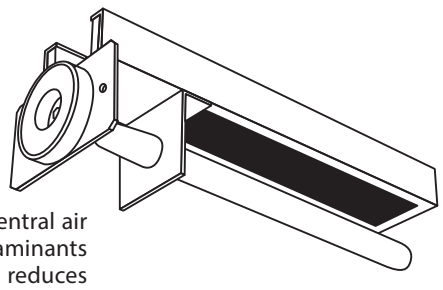
FRESH-AIRE UV

APCO MAG

WHOLE-HOUSE 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

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-LPC) or cover the materials with reflective tape.

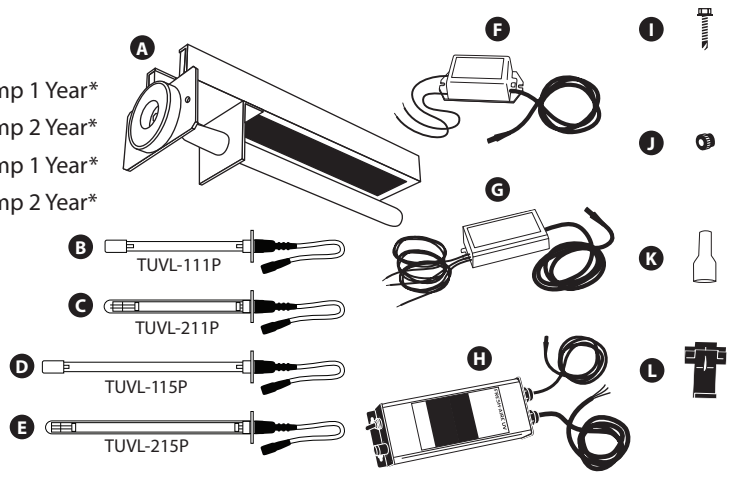
IMPORTANT!
- Only qualified technicians should install this product
- Install in accordance with relevant building codes
- Read instructions carefully including safety warnings

*Installation of this product by anyone other than licensed HVAC or electrical contractors voids warranty.

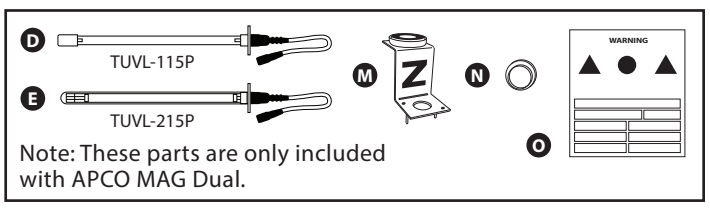
TUV-APCO-MAG-MAN 12.5.16

❶ Parts List

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



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

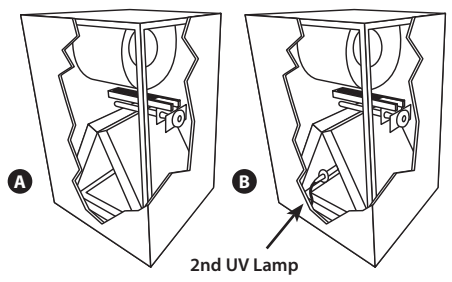


Note: These parts are only included with APCO MAG Dual.

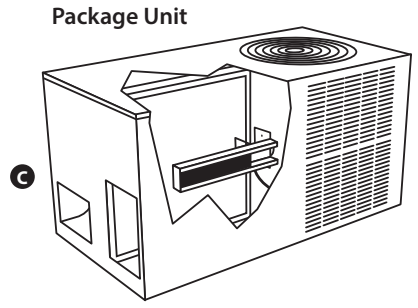
Typical installations include:

