The Fresh-Aire UV Bus Kit is designed to reduce biological fouling of a/c coils and blowers in commercial busses. Germicidal UV light improves indoor air quality and reduces maintenance costs by keeping coils clean. CX model buses have two a/c systems and will require two Fresh-Aire UV Bus Kits, one for each system.

WARNING
PROTECT EYES FROM UV LIGHT
TURN OFF UNIT OR DISCONNECT
BEFORE SERVICING

IMPORTANT!
• Only qualified technicians should install this product*
• Read instructions carefully including safety warnings
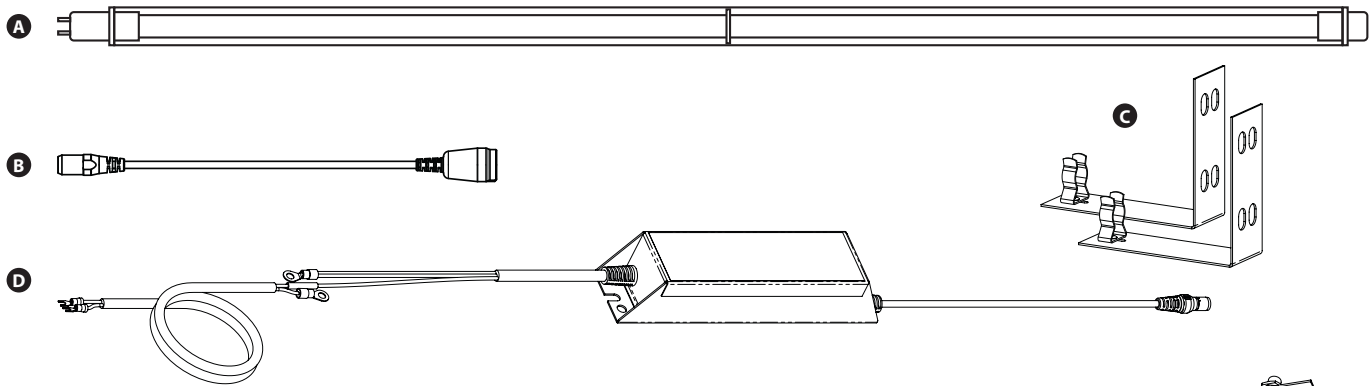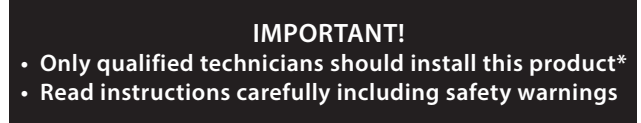
Parts Included

A UV Lamp (TUVCL-246-TF)

B Lamp Cable

C Lamp Mounting Bracket

D Power Supply

E In-Line Fuse

F Safety Interlock Switch

G Hex Bolt ⅜" - 16 x 1.000

H Spring Locking Washer ⅜"

I Hex Nut ⅜" - 16

J Hex Head Self Tapping Screw ¼"-14 x .875

K Hex Head Self Tapping Screw #8-18 x .750

L Flat Head Self Tapping Screw #6-20 x .500

M Panel Mount Bushing

N Washer Flat ⅜"

