



## Model 1700 Dehumidifier Owner's Manual

Includes Safety & Operating Instructions  
and Warranty Information

### **WARNING**

120 volts may cause serious injury from electric shock. Disconnect electrical power before servicing.

### **CAUTION**

Sudden operation may cause personal injury or property damage. Unplug the dehumidifier before servicing.

**READ AND SAVE THESE INSTRUCTIONS**

# I. PRINCIPLE OF OPERATION

The purpose of the Aprilaire® Dehumidifier is to keep humidity in the house at acceptable limits to reduce the unwanted effects of high humidity. The dehumidifier gathers data from the HVAC system and measures the condition of the house air to decide when to run. An integrated air cycling feature can activate the HVAC blower to cycle air through the house to balance the indoor conditions. The dehumidifier can also operate an optional ventilation damper to bring in outside air.

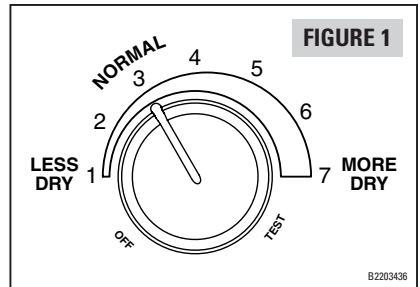
# II. OPERATING INSTRUCTIONS

There are three adjustable settings: the **dryness setting**, the **air cycle period** and the **air cycle time** within that period. The dehumidifier can be set from “1” or “LESS DRY” to “7” or “MORE DRY” based on desired comfort level. Most installations should be initially set to the “3” or “NORMAL” setting; however this can be adjusted to your individual needs. Air cycle period is set using the dip switches, and the potentiometer is used to set the air cycle time which are both located on the control board under the knob and are set during installation. If the **cycle period** is set to 1 hour and the **cycle time** potentiometer is set to 20 minutes, you will get 20 minutes of air cycling every hour. It is important to understand that the air cycling requirement – 20 minutes per hour in this example – may be satisfied by a heating, cooling, or fan call initiated by your thermostat, **or** if such calls do not satisfy the air cycling requirement, from a blower call initiated by the dehumidifier itself.

## 1. ADJUSTING THE DEHUMIDIFIER SET POINT

Use the main control knob (**Figure 1**) on the outside of the unit to set the dehumidifier dryness setting. Start with a “NORMAL” setting for most installations. Moving the knob clockwise to “MORE DRY” will make conditions drier. Moving the knob toward “LESS DRY” allows for higher moisture levels.

Based on the thermostat set point, use the following table to determine the control knob setting to reach the desired RH value. The dehumidifier will work to achieve these values.



**%RH (± 5%) based on Control Knob Setting and Indoor Temperature**

Control Knob Setting	Indoor Temperature (°F)			
	65	70	75	80
1 - “LESS DRY”		84%	71%	60%
2	86%	73%	61%	52%
3 - “NORMAL”	74%	63%	53%	45%
4	64%	54%	45%	39%
5	55%	46%	39%	33%
6	47%	39%	33%	28%
7 - “MORE DRY”	40%	34%	28%	24%

**EXAMPLE:** At an indoor temperature of 75°F with a dehumidifier control knob setting of 3 - NORMAL, the dehumidifier will work to achieve an RH value of 53%.

**NOTES:**

1. %RH values are ±5% and are to be used as a GUIDE ONLY for initial set-up.
2. Indoor Temperature is measured at the inlet to the Model 1700.

## 2. SETTING THE AIR CYCLE PERIOD AND CYCLE TIME

The air cycle period and cycle time are set during installation to meet the individual needs of your home. Detailed instructions are laid out in the dehumidifier installation manual. It is not recommended that adjustment be made after initial set up.

## III. OUTDOOR VENTILATION OPTION

If an Aprilaire® Normally-Closed Damper (Model 6506) was installed in the HVAC outside air intake, then this damper will open whenever air cycling is active. This allows ventilation of outside air to be included into the air cycling of your indoor air.

## VENTILATION CONTROL LIMITS

In a standard installation, your Aprilaire® Dehumidifier will use measurements of outdoor temperature along with the user adjustable time settings to determine when to ventilate with outdoor air. The ventilation damper will not bring in outside air if the outside temperature is above 100°F or below 0°F. The ventilation damper will allow outside air to be brought in when the temperature is between 20°F and 0°F only during a heat call. In timed mode, outdoor air is taken based on the time setting only, regardless of temperature.

## IV. MAINTENANCE

### AIR FILTER

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Under normal circumstances, the filter in the dehumidifier should be cleaned or replaced once a year. A clean filter is necessary to prevent damage to the dehumidifier and allow it to function at full capacity. To remove the filter, first unplug or disconnect power to the dehumidifier, then remove the air filter via the access panel on the side of the dehumidifier. To clean, flush with warm water and detergent solution. After a clean or new filter is reinstalled, replace the access panel and reconnect power to the dehumidifier. The replacement filter for the dehumidifier is Model 4510 and is available from your installing contractor or from most other HVAC contractors in your area.

### DRAIN

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**The drain trap or outlet should be checked and cleaned of debris annually. Flush it with water under pressure to ensure opening is clear.**

## V. LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Dehumidifier is expressly warranted for two (2) year from date of installation to be free from defects.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for the dehumidifier which is found to be defective within two (2) year period and which is returned not later than thirty (30) days after said two (2) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701, together with the 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 ONE 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.