

# UV-AIRE® AIR PURIFYING SYSTEM

MODEL: UV-18X



## ITEMS INCLUDED IN KIT:

- 1-UV-Aire power unit
- 4-Sheet metal mounting screws
- 2-Angled mounting brackets
- 2-Flat mounting brackets
- 1-Duct board mounting bracket
- 2-Ultra Violet lamps
- 1-Instruction Sheet
- 2-Wing nuts
- Caution Labels
- Gasket



UV-C light inhibits the growth and reproduction of germs and bacteria that circulate through a home's heating and air conditioning system. The treatment is a safe, silent, and proven way to make your home a healthier place to live.

## SAFETY CONSIDERATIONS

- ! WARNING:** Never expose eyes or skin to UV-C light from any source.
  - Looking directly at the UV-C light may cause permanent eye damage or blindness.
  - Never operate the UV-Aire Air Purifying System out of the plenum.
  - Designed for a closed duct system. Do not mount near a return air opening
  - All duct openings in direct line of site of the UV light must be sealed with duct tape or equivalent sealing methods.
- ! WARNING:** UV light will break down plastic materials not rated for UV exposure:  
(Examples: wire insulation, flex duct, drain pans and humidifiers)
  - The unit must be mounted at least 30" from the above stated type of materials.
  - If it is necessary to mount the unit in direct line of sight of these types of materials, they must be shielded with aluminum foil, aluminum foil tape, or sheet metal.
- ! WARNING:** DO NOT mount this unit outdoors.
  - This product is designed for indoor installation only (i.e. attics, crawl spaces, basements, etc.).

AFTER OPENING THE CARTON, UNPACK AND INSPECT THE UNIT AND LAMP FOR DAMAGE.  
**DO NOT INSTALL THIS UNIT IF ANY DAMAGE IS NOTICEABLE.**

This product is not sold as a medical device and is not for the purpose of diagnosis of any disease or condition nor for use in the mitigation, treatment, or prevention of any disease or condition.

## READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE PROCEEDING WITH THE INSTALLATION.

This device **MUST** be installed by a qualified agency in accordance with the manufacturer's installation instructions. The definition of a qualified agency is: any individual, firm, corporation or company which either in person or through a representative is engaged in, and is responsible for, the installation and operation of HVAC appliances, who is experienced in such work, familiar with all the precautions required, and has complied with all the requirements of the authority having jurisdiction.

Please retain these instructions after installation.

Installed By: \_\_\_\_\_ Phone: \_\_\_\_\_ Installation Date: \_\_\_\_\_



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## INDICATION FOR USE

This product is not sold as a medical device and is not for the purpose of diagnosis of any disease or condition nor for use in the mitigation, treatment, or prevention of any disease or condition.

## GENERAL INFORMATION

There are different size units available, depending on the square footage of your home. See chart below for determining your home's needs.

Model	Minimum Duct Width	Volts	Amps	Hz	Watts	Max Air Temp °F	Lamp Intensity at 1 meter	Recommended Max Sq. Feet
UV-18X	14"	120	1.0	60	60	190°	2 @ 73 µW/cm <sup>2</sup>	4000

**⚠ WARNING:** Before installing or servicing a humidifier, air filter, heat system, or this unit, etc., always turn all power OFF and have units unplugged. Electrical shock can cause personal injury or death. Never expose eyes or skin to direct UV-C light from any source.

**⚠ WARNING:** To prevent water damage or electric shock, do not mount unit under a humidifier.

**⚠ WARNING:** Designed for a closed duct system. Do not mount near a return air opening.

**⚠ WARNING:** This product is designed for indoor installation only (i.e. attics, crawl spaces, basements, etc.). For use on gas fired, oil fired, electric and split system heat pump forced air systems\*. This product is NOT designed to be mounted outside on gas fired or heat pump packaged units\*\*.

\* Split system heat pumps are systems where the air handler and the air conditioning compressor are separate units.

\*\*Packaged units are systems where the air handler and the air conditioning compressor are built together and are installed outside of the building.

