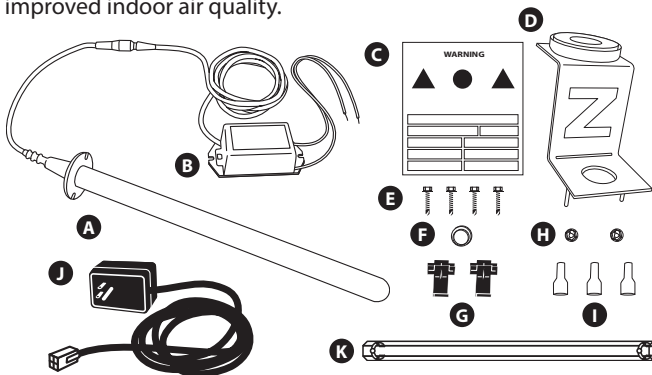


1 PATRIOT UV

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



IMPORTANT!

- Installation by licensed HVAC or electrical contractor only
- Install in accordance with relevant building codes
- Read instructions carefully including safety warnings

Installation Instructions

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** Quick-Nut (plastic)
- I** Spade Connectors
- J** Wall plug (PAT-110WP only)
- K** UV Shield (optional)

2 Installation Notes

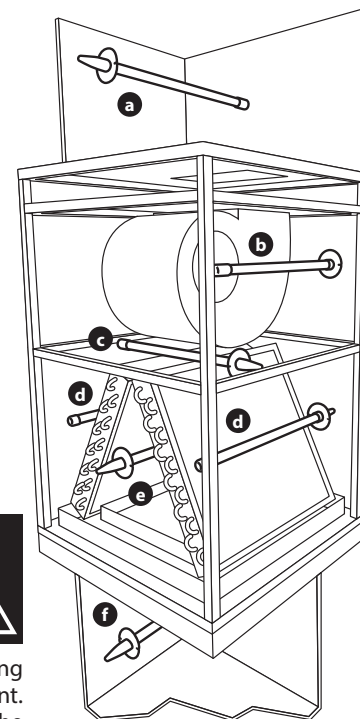
Before installing Patriot UV it is necessary to determine the optimal mounting location inside the air system. First, look for the area with the heaviest mold growth. Also consider a location that will allow the germicidal UV light to shine on the greatest surface area. For enhanced anti-microbial effect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

Some typical mounting locations:

- a** Supply-side duct
- b** At the blower
- c** Across top of coils
- d** Coil face
- e** Coil "A" plate
- f** Return-side duct

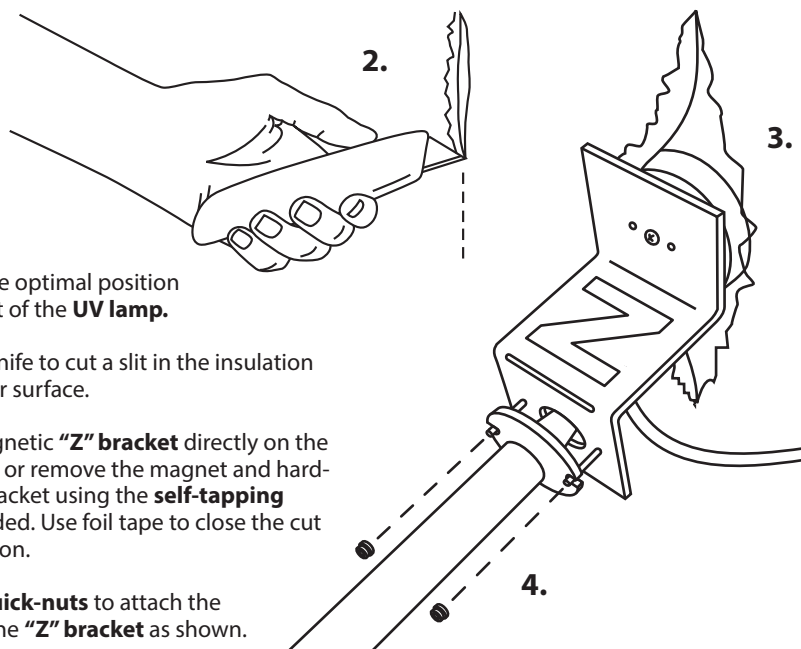


Important: some materials inside the air system (including filter media, flex duct, wiring etc.) may not be UV light resistant. Use the optional UV shield **K** (TUV-SHIELD-LPC) or cover the materials with reflective tape.



