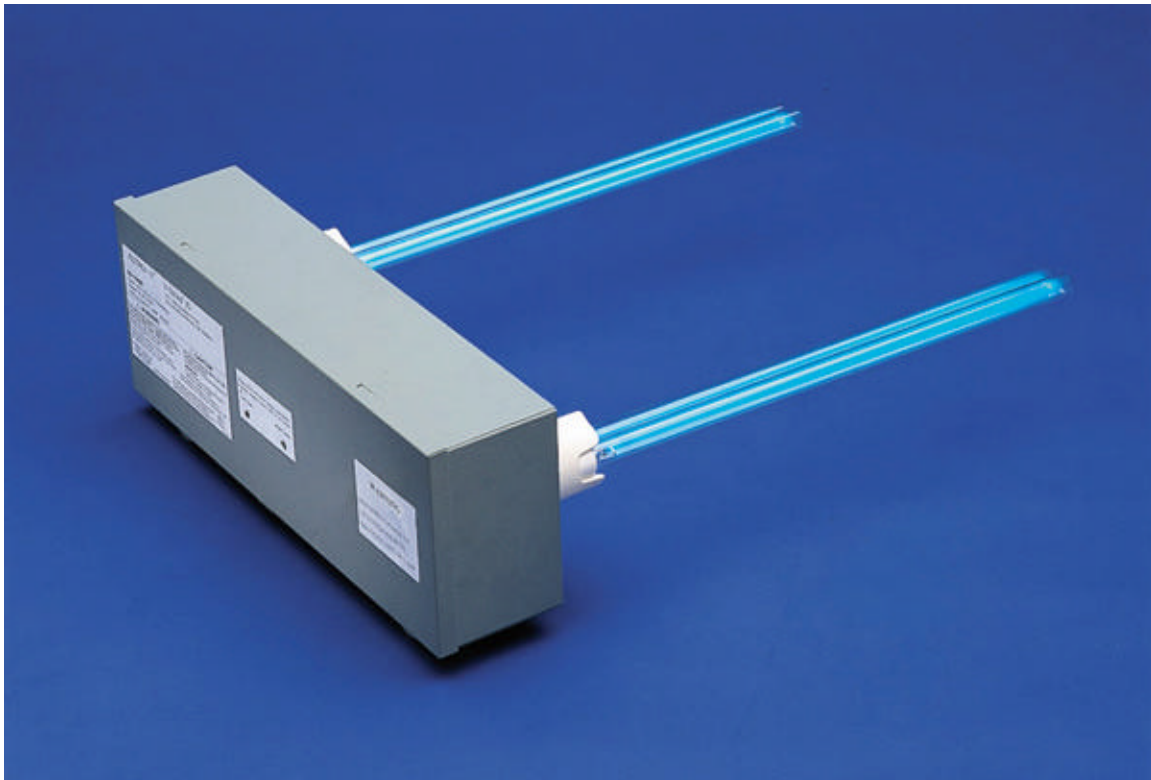


# V-Strike™ IDM

## UV Coil Device

INSTALLER/OWNER'S MANUAL



**ALTRU...V**  
REAL SCIENCE FOR HVAC MAINTENANCE

*Specifications subject to change without notice.*

*©Altru-V and V-Strike IDM are brands owned by UVDI.*

*Copyright © 2003 by UltraViolet Devices, Inc. All rights reserved.*

## TABLE OF CONTENTS

<b>SPECIFICATIONS</b> .....	3
<b>Electrical Ratings:</b> .....	3
<b>Approvals:</b> .....	3
<b>APPLICATION</b> .....	4
<b>INSTALLATION</b> .....	4
<b>MOUNTING LOCATION</b> .....	5
<b>INSTALLATION OF THE V-STRIKE™ IDM UNIT:</b> .....	5
<b>LAMP INSTALLATION:</b> .....	7
<b>CHECKOUT</b> .....	7
<b>OPERATION</b> .....	8
<b>TROUBLESHOOTING AND SERVICE</b> .....	8
<b>Cleaning Your Lamps</b> .....	8
<b>Replacing Your Lamp (Annually)</b> .....	9
<b>NOTES</b> .....	10
<b>EQUIPMENT WARRANTY</b> .....	11

## SPECIFICATIONS

### Electrical Ratings:

#### Power Ratings:

Note: The V-Strike™ IDM has a line cord input circuit capable of operation at 120 Vac, and 60Hz.

#### Temperature Ratings:

Ambient Temperature Range: 40°F to 135°F (4°C to 51°C).

