

UVL-FCU Ultraviolet Lamp Kits for Fan Coil and PTAC Units

PRODUCT DATA

APPLICATION

Honeywell UVL-FCU kits make it possible to realize all the benefits of germicidal UV light in limited space applications including most of the fan coil units and PTACs found on the market today. The kit features a low-profile lamp with metal shield and mounting magnet as a means for locating the UV light within these units for optimum UV exposure particularly where space is limited.

FEATURES

- UV-C light irradiates coil, killing mold, bacteria and viruses
- Installs in the tightest spaces such as PTACs and Fan Coil Units
- Weather resistant remote mountable UV lamps with magnetic mounting shield
- 18-32 or 110-277 VAC power supply with flexible mounting options
- Reduces system maintenance
- Kit includes power supply, 6 foot lamp cable, UV lamp and shield, magnetic mounting hardware and panel indicator

SPECIFICATIONS

Models:
See Table 1.

Efficiencies:

99.9% disinfection of irradiated surfaces when properly positioned

Approvals:

ETL/CSA, RoHS standard 2011/65/EU
EPA Est. No. 075179-FL-2

Electrical Ratings:

Power Rating:

UVL-FCU-LINE: 120-277 Vac, 50/60 Hz
UVL-FCU-LOW: 18-32 Vac, 60Hz

Current Rating:

UVL-FCU-LINE: 0.51 A @ 120 Vac, 0.22 A @ 277 Vac
UVL-FCU-LOW: 0.68 A, 16 VA

Dimensions:

Power Supply:

UVL-FCU-LINE: 5.0 in x 1.1 in x 2.4 in (127 mm x 27.9 mm x 61.0 mm)
UVL-FCU-LOW: 4.1 in x 1.7 in x 1.8 in (104 mm x 43.2 mm x 45.7 mm)

Bulb: 1 inch diameter x 14 inch length (25.4 mm diameter x 356 mm length)

Spectrum:

100% 254 nm Germicidal UV-C

Bulb Type:

Shielded Quartz Hot Filament

Bulb Life:

18000 hours

Accessories:

UVL-FCU-LAMP Replacement UV-C lamp

Table 1. Models.

Part Number	Description	Replacement Lamp	Power Supply*
UVL-FCU-LINE	FCU/PTAC 110-277 Vac, 50/60 Hz	UVL-FCU-LAMP (MFG# TUVL-200EZ)	(MFG# TUVL-ST-CE)
UVL-FCU-LOW	FCU/PTAC 18-32 Vac, 60 Hz	UVL-FCU-LAMP (MFG# TUVL-200EZ)	(MFG# TUVL-ER)

* Power supply not available for purchase outside of kit



PLANNING THE INSTALLATION

⚠️ WARNING

Only qualified technicians should install this product.

Install so that direct UV light is not visible in occupied space.

Install in accordance with relevant building codes. Read instructions carefully including safety warnings.

Parts Included

- A. UV Lamp & Shield
- B. “LOW” Power Supply*
- C. “LINE” Power Supply*
- D. Self-Tapping Screws
- E. Replacement O-Rings
- F. Tap-in Connectors (LOW model)
- G. Spade Connectors (LINE model)
- H. Sight Glass
- I. Slit-Loom protector
- J. Warning sticker
- K. Zip-Tie
- L. Zip-Tie Base

* Kit includes one power supply “LOW” or “LINE” depending on model

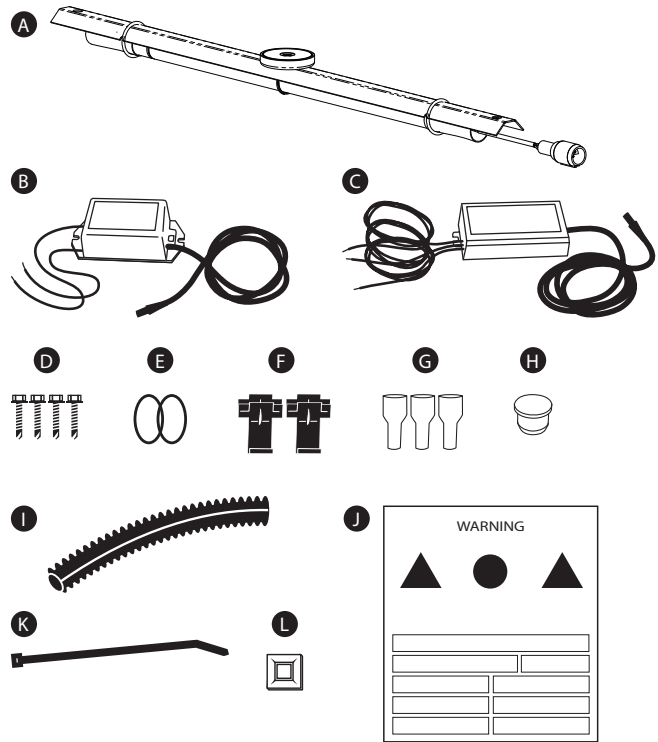


Fig. 1. Parts

⚠️ WARNING

Be careful of damage to equipment.

