

UV-AIRE® AIR PURIFYING SYSTEM

Model: UV-E

(For use with 12", 18", and 28" Field Controls Lamps)
(120/240 volt application)



ITEMS INCLUDED IN KIT:

- 1- UV-E power unit (NEMA3 housing)
- 1- Mounting Template
- 4- Sheet metal mounting screws
- 1- Angled mounting bracket
- 1- Flat mounting bracket
- 1- Instruction Sheet
- 1- Wing nut
- 2- Hex nuts
- 1- Lamp

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.



READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE PROCEEDING WITH THE INSTALLATION
LEAVE THE INSTALLATION INSTRUCTIONS WITH THE OWNER/OPERATOR OF THE DEVICE

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

SAFETY CONSIDERATIONS

-  **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.
-  **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.

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: _____



FIELD CONTROLS

www.fieldcontrols.com

GENERAL INFORMATION

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.

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

Lamp Length	Minimum Duct Width	Volts	Amps	Hz	Watts	Max Air Temp °F	Lamp Intensity at 1 meter	Recommended Max Sq. Feet
12"	9	120/240	.5	60	30	150°	37µW/cm ²	1500
18"	14	120/240	.5	60	30	150°	73µW/cm ²	2000
28"	22	120/240	1.1	60	60	150°	105µW/cm ²	3000

⚠ 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 UVC light from any source.

INSTALLATION

1. Determine a suitable location on either the supply or return for the unit as shown in Figure 1. The unit must be mounted at least 3 feet from any flex duct type material.

NOTE: Unit can only be mounted in a vertical position as noted on inside cover label.

2. Apply mounting template to air duct. (See Figure 2)
3. Drill 7/8" diameter mounting holes at positions indicated on template. (See Figure 2)
4. Using a 2" hole saw, drill out lamp hole as shown on template. (See Figure 2)
5. Drill a 7/8" inspection hole as shown on template. (See Figure 2)
6. Remove template.
7. Mount unit to duct using the 4 supplied sheet metal screws. (See Figure 3)

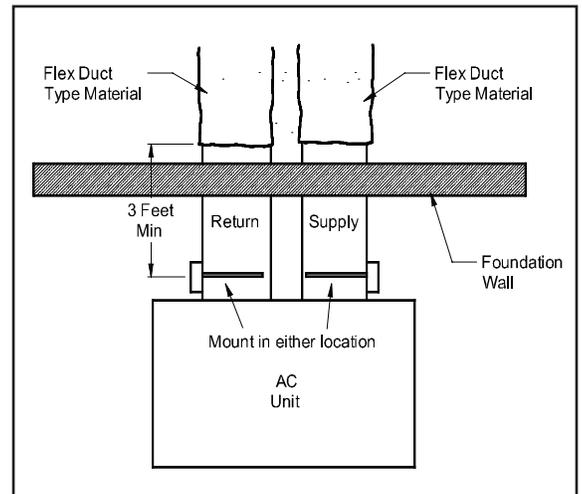


Figure 1

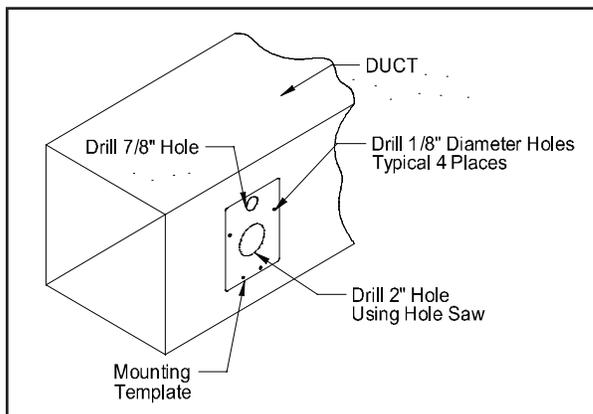


Figure 2



Figure 3

⚠ 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.



WARNING: Disconnect electrical power supply before wiring.

