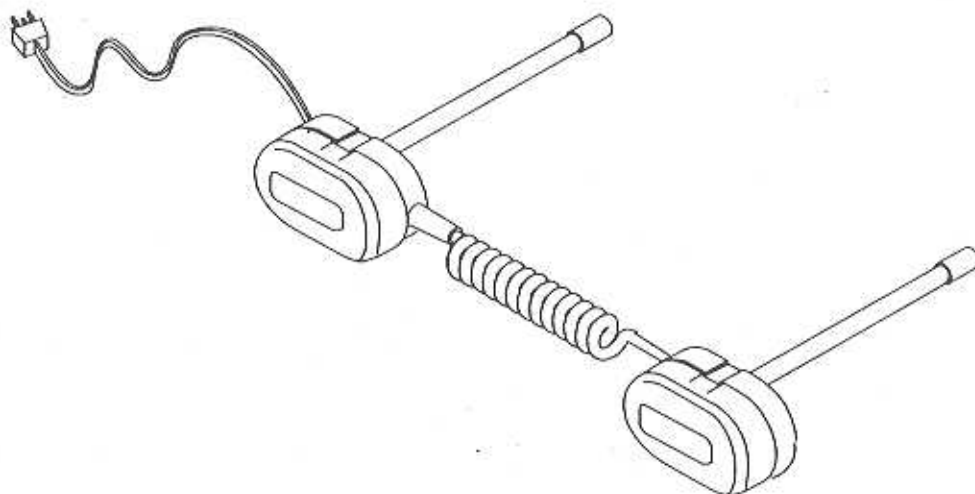


# Installation Instructions

## Accessory Ultraviolet (UV) Germicidal Lamp 1 & 2 Lamp Models

## UV Lamp



C03009


Fig. 1—Two Lamp Model UV Lamp

**NOTE:** Read the entire instruction manual before starting the installation.

### SAFETY

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair or service HVAC equipment.

Untrained personnel can perform basic maintenance functions such as changing lamps. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tag and labels attached to the unit or accessory, and all other safety precautions that may apply.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies a hazard 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. NOTE is used to highlight suggestions which will result in enhanced installation, reliability, or operation.

Follow all safety codes. Wear safety glasses and work gloves. Have a fire extinguisher available if needed. Read these instructions thoroughly and follow all warnings or cautions attached to the unit. Consult local building codes and National Electrical Code (NEC) for special requirements. Before proceeding with installation, inspect thoroughly for shipping damage. Notify shipper immediately if any damage is found. Check for proper clearances of moving parts.

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

### INTRODUCTION

This UV Lamp system is designed to inhibit fungus and microbial growth when applied to the indoor coil/drain pan area of a central cooling system. This system should be mounted on a flat surface. These instructions cover the installation of both the 1 and 2 lamp models. Lamps are designed to operate for one year continuously before replacement is required.

**NOTE:** These UV Lamps are designed for indoor use only.

This model consists of individual UV Lamp assemblies. On 2 lamp models, the 2 assemblies are connected by a flexible cord which will allow the installer to separate the lamps from 4-in. to 18-in.

 **CAUTION:** Do not touch glass section of UV Lamp without clean gloves. Damage to lamp may result. Oil from fingers will permanently etch glass of lamp and weaken structure. Clean lamp with rubbing alcohol and clean cloth if necessary.

Table 1— Unit Data

UNIT INFORMATION	1 LAMP MODEL	2 LAMP MODEL
Electrical (V-PH-Hz)	115-1-60	115-1-60
Maximum Lamp Amperage Draw	0.5 Amps	1.0 Amps
Power Consumption	53 Watts	106 Watts
Unit Service Cord	6 foot cord with ground pin plug	6 foot cord with ground pin plug
Average Lamp Life	Approximately 1 Year or 9,000 Hours of Unit Runtime	Approximately 1 Year or 9,000 Hours of Unit Runtime
Initial UVC Output at 1 Meter (in uW/cm2 and 70 Deg F)	170	170
Lamp Length	19-in.	19-in.

**⚠ CAUTION:** Lamp contains a small quantity of mercury. Handle with care.

**⚠ CAUTION:** Never expose eyes or skin to ultra-violet light from any source. Lamp should be off for 1 full minute before opening unit to perform maintenance or service. Personal injury may result.

**NOTE:** The health aspects associated with the use of this product and its ability to aid in disinfection of environmental air have not been investigated by UL.

