

## TROUBLESHOOTING

- The LED should light when the furnace blower is running.
- Both lamps use the same multivoltage ballast.

### If the LED does not light:

1. Check to be sure there is power to the unit.
2. Be sure lamp connectors are fastened securely.
3. If the LED still does not light, replace lamp(s).
4. If still not operating, replace ballast.

*Note: Standard off-the-shelf lamps are not compatible with this unit. Use of improper lamps will void warranty.*

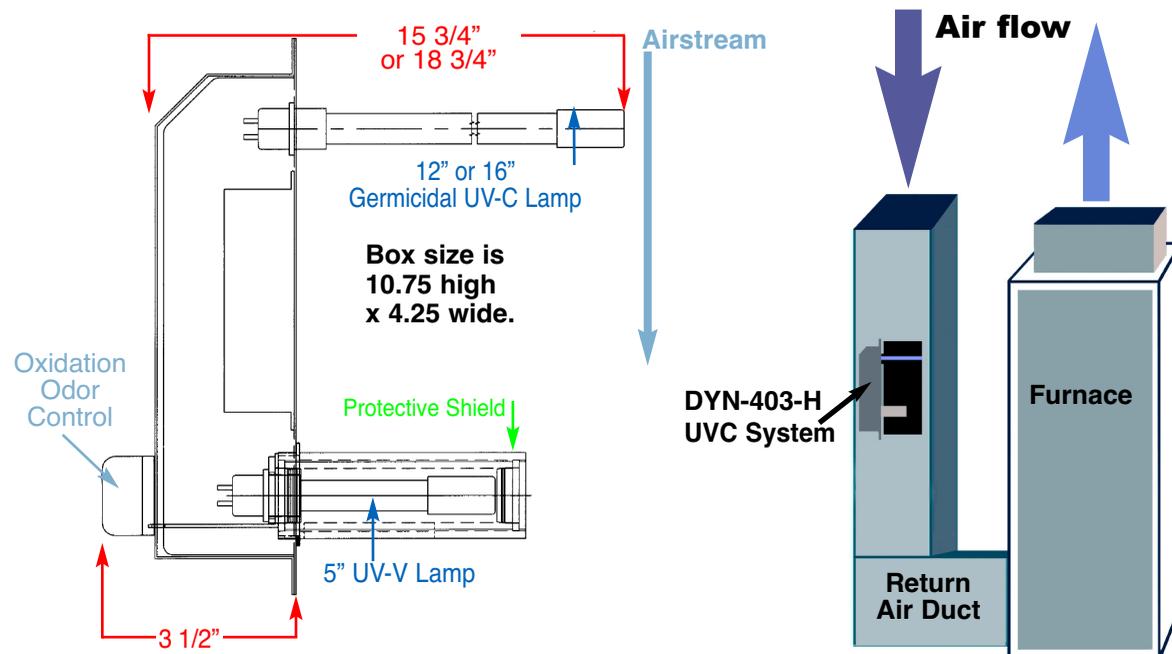
## WARRANTY

All electronic components carry a lifetime warranty to the original homeowner. In addition there is a four-year warranty from the date of installation for any subsequent owner. The manufacturer reserves the right to send replacement parts or to replace the unit at its discretion. This warranty does not cover any labor or damage resulting from improper installation or abuse. Use of any lamp other than the manufacturer's lamp designed for this device will void the warranty.

The original lamps are warranted for a period of two years. This warranty does not cover lamps broken during shipping, installation or as a result of improper handling.

All returns are routed through your contractor/wholesaler and must be approved and accompanied by an RGA#. Please call 800-578-7873 and we will guide you through the return procedure.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



For Technical Support Call (800)578-7873 © 2012 Form DYN-203 (04/12)



## DYN-403H Series 2 MultiVoltage Oxidizing UVC System Installation & Maintenance Instructions

### UNPACKING THE UNIT

Each unit is shipped with the 5" lamp installed and the germicidal lamp placed in a tube with protective packaging. Carefully remove lamp from the tube taking care to not touch the glass portion of the lamp with bare hands. Oils from the hands can cause "hot spots" which reduce lamp life. Handle by the porcelain caps or use a soft cloth. If you accidentally touch a lamp, clean it using a soft cloth dampened with rubbing alcohol. The lamp is fragile and proper care must be taken when removing from packaging.

