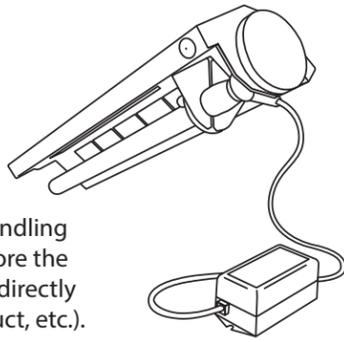


APCO-X MAG

AIR TREATMENT SYSTEM

APCO-X MAG is usually installed inside the central air handling system. Orient so the air flows past the UV light first before the carbon. Position the unit so the UV light does not shine directly on non-uv-resistant materials (filters, humidifiers, flex duct, etc.). Ideally the UV light shines on the coil.

For dual systems select a remote UV light location that shines on the greatest surface area or the area with the most microbial growth. Refer to the Optional Remote UV Light section for installation instructions.



IMPORTANT!

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

WARNING!

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

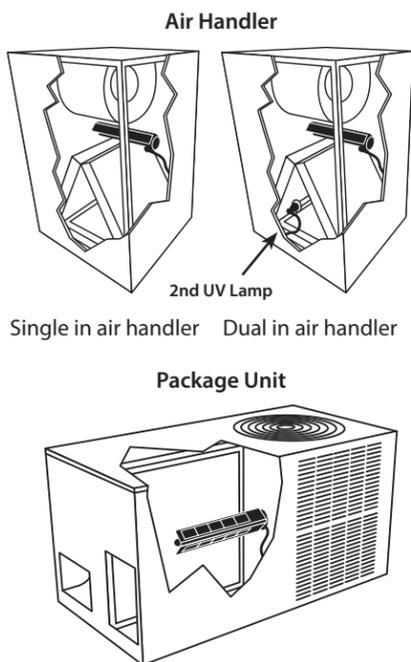
*Installation of this product by anyone other than licensed HVAC or electrical contractors voids warranty.
© Fresh-Aire UV LIT-FAUV-APCO-X-MAG-MAN 022322 US patent #7,704,463

1 Installation Notes

The APCO-X 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.

A second remote UV lamp is included with APCO-X 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-X MAG Dual.

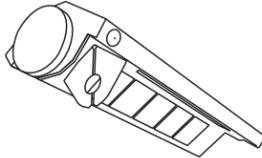
Typical installations include:



APCO-X MAG Parts List

A

Main Unit



15" UVC Lamp

B

PART: TUVL-315 LIFE: 3 Year

11" UVC Lamp

C

PART: TUVL-311 LIFE: 3 Year

Small Parts

G

Self-tapping Screws

H

Quick Nut (plastic)

I

Spade Connector

Power Supply

D

ER Power Supply (low voltage)

E

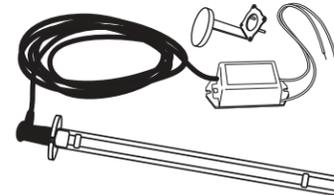
ST Power Supply (line voltage)

F

DT Dual Power Supply

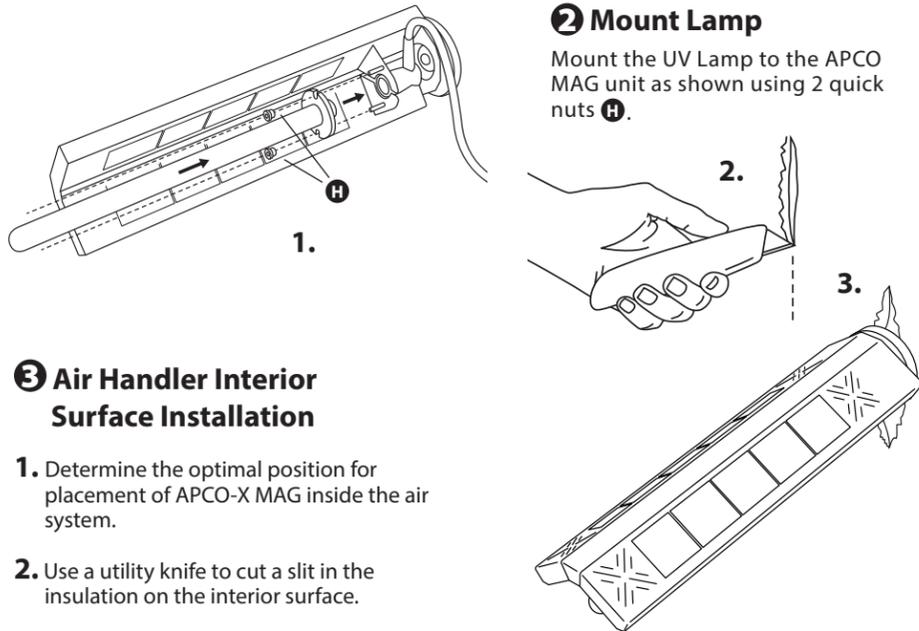
2nd Remote UV Light (APCO-X Mag Dual only)

