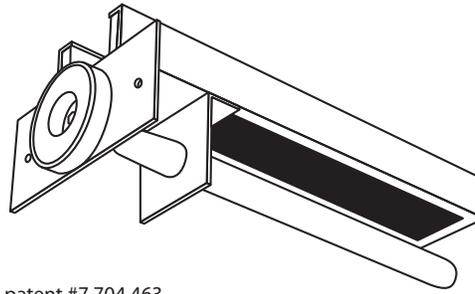


# FRESH-AIRE UV® APCO MAG® IN-DUCT AIR PURIFIER

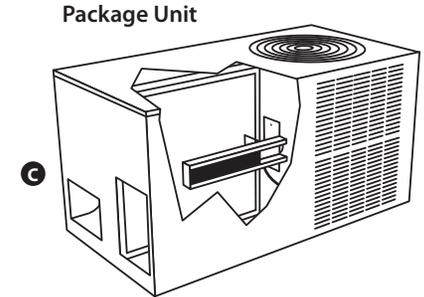
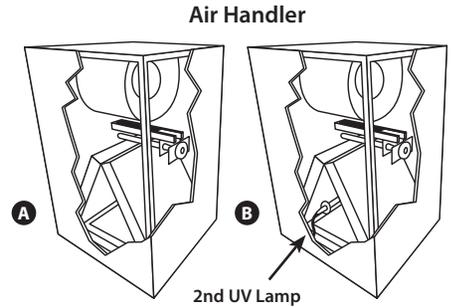
The APCO MAG is installed in the ductwork of the central air system to reduce odors and airborne biological contaminants for improved indoor air quality. The APCO MAG also reduces microbial growth within the air system.

US patent #7,704,463



Typical installations include:

- A** APCO MAG single in air handler
- B** APCO MAG dual in air handler
- C** APCO MAG in Package Unit



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

**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.

**IMPORTANT!**

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

## 2 Installation Notes

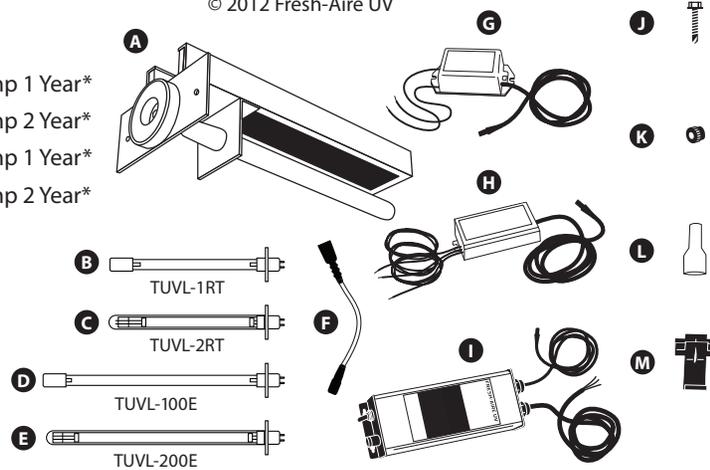
The APCO MAG is usually installed inside the central air handling system. The unit should be oriented so that the air flows past the **UV Light** first then into the **Matrix Element** but a reversed installation is permitted if mounting on the return-side of the coil.

If a second optional UV lamp is used (APCO MAG Dual) select a location inside the air system that will allow it to shine on the greatest surface area or the area with the most evident microbial growth. To install the secondary UV light use the **Optional 2nd Remote UV Light Installation Instructions** provided with APCO MAG Dual.