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

Air Handler



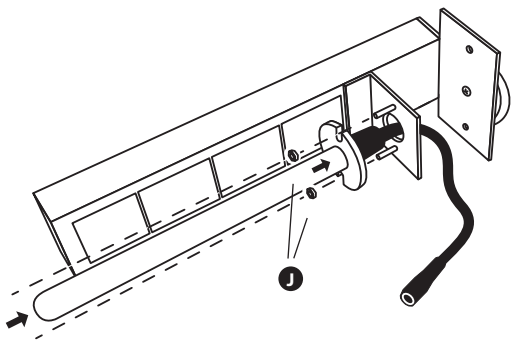
Package Unit



❷ Installation Notes

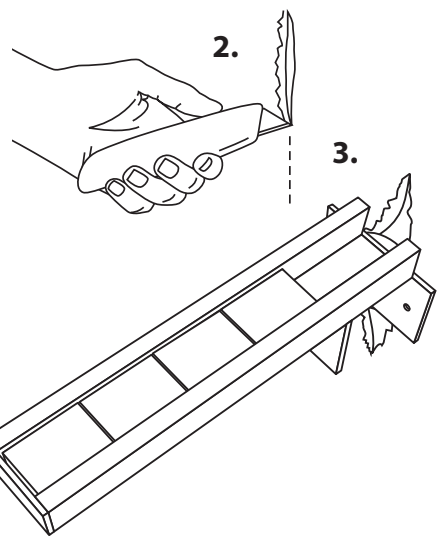
The APCO MAG is usually installed inside the central air handling system. The unit should be oriented so that the air flows past the **UV Light** first then into the **Matrix Element** but a reversed installation is permitted if mounting on the return-side of the coil.

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.



❸ Mount Lamp

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



❹ 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.

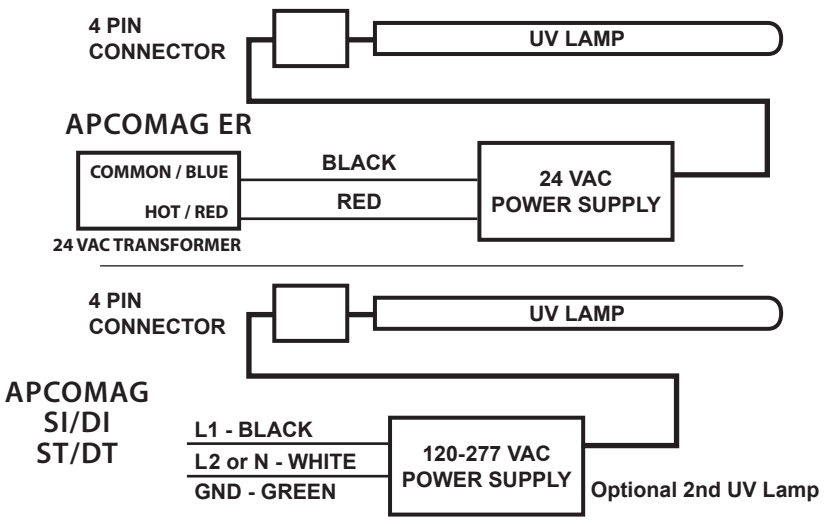
Important! do not install the mounting magnet within 12" of digital signal devices as this may cause interference.

❺ 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.



IMPORTANT!

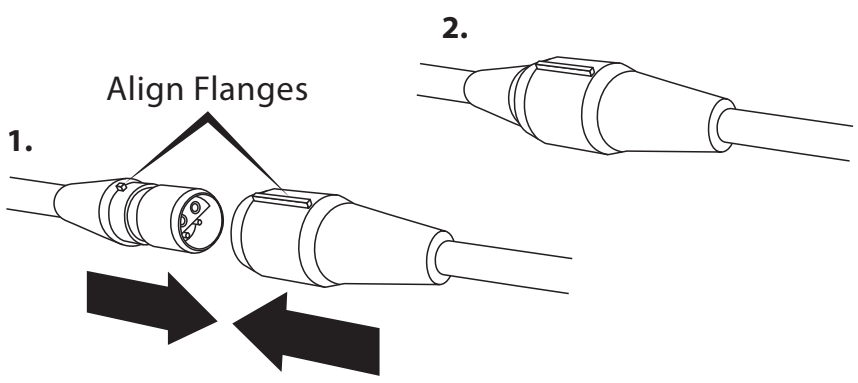
Systems with high 24 VAC loads may require the installation of a separate 24 VAC transformer to power the UV light.

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.

❻ 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.

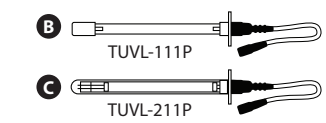


❼ Lamp Replacement

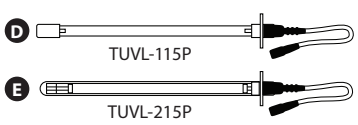
The germicidal UV lamp in APCO needs to be replaced periodically. TUVL-111P and TUVL115P lamps should be replaced every year. TUVL-211P and TUVL-215P should be replaced every 2 years.

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

Note: Use of replacement UV lamps other than Fresh-Aire UV® voids warranty.