**NOTE:** Each lamp model kit includes cleaning kit and mounting screws.

## INSTALLATION

### PROCEDURE 1—UNIT MOUNTING LOCATION

**⚠ WARNING:** Before installing accessory or performing maintenance or service on this or any other accessory, turn off main power to unit and install lock-out tag. There may be more than one disconnect switch. Failure to follow this warning may result in electrical shock and cause injury or death.

**⚠ CAUTION:** Perform visual inspection of potential mounting location by removing unit/cabinet door prior to cutting or drilling. Be careful not to cut, drill or drive screws into coil, refrigerant lines or other objects inside the HVAC unit. Damage to unit or personal injury can result.

**NOTE:** On indoor coils 2 tons or smaller it is recommended that this UV lamp be installed in the connecting ductwork above the indoor coil and not in the coil casing itself.

**NOTE:** No testing has been done to determine the effects of UV light on duct board or flex duct, metal duct is recommended.

**NOTE:** It is recommended that a 7/8-in. hole be used for mounting this accessory. Using a 7/8-in. hole should provide proper clearances.

**NOTE:** Components contained in the current furnace and fan coil equipment are resistant to UVC exposure. Color shift or chalking may occur without affecting structural properties.

**IMPORTANT:** Select a mounting location that prevents direct exposure to non-fiberglass media filters. A minimum distance of 6 feet is recommended.

1. Turn off all power to unit and install lock-out tag.
2. Remove indoor coil casing door and inspect coil casing for proper location of UV lamp mounting holes.
3. Select location for lamp(s) that gives the most exposure to coil/drain pan. Light from the lamp should "wash" the coil and pan for maximum effectiveness (See Fig. 3A, 3B or 3C).

### PROCEDURE 2—UNIT INSTALLATION

1. Drill or cut a 7/8-in. hole for each UV lamp into the coil casing, casing door or the connecting ductwork.
2. Securely mount UV lamp base assembly to the flat surface selected in Procedure 1 (use screws provided).
3. Replace coil casing door and slide ballast/lamp assembly into the mounted base, making sure the locating stud and molex connectors are aligned (See Fig. 2).
4. Install fastener screw to hold lamp/ballast to base.
5. Replace plastic cover(s) on UV lamp assembly base to complete the installation.

**NOTE:** Use 115-v power source other than the furnace motor circuit.

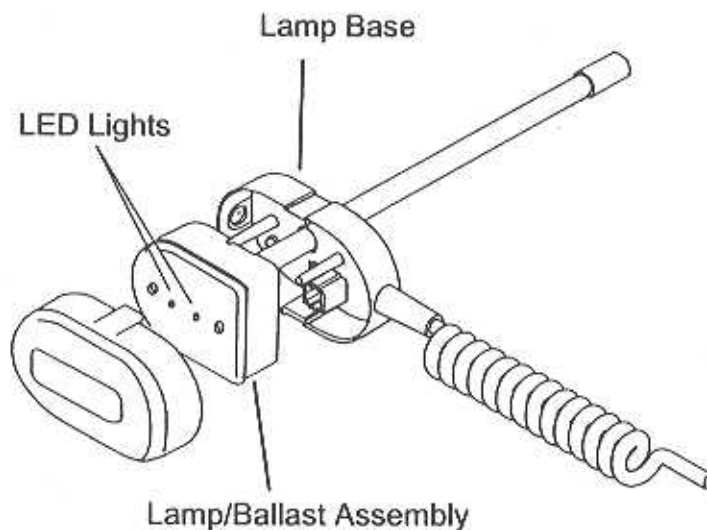
6. Connect electrical cord to suitable electrical receptacle.

## UV LAMP START-UP PROCEDURES

1. After power is supplied to lamp(s), make sure the LEDs behind the logo are illuminated. If not, verify supply voltage.

**NOTE:** On 2 lamp models, both lamp/ballast assemblies need to be installed before lamps will illuminate.





Note: LED Lights are not lamp change indicators.  
Lamps should be changed annually.