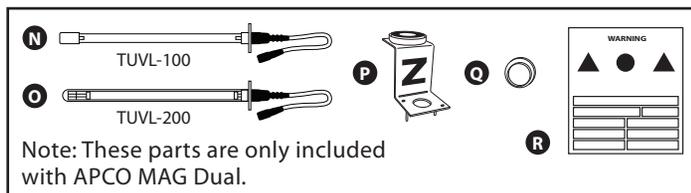
## 1 Parts List

TUV-APCO-MAG-MAN 04.24.12  
© 2012 Fresh-Aire UV

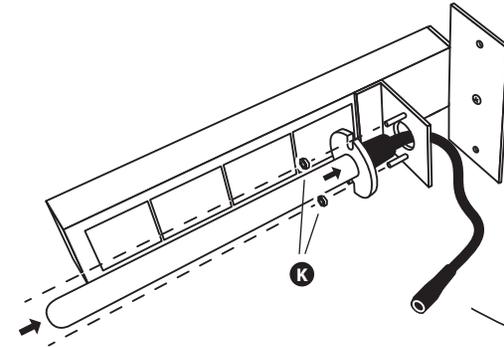
- A** APCO MAG Unit
- B** APCO MAG 11 UV Lamp 1 Year\*
- C** APCO MAG 11 UV Lamp 2 Year\*
- D** APCO MAG 15 UV Lamp 1 Year\*
- E** APCO MAG 15 UV Lamp 2 Year\*
- F** Lamp Cable
- G** ER Power Supply\*
- H** ST/DT Power Supply\*
- I** SI/DI Power Supply\*
- J** Self-tapping Screws
- K** Quick Nut (plastic)
- L** Spade Connector
- M** Tap-in Connector
- N** Optional Remote UV Lamp 1 Year
- O** Optional Remote UV Lamp 2 Year
- P** "Z" Mounting Bracket
- Q** Sight Glass
- R** Warning Sticker



\*Note: only one lamp and power supply are included with APCO MAG.

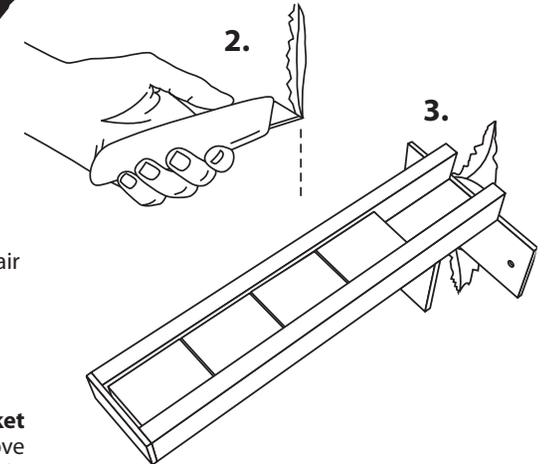


Note: These parts are only included with APCO MAG Dual.



## 3 Mount Lamp

Mount the **UV Lamp** to the **APCO MAG** unit as shown using 2 quick nuts **K**.



## 4 Air Handler Interior Surface Installation

1. Determine the optimal position for placement of **APCO MAG** inside the air system.
2. Use a utility knife to cut a slit in the insulation on the interior surface.
3. Place the **magnetic mounting 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.

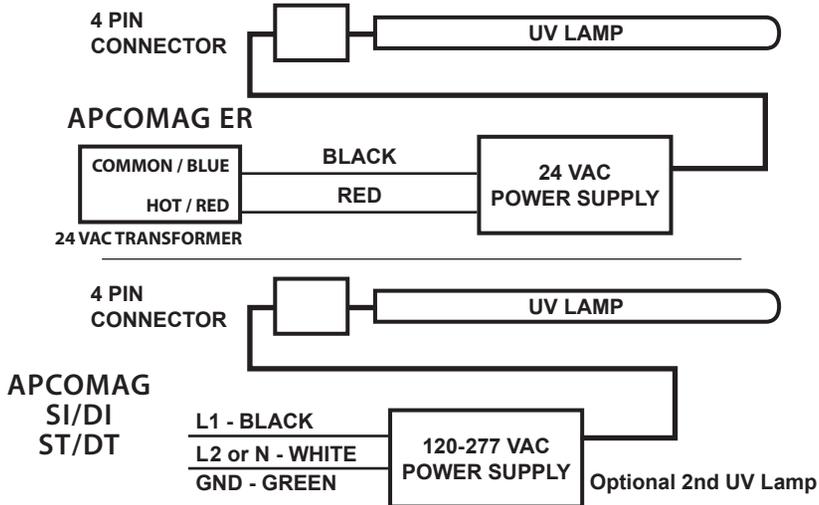
**Important!** do not install the mounting magnet within 12" of digital signal devices as this may cause interference.