See second page for installation instructions



2 Mount Lamp

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



3 Air Handler Interior Surface Installation

1. Determine the optimal position for placement of APCO-X 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.

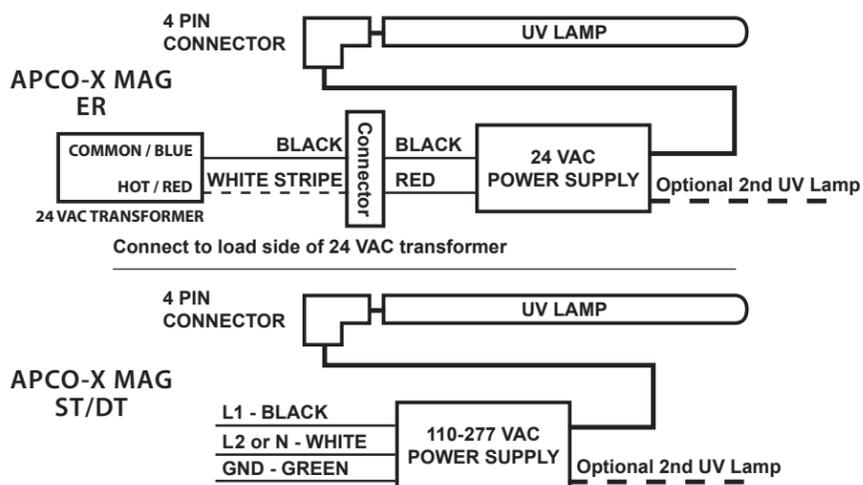
Important! do not install the mounting magnet within 12" of digital signal devices as this may cause interference.

4 Connecting to Power

IMPORTANT

Before connecting to power confirm which APCO-X Mag model is being installed. Turn off main power source before installation. Always use proper conduit fittings and terminations.

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



IMPORTANT!

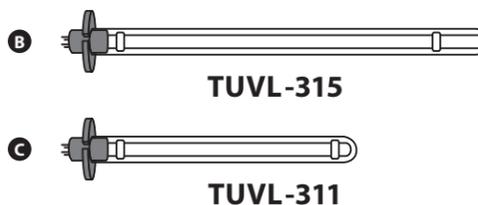
Systems with high 24 VAC loads may require the installation of a separate 24 VAC transformer to power the UV light.

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.

5 Lamp Replacement

The UV lamp in APCO-X MAG (model TUVL- 315 or TUVL- 311) should be replaced every 3 years. Note: UV lamps will continue to emit visible light but lose germicidal effectiveness over time.



CAUTION!

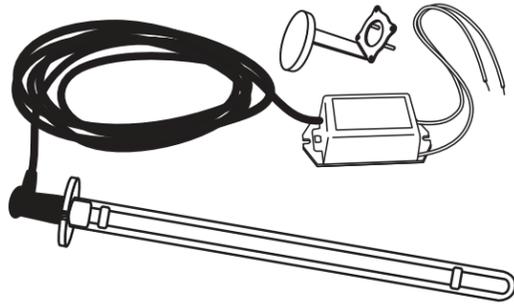
UV Lamps contain small amounts of mercury - dispose of lamps in accordance with local environmental regulations. For more information visit www.lamprecycle.org

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

2nd Remote UV Light (APCO-X Mag Dual only)

Installation Instructions

The 2nd Remote UV Light is installed inside the HVAC system to reduce biological contamination on the coil and surrounding areas.



