

# **UV TECHNOLOGY** Air and Surface Disinfection

# HEALTHCARE & COMMERCIAL HVAC

# EXPERT ENGINEERING - UNSURPASSED QUALITY

- Every **ProtectX UV** system is engineered to meet or exceed 2008 ASHRAE guidelines as published in Chapter 16 of the HVAC Systems and Equipment Handbook.
- **RAISE Health** furnishes complete systems, including all required safety switches, signage and viewports. Others ship only "light strips" that require field fabrication and engineering of safety features and components.
- **ProtectX UV** originated 360° distribution of UV Energy for disinfection of air moving at 500fpm, while simultaneously disinfecting surfaces in proximity to the lamp systems.
- **ProtectX UV** features highly-efficient, low mercury, non-proprietary Philips SteriLamps to help reduce replacement costs by as much as 75%.
- **ProtectX UV** engineering staff will determine the number and size of UV-C lamps, product specs and system placement required to disinfect your moving air. Call us for recommendations, specifications, and CAD drawings for any application.
- **RAISE Health** builds every UV system to last the lifetime of your Air Handling Equipment.





1-800-506-9095 +1 (678) 331-5548







# **HEALTHCARE & COMMERCIAL HVAC**



Engineered Framing Systems are Factory built and Factory Tested. Shipment choice as 'ready-to-install' or 'fast-assembly knock-down kit.'

# Model AR60

Economical, Complete UV-C Lamp Systems for large air handlers. Available in 1, 2, or 3 row systems engineered specifically for any size commercial system.

## **Model ARS**

Track mounted systems simply slide out for ease of service. Engineered for air handlers less than 50" in interior height.



Twist-lock electrical connections provide quick service disconnect and secure, vibration-free performance. Access Door Safety Switch automatically shuts the system down for service and maintenance.



# **MODEL AR60**



# One-Row system shown.

# **MODEL ARS**



# Slides out for easy servicing.



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# **HEALTHCARE & COMMERCIAL HVAC**





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.

Look for UL Classification Marking on Product. The Classification Mark of Underwriters Laboratories Inc. Is the only method provided by UL to identify products manufactured under Its Classification and Follow-Up Service. Many, but not all, of our products are Certified by UL. Please contact us for information on specific UL Certified products

### Model ADPL-60

In-duct fixtures can be quickly and easily installed at any convenient location in the duct system and require no expensive modification to the HVAC system. In-duct UV units are available in a variety of standard configurations to fit the specific dimensions of your ducts and airflow.

# Model FCU

**ProtectX UV's** UVGI PTAC disinfectors provide an effective and easy way to disinfect the air in hotel rooms, classrooms, dormitories or any location where unit ventilators are installed for climate control. Several models are available to fit most PTAC units from major manufacturers.

# **Model BLUC**

Model BLU uses reflectors to direct concentrated UV energy inside larger air handlers, providing air and surface disinfection.

### **Greener Buildings:**

"UVGI reduces microbial levels on HVAC surfaces ... can result in energy savings which can be significant, with payback of possibly less than 2 years. In addition, the associated improvements in air quality may reduce respiratory distress symptoms and thus improve attendance and work performance in occupied spaces." ASHRAE 2008 – HVAC Systems and Equipment Handbook, Chapter 16

# **MODEL ADPL-60**

# **MODEL FCU**



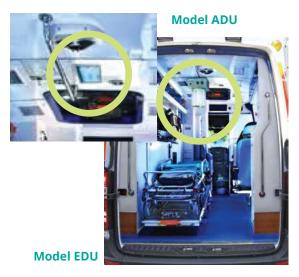
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# **EMERGENCY MEDICAL SERVICES**



**UV-C MEASUREMENT** 

# Permanent Installation - Model ADU

From ambulances to EMS helicopters, this device can be permanently installed into any vehicle. Stretchers, railings, medical equipment, control panels, flooring, walls and work surfaces are all likely to be directly contaminated during patient transport and can be difficult to clean. The Model ADU will disinfect any exposed surface while materials in glass or plastic containers are shielded from the germicidal effects.

# Portable Use - Model EDU

This portable area disinfector is designed for use in small spaces, such as rest rooms, equipment rooms, and emergency vehicles where permanent installation is not practical. It can be used in ambulances, police cars, and correctional passenger vans and buses. The unit is equipped with a user specified time delay and activation timer. Both the timer and the delay can be set in second, minute and hour increments.

