

SANUVOX

INSTALLATION, MAINTENANCE & OPERATION GUIDE

MODEL Sanuvair® S300 WHOLE HOUSE HEPA/UV AIR PURIFIER



SAFETY CONSIDERATIONS

Installation and servicing of equipment can be hazardous. Only trained and qualified service personnel should install, repair, or service equipment.

Untrained personnel can perform basic maintenance functions such as changing lamps and filters. All other operations should be performed by trained service personnel. When working on equipment, observe precautions in the literature, tags and labels attached to the unit or accessory, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves

WARNING

Before installing the Sanuvair® S300 HEPA/UV Purifier or performing maintenance or service on the air purifier, disconnect power cord from the unit.

Never expose eyes or skin to ultra-violet light from any source. The Sanuvair® S300 must be unplugged before performing maintenance or service. Personal injury may result.

Do not touch lamp glass without gloves. Reduced performance of lamp may result. Clean lamp after handling.

La lampe UV contient une faible quantité de mercure. Si la lampe se brise, veuillez nettoyer et en disposer

Lamp contains a small quantity of mercury. If a lamp breaks, clean and dispose of with care.

Use only specified replacement Lamps with your Sanuvox Purifier. Use of an incorrect Lamp can result in damage to the Purifier and/or Lamp.

UV rays may destroy certain type of filters (polymer or plastic), please keep units away from shining directly on plastic.

NOTICE

UV lamp can be disposed/recycle after use as for any other fluorescent bulb.

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LIMITED PARTS WARRANTY

THREE-YEAR WARRANTY — This SANUVOX TECHNOLOGIES INC. product is warranted to be free from defects in material and workmanship under normal use and maintenance for a period of 3 years from the date of original installation and for a period of 3 years (2 years for commercial) for the UV Lamp.

A new or remanufactured part to replace the defective part will be provided without charge for the part itself, through a qualified servicing SANUVOX TECHNOLOGIES INC. dealer or distributor, PROVIDED the defective part is returned to our distributor. The replacement part assumes the unused portion of the warranty

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1.1. UNPACKING AND INSPECTION

BOX CONTENT INCLUDES:

- Sanuvair® S300 HEPA/UV AIR PURIFIER
- Power cord, 5 FT
- Plenum seal, 7.5 FT
- Screws, (16) 8 x 32 x 1/2"
- Template
- Ultraviolet UVC/UVV Lamp J Type 10.5" (266.7 mm)
- Pre-Filter
- HEPA Filter



INSTALLATION GUIDE

1.2. TECHNICAL DATA

SPECIFICATIONS

MODEL SANUVAIR® S300

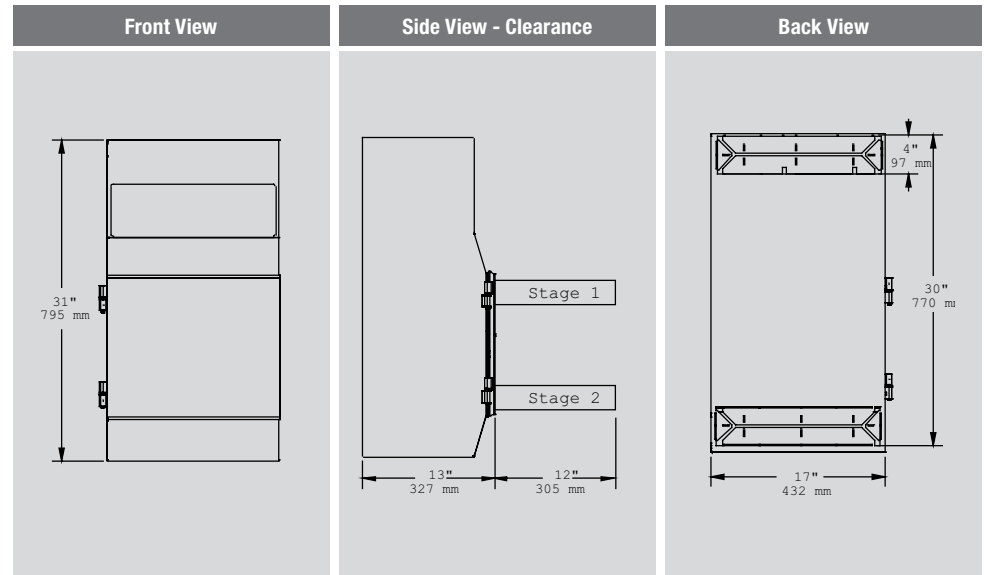
Filtration Stage 1	Prefilter
Filtration Stage 2	HEPA filter
Weight	33 Lbs. (15kg)
Plenum Mount Port Openings	16" x 3.5" (406mm x 89mm)
Collar Mount Port Openings	8" (203mm) Round*
Installation type	Plenum, Floor Mount* or Wall Mount**
Electrical Supply	230 VAC 50 Hz/60 Hz
Power Consumption	270 W
Certification	cCSA _{US}
Air flow data	220-300 CFM
UV Lamp	Proprietary UV-C/UV-V "J" Lamp