## INSTALLATION

1. Locate a suitable location for the unit downstream from the 'A' coil in the supply plenum or in the return plenum; preferably downstream from the air filter. For optimum "cleaning" effect on the 'A' coil, mount the unit in the supply plenum as close as possible to the 'A' coil. (See Figure 1)

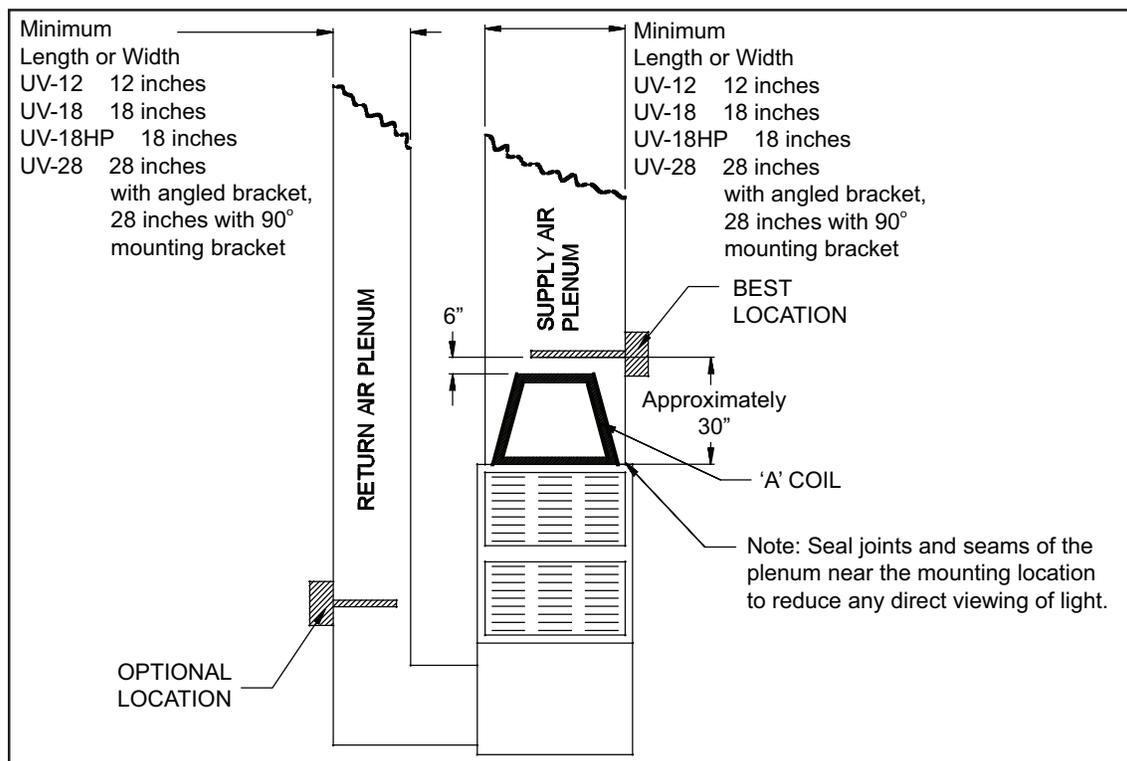


Figure 1

**⚠ WARNING:** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the UV-Aire® Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

2. Determine the type of duct you have.

**IF YOU HAVE FLEX DUCT**

For installations on duct systems with a metallic main duct and flex duct branches, follow the instructions in figure 2A below.

