

## 5658 Fan Pack

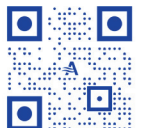
for 800 Series Steam Humidifier



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Product Info &  
Digital Manual



**READ AND SAVE THESE INSTRUCTIONS**

## SAFETY INSTRUCTIONS

### WARNING

#### ATTENTION INSTALLER:

- Read this manual before installing. Improper installation or maintenance may cause property damage or injury. It is recommended that installation, service, and maintenance be performed by a trained service technician. This product must be installed in compliance with all local, state, and federal codes.

#### HOT SURFACES AND HOT WATER

- This steam humidification system has extremely hot surfaces. Water in the steam canister, steam pipes, and dispersion tube can be as hot as 212°F (100°C). Discharged steam is not visible. Contact with hot surfaces, discharged hot water, or air into which steam has been discharged can cause severe personal injury. To avoid severe burns, follow procedures in this manual when performing service or maintenance procedures on any part of the system.

#### ELECTRIC SHOCK HAZARD

- High voltage may cause severe injury or death from electric shock. Disconnect electrical power and water before servicing. Leave power and water disconnected until service is completed.
- If the humidifier starts up responding to a call for humidity during maintenance, severe injury or death from electric shock could occur. Follow the procedures in this manual before performing service or maintenance procedures on this humidifier.

#### DISCONNECT ELECTRICAL POWER

- Disconnect electrical power before installing supply wiring or performing service or maintenance procedures on any part of the humidification system. Failure to disconnect electrical power can cause property damage, severe personal injury, or death as a result of electrical shock or fire.
- Contact with energized circuits can cause property damage, severe personal injury, or death as a result of electrical shock or fire. Do not remove access panels unless electrical power is disconnected.
- Follow the shutdown procedure in this manual before performing service or maintenance procedures on any part of the system.

### CAUTION

- **SHARP EDGES MAY CAUSE INJURY FROM CUTS.** Use care when cutting openings, handling housing and grille, and working inside of the metal cabinet. Always wear glasses/goggles and gloves when installing the unit.
- Dropping may cause personal injury or equipment damage. Handle with care and follow installation instructions.

## NOTICE

#### **FREEZING TEMPERATURES CAN BURST WATER PIPES.**

- Do not install the humidifier where freezing may occur. The water line could freeze and crack causing water damage to the home.

#### **CONDENSATION DAMAGE OR MOLD CAN OCCUR.**

- Do not operate the humidifier if the fan pack is not operating. Do not place objects in front of steam discharge.
- Position wall-mounted humidifier control in areas unaffected by drafts or heat sources for accurate humidity sensing.
- Lower the humidity setting on the humidifier control if there is excess condensation on the inside of any windows in unheated living spaces.

#### **EQUIPMENT DAMAGE MAY OCCUR IF INSTALLATION INSTRUCTIONS ARE NOT FOLLOWED.**

- Supply water pressure greater than 120 psi may cause the humidifier to overflow. If water pressure exceeds 120 psi, reduce water pressure with devices allowed by local codes.
- Periodically check the drain line to make sure water flows freely to drain.

## MATERIALS LIST

#### MATERIALS FURNISHED

- Fan pack
- 75VA transformer for the Steam Humidifier (included with service part #5658 only, installed in Model 865/866 steam humidifiers)
- Model 65 Digital Manual Humidistat (provided with service part 5658 and Model 865)
- Power connector for Model 65 Digital Manual Humidistat
- 2 housing mounting screws
- 4 grille mounting screws
- 2 serrated nuts for mounting steam manifold
- 1 stainless steel 45° elbow

#### NOT FURNISHED

- Steam hose – 6-foot steam hose provided with the Steam Humidifier
- Steam hose clamp – provided with the Steam Humidifier
- Wire for humidistat and wire to power the fan pack
- Model 5558 Modulating Humidistat (for Model 866 only)

## OPERATION

On a call for humidity, the Steam Humidifier provides power to the fan pack. The fan pack blower distributes the steam to the room. When the call for humidity ends and the humidifier stops producing steam, the fan pack blower will continue to operate for 2 minutes to distribute the remaining steam before de-activating.

