

506668-02 4/2022 Supersedes 3/2017

HEALTHY CLIMATE® GERMICIDAL LIGHT

INSTALLATION & USER INSTRUCTIONS FOR HEALTHY CLIMATE® GERMICIDAL LIGHT ON ENERGENCE® D-BOX MODELS

AWARNING

Risk of property damage, injury, or death.

Installation, adjustments, alterations, service and maintenance must be performed by a licensed professional service technician (or equivalent).

A DANGER

Ultraviolet (UVC) Radiation Hazard.

Any exposure will cause significant eye damage and may cause skin damage.

DO NOT look into UVC light source.

Access panels must be in place during appliance operation.

Disconnect power to UVC appliance before general servicing air handler.

AWARNING

Potential Mold Spore Release.

Application of UVC lamps to existing mold growth can cause respiratory irritation and allergic symptoms.

Do not use UVC lamps where active mold growth exists. Remove active mold growth from surfaces prior to operation of UVC lamps.

Shipping

Check parts for shipping damage. Receiving party should contact last carrier immediately if shipping damage is found.

General

The Healthy Climate® germicidal light emits ultraviolet (UVC) energy that has been proven effective in reducing microbial life forms (viruses, bacteria, yeasts, and molds) in the air.

UVC germicidal lamps greatly reduce the growth and proliferation of mold and other bio-aerosols (bacteria and viruses) on illuminated surfaces.

Germicidal lamps are **NOT** intended to be used for removal of active mold growth. Existing mold growth must be appropriately removed PRIOR to installation of the germicidal lamp.

Model C1UVCL10B-1- is covered by this document. Two C1UVCL10B-1 must be ordered for a complete installation.

Application

The Healthy Climate® UVC light is specifically designed for the Lennox rooftop models: LCH242-360 and LGH242-360. In addition, the light is equipped with shields to focus the UVC light on the coil surface where it is needed and reduce the exposure of light on other components and access panels for improved safety and overall effectiveness.

Enhanced rapid start ballast provides UVC lamp operation at a full range of operating conditions. Lamps operate on 110-230VAC single-phase power supply. Step-down transformers are installed for 460VAC and 575VAC roof-top units. Alternately, a 110VAC power supply may be used to directly power the UVC ballast(s).

Required Tools and Unique Supplies

- Dril
- Phillips screw bit or screwdriver
- Cotton cloth and gloves

Part No.	Replacement Part Description	
X7623	UVC lamp	
X7625	Enhanced ballast	

Also included are two (2) caution labels which need to be affixed to the UV shield and outside blower door if not already present.



NOTICE

Potential odor emissions.

Odors may be present when some materials are exposed to UV light.

These materials may include Technicoat or E-Coated Coils. Other materials may include chemicals, solvents, polymers and organic materials.

Some occupants may notice irritation or discomfort.

If odors are present, the UV Lights should be turned off and fresh air should be introduced into the occupied space immediately. Contact your Independent Lennox Dealer.

A CAUTION

Potential Risk of Degradation of Materials.

Potential of degraded wire insulation may cause human injury through electrical shock.

UVC light may damage plastics and rubber materials. May cause fabric discoloration.

Avoid UVC light exposure to plastic drain pans, wire insulation, flex duct or other plastic/rubber components.

Before installation, confirm that any corrosion-resistant coating (if applied to the coil) will not be negatively impacted by the UVC light exposure.

Dimensions/Specifications Dimensions (All models)		
Sheet metal panel	42" L x 12" W x 0.875" H (1067mm x 305mm x 22mm)	
Electrical Power Supply		
C1UVCL10B-1-	110/230VAC, 50/60Hz, 0.5A	
NOTE - For 460VAC & 575VAC rooftop units rooftop unit.	s, two step-down transformers must be ordered separately for each	
Power Consumption		
C1UVCL10B-1-	55 Watts	
Lamp/Ballast Operating Environment	(All models)	
Temperature (outside of duct):	5°F to 140°F (-15°C to 60°C)	
Relative humidity	<95%.	
Specifications subject to change without noti		

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Parts Arrangement

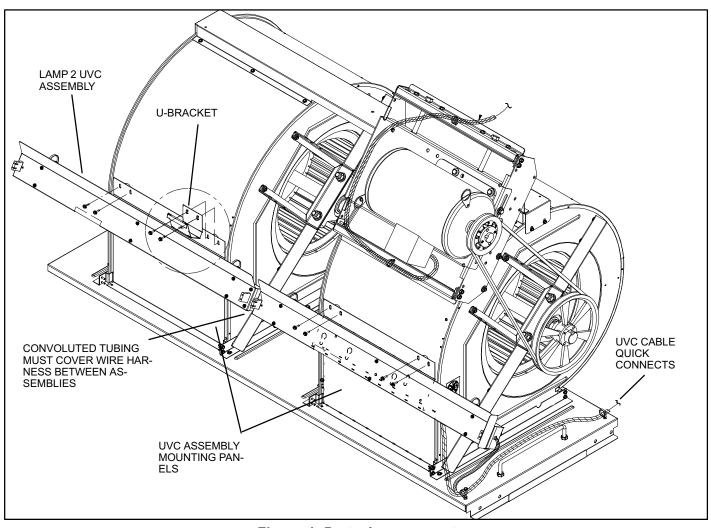


Figure 1. Parts Arrangement

Installation

AWARNING



Electric shock hazard.