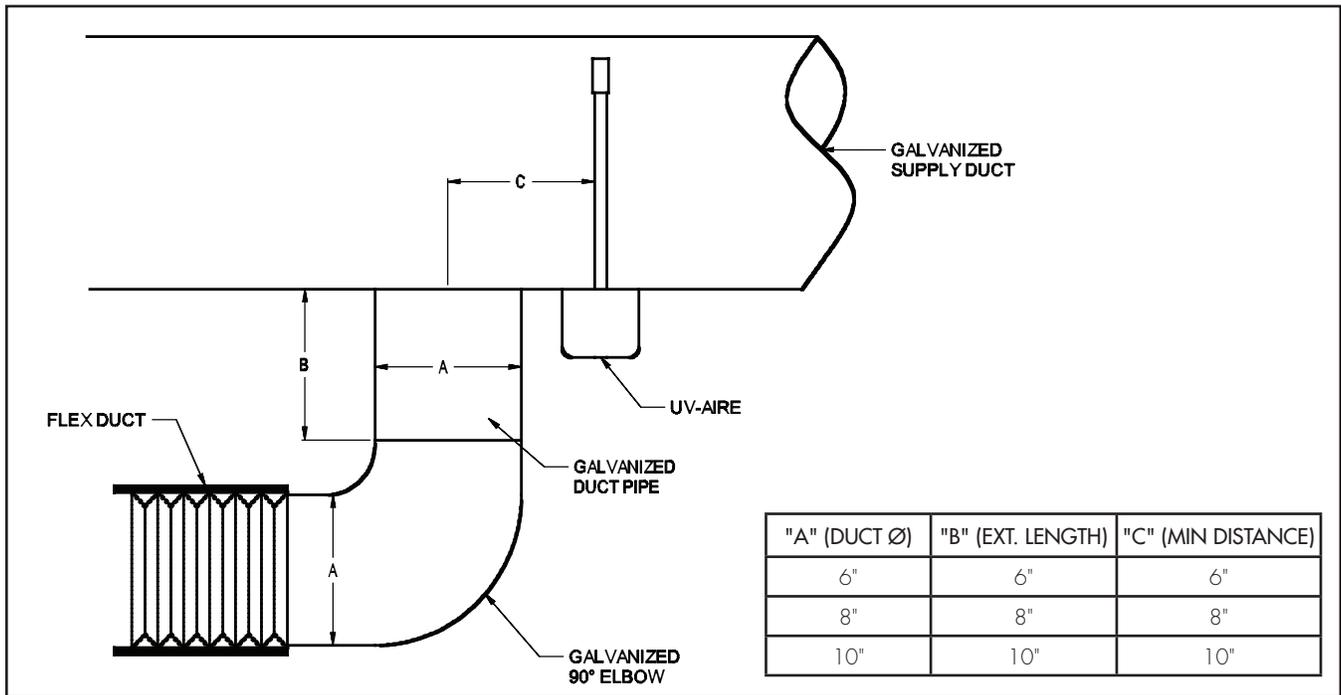


Figure 2A

**IF YOU HAVE METAL DUCT:**

- Apply supplied wet and stick mounting template to air duct in either a vertical or horizontal position. (See Figure 2B)
- Drill 1/8" diameter mounting holes at positions indicated on template.
- Cut out rectangular hole on template using a pair of tin snips or jigsaw. (See Figure 2B) Remove template.

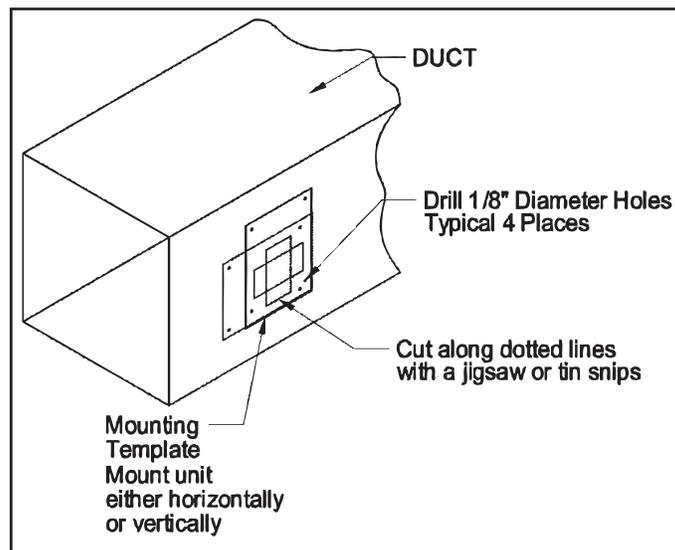


Figure 2B

**WARNING:** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the UV-Aire® Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

