

IM 808-3

DECEMBER 2024

VISION® AND SKYLINE® ULTRAVIOLET (UV) LIGHTS

MODELS: CAC, CAH, OAC, AND OAH

Introduction

This manual provides general information about the Ultraviolet Light option for Daikin Applied Vision® Indoor Air Handler, (Models CAH and CAC) and Skyline Outdoor Air Handler (Models OAH and OAC). In addition to an overall description of the lights, it includes removal and installation procedures, maintenance instructions and parts identification. All instructions in this manual should be read thoroughly before maintaining or operating units equipped with the Ultraviolet Light option.

Description

The ultraviolet light application is designed to irradiate the coil surface along with the drain pan. Germicidal protection is delivered at a wavelength of 254 nanometers in the light spectrum. Light at this wavelength is known as UV-C. Most bacteria, mold, and virus organisms are killed by exposure to UV-C light.

Ultraviolet lights are typically installed on the leaving side of the cooling coils in the unit. Each light module is mounted on a rail and is removable for convenient bulb replacement.

UV Light Power Disconnect switches are factory installed on every access panel that allows a direct line of sight to the UV lamps when opened. These switches are designed to prevent UV exposure when cabinet access panels are opened and must not be disabled.

NOTE: Sections of units equipped with UV-C lights have safety labels added to the exterior. These labels should NOT be removed in any circumstance.

A viewing window near the UV lights allows viewing to determine if the lights are energized. The viewing windows use specially designed glass that blocks harmful UV light.

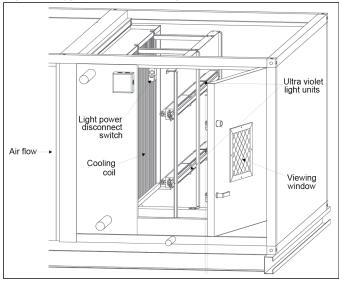
⚠ WARNING

UV-C exposure is harmful to the skin and eyes. Looking at an illuminated UV-C bulb can cause permanent blindness. UV-C skin exposure can cause cancer.

Always disconnect power to power receptacle before servicing. Do not operate if disconnect switch has been disabled.



Figure 1: Typical Ultraviolet Light Installation



©2024 Daikin Applied, Minneapolis, MN. All rights reserved throughout the world. This document contains the most current product information as of this printing. Daikin Applied Americas Inc. has the right to change the information, design, and construction of the product represented within the document without prior notice. For the most up-to-date product information, please go to www.DaikinApplied.com.

™® Vision, MicroTech, SiteLine, and Daikin Applied are trademarks or registered trademarks of Daikin Applied Americas Inc. The following are trademarks or registered trademarks or trademarks or registered trademarks of their respective companies: BACnet from American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.; Echelon, LonWorks, LonMark, and LonTalk from Echelon Corporation; Modbus from Schneider Electric; and Windows from Microsoft Corporation.

Operation

Refer to Figure 6 for wiring schematics. 115 VAC power for the UV lights is provided by the field. The lights operate whenever the unit is powered and all access panel power disconnect switches are closed.

NOTE: These disconnect switches should NOT be bypassed.

To turn the lights off, disconnect power to the power receptacle.

NOTICE

Do not operate the UV lights if obvious damage has occurred. Never operate UV lights outside of the unit cabinetry.

The normally open interlock switches are wired in series in a circuit that supplies 115VAC to the UV lights when all access panels are closed.

Figure 2: Bulb Replacement Part Numbers

Description	Part Number		
18" MODULAR UV LIGHT SYSTEM	205484001		
24" MODULAR UV LIGHT SYSTEM	205484101		
36" MODULAR UV LIGHT SYSTEM	205484201		

Replacing Bulbs

Replace all bulbs every 12 months regardless of condition. Refer to the manufacturer's suggested replacement interval. See Figure 2 for replacement bulb information.

NOTE: A glowing lamp indicates only that the UV light is powered, not that it is emitting the necessary UV-C wavelength for germicidal effect.

↑ WARNING

Personal Injury Hazard. Power supply can cause electrical shock.

Always disconnect all power to unit before servicing.

UV-C exposure is harmful to the skin and eyes. Looking at an illuminated UV-C bulb can cause permanent blindness. UV-C skin exposure can cause cancer.

Verify the UV lights are off by using the view window.