Lamp Temperature Range: 40°F to 135°F (4°C to 51°C).

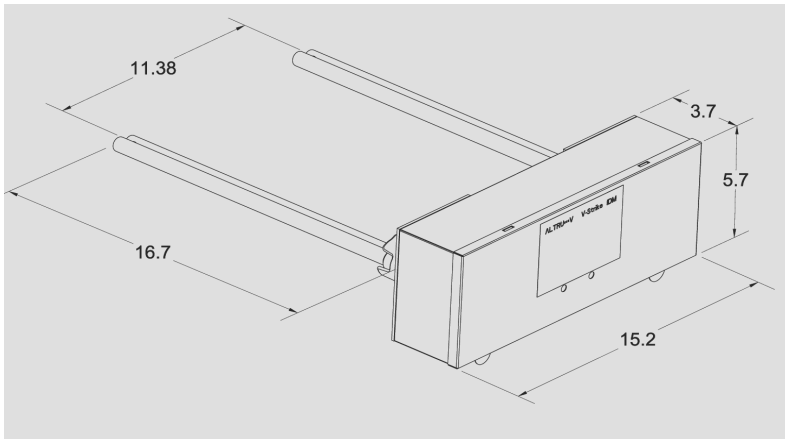
Relative Humidity: Up to 95%, non-condensing.

#### Power Consumption:

Model	Input Current (A)	Lamp Wattage (W)
IDM	1.4	2 each 36 watt

#### Approvals:

Underwriters Laboratories: File no. E212213. Category Code ABQK (Accessories, Air Duct Mounted) UL Standards: UL153, UL1598 & UL1995. The health aspects associated with the use of this product and its ability to aid in disinfection of environmental air have not been investigated by UL.



**Figure 1. Shown: V-Strike™ IDM Lamp Module (with Dimensions.)**

## APPLICATION

When installed in forced air heating and cooling systems, the V-Strike™ IDM kills surface microorganism contaminants. It is designed to be mounted downstream from the air condition coil. It maybe used in other HVAC duct applications also.

## 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 rating 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.
5. If HVAC system has been in use prior to installation, it is recommended that debris and buildup on coils and HVAC system surfaces be cleaned before installation.

### Product Registration

Thank you for purchasing this product from UVDI! Prior to any other installation activities, please proceed with registering you product via the web at <http://www.altruv.com> or by returning the enclosed self-addressed postcard. Product registration will insure that your warranty is handled in a proper and expeditious manner. In addition, it will allow UVDI to provide you with important updates regarding your new product including reminders of when replacement parts are needed and also make you eligible for future parts discounts.



### **Hg-LAMP CONTAINS MERCURY**

Manage in Accord with Disposal Laws

See: [www.Altruv.com](http://www.Altruv.com)

or call: 1-877-787-3882



### **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.

## CAUTION

**Personal Injury Hazard.**

**Power supply can cause electrical shock.**

Disconnect power supply before beginning installation. Do not open lamp knob; there are no user serviceable components inside. Professional installation is required per NEC standards.



## WARNING

### **UV Light Hazard.**

**Harmful to bare skin and eyes.**

**Can cause temporary or permanent loss of vision.**

Never look at the lamps while illuminated. Only view illumination by way of view port. To prevent exposure to ultraviolet light, disconnect power to the V-Strike™ IDM before servicing any part of the HVAC system.

## MOUNTING LOCATION



## CAUTION

**Equipment Damage Hazard.**

**Ultraviolet light can cause color shift or structural degradation of plastic HVAC materials.**

Select mounting location that prevents exposure to plastic components with unknown resistance to ultraviolet light. Three-foot minimum is recommended between ultraviolet lamps and plastic-fabricated devices (such as non-fiberglass media filters). Some plastic and filters may not be suitable for use with any UV.

**CAUTION: Equipment Damage Hazard. Ultraviolet light can cause color shift or surface degradation and sometimes structural degradation of non-metallic components. Select a mounting location that prevents exposure to plastic flexible duct components, polyurethane foam insulation material, rubber hoses, wire insulation, etc. If mounting options are limited, items above should be protected with ultraviolet resistant material such as aluminum foil, aluminum duct tape, or metallic shields or equivalent.**

