

## **Ultraviolet Germicidal Lamps Owner's Manual**

## WARNING

**Ultraviolet light is harmful to eyes and skin.**

Never look at light produced by this lamp.  
Unplug lamp before servicing.

**Electrical shock from 120 VAC may cause serious injury.** Disconnect power before servicing and keep disconnected until complete. The lamp has a grounding-type (3 prong) plug that will fit only into a grounding-type power outlet. Do not alter plug in any way.

**Lamp may cause personal injury in the form of burns or cuts.** Wear protective gloves and safety glasses when handling lamp. To prevent burns, unplug lamp and allow to cool for several minutes before servicing. If lamp is broken, refer to lamp disposal section of this manual.

## I. INTRODUCTION

Thank you for your purchase of an Aprilaire Ultraviolet Germicidal Lamp. We sincerely appreciate your business and are pleased to add your name to the growing list of satisfied customers who have invested in better indoor air quality. Research Products Corporation is the largest manufacturer of a complete line of indoor air quality products such as Aprilaire humidifiers, air cleaners, thermostats, zone control systems, carbon monoxide alarms and energy recovery ventilators. To learn more about the ultimate in comfort and indoor air quality for your home, please visit our website, [www.aprilaire.com](http://www.aprilaire.com).

Please take a few minutes to read this owners manual to understand the operation of your Aprilaire UV Germicidal Lamp and the annual required maintenance. This booklet will also familiarize you with the benefits this product offers. Be sure to register your warranty with us for our records and your protection. This can be accomplished by filling out the warranty card included with the product or by registering on line at, [www.aprilaire.com/warranty](http://www.aprilaire.com/warranty).

## II. PRINCIPLE OF OPERATION

The air conditioning or heat pump coil that is part of your heating, ventilating, and air conditioning (HVAC) system is designed to cool the air passing through it, thus generating comfortable air for your home. During this process, dehumidification also occurs as water condenses from the air stream onto the cooling coil. This water, referred to as condensate, drains away from the air conditioning coil into the drain pan and through the drain connection on the side of your furnace/air handler. In some cases, extended operation of an air conditioning system and the associated moisture on the air conditioning coil can support the growth of mold and bacteria. The technology incorporated in your Aprilaire UV Germicidal Lamp uses UVC spectrum light to kill mold and bacteria growing on the coil. This technology has been used for over 60 years to kill microorganisms. Your lamp will help reduce the risk of allergic reactions and illnesses caused by biological growth on the air conditioning or heat pump coil, and will eliminate the foul odors associated with such growth on the coil. It's an excellent addition to any indoor air quality system! In addition, it will protect your air conditioning system from reduced efficiency caused by biological growth on the air conditioning coil. By eliminating this growth, your air conditioner will run at peak performance and use less energy.

### III. HOW TO CHECK LAMP OPERATION

After your lamp has been installed by a qualified HVAC Contractor, you may check its operation using the following procedure. These instructions apply to Model 1910 and both units that make up Model 1930. Read all WARNING statements at the beginning of this manual. Failure to do so could lead to personal injury and/or equipment damage.

1. Plug the lamp's POWER CORD into a standard 120 VAC outlet that is always energized.
2. Turn the lamp's ON/OFF SWITCH to the 'On' position.
3. Look at the SIGHT GLASS located in the bottom center of the UNIT HOUSING. See Figure 1. If the lamp is operating correctly, the SIGHT GLASS will be illuminated by blue light. If not, see the 'Troubleshooting' section for additional steps.
4. If any stray UV light can be seen, contact the HVAC Contractor who installed the lamp to correct.

### IV. ANNUAL LAMP REPLACEMENT

Your Aprilaire Ultraviolet Germicidal Lamp is designed for the lamp to be on at all times. After 9,000 hours of operation – 1 year of constant use – the effectiveness of the lamp inside the unit diminishes and needs to be replaced. Rarely will a lamp burn out in one year of continuous use; replacement is necessary because the lamp's intensity decreases. Installation of the replacement lamp (Aprilaire Service Part #90) is best handled by a qualified HVAC Service Contractor.

The steps for replacing the Lamp are the following (see Figures 1 - 3):

- a. Switch ON/OFF SWITCH to 'Off' and unplug POWER CORD. Wait several minutes for lamp to cool.
- b. Loosen NUTS that secure UNIT HOUSING to BASE. Remove UNIT HOUSING.
- c. Loosen LAMP DOOR SCREW that secures LAMP DOOR to BASE.
- d. Carefully pull LAMP ASSEMBLY out of duct. This requires that you slightly lift up and tilt forward the LAMP ASSEMBLY while pulling out from the BASE.
- e. Remove LAMP by pulling it out from LAMP SOCKET and out from LAMP HOLDER.
- f. Install new, replacement LAMP (Aprilaire Service Part #90) into LAMP SOCKET and LAMP HOLDER. Be sure LAMP is fully inserted into LAMP SOCKET.
- g. Use alcohol to remove any dirt and/or fingerprints from the new LAMP.
- h. Return LAMP ASSEMBLY to BASE and fasten LAMP DOOR SCREW.
- i. Put UNIT HOUSING back in place and fasten NUTS. Be sure UNIT HOUSING rests completely on the BASE and that all wiring is fully inside.
- j. Plug in POWER CORD and turn ON/OFF SWITCH to 'On.' If the lamp is operating correctly, the SIGHT GLASS will be illuminated by blue light.
- k. In the table provided on page 7, record the date LAMP was replaced.

