

OWNER'S MANUAL

# AIR KNIGHT®

AIR PURIFICATION SYSTEM



TT-AK245-V2 - 5" MODEL

TT-AK249-V2 - 9" MODEL



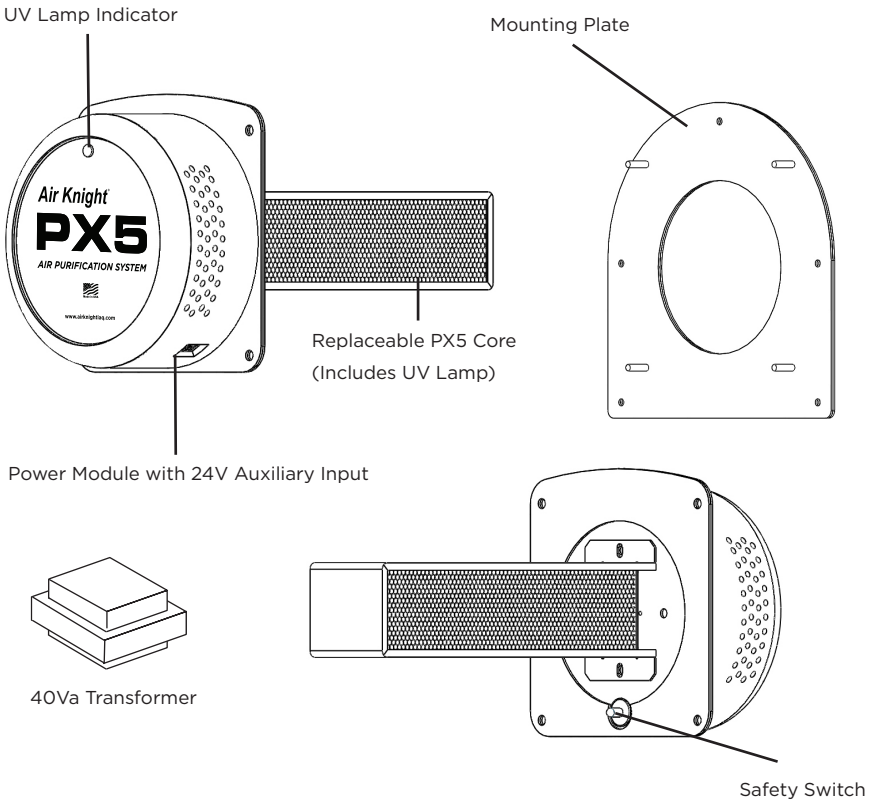
TECHNOLOGY  
SERIES



## BEFORE INSTALLATION

- Read all instructions carefully. Failure to do so could damage the equipment or cause harm to yourself or others.
- Acknowledge all warnings.
- Only qualified technicians should perform the installation.

## UNIT COMPONENTS



## INSTALLATION HARDWARE

- |  |  |
|--|--|
| (5) 3/4" #8 Self Tapping Screws w/ 1/4" Hex Head | (2) 1/2" #10 Self Tapping Screws w/ 5/16" Hex Head |
| (5) 3" Threaded Bolts w/ Phillips Head           | (4) 1/2" Brass Knurled Thumb Nuts #8-32            |
| (5) Butterfly Toggle Bolt Anchors                | (4) #8 Star Lock Washers                           |
| (6) 18-22 Gauge Wire Screw-On Nuts               |  |

# SPECIFICATIONS

MODEL	AIR KNIGHT® 5"	AIR KNIGHT® 9"
DIMENSIONS	6.5"H X 6"W X 8.5"L	6.5"H X 6"W X 11.75"L
MOUNTING PLATE	8"H x 8"W	
ELECTRICAL	AC 24V 50/60Hz. Expanded range ballast.	
POWER CONSUMPTION	13.3 Watts	
AIRFLOW	Suitable for up to 2.5 ton systems	Suitable for 3+ ton systems
HEAT RATING	176°F (80°C)	
WARRANTY	5-yr power supply. 2-yr cell.	
PART #	TT-AK245-V2	TT-AK249-V2
REPLACEMENT CELL PART #	TT-AKCELL-5	TT-AKCELL-9

Specifications subject to change without notice.



As additional safety support, the Air Knight product-line has received the following universally accepted UL certified listings; UL 1598, UL 1995, UL 867, CSA C22.2 No. 250.0 and CSA C22.2 No. 236. We are not aware of any other manufacturer of in-duct Pro-Active Air Purifiers that has received design validation from UL.

