



Automatic Digital and Manual Humidifier Control

Operating Instructions

INSTALLER:

Please leave this Operation Manual with the homeowner.

YOUR HUMIDIFIER

Your humidifier is controlled by either an Automatic Digital Humidifier Control, or a Manual Humidifier Control.

The Automatic Digital Humidifier Control offers two modes of operation, Automatic or Manual. When in the Automatic Mode, this system offers the following benefits:

- **You will always receive the optimum amount of humidity so that your home and its furnishings are always protected from the damaging effects of excess condensation or low humidity during the heating season.**

The Control automatically adjusts your home's RH based on the outdoor temperature, increasing the time maximum comfort is maintained

- **Simple operation with few adjustments.** The Control eliminates the need to manually adjust the control when outdoor temperature changes. It also eliminates the need to turn the dial setting to "OFF" during the summer season.

OPERATING INSTRUCTIONS

Automatic Digital Humidifier Control

Your Automatic Digital Humidifier Control works in conjunction with your heating, ventilating, air conditioning equipment (HVAC) to control the operation of the humidifier. The control senses indoor RH and outdoor temperature and automatically adjusts the operation of the humidifier to provide the optimum humidity level in the home.

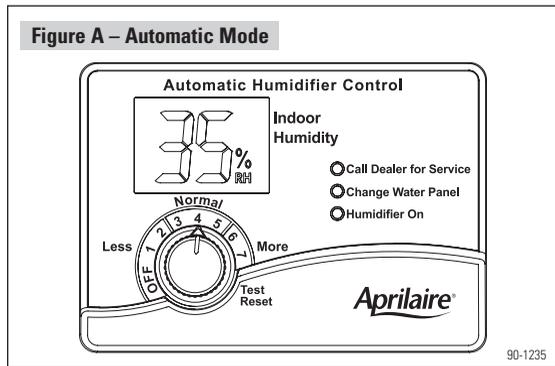
The digital readout on the automatic control displays the RH level inside the cold air return duct. This reading will accurately indicate the RH in the living space when the HVAC blower is operating. Once the HVAC blower stops, the readout will not change.

AUTOMATIC DIGITAL HUMIDIFIER CONTROL INDICATOR LIGHTS

Call Dealer for Service: The red light indicates that the humidifier is not operating normally and that service is required.

Change Water Panel: The yellow light indicates that it is time to change the Water Panel in the humidifier.

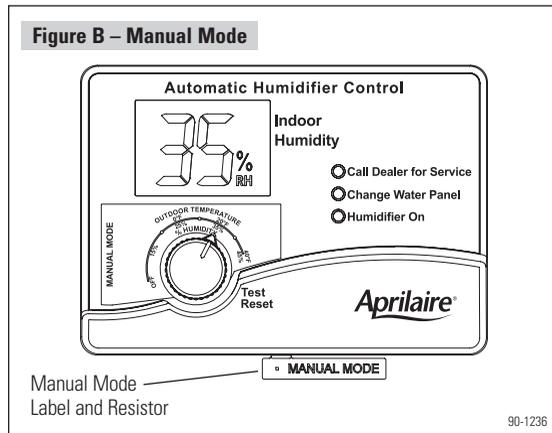
Humidifier On: The green light indicates that the humidifier is operating normally.



Your Automatic Digital Humidifier Control is installed on the cold air return duct. **During the first heating season**, your Automatic Digital Humidifier Control needs to be set initially to match your home's conditions. Please follow these steps when adjusting your control (refer to **Figure A**).

1. Turn your dial setting knob to "5", which is within the normal range. During the next 24-48 hours, it may be necessary to adjust the dial for more or less humidity, depending on your personal comfort and home's requirements. Refer to the "Operation Guide" (**Table 3**).
2. During the coldest portion of the first heating season, minor adjustments may be necessary, depending on your home construction. Refer to the "Operation Guide" (**Table 3**).

The RH in your home will now be accurately controlled to meet your needs and should not need further adjustment during future heating seasons. Make note of the dial setting in the event you temporarily move the knob when performing annual maintenance of the humidifier.



When installed in the Manual Mode (see **Figure B**), it is important to anticipate a drop in outdoor temperature and reduce the setting accordingly to avoid excessive condensation. For example, with an outdoor temperature of 20°F the correct setting will be 35% RH. If the temperature is expected to fall to 0°F that evening, then merely reduce the setting to 25% several hours prior to the temperature change.

See **Table 1** for the recommended settings. These settings, which are based on years of research, represent a compromise between RH levels that would be most desirable for comfort and humidity levels that are suitable for protection of your home and to avoid condensation on your windows. For example, a wintertime indoor RH of 50% may be considered ideal for comfort, but unfortunately, it probably would result in condensation, which can cause damage to your home. Observing the recommended RH levels on your Humidifier Control is an important safeguard. Condensation of water on the inside surface of windows in the form of fogging or frost is usually an indication of too much RH. This same condensation can occur in other areas in your home, possibly resulting in damage.

WATER PANEL CHANGE INDICATOR

The control keeps track of humidifier operation time. The yellow “Change Water Panel” light flashes after a preset amount of running time has elapsed. This running time is preset by the installer based on the humidifier model and water characteristics.

