

## **UltraViolet Air Purification Lights**

UV-Aire uses the energy from a specially designed, high-intensity UV-C lamp to reduce microorganisms in the entire home as they cycle through the HVAC system. Mounted inside the ductwork, the UV-Aire sterilizes or kills most contaminants as they pass the lamp.

The process requires very little maintenance and costs just pennies a day to operate. The UV-Aire could be one of the best health and comfort investments a homeowner ever makes.

UV's effectiveness in killing bacteria is directly related to a microorganism's exposure time. Indoor air in a typical residential forced-air HVAC system will be recirculated 40-75 times a day. With a UV generating lamp mounted in the HVAC duct, cumulative exposure can be very effective in controlling indoor bacteria.

UV rays will also kill germs that breed in drain pans and A-coils. Properly positioned, an ultraviolet system can significantly reduce indoor air contamination and prevent the growth of new microorganisms.

The treatment of indoor air with ultraviolet radiation has been successful in health care facilities, food processing plants, schools, laboratories and other applications. It is safe, silent, and proven.

Since direct exposure to UV light can cause skin cancer and blindness, the most practical application of UV light in the home or office is in the main air distribution (heating and/or air conditioning) system. As UV light will not pass through metal, glass, or plastic, a UV light can be installed in the main supply or return duct of a central heating or air system without concern for direct exposure to eyes or skin. This is an ideal location since the air in the home or office will pass through the HVAC system up to 75 times per day during normal operation, and as many as 150 times per day in continuous fan mode.

### **Q. What is UV-C light and how does it kill bacteria?**

A. UV-C is the invisible, ultraviolet, C-band radiation that makes up part of the sun's light spectrum. UV-C light prevents growth and germination of microorganisms by altering DNA and RNA and effectively sterilizing organisms. Once sterilized, they cannot reproduce, and with their short life cycles, they are effectively killed.

### **Q. Why use a UV light product?**

A. There are two primary benefits to using UV light. The first is to keep mold from growing by irradiating the surface. The second is to disinfect the air stream as it passes through the HVAC system. A significant disinfection rate is accomplished with repeated circulation of air through the system.

### **Q. What is the importance of UV light products?**

A. People spend over 90% of their time indoors. With little or no ventilation, concentrations of microorganisms will increase indoors, potentially spreading a number of diseases. With increased

cases of deaths being caused by various bacterial diseases, controlling the growth and spread of pathogens is of major concern in indoor environments.

**Q. How does the UV-Aire differ from other UV-C devices?**

A. UV-C energy has been successfully used in many indoor environments. The UV-Aire was developed specifically for use in HVAC systems. It creates a consistent, high output of UV-C energy. The UV-Aire's intensity output maximizes microorganism disinfection and ensures cleaner indoor air.

**Q. Is the product suitable for people with severe allergy or asthma problems?**

A. Yes. The UV-Aire can offer relief to many allergy and asthma sufferers by reducing airborne contamination.

**Q. Does the UV-Aire produce a fresh-air smell?**

A. Many smells are not addressed by the UV-Aire. However, some unpleasant smells develop from the growth of microorganisms. The UV-Aire works to reduce mold and common household germs, in many cases resulting in a fresher smelling environment.

**Q. Does UV light take the place of a filter?**

A. No. The UV-Aire should be used in conjunction with a filter.

**Q. Should the HVAC appliance fan or blower run continuously?**

A. No. During normal operation of the heating or air conditioning unit, the blower will circulate the air over the UV lamp from 40-75 times a day, which is sufficient. During moderate weather, when neither the A/C or heat is on, it is recommended to open the windows to allow for fresh air infiltration and/or to operate the blower continuously (turn on the fan) to circulate air over the UV light.

**Q. What precautions should be taken before opening or servicing the ductwork where a UV-C lamp is in use?**

A. The UV-C lamp should be turned OFF prior to entering the ductwork. An external switch is provided as well as warning labels regarding service procedures. Direct exposure to UV light is not recommended, as it may cause damage to skin and eyes. Protecting the eyes with plastic protective goggles is recommended.

**Q. What effects will UV-C rays have on plastics such as coil pans & flex duct?**

A. If the plastic is not UV resistant, UV-C can cause a breakdown of the material over time. Based on lab tests, positioning the lamp 30 inches or more away from plastic surfaces will eliminate any measurable breakdown of plastic material.

To find out more, click here! (Link click here to [www.fieldcontrols.com](http://www.fieldcontrols.com))