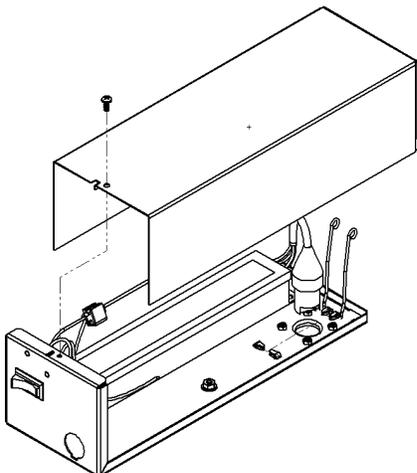
- UVC Emitters are fragile. To prevent accidental breakage, handle the UVC Emitter with care.
- Voltages outside of the range designed for the unit will void the warranty and do permanent damage to the entire unit.
- Emitter contains a small quantity of mercury. If an Emitter breaks, clean and dispose 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.

Once the installation is complete, the UVC fixture should be operated continuously to preclude the development of mold and bacteria. It is not recommended to cycle the Emitters by time clock or fan operation.

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.

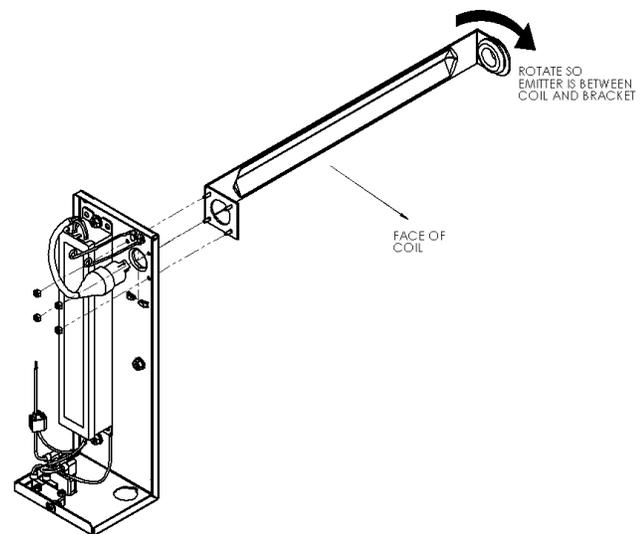
1. Consult all applicable codes before installing. Check fixture label(s) for the correct power requirements and supply the correct voltage from a suitable, protected (fused), and grounded power source.
2. Air Handler should have signs (provided in English and Spanish) in appropriate languages alerting maintenance personnel to the possible hazard of looking at or exposing skin to UVC energy. Service accesses may be equipped with a glass or Lexan® window to view Emitters; viewports are available as an accessory. UVC energy does not penetrate common glass or Lexan®.
3. If applicable, remove outer cover of air handler.
4. UVC energy may damage some plastics. Wrap suspect items with aluminum tape; use metallic conduit or use other appropriate shielding where these items may be in "line of sight" of the UVC energy.
5. The Emitter shall be installed downstream from the cooling coil and above the drain pan. To achieve equal distribution of UVC intensity on the face of the coil, the Emitters shall be positioned from the face of the coil at a distance equal to half the vertical height that the light is covering.
6. The Emitter shall also:
 - Be at least 1" away from any heating coil.
 - Not make contact with the air handler blower.
7. If applicable, replace the outer cover of air handler.
8. Remove cover to ESE Fixture.



9. Using the fixture base as a template scribe and then create an insertion hole, 2" diameter where you want the emitter to be located.

CAUTION: Do not drill into coil, refrigerant lines or other mechanical equipment.