## IF YOU HAVE DUCT BOARD:

- a. Mount the supplied metal mounting plate onto the duct with duct tape in either vertical or horizontal position. (See Figure 3)
- b. Bend tabs outward. (See Figure 4)
- c. Using a knife or blade, cut out a rectangular opening in the duct using the mounting plate as a template. (See Figure 5)
- d. Remove the cut piece of duct. (See Figure 7)
- e. Bend both tabs down and through duct at first bend point. (See Figures 8 & 9)
- f. Bend both tabs at the second bend point up or down to pinch the duct material and grip the duct material. (See Figures 10 & 11)
- g. Using a screwdriver or pointed object, locate mounting holes by poking holes through the duct tape. (See Figure 12)

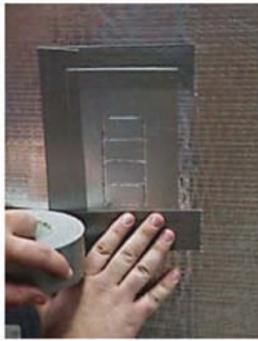


Figure 3



Figure 4



Figure 5

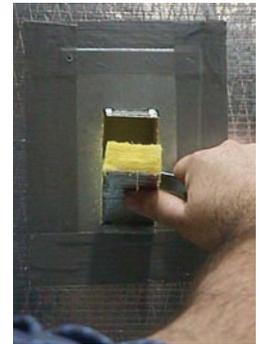


Figure 6



Figure 7



Figure 8



Figure 9



Figure 10



Figure 11

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3. Remove base unit and cover from box.
4. Apply supplied "Duct Seal Kit" according to instructions included in kit. (See Figure 12)
5. Determine whether to use flat or angled bracket. (Refer to UV-Aire Configurations in Section III for aid in this decision)

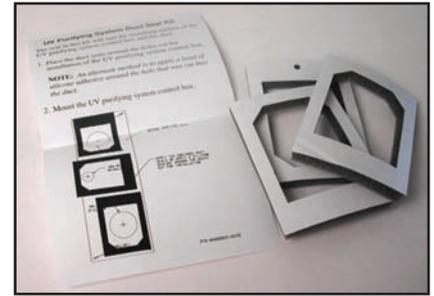


Figure 12

**a. Flat Bracket Installation**

- i. Remove the two hex nuts and flat bracket from included bagged hardware.
- ii. Install the flat bracket and secure to the unit base with the hex nuts provided. (See Figure 13)



Figure 13

**b. Angled Bracket Installation**

**NOTE:** For angled bracket mounting, refer to specifications outlined by Diagrams A & B for mounting distances in the "Angled Lamp Mounting Bracket Specifications" in section III.

- i. Remove the two hex nuts and angled bracket from included bagged hardware.
- ii. Install the angled bracket and secure to the unit base with the hex nuts provided. (See Figure 14)



Figure 14

**NOTE:** Be sure to note location of lamp hole in bracket relative to unit base.

6. Mount the unit base to the duct using the four mounting screws provided. (See Figure 15)
7. Remove tag and alcohol from lamp. Wipe off lamp being sure not to touch lamp with bare hands. The oils in your hands may cause the lamp to prematurely expire.
8. Insert lamp through hole until lamp cannot be inserted any further. (See Figure 16)
9. Swing swivel bracket over end of lamp. Hand-tighten the wing nut on stud. (See Figure 17) Be careful not to over tighten the wing nut. The porcelain at the lamp base may crack when over tightened.
10. Plug ballast plug into end of lamp. (See Figure 18)



