# STERIL-AIRE

## MODEL FAN COIL KIT 115, 208, 230 & 277 Vac.

Patents 5,334,347; 5,817,276; 5,866,076; 6,245,293; 6,267,924; 6,280,686; 6,313,470; 6,372,186; 6,423,882; 6,500,267; 6,589,476; 6,627.000.

### INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

**CAUTION 1:** TURN ALL POWER OFF. NEVER EXPOSE EYES OR SKIN TO UVC LIGHT FROM ANY SOURCE - WEAR GLOVES, FACE SHIELD AND COVER ALL EXPOSED SKIN. DO NOT TOUCH EMITTER™ GLASS WITHOUT GLOVES.

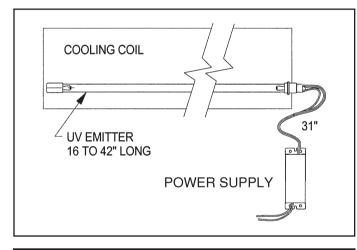
**CAUTION 2:** INSTALL EMITTER TUBE BEFORE APPLYING POWER. FAILURE TO DO SO WILL TRIGGER THE "END-OF-LAMP-LIFE CIRCUIT" AND THE EMITTER WILL FAIL TO LIGHT! IF THIS HAPPENS SHUT OFF POWER FOR 10 MINUTES, REINSTALL/ INSTALL EMITTER AND TURN POWER BACK ON. EMITTER WILL LIGHT.

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

Made in USA

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#### **1.0 SAFETY 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 a qualified installer, service agency, or your supplier for information or assistance.

## A WARNING

Before installing fixture, 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.

## **A** CAUTION

Never expose eyes or skin to ultraviolet light from any source. After installation, provide an interlock to turn off germicidal emitter when access door is opened. Emitter must be off before entering HVAC unit to perform maintenance or service. Personal injury may result if emitter is in operation.

## **A** CAUTION

Do not touch emitter glass without gloves. Damage to Emitter<sup>™</sup> may result. Oil from fingerprints will permanently etch glass of emitter and weaken structure. Clean emitter after handling.

## **A** CAUTION

Use only specified high-output, low temperature emitter with this fixture. Use of a lower wattage or incorrect emitter can result in damage to fixture or Emitter.

## **A** CAUTION

Emitter contains a small quantity of mercury. If emitter breaks, clean and dispose of with care.

The qualified installer or agency must use factory kits or accessories when installing this product. Refer to the individual instructions packaged with kits or accessories when installing them.

Follow all safety codes, wear safety glasses and work gloves. Read all instructions thoroughly and follow any warnings or cautions attached to any accessed area. Consult local building codes and the National Electrical Code (NEC) for special requirements.

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.

#### 2.0 GENERAL

**2.1** Emitters may be installed anywhere to bathe an air stream or surfaces with germicidal UVC energy. It is best that they are located at known growth areas such as the downstream of the cooling coil and over the drain pan, or where best accommodates the system.

**2.2** When choosing the site, make sure that it can be supplied with the necessary power requirements and suitable physical access for service.

**2.3** Reflecting UVC energy is recommended as it enhances irradiance. Lining the UVC cavity with aluminum allows photons to bounce reducing possible shadow areas thus increasing efficacy.

#### 3.0 INSTALLATION

**3.1** 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.

#### A CAUTION

Other voltages will void the warranty and do permanent damage to the entire unit. Fixtures should be operated continuously to preclude the development of mold and bacteria.

**3.2** The emitter access door or panel should be interlocked with the power source to turn emitter(s) off when the system is opened. It should have signs (provided) 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<sup>®</sup> window to view Emitters. UVC energy does not penetrate common glass or Lexan<sup>®</sup>.

**3.3** UVC energy may damage some plastics except HVAC style drain pans. 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.

**3.4** Determine the most desirable location for the intended use and install reflecting material. **CAUTION: Do not drill into coil, Freon lines or other mechanical equipment.** 

**3.5** Determine the correct mounting surface for the Emitter. Drill suitable holes for each "C" clip fastener(s). Install the Emitter(s) in the "C" clip. Select the best location

in the end compartment for mounting the power supply(s) and install the power supply(s). Connect the incoming power to the power supply(s) and install the power leads for the Emitter(s) to the power supply(s). Route the Emitter power leads through the end compartment wall into the coil area and connect the leads onto the Emitter. Secure all loose wiring in a neat and professional manner to avoid fan wheels and any other components that might be damaged or affect unit performance. Install power supply(s), Emitter(s) and wire in accordance with the applicable code.

#### **A** CAUTION

Install Emitter before applying power. Failure to do so will trigger the "end-of-lamp-life circuit" and the Emitter will fail to light! If this happens, shut off power for 10 minutes, reinstall/install Emitter and reapply power. Emitter will light.