DESIGNED & ASSEMBLED IN THE U.S.A.

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

WARNING!

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

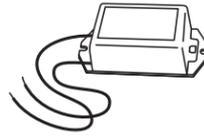
*Installation of this product by anyone other than licensed HVAC or electrical contractors voids warranty.
© Fresh-Aire UV

2nd Remote UV Light Parts*

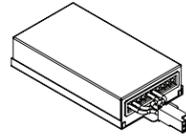
A Lamp: (TUVL-315) LIFE: 3 Years



B "ER" 18 - 32 VAC Power Supply



C "ST" 110 - 277 VAC Power Supply



D Lamp Cable



E Self-tapping Screws



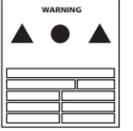
F Quick Nuts (plastic)



G Tap-in Connector



H Panel sticker



I Sight Glass



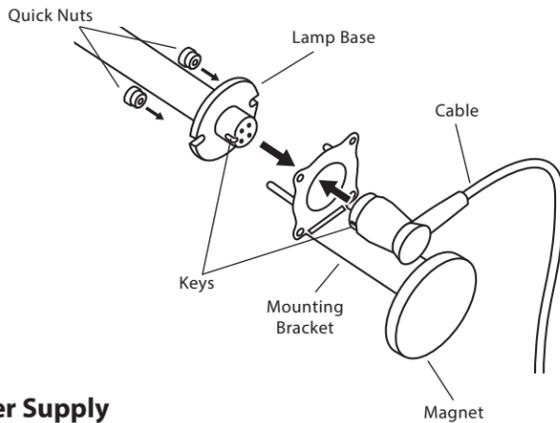
J Magnetic Mounting Bracket



*Parts included with your kit will vary depending on model.

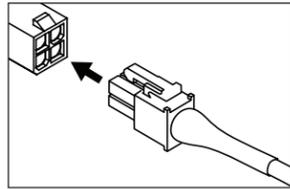
STEP 1: Lamp, Cable & Mounting Magnet Assembly

1. Pass lamp base through hole in magnetic mounting bracket.
2. Align keys on lamp and cable, press firmly together.
3. Fasten the lamp base to the magnetic mounting bracket using quick nuts.