Can cause injury or death.

Disconnect all remote power supplies before opening any unit access panels. Unit may have multiple power supplies. Do not operate without access panels in place.

UVC exposure protection

The UVC light is equipped with a unique directional shield to focus the UVC light on the coil surface and drain pan

where it is needed and reduce the exposure of light on other components such as wiring, plastic parts etc. For shielding of electrical wiring in the rooftop unit, black convoluted tubing is included with the kit. However, if there is any concern, aluminum foil tape can also be used to cover up any exposed component.

AWARNING

Potential Risk of Fire.

Dust, lint and other debris may cause fire if allowed to come in contact with illuminated UVC lamp.

Remove any dust, lint or other debris from lamps and surrounding duct system.

A CAUTION

Sharp Edges Hazard.

Equipment sharp edges can cause injury. Use protective gloves when grasping equipment edges.

Installation of UVC lamps

The lamps for the UVC light assembly come attached with a wire tie on top back side of UVC light assemblies inside of a foam sleeve (see figure 2).

- Disconnect power to the rooftop unit before installing or servicing the UVC light.
- 2. Open the rooftop unit's blower access door.
- 3. Disconnect the UVC cable quick connects (pink/yellow) located at the front right of the blower assembly. (see figure 3).
- 4. Remove and retain screws securing the UV shield to the blower mullion (see figure 4).

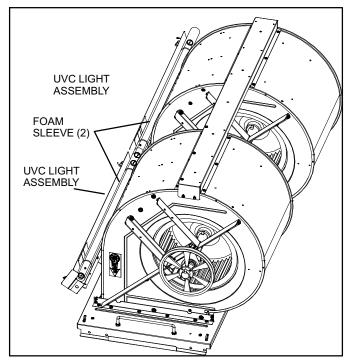


Figure 2. UVC Light Assemblies

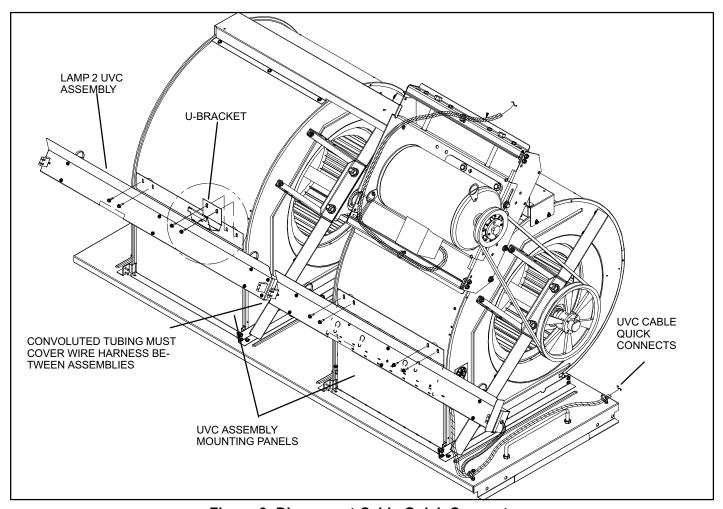


Figure 3. Disconnect Cable Quick Connects

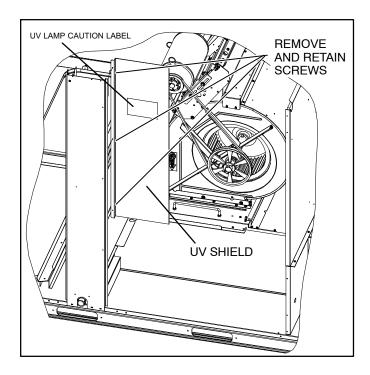


Figure 4. Remove UV Shield

When servicing lamps only:

5. Allow 10 minutes before touching the lamps.

When installing first time and servicing:

- 6. Lamp 1 (lamp closer to blower door):
 - a) Pull blower deck slightly more than half way out of unit. Lamp 1 can be installed or serviced without removing the entire assembly. Carefully remove the lamp from top back UVC lamp 1 assembly and remove splash guards from lamp holders on first time installation. Remove splash guards and lamp from each of the lamp holders when servicing (see figure 5).