O Zip Tie

P Adhesive Zip Tie Mount

Q Sight Glass 1"
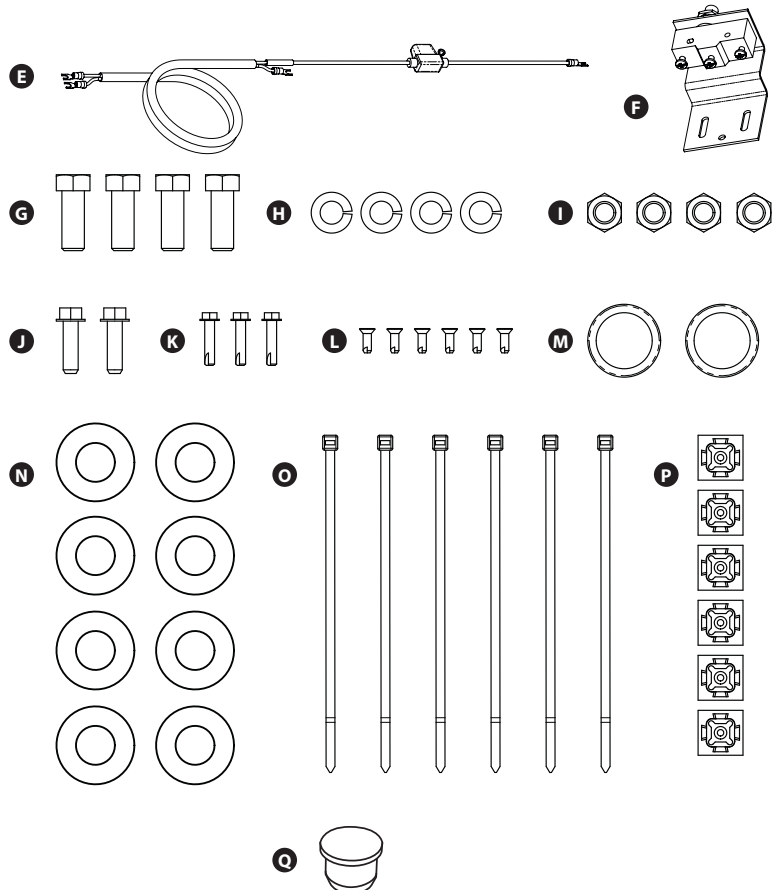
Installation

The Fresh-Aire UV Bus Kit is designed to reduce biological fouling of a/c coils and blowers in commercial buses. Germicidal UV light improves indoor air quality and reduces maintenance costs.

The Fresh-Aire UV lights (2) are mounted in the (2) a/c units between the evaporator and blower wheels.

To start, remove the a/c access panels from the roof. Then, from the inside of bus, remove each access corner panel from both sides of the return.

❶ From the roof a/c access, drill a 1" hole on each corner near the back to allow the power wire and lamp cable to pass through to the ballast and fuse block locations on either side. Install ¾" bushing in each hole. Seal hole if needed.

❷ Mount the 24 VDC ballast on the side without the fuse block , securing to the top framing with self-tapping screws ❿. There are two power wires on the ballast, attach the shorter one to the grounded terminal, then pass the longer one through the ¾" hole from step 1. It will connect to the Safety Interlock Switch ❺.

❸ The Safety Interlock Switch ❺ is intended to prevent accidental UV-C exposure when servicing the a/c system. It will shut off power when the access cover is removed. Installation is through the roof a/c access. The Safety Interlock Switch is positioned on the left corner near the wire/lamp cable access hole. Use self-tapping screws ⓚ to secure the interlock bracket plate just below the gasket. The push-button switch should be just above the a/c cabinet, so the switch is "on" when the access panel is closed/secured.

❹ Attach the ballast power wire to the Safety Interlock Switch normally open terminal.

❺ Attach the other wire to the common terminal, it will pass through the hole on the other side of the cabinet. It connects to the In-Line Fuse ❺ which is connected, with a shorter wire, to an open terminal on the 24 VDC Fuse Block.

❻ Install Lamp Mounting Brackets ⓒ (2 per a/c unit) to each side of the evaporator coil framing supports between the coil and blower. Use existing holes in the frame and fasten using bolts ⓖ, flat washers ⓝ, spring washers ⓗ, and nuts ⓘ. Check to make sure both brackets are level and properly secured to frame.