U.S. Patent Nos.: 5,334,347, 5,817,276, 6,245,293, 6,267,924, 6,280,686, 6,313,470, 6,627,000, 6,539,727, 6,932,494, 6,550,257.

## EPA Establishment No. 73316-TX-1

Visit <https://www.airknightiaq.com/testing> for a list of micro-organisms inactivated by Air Knight® products.

The product and technologies described are not medical devices, and are not intended to diagnose, treat, cure, or prevent any disease or illness.

All claims made herein are based on third-party laboratory testing paid for by Dust Free®, LP.



ZERO OZONE EMISSIONS - MEASURED OZONE EMISSIONS FROM AIR KNIGHT PX5 DURING USE PHASE DOES NOT EXCEED 0.005 PPM AS TESTED BY UL 867.  
UL.COM/ECV



## NOTICE

### Qualified Technicians Only.

*This device must be installed in compliance with all national and local electrical and mechanical codes. Failure to do so will void Dust Free® Warranty.*

## INSTALLATION NOTES

1. Unit should be installed after the air handler or furnace in the HVAC system, prior to any branch duct takeoffs.
2. The ductwork around the installation area should be clean and dry to insure proper adhesion of the gasket materials and any tape used.
3. An approximate 4" opening will need to be cut into the existing ductwork to install unit properly.

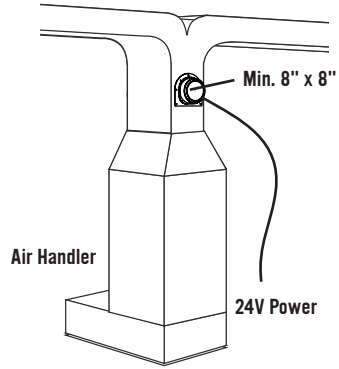


Fig. 1 HVAC system.

## AIRFLOW ORIENTATION

Be sure to orient the unit for proper airflow through the PX5 core in either horizontal or vertical air flow systems. Air should be able to freely flow through PX5 core as shown.

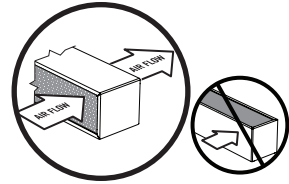


Fig. 2 Orient core in proper airflow direction.

**Remove air flow tag BEFORE installation.**



### **NOTICE**

#### **Qualified Technicians Only.**

*This device must be installed in compliance with all national and local electrical and mechanical codes. Failure to do so will void Dust Free® Warranty.*

## METAL DUCTWORK INSTALLATION

- Locate a suitable area of the duct for installation. Minimum 8" area. If needed, cut away insulation to expose metal duct.
- Mark location for 4" opening using the included mounting plate as a template.
- Cut opening for the device.
- Remove the backing from the mounting plate gasket, center mounting plate over opening, and press onto the duct. The adhesive gasket will hold the mounting plate in place.
- Secure the mounting plate using self-tapping screws.
- Insert device into opening and secure with knurled nuts.  
Note: Be sure airflow will pass in the proper direction as indicated by the arrow on the top of the core. (See fig.3)
- Connect to proper power and test operation. The operation indicator light on the face of the device should be on.

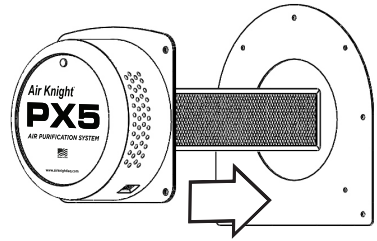


Fig. 3 Cut opening in duct, attach mounting plate, and install device.

## FIBERGLASS DUCTWORK INSTALLATION

For fiberglass ductwork installations, follow metal ductwork installation steps, but use 3" toggle bolts to attach mounting plate.

**! WARNING**  
**Electric Shock Hazard.**  
**Can cause injury or death.**  
*Electrical wiring of the unit to the HVAC system should be done by a licensed HVAC technician or electrical installer.*

**! WARNING**  
**UV Light Hazard.**  
**Can cause serious eye and skin damage.**  
*Do not look at UV-C light. Wear UV-C eye and skin protection*

## MAINTENANCE/UV LAMP INDICATOR

For optimal performance, replace the PX5 core w/UV lamp (5" core - #TT-AKCELL-5, 9" core - #TT-AKCELL-9) every 2 years, even if the UV lamp appears to be operating normally.



The LED on the face of the device indicates proper UV lamp operation. If the indicator does not glow after verifying the unit has power, proceed to replacing the UV lamp.

