

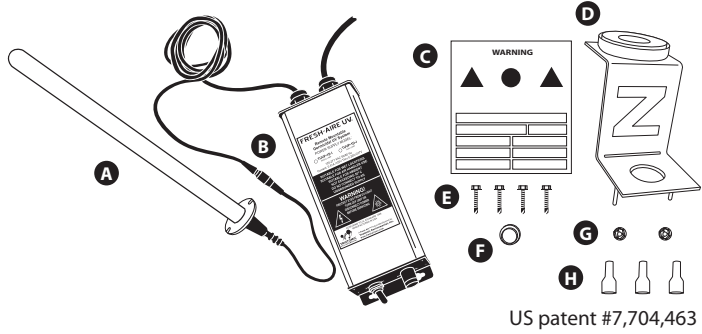
# 1 FRESH-AIRE UV<sup>®</sup>

## AHU SERIES 1

### UV LIGHT DISINFECTION SYSTEM

### Germicidal UV Light Installation Instructions

The Fresh-Aire UV<sup>®</sup> AHU Series 1 is installed inside the air handling system to reduce biological contamination for reduced system maintenance and improved indoor air quality.



#### IMPORTANT!

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

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TUV-AHU-MAN 04.10.12

#### Parts Included

- A** UV Lamp
- B** Power Supply
- C** UV Warning Sticker
- D** "Z" Mounting Bracket
- E** Self-Tapping Screws
- F** Sight Glass
- G** Quick-Nut (plastic)
- H** Spade Connectors

## 2 Installation Notes

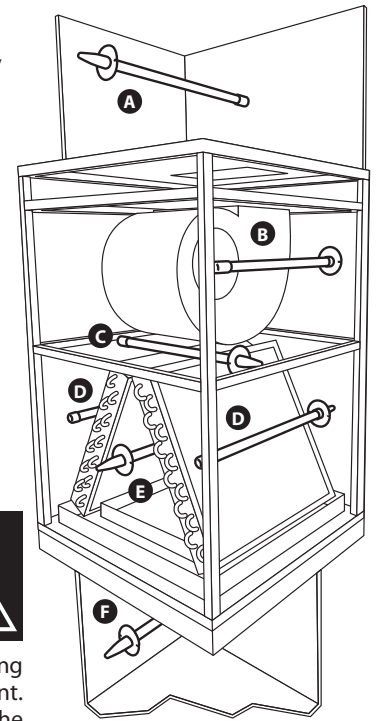
Before installing Fresh-Aire UV<sup>®</sup> AHU Series 1 it is necessary to determine the optimal mounting location inside the air system. First, look for the area with the heaviest mold growth. Also consider a location that will allow the germicidal UV light to shine on the greatest surface area. For 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

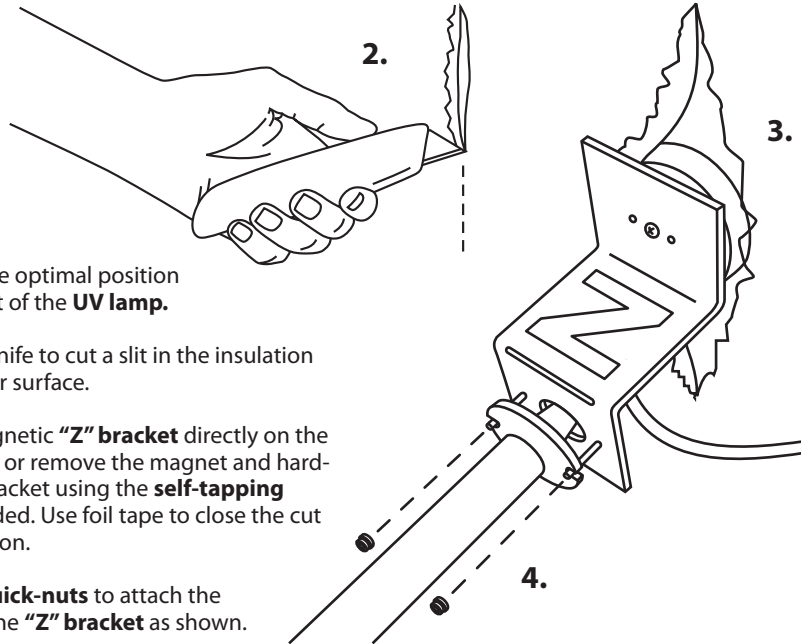


**Important:** some materials inside the air system (including filter media, flex duct, wiring etc.) may not be UV light resistant. Use the optional UV shield (part #TUV-SHIELD-LP) or cover the materials with reflective tape.