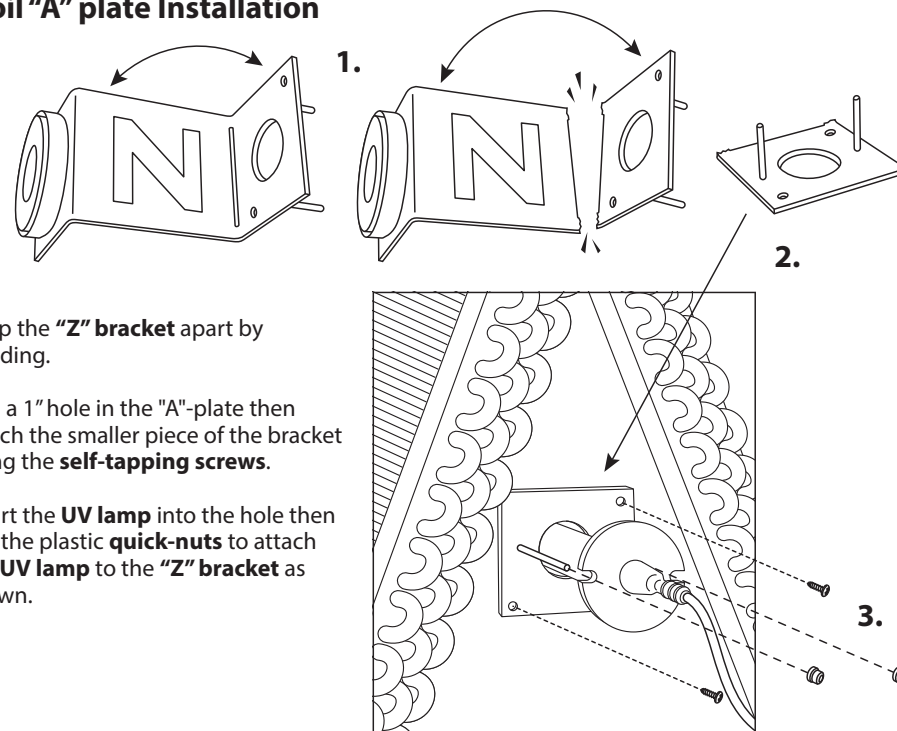
Patriot UV Mounting Options

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 **quick-nuts** to attach the **UV lamp** to the **"Z" bracket** as shown.

5 Power Supply Installation

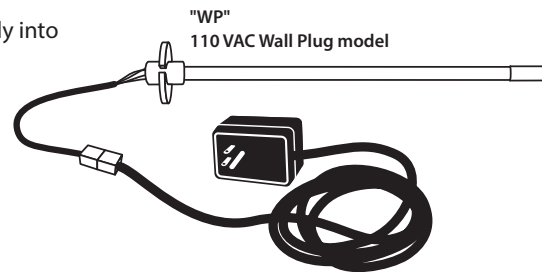
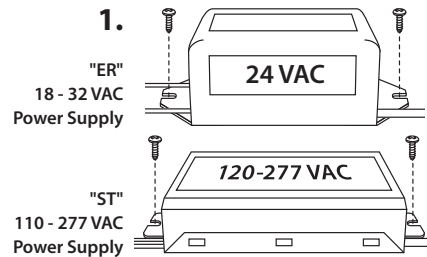
IMPORTANT! Check which power supply is included with your **Patriot UV** before connecting to power. Turn off main power source before installation.

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 to connect to power. The low voltage power supply (18 to 32 VAC) is marked "**UV24**" or "**ER**".

High voltage (110 to 277 VAC) power supplies are marked "**ST**"

Wall plug "**WP**" model plugs directly into 110 VAC electrical outlet



IMPORTANT!

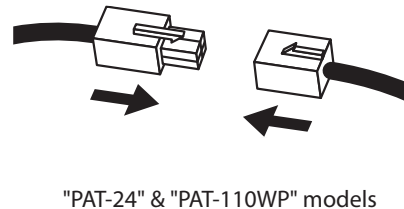
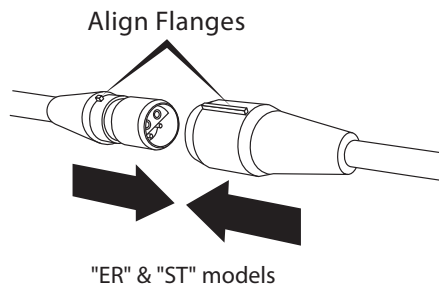
Systems with high 24 VAC loads may require the installation of a separate 24 VAC transformer to power the UV light.

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

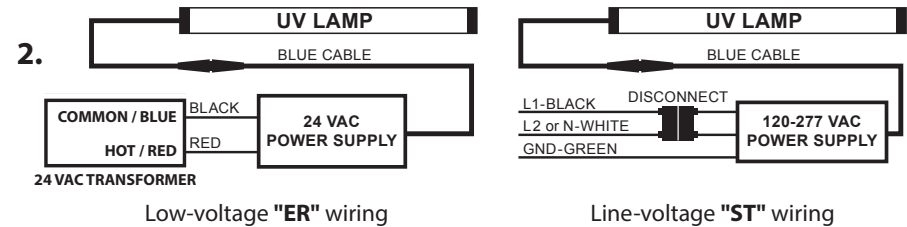
Draws 16 VA, may need to do load calculation: Volts under load X Amps under load.

6 UV Lamp Connection

When all the other components are properly installed connect the UV Lamp cable to the power supply cable. Align the flanges or clips to assure a proper connection.

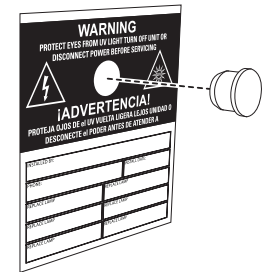


IMPORTANT! Must be wired to constant power - do not connect to blower relay.



7 Sight Glass Installation

1. Find a suitable location on the outside of the ductwork near the UV Lamp installation and apply the UV 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.

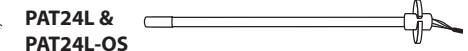
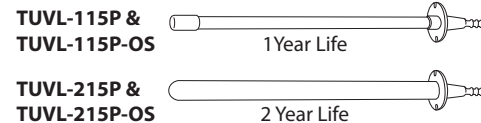


8 Lamp Replacement

Germicidal UV lamps need to be replaced every one or two years depending on type. Although they continue to emit visible light, germicidal effectiveness decreases over time.

Compatible and interchangeable with ER and ST models.

Compatible and interchangeable with PAT-UV24 models.



Caution: UV lamps contain small amounts of mercury - dispose of lamps in accordance with local environmental regulations. For more information visit www.lamprecycle.org