## DISPOSAL OF PX5 CORE AND UV LAMP

Dispose of spent PX5 core and UV lamp at your local recycling center. You may also send your spent PX5 core and UV lamp, in the same container you received your replacement, to:

### **Air Knight Reclamation:**

1112 Industrial Drive  
Royse City, TX 75189

Hg-LAMP CONTAINS MERCURY Manage in accord with disposal laws.  
See: [www.lamprecycle.org](http://www.lamprecycle.org)

**⚠ WARNING**  
**Mercury Hazard. Do Not Break.**  
*UV-C lamp contains a small amount of Mercury. May cause redness or irritation.  
Manage in accordance with disposal laws. [www.lamprecycle.org](http://www.lamprecycle.org)*

## CHANGING THE CORE OR UV-C LAMP

- Disconnect the device from power.
- Removed the knurled nuts securing the device and remove the device from the core.
- Remove the screws securing the core.
- Remove the core from the device and dispose of properly. Note: If only changing the UV-C lamp, detach lamp from device and dispose of properly.
- Secure the new core or new UV-C lamp to the device.
- Reverse the previous steps to return the device to operation.

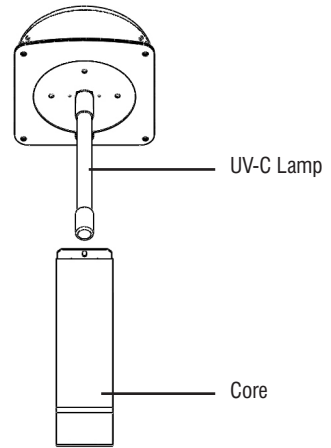


Fig. 4 Replace core and UV-C lamp every 2 years.



### **WARNING**

**Electric Shock Hazard.**  
**Can cause injury or death.**

*Electrical wiring of the unit to the HVAC system should be done by a licensed HVAC technician or electrical installer.*



### **WARNING**

**UV Light Hazard.**  
**Can cause serious eye and skin damage.**

*Do not look at UV-C light. Wear UV-C eye and skin protection*

## LIMITED WARRANTY

This warranty supersedes and replaces any warranty statements made orally by the Sales Person, Distributor, or Dealer, or contained within the written instructions or other brochures or informational documents related to this product.

Dust Free®, LP (Dust Free) warrants to the original purchaser that the Air Knight® Active Air Purifier (other than the PX5™ core and the UV Lamp) shall be free from defect in material and workmanship under normal use and service, for a period of five (5) years from the date of original purchase. Dust Free warrants to the original purchaser that the PX5 Core, Lamp and Catalyst Cell shall be free from defect in material and workmanship under normal use and service, for a period of two (2) years from the date of original purchase. Dust Free's obligation under this warranty shall be limited to the repair or replacement of those goods which prove defective, provided that such products are installed, maintained, and operated for the purpose and in the manner intended and for which Dust Free instructs or recommends. Neither Dust Free nor its dealers shall be liable for any special or consequential damages directly or indirectly arising from the design, construction, installation, servicing, or operation of the goods. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. THIS IS DUST FREE'S SOLE WARRANTY AND THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. NEITHER DUST FREES NOR ITS DEALERS MAKE ANY OTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED DUST FREES' AFFORESTATED OBLIGATIONS ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. DUST FREE'S AND ITS DEALER'S LIABILITY UNDER THIS WARRANTY SHALL IN NO EVENT EXCEED THE COST OF THE GOODS SOLD UNDER THE CONTRACT OF SALE.

Dust Free neither assumes, nor authorizes any person to assume for it, any obligation in connection with the goods. This warranty shall not apply to any goods: (a) which have been subjected to misuse, tampering, negligence, or accidents; (b) the serial numbers of which have been altered, defaced, or removed; or (c) which have been used in a manner contrary to Dust Free's instructions or recommendations. This warranty may not be assigned or transferred. If any portion of this limited warranty is held illegal or unenforceable by reason of any law, such partial illegality or unenforceability shall not affect the enforceability of the remainder of this limited warranty.

### **For Warranty Claims:**

**By Telephone:** Call Dust Free® at 1-972-635-2323, and ask to speak with a Customer Service Representative regarding a potential Warranty Claim. The Customer Service Representative will provide further instructions.

**By Website:** Visit Dust Free's website at [www.dustfree.com](http://www.dustfree.com) and click on the "Contact" link to report a potential Warranty Claim. A Customer Service Representative will reply by email and can provide further instructions.

Dust Free®, LP, PO Box 519, Royse City, TX 75189. Please do not mail Warranty Claim requests or your product to this address. Warranty Claim requests are only accepted by telephone and through the website.

Include a copy of your Bill of Sale, Invoice or Receipt of Purchase, with an explanation of the problem or defect.