Under normal conditions, your Aprilaire Ultraviolet Germicidal Lamp should not require any maintenance other than annual lamp replacement.

## V. LAMP DISPOSAL

As with a fluorescent light bulb, your UV lamp contains mercury and must be disposed of properly. **Do not throw old lamps into the trash.** Many communities have agencies that take in mercury along with other materials – such as old paints, solvents, etc. – that require special disposal. Please contact your municipal or county waste collection agency for proper disposal procedures.

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 municipal or county waste collection agency for proper disposal procedures.

## VI. TROUBLESHOOTING

If the SIGHT GLASS does not illuminate, check the following (See Figures 1 - 3):

**Power Cord** – Verify that the lamp's POWER CORD is plugged into a standard 120 VAC outlet that is always energized.

**On/Off Switch** – Verify that the lamp's ON/OFF SWITCH is in the 'On,' position. The switch is illuminated red when powered and in the 'On' position. (1930 has ON/OFF SWITCH on each unit.)

**Fuse** – If the lamp is still not illuminated, place ON/OFF SWITCH to 'Off' position, unplug the lamp's POWER CORD, and check the FUSE. To do so, remove the FUSE CAP by turning it counter-clockwise. See Figure 1. Then, take out the FUSE. If the glass tube of the FUSE is darkened or visibly blown, the FUSE needs to be replaced. Contact your HVAC Service Contractor for replacement FUSE.

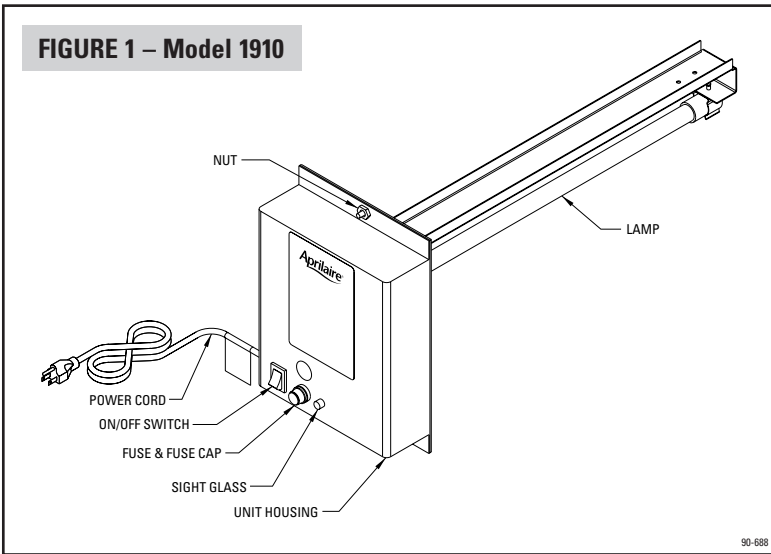
**Lamp** – Verify that LAMP is not broken and properly seated into LAMP SOCKET. To check this, follow steps in the 'Annual Lamp Replacement' section with one exception: you should not remove and replace lamp (Steps 'e' and 'f'). Instead, simply check to verify that lamp tube is not broken and that it is firmly pushed into its' LAMP SOCKET. If necessary, use alcohol to remove any dirt and/or fingerprints from the lamp.

**Hole for Sight Glass** – When the LAMP ASSEMBLY is back in place and with the lamp still unplugged, check to see if there is a hole in the duct behind the SIGHT GLASS. See Figure 3 for HOLE FOR SIGHT GLASS LOCATION. If there is no hole, contact the installer of your lamp to correct this.

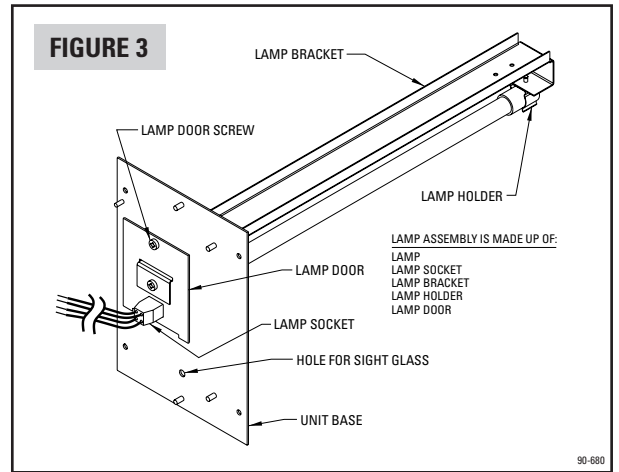
If all the above has been checked and the SIGHT GLASS is still not illuminated, contact your HVAC Service Contractor. The electrical components inside the unit are not user-serviceable. If the lamp is broken, read the 'Lamp Disposal' section of this manual for proper disposal. For a replacement lamp (Aprilaire Service Part #90), contact your HVAC Service Contractor.

# FIGURES 1 - 3

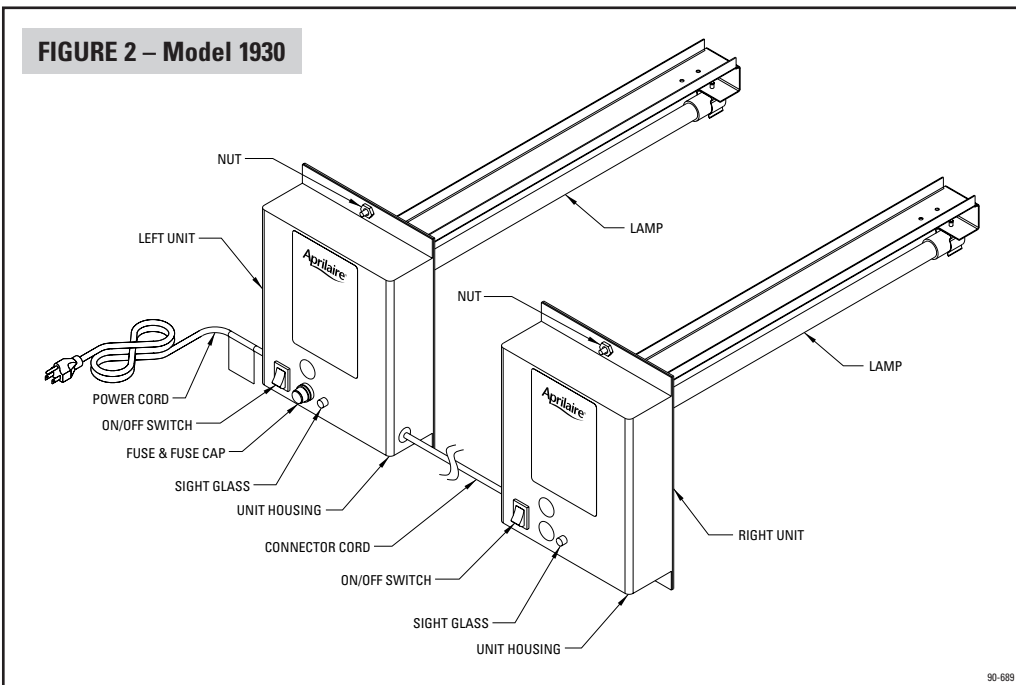
**FIGURE 1 – Model 1910**



**FIGURE 3**



**FIGURE 2 – Model 1930**



## VII. LIMITED WARRANTY

Your Research Products Corporation Aprilaire Ultraviolet Germicidal Lamp (single base or dual base unit) is expressly warranted for three (3) years from the date of installation to be free from defects. However the replaceable lamp is expressly warranted for only one (1) year from the date of installation to be free of defects. Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for any part of the Ultraviolet Germicidal Lamp, which is found to be defective within a three (3) year period (excluding Lamp which will be replaced if defective within one (1) year period) and which is returned no later than thirty (30) days after the three (3) year period by you or your original supplier to Research Products Corporation, Madison, WI53701, together with the model number and installation date of the Ultraviolet Lamp.

THIS WARRANTY SHALL NOT OBLIGATE RESEARCH PRODUCTS CORPORATION FOR ANY LABOR COSTS AND SHALL NOT APPLY TO DEFECTS IN WORKMANSHIP OR MATERIALS FURNISHED BY YOUR INSTALLER AS CONTRASTED TO DEFECTS DISCOVERED IN THE ULTRAVIOLET GERMICIDAL LAMP ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID THREE-YEAR PERIOD. RESEARCH PRODUCTS CORPORATION'S LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFORESAID IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT FROM FAILURE TO HAVE THIS UNIT INSTALLED BY A QUALIFIED HEATING AND AIR CONDITIONING CONTRACTOR. IF THE LIMITED WARRANTY IS VOID DUE TO FAILURE TO USE A QUALIFIED CONTRACTOR, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS OR THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES SO THE ABOVE EXCLUSION OR LIMITATIONS 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.





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