↑ WARNING

Fluorescent bulbs contain mercury, which can cause personal injury if breathed or ingested.

Use appropriate protective gear to clean up broken bulbs.

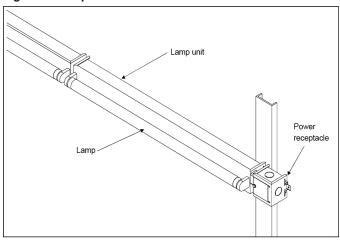
- Disconnect power to the power receptacle before servicing. Verify the power is disconnected.
- Before opening the access panels, use the viewing window to make sure the UV lights are off.
- 3. Before handling, allow bulbs to cool for 5 minutes.
- 4. Grasp body of bulb firmly at each end.
- 5. Rotate bulb 90 degrees in either direction.
- 6. Remove bulb.
- 7. Reverse process to install replacement bulb.
- 8. Wipe bulb with clean cloth and alcohol. Avoid touching bulb; fingerprints can degrade performance.
- 9. Dispose removed bulbs in accordance with local environmental regulations.

Removing Lamp Units

NOTE: Do not open modular UV lamp units. There are no user-serviceable components inside.

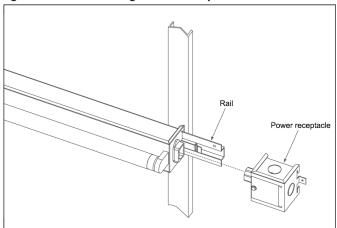
1. Before handling, allow lamps to cool for 5 minutes. See Figure 3 for lamp unit parts.

Figure 3: Lamp Unit Parts



2. Unplug the power receptacle from the row of lamps by pulling it apart from the lamp unit. Then slide the receptacle off the rail. See Figure 4.

Figure 4: Disconnecting Power Receptacle



- 3. Carefully slide one end of the lamp unit to the notches in the rail and pull it out and away from the rail.
- 4. Slide the other end to the notches and pull it out and away from the rail.
- 5. Place the lamp unit on a flat surface.

Figure 5: Removing Lamp Units from Rail

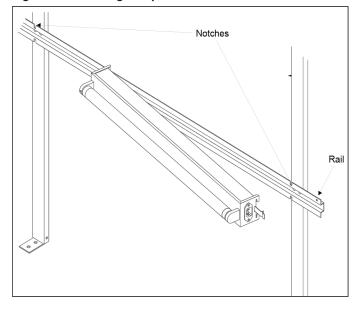
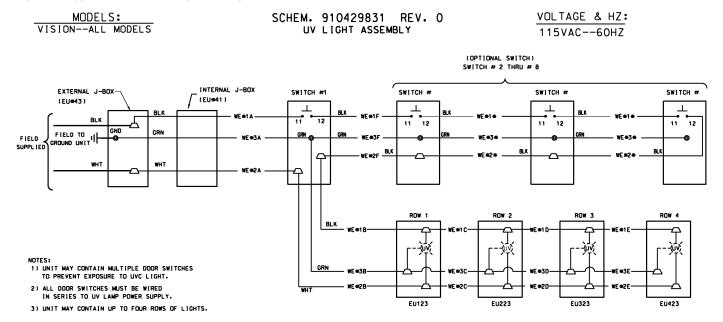


Figure 6: Typical Ultraviolet Light Wiring Schematic for Pull-Switch Door Interlock



NOTE: Switches are shown with the access panels in the open position. Lights are on when the access panels are closed and off when the access panels are open.

COMPLETE HVAC SYSTEM SOLUTIONS

SELF-CONTAINED | ROOFTOPS | COILS | CONDENSING UNITS

AIR HANDLERS | WATER-COOLED CHILLERS | AIR-COOLED CHILLERS

MODULAR CENTRAL PLANTS | SITELINE BUILDING CONTROLS

UNIT HEATERS | FAN COILS | AIR PURIFIERS | WATER SOURCE HEAT PUMPS

VARIABLE AIR VOLUME UNITS | UNIT VENTILATORS



13600 INDUSTRIAL PARK BLVD. | MINNEAPOLIS, MN 55441 1-800-432-1342 | 763-553-5330

LEARN MORE AT DAIKINAPPLIED.COM

PART NUMBER: IM 808-3

© 2024 DAIKIN APPLIED | (800) 432.1342 | WWW.DAIKINAPPLIED.COM