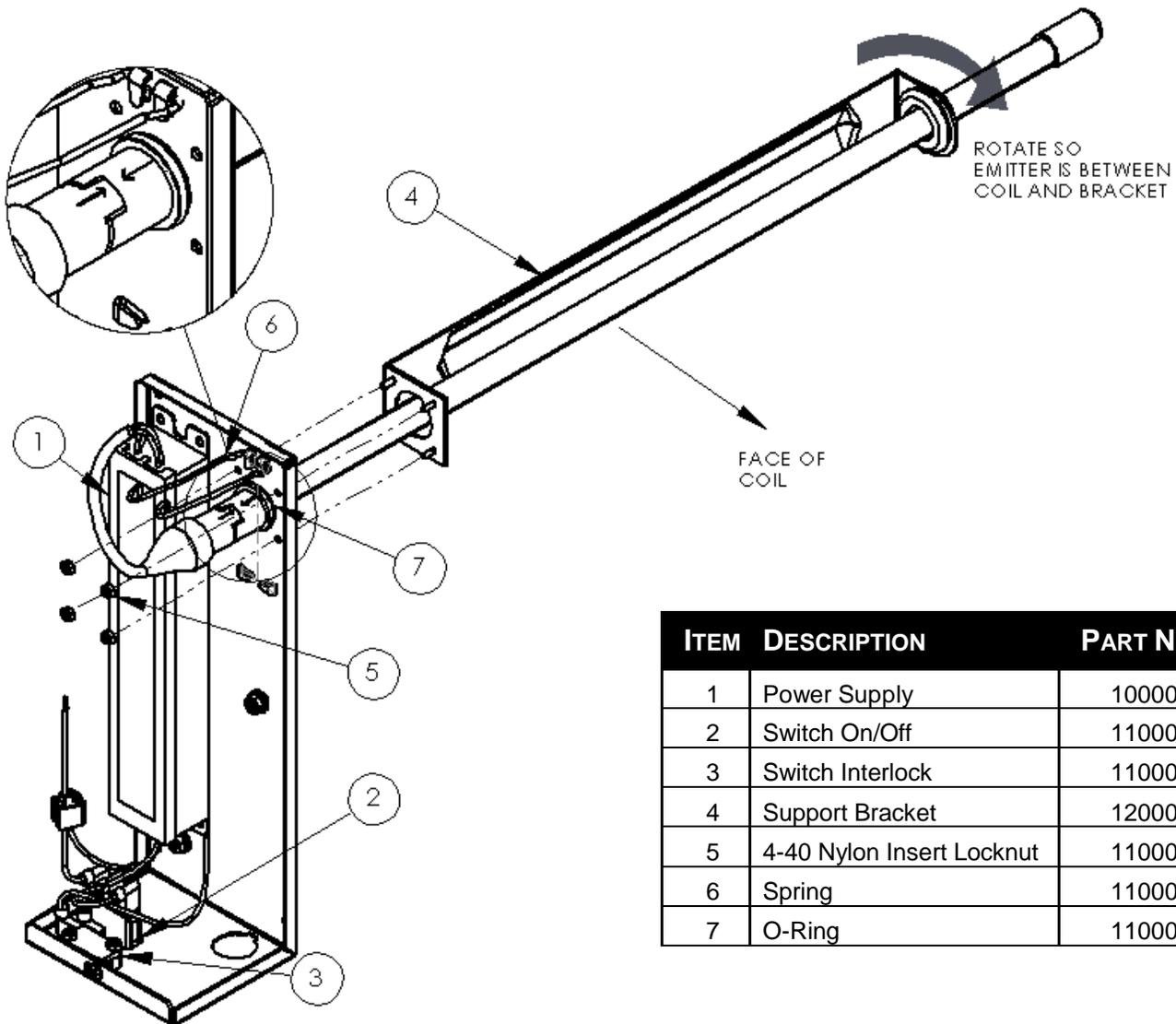
10. Install support bracket (item 4) using the 4 nuts 4-40 provided (item 5). Align the face of the support bracket so that it faces the coiling coil on final installation. The bracket can be rotated 360 degrees at 90 degree intervals.



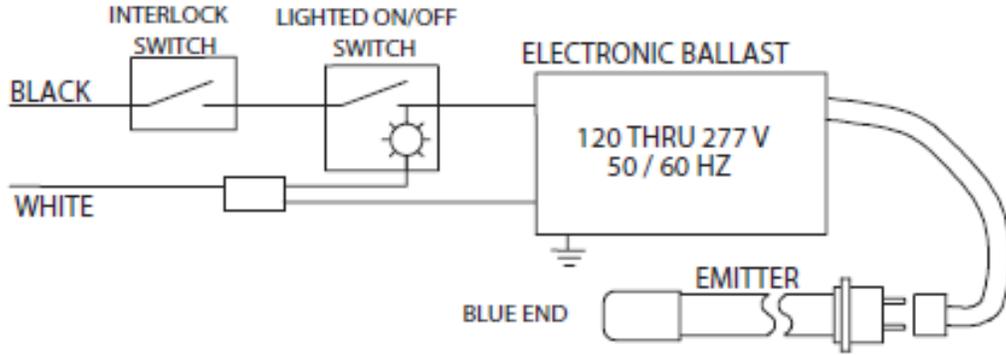
11. Drill suitable holes for each fastener (unless using self-tapping screws). Using the proper #10 fastener for your application, install fixture(s) and wire in accordance with the applicable code.
12. Install UVC Emitter. Secure with spring clip. Ensure that there is an O-ring on the emitter. Failure to install O-ring can possibly damage the emitter base.
13. Complete all power connections and replace cover to the fixture
14. Reconnect power to the air conditioner and toggle the installed switch to the "On" position. The Emitter should emit a bright blue hue, indicating that it is properly powered.
15. Attach the Caution Label and Lamp Change Date Label to air handler access panel so they are clearly visible.
16. Emitters need to be periodically replaced to maintain design output. Emitters should be replaced after 9,000 hours of use.

TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Emitter does not light	Cover Off/interlock switch open	Install cover/depress interlock switch
	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
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



ITEM	DESCRIPTION	PART NUMBER
1	Power Supply	10000189
2	Switch On/Off	11000112
3	Switch Interlock	11000113
4	Support Bracket	12000501
5	4-40 Nylon Insert Locknut	11000115
6	Spring	11000104
7	O-Ring	11000105



REPLACEMENT PARTS	PART NUMBER
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
ESE Replacement Power Supply 120-277 V	10000189

ACCESSORIES	PART NUMBER
Adjustable Lever 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

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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.