Manufacturer's 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.

What Does This Warranty Cover? This lifetime limited manufacturer warranty covers any defects or malfunctions 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.

How Long Does The Coverage Last? 1) Power Supply: For as long as you own the real property where the product is installed. 2) TUVL-1XX Series Ultraviolet Lamp is warranted for germicidal output for one-year from the date of installation. 3) TUVL-2XX Series Ultraviolet Lamp is warranted for germicidal output for two (2) years from the date of installation. This warranty is not transferable.

What Will Triatomic Environmental, Inc. Do? Triatomic Environmental, Inc. will replace any defective or malfunctioning part at no charge. You must pay any labor charges and shipping charges of defective product to our warranty department.

What Does This Warranty Not Cover? THIS PRODUCT IS NOT INTENDED TO BE PURCHASED AND INSTALLED BY UNLICENSED HVAC OR ELECTRICAL CONTRACTORS. This warranty does not cover products or parts purchased from any source other than licensed HVAC or electrical contractors. This warranty does not cover parts installed by unlicensed HVAC or electrical contractors. This warranty does not cover parts damaged as a result of misuse, abuse, or any use other than its intended use, accident, acts of god, 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 system that are not manufactured by Triatomic Environmental, Inc.

**This warranty shall be void if UV lamps from manufacturer's other than Triatomic Environmental, Inc. are used with this equipment.

Consequential and incidental damages are not recoverable under this warranty. 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. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

There are no Warranties which extend beyond the description of the face hereof.

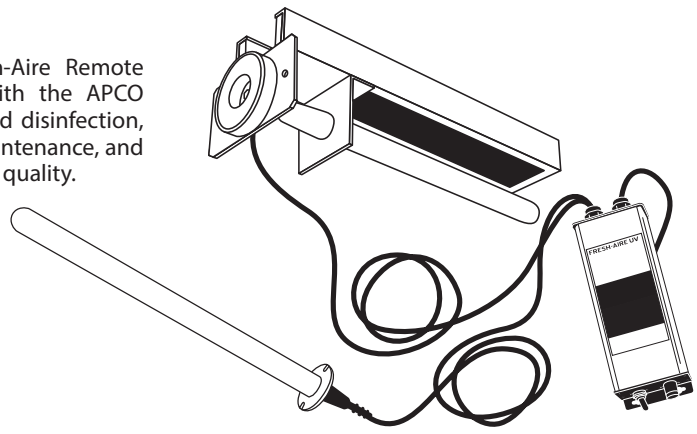
How Do You Get Service? In order to be eligible for service under this warranty you MUST return the warranty registration card or register online at www.freshaireuv.com. If something is wrong with your product, call your installing contractor to receive a Return Merchandise Authorization (RMA) and instructions for returning the product to a licensed distributor in your area or the manufacturer.

Once the product is returned, we will inspect your product and contact you within 10 business days of our receipt of the product to give the results of our inspection. If we determine that the product is covered under this warranty, we will ship to you at no additional cost a replacement part. Replacement parts may be refurbished. If we determine that the product is not covered under this warranty, or that this warranty is void, the product will be returned to you COD. There is no charge for inspection.

How Does State Law Apply? This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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.

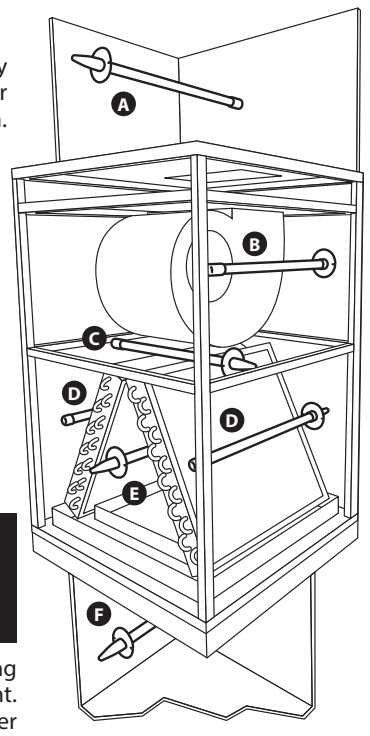


IMPORTANT!
- APCO Dual lamps are wired in series - both must be connected for lamps to light
- Only qualified technicians should install this product
- Install in accordance with relevant building codes
- Read instructions carefully including safety warnings