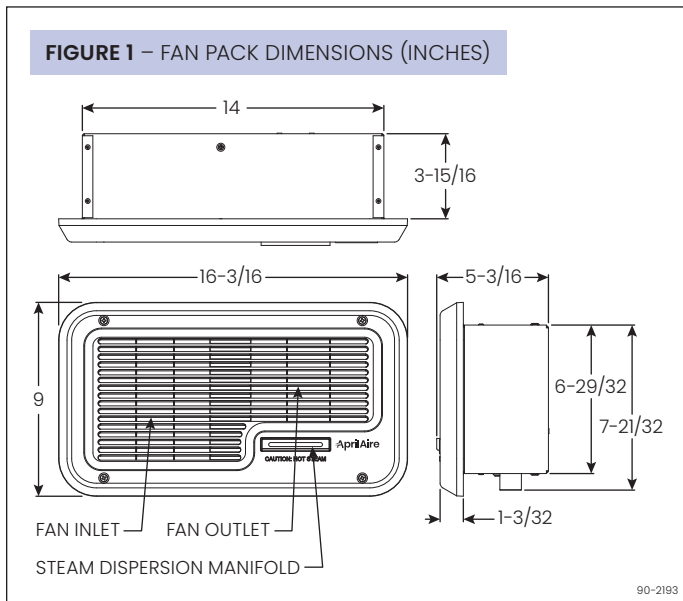
When installing with the Model 800 Steam Humidifier, use the Manual Digital Humidistat included (see **FIGURE 8**). When installing with the Model 801 Modulating Steam Humidifier, use the Model 5558 Modulating Humidistat (see **FIGURE 9**).

## SPECIFICATIONS & DIMENSIONS

### SPECIFICATIONS

- 24 VAC is supplied by the steam humidifier. If purchasing the 5658 Fan Pack service part, ensure the included 75VA transformer is installed in the steam humidifier.
- Stainless steel steam dispersion chamber
- Noise dampening housing liner
- Ultra quiet fan (50 dB)

