

## UVC-LED DISINFECTION SYSTEM

- 15" UVC-LED Disinfection System
- Over 5X the life compared to standard bulbs
- Rugged design with shatterproof and waterproof LED
- Kills mold, mildew, viruses and bacteria on and around your HVAC coil
- Stops foul and musty odors like dirty sock smell
- Reduces harmful biofilm on the coil and surrounding area
- Integrated mode switch for two run modes
- 360° degree design for complete treatment of the coil
- Air flow switch to power only when system is running
- Easy install with integrated magnet or supplied hardware
- Easy 24VAC input voltage on installation
- Optimum 265nm wavelength for germicidal capabilities
- Meet's UL 2998 zero ozone emission certification

### Description

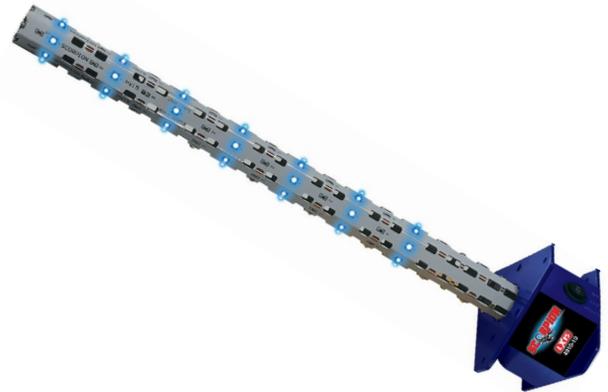
The Scorpion LX15 is a UVC-LED disinfection unique system designed for use in residential HVAC systems. The LED light has 30,000 hours of run time and with an integrated air flow sensor the Scorpion LX15 can last up to 5 times longer than traditional UV bulbs. The Scorpion LX15 is designed to kill mold, mildew, bacteria, and other harmful biological growth in the HVAC system and on the evaporator coil. The system will also help reduce foul and musty odors like dirty sock smell and will even help keep the drain line from clogging due to buildup in the condensate line.

### Applications

Scorpion LX15 is designed to treat any residential ducted HVAC system with no maintenance for up to 30,000 hours of treatment life. The system can easily be installed using the integrated magnet inside, above, or below the evaporator coil. If the Scorpion LX15 is being installed in a system where the magnet can not be used than use the supplied hardware to mount the Scorpion to your system. The powerful LED light should be installed in a location where it is fully shining on the evaporator coil to provide complete treatment.

## Indoor Air Quality Products

### Scorpion LX15



### Packaging

1 each

**4910-10**

### Specifications

<b>Input Voltage:</b>	18-32VAC
<b>Run Time:</b>	30,000 hours
<b>Power:</b>	25W/525mW
<b>Wavelength:</b>	265nm
<b>UV Type:</b>	UVC-LED
<b>Dimensions:</b>	14.4L x 3.5H x 3.5W
<b>Weight:</b>	1 lb.
<b>Safety Ratings:</b>	UL 2998, UL 867, UL 2043, UL 1598, CSA C22.2
<b>Approvals:</b>	ETL Listed, ETL Classified, CARB Compliant
<b>Surge Protection:</b>	Internal surge protection
<b>Mode Options:</b>	Continuous or air flow sensor mode
<b>Mounting:</b>	Various internal mounting options
<b>Warranty:</b>	Three years from the date of installation

### Scorpion LX15 Installation Instructions

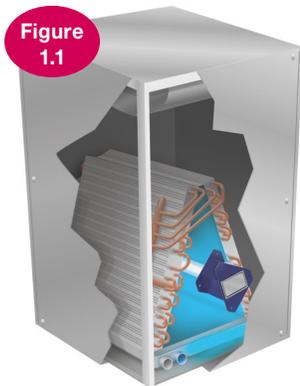
**WARNING: MAKE SURE POWER IS DISCONNECTED TO THE HVAC EQUIPMENT BEFORE INSTALLATION**

#### IMPORTANT!

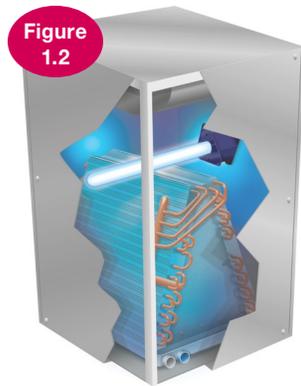
- Only qualified technicians should install this product
- Install in accordance with relevant building codes
- Read instructions carefully including safety warnings

**WARNING: PROTECT EYES FROM UV LIGHT. TURN OFF UNIT OR DISCONNECT ALL POWER BEFORE SERVICING.**

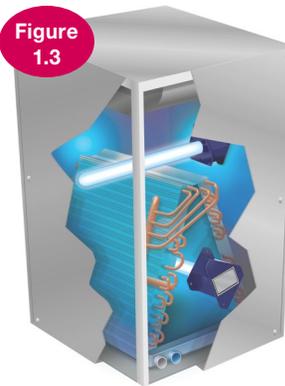
Before installing the Scorpion LX15, it is necessary to determine the optimal mounting location inside the air system. Consider an installation location that will allow the Scorpion UVC LED light to shine on the greatest surface area of the coil. For enhanced anti-microbial effect, multiple Scorpion UVC LED lights can be installed in the system. Below are various placement options for the Scorpion LED.



