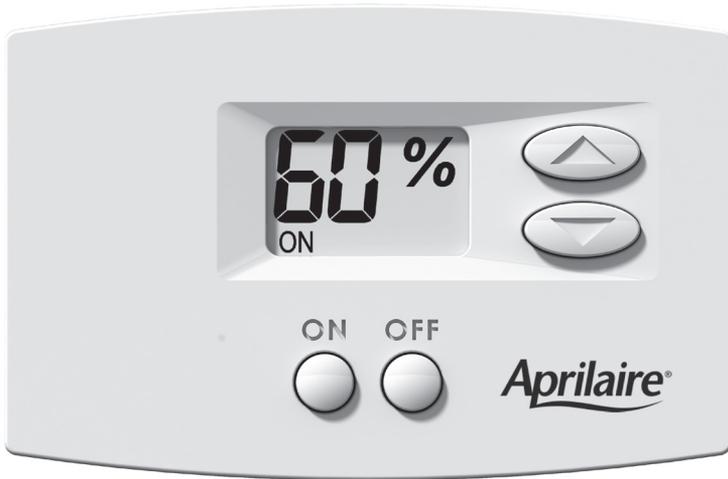




# Model 76 Dehumidifier Control Owner's Manual



Installed by: \_\_\_\_\_

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

## PLEASE LEAVE THIS MANUAL WITH THE HOMEOWNER

Thank you for your purchase of the Aprilaire® Model 76 Dehumidifier Control. Your control allows you to set the relative humidity level for your home and provides control of the dehumidifier from a convenient living space location. The Model 76 uses an onboard sensor to monitor the relative humidity in the space in which it is located and displays the measured relative humidity on the digital display.

The Model 76 can also act as a **remote control** for your Aprilaire Model 1830, 1850, or 1870 dehumidifier if it is located in an inconvenient or hard to access area. For example, when the dehumidifier is located in and dehumidifying a crawl space or a basement, the Model 76 can be installed where you spend most of your time, allowing you to make changes to the setting and to see what the humidity is in these areas without having to access the dehumidifier.

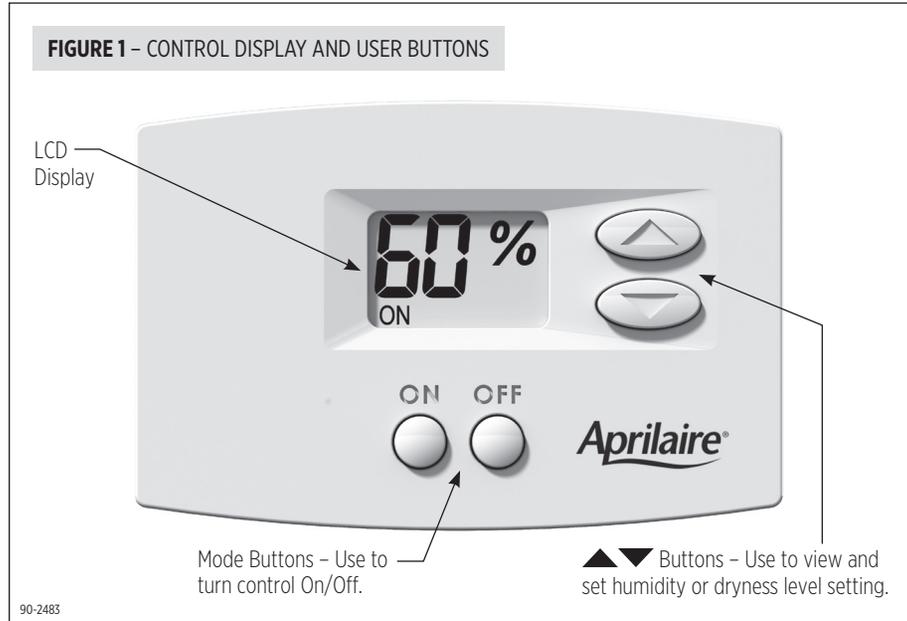
## SETTING THE DESIRED HUMIDITY LEVEL

The control will allow you to set the desired humidity level in your home and can be used to turn dehumidification On or Off.

