

# UV-AIRE® AIR PURIFYING SYSTEM

Model: UV-1500C

## ITEMS INCLUDED IN KIT:



- 1- UV-Aire UV-1500 unit
- 10- sheet metal mounting screws
- 2- drop ceiling cover plates
- 4- wall and drop ceiling mounting brackets
- 1- Ultra Violet lamp
- 1- instruction sheet
- 1- 2x4 electrical conduit box and cover
- 4- intake air filters
- 1- carbon filter

\*For best results, operate the UV-1500 continuously 24 hours a day.



UV-C light inhibits the growth and reproduction of germs and bacteria in the air of a home or office. The treatment is a safe, silent, and proven way to make your home or office a healthier place to live and work.

## 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 with the UV chamber open.
-  **WARNING:** DO NOT mount this unit outdoors.
  - This product is designed for indoor installation only.

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

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## GENERAL INFORMATION

Model	Volts	Amps	Hz	Watts	Lamp Intensity at 1 meter	Recommended Max. Sq. Feet	Weight	Width (Inches)	Height (Inches)	Depth (Inches)
UV-1500C	120	1.3	60	130	37 $\mu$ W/cm <sup>2</sup>	1500	15.5 lbs	18	23- <sup>3</sup> / <sub>4</sub>	6- <sup>5</sup> / <sub>16</sub>

 **WARNING:** This product is designed for indoor installation only.

The UV-1500C is designed as a multipurpose room air purification system. The unit can be placed in a room sitting on the floor, it can be mounted on the wall to maximize floor space, or it can be mounted into a suspension (drop) ceiling.



## FEATURES

1. The UV-1500C is equipped with a speed control to allow the user to adjust the airflow through the unit from 35 cfm to 100 cfm.
2. The UV-1500C has a safety shut off switch that disconnects power to the fan and the lamp if the front access door is opened.
3. The UV-1500C is equipped with a circuit board to monitor the operation of the UV lamp; it indicates the operation of the lamp through an LED indicator light mounted on the front access door. The circuit board indicates good operation of the lamp by a continuous "GREEN" color on the LED light. After 8320 hrs of lamp operation, the circuit board indicates the elapsed time of lamp operation by a continuous "YELLOW" color on the LED light and the internal alarm will beep every 15 minutes. After 9000 hrs of lamp operation, the circuit board indicates the elapsed time of lamp operation by a continuous "RED" color on the LED light and the internal alarm will beep every 5 minutes. The board also checks if the UV lamp is burned out. The circuit board will indicate this by a continuous "RED" color on the LED and the internal alarm will beep every 5 minutes.

## UV-1500C CHECK OUT PROCEDURE

1. Plug the power cord into a standard 120-volt wall receptacle.
2. Turn the speed control knob clockwise to turn the unit on. After the fan has started, the LED light will show a continuous "GREEN" color indicating proper unit operation.
3. Once you have determined that the unit is functioning properly, turn unit off and unplug.
4. Continue to next section for mounting options.

 **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.

## FOR AREA OR ROOM OPERATION

1. Place the UV-1500C in the desired area; plug the power cord into a standard 120-volt wall receptacle.
2. Turn the speed control knob clockwise to turn on the unit and to adjust the motor/fan speed to the desired airflow. (See Figure 1)
3. After the fan has started, the LED light will show a continuous "GREEN" color indicating proper unit operation.

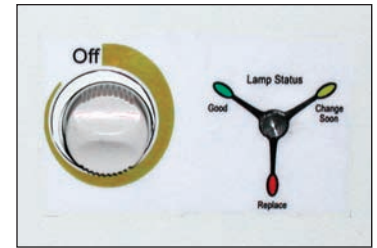


Figure 1

**WALL MOUNTING OPTION** (The UV-1500C is supplied with four mounting brackets to allow the unit to be mounted onto a wall).