The X-9 Handheld Radiometer measures irradiance and dose in the UV-C spectral range at 254nm. The radiometer is capable of accurate high level UV-C output readings at the lamp source, or very low UV-C levels required to verify safe human exposure. Despite its compact dimensions, the meter offers a large display and an RS 232 interface. Operation is simple for the benefit of non-technical personnel.

#### ASHRAE Position Document on Airborne Infectious Diseases, 2009:

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"...UVGI, when effectively applied, inactivates infectious agents locally and can be considered in public access and high-traffic areas such as cafeterias, waiting rooms, and other public spaces. In-room UVGI can be considered as a kind of disinfection between successive occupants of a room."



www.ProtectXPro.com





# **BIOTECH/CLEAN ROOM**

## **Work Stations - Model UVS**

The UVS models are designed for small area disinfection, such as individual work stations, fume hoods or lab tables. Lumalier's UVS-DS model is equipped with a deflector shield which allows properly protected lab personnel to work in close proximity to the UVGI energy.

## Large Spaces - Model BLU

Designed for any location where it is necessary to neutralize and eliminate biological contamination in unoccupied spaces, such as in biotech areas and hospital OR suites. All specimens and materials within glass and plastic containers are fully protected from the effects of UV energy.

## **Unoccupied Rooms / Washdown Areas - Model CSU**

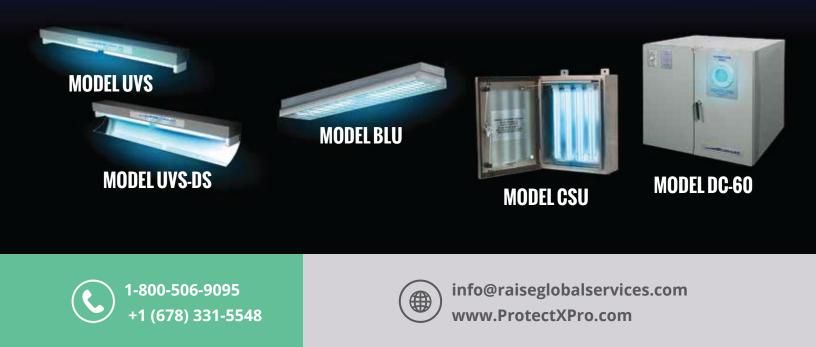
The **ProtectX UV** cabinet disinfector is a wall-mounted, stainless-steel, laboratory grade disinfection device that uses cleansing germicidal energy to disinfect unoccupied spaces. When the sealed door is closed and latched, the room can be washed down with no harm to the UV device. Ideal for food processing applications.

# **Disinfection Chamber - Model DC-60**

The **ProtectX UV DC-60** Disinfection Chamber is a laboratory grade enclosed device that uses germicidal energy to disinfect the surface of objects such as letters, packages, food, toys, cups and personal items. Anthrax spores, smallpox, cold viruses and many other disease carrying bacteria are inactivated when exposed to proper levels of UV-C.

# **FEMA Risk Management Series:**

"Ultraviolet Germicidal Irradiation (UVGI) is lethal to microorganisms. All viruses and almost all bacteria are vulnerable to moderate levels of UVGI exposure."



# **UPPER AIR - WALL MOUNT**

# Ceiling Heights of 8 to 9 ft.

# WM Model

These fixtures are for use in areas where wall mounting is preferred. The effective coverage area for the WM-136 is 240 sq. feet and the WM-236 is 480 sq. feet. Model WM uses either 1 or 2 Philips PL-L 36W UV lamps.

# **CM Model**

This corner mount is for use in small rooms where available wall space is at a premium. The effective coverage area for the CM-218 unit is 110 sq. feet. Model CM uses 2 Philips PL-L 18W UV lamps.

# **HW Model**

The hallway mount is for use in hallways, corridors and other long, narrow spaces. HW-218 should be spaced 20' apart in corridors and uses 2 Philips PL-L 18W UV lamps.

# Why Choose Upper Air:

Upper air units are ideal for control ofairborne contamination in high-risk or congregate areas.





# Ceiling Heights of 9 feet or higher

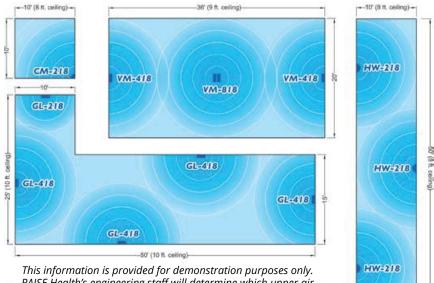
## VM-418 Model

These fixtures are for use in areas where wall mounting is preferred. The effective coverage for the VM-418 unit is 360 square feet. Model VM-418 uses 4 Philips PL-L 18W UV lamps.

