

SECOND WIND AIR PURIFIERS

INSTALLATION and SERVICE MANUAL



**MODEL 9000
MODEL 9016**

SAFETY CONCERNS

WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

- 1 Do not look directly at the lamps, without UV protective glasses.
- 2 Read instruction manual before operating the units.
- 3 Use recommended accessories (i.e. lamps, ballast)
- 4 Make sure unit is installed so that the UV light **can not** be seen directly through any returns or supplies.
- 5 Check damaged parts: Before further use of the unit, any damaged part should be carefully checked to ensure that the unit will operate properly. Any part that is damaged should be properly repaired or replaced.
- 6 Units should not be installed with in 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.

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

All Second Wind Air Purification systems that are attached to your Heating, Ventilation and Air Conditioning System (HVAC) have a Limited Lifetime unit, (5) year ballast warranty. The lamps for all the HVAC attached units have a (1) year warranty. (MODELS:2000,2018,2181,2000-230,9000,9016)

All Second Wind Air Purification portable systems have a (3) year unit and 1 year lamp warranty. (MODELS:8000PPF,9500PP,9700PP)

ONE (1) YEAR COVERAGE LAMPS

The lamps are warranted by Second Wind for a period of one (1) year 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.

LIMITED LIFETIME UNIT, FIVE (5) YEAR BALLAST

The covered equipment and covered components are warranted by Second Wind for the life of the unit, the ballasts for a period of five (5) years 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 Air 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 second wind 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, or 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 Second Wind.

The furnishings of replacement parts under terms of this warranty will apply to the original warranty period and will not extend the warranty.

Second Wind 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.

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

WARRANTY PROCEDURES

All Second Wind Air Purification systems that are attached to your Heating, Ventilation and Air Conditioning System (HVAC) have a Limited Lifetime unit, (5) year ballast warranty. The lamps for all the HVAC attached units have a (1) year warranty. (MODELS:2000,2018,2181,2000-230,9000,9016)

All Second Wind Air Purification portable systems have a (3) year unit and 1 year lamp warranty. (MODELS:8000PPF,9500PP,9700PP)

- 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 second wind from.

- 3 If the installing dealer is unable to provide warranty parts, contact:

Call, write, fax or e-mail:	Second Wind Air Purifiers	
	711 Park Ave.	
	Medina, NY 14103	
	1-800-387-4565	PHONE
	585-798-5751	FAX
	secwind@rochester.rr.com	E-Mail

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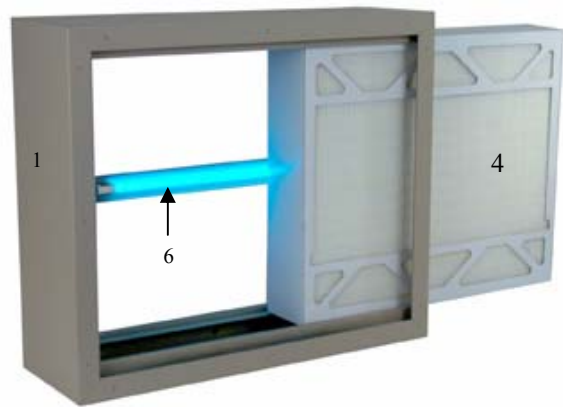
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UNPACKING

Your new Second Wind Air Purifier is shipped complete in one container. Carefully unpack the unit and all loose items from the shipping container. Fig. 2 illustrate the unit and all loose items packed with the unit.

- 1 Unit
- 2 Warning Labels
- 3 Cover
- 4 Filter
- 5 Lamp Bracket
- 6 Lamp
- 7 Fuse holder
- 8 Label w/serial number
- 9 Cover Latch
- 10 On/Off switch
- 11 Business Reply Card