8. Connect to an appropriate power source such as an AC power disconnect box or to a circuit breaker panel. (See Figure 8)
9. Determine length of wire and conduit necessary according to power connection and install wiring conduit and water tight connector as shown in example figure 4. (Supplied by installer.)
10. Remove wiring access cover to expose terminal block. (Figure 5)
11. Push power source wires through bushing in access cover then begin securing wires according to the wiring diagram in figure 8. (See Figures 6 & 7)
12. Replace access cover.
13. Group wires together and tuck in wire clip on right side of box. (See Figure 9)
14. Determine whether to use flat or angled bracket. (Refer to UV-Aire Configurations Section)

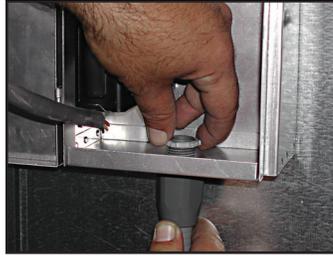


Figure 4



Figure 5

Access Cover



Figure 6

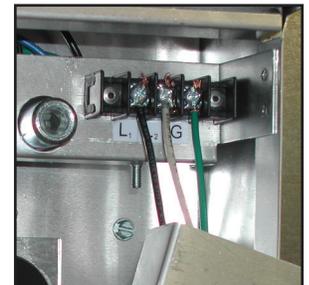


Figure 7

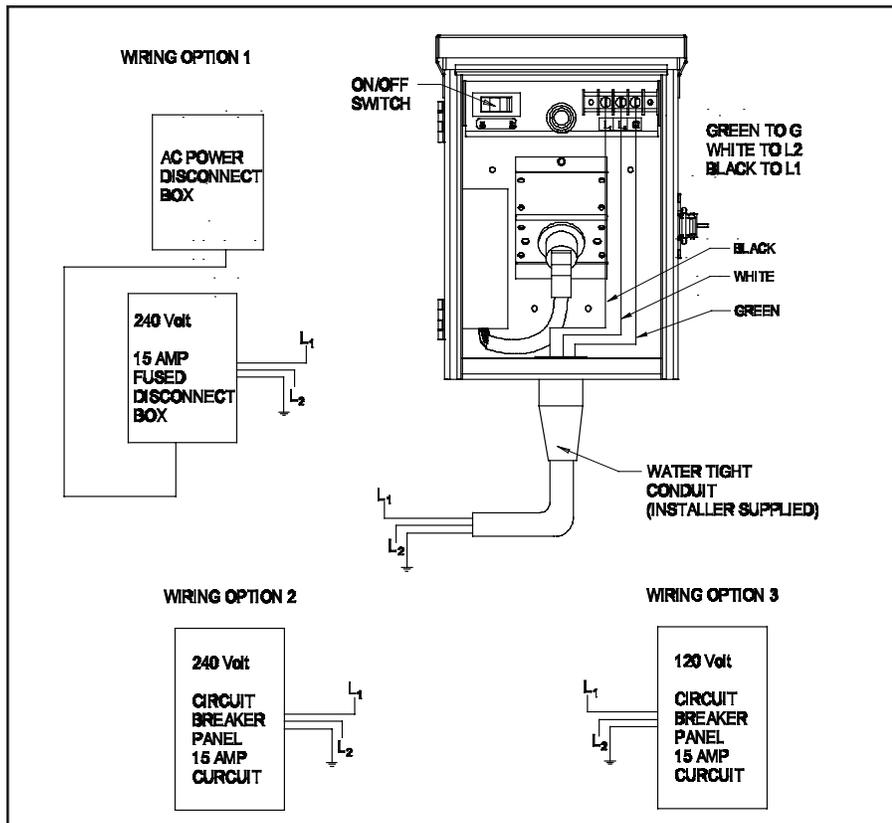


Figure 8

Wire Clip



Figure 9



WARNING: Never expose eyes or skin to UV light from any source. Looking directly at the UV 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.

FLAT BRACKET INSTALLATION

1. Remove the two hex nuts and flat bracket from included bagged hardware.
2. Install the flat bracket and secure to the unit base with the hex nuts provided.
(See Figure 10)

ANGLED BRACKET INSTALLATION

NOTE: For angled bracket mounting, refer to specifications outlined by Diagram A for mounting distances in the Angled Lamp Mounting Bracket Specifications.

1. Remove the two hex nuts and angled bracket from included bagged hardware.
2. Install the angled bracket and secure to the unit base with the hex nuts provided. (See Figure 11) The angle bracket may be mounted in 4 positions allowing the bulb to either be angled up and down or left to right, depending upon duct design. (Figures A-D)

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



Figure 10



Figure 11



Figure A



Figure B



Figure C



Figure D

LAMP INSTALLATION

This unit is listed for use with Field Controls' lamps ONLY. You will need to determine proper lamp selection based on duct size and desired configuration. (Refer to configuration table in this manual.)

15. 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.
16. Insert lamp through hole in bracket until lamp is snug against the bracket.
(See Figure 12)



Figure 12

WARNING: Never expose eyes or skin to UV light from any source. Looking directly at the UV 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.