**3.6** Locate Emitter without touching glass with bare hands and clean using a Steril-Aire Cleaning kit (isopropyl alcohol and a lint free wipe may be substituted). Push on the power plug while noting the rectangle orientation of the pins. Do not force. If the plug does not easily engage the pins, rotate it 90 degrees.

**3.7** Test all circuits and turn system on. A "blue hue" will glow from each Emitter indicating that each fixture is working. Caution: View only with all skin covered and use a full face mask.

**3.8** Affix the included "WARNING LABEL" in plain sight to the A/C unit. Protect labels against poor conditions if necessary and replace when worn.

**3.9** Emitters must be changed annually or sooner to maintain design output. The interval depends on the application.

#### 4.0 OPERATION & MAINTENANCE

**4.1** Emitters operate all of the time. It is not recommended to cycle the Emitters by time clock or fan operation.

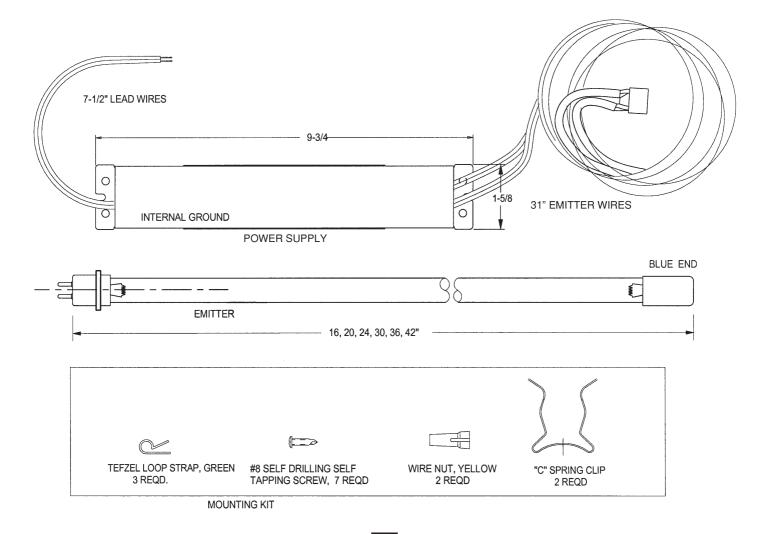
**4.2** Emitters need periodic replacement to maintain design output. The change-out basis depends on the application, and/or hours of operation.

**4.3** Emitter(s) should be replaced after 9,000 hours or in accordance with an infectious disease application specification.

#### 5.0 TROUBLE SHOOTING

ITEM	SYMPTOM	RECOMMENDED ACTION
5.1	Emitter Does Not Light	<ol> <li>Turn off power for 10 minutes, and then turn power back on.</li> <li>Replace Emitter with new unit. Normal replacements recommended once per year.</li> <li>Check the voltage.</li> <li>Check wiring to Emitter.</li> <li>Replace power supply.</li> </ol>
5.2	Low Output (Radiometer Reading) or Visibly Weak Light	<ol> <li>Replace Emitter with new unit.</li> <li>Check line voltage.</li> <li>Check wiring to Emitter<sup>™</sup>.</li> </ol>
5.3	Red/Orange Light	<ol> <li>Check ambient temperature. If the temperature is at or below 35°F, Emitter is too coldto operate properly.</li> <li>If ambient temperature is in excess of 35°F, follow actions for the Low Output symptom.</li> </ol>

#### 6.0 ILLUSTRATIONS



#### 7.0 SPARE OR REPLACEMENT PARTS

ITEM	DESCRIPTION	2-10 PART No's	2-14 PART No's
7.1	POWER SUPPLY 115, 208, 230V	40000117	40000117
7.2	BASE	40000401	41000401
7.3	COVER	40000402	41000402
7.4	SPRING	11000104	11000104
7.5	SWITCH, ROCKER	11000112	11000112
7.6	SWITCH, INTERLOCK	11000113	11000113
7.7	WARNING LABEL	70000213	70000213
7.8	CLEANING KIT	90000100	90000100
7.9	MOUNTING KIT	90000800	90000800
7.10	6' CORD KIT 115 V	90000200	90000200
7.11	6' CORD KIT 208/230 V	90000206	90000206
	EMITTERS		
7.14	RGTS 20 HO	22000100	22000100
7.15	RGTS 24 HO	22000200	22000200
7.16	RGTS 16 HO	22000300	22000300

Thank you for choosing the #1 "UVC for HVAC" product sold 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. Write to Steril-Aire, Inc. at 2840 N. Lima Street, Burbank, CA 91504 or visit www.steril-aire.com.

STERIL-AIRE, INC. CANNOT AND DOES NOT GUARANTEE THAT ALL ORGANISMS WILL BE INACTIVATED OR KILLED OR THAT USE OF STERIL-AIRE, INC. UVC EMITTERS WILL PREVENT INFECTION OR ILLNESS.

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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