## INSTALLATION OF THE V-STRIKE™ IDM UNIT:

1. Disconnect power to the HVAC system before installing the Ultraviolet Air Treatment System.
2. Determine the location for the installation. The V-Strike™
  - a. IDM unit must be located so the Lamp surrounds the Evaporator coil and the drip pan with ultraviolet light.
  - b. The depth of the Coil box must accommodate the full length of the ultraviolet lamps see Fig 1.
  - c. The space adjacent to the mounting location must be large enough to allow for ultraviolet lamp installation and removal.
  - d. A 120 Vac electrical outlet must be within range of the unit to plug in the power cord.
3. Open unit and remove the lamp handles from the unit.
4. Using the V-Strike™ IDM unit as a template, place it on the duct surface, centering the lamp holes on the duct. Use a pen or pencil to mark the hole location.
5. Mark the duct / coil box for the two 2.25 in. diameter lamp holes and the unit mounting-screw pilot holes.
6. Cut the 2.25 in. lamp holes in the duct. Remove any burrs.
7. Use a 3/32 in. drill to provide pilot holes for the mounting screws.

8. Be sure the duct surface is flat after all holes are drilled.
9. Position the unit on the duct. Be sure the lamp holes in the duct align with those in the unit to allow lamp insertion.
10. Install the unit into the duct using the four sheet metal screws provided.
11. Tighten the screws to 12 to 14 in-lbs. so the space between the case and the duct is sealed.
12. Plug the line cord into a 120 Vac outlet.



**UV Light Hazard.**

**Harmful to bare skin and eyes.**

**Can cause temporary or permanent loss of vision.**

Never look at the lamps while illuminated. Use the LED lights on the outside of the unit to confirm lamps are operating correctly. **To prevent exposure to ultraviolet light, disconnect power to the V-strike™ IDM before servicing any part of the heating/air conditioning system.**

## LAMP INSTALLATION:



### CAUTION

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

Be careful when inserting lamp into lamp base. Wear protective gloves when handling lamp.

1. Remove the cover on the Unit by lifting up firmly on the lower lift tabs (see figure 1).
2. Remove lamp handles from unit. Take lamps out of packaging: be careful not to touch the lamp surface with bare hands.
3. Insert lamp bulb into knob by aligning “keyed” feature in the lamp handle and the lamp bulb. Inserting lamp bulb straight into the knob. **DO NOT MOVE BULB SIDE TO SIDE.**
4. Carefully re-insert the lamp assemblies into the enclosure. Avoid striking the lamp glass against hole edges or other object to prevent damage or breakage. If necessary, use a clean, dry cloth to help guide the lamp assemblies during installation.
5. Align the tabs on the lamp knob with the slots in the lamp receptacle and insert the lamp until it stops.
6. Rotate the lamp assembly clockwise until it stops.
7. Replace cover panel on unit.
8. Reconnect the power to the HVAC system.
9. Choose a location on the adjacent HVAC equipment for the HVAC maintenance label included in the V-Strike™ IDM packing box. Choose a location that a future service technician can easily see during all future HVAC maintenance or repair.



### WARNING UV Light Hazard

**Harmful to bare skin and eyes.**

**Can cause temporary or permanent loss of vision.**

**Never look at the lamps while illuminated.**

This heating/air condition system is equipped with an ultraviolet air treatment system. To prevent exposure to ultraviolet light, disconnect power to the ultraviolet air treatment system before servicing any part of the heating/air conditioning system.

10. Adhere the HVAC maintenance and caution safety label to the all HVAC equipment access door or panel.

## CHECKOUT



The installer should verify that the ultraviolet lamps are operating only by checking the LED lamps on the front of the unit. Do not attempt to look directly into the duct to see the illuminated ultraviolet lamp. Ensure owner is aware of the UV Lamp light hazard specifically as it relates to causing harm to eyes and skin

The installer should orient the owner to the unit by showing them the location of the LED lamps and discussing how to determine when the unit is functioning properly without looking directly into the duct to see the illuminated ultraviolet lamp. The installer should also emphasize the hot surface and electrical shock safety warnings. The installer should leave the Product Data with the owner and review the lamp cleaning and lamp replacement procedures.

## OPERATION

## TROUBLESHOOTING AND SERVICE

The V-Strike™ IDM has no field-serviceable parts. Lamp cleaning is recommended as routine maintenance up to four times a year or every three months (quarterly) depending upon operating conditions. Annual lamp replacement is required. See the Replacing Your Lamp (Annually) section for detailed procedural information.

### MERCURY NOTICE

This device contains mercury in the sealed ultraviolet lamp. Do not place your used lamp in the trash. Dispose of properly.

**Broken Lamp Clean up.**  
**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 lamp.



### CAUTION

**UV Lamp Burn Hazard. Harmful to bare skin. Can cause severe burns.**

Disconnect power 15 minutes before removing the ultraviolet lamp.