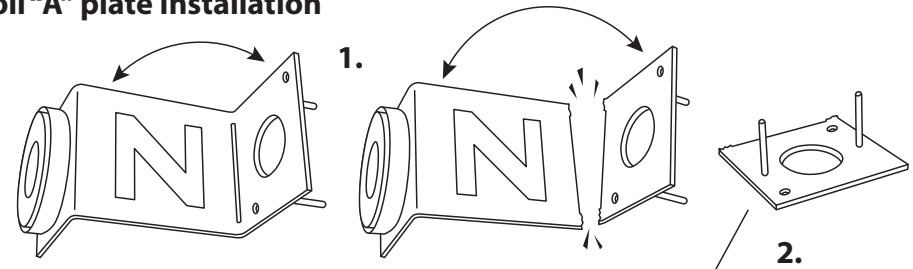
UV Lamp Mounting Options

## 3 Air Handler Interior Surface Installation

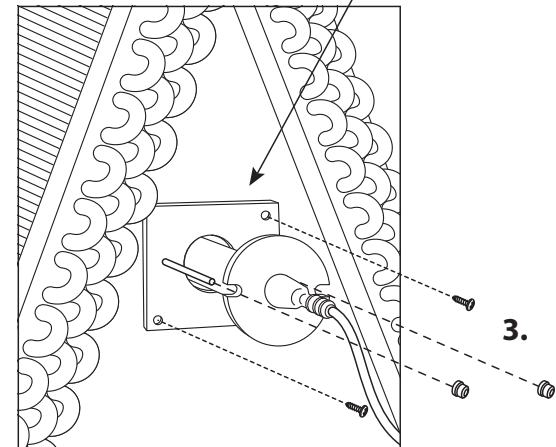


1. Determine the optimal position for placement of the **UV lamp**.
2. Use a utility knife to cut a slit in the insulation on the interior surface.
3. Place the magnetic **"Z" bracket** directly on the metal surface or remove the magnet and hard-mount the bracket using the **self-tapping screws** provided.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



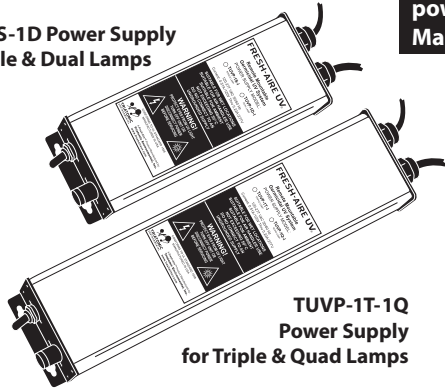
1. Snap the **"Z" bracket** apart by bending.
2. Drill a 1" hole in the "A"-plate then attach the smaller piece of the bracket using the **self-tapping screws**.
3. Insert the **UV lamp** into the hole then use the plastic **quick-nuts** to attach the **UV lamp** to the **"Z" bracket** as shown.



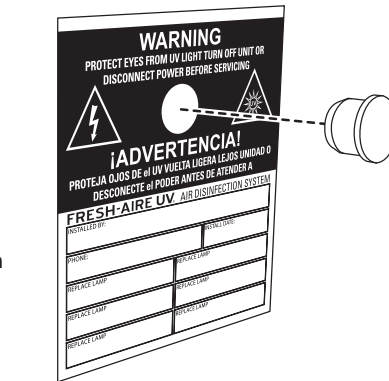
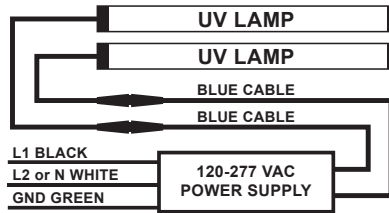
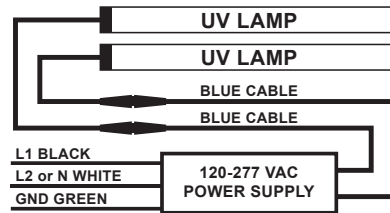
## 5 Power Supply Installation

1. Find a suitable location for the **power supply** outside or inside the air handler/furnace. Install the **power supply** in a location that allows easy access to the power switch to turn on/off the UV light for servicing. Install using the **self-tapping screws**.
2. Use the wiring diagram to properly connect to 110 - 277 VAC power.