Ultraviolet light can cause color fading or degraded structure of plastic material found in HVAC equipment, avoid plastic material or equipment with unknown performance against ultraviolet light in the area of irradiation.

⚠️ WARNING

UV Light Hazard.

Harmful to bare skin and eyes.

Can cause temporary or permanent loss of vision.

Do not look at the UV lamp when lighting is on. Use indicator light on the ballast to check status. In order to prevent exposure to UV light, before repair of any parts of HVAC system, shut off power supply to UV system. Do not install in a position where UV lamp is visible during normal operation of HVAC equipment.

INSTALLATION

When Installing This Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.

⚠️ WARNING

Electric Shock Hazard.
Can cause electrical shock or equipment damage.
 Do not connect to power before installation is complete.

Installation in PTACs and Fan Coils

1. Determine the best position for placement of the UV lamp and power supply. (Fig. 2-Fig. 4)
2. Position lamp for best UV exposure and to minimize light leakage into the room.
3. Locate lamp so it irradiates wet side of coil and/or blower areas where fouling is present.
4. Mount lamp with magnet or self-tapping screws.
5. Apply warning/replacement lamp sticker to outside of unit (see Sight Glass Installation).

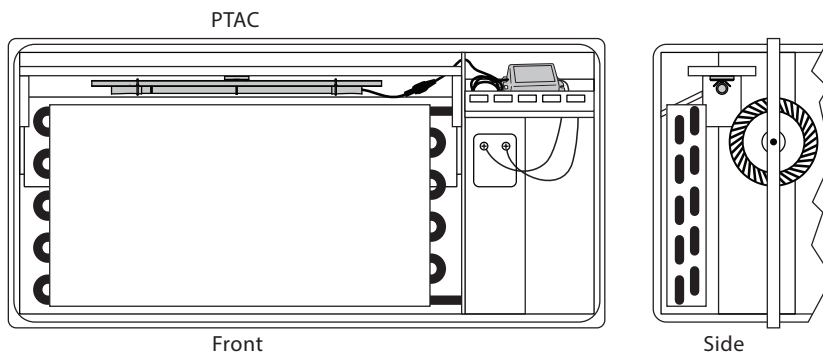


Fig. 2. Example PTAC Installation

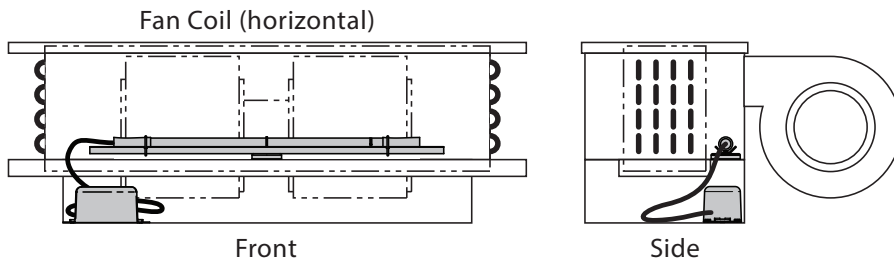


Fig. 3. Example Fan Coil (horizontal) Installation

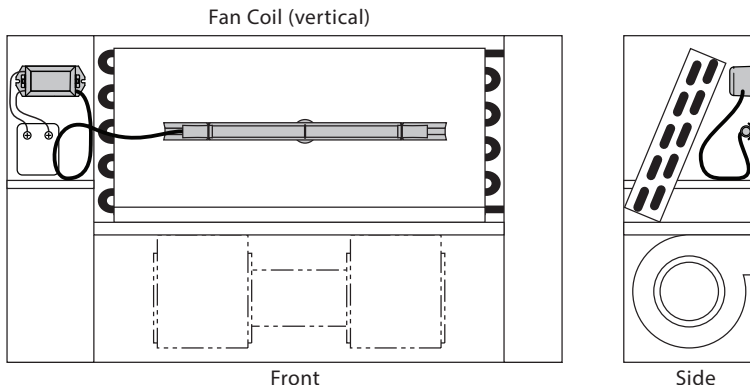


Fig. 4. Example Fan Coil (vertical) Installation

CAUTION

**Breakable Glass Hazard.
Can cause personal injury.**

Be careful when inserting bulb(s) into lamp base.
Wear protective gloves when handling bulb(s).



MERCURY NOTICE

This device contains mercury in the sealed ultraviolet bulb(s). Do not place your used bulb(s) in the trash. Dispose of properly.