C03004

Fig. 2—Assembling UV lamp (Detail View)

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Part Number 44000104, an electronic ballast to be used with a 20" UV lamp, has been tested and found to comply with the limits for a Consumer device, pursuant to Part 18 of the FCC Rules. The characteristics of the ballast are:

- Input voltage – 120V 60Hz
- Input power – 27W
- Safety – UL and cUL approved per UL 935 and UL 1995, File E233711
- Suitable lamps- 1 pc 20" UV HO lamp

Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment generates, uses, and can radiate frequency energy, and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If interference problems do occur, please follow these suggestions:

- (1) Turn off this equipment only. If the interference is still there, please check other systems. If the interference disappears, go to step 2.
- (2) Make sure this equipment is grounded and the outlet has a ground (green) wire.
- (3) If the television or radio is interfered, please relocate the equipment away from the television or radio.
- (4) If other equipments share the same outlet with this equipment and get interfered, please place the AC power connection of this equipment on a different outlet.
- (5) If the interference is still there, this equipment may be defective. Please contact the manufacturer for a replacement.

Changes or modifications to this product without the express approval of Steril - Aire USA could result in non-FCC compliance and void the user's authority to operate this equipment.

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**Table 2—Replacement Lamp Ordering Information**

REPLACEMENT LAMP ORDER NUMBERS	
Quantity	ODS Number
1 Lamp/Ballast Assembly	UVLXXRPL1020

- If at any time the LED lights behind the logo are dim this is an indication that one of the UV lamps is not working. Disconnect power and inspect for proper lamp operation.

#### UV LAMP CARE AND MAINTENANCE

**⚠ CAUTION:** Allow lamp to cool before opening UV lamp casing or HVAC unit cabinet.

**NOTE:** The recommended life of the lamp assembly in this UV lamp product is 1-year of constant operation or a maximum of 9,000 hours of unit runtime.

- When replacement of lamp is needed, order proper lamp assembly (See Table 2) from your dealer / distributor.
- Disconnect power supply from UV lamp by unplugging the electrical cord.
- Remove protective cover from UV lamp assembly.

**⚠ CAUTION:** Lamp contains a small quantity of mercury. Handle with care. If a lamp breaks, clean and dispose with care.

- Remove fastener screw(s) that holds lamp/ballast to base.
- Gently pull lamp assembly from mounted base assembly.
- Place old lamp assembly in a safe area before proceeding.

**NOTE:** Treat the disposal of these lamps as you would a standard fluorescent lamp.

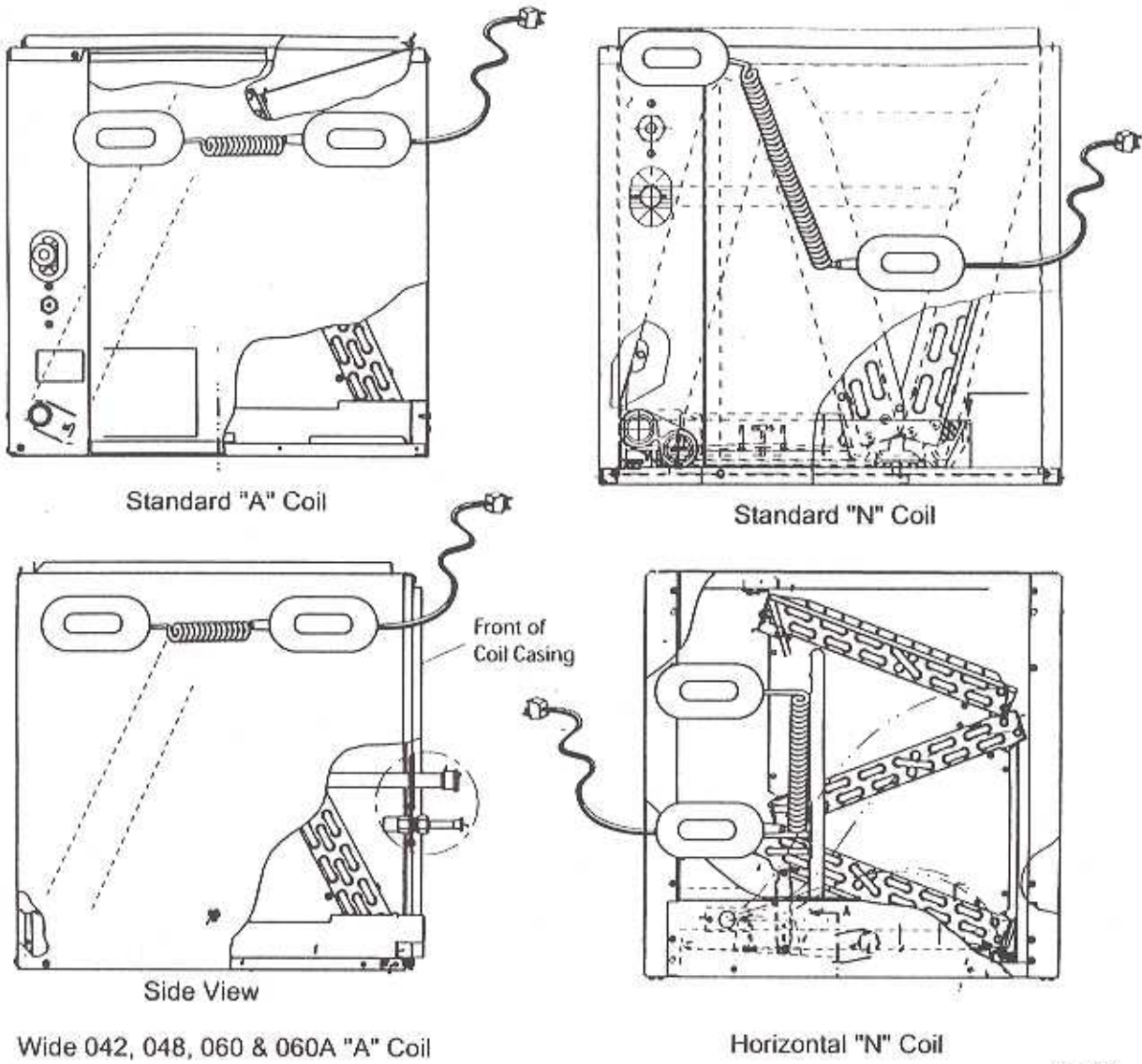
- Carefully slide new lamp/ballast assembly into base assembly until fully seated, retighten fastener screw(s) to hold new lamp in base.
- Replace protective cover.
- Reconnect unit power to UV lamp.
- Observe that LEDs behind logo brightly illuminate and that the lamp(s) are operational.

