

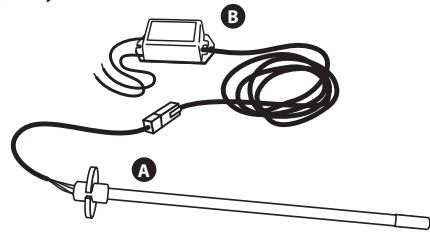
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# Patriot UV 24

## 24 VOLT GERMICIDAL UV LIGHT

### Installation Guide

Patriot UV 24 is installed inside the air handling system to reduce biological contamination for reduced system maintenance and improved indoor air quality.



US patent #7,704,463

#### IMPORTANT!

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

## 2 Installation Notes

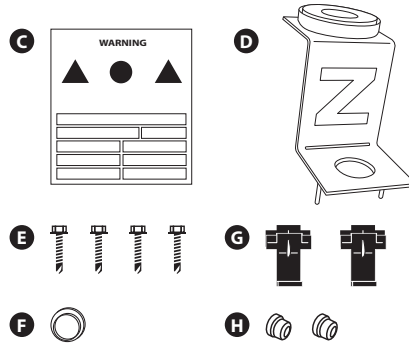
Before installing Patriot UV 24 it is necessary to determine the optimal mounting location inside the air system. First, look for the area with the heaviest mold growth. Also consider a location that will allow the germicidal UV light to shine on the greatest surface area. For enhanced anti-microbial effect 2 or more lamps can be installed in different parts of the air system.

Some typical mounting locations:

- |                              |                           |
|------------------------------|---------------------------|
| <b>A</b> Supply-side duct    | <b>D</b> Coil face        |
| <b>B</b> At the blower       | <b>E</b> Coil "A" plate   |
| <b>C</b> Across top of coils | <b>F</b> Return-side duct |

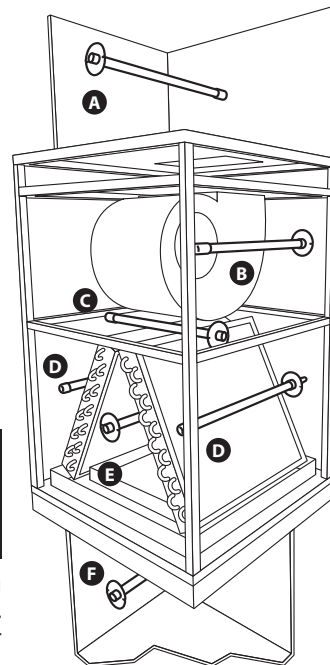


**Important:** some materials inside the air system (including filter media, flex duct, wiring etc.) may not be UV light resistant. Use the optional UV shield (part #TUV-SHIELD-LPC) or cover the materials with reflective tape.



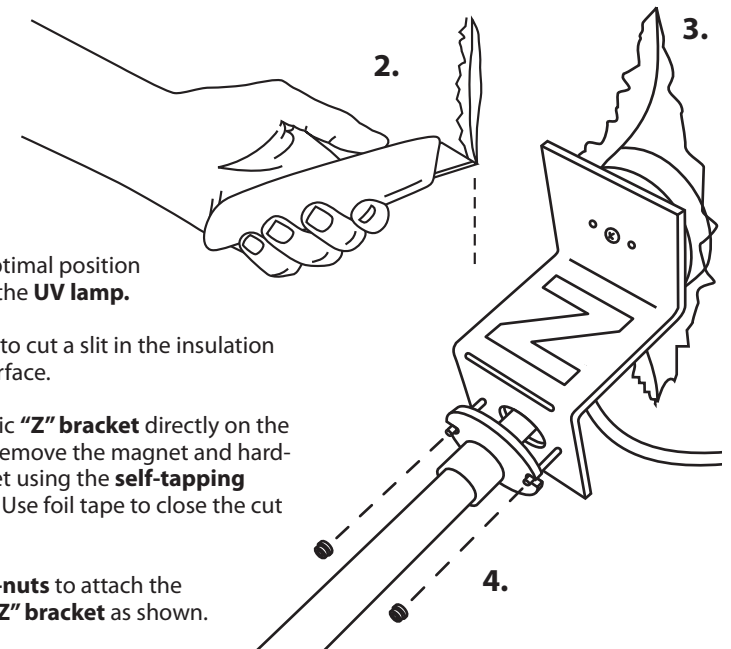
#### Parts Included

- A** UV Lamp
- B** Power Supply
- C** UV Warning Sticker
- D** "Z" Mounting Bracket
- E** Self-Tapping Screws
- F** Sight Glass
- G** Tap-in Connector
- H** Plastic Nuts



