

# AprilAire®

## Humidifier

### SPECIFICATION

## 500 Series

Whole-House Evaporative Humidifier

### FEATURES

- Can be plumbed to hot water to surpass rated performance
- Ideal for smaller homes
- Fast and easy installation for every application



#### MODELS:

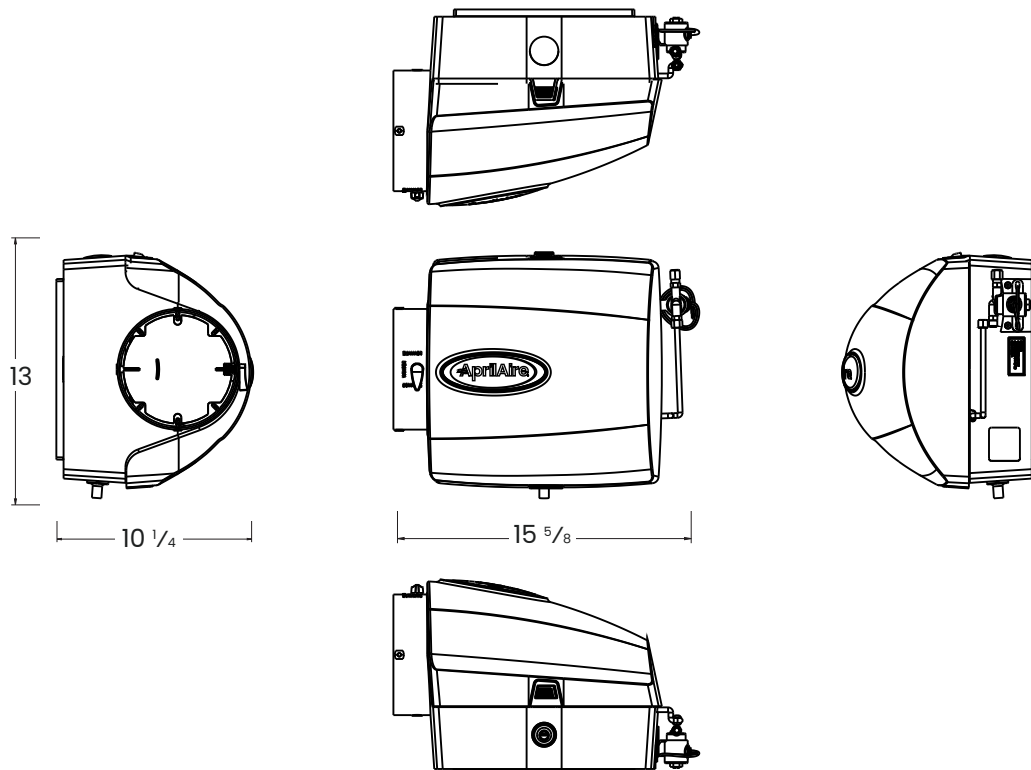
- 500:** Automatic Whole-House Humidification
- 500M:** Manual Whole-House Humidification

### SPECIFICATIONS

Capacity	0.5 gph 12 gpd
Electrical Data	24 VAC - 60 Hz - 0.5 amp
Dimensions	15 <sup>5</sup> / <sub>8</sub> " W x 13" H x 10 <sup>1</sup> / <sub>4</sub> " D
Weight	10 lbs. (Unit Weight) 12 lbs. (Shipping Weight)
Bypass Connection	6" round
Plenum Opening	9 <sup>1</sup> / <sub>2</sub> " W x 9 <sup>1</sup> / <sub>2</sub> " H

### PRINCIPLE OF OPERATION

The AprilAire Model 500 Evaporative Humidifier operates in conjunction with the heating, ventilating, air conditioning equipment (HVAC) blower. When the AprilAire Humidifier Control calls for humidity and the blower motor is operating, water flows to the distribution tray located at the top of the humidifier. The water is uniformly distributed across the width of the tray and through a scientifically designed system of outlets, it flows by gravity over the Water Panel® evaporator, the heart of the humidifier. Dry, hot air is moved through the moisture-laden Water Panel® evaporator where natural evaporation takes place. The now-humidified air carrying moisture in vapor form (nature's own way) is circulated throughout the home.