Refer to the Annual Maintenance section of your Humidifier Owner’s Manual for instructions on changing the Water Panel or call your heating and air conditioning dealer for service. After the Water Panel is replaced, turn the Control knob to the “Test/Reset” position until the green “Humidifier ON” light flashes, to reset the Water Panel change timer.

TEST/RESET

The Test/Reset feature allows the humidifier operation to be checked even if there is no call for humidity. See “Check the Humidifier Operation” on page 11.

TABLE 1: Outdoor Temperature – Indoor Relative Humidity	
Outside Temperature	Recommended Indoor RH
+40°F	45%
+30°F	40%
+20°F	35%
+10°F	30%
0°F	25%
-10°F	20%
-20°F	15%

ADDITIONAL INFORMATION

Your humidifier is a precision system that will accurately maintain the RH in your home. For every 2°F change in outdoor temperature, the Automatic Digital Humidifier Control will automatically adjust the indoor RH by 1%.

The Automatic Digital Humidifier Control will accurately control the humidity in your home to a maximum of 45% RH and a minimum of 10% RH.

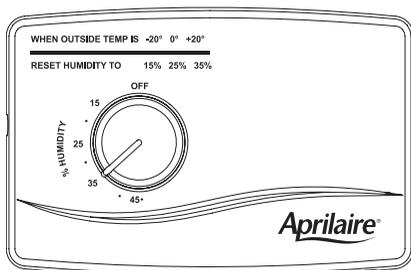
The RH Values in **Table 2** are targets based on outdoor temperature and the ADHC control setting. The actual RH may vary due to conditions in the home (cooking, showering, etc.).

		Outdoor Temperature (°F)						
		-10°F	0°F	10°F	20°F	30°F	40°F	
Dial Setting	1	10%	10%	10%	15%	20%	25%	Relative Humidity (%)
	2	10%	10%	15%	20%	25%	30%	
	3	10%	15%	20%	25%	30%	35%	
	4	15%	20%	25%	30%	35%	40%	
	5	20%	25%	30%	35%	40%	45%	
	6	25%	30%	35%	40%	45%	45%	
	7	30%	35%	40%	45%	45%	45%	

Condition	Solution
Condensation on windows.	Reduce the setting on the control dial by 1 increment.
Lack of humidity.	Increase the setting on the control dial by 1 increment.
Humidifier does not operate. (Solenoid does not “click” when control is moved to “Test/Reset” position.)	Turn dial to “Test/Reset”. Make certain HVAC blower is operating and HVAC is calling for heat. If unit still does not operate, consult a heating contractor.
Humidifier won’t shut off.	Turn dial to “Off”. If unit continues to operate, consult a heating contractor.
Test mode.	System operation is checked by setting the knob to “Test/Reset”. Make certain HVAC blower is operating and HVAC is calling for heat. Humidifier will operate for one minute. NOTE: Placing the knob in “Test/Reset” resets the Water Panel change timer.
Red “Call Dealer for Service” light flashes (Figure A).	Note the error code on the display (E1, E2, E3 or E4) and call your heating and air conditioning dealer.
Yellow “Change Water Panel” light flashes (Figure A).	Refer to the humidifier Owner’s Manual for instructions on changing the Water Panel or call your heating and air conditioning dealer for service. After the Water Panel is replaced, turn the Control knob to the “Test/Reset” position until the green “Humidifier On” light flashes, to reset the Water Panel change timer.

Manual Humidifier Control

Figure C – Manual Humidifier Control



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Your Manual Humidifier Control (see **Figure C**) is installed either in the cold air return duct or on an interior wall of the home.

With the Manual Humidifier Control, it is important to anticipate a drop in outdoor temperature and reduce the setting accordingly to avoid excessive condensation, just as with the Automatic Digital Humidifier Control installed in Manual Mode (see page 5).

To determine the indoor RH, slowly turn the knob clockwise and counterclockwise and listen for 2 clicks. The indoor RH is within the range of the 2 clicks.

Check the Humidifier Operation

AUTOMATIC DIGITAL HUMIDIFIER CONTROL

Set the knob to “Test/Reset”, make sure that the water saddle valve is open and that there is electricity to the humidifier. The HVAC system must be operating for the humidifier to function. Note: Turning the knob to “Test/Reset” resets the “Change Water Panel” timer. The humidifier will only operate for 1 minute in test mode. Reduce the Humidifier Control setting to the recommended inside RH, depending on the outside temperature. **DO NOT LEAVE IN TEST MODE AS HUMIDIFIER WILL NOT OPERATE.**

MANUAL HUMIDIFIER CONTROL

Set the knob to the highest setting, make sure that the water saddle valve is open and that there is electricity to the humidifier. The HVAC system must be operating for the humidifier to function. Once water is entering the humidifier and coming out at the drain, reset the Humidifier Control to its original setting.

Annual Summer Shutdown

Automatic Digital Humidifier Control in Automatic Mode (see **Figure A**): No adjustment is necessary.

Automatic Digital Humidifier Control in Manual Mode (see **Figure B**): Set the knob to the “OFF” position.

Manual Humidifier Control (see **Figure C**): Set the knob to the “OFF” position.

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