1. To install the mounting brackets, remove the eight mounting screws from the back of the UV-1500C. (See Figure 2)
2. Install the four mounting brackets onto the back of the housing securing them with the mounting screws you just removed. (See Figure 3)
3. Determine the desired location on the wall (a 120-volt wall receptacle should be within 5 feet of the unit) and mark the mounting screw locations based on the dimensions given in figure 4A.
4. Install four drywall anchors or other appropriate fasteners rated for at least a 15 lb. load capacity. (See Figure 4B)
5. Mount the unit to the wall. (See Figure 5)
6. Plug the power cord into a standard 120-volt wall receptacle. Turn the speed control knob clockwise to turn on the unit and adjust the motor/fan speed control to the desired airflow.
7. After the fan has started the LED light will show a continuous "GREEN" color indicating proper unit operation.

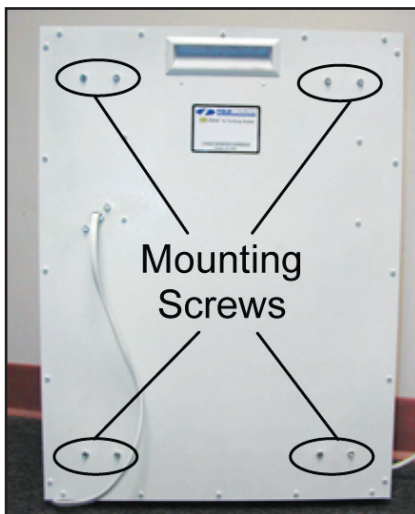


Figure 2

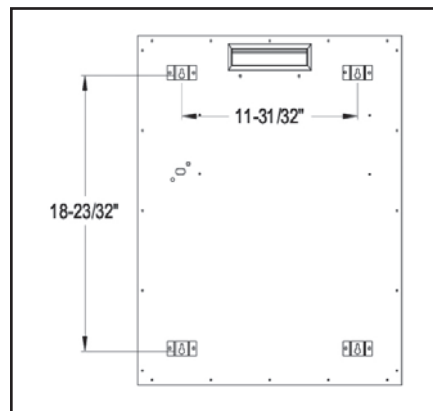


Figure 4A



Figure 4B



Figure 3



Figure 5

**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.

## SUSPENSION OR DROP CEILING OPTION

The UV-1500C must be wired in accordance with the National Electrical Code and any applicable local codes. The UV-1500C must be hard-wired using metal-shielded cable, BX cable or similar wiring methods.

1. Install the four mounting brackets onto the back of the housing securing them with the eight mounting screws. (See Figures 2 & 3)
2. Mount the supplied drop ceiling body extension covers onto the sides of the UV-1500C. These covers allow the UV-1500C to fit into a standard 2 foot by 2 foot ceiling tile space (23- $\frac{3}{4}$ " ). Align the edges of the extension cover to the front of the UV-1500C body and use the holes in the cover as a template to mark the mounting hole locations on the UV-1500C body. (See Figure 6)
3. Drill a  $\frac{1}{8}$ " hole into the body of the UV-1500C at the marked locations. (See Figure 7)
4. Secure the extension covers the UV-1500C body with the supplied metal screws. (See Figure 8 & 9)
5. Remove the two rubber feet on the side of the extension cover from bottom of unit to give necessary clearance for ceiling mount. (See Figure 10)
6. Before hard wiring the UV-1500C, an electrical conduit box must be installed. Remove the wire cover in



Figure 6



Figure 7



Figure 8



Figure 9

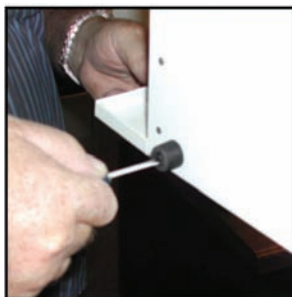


Figure 10

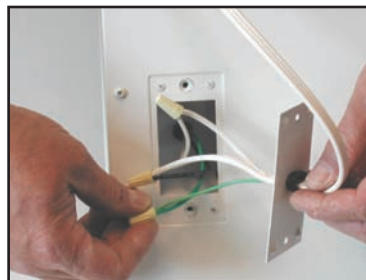


Figure 11



Figure 12

the back of the unit. Uninstall the wire nuts and discard the power cord. (See Figure 11)

7. Mount the supplied electrical conduit box over the power wires and secure with the supplied mounting screws. (See Figure 12)
8. Locate and remove the ceiling tile where the UV-1500C will be mounted.