### DIMENSIONS



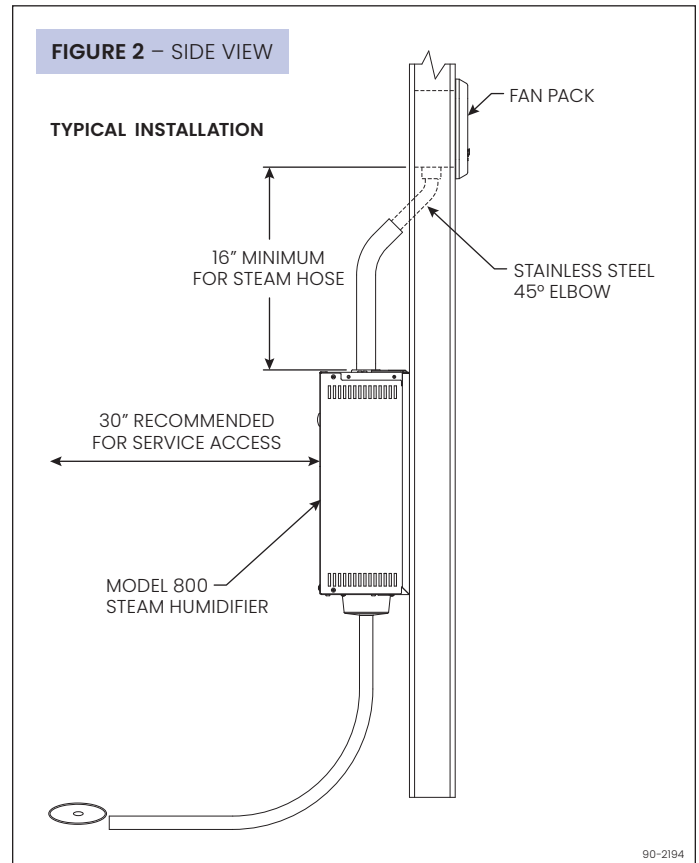
## INSTALLATION INSTRUCTIONS

### LOCATION

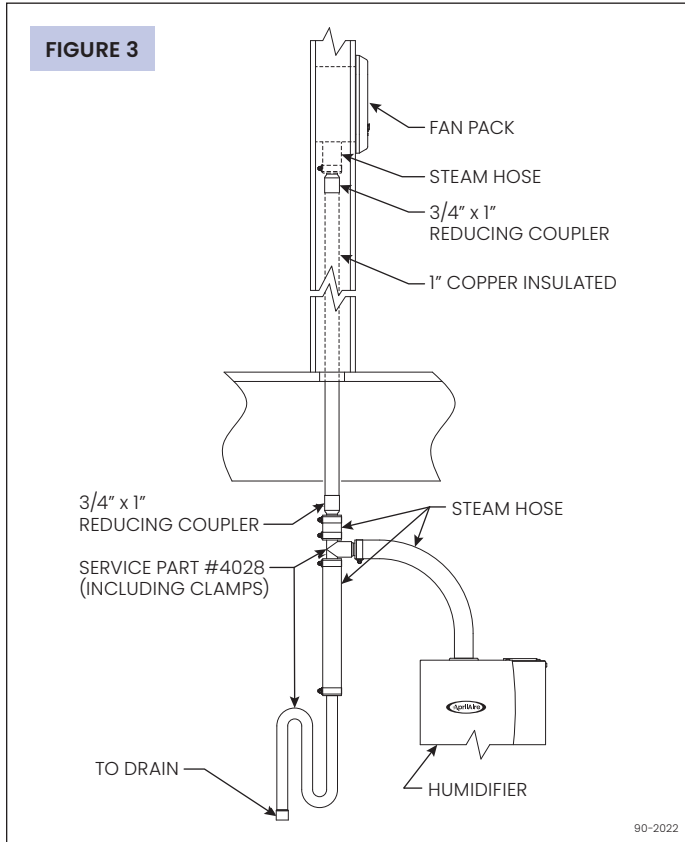
### NOTICE

Fan pack must be installed over drywall for proper operation.

The fan pack must be located near the Steam Humidifier to minimize the length of the steam hose. If the fan pack is mounted directly above the humidifier, 16" is required for the steam hose to make the bend. See **FIGURE 2**.



Six feet of steam hose is provided with the Steam Humidifier. For installations that require longer runs, a combination of the steam hose and insulated copper pipe can be used. See **FIGURE 3**. When using more than 24" of steam hose or 36" of insulated copper pipe, install a Drip Tee and Drain Trap (Part #4028) to help control condensate and reduce gurgling. See **FIGURE 4**.



Due to condensation inside the hose or pipe, the output of the fan pack depends on the length of the steam hose or pipe connecting it to the Steam Humidifier. See the Steam Humidifier installation manual for maximum steam capacity (gal/day).

Humidity behaves like a gas and under ideal conditions will expand to fill the space. However, air movement due to drafts or as a result of temperature stratification may cause uneven distribution of humidity within the conditioned space. Install the fan pack in a central location to ensure even distribution of humidified air.

To prevent condensation on surfaces and furnishings, install the fan pack so the steam being discharged has enough room to be absorbed into the air before encountering surfaces.

The following guidelines are for a 240V installation in which the unit discharges into a space with 70°F air temperature and 40% RH.

- Allow 5 feet of unobstructed space directly in front of the grille.
- Allow 2 feet on either side of the grille.
- Allow 1-1/2 feet above the grille.
- Allow 5 feet or more below the grill.