## 5 Connecting to Power

### IMPORTANT

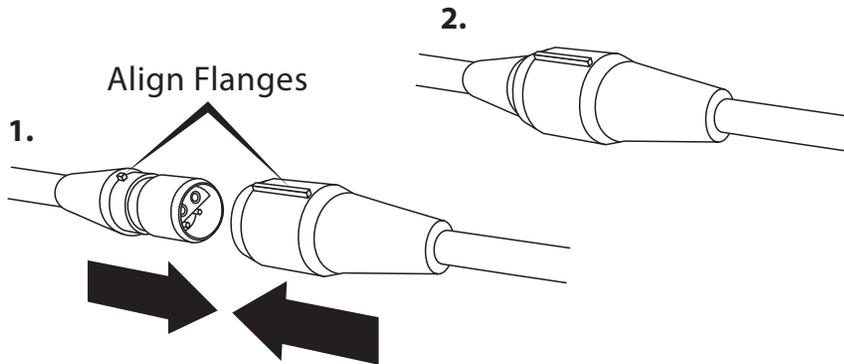
Before connecting to power confirm which APCO MAG model is being installed. Turn off main power source before installation. Model information is printed on the **Power Unit** cover.

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



## 6 UV Lamp Connection

Make sure the flanges are aligned and then push the connectors firmly together. A tight connection ensures a proper water-resistant seal.



### 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.**

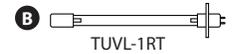
**Draws 16 VA, may need to do load calculation: Volts under load X Amps under load.**

## 7 Lamp Replacement

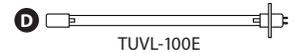
The germicidal UV lamp in APCO needs to be replaced periodically. TUVL-1RT and TUVL100E lamps should be replaced every year. TUVL-2RT and TUVL-200E should be replaced every 2 years.

Note: UV lamps will continue to emit visible light but lose germicidal effectiveness over time. You can upgrade to a 2 year lamp with your existing APCO system.

Replacement lamps for TUV-APCO-MAG11



Replacement lamps for TUV-APCO-MAG15



### 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 Fresh-Aire UV® voids warranty.

### 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 APCO MAG 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 of the equipment, with exception of the Ultraviolet Lamp, which is warranted for UV germicidal output only for the following: TUVL-1XX Series – one (1) year; TUVL-2XX Series – 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.

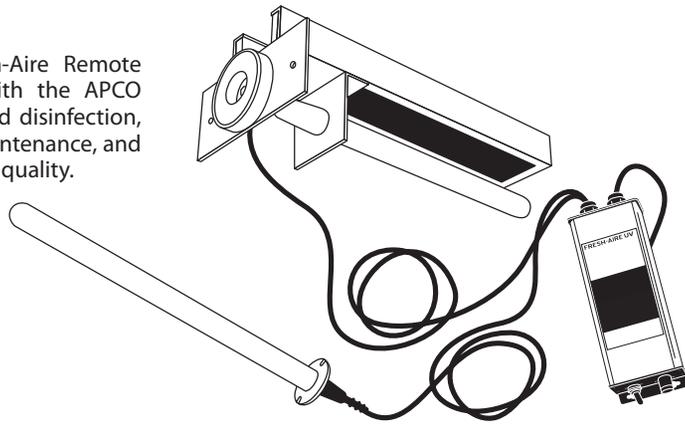
This warranty does not cover parts or equipment used with the Fresh-Aire APCO MAG that are not made by Manufacturer, since these items are covered by warranties of the respective manufacturer. This warranty shall be void if UV lamps from manufacturer's other than Triatomic Environmental, Inc. are used 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  
To obtain warranty service you should contact your local dealer or the part should be shipped at your cost to:

# Optional 2nd Remote UV Light Installation Instructions

The optional Fresh-Aire Remote UV Light works with the APCO system for enhanced disinfection, reduced system maintenance, and improved indoor air quality.



## IMPORTANT!

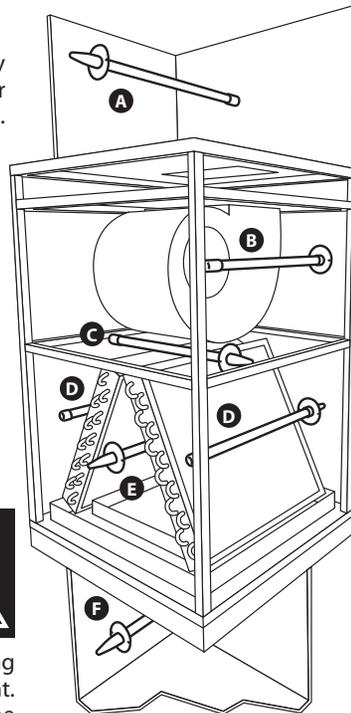
- APCO Dual lamps are wired in series - both must be connected for lamps to light
- Only qualified technicians should install this product
- Install in accordance with relevant building codes
- Read instructions carefully including safety warnings

## 1 Installation Notes

Before installing the Fresh-Aire Remote UV Light 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.