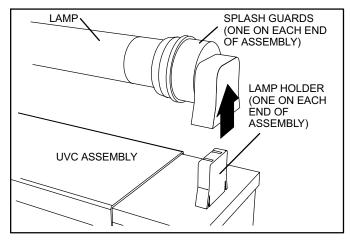


Figure 5. Remove Lamp

b) Wear cotton gloves or use a cotton cloth when handling the new lamp. Gently but firmly push the splash guards on each end of the replacement lamp. Align and insert the lamp with splash guard into the lamp holders of the UVC assembly until each end clicks into place (see figure 6).

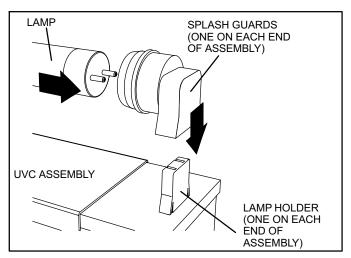


Figure 6. Install Lamp

7. Lamp 2 (see figures 3 and 7):

When installing first time only:

a) Carefully remove the lamp from top back UVC lamp 2 assembly and remove splash guards from lamp holders.

When installing first time and servicing:

- **b)** Remove and retain two screws securing U-bracket to UVC assembly mounting panel.
- c) Slide lamp 2 UVC assembly upward and remove. Key holes are provided on the back of lamp 2 to ease removal and installation of assembly.

Note - The wire harness limits movement of the assembly.

- d) Remove lamp from assembly and replace with a new lamp in the same manner as lamp 1 or if installing for the first time, place lamp in the same manner as lamp 1.
- e) Line up the three screws on the back of lamp 2 with key holes on UVC assembly mounting bracket. Carefully replace lamp 2 assembly and reinstall Ubracket with two retained screws.

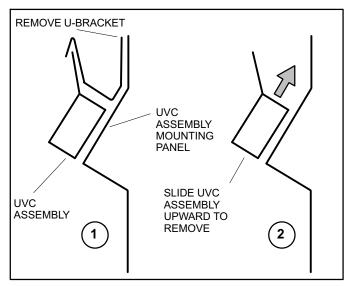


Figure 7. Remove Lamp 2 Assembly (side view)

8. Slide blower deck back into unit; make sure piping does not come in contact with lamps.

- 9. Connect the UVC cable quick connects (pink/yellow).
- Replace convoluted tubing; make sure harnesses are not exposed to UVC light.
- 11. Reinstall the UV shield.
- Provided are two (2) caution labels which need to be affixed to the UV shield and outside blower door if not already present.
- Close the blower access door and restore power to unit.
- Open blower access door, stand behind the shield and verify (without looking directly at the light) that the UVC light is on.

Prodigy 2.0 M3 Unit Controller

Configure the Unit Controller for the UVC Lamp use using the following menu:

Go to **SETUP** > **INSTALL** and navigate through the various setup questions until **Configuration ID 2** appears. Position six (6) needs to be set to **Y** = **Installed** to enable UV lamp operation.

Operation

For optimal performance, continuous operation of the UVC germicidal lamp is recommended.

Maintenance

For all maintenance, contact a qualified HVAC technician.

If UVC lamp does not come on:

1. Check Power Wiring: Disconnect 1/4" QC (quick connects) of the UVC cable near the UVC assembly. With Power ON, use multimeter to test 110-230VAC at the 1/4"QC quick connects from the control panel.

- 2. **Check Lamp**: Carefully remove the UVC assembly out of the rooftop unit. Use multimeter to test for continuity across each pair of pins at each end of the lamp.
- 3. **Check Lamp Installation**: Make sure that lamp's pins snap properly into the lamp holder.

Annual Lamp Replacement

AWARNING

Personal Burn Hazard.

Personal injury may result from hot lamps. During replacement, allow lamp to cool for 10 minutes before removing lamp from fixture.

The lamp should be replaced every 12 months, as UVC energy production diminishes over time.

- 1. Obtain the correct replacement lamp for your Healthy Climate® germicidal light model.
- 2. Disconnect power to the rooftop unit before servicing the UVC kit.
- 3. Open the blower access door.
- 4. Follow installation steps 1 (begins on page 4) through 14 when servicing UVC lamps.

Lamp Disposal

Hg-Lamp Contains Mercury—Manage in accordance with local, state and federal disposal laws. Refer to www.lamprecycle.org or call 1-800-9-LENNOX.

Proper Clean-up Technique in Case of Lamp Breakage

- Wear protective gloves, eye wear and mask.
- Sweep the broken glass and debris into a plastic bag, seal the bag, and dispose of properly. Contact your local waste management office for proper disposal.

Do not use a vacuum cleaner. Do not incinerate.