



500 Series

Small Bypass Whole-House
Evaporative Humidifier



Features

- Whole-house humidification for ducted systems
- Ideal for smaller homes
- Can be plumbed to hot water to improve efficiency and performance
- Fast and easy installation for every application
- Bypass discharge can be configured on the right or left
- 5 year warranty

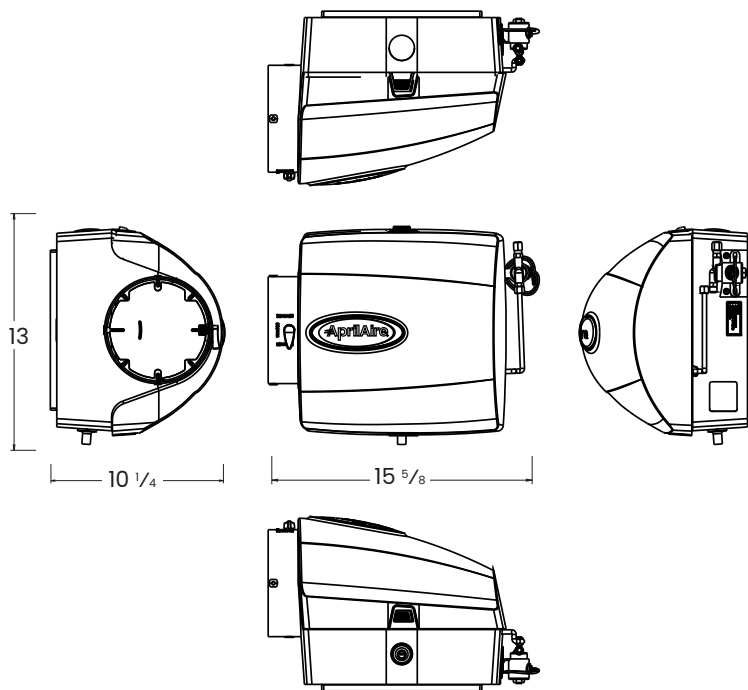
Principle of Operation

The AprilAire 500 Evaporative Humidifier operates in conjunction with the heating, ventilating, and 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 is circulated throughout the home.

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

Specifications

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



Humidifier Sizing Guidelines

GPD Needed Per Square Foot[†] Based on Building Structure Tightness

STRUCTURE TIGHTNESS	Total Treated Volume of Building (Ft ³)								
	8000	12000	16000	20000	24000	32000	40000	48000	56000
	Total Treated Building Floor Area (Ft ²) With 8 Ft Ceilings								
	1000 Ft ²	1500 Ft ²	2000 Ft ²	2500 Ft ²	3000 Ft ²	4000 Ft ²	5000 Ft ²	6000 Ft ²	7000 Ft ²
Tight	3.3 GPD	5.0 GPD	6.7 GPD	8.3 GPD	10.0 GPD	13.4 GPD	16.7 GPD	20.1 GPD	23.4 GPD
Average	6.7 GPD	10.0 GPD	13.4 GPD	16.7 GPD	20.0 GPD	26.7 GPD	33.4 GPD	40.1 GPD	46.7 GPD
Loose	10.0 GPD	15.0 GPD	20.0 GPD	25.0 GPD	30.1 GPD	40.1 GPD	50.1 GPD	60.1 GPD	70.2 GPD

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

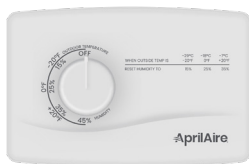
A family of 4 will add 2 gallons of humidity per day through everyday activities like breathing, cooking, bathing and washing. Evaporative capacities assume blower is active 100% of the time, plenum temperature is at 120° F and water is cold.

Included 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
- Outdoor temperature sensing for automatic set back of humidity to reduce window condensation
- Manual or automatic operation (return duct mounted)



Model 4655 (500M) Manual Humidistat

- RH adjustment knob
- Duct or wall mounting options for easy access
- Humidity guide lets the user adjust RH based on expected outdoor temperature changes
- Simple wiring

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

Annual Operation & Maintenance



Fall Startup:

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



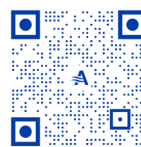
Spring Shutdown:

- 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 10 Water Panel replacement.
- Water Panel EZKit: Simply remove the water panel assembly. Replace with the AprilAire H510EZIA Water Panel EZKit.



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 Owner's Manual.