❶ 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:
- Ⓐ Supply-side duct
- Ⓑ At the blower
- Ⓒ Across top of coils
- Ⓓ Coil face
- Ⓔ Coil "A" plate
- Ⓕ Return-side duct

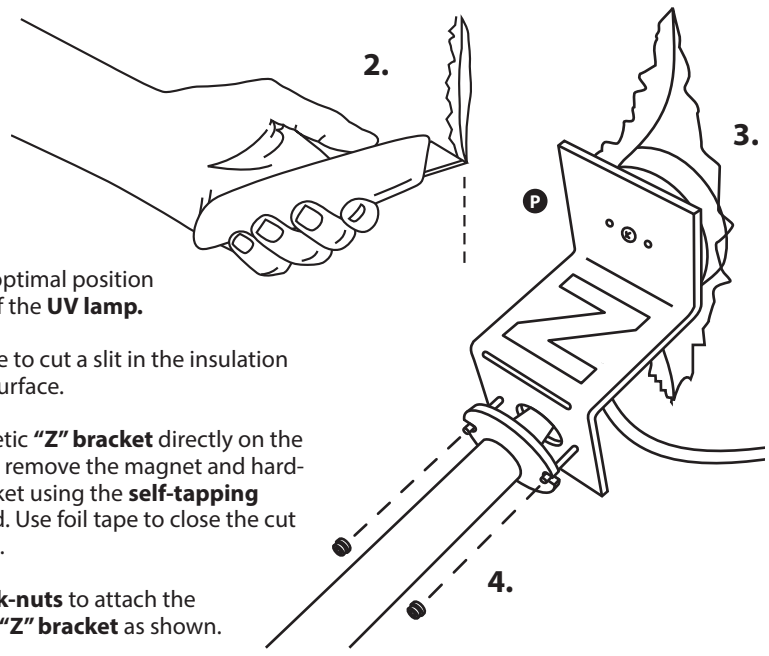


Mounting Options

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

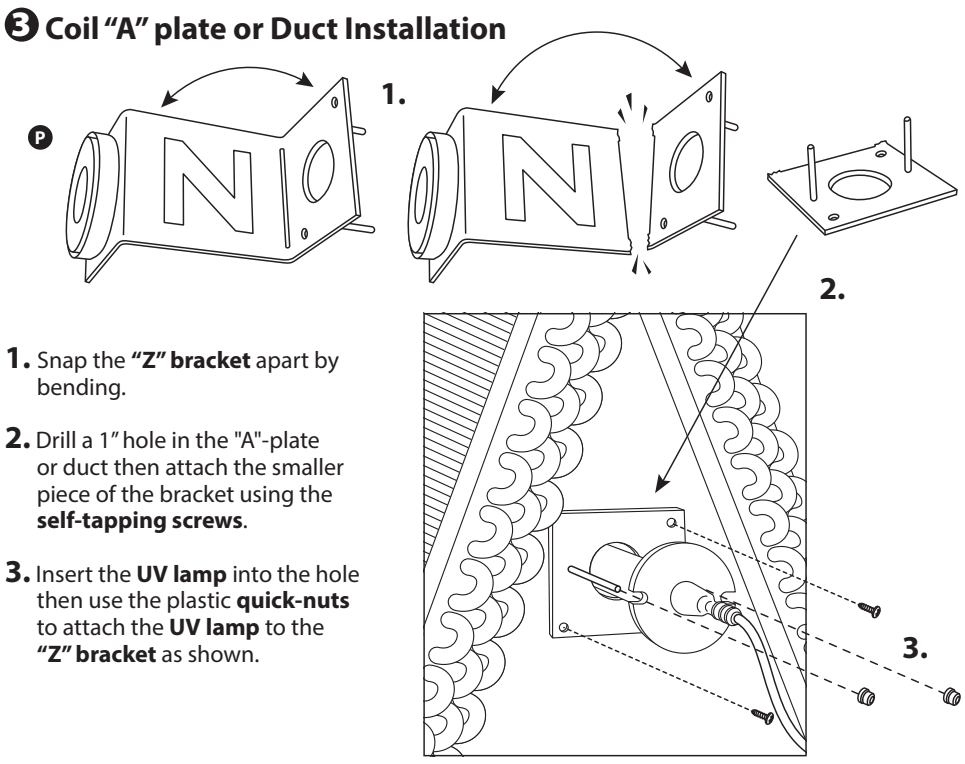
Important: some materials inside the air system (including filter media, flex duct, wiring etc.) may not be UV light resistant. Use the optional UV shield (part #TUV-SHIELD-LPC) or cover the materials with reflective tape.