The following parts are included:

- DYN-403H Series 2 Unit
- Germicidal Twin H Lamp (packed in lamp box)
- Four Sheet Metal Screws
- Installation & maintenance instructions
- 120 VAC Power Cord (PC-120)

## IMPORTANT: SAFETY INSTRUCTIONS IMPORTANT: Instructions de sécurité

When installing and using this electrical equipment, basic safety precautions should always be followed including the following:

- 1. READ AND FOLLOW ALL INSTRUCTIONS.**
- 2. Minimum living space for this product is 1,200 square feet.**
3. Always be sure the unit is unplugged during installation or service procedures.
- 4. The ultraviolet light produced by the UV lamp is harmful to your eyes. Do not look directly at the lamp. Should it become necessary to view the lamp, use UV-protected sunglasses.**

Lors de l'installation et de l'utilisation de cet équipement, des précautions devront être suivies.

- 1- Lire et suivre les étapes attentivement.**
- 2- Espace minimum d'une habitation pour ce produit est de 1,200 pi. carrés**
- 3- Assurez vous de toujours débrancher avant l'installation ou le service.
- 4- Ne pas regarder la lampe directement avec les yeux. Si nécessaire de le faire, veuillez porter les lunettes de soleil contre les rayons U.V.**

## **INSTALLATION:** Living space, 1,200 square feet minimum.

• Best results are achieved when the unit is installed where the HVAC system air temperature is most constant. Therefore, the preferred installation is on the *return side* of the furnace. If return side installation is not possible, install the unit on the supply side, keeping it as far from the heat/cooling source as possible, and in the main airstream. Mount the DYN-403H upstream when installing in combination with a polarized media air cleaner.

*If there is a device that creates ozone in the space such as an ionizing air cleaner, it is recommended the DYN-403H not be used in the application. For example, a DYN-401 could be substituted. Homes with multiple air handlers: install one DYN-403H on the main level air handler and a DYN-401H or DYN-24180 on the other air handler(s).*

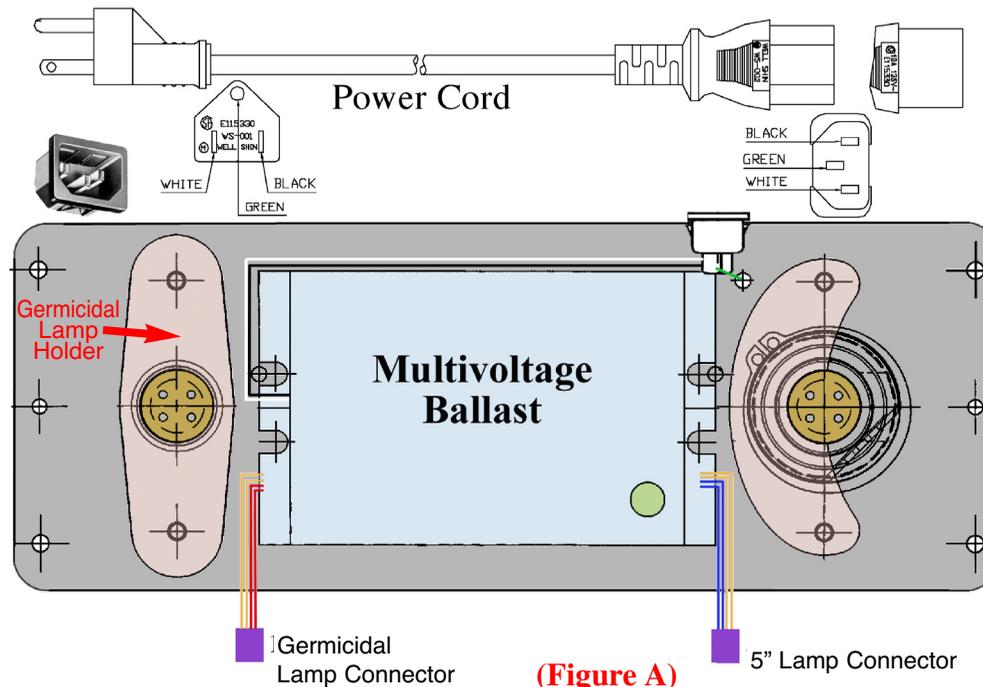
• Do not locate the unit within 20" of plastic material that will be directly exposed to the UV light, such as wiring, return side humidifier or certain types of air filters. Check with the filter manufacturer to see if their material is UV resistant. Over time, UV light may degrade plastic.