# Ceiling Heights of 10 feet or higher

# **GL Model**

These fixtures are for use with high ceilings allowing for an open style UV fixture. The effective coverage area for GL-118 is 110 sq. ft., GL-218 is 220 sq. ft., and GL-418 is 440 sq. ft. and each model uses 1, 2 or 4 Philips PL-L18W UV lamps.



RAISE Health's engineering staff will determine which upper air products are ideal to disinfect your space.







# **UPPER AIR - CEILING MOUNT**

Air Mixing is the Key:



Since 1997, CDC/NIOSH has conducted and funded studies to determine the ability of Upper-room UVGI to kill or inactivate airborne mycobacteria. Completed research indicates that an appropriately designed system may kill or inactivate airborne bacteria and increase the protection afforded to healthcare workers.

Basic Upper-Room Ultraviolet Germicidal Irradiation Guidelines for Healthcare Settings, 2009 Department of Health and Human Services.

### **Ceiling Mount with Ceilings 8 feet or higher**

### **PM Model**

This round pendant mount is for use in areas where ceiling mounting is preferred. The effective coverage area for the PM-418 unit is 440 square feet and the unit uses 4 Philips PL-L 18W UV Lamps.

### **Ceiling Mount with Ceilings 9 feet or higher**

#### VM-818 Model

This square pendant mount is for use in large areas where ceiling mount is preferred. The effective coverage for the VM-818 unit is 720 square feet and the unit uses 8 Philips PL-L 18W UV Lamps.

### SAM Model

Sanitizing Air Mixers are for use in areas where occupants may have direct line of sight into the fixture. UV lamps are not directly visible in a SAM unit, making this design safe to use in challenging areas. A fan draws contaminated air into the unit, disinfects it, and recirculates cleaner, healthier air. The effective coverage area is 440 sq ft. and each unit uses 2 Philips PL-L 18W UV Lamps.

## Ceiling Mount with Ceilings 10 feet or higher

#### **GC Model**

This model is for use n large open spaces where ceiling mounting is preferred. The effective coverage area of the GC-136 is 240 sq. feet and the GC-236 is 480 sq. feet and the unit uses 1 or 2 Philips PL-L 36W UV Lamps.







# **RESIDENTIAL/LIGHT COMMERCIAL HVAC**

The forced air system in any home or office isn't just recirculating the air, its also recirculating airborne pathogens, mold, dust and a host of other harmful substances. Lumalier transforms your HVAC system into an efficient, facility-wide air disinfection system. Our IAQ-1, ADPL and PRU units, once installed into the forced air system of any home or small office building, remove bacteria, mold, chemical and smoke odors, viruses and other airborne contaminants from the air.

# New or Existing HVAC Systems

# Split-System HVAC Units up to 5 tons - ADPL-136

This unit is an ideal choice to destroy airborne virus and bacteria moving through the system, and spore growth (mold) growing on coils, drain pans and UV compatible filters. Optional PCO Grid removes volatile organic compounds, the cause of common household odors.

# Split-System HVAC Units up to 10 tons - ADPL-260

In medium-sized commercial applications, the dual lamp ADPL can be installed directly over "A" style coils or in return air ducts to disinfect both air and surfaces.

# Rooftop/Package HVAC Units up to 5 tons - PRU

The model PRU kit is installed within the air handler to provide continuous disinfection of air flow and improved energy efficiency.

# **Three-Stage Indoor Air Quality System - IAQ-1**

**ProtectX UV** has created a simple and effective way to add an indoor air quality system to new HVAC installations. The IAQ-1 can also be placed into the air return duct of an existing HVAC system. The three-stage IAQ-1 combines three proven technologies in one compact, easy-to-install unit; pleated dust filters, UVGI lamps and PCO (photocatalytic oxidation) TiO<sub>2</sub> SAINT GOBAIN QUARTZEL® FELT.

### **ProtectX UV Recommends:**

Model ADPL-136 is effective as a stand-alone unit, but we recommend that you install two lamps to achieve maximum air and surface disinfection within the HVAC system - one in the return air supply near a UV-compatible filter and a second near the AC coil.





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