17. Swing securing bracket over end of lamp and hand-tighten the provided wing nut on stud. (See Figure 13)
18. Plug ballast plug into end of lamp and reconnect power supply. (See Figure 14)
19. Flip the red power switch to the on position. (Light on switch should be on indicating power.)
20. Look through view port 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.)
21. If the lamp is not glowing, make sure the wiring is correct and that the ballast is plugged in securely to lamp. If lamp still does not glow, contact technical support at 1-252-522-3031 for further assistance.
22. After unit has been found to be working properly, note date of installation on inside cover, close cover and engage latch. Apply supplied wire tie to latch or other locking mechanism to provide safety.

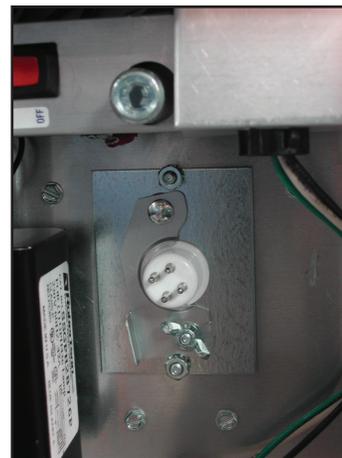


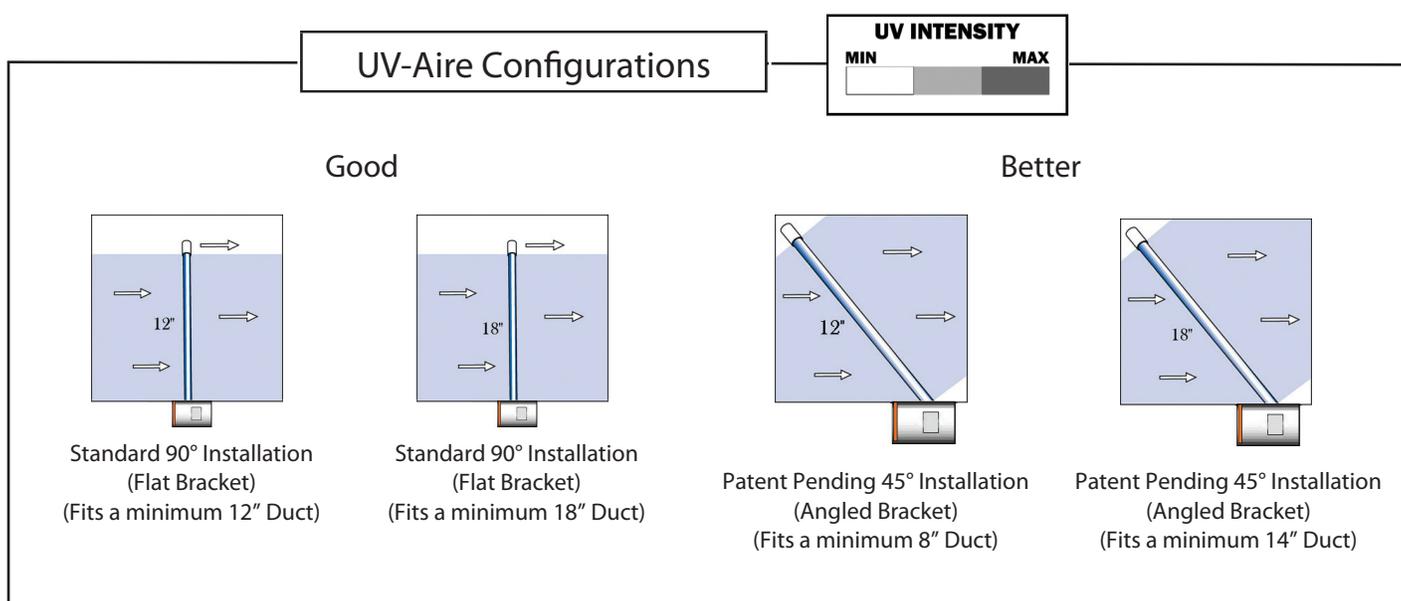
Figure 13



Figure 14

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.