❷ 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.

❸ Coil "A" plate or Duct Installation

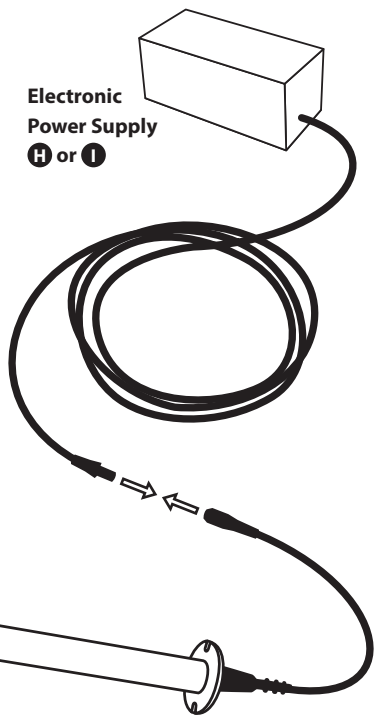


1. Snap the **"Z" bracket** apart by bending.
2. Drill a 1" hole in the "A"-plate or duct then attach the smaller piece of the bracket using the **self-tapping screws**.
3. Insert the **UV lamp** into the hole then use the plastic **quick-nuts** to attach the **UV lamp** to the **"Z" bracket** as shown.

❹ Remote UV Light Configuration

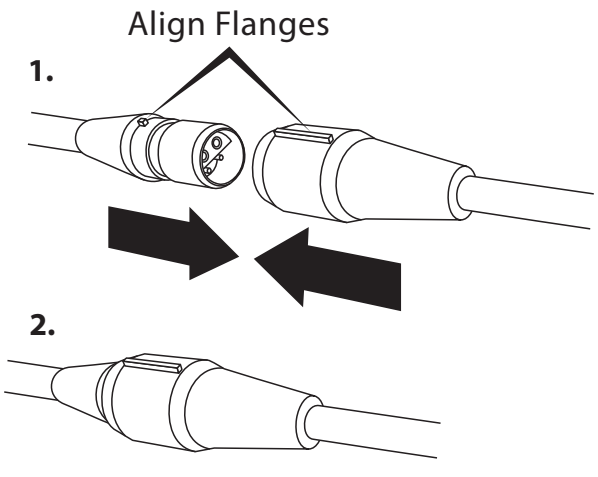
IMPORTANT! Only the **APCO MAG Dual** model has the electrical capacity and attached cable for the optional **Remote UV Light**. Simply connect the lamp lead to the optional UV lamp cable on the power supply (PART# ST/DT, SI/DI).

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.



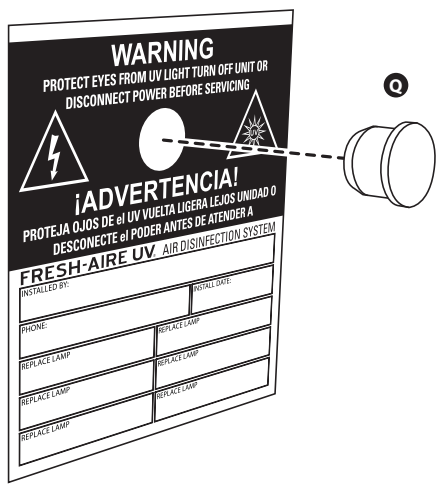
❺ Remote UV Lamp Connection

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.



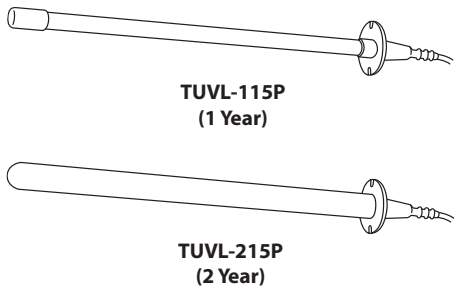
❻ Sight Glass Installation

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.



❼ Lamp Replacement

The germicidal UV lamp in the **Fresh-Aire Remote UV Light** needs to be replaced periodically. A TUVL-115P lamp should be replaced every year. The TUVL-215P 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.



TUVL-115P
(1 Year)

TUVL-215P
(2 Year)

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

Note: Use of replacement UV lamps other than Fresh-Aire UV® voids warranty**.**