



SPECIFICATIONS

STEAM CAPACITY	
120 Volts/60 Hz Max Amperage (16 Amps) < Amperage Operation (11.5 Amps)*	5.6 lbs./hr (16.0 gpd) 4.0 lbs./hr (11.5 gpd)
208 Volts/60 Hz Max Amperage (16 Amps) < Amperage Operation (11.5 Amps)*	10.4 lbs./hr (30.0 gpd) 7.1 lbs./hr (20.5 gpd)
240 Volts/60 Hz Max Amperage (16 Amps) < Amperage Operation (11.5 Amps)*	12.0 lbs./hr (34.6 gpd) 8.1 lbs./hr (23.3 gpd)

Drain water temperature	Drain water not to exceed 140°F. Tempered with cold fill water
Door switch safety	Door switch removes all power to canister for maintenance and troubleshooting
Modulating configuration (proportional)	Modulating 0-10vdc or 0-20 mA2 Modulating 2-10vdc or 4-20 mA
Unit Control Configuration	Water level control Automatic refill, high water cutoff, and automatic drain—down Monitor the amperage draw Optimize water conductivity, minimize energy waste, and maximize cylinder life Controls drain/flush cycles
Unit dimension	10½" W x 20⅞" H x 7⅞" D
Weight - unit only	23 lbs.
operating weight	27 lbs.
Installation accessories included	6 ft. of commercial grade steam hose, 10 ft. drain hose, clamps/hardware
Warranty	5 Years
Agency recognized	ETL, (UL 998)
National electrical code	ANSI/NFPA 70 NEC
Supply water conductivity	125 to 1250 microS/cm
Supply water pressure range	25 to 120 psi

* Capacity adjustment is accomplished by using a dip switch.

Water Hardness - 3 to 36 grain per gallon, water filtration typically not necessary. Canister replacement once per humidifier season under normal conditions. Canister life will depend on water quality and run time. Unit will automatically notify when canister must be replaced.

Cabinet - enclosure	Metal - 22 gauge back and bottom panel Metal - 22 gauge side, top and front access panels; powder painted
Fan Pack	Wall mounted discharge grill with integrated 24VAC fan blower assembly and stainless steel dispersion chamber
Cabinet - access	Easy front access to canister compartment Front access to electrical and electronic compartment
Type of steam canister	Disposable canister - factory installed Zinc-plated, low-carbon steel electrodes permanently fixed inside the canister Plug-type connectors fixed to the molded canister top Water level and overfilling sensor within canister
LED indicator lights	On/Off button and operating indicator light Fill indicator Steam indicator Drain indicator Service light - end of canister life

▶ APPLICATIONS

- + **High capacity** – One unit can provide between 11.5 and 34.6 gallons per day.
- + **Ductless** – The Model 801 marries with the Fan Pack to provide comfortable humidity levels in homes without duct work.
- + **Electrode type humidifier** – Generates steam by energizing two electrodes that extend into the steam canister. Current flowing in between the electrodes causes the water to boil creating steam.
- + **Modulating input signal** – The Model 866 accepts an input signal of 0–10 Vdc, 0–20mA, 2–10 Vdc, or 4–20mA.
- + **Aesthetically pleasing** – Designed to blend into a home's environment.
- + **Easy to install** – The Fan Pack is recessed into a wall and connects directly to the Model 801 Steam Humidifier.
- + **Accessories included** – The Model 866 consists of the Model 801 Steam Humidifier, Fan Pack, Model 4028 Drain trap assembly, steam hose, and drain tubing.
- + **Display panel** – Provides power switch for on/off operation, illuminates LEDs to show fill, drain, steam operations, and diagnostics.
- + **Internal control board** – Manages the complete operation of the humidifier. Fills and drains to maintain proper amperage draw and water level and notifies when service is required.
- + **Back flow protection** – Air gap in the fill cap prevents pressure build up.
- + **Water level sensor** – Manages the water level in the steam canister to prevent overfilling.
- + **Automatic drain and fill cycle** – Unit flushes and fills periodically to maintain the proper conductivity.
- + **Drain water tempering** – Unit uses cold inlet water to temper the canister water, reducing the drain water temperature below 140°F to protect PVC piping and condensation pumps.
- + **End-of-Season drain** – After a 72-hour period with no call for humidity, the humidifier will drain the water from the canister. Unit will remain in stand-by until next call for humidification.
- + **Operating time monitor** – Accumulates actual humidifier run time to activate periodic drain and fill cycles, end-of-season drain function and monitors the life of the canister.
- + **Easy to maintain** – Canister does not require cleaning or scrubbing—simply remove it and replace.

▶ **BASIC APRILAIRE STEAM HUMIDIFIER OPERATION**

The Aprilaire Steam Humidifier delivers humidity in the form of steam to the conditioned space via the Fan Pack. The humidifier generates steam by energizing two electrodes that extend into a canister of water. Current flowing between the electrodes causes the water to boil, creating steam. Water is introduced to the humidifier through a fill valve to a fill cup located in the top of the cabinet. The fill cup serves as an overflow reservoir and provides an air gap between the humidifier and water source. The steam canister is filled from the bottom. The canister is seated in a drain cup assembly which includes a drain valve. The drain and fill valves work together to maintain water level in the canister to satisfy the demand of the modulating control based on the electrical conductivity of the water.

