





UV Disinfection for Mini-Split Ductless Air Conditioning Units

### **Owner's Guide**

UVM-107 UVM-207

### Ultravation, Inc.

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# Thank you for purchasing an Ultravation® Professional Indoor Air Quality Product

# M-Series UV – UV Disinfection for Mini-Split Ductless Air Conditioning Units

#### **Package Contents:**

- UV lamp(s) with mounting bracket/shield
- · Single lamp use adapter
- 120-240 VAC power supply with diagnostics
- Manual

Warranty Card

#### **SAFETY PRECAUTIONS:**

It is recommended that this unit be installed and maintained by a trained technician.



WARNING: UV Hazard. Always protect eyes from ultraviolet light.

NEVER look at UV lamps in operation. Unplug or disconnect power before re-lamping or servicing.



WARNING: Severe eye damage or temporary blinding may occur.



WARNING: DO NOT operate outside of A/C unit. Mount lamp module accordingly first.



WARNING: No openings in HVAC system are allowed which would give direct line-of-sight to the UV light. It is normal to see reflected blue light depending on installation.

In the event of accidental breakage or replacement of the ultraviolet lamp, please ensure that the lamp is disposed of in accordance with local and state environmental laws regarding fluorescent lamps containing mercury.

**Notice:** All wiring inside air handling system in direct line of site of the UV lamp must be shielded with aluminum foil tape or equivalent non-combustible material. When installing this unit, select a mounting location that prevents ultraviolet light exposure of plastic components with unknown resistance to ultraviolet light. Ultraviolet light may cause color shift or structural degradation of plastic components.

#### Warranty

Ultravation warrants this product against any defects in the UVC lamp power supply for a period of three years after date of consumer purchase, with the exception of the ultraviolet lamp, which is warranted for a period of one year after date of consumer purchase.

This warranty does not include damage to the unit from accident, misuse or improper installation. If this product should become defective during the warranty period, Ultravation will repair or elect to replace the product free of charge.

Ultravation will return repaired or replaced warranted products pre-paid, provided that the product was delivered pre-paid. Ultravation shall have no responsibilities for charges incurred by the customer for installation or removal of warranted items. Liability is limited only to the replacement or repair of this product.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. All returns must be accompanied by a return authorization number, which may be obtained by contacting Ultravation, Inc.

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#### **Troubleshooting**

Ultravation® UV disinfection equipment is designed to provide many years of trouble free operation. In the unlikely event of a problem, please contact your local HVAC professional or Ultravation directly. Before calling for service, you should have the model number, serial number, and purchase date.

If you are troubleshooting the unit, please check the following:

- Verify if in fact the UV lamp(s) is on or off—but never look at a UV lamp in operation! You can safely confirm operation by viewing the LED display on the power supply.
- Verify the unit has power. Check voltage requirement on power supply label and confirm proper power is supplied.
- Be sure lamps are securely plugged into their sockets, no loose wires, and in the correct orientation. (See page 4 and 5 of this manual.)
- If possible install a new lamp to determine whether the problem is the lamp or the power supply.

Remember: DO NOT look at UV light without proper eye protection.

#### **System Display**

- When the **red light is flashing**, the lamp(s) need to be replaced.
- The **green light** indicates normal operation.
- A **beeping sound** will be heard when the red light is flashing. The audible alarm (only) automatically stops after 20 minutes.



#### **Maintenance**

## Never perform maintenance on the UV unit without disconnecting power.

Typical maintenance consists of replacement of the ultraviolet (UV) lamps. UV lamps undergo a photochemical process during operation, that slowly reduces the amount of UV light generated to disinfect the air and surfaces. For optimum disinfection, UV lamps should be replaced annually. (See below: "Important Information about UV lamp replacements".)

When installing new lamps, ensure that the lamp glass is free from any fingerprints or debris, as this may alter the path of the UV energy. Use rubbing alcohol and a dry cloth to remove any surface contamination.

#### Important information about UV lamp replacements

Replace UV lamps each year to maintain optimum effectiveness in keeping the air conditioner interior parts free of mold and other bio-growth. After two-years germicidal effectiveness will have diminished and the unit will automatically shut off until the lamps are replaced.

#### Lamp replacement

- 1. Disconnect power to mini-split system.
- 2. Refer to installation instructions, reversing them as needed for expired lamp removal and re-installation.

#### REPLACEMENT PARTS AND ACCESSORIES

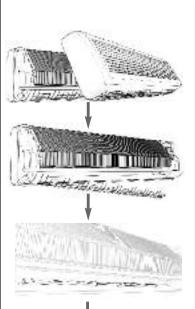
7" UVC Lamp ......UVM07URL

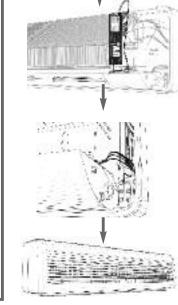
### **Easy Installation**

We recommend that this unit be installed and maintained by a trained HVAC professional technician.

- Disconnect power (breaker) to air conditioner. Remove front cover of mini-split wall unit.
- Find a suitable place for power supply inside the mini-split wall unit on the side or back and out of the air stream as much as possible. Connect power cable to an appropriate 120/240 VAC power source. Fasten the power supply in place with two self-tapping screws (supplied).
- Select a location for UV lamp module(s) that maximizes UV exposure to cooling coil and other areas where condensation will occur or collect.
- Fasten the lamps with the provided adhesive strips or screws (supplied).\*\*
- Adjust / position lamps and shields to prevent direct viewing of UV lamp by the unprotected eye during operation and to prevent exposure of sensitive components.
- Route UV lamp wires and connect to power supply, securing them from sharp edges, blower fan, and component electrical cover.
- 7. Place mini-split wall unit cover back on the wall unit. Restore power.
- 8. LED status should be green and glow of UV light should be visible.

Caution: DO NOT look directly at a UV lamp in operation.





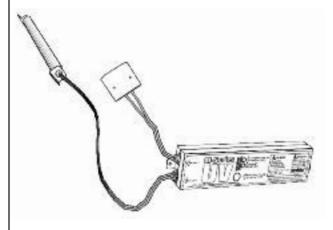
\*\*When installing new lamps, ensure that the lamp glass is free from any fingerprints or debris, as this may alter the path of the UV energy. Use rubbing alcohol and a dry cloth to remove any surface contamination.

NOTE: Installation must be completed in accordance with all state and local electrical and building codes.

# Single UV lamp Installation

NOTICE: When installing the M-Series UV system with a single lamp, the **Single Lamp Adapter Module** (supplied) must be installed.

Plug the adapter into the unused lamp receptacle as shown.





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