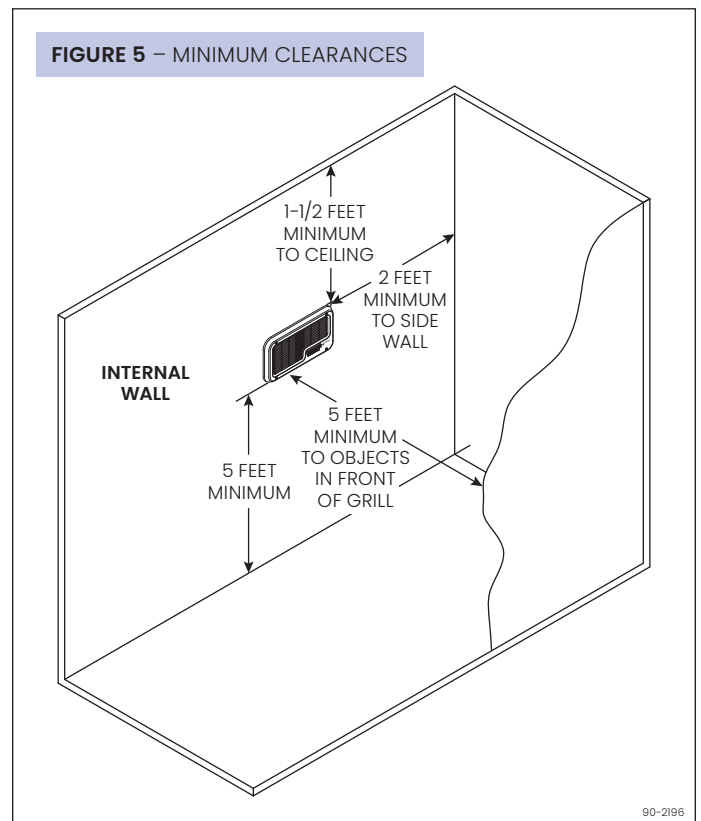
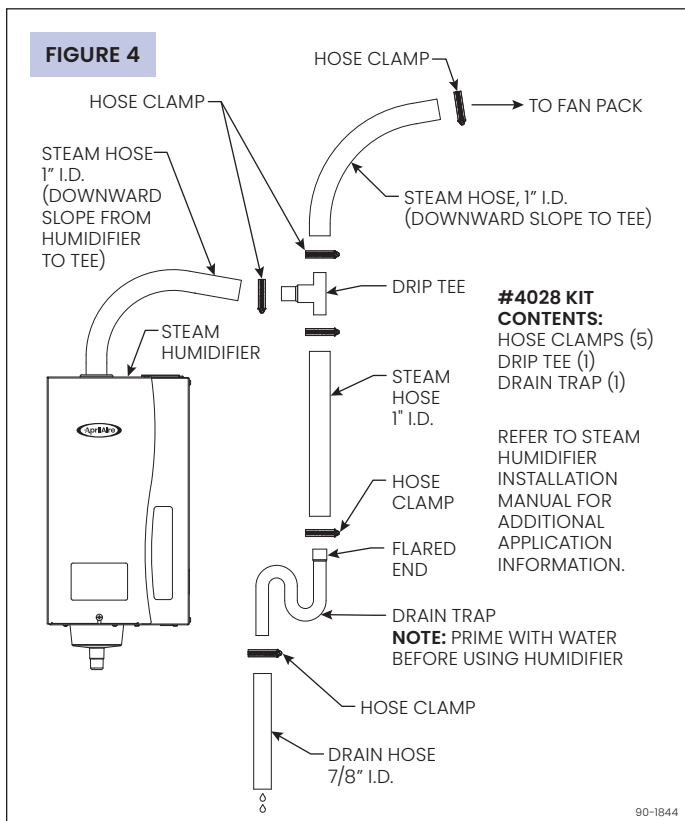
See **FIGURE 5**.

If the room temperature is less than 70°F, allow an additional 6" to each distance for every two degree drop in temperature.

If the RH set point is higher than 45%, allow an additional foot of space between the grille and any obstruction or surface.

Warmer room air temperature and RH below 35% will reduce the amount of unobstructed space required to absorb discharged steam, but the distances provided are recommended minimums.

**NOTE:** Condensation running through the steam hose back into the canister may cause a gurgling noise. Install Drip Tee and Drain Trap (Part #4028) as shown in **FIGURE 4** to divert condensation to drain to eliminate gurgling noise.



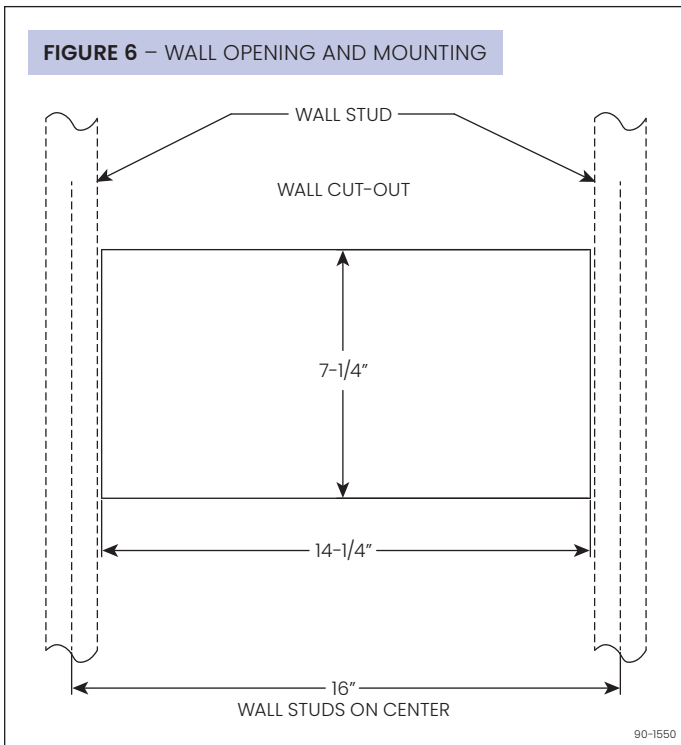
## MOUNT HOUSING

The fan pack installs between the studs of a standard 16" on-center internal wall. To ensure proper operation, the fan pack must be mounted level. Use the four 1-1/2" mounting screws provided to attach the housing to the wall studs. See **FIGURE 6**.

