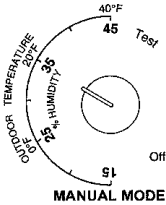


**Manual Mode (Automatic Mode – see pg 2)**

Your Humidifier control is installed in the cold air return. When installed in the manual mode 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° the correct setting will be 35% relative humidity. If the temperature is expected to fall to 0° that evening, then merely reduce the setting to 25% several hours prior to the temperature change.

(Figure B)



The recommended settings on the humidistat are based on years of research (see table 3) and experience as to what is best for the average home. These settings represent a compromise between RH levels that would be most desirable for comfort reasons 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, but unfortunately, it probably would result in damage to your home. Observance of the recommended RH levels on your humidistat, therefore, is an important safeguard. Condensation of water on inside windows in the form of fogging or frost is usually an indication of too high relative humidities. This same condensation can take place in

(Table 3) Outdoor-Indoor Relative Humidity

Outside Temperature	Recommended RH
+40°	45%
+30°	40%
+20°	35%
+10°	30%
0°	25%
-10°	20%
-20°	15%

other areas in your home with the possibility of damage resulting.

The humidistat is a precision instrument that can be used to determine the RH accurately in your home during the winter. Turn the dial to the lower setting, then reverse the dial direction slowly until you hear the solenoid valve “click on”. At this point, read the RH on the dial. This will be very close to the actual RH in your home.

To check the humidifier operation, set the knob to “Test,” make sure that the water saddle valve is open and that there is electricity to the unit. Generally, the furnace blower motor must be operating for the Aprilaire Humidifier to function. After the humidifier has operated for one minute and water is entering the unit and coming out at the drain, reduce the humidistat setting to the recommended inside relative humidity, depending on the outside temperature. Do not leave in test mode as humidifier will not operate. Follow the suggested settings prior to a drop in the outside temperature.

**INSTALLER:** Please leave these Operating Instructions with the homeowner.

**Aprilaire®**

**HUMIDIFIER CONTROL**

The Best Cure For Dryness®

**Model #56**

**OPERATING INSTRUCTIONS**

**IRP® RESEARCH PRODUCTS CORPORATION**  
P.O. BOX 1467 • MADISON, WISCONSIN 53701-1467

## YOUR *Aprilaire*<sup>®</sup> HUMIDIFIER

Your Aprilaire Humidifier is now controlled by the Aprilaire Humidifier Control. It offers two operation modes: Automatic / Manual mode. No other humidification system is fully automatic when operating in the automatic mode, and computer equipped for your complete comfort and satisfaction. This system will benefit you in the following ways:

1. Automatically adjusts your home's relative humidity (RH) based on the outdoor temperature. **You always receive the optimum amount of humidity.**
2. Eliminates the need to manually adjust the control on a potentially frequent basis – a common occurrence with manual humidistats. **Set it and forget it.**
3. Precisely controls the relative humidity in your home, and increases the time in which maximum comfort is maintained. **Your home and its furnishings are always protected from the damaging effects of excess condensation or low humidity.**
4. Eliminates the need to turn the dial setting to "Off" during the summer season. **Simple operation with few adjustments.**

### Operating Instructions

#### Automatic Mode (Manual Mode – see pg 5)

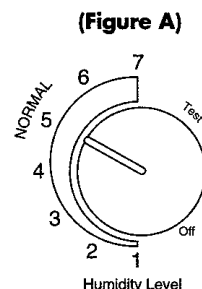
Your Humidifier Control is installed in the cold air return. **During the first heating season**, your Humidifier Control needs to be set initially to match your home's condition. Please follow these steps when adjusting your control (refer to Figure A).

1. Turn the 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 1).
2. During the coldest portion of the first heating season, minor adjustments may be necessary. This is dependent upon your individual home construction; refer to the "Operation Guide" (Table 1).

(Table 1) Operation Guide

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" position.)	Turn dial to "Test". Make certain furnace blower is operating and furnace is calling for heat. If unit still doesn't 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". Make certain furnace blower is operating and furnace is calling for heat. Humidifier will operate for one minute.

The relative humidity 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 Aprilaire Humidifier.



#### Additional Information

Your Aprilaire Humidifier, is a high precision system that will accurately maintain the relative humidity in your home. For every 1°F change in outdoor temperature, the Aprilaire Automatic Humidifier will automatically adjust the indoor relative humidity (RH) by 1/2%. If you would like to determine the relative humidity in your home, follow these steps:

1. Determine the outdoor temperature.
2. Activate the furnace blower by setting your thermostat fan switch to the "On" position, or by setting your thermostat to a higher temperature.
3. Turn the control dial setting to the "Off" position. Then, slowly turn the dial clockwise until you hear the solenoid

valve "click on". Next, slowly turn the dial counterclockwise until you hear the solenoid valve "click off". At this point, make note of the dial setting.

4. Locate your dial setting on Table 2. Follow the dial setting to the right until it intersects with the current outdoor temperature. This is the relative humidity in your home under existing conditions.

(Table 2) % Relative Humidity Guide

		Outdoor Temperature (°F)					
		-10	0	10	20	30	40
Dial Setting	1	10	10	10	15	20	25
	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

As an example, if the outdoor temperature is 20°F and, following step 3, the humidifier turns off at "5" on the dial range, then the relative humidity in your home is 35%.

5. Return the thermostat and control to their original settings.

The Aprilaire Humidifier Control will accurately control the humidity in your home to a maximum of 45% RH and a minimum of 10% RH. The values of outdoor temperature and dial settings may fall in between or outside of the listed values in Table 2. In these cases, you can only approximate your home's actual indoor relative humidity.