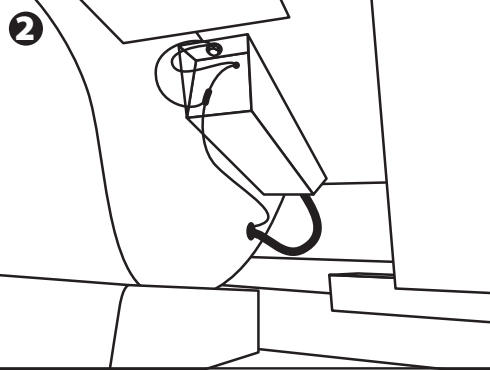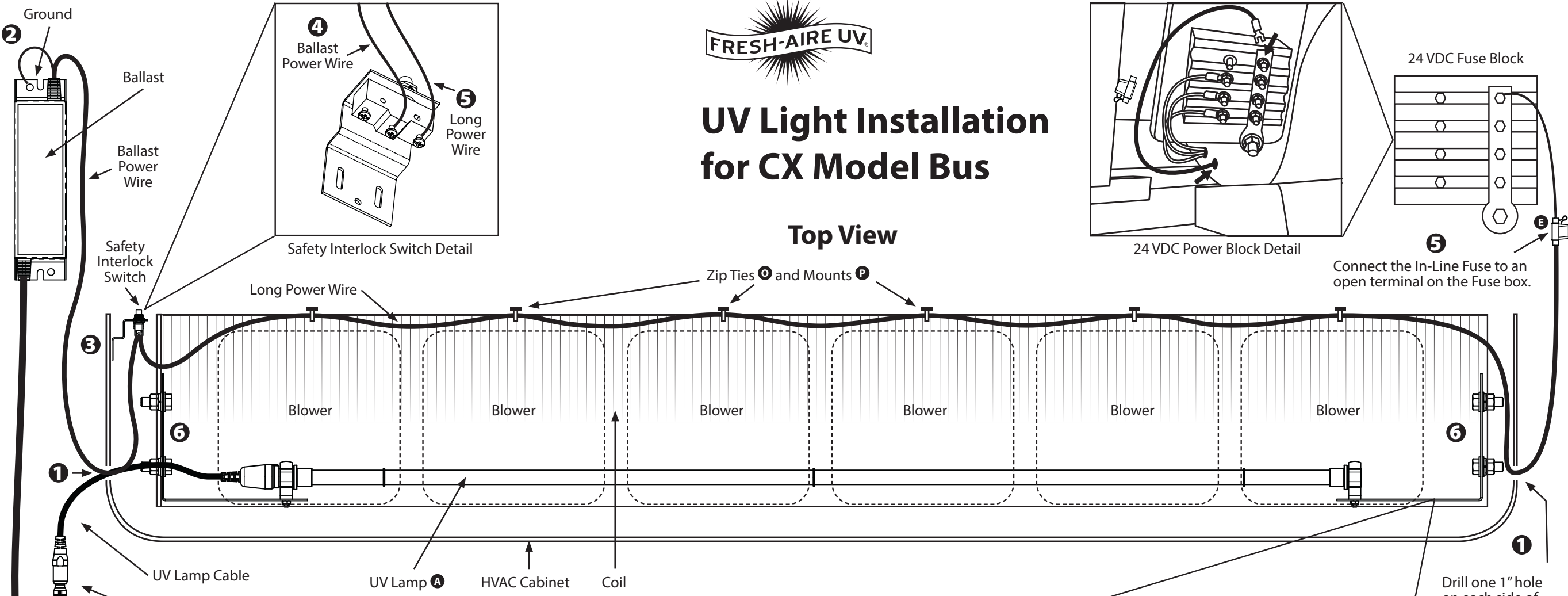❼ Then mount UV Lamp ⓐ onto each bracket and connect to Lamp Cable ⓑ.

❽ Install Sight Glass ⓠ. The Sight Glass allows safe viewing of the UV light system when in operation. Use an existing hole or drill a 1" hole near the ballast location in the top of the HVAC enclosure so the UV Light will be visible when in operation. Press the base of the sight glass through the hole until it snaps in.
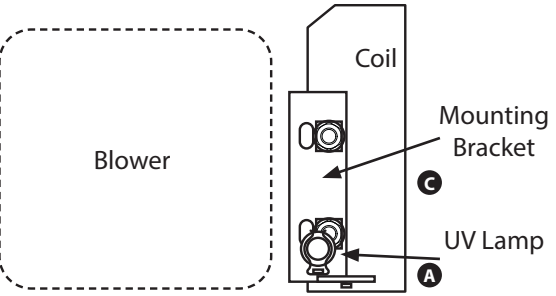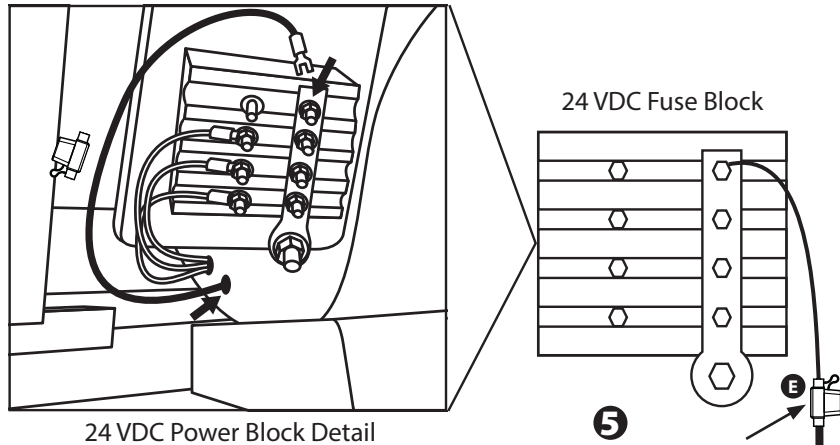
❾ When installation is complete replace the access panel back into position and secure it so that it depresses the Safety Interlock Switch. Look through the Sight Glass to confirm that the UV Lamp is lit.