• Do not touch the glass portion of the lamps with bare hands because oils from the hands can cause "hot spots" which reduce lamp life. Handle either by the porcelain caps or use a soft cloth. If you accidentally touch a lamp, wipe it off, using a soft cloth dampened with rubbing alcohol.

1. Cut out the shaded area of the installation template. *(Please see insert.)*
2. Center the template on the longitudinal axis of the plenum and attach with tape. Trace the hole pattern for the unit and mark centers for mounting screws. (Airflow direction is marked on the unit.)
3. Cut an opening for the unit and drill 9/64" holes for sheet metal screws.
4. Remove the cover from the unit by removing the top and bottom retaining nuts using an 11/32 size nut driver and set aside. Do not remove the oxidation control knob.

*(For easier installation rotate control knob to the center position before removing cover.)*

5. Attach the unit to the air duct using the four sheet metal screws provided.
6. Remove the germicidal lamp holder using a 11/32 size nut driver *(Figure A)*.
7. Slide the germicidal lamp into lamp opening.
8. Reinstall the lamp holder.
9. Plug lamp into connector.
10. Replace cover and align the oxidizing control knob with adjustment linkage by gently turning the knob until the linkage clicks into place. Secure cover using the two retaining nuts.



**(Figure A)**

## **WIRING**

The multivoltage ballast is self-adjusting and operates with voltages from 120 - 240 VAC. This unit must cycle with the furnace blower. Install provided 120 VAC power cord and plug the unit into a 120 VAC outlet which is interlocked with the furnace blower. If a 120 VAC EAC terminal is available, supply power to the outlet from the EAC terminal. Connect in accordance with local wiring codes. If there is no EAC terminal, interlock the UV unit with the furnace blower using an appropriate alternate. After installing verify voltage is operating between 120 - 240 VAC with air handler operating. For 240VAC wiring install 5 amp inline fuses and use optional 240 VAC power cord, Part #PC-240.

## **SETTING THE ACTIVATED OXYGEN OUTPUT LEVEL**

- The air purification process occurs only while air is circulating through the HVAC system.
- The oxidizing level can be easily adjusted as needed using the "Oxidation Odor Control" knob on the front of unit. Start with the setting in the normal range. Decrease the setting if an activated oxygen odor is detectible. If household odors are noticeable after 24 hours, increase the setting.

