# Air Scrubber<sup>+</sup> Ozone

by activTek®



# DUCT MOUNTED AIR & SURFACE PURIFICATION SYSTEM

READ MANUAL CAREFULLY FOR PROPER USE AND OPTIMAL OPERATION.

# **GENERAL INFORMATION**

#### PRODUCT OVERVIEW

Congratulations on your purchase of the Air Scrubber\* Ozone by activTek®! The unit is easily mounted into the supply side of air conditioning and heating system air ducts by an electrician or HVAC professional, where it will provide air and surface purification while the HVAC system is running. Please read and follow all service procedures outlined in this manual before installing or performing maintenance.

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## **FILL IN AND SAVE**

Record information regarding your new Air Scrubber <sup>+</sup> Ozone by activTek here. Retain for future reference.						
Model No.						
Serial No.						
Date of Purchase						
Distributor/Contractor:						
Name						
Phone No.						
Address						

#### **SPECIFICATIONS**

## Air Scrubber\* Ozone by activTek

Sales Number: 9960051Model Number: A1013AA

**DOES NOT** meet California requirements and cannot be shipped in California or Canada.

## Technology:

- (1) 9" activTek Cell Assembly
- Ozone (O<sub>3</sub>)

#### Electrical:

- Input Voltage: 24 VAC; ~ 50/60Hz
- Current: 1.0 A
- Power: 17 Watts
- Power Factor: 0.99

#### Mechanical:

- · Distribution via Air Handler
- · Safety Switch installed

#### Weight & Dimensions:

- 3 lbs (1.36 kg)
- 8.5" H x 8.5" W x 11" D (21.59 cm x 21.59 cm x 27.94 cm)

#### Operating Temperature:

• 34°F to 200°F (1°C – 93°C)

#### Coverage:

Up to 2,000 sq. ft. (186 m²) nominal;
 3,000 sq. ft. (279 m²) maximum, depending upon occupant density and other factors.

#### Warranty:

 Limited Five (5) Year Warranty; 2 year warranty on activTek® Cell Assembly

We reserve the right to change or modify any specification without notice.

## STORAGE AND DISPOSAL

Do not dispose of this product as household waste. Electrical waste and electronic products should be appropriately recycled as required by practices established by your local authority.

EPA Est. 87327-VA-1





If you have any questions regarding the use of this product, please contact Customer Service at 866.736.0503 or email support@activTek.net

# IMPORTANT SAFETY INSTRUCTIONS



- UV Light in operation; disconnect unit from power supply before servicing; failure to follow warnings may result in severe eye damage and electrical shock
- To prevent damage to the unit, operating environment temperature must never exceed 200°F (93°C)
- . DO NOT use this unit with an extension cord
- To reduce the risk of electric shock, this equipment may have a
  grounding type plug that has a third (grounding) pin; this plug will only
  fit into a grounding type power outlet; if the plug does not fit into the
  outlet, contact qualified personnel to install the proper outlet; DO NOT
  alter the plug in any way
- This unit is equipped with a universal ballast that operates at a nominal voltage of 24 VAC
- To Reduce the Risk of Electric Shock DO NOT use in wet or damp locations; this equipment emits UV-C radiation; DO NOT locate equipment in any location allowing direct line-of-sight to vents, returns, or other duct openings
- DO NOT connect this unit to any voltage source above 32 volts; doing so will cause damage to the unit



- Wiring and installation of this unit must be done by a licensed HVAC contractor or electrician; failure to do so will void warranty of the product
- When the unit is installed in a roof mounted HVAC system, the unit must be protected from the elements
- The Air Scrubber\* Ozone by activTek® requires power 24/7; DO NOT install where power to the unit will be cycled on and off



Location for Protective Earth Line.

Read this manual in its entirety before using your Air Scrubber\* Ozone by activTek.