Figure 15

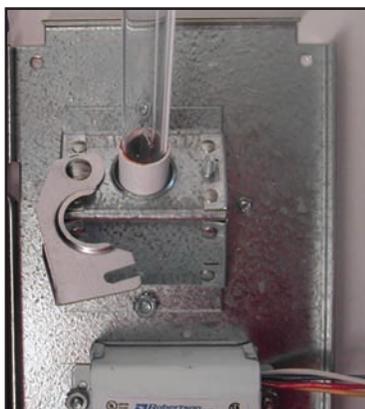


Figure 16

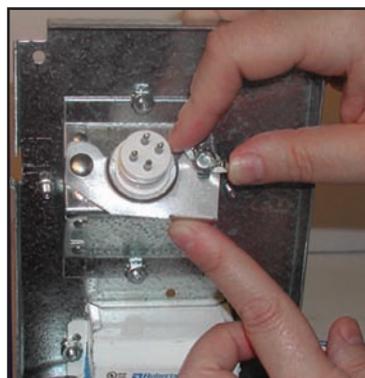


Figure 17

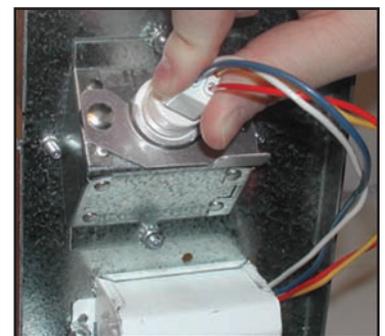


Figure 18

**WARNING:** Never expose eyes or skin to UVC light from any source. Looking directly at the UVC light may cause permanent eye damage or blindness. Never operate the UV-Aire® Air Purifying System out of the plenum. Avoid touching the glass portion of the lamp with your hands.

11. Replace cover on unit. Tighten side screws. (See Figure 19 & 20)

12. Plug the power cord into a standard electrical outlet.

**NOTE:** Seal the joints and seams of the plenum near the mounting location to reduce any direct viewing of light.  
(See Figure 1)

13. Flip switch on box to the 'ON' position. (Light on switch should be on indicating power.)

14. Look through view port in the box cover to be sure lamp is working. You should see a blue glow. (The view port is covered with a plastic lens that blocks the UVC rays.)

15. If the lamp is not glowing, follow steps 8-14 again. If lamp still does not glow, contact technical support at 1-252-522-3031 for further assistance.