### WARNING

**UV Light Hazard.**  
**Harmful to skin and eyes.**  
**Can cause temporary or permanent loss of vision.**  
Never look at the lamp while illuminated.

## Cleaning Your Lamps

Depending upon operating conditions, lamp cleaning is recommended as routine maintenance up to four times a year when necessary. If the air stream is filtered, cleaning schedule may be reduced.

To clean your lamp:

1. Remove the cover on the Unit by lifting up firmly on the lower lift tabs (see figure 1).
2. Allow the lamp to cool for at least 15 minutes.
3. Rotate the lamp knob until the tabs align with the slots; then carefully remove the lamp knob; be careful not to strike or hit the lamp glass on the enclosure edges.
4. Wipe the lamp glass using a soft cloth with window cleaner applied to the cloth. Do not touch the lamp surface with your hands; use only a cloth.
5. Wipe the lamp with a clean, dry cloth as fingerprints can degrade lamp life.
6. Insert the lamp knob into the enclosure as described in the installation Duct mounting section, step 18.
7. Replace enclosure cover by snapping it into place. Start with the top.
8. Verify that the ultraviolet lamp is operating only by checking that the LED lamps are on.





## WARNING

### **UV Light Hazard.**

**Harmful to skin and eyes.**

**Can cause temporary or permanent loss of vision.**

Never look at the lamp while illuminated.

Disconnect power 15 minutes before removing ultraviolet lamp.

### **Replacing Your Lamp (Annually)**

Annual replacement of your lamp is required.

To replace lamps:

1. Remove the cover on the Unit by lifting firmly on the lower lift tabs (see Figure 1).
2. Allow the lamp to cool for at least 15 minutes.
3. Rotate the lamp knob until the tabs align with the slots; then carefully remove the lamp; be careful not to strike or hit the lamp glass on the enclosure edges.
4. Remove lamp bulb from the lamp knob by pulling the bulb straight out of the lamp knob. **DO NOT MOVE BULB SIDE TO SIDE.**
5. Insert the new bulb by inserting it into the lamp knob.
6. Insert the knob and lamp back into the unit aligning the tabs with the slots; then carefully rotate the lamp into place.
7. Replace enclosure cover by snapping it into place. Start with top.

Contact your Altru-V Distributor for replacement lamps or call (877) PUREUVC.

# NOTES

## EQUIPMENT WARRANTY

**UltraViolet Devices, Inc. (UVDI), warrants to original Buyer for one year** from the date of original installation, or eighteen (18) months from date of shipment, whichever comes first, that its goods are free from defect in material and workmanship under normal use and service. **UVDI's** obligation under this warranty shall be limited to the repair or replacement of those goods which prove defective, provided that such products are installed, maintained, and operated for the purpose and in the manner intended and for which **UVDI** instructs or recommends. Neither **UVDI** nor its dealers shall be liable for any special or consequential damages directly or indirectly arising from the design, construction, installation, servicing, or operation of the goods. THIS IS **UVDI'S** SOLE WARRANTY. NEITHER **UVDI** NOR ITS DEALERS MAKE ANY OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED **UVDI'S** AFFORESTATED OBLIGATIONS ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS WARRANTY.

**UVDI** AND ITS DEALERS' LIABILITY UNDER THIS WARRANTY SHALL IN NO EVENT EXCEED THE COST OF THE GOODS SOLD UNDER THIS CONTRACT OF SALE. **UVDI** neither assumes, nor authorizes any person to assume for it, any obligation in connection with the goods. This warranty shall not apply to any goods (a) which have been subjected to misuse, tampering, negligence, or accidents; or (b) the serial numbers of which have been altered, defaced, or removed; or (c) which have been used in a manner contrary to **UVDI's** instructions or recommendations. Buyer shall not return to **UVDI** any allegedly defective goods without **UVDI's** prior written authorization. This warranty may not be assigned or transferred.

### **Product Registration**

It is highly recommended that you register your product via the web at <http://www.altru.com/> or return the enclosed self-addressed postcard to UVDI. Product registration will insure that your warranty is handled in a proper and expeditious manner. In addition, it will allow UVDI to provide you with important updates regarding your new product including reminders of when replacement parts are needed and also make you eligible for future parts discounts.



**Manufactured by:**



**26145 Technology Drive  
Valencia, CA 91355  
(877) PUREUVC  
(661) 257-4698 fax  
www.uvdi.com**

*Specifications subject to change without notice.  
©Altru-V and V-Flex are brands owned by UVDI.  
Copyright © 2003 by UltraViolet Devices, Inc. All rights reserved*

This page intentionally left blank