The materials in a home act like a sponge, so the moisture in those materials is at the same level as the air. After drying the air, the materials in 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 of time when first installed.

## EXTERNAL CONTROL

Begin by pressing the ON button and **ON** will be displayed on the LCD Screen (see LCD display in **FIGURE 1**). Use the ▲▼ buttons to set the control at 59% when first installed. Allow the dehumidifier to run for 24 hours before deciding if you want to change the humidity setting.



- ▲ **Raise the setting if you prefer the air to be less dry;** this will reduce the amount of time that the dehumidifier runs.
- ▼ **Lower the setting if you prefer the air to be more dry;** this will increase the amount of time that the dehumidifier runs.

## REMOTE CONTROL

Begin by pressing the ON button and **ON** will be displayed on the LCD Screen (see LCD display in Figure 1). Use the ▲▼ buttons to set the control to a dryness level of **3** when first installed. Allow the dehumidifier to run for 24 hours before deciding if you want to change the dryness level setting.

- ▲ **Increase the dryness level setting if you prefer the air to be more dry;** this will increase the amount of time that the dehumidifier runs.
- ▼ **Decrease the dryness level setting if you prefer the air to be less dry;** this will reduce the amount of time that the dehumidifier runs.

The dryness level settings can be approximated to relative humidity (%RH) using **TABLE 1**.

**TABLE 1 – %RH (+/-5%) BASED ON DRYNESS LEVEL SETTING & INDOOR TEMPERATURE**

Dryness Level Setting	Indoor Temperature (°F)			
	65	70	75	80
1		84%	71%	60%
2	87%	73%	62%	52%
3	75%	63%	54%	45%
4	65%	55%	46%	39%
5	56%	47%	40%	34%
6	50%	42%	36%	30%
7	43%	36%	31%	26%

**Note:** This table is for reference only.

## ENERGY SAVINGS TIPS

- Tip #1:** To reduce dehumidifier run time, when using the Model 76 as an **external** control, adjust the setting to be as high as is comfortable and when using the Model 76 as a **remote** control, adjust the setting to be as low as is required for the space. If it feels clammy or “smells damp”, change the setting to allow for drier conditions.
- Tip #2:** When using the Model 76 as an **external** control, turn the dehumidifier control OFF when you open your windows, just as you would with air conditioning.
- Tip #3:** When using the Model 76 as an **external** control, and if vacating your home for an extended period in the summer, set the RH at 59% and set your thermostat to as high as you are comfortable setting it 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 to help prevent mold while minimizing the amount of cooling energy used.

## LCD DISPLAY

**FIGURE 2 – EXTERNAL CONTROL LCD DISPLAY**

Numbers show current room humidity **or** humidity setting

**Solid ON:**  
Control On

**Blinking ON:**  
Dehumidifying

**OFF:** Control Off



**SET** is displayed when ▲ or ▼ is pressed. The value displayed is the humidity setting. See **FIGURE 5**.

**Blinking ON + \*:** Control Limit Exceeded. See **Control Limits**, page 6.

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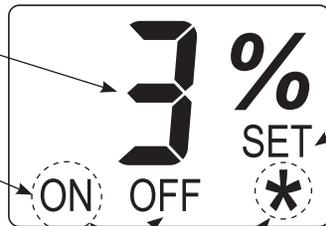
**FIGURE 3 – REMOTE CONTROL LCD DISPLAY**

Numbers show remote location humidity **or** dryness level setting

**Solid ON:**  
Control On

**Blinking ON:**  
Dehumidifying

**OFF:** Control Off



**SET** is displayed when ▲ or ▼ is pressed. The value displayed is the dryness level. See **FIGURE 7**.

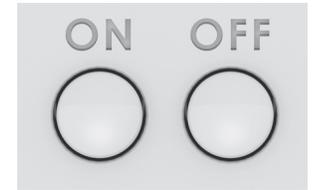
**Blinking ON + \*:** Control Limit Exceeded. See **Control Limits**, page 6.