**NOTE:** Lamp/Ballast assembly should be removed when mounted on indoor coil casing door, if door is to be removed for system maintenance.

#### WARRANTY STATEMENT

This UV lamp Product is covered by a limited warranty. Please see the included warranty card for clarification.

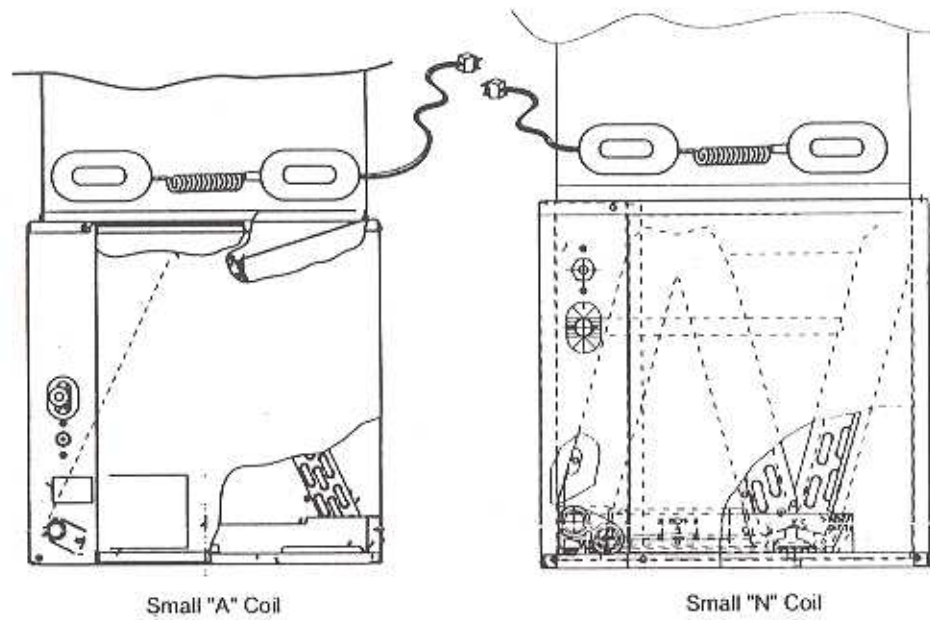
## Suggested Mounting Locations



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Fig. 3A—Typical Furnace Coil Mounting Locations