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

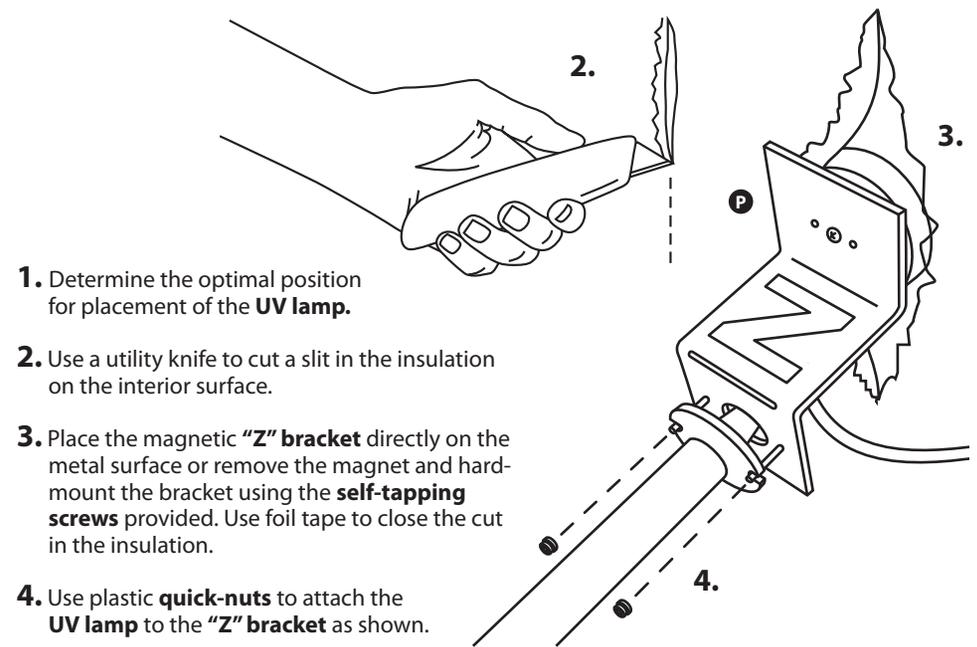


Mounting Options



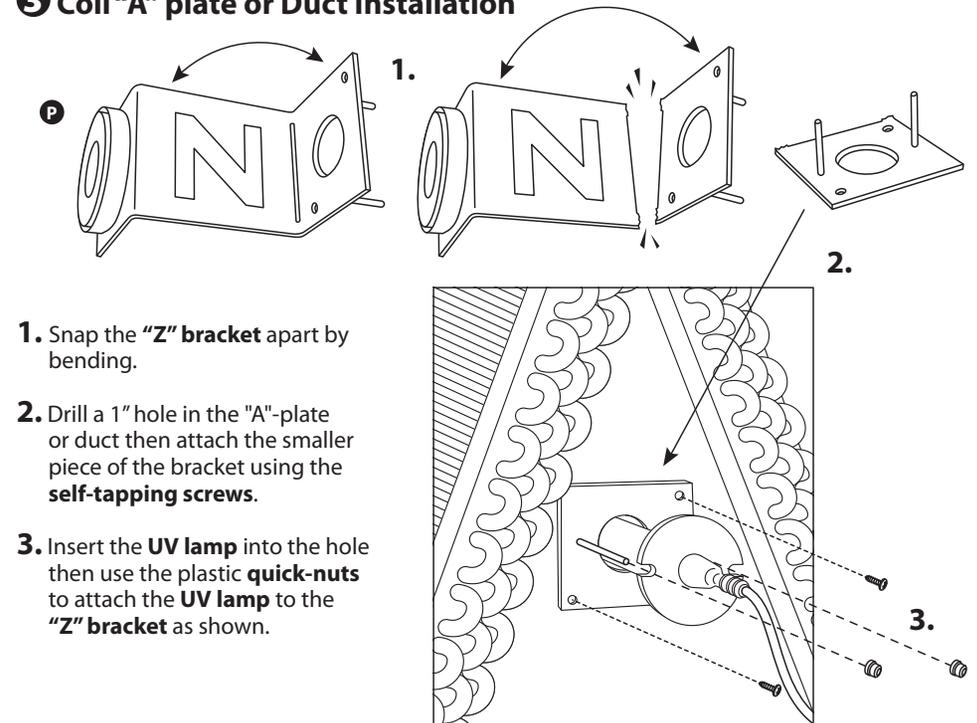
**Important:** some materials inside the air system (including filter media, flex duct, wiring etc.) may not be UV light resistant. Use the optional UV shield (part #TUV-SHIELD-LP) or cover the materials with reflective tape.