Broken Bulb Cleanup.

Do not use a household vacuum. Sweep debris into a plastic bag and dispose of properly.

Contact your local waste management authority for instructions regarding recycling and the proper disposal of old bulb(s).

Power Supply Installation

IMPORTANT

The UVL-FCU components are designed to withstand the typical ambient temperatures found near fan coil and PTAC heating elements up to a constant 194°F (90°C). If installing the lamp near a heating element, secure the wires as far away from the heating elements' wires as possible to prevent them from touching the element. In addition, use the included slit loom tubing for additional protection of the power supply wires that may be mounted near the heating elements.

Find a suitable location for the power supply inside the control panel of the air handler. Install using the self-tapping screws.

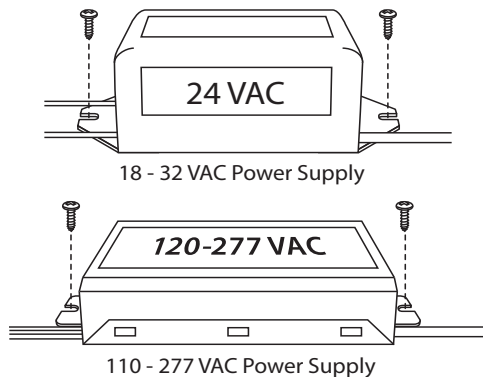


Fig. 5. Power Supply Installation

Sight Glass Installation

Sight glass may not be needed if reflected UV light is visible.

1. Find a suitable location on the outside of the unit near the UV lamp installation and apply the warning/lamp replacement sticker.
2. Drill a ½ inch hole through the orange circle on the sticker. Press the UV safety viewport into the hole.
3. When power is connected the sight glass can be used to confirm the UV lamp is operating.

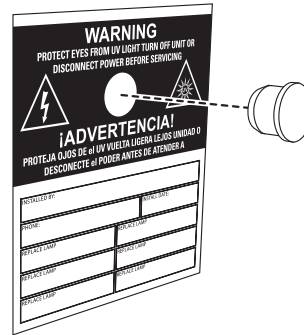


Fig. 6. Sight Glass Installation

WIRING



WARNING

Electric Shock Hazard.

Can cause personal injury.

Turn off main power before making electrical connections.

IMPORTANT

Check which power supply is included with your UVL-FCU kit before connecting to power.

Use the wiring diagrams below (Fig. 7) to connect to power. The low voltage power supply (18 to 32 VAC) is marked "LOW". The high voltage (120 to 277 VAC) power supply is marked "LINE".

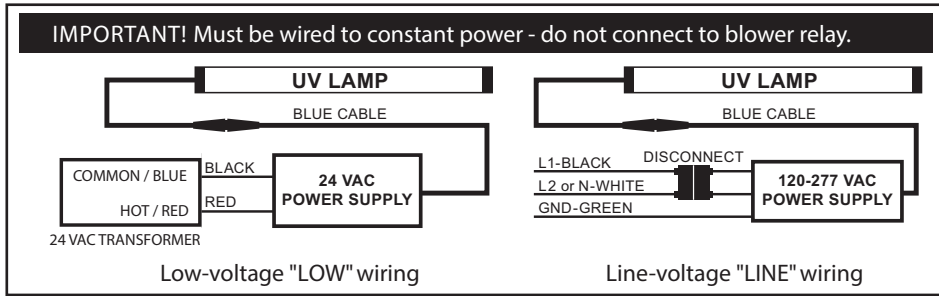


Fig. 7. Electrical Connections

Connect Lamps and Cables

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

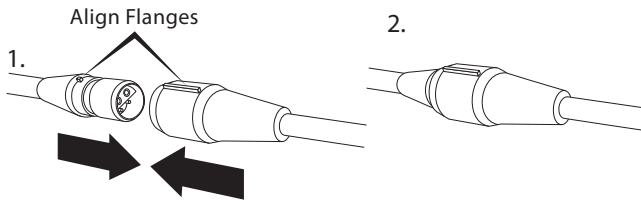


Fig. 8. UV Lamp Connection

MAINTENANCE

Honeywell UVC lights are made of Hard Quartz. Unlike Soft Quartz, these lamps do NOT need to be wiped of grease or other contaminants, and are NOT affected by humidity. They are warranted for 2 years of UVC output, to 60% of their original output. Sizing guidelines are based on the end of lamp life output levels.

Honeywell UV lamps are rated for two years germicidal effectiveness. The visible blue light will continue to illuminate, but does NOT have any germicidal effectiveness. Bulbs must be replaced on schedule for the system to function properly.

IMPORTANT

Use only Honeywell replacement lamps. Use of replacement lamps from other manufacturers voids the warranty. See Table 1 for replacement lamp part numbers.

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