HUMIDIFIER SIZING GUIDELINES GPD NEEDED PER SQUARE FOOT* BASED ON BUILDING STRUCTURE TIGHTNESS							
STRUCTURE TIGHTNESS	VOLUME OF BUILDING (FT <sup>3</sup> )						
	8000	12000	16000	20000	24000	32000	40000
	BUILDING FLOOR AREA (FT <sup>2</sup> ) WITH 8 FT CEILINGS						
	1000 Ft <sup>2</sup>	1500 Ft <sup>2</sup>	2000 Ft <sup>2</sup>	2500 Ft <sup>2</sup>	3000 Ft <sup>2</sup>	4000 Ft <sup>2</sup>	5000 Ft <sup>2</sup>
<b>Tight</b>	3.3 GPD	5.0 GPD	6.7 GPD	8.3 GPD	10.0 GPD	13.4 GPD	16.7 GPD
<b>Average</b>	6.7 GPD	10.0 GPD	13.4 GPD	16.7 GPD	20.0 GPD	26.7 GPD	33.4 GPD
<b>Loose</b>	10.0 GPD	15.0 GPD	20.0 GPD	25.0 GPD	30.1 GPD	40.1 GPD	50.1 GPD

\*GPD = Gallons Per Day, as recommended by AHRI (Air Conditioning, Heating and Refrigeration Institute), Guideline F

A family of 4 will add 2 gallons of humidity per day through everyday activities like breathing, cooking, bathing and washing. Evaporative capacities assume blower is active 100% of the time, plenum temperature is at 120° F and water is cold.

## INCLUDED WALL-MOUNT CONTROL



### Model 60 (500) Automatic Humidistat

- RH adjustment knob
- Backlit LCD displays RH & setting when adjusting
- Change water panel and service needed indicator lights
- Blower Activation mode can extend humidifier run time



### Model 4655 (500M) Manual Humidistat

- RH adjustment knob
- Wall-mounted for easy access
- Humidity guide lets the user pre-adjust RH based on expected outdoor temperature changes
- Simple wiring

	Model 60	Model 4655
<b>Dimensions (W" x H" x D")</b>	6 x 4 1/4 x 1 1/2	5 1/8 x 3 3/8 x 1 15/16
<b>AC Power</b>	24 VAC (18-30 VAC) at 60 HZ	N/A
<b>Power Consumption</b>	0.08A @ 24 VAC	N/A
<b>RH Setting Range</b>	10%-45%, Off (45%: max humidity)	15%-45%, Off (45%: max humidity)
<b>Humidity</b>	Control Accuracy: ±3% RH Control Range: 0% to 45% RH Differential: 3.0% RH	Control Accuracy: ± 5%, Control Range: 0 to 45, Differential: 5%
<b>Control Options</b>	System Setting: Auto or Manual Blower Activation: Off or On	N/A

## ANNUAL OPERATION & MAINTENANCE

### SUMMER



### SUMMER

#### Fall Startup:

- Turn humidistat to desired set point
- Set damper knob to WINTER (located next to AprilAire logo)
- Confirm water supply is on

### SUMMER



### SUMMER

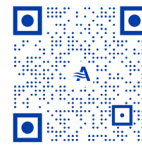
#### Spring Shutdown:

- Turn humidistat to OFF\*
- Set damper knob to SUMMER

\*Digital humidifier control in automatic mode, adjustment necessary

#### Once Per Season:

- Water Panel Only: Remove cover and replace water panel. Clean the water panel assembly. Use Genuine AprilAire Model 10.
- Water Panel EZKit: Simply remove the water panel and assembly. Replace with the Water Panel EZKit Model H510E2IA.



Scan QR code for full humidifier maintenance tutorial



### Model 4792 Maintenance Kit

Includes parts for any maintenance need: water panel, water panel assembly, water distribution parts and then Owners' Manual.