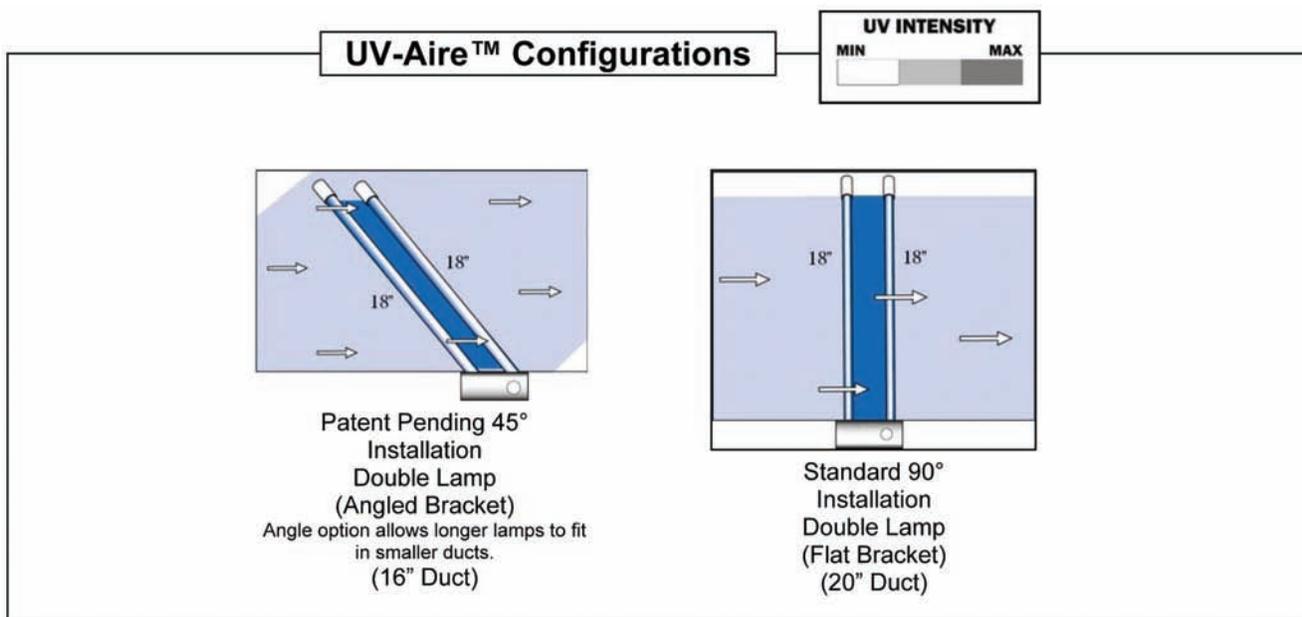
Figure 19



Figure 20

### BULB MOUNTING BRACKET SELECTION AND INSTALLATION

The UV-Aire units come with an angled mounting bracket and flat mounting bracket to position the bulb either straight or at an angle. Choose the bracket method best suited for your needs. Refer to the configurations chart below when making your selection.



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## ANGLED LAMP MOUNTING BRACKET SPECIFICATIONS

Use the specifications below to determine allowable clearances for proper mounting of the UV-Aire unit on the duct.

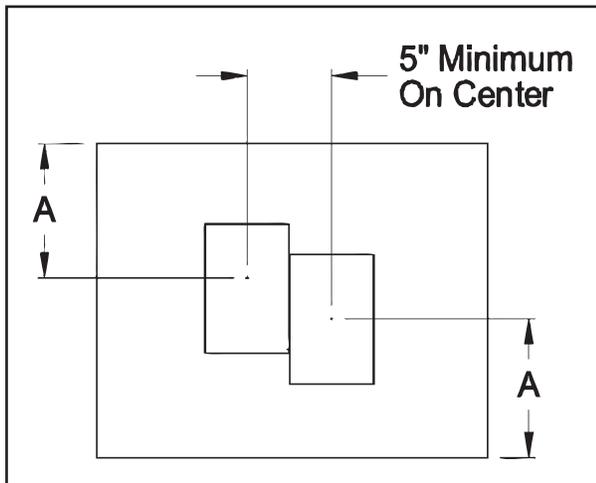


Diagram A

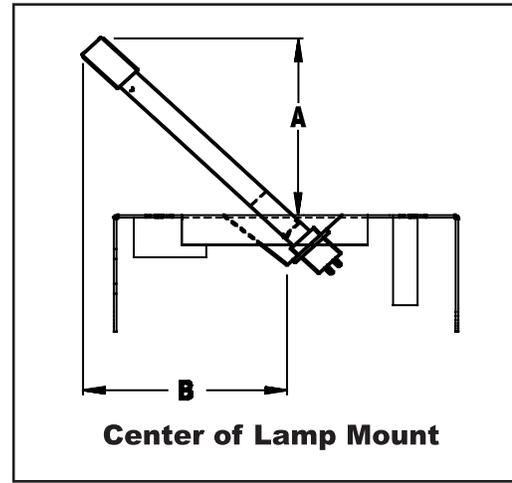


Diagram B

Lamp Center Line For Angled Double Lamp Installation		
Unit	Min. Duct Size (inches)	"A" Dimension (inches)
UV-18X	14 x 18	Center on Duct Housing

Lamp Offset Dimensions		
Unit	A	B
UV-18X	13- $\frac{1}{2}$ "	10- $\frac{5}{16}$ "

## MAINTENANCE

1. Inspect and clean lamp at least every 6 months.
2. Replace your UV-Aire Air Purifying System lamp once a year to maintain the lamps maximum output intensity. The lamp should operate continuously for maximum lamp life and light effectiveness.