▶ **CONTROL OPERATION**

To modulate the steam output of the Model 866 a modulating control must be used.

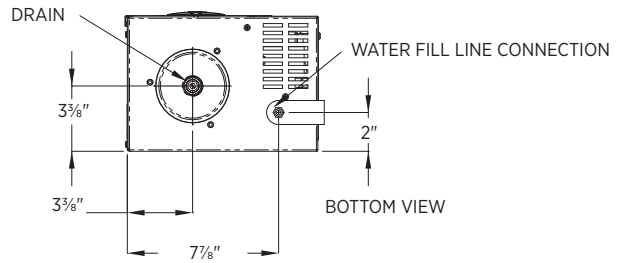
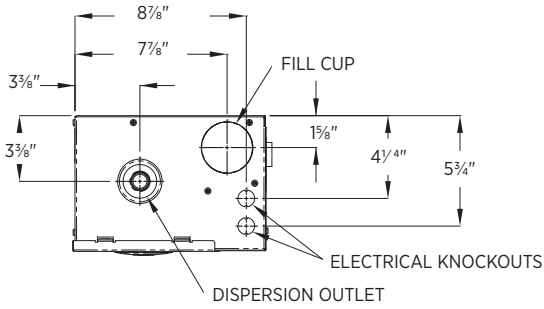
When the modulating control detects RH below the set point, the humidifier energizes the electrodes to provide steam and activates the fan inside of the Fan Pack. Steam is delivered into the living space via the Fan Pack. The modulating control will vary the modulating steam humidifier's output based on the difference between the set point and actual RH. The modulating control sends a proportional signal to the modulating steam humidifier providing precise control of the living space humidity. When the RH set point is reached, the humidifier stops producing steam and continues to energize the fan in the Fan Pack for 2 minutes to push any residual steam out into the living space.



▶ **THE OPTIONAL APRILAIRE MODEL 5558 Automatic Digital Humidifier Modulating Control Package, includes the following items:**

- + Wall-mounted digital humidistat: provides a proportional signal of 0-10 Vdc or 2-10 Vdc and operates in a range from 0-100% RH within a precision of 3% (see specification sheet for Model 63)
- + Outdoor temperature sensor is used for temperature compensation to prevent window condensation
- + Model 5558 is sold separately

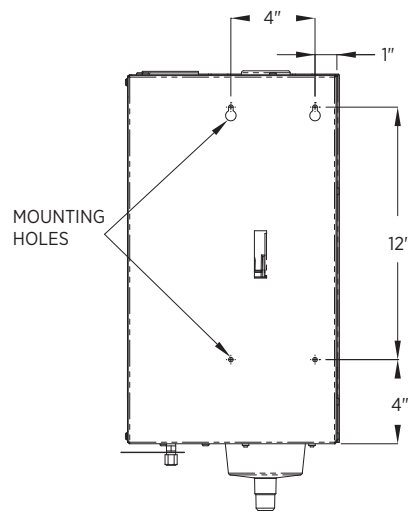
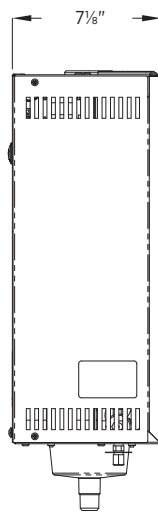
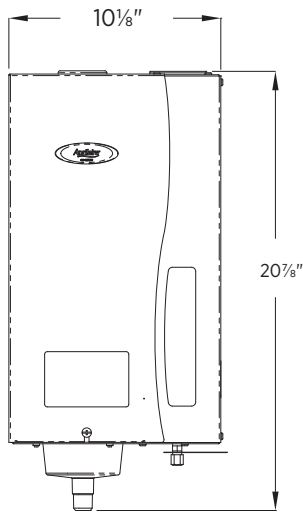
MODEL 801 DIMENSIONAL INFORMATION



Front

Right Side

Back



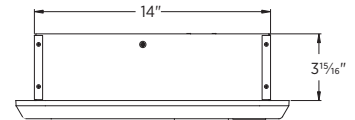
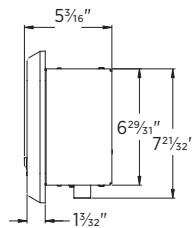
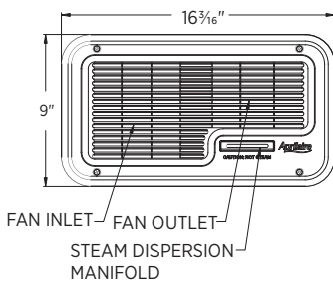
90-1518

FAN PACK DIMENSIONAL INFORMATION

Front

Right Side

Top



90-2193