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9. Install eyelet screws or other appropriate anchors into the ceiling joists above the location where the unit will be installed. If installing the UV-1500C into 4' x 2' tile grid, install an additional suspended ceiling tee bracket into the ceiling grid to form a 2' x 2' tile location. (See Figure 13)
10. Install the UV-1500C into the suspended ceiling grid then install support wires (16 gauge wire) or other suspended ceiling support method between the installed ceiling anchors and the four mounting brackets on the back of the UV-1500C. (See Figure 14)
11. Wire the UV-1500C in accordance with the National Electrical Code, manufacturer's recommendations



Figure 13

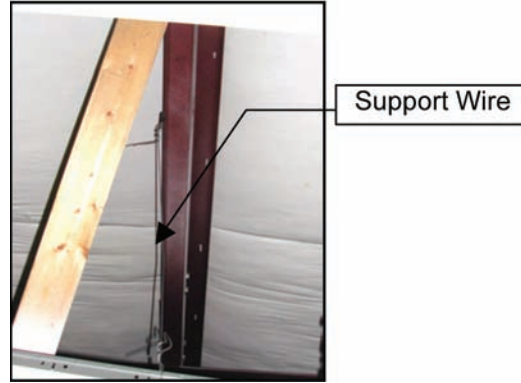


Figure 14

and/or applicable local codes. UNIT MUST BE GROUNDED. Check ground circuit to make certain that the unit has been properly grounded. The wiring should be protected by an over current circuit device rated at 15 amperes. Refer to Diagram A for wiring.

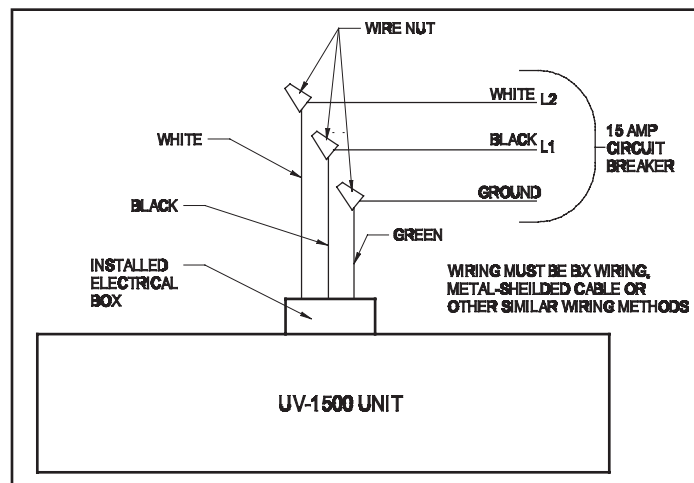


Diagram A

12. Place cover over conduit box. (See Figure 15)
13. Apply power to the UV-1500C. Turn the speed control knob clockwise to turn on the unit and adjust the motor/fan speed control to the desired airflow. After the fan has started the LED light will show a continuous "GREEN" color indicating proper unit operation.



Figure 15

**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.

## MAINTENANCE

1. Replace 12"x 12" intake filter every 90 days, replace carbon outlet filter every 12 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 PROCEDURES REPLACING THE UV LAMP

**VERY IMPORTANT:** Turn the speed control switch on unit to 'OFF' position and unplug unit from outlet or turn off power to the unit before replacing the UV lamp.

1. Loosen the two door-mounting screws on front cover of the UV-1500C. (See Figure 16)
2. Open the cover to expose the filters and the air purification chamber. (See Figure 17)
3. Rotate the two door clips to allow the chamber access door to open. (See Figure 18)
4. Unplug ballast plug from end of lamp and loosen the wing nut on swivel bracket. Swing swivel bracket away from the lamp. (See Figure 19)