## NOTICE

Fan pack must be installed over drywall for proper operation.

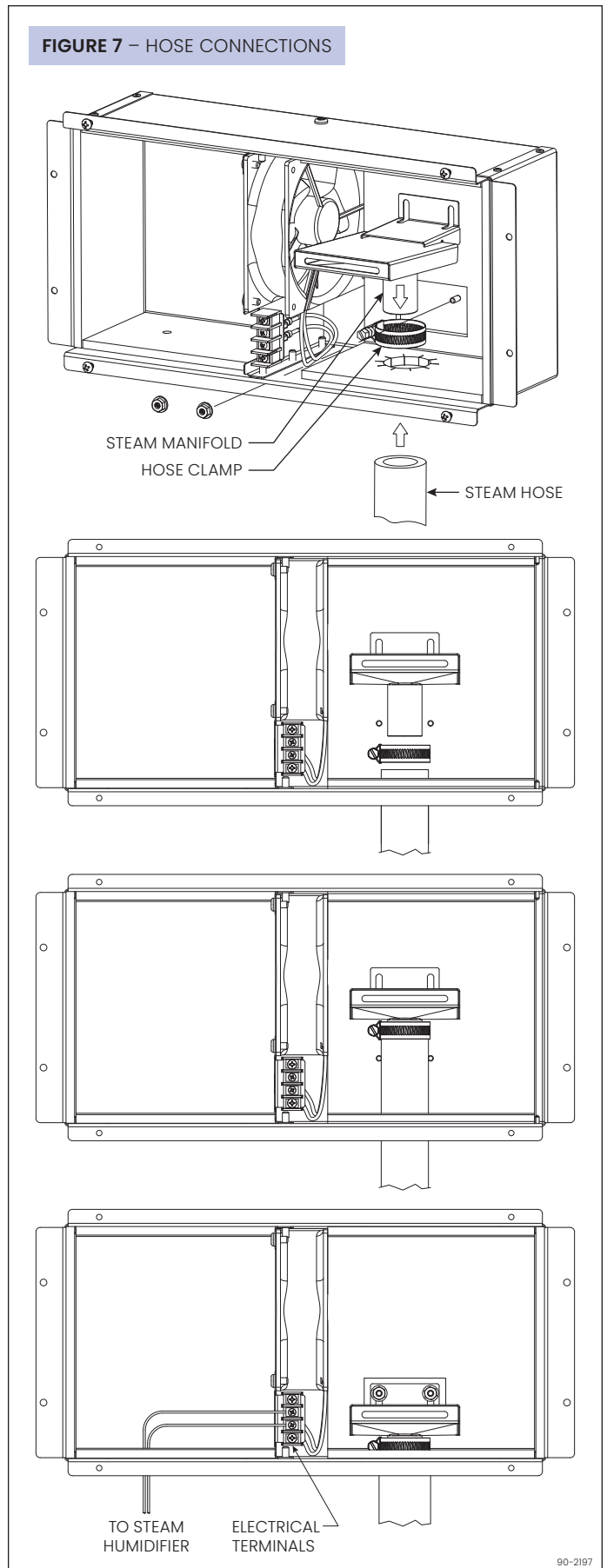
**FIGURE 6 – WALL OPENING AND MOUNTING**



## HOSE CONNECTIONS AND STEAM MANIFOLD INSTALLATION

1. Connect the steam hose to the fan pack steam manifold and use hose clamp (both provided with Steam Humidifier) to secure.
2. Install the steam manifold into the fan pack cabinet by feeding the steam hose back into the wall cavity. Secure the manifold with the two provided serrated nuts. See **FIGURE 7**.
3. If Steam Humidifier is mounted on the wall behind the fan pack, install the provided 45° stainless steel elbow. See **FIGURE 2**.
4. If more than 6 feet is required, use insulated hard pipe as shown in **FIGURE 3**. Refer to the **Series 800 Steam Humidifier Installation & Maintenance Instructions** for hose length's effect on steam capacity.