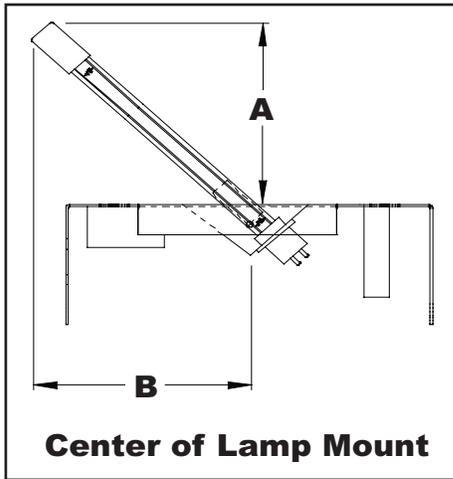


Diagram A

LAMP OFFSET DIMENSIONS			
Lamp Length	A	B	Lamp Part No.
12"	8- $\frac{1}{2}$	6- $\frac{1}{2}$	46365401
18"	13- $\frac{1}{2}$	10- $\frac{5}{16}$	46365402
28"	21- $\frac{3}{8}$	16- $\frac{1}{4}$	46365403

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 lamp's 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 disconnect from power source.

1. Remove wire tie or locking mechanism from latch on unit.
2. Unplug ballast plug from end of lamp.
3. Remove the wing nut on securing bracket. Swing out securing bracket to clear lamp.
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.
8. Replace wire tie or locking mechanism to latch.

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

Lamp Length	LAMP (Field Controls Part Number)	BALLAST (Field Controls Part Number)
12"	46365401	46365506
18"	46365402	46365506
28"	46365403	46365506

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

FLEX DUCT INSTALLATION

For installations on duct systems with a metallic main duct and flex duct branches, follow the instructions in Figure 15 below.

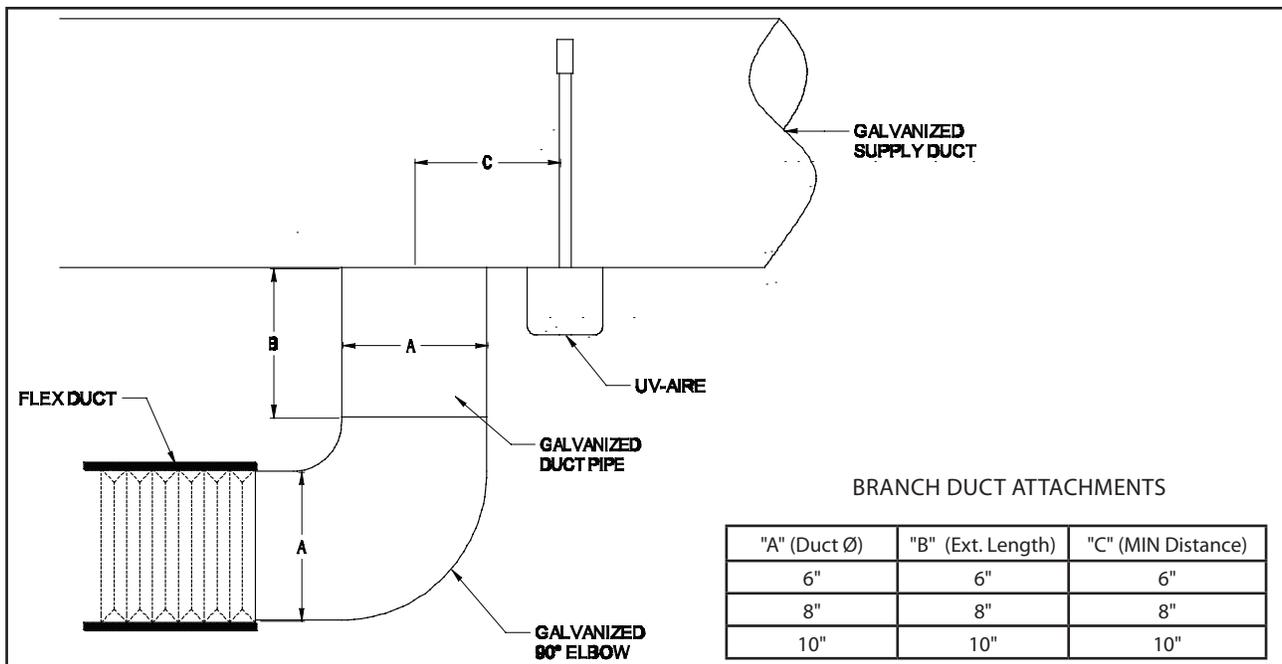


Figure 15

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Warranty

For warranty information about this or any Field Controls product, visit:
www.fieldcontrols.com/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.



FIELD CONTROLS

Phone: 252.522.3031 • Fax: 252.522.0214
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