## REPLACEMENT PROCEDURE

**VERY IMPORTANT:** Turn switch on unit to 'OFF' position and unplug unit from outlet.

1. Loosen two side screws on unit. Remove cover.
2. Unplug ballast plug from end of lamp.
3. Remove wing nut on swivel bracket. Swing bracket out clearing for lamp removal.
4. Slide lamp out carefully.
 

**NOTE:** When replacing the lamp, always wipe off lamp before installing.
5. Replace lamp following the appropriate procedure based on bracket selection in the installation section.
6. UV lamps contain a small amount of mercury, like a typical fluorescent lamp. Check with your local waste management authority for local disposal or recycling requirements. According to the EPA's Universal Waste Rule, these types of lamps may be disposed of into household waste.
7. After replacing lamp, make sure a new Lamp Replacement Label (supplied with lamp replacement) is applied to the housing and dated with the date of installation.

## TROUBLESHOOTING GUIDE

1. If unit does not light up replace bulb.
2. If unit still does not light up after replacing bulb, replace ballast.

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## REPLACEMENT PARTS LIST

MODEL	LAMP (Field Controls Part Number)	BALLAST (Field Controls Part Number)
UV-18X	46365402	46365503

For replacement parts, contact your local heating service company.

Any questions, please contact Field Controls at:

- Phone: 252-522-3031
- Fax: 252-522-0214
- Email: sales@fieldcontrols.com

## LIMITED WARRANTY

Field Controls, LLC ("Company") warrants that its products shall be free from defects in material and workmanship under normal use for the limited period indicated, **from the date of manufacture, subject to the provisions 1-8 below.**

### **Eighteen (18) months**

All Field Controls Products (except for those listed below as 5 years or 90 days).

### **Five (5) years**

Field Controls Direct Vent Systems (FDVS), Field Oil Vent Kits (FOVP), and ComboVents (CV).

Field Controls warrants that the products listed below shall be free from defects in material and workmanship under normal use for the limited period indicated, **from the date of purchase by the consumer, subject to the provisions 1-8 below.**

### **Ninety (90) days**

UV lamps/bulbs

#### **Provisions:**

1. During the limited warranty period, Company, or its authorized service representative, will repair or replace, at Company's option, without charge, a defective Product. Product that is repaired may be repaired with new or refurbished replacement parts. Product that is replaced may be replaced with a new or refurbished product of the same or similar design. Company will return repaired or replacement Product to customer in working condition. Labor charges are not covered as part of the limited warranty.
2. With regard to UV lamps/bulbs, customer shall be required to include a "valid proof of purchase" (sales receipt) identifying the Product purchased (Product model or accurate date code information) and the date the Product(s) was purchased.
3. Product whose warranty/quality stickers, Product serial number plates or electronic serial numbers have been removed, altered or rendered illegible shall not be covered under the limited warranty.
4. Defective Product must be returned to Company, postage prepaid.
5. IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR SIMILAR DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS OR REVENUE, INABILITY TO USE PRODUCT, OR OTHER ASSOCIATED EQUIPMENT, THE COST OF SUBSTITUTE EQUIPMENT, AND CLAIMS BY THIRD PARTIES) RESULTING FROM THE USE OF PRODUCT. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
6. THIS WARRANTY AND REMEDIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL, WRITTEN, EXPRESS, STATUTORY OR IMPLIED. TO THE EXTENT PERMITTED BY LAW, COMPANY DISCLAIMS ALL IMPLIED AND STATUTORY WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
7. Company makes no warranty of any kind in regard to other manufacturer's products distributed by Company. Company will pass on all warranties made by the manufacturer and where possible, will expedite the claim on behalf of the customer, but ultimately, responsibility for disposition of the warranty claim lies with the manufacturer.
8. Product that has been subjected to misuse, accident, shipping or other physical damage, improper installation or application, abnormal operation or handling, neglect, fire, water or other liquid intrusion are not covered by the warranty.

The health aspects associated with the use of these products and their ability to aid in disinfecting of environmental air have not been investigated by UL.



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