* Installation requires inlet / outlet 8" round collars (sold in pairs). Part# MSCCOL1

** Installation requires inlet / outlet louvers (sold individually). Part# MSCLOU1

DIMENSIONS AND CLEARANCE INSTALLATION

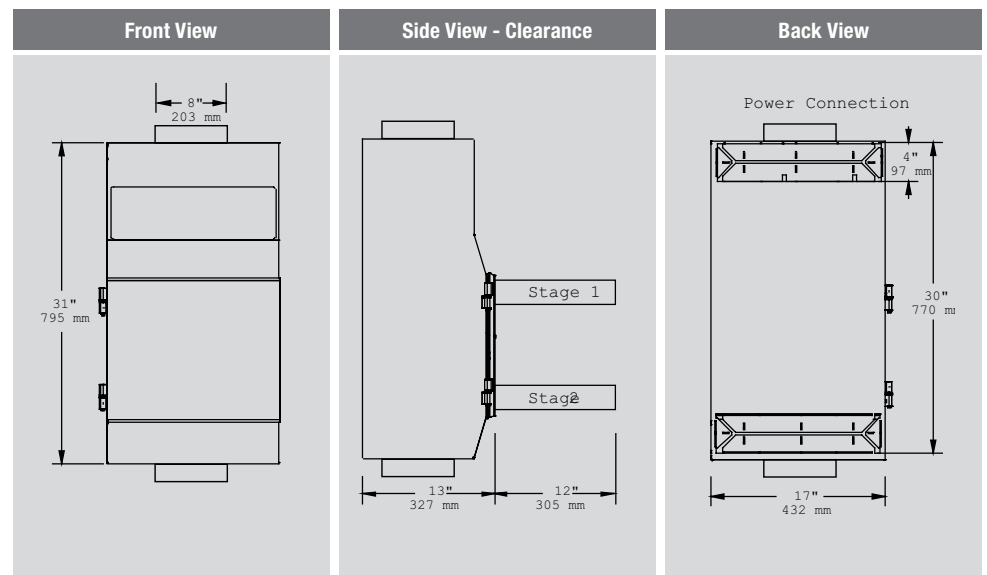
RETURN AIR PLENUM INSTALLATION



IMPORTANT INFORMATION

Sanuvox Technologies Inc. reserves the right to modify the product without prior notice. Please consult local authorities as to whether the installation requires the services of a certified technician or electrician.

RETURN AIR PLENUM AND STAND ALONE INSTALLATIONS* WITH COLLAR MOUNT KIT



INSTALLATION GUIDE

2.1 PLANNING THE INSTALLATION

SPECIAL CONSIDERATION FOR INTEGRATED SYSTEM INSTALLATION

- Verify clearance on the ductwork to mount the unit using the Forced Air Heating/Cooling system
- Respect the Minimum clearance requirements for maintenance and service
- Electrical power requirements
- Interaction between the HEPA/UV air purifier unit and other mechanical devices.

The HEPA/UV air purifier is a versatile appliance with multiple installations configuration. It is recommended to take your time in planning the installation.

A number of installations follow for HEPA/UV air purifier applications:

- Return duct to Return duct integrated with the forced air HVAC system.
- Central draw points using a dedicated duct system.
- Consult Sanuvox for other special applications.

2.2 TYPE OF INSTALLATION: RETURN TO RETURN

DUCTING FLAIR SYSTEM INSTALLATION

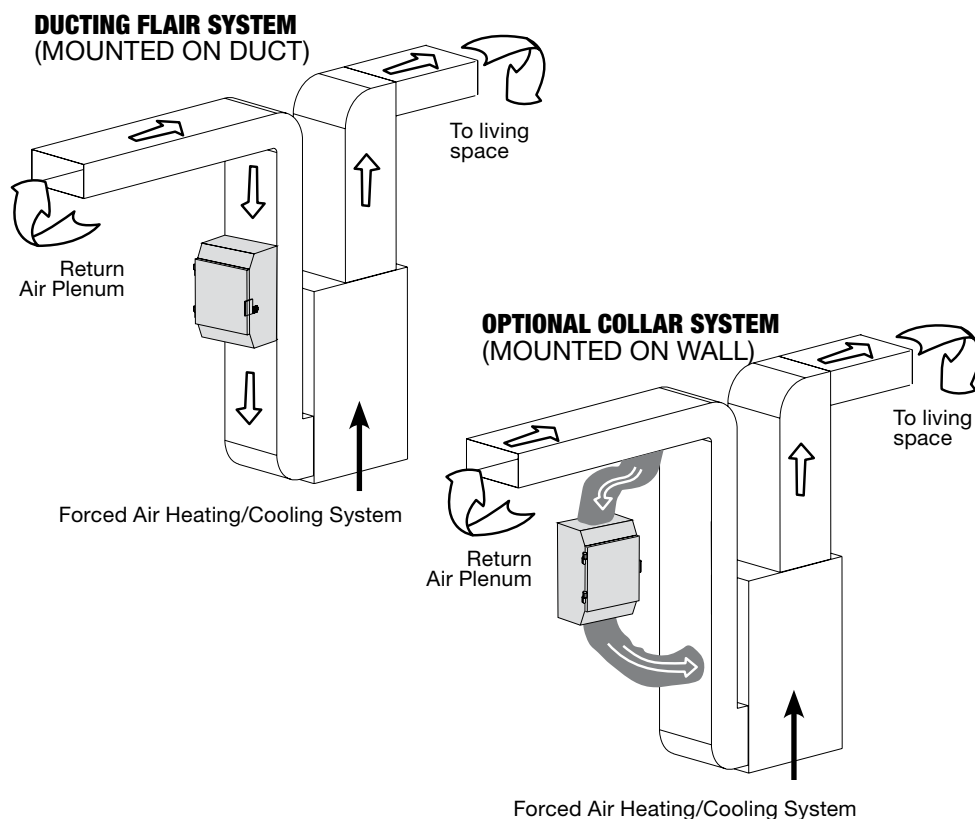
The HEPA/UV air purifier system is designed to install directly onto the return air plenum of the HVAC system. This installation eliminates the need to externally duct the HEPA/UV air purifier to the plenum system. With this installation, it is recommended that you run the fan on your forced air system continuously to maximize its cleaning ability.

TIPS TO INSTALLER

The HEPA/UV air purifier does not replace the filter from the HVAC system. Regular maintenance of this filter is necessary for proper performance of the system.

OPTIONAL MOUNTING COLLAR SYSTEM INSTALLATION

Using Part Number: Collars1, the HEPA/UV air purifier can be converted to use 8 inch round collars for applications that require ducting. The kit includes two, 8 inch round collars, two mounting brackets for wall or floor mounting, installation guide and fasteners.



INSTALLATION SHOULD BE PERFORMED BY A CERTIFIED PROFESSIONAL.

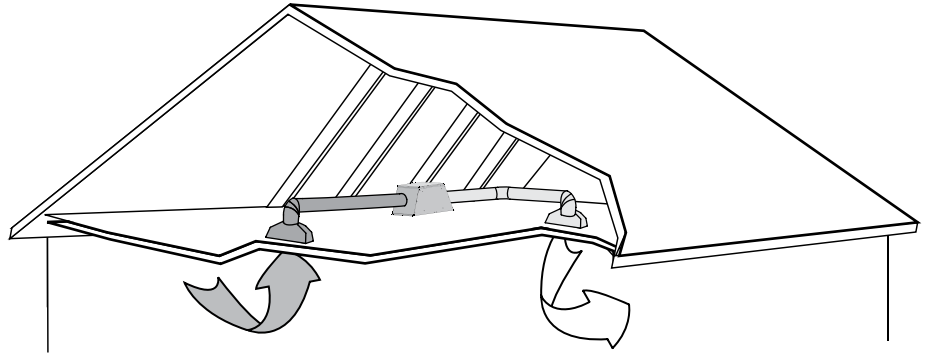
Consult your HVAC product manufacturer if the usage of this product will affect the performance of your forced air heating/cooling system.

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2.3 TYPES OF INSTALLATION: STAND ALONE

STAND ALONE ATTIC INSTALLATION

Ideal for homes without a forced air HVAC system. Allows for air filtration and circulation throughout the home. The HEPA/UV system must be operated continuously whenever a part of all the system is located in an unconditioned space below freezing (0°C, 32°F) to prevent condensation in the ductwork.

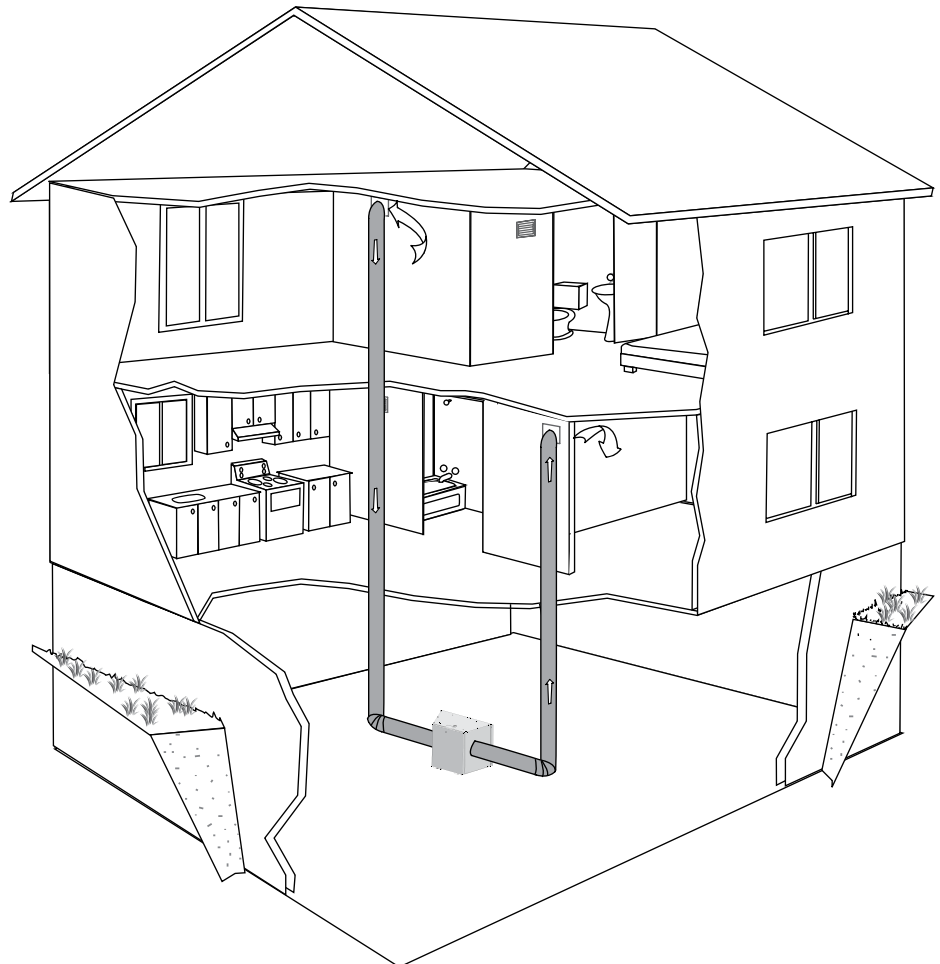


STAND ALONE BASEMENT INSTALLATION

Ducting will usually consist of one return duct (with grille) from one side of the home, and one supply duct with diffuser at the opposite end of the home.

Stand Alone Wall Mount

The Sanuvox Sanuvair® S300 can be wall mounted using optional inlet and outlet louvers (Part # MSCLOU1) that attach to the collar mount port openings on the top and bottom of the unit.



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2.4 INSTALLING THE UNIT

STEP-BY-STEP INSTALLATION

Steps involved in the preparation of the return plenum mount system:

TOOLS REQUIRED

- Phillips #2 or Robertson #1 screwdriver
- 3/32" drill bit
- Tin snips or metal shear
- Power drill

LOCATION

Return side connection is to be installed after the last branch on the return air plenum and a minimum of 2 linear feet from the furnace. A 5-foot power cord is supplied with the unit.

STEP 1: PREPARING RETURN AIR PLENUM

Find a location that satisfies both service and maintenance requirements. Cut holes as illustrated below.

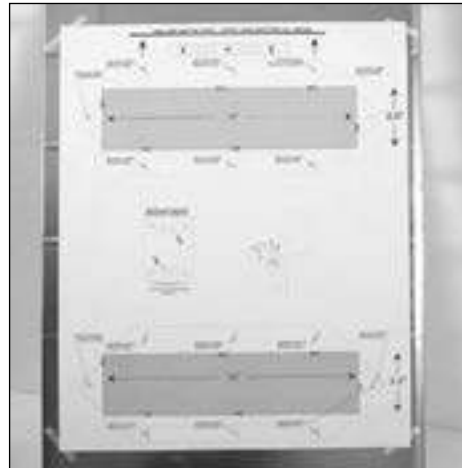


Figure 2.1a - Tape template to return air plenum. Cut opening with metal shears and pre-drill for the securing screws.



Figure 2.1b - Remove template.

STEP 2: PREPARING DUCTING FLAIRS

Remove the door and filters and proceed to cut the insulation as illustrated below.

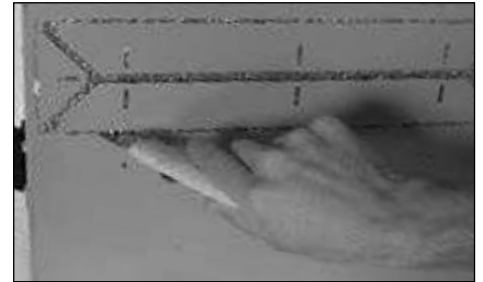


Figure 2.2a - Cut insulation along the inside edge of both of the inlet and outlet ports to remove the insulation from the port openings.



Figure 2.2b - One cut permits the clean removal of the insulation piece.



Figure 2.2c - The unit should look like this when the foam piece is removed.

INSTALLATION GUIDE

2.4 INSTALLING THE UNIT (Continued)

TIPS TO INSTALLER

Always consult your national and local regulations, building and safety codes to whether the installation of electrical products requires the services of a certified technician or electrician.

Removing the filters from the unit will facilitate the installation.

DUCTING FLAIRS MOUNTING SYSTEM

The Sanuvox Sanuvair® S300 HEPA/UV air purifier system is designed for single person installation. The Sanuvox Ducting Flairs are integrated within the unit and will save installation time and effort. Once the holes are made in the main return duct and the unit is aligned, unfold the “Ducting Flairs” and screw the unit in place.

STEP 2: (Continued)

Cut the four metal tabs to release the mounting flairs for the inlet and outlet ports.



Figure 2.2d



Figure 2.2e



Figure 2.2f

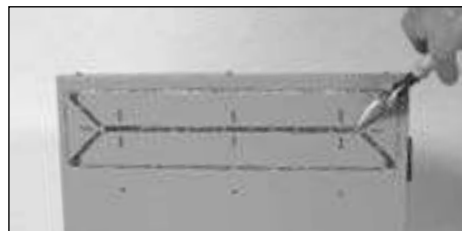


Figure 2.2g

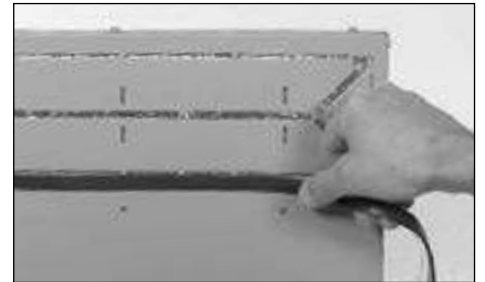


Figure 2.2h - Apply plenum seal tape all around both openings on the back of the unit.

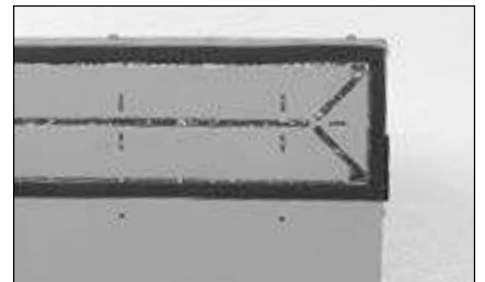


Figure 2.2i



Figure 2.2j - Bend tabs outward 90 degrees.

INSTALLATION GUIDE

2.4 INSTALLING THE UNIT (Continued)



MAKE SURE TO INSTALL FILTER ACCORDING TO AIR FLOW DIRECTION FOR MAXIMUM PERFORMANCE

Check for this symbol on each filter and it is located on the unit's motor plate.

STEP 3: Mount Hepa



Figure 2.3a - Align unit into place.



Figure 2.3b - Unfold the ducting flairs to sandwich the return air plenum between the ducting flair and the filtration unit.



Figure 2.3c - Install unit using all supplied fastening hardware.

STEP 4: Finishing

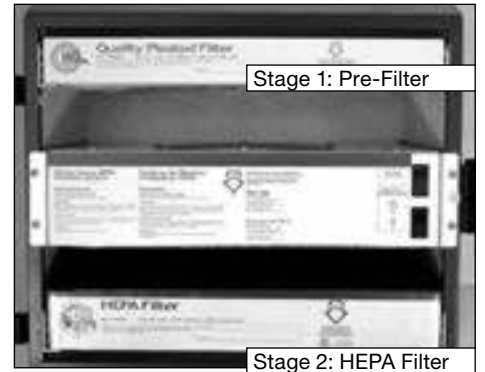


Figure 2.4a - Remove protective plastic covers from all filters and install in their proper location.



Figure 2.4b - Replace door and insert power cord into the receptacle of the HEPA and the other end into a wall outlet.

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2.5 UV LAMP INSTALLATION

STEP 1:

The UV Lamp is packaged in the filter section of the Sanuvair® S300. Remove the UV lamp from the packaging material. The lamp is fragile, use extreme care. Do not touch the glass on the lamp with bare hands. Use the enclosed gloves when handling the lamp. Handle lamp from the ceramic ends.



STEP 2:

Remove the screws holding the front plate of the Sanuvair® S300 to access the clamp assembly.



STEP 3:

Position lamp inside the aluminum enclosure. Route 4-pronged end of lamp through clamp. Clamp is tightened by moving lever perpendicular to the clamp. Connect the female plug to the lamp. The plug fits in one direction only. If the plug will not connect to the lamp, turn the plug 90 degrees.



STEP 4:

Replace the front plate with the screws removed in (2) above.



OWNER'S OPERATION GUIDE

3. GENERAL OPERATING INFORMATION

DOOR SWITCH

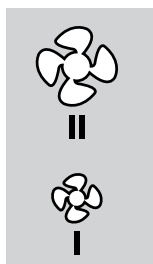


MODE SELECTOR



- II
- I

OPERATIONS



Maximum Filtration

Normal Filtration

SMART SYSTEM LED STATUS DISPLAY



Red LED (Ballast ON) Amber LED (Lamp ON)

FUNCTION

The HEPA/UV air purifier is comprised of a ventilator, speed selection switch, 2 stages of filtration and the cabinet enclosure system. The ventilator pulls air through the prefilter and pushes the same air through the HEPA filter which removes 99.97% of particles that are 0.3µm or larger in size.

OPERATION MODE OPTIONS

The unit features two speeds of operation. The speed selection switch is located on the front of the motor assembly. At lowest speed the unit will provide 220 CFM of clean air while at highest speed, the unit will provide 300 CFM of clean air. It is recommended that the unit be operated on the highest speed at all times to maximize the benefits of the HEPA/UV air purifier.

An access door is provided at the front of the unit to permit access to the filters and speed selection switch. Opening the latch on the right side of the unit will permit the door to swing open. A safety door interlock switch cuts the power to the motor. If necessary, the door can be removed from the cabinet hinges by holding the top part of

RECOMMENDED OPERATION

The return plenum mount model operates in conjunction with your forced air HVAC system. A forced air distribution system continuously circulates the air inside your home. The HEPA/UV air purifier operates on the principal of bypass filtration, which means that a portion of the air being returned to the furnace is filtered on each pass. Over time all the air in the home will pass through the unit. It is recommended that the furnace blower be in operation whenever the system is in operation.

LED DISPLAY

The UV Lamp will function when the blower is in operation. There are two LED indicators on the front panel. The Amber LED indicates that the UV Lamp is on; the Red LED indicates that the Ballast is

The Sanuvox® S300 HEPA/UV Purifier is designed to kill bacteria, viruses, odor causing mold and fungus as well as chemical odors and VOC's that pass through the unit. The ultra-violet band light inhibits and kills mold, fungus, bacteria, viruses and microbial growth on 100% of the air flowing through the unit. The actual percentage of destruction depends on the velocity of the air, and the pollutant(s) treated.

the door with one hand and gently taping on the bottom edge of the door with the other hand to release the door from its hinges.



For stand-alone attic installation, the HEPA/UV air purifier must be operated continuously whenever a part of the system is located in an unconditioned space to avoid condensation in the ductwork when the temperature is below freezing (32°F, 0°C).

Maintenance of the unit should be performed at regular intervals to keep the benefits of the HEPA/UV air purifier.

functioning. If the Ballast (Red) LED is on, and the Lamp (Amber) LED is off, the UV lamp is not functioning. If both LED lights are off, the ballast is not functioning.

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4. GENERAL MAINTENANCE INFORMATION

WHEN SHOULD I SERVICE MY UNIT? SERVICE AND ACCESSORIES

Detailed maintenance information is located on the front decal on motor plate.

PRE-FILTER

Replace filter every 3 to 6 months or as needed.

HEPA FILTER

Replace filter every 2 to 5 years or as needed. Check regularly to maintain maximum performance from your HVAC system. For replacement filters, contact your local HVAC contractor.

UV LAMP

Replace lamp every 3 years. Lamps are available through your local HVAC contractor.

INSIDE THE UNIT

Once a year or as needed, clean the interior of the unit (Wall and Motor Plate) with a mild and non-abrasive soap. It is recommended to use products that are environmentally friendly.

⚠ IMPORTANT: ALWAYS UNPLUG UNIT BEFORE SERVICING

REPLACEMENT PARTS

Part # LMPHGXJ105

T6 Dual Zone High Intensity 10.5" (266.7 mm) UV "J" Lamp for Sanuvair® S300

Part # MSCFTR10

Pre-filter for Sanuvair® S300

Part # MSCFTR11

HEPA Filter for Sanuvair® S300

Part # BST120/277GL

120/230 volt Ballast with LED's for Sanuvair® S300

Part # MSCMTR7

Motor for Sanuvair® S300 230 volt

*Must be ordered with part# MSCCAP3 Capacitor.

4.1 CHANGING FILTERS

After opening the unit's door, grasp both edges of filter and pull with equal force to slide out the filter.



4.2 CLEANING

Once a year or as needed, clean the interior of the unit (Wall and motor plates) using mild non-abrasive soap and water. It is recommended to use products that are environmentally friendly.



4.3 TROUBLESHOOTING

PROBLEM

Unit does not operate.

SUGGESTIONS

- Is power cord fully inserted in the unit's connector?
- Is outlet powered?
- Is door interlock switch operating?

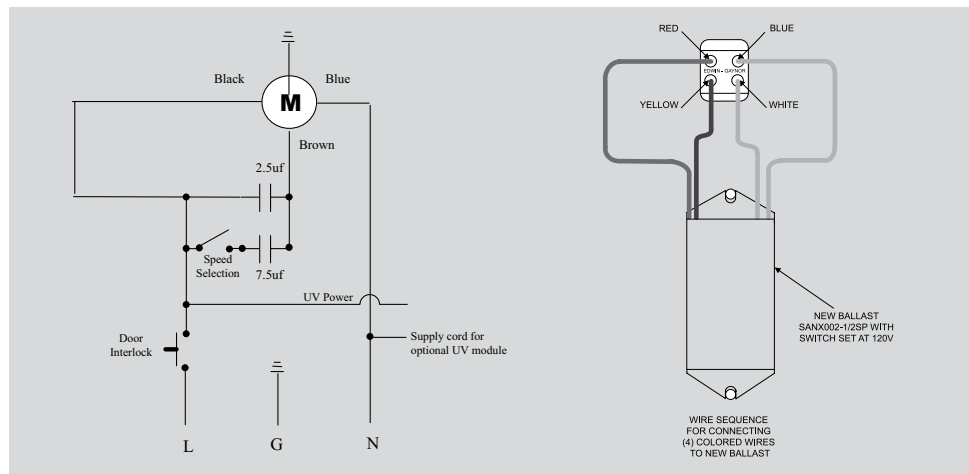
Unit operates only on one speed.