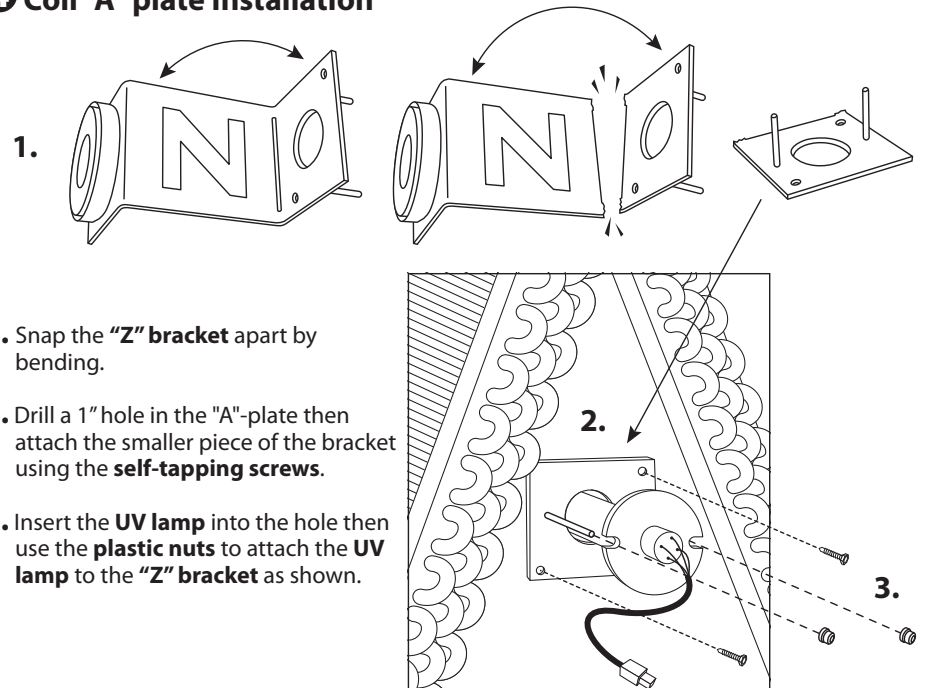
Patriot UV 24 Mounting Options

## 3 Air Handler Interior Surface Installation



1. Determine the optimal position for placement of the **UV lamp**.
2. Use a utility knife to cut a slit in the insulation on the interior surface.
3. Place the magnetic **"Z" bracket** directly on the metal surface or remove the magnet and hard-mount the bracket using the **self-tapping screws** provided. Use foil tape to close the cut in the insulation.
4. Use plastic **quick-nuts** to attach the **UV lamp** to the **"Z" bracket** as shown.

## 4 Coil "A" plate Installation

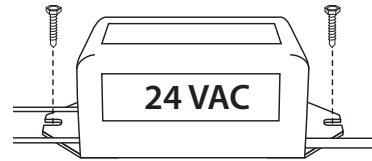


1. Snap the **"Z" bracket** apart by bending.
2. Drill a 1" hole in the "A"-plate then attach the smaller piece of the bracket using the **self-tapping screws**.
3. Insert the **UV lamp** into the hole then use the **plastic nuts** to attach the **UV lamp** to the **"Z" bracket** as shown.

## 5 Power Supply Installation

**IMPORTANT!** Check which power supply is included with your **Patriot UV 24** before connecting to power. Turn off main power source before installation.

1. Find a suitable location for the **power supply** inside the control panel of the air handler. Install using the **self-tapping screws**.
2. Use the wiring diagrams below to connect to power.

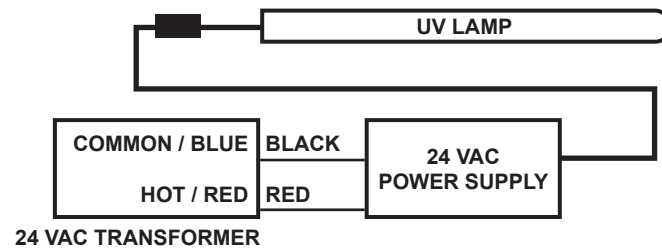


Patriot UV 24 Power Supply

### IMPORTANT

Turn off main power source before installation.

**IMPORTANT! Must be wired to constant power - do not connect to blower relay.**



24 VAC TRANSFORMER

### IMPORTANT!

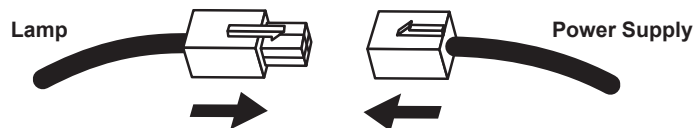
Systems with high 24 VAC loads may require the installation of a separate 24 VAC transformer to power the UV light.

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

Draws 16 VA, may need to do load calculation: Volts under load X Amps under load.

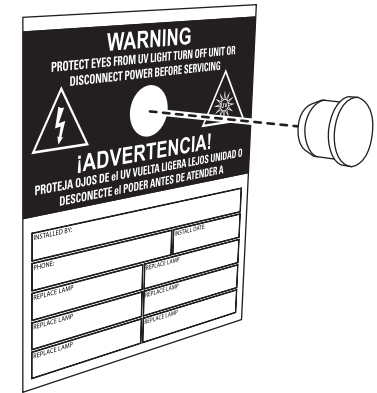
## 6 UV Lamp Connection

1. When all the other components are properly installed connect the UV Lamp cable to the Power supply cable.
2. Make sure the clips are aligned and then push the connectors firmly together. A tight connection ensures a proper seal.



## 7 Sight Glass Installation

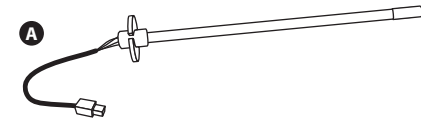
1. Find a suitable location on the outside of the duct-work near the UV Lamp installation and apply the warning/lamp replacement sticker.
2. Drill a 1/2" hole through the orange circle on the sticker. Press the UV safety viewport into hole.
3. Turn on the power and use the sight glass to confirm that the UV Lamp is operating.



## 8 Lamp Replacement

The germicidal UV lamp in **Patriot UV 24** needs to be replaced periodically. Note: UV lamps will continue to emit visible light but lose germicidal effectiveness over time.

**UV Lamp**  
(Part # PATUVL)



### CAUTION!

UV lamps contain small amounts of mercury - dispose of lamps in accordance with local environmental regulations. For more information visit [www.lamprecycle.org](http://www.lamprecycle.org)

**Note:** Use of replacement UV lamps other than **PATUVL** voids warranty.