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## TURNING CONTROL ON/OFF

- Pressing the ON button will turn on the control.
- Pressing the OFF button will turn off the control.
- The control will continue to display the measured humidity when OFF.
- The humidity or dryness level setting cannot be changed when the control is OFF.

**FIGURE 4 – ON/OFF BUTTONS**

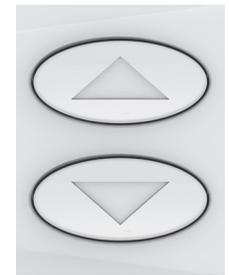


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## CHANGING THE HUMIDITY OR DRYNESS LEVEL SETTING

- The first press of either the ▲ or ▼ button will display the humidity or dryness level setting on the LCD.
- Each subsequent push of the ▲ or ▼ buttons will change the setting by 1% or 1 dryness level.
- If a button is held down, the setting will continually change by 1% or 1 dryness level every 1/2 second for as long as the button is pressed.
- The control will exit the setting screen 5 seconds after the last button press/release.

**FIGURE 5 – UP/DOWN BUTTONS**



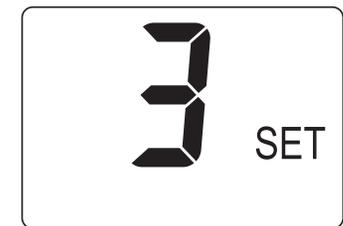
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**FIGURE 6 – EXTERNAL HUMIDITY SETTING SCREEN**



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**FIGURE 7 – REMOTE DRYNESS LEVEL SETTING SCREEN**



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## HOW DOES THE CONTROL WORK?

### EXTERNAL CONTROL

- When the measured humidity is greater than the setting, the control will turn on the dehumidifier and **ON** will blink on the LCD display.
- When the measured humidity falls 3% below the setting, the control will turn off the dehumidifier and **ON** will stop blinking.

### REMOTE CONTROL

- The control sends the dryness level to the dehumidifier.
- Once per Cycle Period (set by your installer in the dehumidifier), the dehumidifier will sample the air in the area served by the dehumidifier.
- If the dew point of the incoming air is above the dryness level, the dehumidifier will turn on and **ON** will blink on the LCD display.
- When the dew point of the incoming air falls below the setting, the dehumidifier will turn off and **ON** will stop blinking.

## CONTROL LIMITS

The control limits are used to make sure the dehumidifier does not run when conditions are outside of the operating limits. Dehumidifiers are not as effective when conditions are outside of the operating limits. For example, the dehumidifier will not remove much moisture when conditions are cool and dry. Control limits allow the dehumidifier to work efficiently within the operating range and turn off when conditions are outside of these limits.

CONTROL LIMITS	
Dew Point Lower Limit	40°F External Control
Temperature High Limit	99°F External Control 105°F Remote Control
Temperature Low Limit	50°F Remote Control

### EXTERNAL CONTROL – SEQUENCE OF OPERATION

- The dehumidifier will turn off if one of the control limits has been exceeded.
- If the control measures a dew point below 40°F OR a temperature above 99°F, the control will deactivate the dehumidifier output if actively dehumidifying, the dehumidifier will stop dehumidifying, and **ON** and **\*** will blink on the LCD screen (see **FIGURE 2**).
- The control will resume normal operation when conditions fall back within the control limits.

### REMOTE CONTROL – SEQUENCE OF OPERATION

- The dehumidifier will turn off if one of the control limits has been exceeded.
- If the dehumidifier measures a temperature below 50°F or above 105°F, the dehumidifier will stop dehumidifying, and **ON** and **\*** will blink on the LCD screen (see **FIGURE 3**).
- The control will resume normal operation when conditions in the remote space fall back within the dehumidifier control limits.

## CLEANING THE CONTROL

The surface of the Model 76 Dehumidifier Control can be cleaned with water or a non-abrasive household cleaner, including glass cleaner. **Do not spray any liquid directly onto the control.** Spray water or a cleaner onto a soft cloth and gently wipe the surface of the control.

## LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Dehumidifier Control 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 control 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 installation date of the control.

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 CONTROL ITSELF.

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

### WARRANTY REGISTRATION

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