



Safeguard Air Purifiers

Installation and Maintenance Manual

Model:

2024

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PRODUCT

All Safeguard Air Purifiers are designed to address Heating and Air Conditioning air handling units. Safeguard air purifiers use ultraviolet germicidal light at a frequency of 254 nanometers to disinfect biological growth in return or supply air stream . Some key features of the Safeguard series:

- Stainless Steel enclosure
- Lamp lengths (14 inches)
- **24 VAC power supply**
- Improves efficiency, reduces maintenance
- High intensity lamps
- Over 18,000 hours lamp expectancy
- Lifetime unit warranty
- Two year lamp warranty

SAFETY PROCEDURES

Please read all instructions carefully to help ensure a correct and SAFE installation of your Safeguard Ultraviolet Germicidal Air Purifier. Failure to do so could damage the equipment or cause harm to yourself or others. Only qualified Heating Ventilation and Air Conditioning (HVAC) technicians should perform the installation.

READ ALL WARNINGS AND CAUTIONS

WARNING

Ultraviolet (UV) light can be harmful to eyes and skin, causing loss of sight and sunburn. When installing, do not put unit in an area that allows the UV lamp to be visible . Turn off electrical service before servicing unit.

Electrical shock hazard from 24Volt or 120/277 VAC may cause serious injury or death. Disconnect power before starting installation or maintenance.

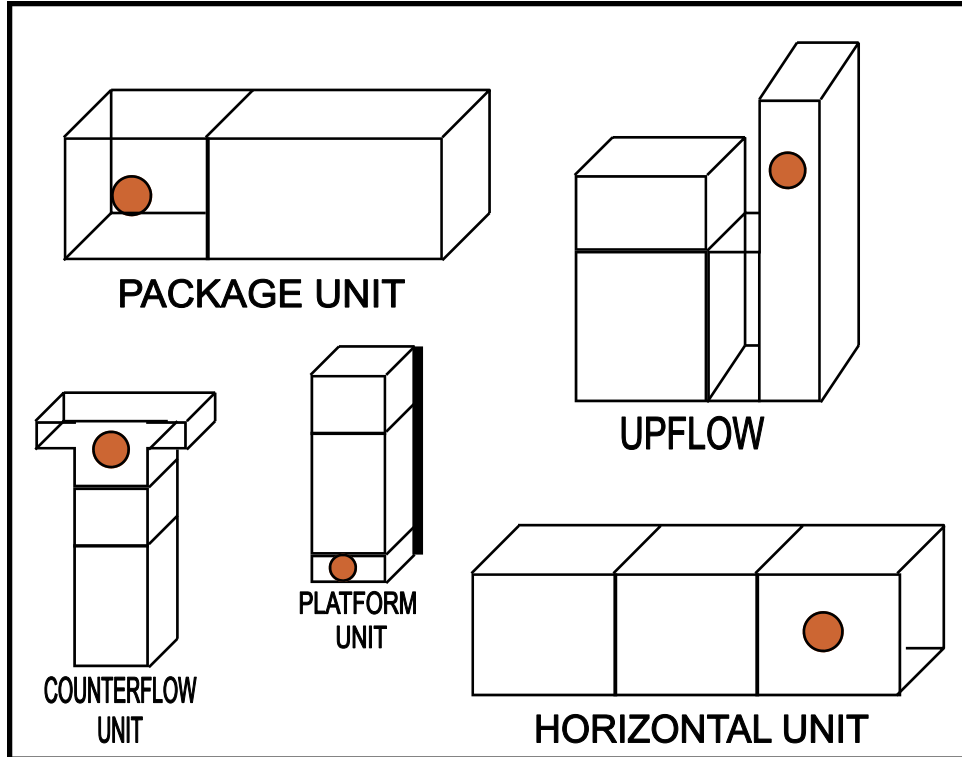
Each UV lamp contains a small amount of mercury. In case of breakage use proper disposal techniques. (pg.5)

Wear protective gloves and safety glasses when handling lamp. To prevent injury, unplug lamp connector and allow to cool for 10 minutes before servicing.

CAUTION

1. Ultraviolet (UV) light can cause the degradation of plastics, rubber, and other non-metallic materials with out uv-inhibitors, used in the HVAC system.
 - Install unit in location that prevents exposure to plastics, rubber, and other non-metallic materials to UV light, or shield such materials with aluminum tape, sheet metal, or metal conduit.
 - If equipment or components are not made of UV resistant materials, shield with aluminum tape or sheet metal.
2. Ultraviolet lamps
 - Do not install lamp inside coil.
 - Do not install lamp below any water source.
 - Failure to remove fingerprints from lamp could shorten lifespan. (clean with denatured alcohol)
 - Dispose of broken and replacement lamps at your local waste management office. For information on local disposal laws refer to www.lamprecycle.org

Mounting Locations



Mounting Location

1. Install the lamp where you have easy access.
2. Make sure before drilling into equipment that there is nothing in the way that would be damaged.
3. The lamp should be installed a minimum of 2-3 inches, maximum 36 inches away from the coil or pan surface.
4. When looking for a mounting location, try to install the unit away from non UV resistant plastics, rubber, and other non metallic materials. Shield these components using sheet metal, aluminum tape, or metal conduit.

Installation Tools

- Electric Drill
- Phillips screwdriver
- 2"-2.25" hole cutter
- 3/32" drill bit
- Eye protection
- Tape measure
- Aluminum tape and sealant
- Nut driver, 8/32 & 5/16"
- Multimeter

INSTALLATION

- Installation should be done by a qualified HVAC contractor.
- Read all safety instructions at the beginning of this manual.
- Make sure unit is installed so that the UV light **can not** be seen directly through any returns or supplies.
- Units should not be installed within 12-18 inches of any non UV resistant materials. If materials are in question call manufacturer of said products to see if they are made with UV inhibitors. Prolonged UV exposure will degrade non UV resistant materials. Non UV resistant materials must be shaded or covered .

- 1 Using the cardboard tube, drill 1/8 " pilot holes for mounting, then draw a circle on the ductwork, (using the cardboard tube). (Fig.7)
- 2 Use the drill with a 1/2 inch drill bit to drill a hole along the inside of the marked circle. (Fig.7)
- 3 Use tinsnips to cut out the circle .
- 4 Remove the two 8/32 faceplate nuts and and remove the faceplate.
- 5 Stick gasket seals on the back of the unit . Insert unit lamps first into opening in duct. (Fig.8)
- 6 Use the self tapping sheet metal screws (included) to secure the unit to the ductwork. There are four holes for the screws. The unit should be installed with the on/off switch in the lower left hand corner. (Fig.9)
- 7 Put the faceplate back on the unit and secure the two 8/32 nuts. (Fig.10)
- 8 With the switch in the off position, plug the 2024 purifier into a 24 volt power supply. Turn the switch to the on position.
- 9 The air purifier is designed to remain on continuously. (Fig.12) If lamp is operating the sight glass will illuminate. If it is not see the troubleshooting section.



Fig.7

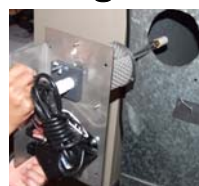


Fig.8



Fig.9



Fig.10



Fig.11



Fig.12

TOOLS FOR INSTALLATION

- 1 Marker
- 2 Tinsnips
- 3 Drill
- 4 1/8 & 1/2 Drill Bits
- 5 5/16" & 8/32" Nut driver
- 6 Tape Measure
- 7 Installation Template

Duct Board Installation

1. Place the supplied mounting template on the duct board at the desired location. Use duct tape to secure the template to the duct board. (Fig. A)
2. Bend holding tabs towards you. (Fig. B)
3. Use a utility knife to cut a rectangular hole in the duct board and remove the rectangular piece that has been cut. (Fig. C & Fig. D)
4. Bend holding tabs into duct work to secure the mounting template. (Fig. E & Fig. F)
5. With the cover off the purifier, line up the unit mounting holes with the template mounting holes and screw the unit to the mounting template. (Fig. G)
6. Install cover and secure the nuts. (Fig. H)
7. Plug unit into a 24 volt accessory terminal, unit remains on continuously.



Fig. A



Fig. B



Fig. C



Fig. D



Fig. E

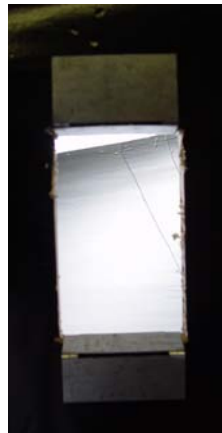


Fig. F



Fig. G



Fig. H

LAMP REPLACEMENT

The Safeguard Air Ultraviolet Germicidal Lamp is designed for 18,000 hours of continuous operation. After 18,000 hours intensity of the lamp inside the duct diminishes and should be replaced. Even if the lamp is still illuminated, replacement of the lamp is recommended by a qualified HVAC Service Technician.

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- **The installation should be done by a qualified HVAC contractor.**
1. Disconnect or turn off electrical service
 2. Remove cover.
 3. Disconnect the lamp connector from the lamp base.
 4. Unscrew the nut for the lamp bracket and remove old lamp (**Be careful old lamp may still be hot !**).
 5. Replace the old lamp with the new lamp, making sure the new lamp is clean. Remove fingerprints and dirt with an alcohol wipe.
 6. Attach lamp connector to the lamp base.
 7. Install the cover and screw tight.
 8. Turn on electrical service.

LAMP DISPOSAL

UV lamps contain mercury like other household lamps and must be disposed of properly. **State requirements and recycling opportunities vary, go to www.lamprecycle.org for State Regulations & Contacts.** Please contact your county waste collection department for proper disposal details.

USE GLOVES AND EYE PROTECTION

If a lamp is broken, **do not use a vacuum cleaner to pick up the waste** . Instead, sweep up the waste into a plastic bag and seal. Contact your county waste collection department for proper disposal details.

REPLACEMENT PARTS

- 14 inch replacement lamp 1082 SIPT
-
- Ballast replacement.....2414EL
-
- Lamp Connector.....1014
-

TROUBLESHOOTING

If the unit does not work, check the following:

Electrical Supply/Wiring—Verify that the electrical service is operating correctly.

Ballast—If lamp still is not illuminating check the wiring to the ballast. If the ballast is wired properly and the lamp still does not illuminate, replace the ballast. With a fully electronic ballast there is no resistance testing.

Lamp—Verify that the lamp is not broken and is properly seated in the lamp connector. To check this, follow steps in the 'Lamp Replacement' section with one exception : you should not remove and replace the lamp. If the lamp is broken read the 'Lamp Disposal' section of this manual.

SECOND WIND AIR PURIFIER LIMITED WARRANTY APPLIES IN U.S.A. AND CANADA

All Second Wind 24 volt Air Purification systems that are attached to your Heating, Ventilation and Air Conditioning System (HVAC) have a Limited Lifetime unit/ballast warranty. The lamps for all the HVAC attached units have a (2) year warranty.(MODEL: 2024)

TWO (2) YEAR COVERAGE LAMPS

The lamps are warranted by Second Wind for a period of two (2) years from the date of the original installation, when installed and operated in accordance with Second Wind recommendations. If during this period a lamp fails, Second Wind will provide a free replacement. You must pay shipping charges and all other costs of warranty service. Second Wind will not pay labor involved in diagnostic calls or in removing, servicing, or replacing parts. Second Wind recommends replacement of the UV lamp every 18,000 hours, the intensity of the lamps will diminish over time.

LIFETIME COVERAGE UNIT AND BALLAST

The covered equipment and covered components are warranted by Second Wind for a Lifetime from the date of the original unit installation, when installed and operated in accordance with Second Wind recommendations. If during this period a covered component fails, Second Wind will repair or replace the part. You must pay shipping charges and all other costs of warranty service. Second Wind will not pay labor involved in diagnostic calls or in removing, servicing, or replacing parts.

REPAIRS

All repairs of covered components must be made with authorized service parts. Labor charges resulting from diagnostic calls or service are not covered by this warranty.

CARE OF EQUIPMENT

Your new Second Wind Purifier must be properly installed, operated and maintained in accordance with the unit installation, operation, and maintenance instructions provided with each unit. Failure to provide maintenance per Second Wind instructions will void warranty.

WARRANTY LIMITATIONS

This warranty will be voided if the covered equipment (only Safeguard replacement parts or units are warranted) is removed from the original installation site. This warranty does not cover damage or defect resulting from:

- 1 Accident, neglect or unreasonable use or operation of the equipment, including operation of electrical equipment at voltages other than the range specified on the unit name plate.
- 2 Modification, change or alteration of the equipment, except as directed by Safeguard The furnishings of replacement parts under terms of this warranty will apply to the original warranty period and will not extend the warranty.

Safeguard makes no express warranties other than the warranty specified above. All implied warranties, including the implied warranty of merchantability and fitness for a particular purpose, are limited to the duration of the warranty specified above. Liability for incidental and consequential damages is excluded and is not covered by this warranty. Some States do not allow limitations on the duration of an implied warranty or the exclusion or limitation of incidental or consequential damages, so the limitations or exclusions 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.

Safeguard shall not be liable for any default or delay in performance under this warranty caused by any contingency beyond their control.

WARRANTY PROCEDURES

All Safeguard Air Purification systems that are attached to your Heating, Ventilation and Air Conditioning System (HVAC) have a lifetime limited warranty. The lamps for all the HVAC attached units have a (2) year warranty.(MODEL: 2024)

- 1 Be prepared to furnish the following information:
 - a- Complete model number and serial number
 - b- Proof of installation date if warranty claim is made by other than a qualified service dealer who maintains records of your installation date and service history.
 - c- An accurate description of the problem.
 - d- Date of failure.
- 2 Call the installing dealer that you purchased your unit from.
- 3 If the installing dealer is unable to provide warranty parts, contact:
Call, write, fax or e-mail: Second Wind Air Purifiers
255 Great Arrow Ave.
Unit 20C
Buffalo, NY 14207
Ph: 800-387-4565
Fx: 716-875-5751
Email: service@secondwindairpurifier.com