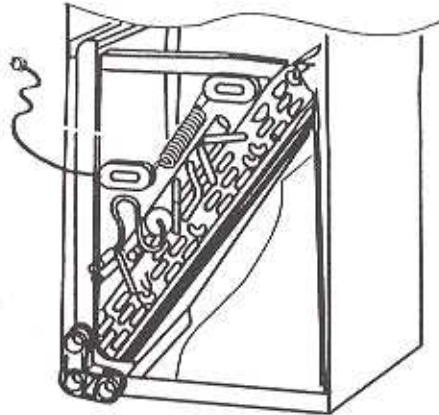
### Alternate Mounting Locations



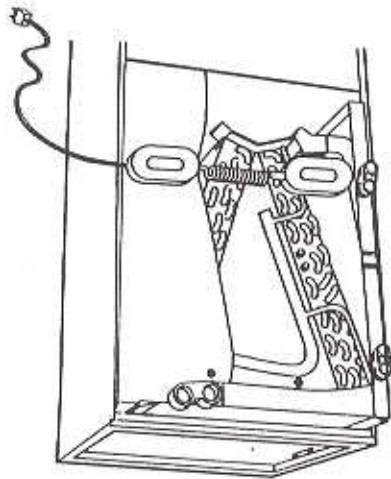
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Fig. 3B—Alternate Furnace Coil Mounting Locations

Dual Lamp Application

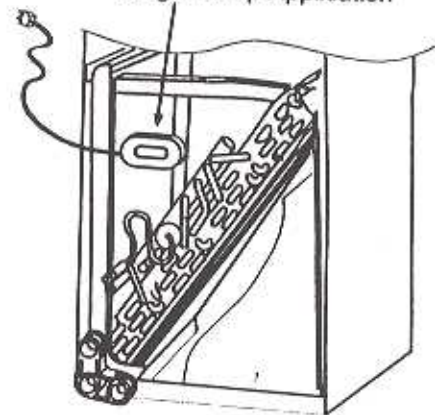


Sloped Fan Coil



"A" Coil in Fan Coil

Single Lamp Application



Sloped Fan Coil

C03022

Fig. 3C—Fan Coil Mounting Locations



## Limited Warranty

FOR SERVICE OR REPAIR, FOLLOW THESE STEPS IN ORDER:

FIRST: Contact the installer. You may find their name on the product or in your Homeowner's Packet. If the installer's name is not known, call your builder or home retailer if yours is a new residence.

SECOND: Contact the nearest distributor. (See telephone yellow pages.)

THIRD: Contact:

CAC / BDP

Consumer Relations

P.O. Box 4808

Syracuse, New York 13221

Phone: 1-800-227-7437

Model No. \_\_\_\_\_

Unit Serial No. \_\_\_\_\_

Date of Installation \_\_\_\_\_

Installed by \_\_\_\_\_

Name of Owner \_\_\_\_\_

Address of Installation \_\_\_\_\_

### Ultra Violet Lamp

(Model UVL)

**FIVE-YEAR LIMITED WARRANTY** - CAC / BDP (hereinafter referred to as "Company") warrants the unit Base and Power Cord against defects in material and workmanship for a period of Five years from the date of original installation. The Company's obligation for these parts shall be, at its sole option, to provide a new part without charge for the part itself or allow a credit in the amount of the then current factory-selling price of an equivalent part toward the purchase price of a new unit.

**90-DAY LIMITED WARRANTY** - The Company warrants certain parts of this product to be free from defects in material and workmanship. If a defect is found in the Lamp (Bulb) or Ballast within 90 Days from date of original installation of product (whether or not actual use begins on that date) Company will provide a new or remanufactured part, at Company's sole option, to replace any defective part, without charge for the part itself.

None of these warranties include labor or other costs incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts, or replacement parts, or new units.

#### WARRANTY CONDITIONS:

1. Warranties apply only to products in their original installation location.
2. Installation, use, care, and maintenance must be normal and in accordance with instructions contained in the unit literature and Company's service information.
3. Defective parts must be returned to the distributor through a registered servicing dealer for credit.
4. All work shall be performed during normal working hours.

**LIMITATION OF WARRANTIES** - ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) ARE HEREBY LIMITED IN DURATION TO ONE YEAR. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESS WARRANTIES ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

#### COMPANY WILL NOT BE RESPONSIBLE FOR

1. Normal maintenance as outlined in the installation and servicing instructions or Owner's Manual, including filter cleaning and/or replacement and lubrication.
2. Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
3. Failure to start due to voltage conditions, blown fuses, open circuit breakers, or damages due to the inadequacy or interruption of electrical service.
4. Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of Company.
5. Parts not supplied or designated by Company, or damages resulting from their use.
6. Company products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
7. Electricity or fuel costs, or increases in electricity or fuel costs from any reason whatsoever, including additional or unusual use of supplemental electric heat.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation 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.