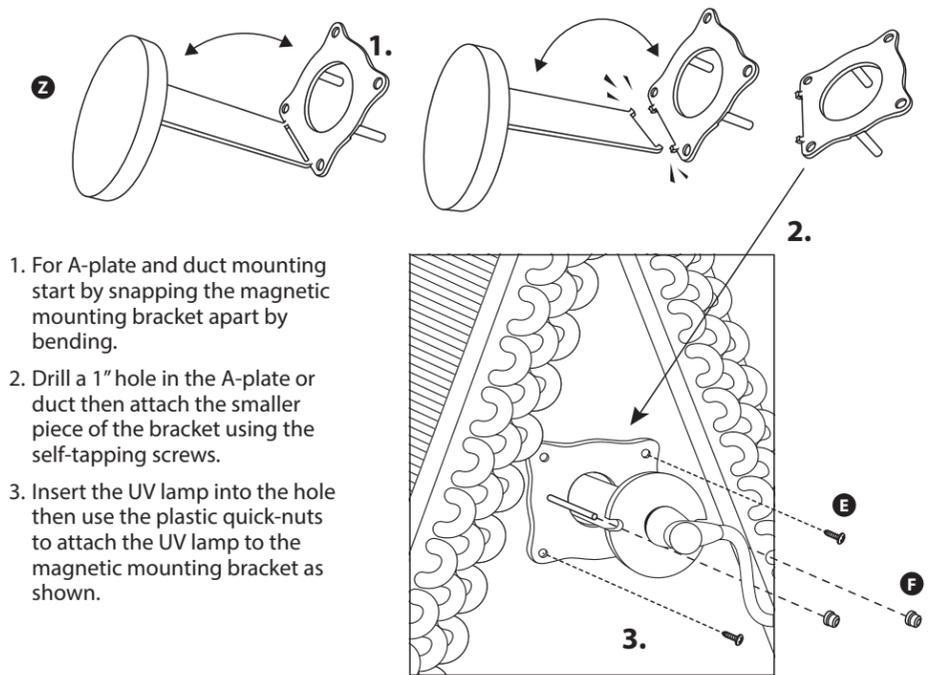


STEP 2: Cable Routing & Power Supply

1. Determine the best location for the power supply close to the air system's electrical components.
2. Route the lamp cable through the air system to the power supply.
3. Connect the lamp cable to the power supply by aligning the square connectors, then press firmly together until latch catches.



STEP 1B: Coil A-Plate or Duct Mounting

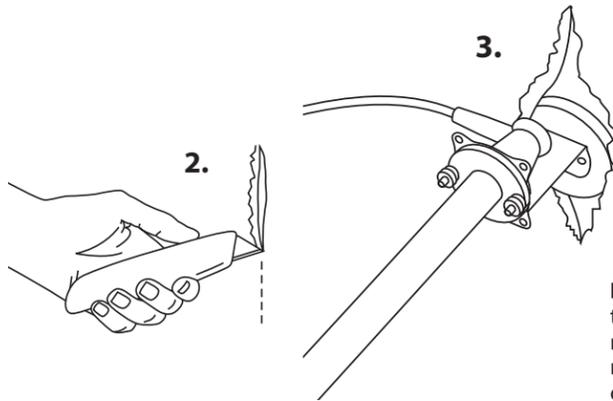


1. For A-plate and duct mounting start by snapping the magnetic mounting bracket apart by bending.
2. Drill a 1" hole in the A-plate or duct then attach the smaller piece of the bracket using the self-tapping screws.
3. Insert the UV lamp into the hole then use the plastic quick-nuts to attach the UV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

STEP 2: UV Lamp Installation

Surface Mount

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 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: 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.

STEP 3: Power Supply & Electrical

IMPORTANT! Check which power supply is included with your 2nd Remote UV Light before connecting to power. Turn off main power source before installation.

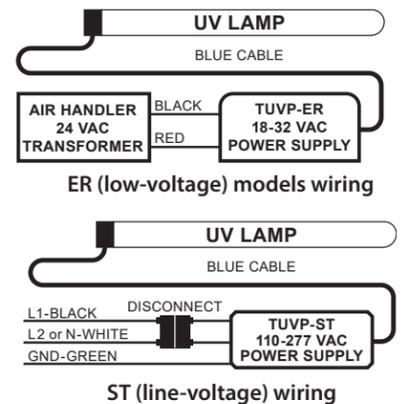
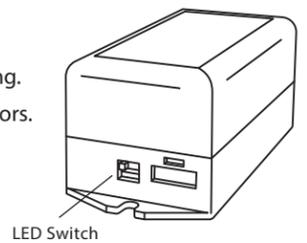
1. Find a suitable location for the power supply inside the control panel of the air handler. Install using the self-tapping screws.
2. Use the wiring diagrams to connect to power.

The low-voltage power supply connects to the air system's 24 VAC transformer (or add a 24 VAC transformer as needed).

Line-voltage power supplies connect directly to 120-277 VAC power.

"ER" Power Supply LED functions

- LEDs are visible through the translucent Power Supply housing.
1. Confirm LED Switch is in left position to enable LED indicators.
 2. Blue LED indicates normal operation.
 3. Red LED indicates lamp fault
 4. No LEDs indicates no power.



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

STEP 3: Power Supply & Electrical Cont.

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

STEP 4: UV Warning Sticker & Safety Sight Glass

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 circle on the sticker. Press the Sight Glass into hole.
3. Turn on the power and use the sight glass to confirm that the UV Lamp is operating.