UV Light Installation for CX Model Bus

FRESH-AIRE UV®

Top View

Labels: Ground, Ballast, Ballast Power Wire, Safety Interlock Switch, Long Power Wire, Zip Ties ⓞ and Mounts ⓟ, UV Lamp Cable, UV Lamp Cable Connector, UV Lamp Power Cable, UV Lamp ⓐ, HVAC Cabinet, Coil, Blower, 24 VDC Fuse Block

Safety Interlock Switch Detail — Ballast Power Wire, Long Power Wire

24 VDC Power Block Detail

❺ Connect the In-Line Fuse to an open terminal on the Fuse box.

Drill one 1" hole on each side of enclosure to pass wires through.

❷ Mount Power Supply to top of coil & blower enclosure using self-tapping screws.

Side View

Coil, Blower, Mounting Bracket ⓒ, UV Lamp ⓐ
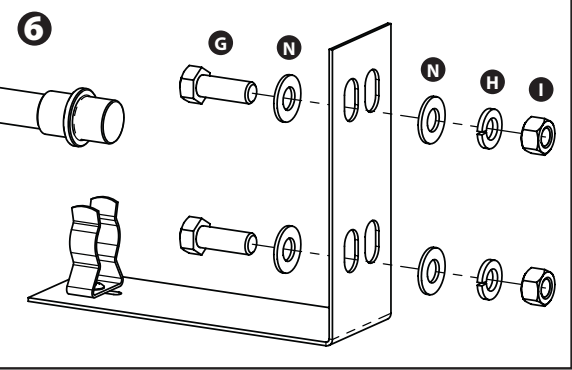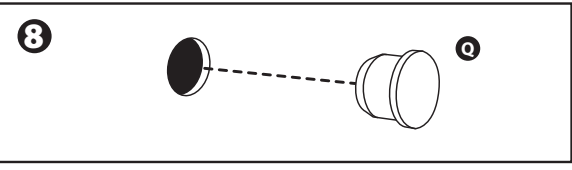
Attach Mounting Brackets to both sides of coil enclosure so that lamp is positioned between blower and coil.

Mounting Bracket Detail.

Install Sight Glass.

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Warning!

Caution: UV-C light that can cause **Serious Eye Burns** and **Temporary Blindness,** Ensure all access panels have been replaced and doors closed before powering-up the system. Turn on the main power then switch on the UV light power supply. Use the sight glass to confirm that the UV Lamp is operating.

UV System Maintenance

Periodically wipe the UV lamps with a clean cloth or alcohol swab to remove any accumulated dust or dirt. This should be performed at least every 6-9 months or during routine maintenance intervals.

UV Lamp Replacement

The UV Lamp is rated for two years germicidal effectiveness. Lamps will continue to glow after they have passed their rated life span but their germ-killing effectiveness diminishes with time so they must be replaced on schedule for the system to function properly. **Contact your local dealer for replacement lamps.**

Important! Use only Fresh-Aire UV® replacement lamps.

Part# TUVCL-246-TF	46" 2 Year Effective Lamp Life

Trouble Shooting

Problem	Solution
UV Lamp(s) Not Lighting	1. Check that power is applied. 2. Check that the unit is turned ON. 3. Ensure the remote lamp cables are properly connected. 4. Check the fuse. Replace only with same size and type. 5. Reset power switch on power supply (off then on). 6. Install New UV Lamp(s). 7. Consult Factory.
UV Lamp(s) Flickering	1. UV Lamp(s) have reached end of effective service life. Install new lamp(s) of same type. 2. If unit is new, check remote cables to ensure they are properly connected. 3. Reset power switch on power supply (off then on). 4. If new lamps still flicker, consult factory.
UV Lamps Have burned Out Prematurely	1. Consult Factory.
Power Supply Will Not Light UV Lamps even after new lamps are installed	1. Consult Factory. 2. External power suppressor may be needed if power surges occur.

FRESH-AIRE UV®

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DESIGNED &
ASSEMBLED
IN THE U.S.A.

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