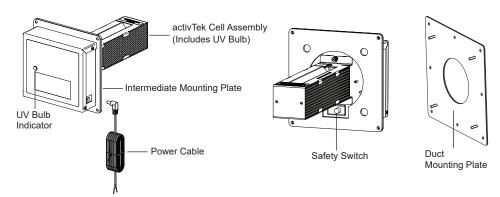
Keep out of the reach of children.

- · Live voltage may be present
- Power Connection Requirements: This device is designed to operate using a 24 VAC, 40Va transformer.
   Transformers supplied with a straight cooling or HVAC system may be used to power the device but must be verified it's capable of handling the additional device load before installation. If the system transformer is not capable of handing the extra load, a separate 24 VAC, 40Va transformer MUST be used. Do not connect the device to any power source with a voltage less than 22 VAC and a maximum of 32 VAC.

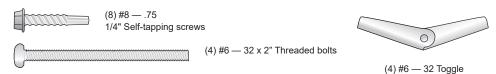
   Doing so will cause damage to the device
- Disconnect power at the breaker or fuse panel before servicing unit; always follow OSHA lockout procedures
  to prevent accidental exposure to electrical energy
- If installed near a furnace or where emergency heat coils could raise the temperature inside the plenum, cycle
  the AC unit through the heating cycles assuring that the temperature never exceeds 200°F (93°C);
   the activTek® Cell Assembly must not exceed 200°F (93°C)
- If the unit is hard wired, be sure the power to the unit is off; always follow OSHA electrical lockout safety requirements to prevent accidental release of energy during service or maintenance activities
- Never attempt to check operation of the activTek® Cell Assembly by direct observation; severe eye damage
  can result; check the indicator light on the front face of the unit, if light is On the Cell is working

# PRODUCT FEATURES

It is important to be familiar with the parts of the Air Scrubber\* Ozone by activTek. If any parts are missing, contact your sales representative or Customer Service at 866.736.0503 or email support@activtek.net.



# **INSTALLATION HARDWARE (SUPPLIED)**





- (2) Black thumb nuts
- (4) Off-white thumb nuts

# RECOMMENDED INSTALLATION TOOLS



When the unit is installed in a roof mounted HVAC system, the unit must be protected from elements.



3 ½" Hole Saw (for wood or metal)



Drill / Power Driver



Phillips Screwdriver



3/8" Drill Bit (if installing into fiberglass ducting with toggle bolts)



bolt wall anchors

1/4" Nut Driver Bit

## YOU MAY ALSO NEED:



Utility Knife



Tin Snips (for metal ductwork)



**Dust Mask** 

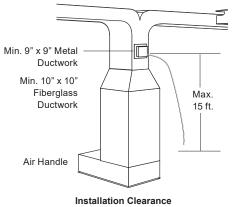
# INSTALLATION REQUIREMENTS



- Power Connection Requirements: This device is designed to operate using a 24 VAC, 40Va transformer; transformers supplied with a straight cooling or HVAC system may be used to power the device but must be verified it's capable of handling the additional device load before installation; if the system transformer is not capable of handing the extra load, a separate
   24 VAC, 40Va transformer MUST be used; DO NOT connect the device to any power source with a voltage less than 22 VAC and a maximum of 32 VAC; doing so will cause damage to the device
- If installed near a furnace or where emergency heat coils could raise the temperature inside the plenum, cycle the AC unit through the heating cycles assuring that the temperature never exceeds 200°F (93°C); the activTek® Cell Assembly must not exceed 200°F (93°C)



- This unit must be installed by a licensed HVAC contractor or electrician; failure to do so will void warranty of the product
- When the unit is installed in a roof mounted HVAC system, the unit must be protected from the elements
- The Air Scrubber\* Ozone by activTek® requires power 24/7; DO NOT install where power to the unit will be cycled on and off
- The Air Scrubber\* Ozone by activTek® unit should be installed after the air handler in the HVAC system.
- The ductwork around the installation area should be clean and dry to ensure proper adhesion of the gasket materials and any tape used.
- When installing near a furnace or heating coils, run the heating system through the heating cycles to ensure the temperature of the Air Scrubber\* Ozone by activTek unit does not exceed 200°F (93°C).
- 4. An approximate 3.5" (8.89 cm) opening will need to be cut into the existing ductwork to install the unit properly.