## 2 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.

## 3 Coil "A" plate or Duct Installation

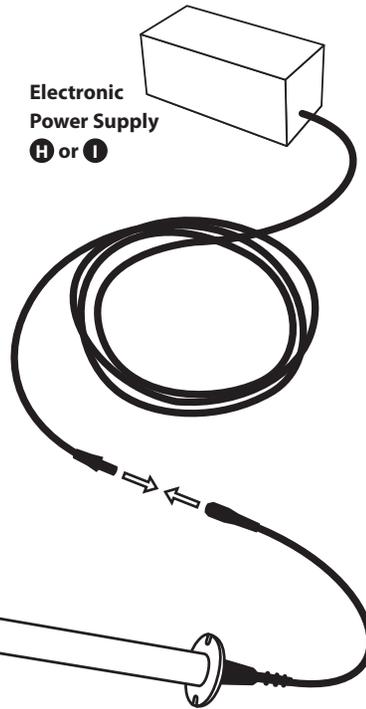


1. Snap the **"Z" bracket** apart by bending.
2. Drill a 1" hole in the "A"-plate or duct then attach the smaller piece of the bracket using the **self-tapping screws**.
3. Insert the **UV lamp** into the hole then use the plastic **quick-nuts** to attach the **UV lamp** to the **"Z" bracket** as shown.

#### 4 Remote UV Light Configuration

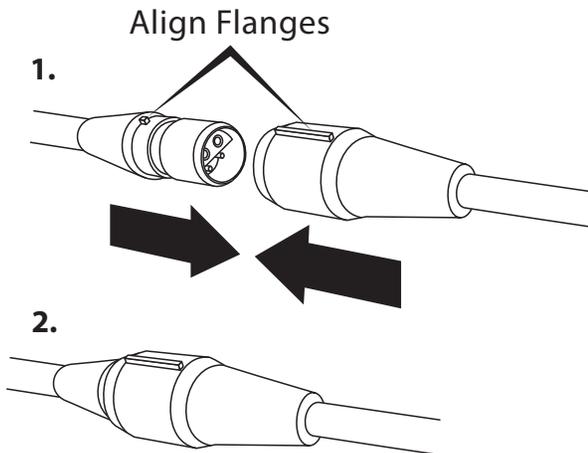
**IMPORTANT!** Only the **APCO MAG Dual** model has the electrical capacity and attached cable for the optional **Remote UV Light**. Simply connect the lamp lead to the optional UV lamp cable on the power supply (PART# ST/DT, SI/DI).

To add a second UV light to an existing **APCO** system that is not a **Dual** model install a separate **Fresh-Aire UV AHU Series 1** or **Blue-Tube UV** system.



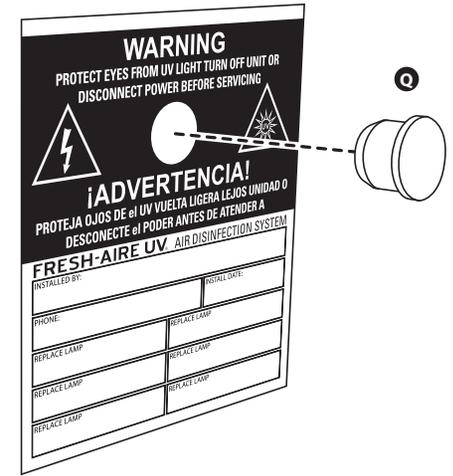
#### 5 Remote UV Lamp Connection

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



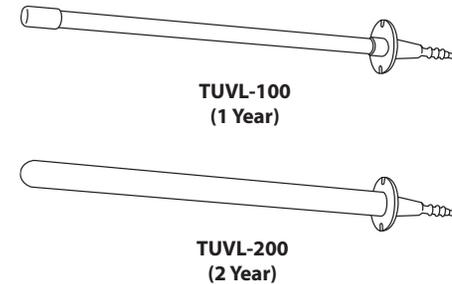
#### 6 Sight Glass Installation

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 ½" 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.



#### 7 Lamp Replacement

The germicidal UV lamp in the **Fresh-Aire Remote UV Light** needs to be replaced periodically. A TUVL-100 lamp should be replaced every year. The TUVL-200 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 with your existing power supply.



#### 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 Fresh-Aire UV® voids warranty.