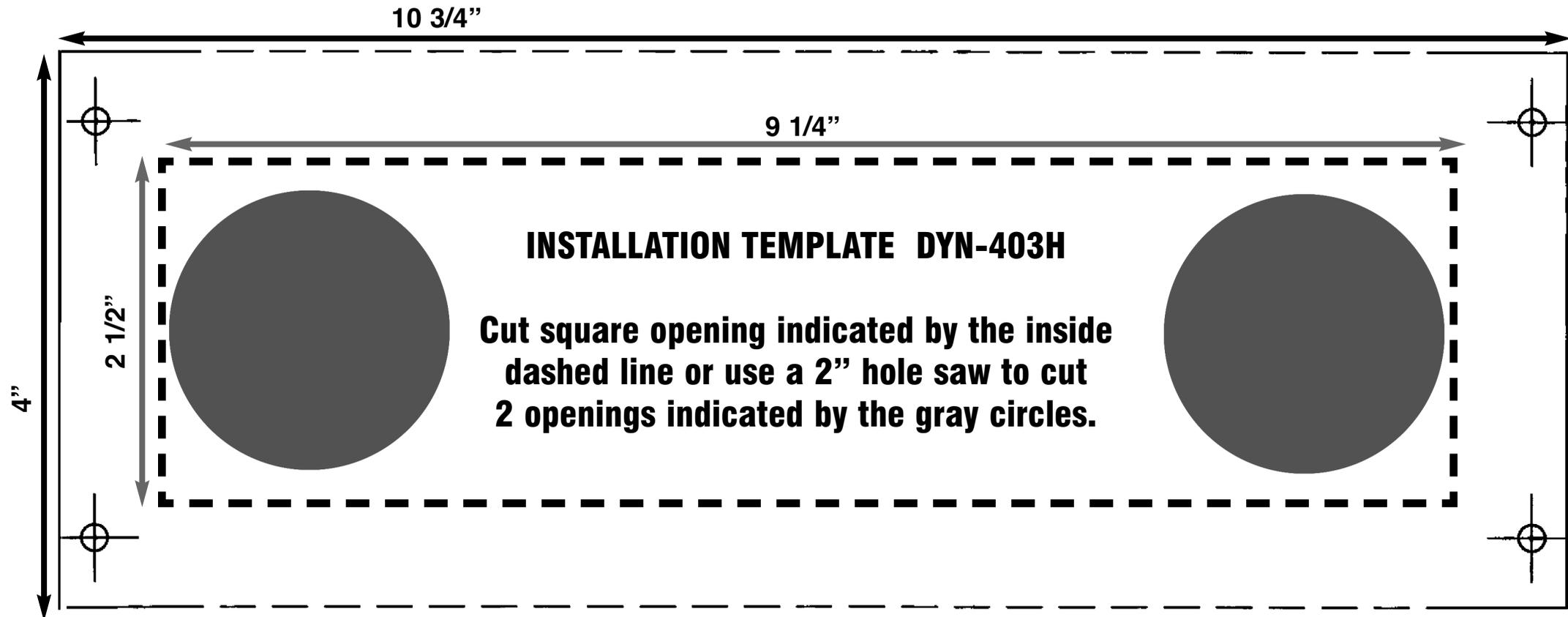
## **MAINTENANCE**

This maintenance schedule is only a guideline, determined by average conditions. Actual conditions will dictate the frequency of cleaning and/or replacement of lamps. Do not touch the glass portion of the lamps with bare hands because oils from the hands can cause "hot spots" which reduce lamp life. Handle either by the porcelain caps or use a soft cloth. If you accidentally touch a lamp, clean it using a soft cloth dampened with rubbing alcohol.

**CLEANING THE LAMPS** - Recommended interval: 12 months (Follow the procedure below)  
Replacement lamps are available through your HVAC contractor.

**REPLACING THE LAMPS** - Recommended interval: 24 months. (Follow procedure below excluding #6.)

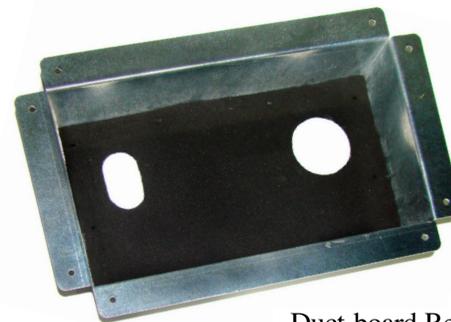
1. Unplug the power cord from the outlet, or disconnect power to the unit.
2. Remove the cover from the unit by removing the top and bottom retaining nuts using a 11/32 size nut driver. Do not remove the Oxidation Control knob. *(It helps to rotate the control knob to the center position before removing cover.)*
3. Unplug the lamp from each lamp connector.
4. Remove lamp holders using a 11/32 size nut driver *(Figure A)*.
5. Remove each lamp by grasping the porcelain cap and extract carefully.
6. Using a soft cloth moistened with rubbing alcohol, wipe down each lamp. If there is a large build-up of dust particles, you may wish to use a can of air first. Always handle lamps by end caps.
7. Slide one lamp back into lamp opening. Reinstall lamp holder.
8. Repeat step 7 for second lamp.
9. Plug each lamp into the corresponding lamp connector.
10. Replace cover and align the oxidation control knob with the adjustment linkage by gently turning the knob until linkage clicks into place. Secure cover using the two retaining nuts.
11. Plug power cord back into outlet, or restore power to unit.



1. Cut out area of template indicated by the two circles if using a hole saw or alternately cut the square opening indicated by the inside dashed line.
2. Place template on the return path of the HVAC system and trace the hole pattern for the unit and mark centers for mounting screws. Unit must be oriented so long dimension is parallel to the direction of the air flow.
3. Drill one 9/64" hole at each of these locations  $\oplus$  for sheet metal screws.
4. Cut opening for the unit.
5. Install unit into air duct so that airflow matches direction indicated on side of unit using the four sheet metal screws provided.

### **AVAILABLE ASSESSORIES**

Duct-board Recessed Mounting Plate, Part number 500161ADPT  
 15 1/2" Lamp Reflector, Part number 500484



Duct-board Recessed Mounting Plate



Lamp Reflector