TUVP-1S-1D Power Supply  
for Single & Dual Lamps



**IMPORTANT! Must be wired to constant power - do not connect to blower relay. Make sure unit is properly grounded.**

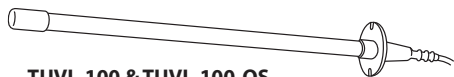


## 7 Sight Glass Installation

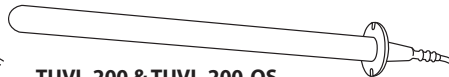
1. Find a suitable location on the outside of the duct-work near the UV Lamp installation and apply the Fresh-Aire UV® warning/lamp replacement sticker.
2. Drill a 1/2" hole through the orange circle on the sticker. Press the UV safety viewport into hole.
3. Turn on the main power then turn on the switch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

## 8 Lamp Replacement

The germicidal UV lamp in Fresh-Aire UV® AHU Series 1 needs to be replaced periodically. TUVL-100 and TUVL-100-OS (odor control) lamps should be replaced every year. TUVL-200 and TUVL-200-OS should be replaced every 2 years. Note: UV lamps will continue to emit visible light but lose germicidal effectiveness over time. You can upgrade to a 2 year and/or odor control lamp with your existing power supply.



TUVL-100 & TUVL-100-OS



TUVL-200 & TUVL-200-OS

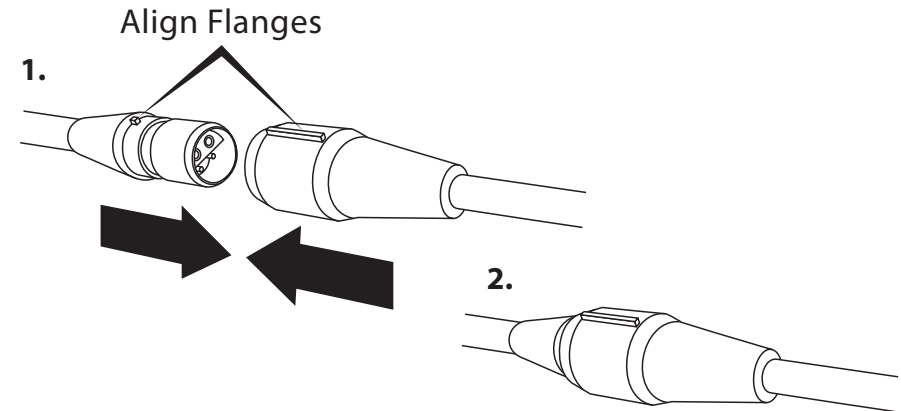
**Note:** Use of replacement UV lamps other than Fresh-Aire UV® voids warranty.  
**Caution:** UV lamps contain small amounts of mercury - dispose of lamps in accordance with local environmental regulations. For more information visit [www.lamprecycle.org](http://www.lamprecycle.org)

## Connecting to Power

The power supply for this unit is available as a 120 VAC plug-in or hard-wired version. If a local 120 VAC receptacle is not available, the system can be directly connected to the power supply of the air handling system by hard-wiring the unit to the main electrical feed of the air handler.

## 6 UV Lamp Connection

1. When all the other components are properly installed connect the UV Lamp cable(s) to the power supply cable(s).
2. Make sure the flanges are aligned and then push the connectors firmly together. A tight connection ensures a proper water-resistant seal.



### Lifetime Power Supply Warranty:

This warranty supersedes and replaces any warranty statements orally made by the Sales Person, Distributor or Dealer or contained in the written instructions or other Brochures or informational documents in relation to this product. This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

Manufacturer warrants the Fresh-Aire UV® AHU Series 1 to be free from defects in material and workmanship under the normal use and service when operated and maintained in strict accordance with manufacturer's instructions for the lifetime from the date of purchase of equipment, with exception of the Ultraviolet Lamp, which is warranted for UV germicidal output only for the following: TUVL-100, TUVL-100-OS – one (1) year; TUVL-200, TUVL-200-OS – two (2) years. The UV lamp warranty does not cover cracked or broken lamps due to mishandling or improper application.

Manufacturer's obligation under this warranty is being limited to repairing or replacing any part found to its satisfaction to be so defective. This warranty does not cover parts damaged resulting from misuse, abuse, or any other than its intended use, accident, neglect, or from improper operation, maintenance, installation, modification or adjustments. Triatomic Environmental, Inc. shall have no responsibility for charges incurred by the customer for installation or removal of warranted items.

This warranty does not cover parts or equipment used with the Fresh-Aire UV® AHU Series 1 that are not made by the Manufacturer, since these items are covered by warranties of the respective manufacturer. **This warranty shall be void if UV lamps from manufacturer's other than Triatomic Environmental, Inc. are used with this equipment.**

Manufacturer assumes no liability for any harm, which may occur as a result of the use of the equipment herein and shall not be liable for consequential or any other damages whether or not caused by manufacturer's negligence or resulting from any express or implied warranty or breach thereof. Consequential damages for the purpose of this warranty shall include, but not be limited to, loss of use, income or profit, or loss of or damages to property or injury or death to persons or animals occasioned by or arising out of operation, use, the operation, installation, repair or replacement of the equipment or otherwise.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF