

### Location

The preferred installation location for the purifier is in the return duct as the air will be treated before the filter and HVAC coil. If it is not possible to install in the return duct, it may be installed in the supply duct. The black Control Panel section of the purifier is installed on the outside of the duct. Make sure site can be supplied with the necessary power requirements. The R1700 has a power consumption of 27 watts (730 ma) and require a 110/220V, 50-60 Hz power source. Insure that there is adequate clearance for service. If a humidifier is present, the air purifier should be installed in the air stream before the humidifier and the humidifier must be protected from UV rays.

**NOTE:** The Ballast has been factory set at 110 Volts. If the power source is 220 Volt, the switch on the ballast must be changed to the 220 volt position. The operating temperature range is 40 to 150 F. Operating the models outside this range will result in decreased performance.

**NOTE:** The Purifiers are NOT waterproof. If installing outdoors, the purifiers must be installed in a watertight enclosure.

The 6" square aluminum tube can be rotated in 90 degree increments in order for the backplate and Control Panel front cover to face upward (vertical). To rotate the aluminum tube, open the front cover of the purifier. Loosen the hex head nut. Grasp the aluminum tube and rotate it in 90 degree segments. The tube will lock at each 90 degree segment. When the correct rotation is found, tighten the hex nut.

### R1700X INSTALLATION

1. Turn off all power to HVAC equipment.
2. Remove the R1700X from its packaging.
3. Remove the 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.
4. Position lamp inside the aluminum tube. Route 4-pronged end of lamp through clamp. Clamp is tightened by moving lever perpendicular to the clamp.
5. 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.
6. The 6" square aluminum tube can be rotated in 90 degree increments in order for the backplate and Control Panel front cover to face upward. To rotate the aluminum tube, open the front cover of the purifier. Loosen the hex head nut. Grasp the aluminum tube and rotate it in 90 degree segments. The tube will lock at each 90 degree segment. When the correct rotation is found, tighten the hex nut.
7. Install the turbulator (square aluminum cap) on the end of the aluminum tube facing the air flow. Fasten with screws provided.
8. Ultra-violet light may damage certain plastics and exposed non-UVC protected wires. If any plastic or wires are within the light exposure area, wrap exposed plastic and wiring with aluminum tape or metal conduit.

**Return or Supply Air Plenum Installation** Perform the following to install the R1700X:

1. Cut a 6.5in by 8-in. rectangular hole in the ductwork at the installation location.
2. Place the R1700X in ductwork in correct position. Mark the 6 mounting holes on the ductwork. Remove the R1700X.
3. Drill 6 mounting holes marked in Step 2 (size for no. 8 sheet metal screws).
4. Place the R1700X inside hole in ductwork. Mount to ductwork with 6 no. 8 sheet metal screws provided.

**Note: The Ballast for ALL of the models has been factory set at 110 Volts. If the power source is 220 Volt, the switch on the ballast must be changed to the 220 volt position.**

5. R1700, R4000XB. Connect the 110 or 220 volt line as per code to the HVAC EAC terminals or to the blower control. A current sensing relay or pressure switch may be necessary. Check with the equipment manufacturer.
6. Open cover of the purifier. Secure the line conduit through the purifier knock-out provided next to the power switch with the appropriate cable connector

### OPERATION OF THE R1700:

The R1700X has an on-off switch and a circuit breaker located at the bottom of the front cover. To operate, press the switch to the "on" position. The switch has a light to indicate that there is power. If there is no indicator light on, check the electrical outlet for power, and check the Purifier circuit breaker. Start the HVAC fan. The 2 LED lights will come on.

### LED Indicators

The Blue LED indicates that the UV Lamp is on; the Green LED indicates that the Ballast is functioning. If the Ballast (Green) LED is on, and the Lamp (Blue) LED is off, the UV lamp is not functioning. If both LED lights are off, the ballast is not functioning.

### Trouble-Shooting the UV Lamp

#### Checking the UV Lamp

Sanuvox Ultraviolet Lamps are built to the highest standards. If the Green LED (Ballast) is lit and the Blue LED (Lamp) is not lit, it is important to check the Lamp to insure that it is not a defect in the Lamp Sensing Circuit in the Ballast. This is done by using an ohmmeter to check the two filaments on the Lamp.

Disconnect the socket from the Lamp.

Placing the probe of the ohmmeter to one of the four pins on the end of the Lamp, touch the other probe of the ohmmeter to each of the other pins until you find the matching pin. The ohmmeter will read approximately 3 ohms (almost a short). This indicates that the filament is good. Check the other two pins. If both sets of filaments test OK, the Lamp is functioning. If one or both sets of filaments read an open circuit (infinity) on resistance, the Lamp is defective.



### WARNING

Before installing or performing maintenance or service on the purifier, turn off main power switch to unit. Electrical shock can cause injury or death. There may be more than one disconnect switch.

### WARNING

Never expose eyes or skin to ultraviolet light from any source. The Purifier MUST be DISCONNECTED from power source before performing maintenance or service. Personal injury may result.

### WARNING

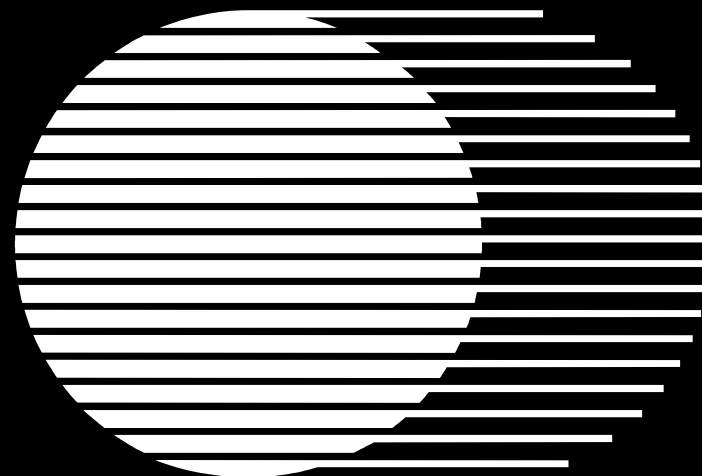
Do not touch Lamp glass without gloves. Reduced performance of Lamp may result. Clean Lamp after handling.

### WARNING

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

### WARNING

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



**Follow all safety codes.  
Wear safety glasses and work gloves.**

### PLEASE SAVE FOR YOUR RECORDS

**Serial Number#** \_\_\_\_\_

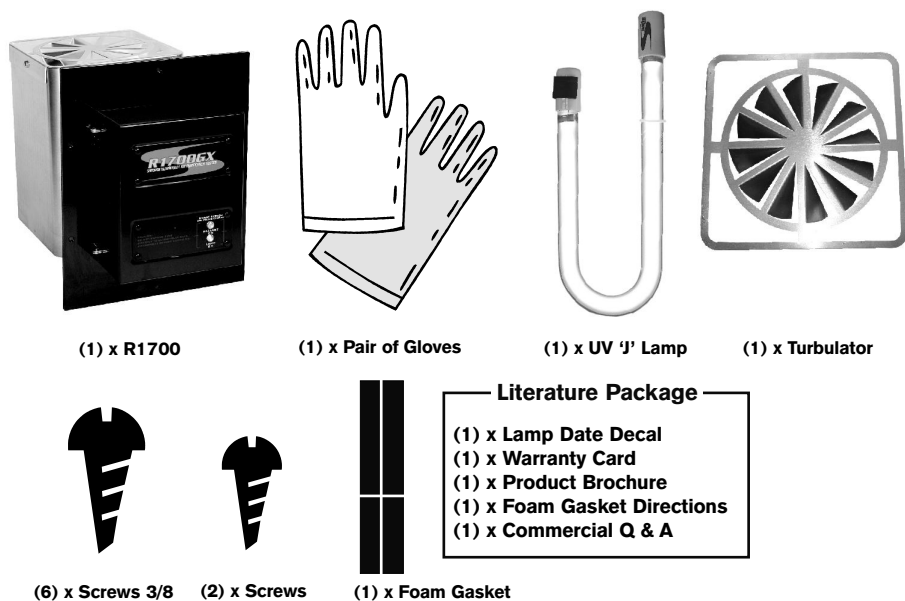
**Date Installed:** \_\_\_\_\_

**Installed By:** \_\_\_\_\_

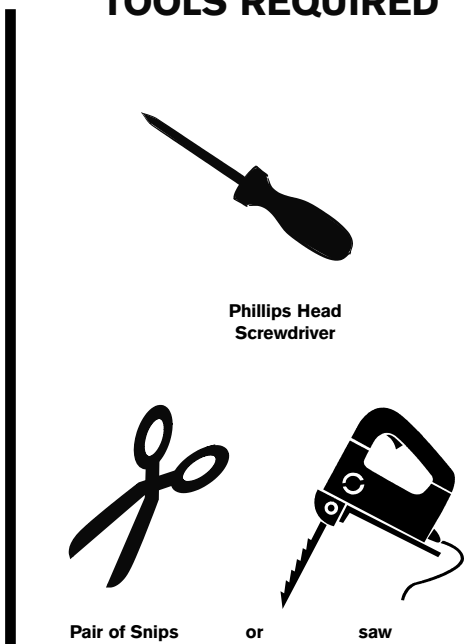
**Installers Contact info.:** \_\_\_\_\_

Congratulations on the purchase & installation of your new Sanuvox Ultraviolet Air Purifier. Sanuvox UV Air Purifiers are the most advanced Air Purification System available having been proven to destroy up to 99.999% of Biological & chemical contaminants that circulate throughout your home or facility. Sanuvox Systems have been tested by The EPA (Environmental Protection Agency), The National Homeland Security Research Center, Medical Universities and Independent 3rd Party Laboratories.

### THIS BOX CONTAINS



### TOOLS REQUIRED



### Step-By-Step Instruction Guide

**1**

Follow separate Foam Gasket Instructions to install the 4 four foam strips on the Backplate.

**2**

Only break the security seal AFTER you visually inspect the Lamp.

Carefully break Security Seal located on the underside of the Lamp cardboard sleeve.

**3**

Carefully slide Lamp out from protective sleeve. Be sure to use cotton gloves (included) guaranteeing a clean Lamp free from fingerprints.

**4**

Tension Lever is DOWN

Slide the Lamp's porcelain end-cap (with the 4 pins) through clamp bracket. Be sure to notice the Tension Lever is down.

**5**

Tension Lever is UP locking Lamp in place

Once the Lamp's end-cap is in place, pull the Tension Lever UP to lock the Lamp in place. If the Lever is loose, just turn Lever clockwise a turn or so.

**6**

If the White Plug does not push on easily, just rotate the plug 180°

While holding the SAME side of the Lamp attached to the clamp, carefully push on the white plug.

NOTE: Although the Lamp is fairly strong, too much tension from the opposing side may break the Lamp.

**7**

Once Lamp is installed, place and screw Turbulator to the top of the Reflecting Tube. The air must pass through this Turbulator as it enter the Reflecting Tube.

**8**

Did you throw out the box? Don't worry! Just cut a 8" x 6.25" opening into the duct!

Cut-out the 'Smart Template' from the side of the Purifier's outer carton.

**9**

Return or Supply Installation? We suggest Return, but can be easily installed on the Supply.

Draw around the 'Smart Template' outlining where the Purifier will be installed

**10**

Cut around outline.

**11**

Up-flow System? Horizontal duct? Not a problem. The Reflecting Tube & Lamp are easily rotatable 180°. Just visit back page for instructions.

Angle the purifier so it easily fits into the duct opening.

**12**

Use the self-taping screws (included) to mount the purifier to the duct. Hard-wire the purifier to the Electronic Air Cleaner Terminal or Fan Relay.

### Understanding The 'Smart System' LED Status Display



**BALLAST ON = GREEN  
LAMP ON = BLUE**

When the HVAC fan is on, both LED lights should be on.

If the Ballast (Green) LED is on and the Lamp (Blue) LED is off, the UV Lamp is not functioning.

If both the Ballast (Green) LED is off and the Lamp (Blue) LED is off, the ballast is not functioning.

Visit the back page for wiring instructions and the Trouble Shooting.