- Possible loose wire inside electrical box, contact your local contractor.

Unit vibrates.
balancing weight

- Check for excessive dust buildup or missing on the impeller wheel.

4.4 ELECTRICAL WIRING DIAGRAM



SANUVAIR® S300 HEPA/UV

LIMITED PARTS AND LAMP WARRANTY

3-YEAR WARRANTY — Except for the UV Lamp and Ballast, this SANUVOX TECHNOLOGIES INC. product is warranted to be free from defects in material and workmanship under normal use and maintenance for a period of three years from the date of original installation. A new or remanufactured part to replace the defective part will be provided without charge for the part itself, through a qualified servicing SANUVOX TECHNOLOGIES INC. dealer or distributor, PROVIDED the defective part is returned to our distributor. The replacement part assumes the unused portion of the warranty.

COMMERCIAL LAMP WARRANTY — The SANUVOX TECHNOLOGIES INC. Ultra-Violet Lamps are warranted to be free from defects and operate for 2 years after installation, under normal use and maintenance in a commercial application. A new lamp to replace the defective lamp will be provided without charge for the part itself, through a qualified servicing SANUVOX TECHNOLOGIES INC. dealer or distributor, PROVIDED the defective part is returned to our distributor. The replacement part assumes the unused portion of the warranty.

3-YEAR RESIDENTIAL LAMP WARRANTY — The SANUVOX TECHNOLOGIES INC. Ultra-Violet Lamps are warranted to be free from defects and operate for Three (3) years after installation, under normal use and maintenance in a residential application. A new lamp to replace the defective lamp will be provided without charge for the part itself, through a qualified servicing SANUVOX TECHNOLOGIES INC. dealer or distributor, PROVIDED the defective part is returned to our distributor. The replacement part assumes the unused portion of the warranty.

3-YEAR BALLAST WARRANTY — The SANUVOX TECHNOLOGIES INC. Electronic Ballast is warranted to be free from defects and operate for three (3) years after installation, under normal use and maintenance in a residential or commercial application. A new ballast to replace the defective ballast will be provided without charge for the part itself, through a qualified servicing SANUVOX TECHNOLOGIES INC. dealer or distributor, PROVIDED the defective part is returned to our distributor. The replacement part assumes the unused portion of the warranty.

THIS WARRANTY DOES NOT INCLUDE ANY ADDITIONAL LABOR ALLOWANCE OR OTHER COSTS incurred for diagnosis, repairing, removing, installing, shipping, servicing, or handling of either defective parts or replacement parts. SUCH COSTS MAY BE COVERED BY a separate warranty provided by the installer.

LIMITATIONS OF WARRANTIES — ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.

SANUVOX WILL NOT BE RESPONSIBLE FOR:

1. Normal maintenance as outlined in the installation and servicing instruction or owner's manual.
2. Damage or repairs required as a consequence or faulty installation or application by others.
3. Failure to start due to voltage condition, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption or electrical service.
4. Damage or repairs needed as a consequence of any misapplication, abuse, improper servicing, unauthorized alteration, or improper operations.
5. Damage as a result of floods, winds, fires, lightning, accidents, corrosive atmosphere, or other conditions beyond the control of SANUVOX TECHNOLOGIES INC.
6. Parts not supplied or designated by SANUVOX TECHNOLOGIES INC.
7. SANUVOX TECHNOLOGIES INC. products installed outside the continental USA, Alaska, Hawaii, and Canada.
8. ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

Model number: _____

Date of installation: _____

Name of owner: _____

Unit serial number: _____

Installed by: _____

Address of installation: _____

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