**NOTE:** The Air Scrubber\* Ozone by activTek® requires power 24/7.

Do not install where power to the unit will be cycled on and off.

# INSTALLING THE UNIT



To Reduce the Risk of Electric Shock – **DO NOT** use in wet or damp locations. This equipment emits UV-C radiation. **DO NOT** locate equipment in any location allowing direct line-of-sight to vents, returns, or other duct openings. Disconnect from supply before servicing or replacing.



- Hard wiring unit into HVAC system must be done by a licensed HVAC installer or electrical contractor only
- When the unit is installed in a roof mounted HVAC system, the unit must be protected from elements
- The Air Scrubber\* Ozone by activTek® requires power 24/7; DO NOT install where power to the unit will be cycled on and off

Find the optimal position downstream from the air handler. Ensure location in duct has enough room for the mounting plate. It is recommended for maximum effectiveness that the unit be placed as close to the air handler as possible.



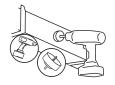
 Locate suitable area of duct for installation.



Cut away insulation to expose metal duct (if needed).

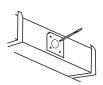


Mark location for
 5" opening using the
 Duct Mounting Plate.

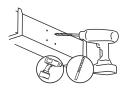


 Cut hole in Duct Mounting Plate using 3.5" hole saw.

## **ALTERNATE CUTTING METHOD:**



Using the Duct Mounting
 Plate, mark four cutting
 method holes on duct.



 b. Drill four holes where marked.



c. Cut between holes using tin snips.

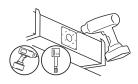
# **INSTALLING THE UNIT (CONTINUED)**



Remove backing from Duct Mounting Plate adhesive gasket.



Center openings and press Duct Mounting Plate onto duct. The adhesive gasket will hold the mounting plate in place.



7. Secure the Duct Mounting Plate using eight (8) #8 self-tapping screws.



8. Insert unit into opening.

Be sure the air will pass though the activTek® Cell Assembly Honeycomb matrix.



9. Secure the unit to the Duct Mounting Plate with four (4) off-white thumb nuts.

## Vertical Mount Option

If installing in a vertical up flow duct, it may be necessary to rotate the activTek Cell Assembly 90 (degrees) to keep the honeycomb in the airflow. Use (2) black thumb nuts to secure the activTek Cell Assembly onto the unit.

NOTE: The Air Scrubber\* Ozone by activTek® requires power 24/7.

Do not install where power to the unit will be cycled on and off.

# WIRING THE UNIT

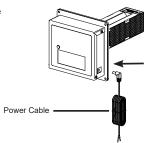


Disconnect power at the breaker or fuse panel before servicing unit.

Always follow OSHA lockout procedures to prevent accidental exposure to electrical energy.



- Hard wiring unit into HVAC system should be done by a licensed HVAC installer or qualified electrical contractor only
- The Air Scrubber\* Ozone by activTek requires power 24/7; DO NOT install where power to the unit will be cycled on and off
- The Power Cable is separate from the unit. Attach the Power Cable to the transformer, then plug the Power Cable into the side of the unit.
- 2. Check indicator light for proper operation with fan on.



# MAINTENANCE / UV BULB INDICATOR

Your Air Scrubber\* Ozone by activTek unit requires no periodic maintenance beyond normal replacement of the activTek Cell Assembly every two (2) years. UV Bulb has an effective life of 18,000 continuous hours.

The UV Bulb Indicator on the face of the unit will glow when the UV Bulb is in use. If the indicator does not glow and the unit has power, the activTek Cell Assembly should be replaced.



UV Bulb Indicator

NOTE: For optimal performance and to maintain the limited 5 year warranty, it is required to replace the activTek Cell Assembly once every two (2) years, even if the UV Bulb appears to be operating normally.

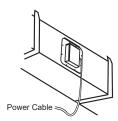
# REPLACING THE ACTIVTEK® CELL ASSEMBLY



- UV Light in operation; disconnect unit from Power Cable before servicing; failure to follow warnings may result in severe eye damage
- Disconnect power at the breaker or fuse panel before servicing unit; always follow OSHA lockout procedures to prevent accidental exposure to electrical energy



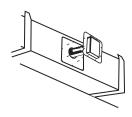
For optimal performance and to maintain the limited 5 year warranty, it is required to replace the activTek Cell Assembly once every two (2) years, even if the UV Bulb appears to be operating normally.



Disconnect (unplug)
 Power Cable from unit.

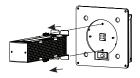


2. Remove the four (4) thumb nuts.

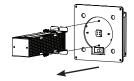


Remove the unit from the Duct Mounting Plate.

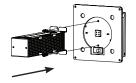
# REPLACING THE ACTIVTEK® CELL ASSEMBLY (CONTINUED)



 Remove the two (2) thumb screws holding the activTek Cell Assembly.

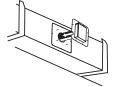


Remove the used activTek
 Cell Assembly from the
 base unit and dispose of
 the cell properly.

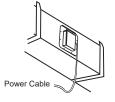


Plug the new activTek Cell
 Assembly into the base unit.
 Be sure Air Flow / Honeycomb
 Cell direction is correct.









Secure with two (2) thumb screws.

Insert the Air Scrubber\*
 Ozone by activTek®
 into the Duct
 Mounting Plate.

Secure unit with four
 thumb nuts.

Reconnect Power Cable.

**NOTE:** Always follow OSHA electrical lockout safety requirements to prevent accidental release of energy during service or maintenance activities.



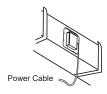
Visit lamprecycle.org for proper bulb disposal regulations

# REPLACING THE BALLAST



- UV Light in operation; disconnect unit from Power Cable before servicing; failure to follow warnings may result in severe eye damage
- Disconnect power at the breaker or fuse panel before servicing unit; always follow OSHA lockout procedures to prevent accidental exposure to electrical energy

# REPLACING THE BALLAST (CONTINUED)



Disconnect (unplug)
 Power Cable from unit.



2. Open the ballast housing by removing the four (4) screws, then remove the cover.



Disconnect all ballast
 wiring by pressing down on
 connector tabs and pulling
 wire straight out.



 Remove the two (2) nuts securing ballast to the case.
 Remove the ballast.



 Place new ballast into the original location and secure using the two (2) nuts removed in step 4.



 To reconnect wiring, insert wire into wire pocket in ballast until bottomed. Gently pull wire to ensure it is properly connected.



7. Replace cover and secure with the original four (4) screws.



 Re-install unit if removed from duct. Reconnect Power Cable, turn breaker or fuse power back on and check for proper operation.

NOTE: UV Bulb Indicator should be lit when in operation.

**NOTE:** Always follow OSHA electrical lockout safety requirements to prevent accidental release of energy during service or maintenance activities.

For questions on maintenance procedures, contact Customer Service at 866.736.0503 or email support@activTek.net

# TROUBLESHOOTING



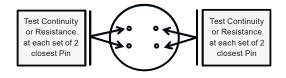
- UV Light in operation; disconnect unit from Power Cable before servicing; failure to follow warnings may result in severe eye damage
- · Live voltage may be present
- Disconnect power at the breaker or fuse panel before servicing unit; always follow OSHA lockout procedures to prevent accidental exposure to electrical energy



This unit must be installed and serviced by a licensed HVAC contractor or electrician. Failure to do so will void the warrant of the product.

#### **Tools Required:**

- · 1/4 Nut Driver
- · Phillips Head Screwdriver
- Multimeter
- Small Flat Head Screwdriver
- Flashlight
- 1. Check the incoming voltage by unplugging the Power Cable from the side of the Air Scrubber\* Ozone by activTek® and placing one probe on the outside of the plug and the other on the inside of the plug. Voltage measurement should read 22 32 VAC. If no voltage is measured, first verify current is getting to the transformer. If it is, then replace the transformer supplying power to the Air Scrubber\* Ozone by activTek.
- 2. Leave unit attached to ducting. Remove four (4) Phillips head screws from the cover of the unit. Remove the cover. Unplug the black and white wires from the ballast. Check incoming voltage by placing Multimeter probes on the two exposed wires. Voltage measurement should be between 22 32 VAC. If there is no voltage reading, power is not supplied to the unit. Check power source and verify the Air Scrubber+ Ozone by activTek Safety Switch is fully depressed. Safety switch plunger is located underneath the unit and is depressed when unit is secured to mounting plate.
- 3. Re-plug the black and white wires to the ballast.
- 4. Remove unit from the duct by taking off the four (4) 11/32 thumb nuts that secure the unit to the mounting plate.
- 5. Remove the two (2) Phillips head screws that hold the activTek Cell Assembly in place. Remove the UV Bulb from the 4-pin connector by placing a small flat head screwdriver between the 4-pin connector and the UV Bulb base. Gently pry and lift up on the Cell until the UV Bulb is unseated from the 4-pin connector, remove the activTek Cell Assembly.
- 6. Check the continuity of the UV Bulb filaments with a Multimeter by placing the Multimeter probes on the UV Bulb pins that are closest to each other. The Multimeter should beep if the filaments are not broken. Resistance can also be checked if continuity is not available on the Multimeter. Resistance should be between 3 5 ohms. If continuity or resistance check is bad, replace the activTek® Cell Assembly.
- 7. If continuity or resistance check is good, replace the ballast. To replace the ballast follow these steps.

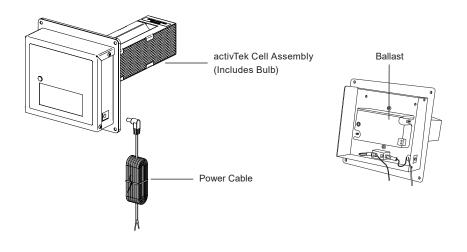


# REPLACEMENT PARTS & SERVICE



Use only replacement parts recommended by the manufacturer.

REPLACEMENT PARTS	PART NUMBER
activTek Cell Assembly - (1) 9" Cell (O³) <b>NOTE:</b> Not available in Canada and California	62005
Ballast	9950102
Power Cable	9950103



To order replacement parts, contact Customer Service at 866.736.0503 or email support@activTek.net

# WARRANTY INFORMATION

### Limited Five (5) Year Warranty

To register your Air Scrubber\* Ozone by activTek® unit, visit activTek.net/warranty or contact Customer Service at 866.736.0503 or email support@activTek.net.

Customer should not repackage and ship the Air Scrubber\* Ozone by activTek\* unit due to possibility of irreparable damage. For warranty service, please contact your HVAC Contractor or contact Customer Service at 866.736.0503 or email support@activTek.net.

#### WHAT IS COVERED BY THIS WARRANTY

We warrant the Air Scrubber\* Ozone by activTek to the Customer, subject to the conditions below, against defects in workmanship or material, provided that the products are returned to a service location within the following time periods:

- Air Scrubber<sup>+</sup> Ozone by activTek (excluding the activTek<sup>®</sup> Cell Assembly) within five (5) years of date of purchase.
- activTek Cell Assembly within two (2) years of date
  of purchase if the Air Scrubber\* Ozone by activTek is
  connected to a power source where the activTek Cell
  Assembly is "ON" 100% of the time. If the Air Scrubber\*
  Ozone by activTek is connected to the fan circuit where
  the activTek Cell Assembly cycles "ON and OFF" with the
  system fan, the activTek Cell Assembly is only covered by a
  ninety (90) day warranty from date of purchase.