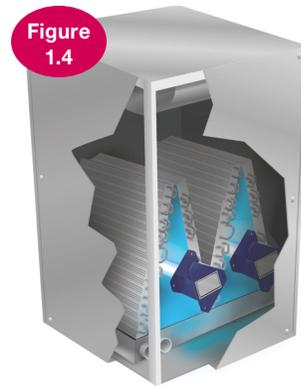
**Figure 1.1**  
Single Scorpion installed inside the coil.



**Figure 1.2**  
Single Scorpion installed above the coil.



**Figure 1.3**  
Single Scorpion installed inside the coil and a second installed above the coil.



**Figure 1.4**  
Single Scorpion installed inside each opening of the "W" coil.

## MOUNTING DIRECTIONS

### OPTION 1: Scorpion installed inside the coil using the integrated magnet

STEP 1: Confirm power is off to the system. Remove the access panel to the air handler.

STEP 2: Remove the "A" panel on the evaporator coil to gain access to the center of the coil.

STEP 3: Using the Scorpion's integrated magnet, attach the Scorpion to the metal "A" panel on the far side of the evaporator coil.

For a "W" or "N" shaped coil, install a second Scorpion inside the second section of coil. See example image in Figure 1.4.

STEP 4: Run the wires down the cabinet, cut a small access hole for the wires if one does not exist.

STEP 5: Replace the "A" panel on the evaporator coil that was previously removed.

### OPTION 2: Scorpion installed inside the coil using the provided hardware

STEP 1: Confirm power is off to the system. Remove the access panel to the air handler.

STEP 2: Drill a 1 1/4" hole in the "A" plate of the evaporator.

STEP 3: Insert the supplied grommet into the hole drilled into the "A" plate.

STEP 3: Insert the LED bulb in the grommet which is placed inside of the drilled 1 1/4" opening.

STEP 4: Secure the Scorpion to the "A" plate using the provided hardware.

For a "W" or "N" shaped coil, install a second Scorpion inside the second section of coil after drilling the 1 1/4" hole in the second panel, inserting the grommet, and securing the Scorpion. See example image in Figure 1.4.

### OPTION 3: Scorpion installed above the coil

STEP 1: Confirm power is off to the system. Remove the access panel to the air handler.

STEP 2: Using either the integrated magnet or supplied hardware, secure the Scorpion to the side wall of the unit above the coil.

See figure 1.2 for example.

## WIRING DIRECTIONS

STEP 1: Connect the Scorpion to 24VAC power using the white (neutral) and black (hot) wires. The Scorpion can be wired directly to the HVAC systems 24VAC transformer, or add a 24VAC transformer as needed. The Scorpion LX15 can be wired to 18-32VAC input and connected to the door interlock switch so the Scorpion powers down if the door/access panel is open. See figure 1.5 for wiring diagram. Wire the Scorpion to continuous power, do not connect to the blower relay. See Step 2 for option modes to cycle the Scorpion with the fan.

STEP 2: Set the Scorpion power switch to "ON" for constant run mode. Set the power switch to "CYCLE" to run only when the fan is running and The integrated air flow sensor activates the Scorpion to power on. **(The cycle mode is recommended for longer service life for most applications.)** When first turning on the Scorpion in CYCLE mode (air flow sensor mode) the LEDs will stay illuminated up to 120 seconds for an initial calibration. After the calibration period the Scorpion LEDs will turn off, and will then only turn back on when the fan is running and there is continuous airflow.

STEP 3: Replace the access panel to the unit.

STEP 4: Place the provided WARNING/INSTALL DATE sticker on the exterior of the unit.

STEP 5: Add the date of installation using permanent marker on the sticker.

STEP 6: Restore power to the unit.

STEP 7: Register the Scorpion's warranty at [www.nucalgon.com/scorpionregistration](http://www.nucalgon.com/scorpionregistration)

### IMPORTANT!

**Systems with high 24 VAC loads may require the installation of a separate 24 VAC transformer to power the UV light.**

**Always use a separate 24 VAC transformer with "communicating" air systems.**

**Some materials inside the air system (including filter media, flex duct, wiring etc.) may not be UV light resistant.**

**Use reflective tape to cover these components.**

### LIMITED WARRANTY:

The Scorpion offers a limited warranty for three years or 30,000 hours of run time that covers any defects in material or workmanship under normal use. For a valid warranty your Scorpion must be registered through Nu-Calgon on the date of installation. If you make a claim during the warranty period, you must provide proof of purchase and proof of proper installation by a licensed contractor for the warranty to be valid. The Scorpion warranty does not cover labor, return shipping charges, damage from improper installation or improper voltage usage. The Scorpion warranty begins on the date that the unit was installed. Installation of your Scorpion by any person other than a licensed contractor will void the warranty. Contact your local Nu-Calgon account manager or [info@nucalgon.com](mailto:info@nucalgon.com) with further questions.