Fig.2



POSSIBLE INSTALLATION LOCATIONS 9000, 9016

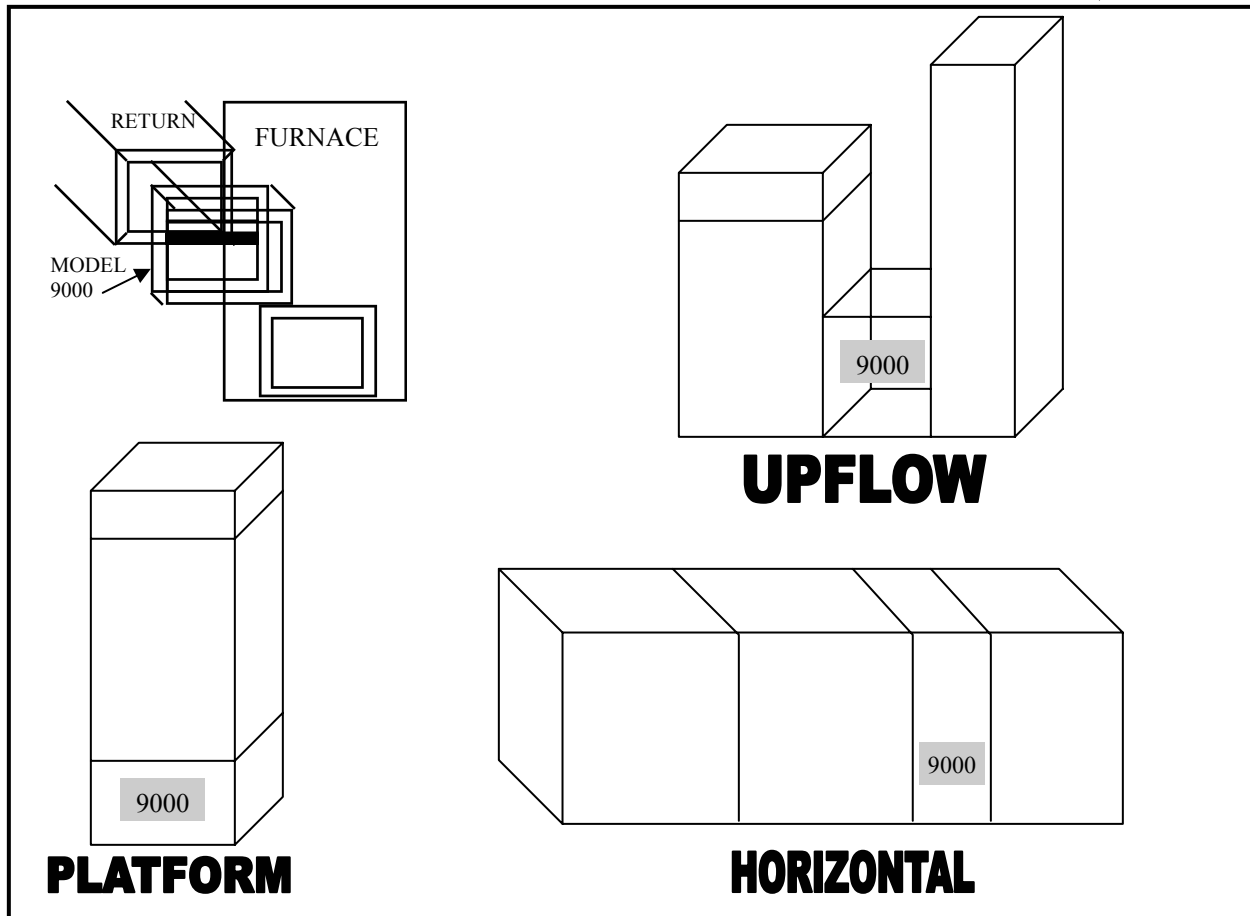


Fig.3

The Second Wind Air Purifier has been tested effective in the destruction and reduction of bacteria, viruses and fungus under various conditions. The effectiveness of this device may vary depending upon room area and rate of circulation. The health aspects associated with this product were not investigated by U.L.

WARNING!!!

DO NOT LOOK AT THE ULTRA-VIOLET LIGHT

DO NOT OPERATE UNTIL IT IS INSTALLED IN THE RETURN

TO DETERMINE AN INSTALLATION LOCATION SEE: FIG.3

Installation 9000 and 9016

- Installation should be done by a qualified HVAC contractor.
- Read all safety instructions at the beginning of this manual.
- Units should not be installed with in 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 Remove duct work in area you are going to install. (Fig.4)
- 2 Remove the Second Wind Air Purifier from carton and **remove plastic wrap from around the lamp prior to lighting**. Remove front door and filter. Attach to installation area of the duct with self tapping screws. (Fig.5)
- 3 Install new duct work to existing duct work and 9000 series unit. (Fig.6-7).
- 4 Seal the seams with mastic or tape.
- 5 Reinstall the filter and the front cover of the unit.
- 6 Plug the cord into a 110 volt outlet (Fig.8)
- 7 The air purifier is designed to remain on continuously. (Fig.12) If lamp does not illuminate, see the troubleshooting section.



Fig.4



Fig.5



Fig.8



Fig.6



Fig.7

TOOLS FOR INSTALLATION

- 1 Marker
- 2 Tinsnips
- 3 Drill
- 4 Drill Bits
- 5 5/16" & 11/32 "Nut driver
- 6 Tape Measure
- 7 Duct work

Lamp Replacement

Second Wind Air Purifier lamps are designed to be on all the time. After approximately 9000-11000 hours of operation the lamps intensity will decrease. Installation of a replacement lamp is best handled by a HVAC Contractor.

- 1 Turn unit off and unplug the power cord. After lamp has cooled proceed.
- 2 Remove Door. (Fig.9)
- 3 Remove Filter **make sure lamp is off.** (Fig.10)
- 4 Unsecure lamp from brass holder. (Fig.11)
- 5 Pull lamp out from socket. (Fig.12)
- 6 Install new lamp into socket and snap into brass holder.
- 7 Replace cover plate and tighten latch.
- 9 Plug unit in and turn on.

NOTE

UV Lamps contain mercury like other fluorescent lamps and must be disposed of properly. Do not throw old lamps in the trash. Contact your local waste collection agency for proper disposal procedures.

If the lamps are dirty or have fingerprints on them, use alcohol to remove.



Fig.9



Fig.10

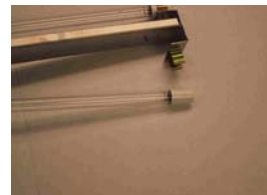


Fig.11

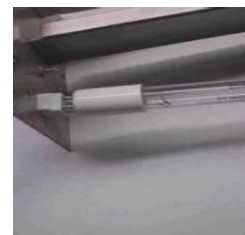


Fig.12

TROUBLESHOOTING

- 1 Make sure that the unit is plugged into an outlet that is always on.
- 2 Check the on/off switch to make sure it is on.
- 3 If the lamp is still not on, switch the unit off, unplug the power cord and check the fuse.
- 4 Make sure the lamp is not broken and that it is in the socket.
- 5 If the lamp is still not on check the ballast 9000 and 9016.
- 6 Check the input power by testing the outlet for 120 VAC.
- 7 Then test the resistance of the ballast. Unplug the power cord. Measure the resistance from the black lead on the input side of the ballast to the blue lead on the output side of the ballast. To contact the blue lead you may need to remove the lamp and put the multi-meter probe into the corresponding socket opening. The resistance should be 7-12 ohms. If the resistance is less than 7 ohms, replace the ballast.
- 8 If everything else has been checked and is fine, but the lamp is still out, the ballast starter is blown and the ballast should be replaced.

Replacement Parts

1	Ballast 120 vac	#1060
2	Interlock Switch	#1047
3	On/Off Switch 120 V	#1061
4	Fuse Assembly	#1054
5	Fuse	#1055
6	Power Cord	
7	Lamp Connector	#1014
8	18 " Lamp	#1076
9	Sight Glass	#1078
10	Filter	#9001



Periodic Maintenance

1. Turn off power, remove front door and filter. Inspect filter. Semi-annual to Annual filter replacement recommended.
2. Use cotton ball and alcohol to clean glass lamp. Inspect lamp (Recommended replacement of lamp 18 mo.).
3. Reinstall filter and front door panel, turn unit on.

The Second Wind Air Purifier has been tested effective in the destruction and reduction of bacteria, viruses and fungus under various conditions. The effectiveness of this device may vary depending upon room area and rate of circulation. The health aspects associated with this product were not investigated by U.L.

Second Wind Air Purifier

Models:

9000

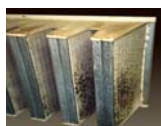
9016

Ultraviolet Germicidal and Filtration Units
for Heating Ventilation
and Air Conditioning Systems

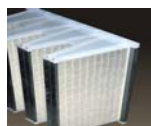


Since the first ultraviolet irradiation system was used successfully in 1909, ultraviolet irradiation has had a 94 year performance history. Second Wind uses the ultraviolet wavelength at 253.7nm, ultraviolet radiation lethal to microorganisms. Second wind air purifiers can reduce mold, bacterial, or viral airborne microbes in all areas of a Heating Ventilation and Air Conditioning system (HVAC).

Return Before



Return After



Second Wind air purifiers can also address Volatile Organic Compounds (VOC's), through the addition of Photo-Catalytic Oxidation (PCO). PCO in this case is achieved by the use of our high intensity ultraviolet lamps irradiating the surface of grade 2 titanium creating electron hole pairs (hydroxyl radicals OH). Gas contaminates are oxidized in a reaction that takes place with the hydroxyl radicals, changing the contaminates molecular structure.

The Second Wind Purifier is the perfect choice for small or large applications . Second Wind uses ultraviolet germicidal light, filtration, and a patented photo-catalytic process to disinfect mold, bacteria, infectious disease, and decrease volatile organic compounds in the air stream. Second Wind air purifiers are designed for air disinfection, particulate filtration and VOC removal.

Features and Benefits

- Available for all applications
- Filters particulate
- Disinfects mold
- Inexpensive to operate
- Surface and Air Indoor Air Quality Control
- Proven effectiveness through independent test data
- High intensity Ultraviolet Lamps
- Patented Photo-Catalytic Oxidation process to reduce VOC levels
- Ti2 photo-catalytic surface area
- Limited Lifetime system warranty
- 5 Year Ballast Warranty
- 1 year lamp warranty
- Over 9000 hours lamp expectancy
- Electronic start power supply 120 VAC
- Registered as a Class II medical device #k980745
- Registered with the EPA #73112

SPECIFICATIONS

Second Wind Air Purification 9000 and 9016 units are mounted in the return air stream to accommodate most HVAC systems. The units install in the system to remove particulate, disinfect molds, bacteria or reduce VOC contamination. The housing is painted steel and comes in 2 sizes . All units are manufacturer assembled and tested.

Models 9000 and 9016:

The power source is a electronic, Class P, Sound rated A, Type HL, NO PCB's, type 1 outdoor ballast meeting EMI requirements of CFR Title 47 Part 18 consumer. The operating range is 120 VAC and the current is 800ma@120vac. The ballast is designed to operate at any airflow and relative humidity.

Second Wind lamps operate at 253.7 nm, ideal for air disinfection, good for use at any velocities, temperatures ranging from 30 - 170 F. Every lamp has an extended lamp life coating which helps maintain intensity levels at 85% even after a year of operation. They are a High Output (HO), T5 (15mm) diameter, lamp yielding 2/3 more output than standard lamps of the same length. Base of the type "L" quartz glass is ceramic, with triple-coiled electrodes made of molybdenum lead in a clamped filament design. Lamp connectors are 4-pin single ended circling sockets. Lamp life shall not be less than 9000 hours.

Submitted device shall be tested under typical HVAC conditions and in accordance with the general provisions of IES Lighting Handbook, 1981 applications Volume. Total output per one inch arc length shall be not less than 10uW/cm2 at 1 meter in air of 45 F and 400 fpm

The titanium strips attached to the units are the catalyst for the production of hydroxyl radicals in the Photocatalytic process. They are made of Titanium grade 2; 0.01% C, 0.005% N, 0.04% Fe, 0.12% O, and balance Titanium. It has a density of 4.5 g/cm cube, specific heat of 520 J/kg K, electrical resistivity 50 micro ohms cm, thermal expansion (10-6K) 9.1 (20-300C), tensile strength 390 N/mm sq, and elongation A3 min 30%.

**SECOND WIND AIR PURIFIERS
711 PARK AVE
MEDINA, NEW YORK 14103
1-800-387-4565
585-798-5751 FAX
WWW.SECONDWINDAIRPURIFIER.COM**

Dimensions:

9000 - 9 1/4"W x 28 7/8"H x 28" D x 1-18" Probe
9016 - 9 1/4"W x 19 3/16"H x 28 1/4 " D x 1-18" Probe

Weight

9000 - 42 lbs.
9016 - 36 lbs.

Power Electronic Ballast

9016 and 9000: 120 VAC

Standard In 9000 and 9016—Puralator Filter

5" media filter 16 x 25 and 20 x 25
Media Area: 27 square feet
Initial Resistance at 1000 cfm: .08" WG.

Viledon High Efficiency Filter Available

4" media filter 16 x 25 and 20 x 25
Media Area: 83 square feet
Initial resistance at 2000 cfm: .23 "w.g.
Initial resistance at 1200 cfm: .10 "w.g.

Lamps

	18"
Base Face in. -	17.2
Length mm -	436.0
Arc Length in.-	14.2
mm -	360
Current mA-	800
Wattage W-	40
Voltage @60Hz-	86
UV Output W-	10
UV Output @1M uW/cm2 -	500
Lamp life hours-	9000

Wiring

Number 18 teflon coated wire 600V, 105C.

URV Rating

Done at 400 fpm, 6" installation tracks, with TB Bacilli rate constant with 60% reduction. Based on scale like MERV rating Low- High, 1-15.

18"	9"
13	12

Warranty

Lifetime Fixture **1-Year Lamps**
5-Year Ballast

DEALER IMPRINT: