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# APRILAIRE 1850W Owner's Manual

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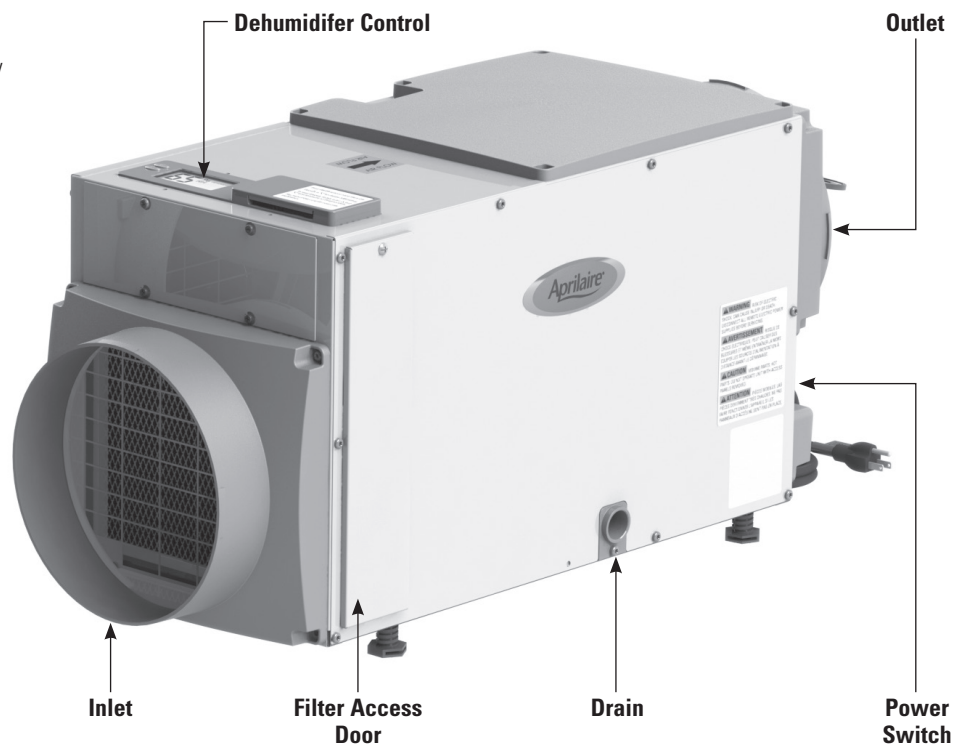
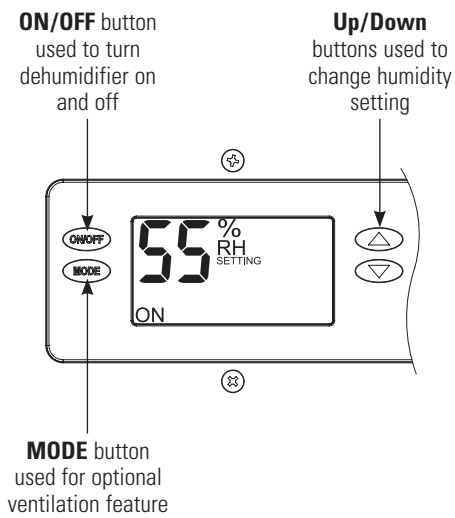


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**PLEASE LEAVE THIS MANUAL WITH THE HOMEOWNER**

Installed by: \_\_\_\_\_ Installer Phone: \_\_\_\_\_ Date Installed: \_\_\_\_\_



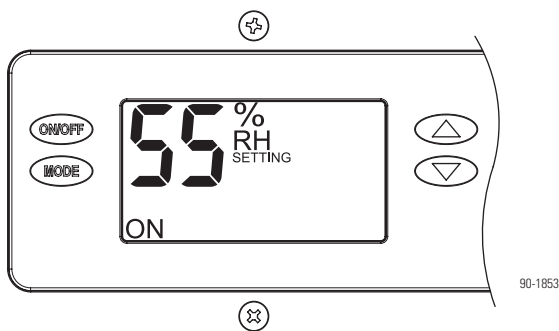
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## WHOLE HOME DEHUMIDIFICATION

The Aprilaire® Dehumidifier controls the humidity level in your entire home. A powerful blower inside the dehumidifier draws air into the cabinet, filters the air and removes moisture, then discharges the dry air into the HVAC system or dedicated area of the home. Inside the cabinet, a sealed refrigeration system removes moisture by moving the air through a series of tubes and fins that are kept colder than the dew point of the incoming air. The dew point is the temperature at which moisture in the air will condense, much like what occurs on the outside of a cold glass on a hot summer day. The condensed moisture drips into the dehumidifier drain pan to a drain tube routed to the nearest floor drain or condensate pump. After the moisture is removed, the air moves through a second coil where it is reheated before being sent back into the home. The air leaving the dehumidifier will be warmer and drier than the air entering the dehumidifier.

## SETTING THE DESIRED HUMIDITY LEVEL

The dehumidifier on-board control will display the humidity setting when not running, and displays the measured humidity when running.



The UP and DOWN arrow buttons allow the humidity level to be set from 40% to 80% relative humidity. Use the ON/OFF button to turn the dehumidifier ON or OFF.

Set the control at 55%RH when first installed. Allow the dehumidifier to run until it reaches the setting before deciding if you want to change the setting.

- **If you prefer the air to be more dry**, decrease the humidity setting.
- **If you prefer the air to be less dry**, increase the humidity setting.

Your comfort is the best measure of how to adjust your setting. When first installed, your dehumidifier has to remove all the moisture that is initially in your home. The home acts like a sponge so the moisture in the materials of your home is at the same level as the air. After drying the air, the materials of the home will release moisture back into the air until they are again at the same level. As a result, it is not uncommon for the dehumidifier to operate for an extended period when first installed.

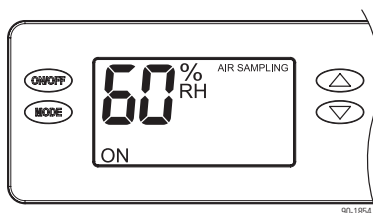
### ENERGY SAVINGS TIPS

**Energy Savings Tip #1:** Adjust the humidity setting to be as high as is comfortable to reduce dehumidifier run time. If it feels clammy or “smells musty”, lower the humidity setting. To save energy, turn the dehumidifier to OFF when you open your windows, just as you would with air conditioning.

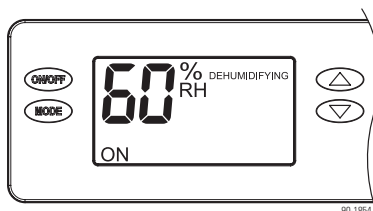
**Energy Savings Tip #2:** If vacating your home for an extended period in the summer, set the RH at 55% and set your thermostat as high as you are comfortable setting it to in the cooling mode. Consult with appropriate professionals regarding the highest temperature that is safe for your pets or possessions. This will keep the humidity at a controlled level while minimizing the amount of cooling energy used.

## HOW DOES THE DEHUMIDIFIER WORK?

Once per hour the dehumidifier will measure the humidity level of the air and compare it to the humidity setting. If the humidity in your home is higher than the setting, the dehumidifier will dehumidify the air until the humidity level drops below the setting.



When the dehumidifier turns on, the blower circulates the air for 3 minutes before measuring the humidity level of the air. The on-board control will display AIR SAMPLING, along with the measured humidity on the control screen.



If the humidity of the air is higher than the setting, the compressor turns on and the control will display DEHUMIDIFYING, along with the measured humidity on the control screen.

### OPTIONAL – HEATING AND COOLING SYSTEM BLOWER OPERATION

Your installing contractor may have configured the dehumidifier to turn on the heating and cooling system blower when the dehumidifier turns on to allow for improved circulation of the dry air.

# EXTERNAL CONTROL OPTIONS

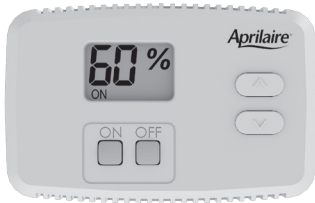
Your Aprilaire dehumidifier can be controlled with an optional external control that is conveniently located in the living space. The Aprilaire Model 76, 8620, and 8910 are recommended controls. The Model 76 is a dedicated dehumidifier control and the 8620 and 8910 integrate dehumidification control as part of the thermostat minimizing the number of controls on the wall.

The Model 76 can also act as a remote control if the dehumidifier is located in a crawl space. Install the Model 76 in your living space and make changes to the dehumidifier setting or find out what the humidity level is in the crawl space from the comfort and convenience of the living space.

If one of these controls or any other external control is installed, please refer to their owner's manuals for operating instructions. Aprilaire owner's manuals are available at [www.aprilaire.com](http://www.aprilaire.com).

If you are interested in having an external control installed, please consult your installing contractor.

## Model 76 Control



*\*Model 8910 consists of the 8620 thermostat and equipment control module to accommodate the installation of various components.*

## Model 8620 Thermostat or Model 8910\* Home Comfort Control™



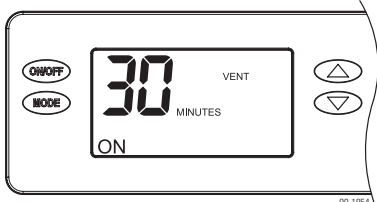
8620 Main Display Screen



8620 Humidity Control Screen

# HOW DOES THE OPTIONAL VENTILATION WORK?

If you had your contractor install the optional ventilation feature, they calculated how much fresh air was needed based on various factors (i.e. home size, number of occupants, local building codes, etc.). Knowing how much is needed and the rate at which fresh air will be brought into your home, the contractor set up the dehumidifier control to operate ventilation a certain amount of time per hour to provide the needed



fresh air. When ventilation operates, a damper in a duct that brings air in from the outside opens, and your heating and cooling system blower will run to distribute the fresh air.

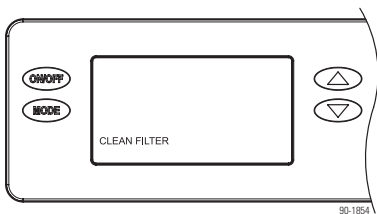
If you need to change the amount of time to operate ventilation, press the MODE button twice to display the ventilation time setting. Use the UP or DOWN button to adjust the number of minutes per hour (0–60, set to zero to turn it off) that ventilation is to run. The control will return to the dehumidifier setting display automatically.

For additional information, go to [www.aprilaire.com](http://www.aprilaire.com) to find out more about the benefits of home ventilation.

# MAINTENANCE

## CLEAN OR REPLACE THE AIR FILTER

After initial installation the air filter should be checked and cleaned every 6 months. The CLEAN FILTER service reminder will display on the on-board control screen every 6 months. To clear the service message, press the UP and DOWN arrows simultaneously for 3 seconds.



### Filter Cleaning Procedure

1. Turn the ON/OFF switch OFF.
2. Remove the filter access door from either side of the dehumidifier.
3. Slide the filter out of the dehumidifier.
4. Flush the filter with warm water and a mild detergent solution.
5. Shake off the excess water from the filter.
6. Replace the filter, making sure the filter is secured in both the top and bottom filter rails.
7. Replace the filter access door.
8. Turn the ON/OFF switch ON.
9. Press the UP and DOWN buttons simultaneously for 3 seconds to clear the service message.

## MAINTENANCE (CONTINUED)

### CHECK THE DRAIN

The drain should be checked annually to ensure there are no blockages or air lock in the drain system. If the unit is not draining properly, have it checked by a qualified service professional.

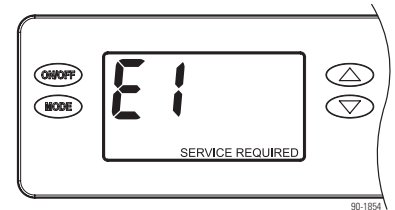
### ⚠ CAUTION

Do not use spray solvents or cleaners on or near the inlet side of the dehumidifier.  
If desired, apply cleaner to a cloth and use to clean the cabinet.

## TROUBLESHOOTING

### DIAGNOSTIC CODES

The on-board control will display a diagnostic code if an error should occur and service is required. Contact your installing contractor if E1–E7 or E9 is displayed on the on-board control screen. E8 will be displayed if the incoming air temperature is below 50°F, above 104°F, or when the dew point is below 40°F. When the incoming air is within the acceptable range, the dehumidifier will resume operation. If the error persists, contact your installing contractor.



## LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Dehumidifier is expressly warranted for five (5) years from date of installation to be free from defects in materials or workmanship.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for any component which is found to be defective within such five (5) year period and which is returned not later than thirty (30) days after said five (5) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701, together with the model number and installation date of the dehumidifier.

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 IN THE DEHUMIDIFIER ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID FIVE 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.

### WARRANTY REGISTRATION

Visit us on-line at [www.aprilaire.com](http://www.aprilaire.com) to register your Aprilaire product. If you do not have on-line access, please mail a postcard with your name, address, phone number, email address, product purchased, model number, date of purchase and dealer name and address to:

**Research Products Corporation, P.O. Box 1467, Madison, WI 53701**

**Your Warranty Registration information will not be sold or shared outside of this company.**

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