#### INSTALLATION AND MAINTENANCE REQUIREMENTS

This warranty is expressly conditioned upon proper installation, operation, cleaning and maintenance, all in accordance with the Owner's Manual. Failure to meet any of these requirements will void this warranty. Servicing of your Air Scrubber\* Ozone by activTek by parties other than our authorized representatives and/or using parts other than genuine parts will also void this warranty.

This warranty is contingent upon:

 Replacing the activTek Cell Assembly once every 2 years with a genuine activTek part (proof of change may be required).

#### HOW TO OBTAIN WARRANTY SERVICE

Customer must contact Customer Service at 866.736.0503 or email support@activTek.net and provide proof of purchase within the above time periods. activTek will repair or replace and return the product, without charge and within a reasonable period of time, subject to the conditions herein, if its examination shall disclose any part to be defective in workmanship or material. If we, in our discretion, are unable to repair the product after a reasonable number of attempts, we will provide either a refund of the purchase price or a replacement unit, at the company's option. We reserve the right to inspect and/or require confirmation of installation method. We reserve the right to inspect and/or require confirmation of installation method.

### WHAT IS NOT COVERED BY THIS WARRANTY

Ordinary wear and tear shall not be considered a defect in workmanship or material. These warranties do not apply for loss or damage caused by accident, fire, abuse, misuse, improper installation, leaking, modification, misapplication, or by any repairs other than those provided by our authorized Service Center. This warranty is non-transferable.

# MISSING SERIAL NUMBERS AND

If a valid serial number is missing from the product, the warranty will be voided, activTek products are for sale through authorized HVAC Contractors only. Warranties are voided if a product is purchased through unauthorized channels; this includes company sponsored or independent websites that are not authorized to use activTek trademarked names, images and logos as well as Internet auction sites (e.g. eBay and craigslist). To confirm warranty coverage prior to purchasing a product, contact Customer Service at 866.736.0503 with the serial number located on the unit.

# EXCLUSION OF OTHER WARRANTIES AND CONDITIONS

EXCEPT AS PROVIDED HEREIN, WE MAKE NO REPRESENTATION OR WARRANTY OF ANY KIND. ALL OTHER WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, ARE HEREBY EXPRESSLY DISCLAIMED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

# LIMITATION OF LIABILITY FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES

WE SHALL NOT IN ANY CASE BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM BREACH OF EXPRESSED OR IMPLIED WARRANTIES, CONDITIONS, GUARANTEES OR REPRESENTATIONS, BREACH OF CONTRACT, NEGLIGENCE OR ANY OTHER LEGAL THEORY. Such excluded damages include, but are not limited to, loss of profits or revenue, and loss of the use of the products, and any loss caused by leaks or other water damage.

### FOR U.S. APPLICATION ONLY

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on warranties, or on remedies for breach. In such states, the above limitations may not apply to you.

This warranty is provided by:

activTek Environmental, LLC 1300 Valley Drive Bristol, VA 24201

#### SERVICE

Every effort is made to ensure customers receive an up-to-date instructions manual on the use of our products; however, from time to time, modifications to our products may without notice make the information contained herein subject to alteration. For the latest information, please contact Customer Service at 866.736.0503 or email support@activTek.net.

# **FCC DECLARATION & RESPONSIBLE PARTY**

This equipment has been tested and found to comply with a Class B digital device, pursuant of Part 15 of the FCC Rules These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions. may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the HVAC Contractor or an experienced radio/TV technician for help.

**FCC Declaration of Conformity** 

Name: Air Scrubber\* Ozone by activTek

Models: A1013AA

Manufactured by: activTek Environmental, LLC

This device complies with Part 15 of the FCC Rules.

**Responsible Party** 

activTek Environmental, LLC 1300 Valley Drive Bristol, VA 24201

Ph: 866.736.0503

Signature:

Printed Name: Andrew Eide

Title: Vice President of Product Development

1.3

and Manufacturing

Date: 10/03/2024



For information regarding the use of this product, please call Customer Service.

866.736.0503 support@activTek.net