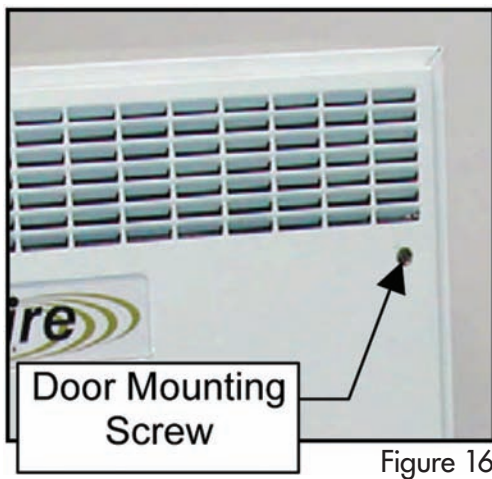


Figure 16



Figure 17

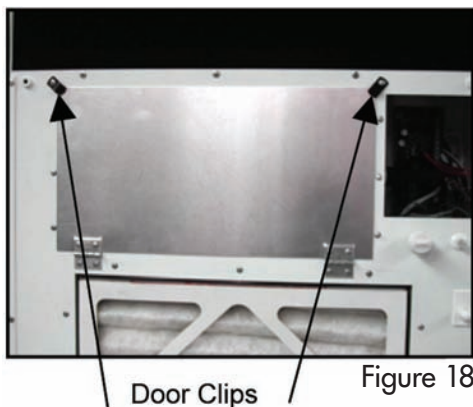


Figure 18



Figure 19

5. Remove lamp carefully, by sliding the lamp to the left through the hole on the left side of the chamber. After exposing the connection end of the lamp inside the chamber, remove the lamp through the front of the unit.

**NOTE:** When replacing the lamp, always wipe off lamp with the supplied alcohol wipe after installing.

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6. Replace the lamp by first guiding the end of the lamp through the hole on the left side of the UV chamber. Next, guide the other end of the lamp through the hole on the right side of the UV chamber. Hold the lamp in position while rotating the swivel bracket into position. Secure the lamp into position by tightening the wing nut onto the swivel bracket.

**NOTE:** 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. Close the chamber access door and rotate the door clips to secure the door into position.

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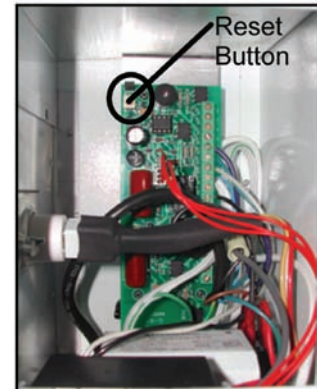


Figure 20

8. Plug the power cord back into the wall receptacle or restore power to the UV-1500C circuit.
9. Turn the knob on the speed control to the on position, press the door switch in, and allow the motor to start and the lamp to light. Wait 30 seconds.
10. Reset the lamp timer by using the eraser end of a pencil or the blunt end of a plastic ink pen and press and hold the timer-reset button on the circuit board for 30-45 seconds (See Figure 20). After releasing the timer- reset button the LED on the front of the unit will flash twice indicating the timing circuit has been reset.
11. Release the door switch, turn the knob on the speed control to the off position and close the front cover of the unit. Secure the cover with the door mounting screws.
12. Turn the speed control knob clockwise to turn on the unit and adjust the motor/fan speed control to the desired airflow. After the fan has started the LED light will show a continuous "GREEN" color indicating proper unit operation.

## REPLACING AIR FILTERS

1. Loosen the two door-mounting screws on front cover of the UV-1500C. Open the cover to expose the filters and the air purification chamber. (See Figure 16)
2. Replace the 12" by 12" air filter by removing the filter and replacing the filter with the wire support side of the filter installed toward the fan intake of the unit. (See Figure 17)
3. Replace the carbon filter by removing the old filter and inserting the new filter back into the filter holder being sure safety switch is depressed.

## TROUBLESHOOTING GUIDE

1. If the LED is illuminating a "YELLOW" color and the circuit board alarm beeps every 15 minutes, then the lamp should be replaced soon.
2. If the LED is illuminating a "RED" color and the circuit board alarm beeps every 5 minutes, then the lamp should be replaced.
3. If lamp does not light up 1) be sure the safety switch located in the carbon filter chamber is depressed with pressure from the filter or 2) replace lamp.
4. If lamp still does not light up after checking the safety switch or replacing the lamp, replace ballast.

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## REPLACEMENT PARTS LIST

LAMP	BALLAST	YEARLY FILTER AND LAMP REPLACEMENT KIT
(Field Controls Part Number) 46365401	(Field Controls Part Number) 46365514	(Field Controls Part Number) 46453600

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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