**FIGURE 7 – HOSE CONNECTIONS**



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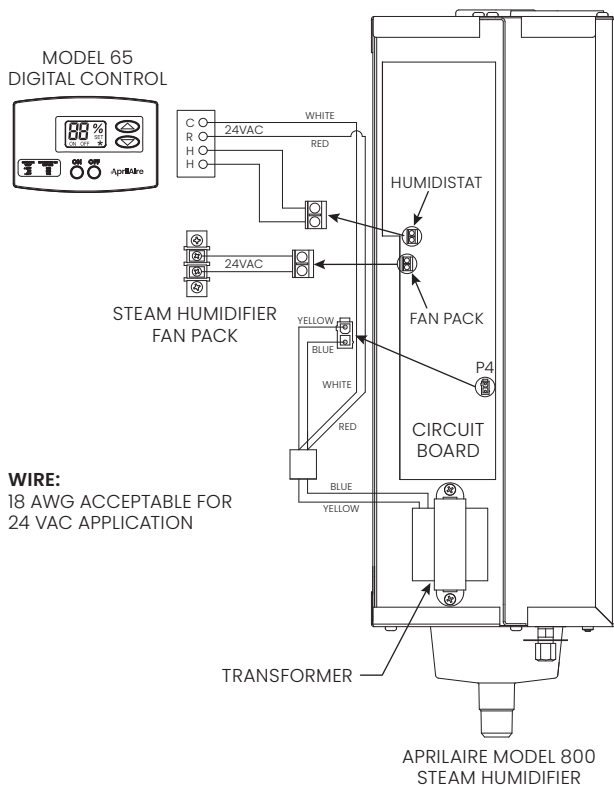
## ELECTRICAL WIRING

Disconnect all power to the Steam Humidifier before wiring the fan pack. Use standard 24 volt thermostat wire.

**Mount the humidistat in the area to be humidified** according to installation instructions included with the control. Install the humidistat in the same room or area as the fan pack discharge, but at least ten feet away. Wire the Manual Humidistat to the Model 800 using standard 24 volt thermostat wire. See **FIGURE 8**. Remove the 40VA transformer from the Steam Humidifier and replace with the 75VA transformer supplied with the fan pack (necessary for service part 5658 only). If using the Model 65 Digital Manual Humidistat, place the provided wire harness between the control board and the 24VAC output of the transformer. Connect R and C of the humidistat to the red and white wires of the wire harness.

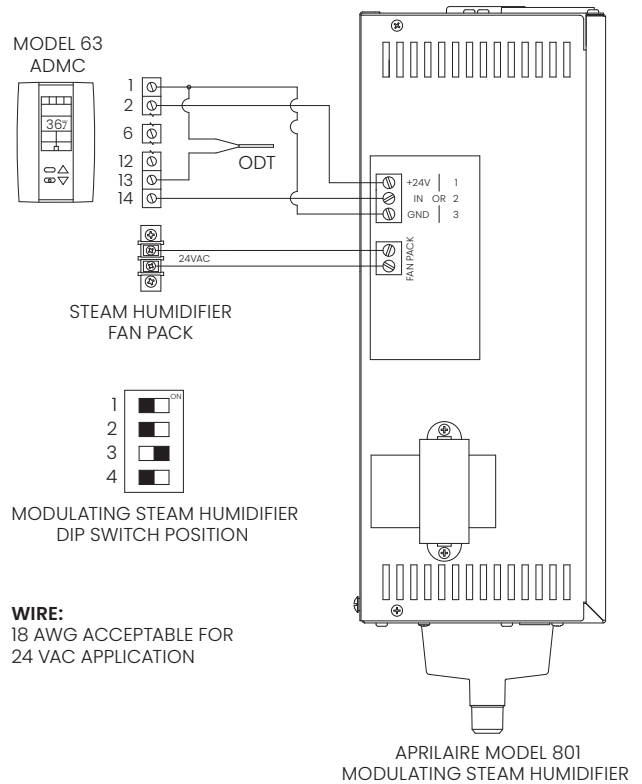
When using the Model 801 Modulating Steam Humidifier with the Modulating Control (Part #5558), use the wiring diagram in **FIGURE 9**. DO NOT USE the included wire harness.

**FIGURE 8 – WIRING DIAGRAM FOR MANUAL HUMIDISTAT AND FAN PACK**



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**FIGURE 9 – WIRING DIAGRAM FOR MODULATING CONTROL AND FAN PACK**

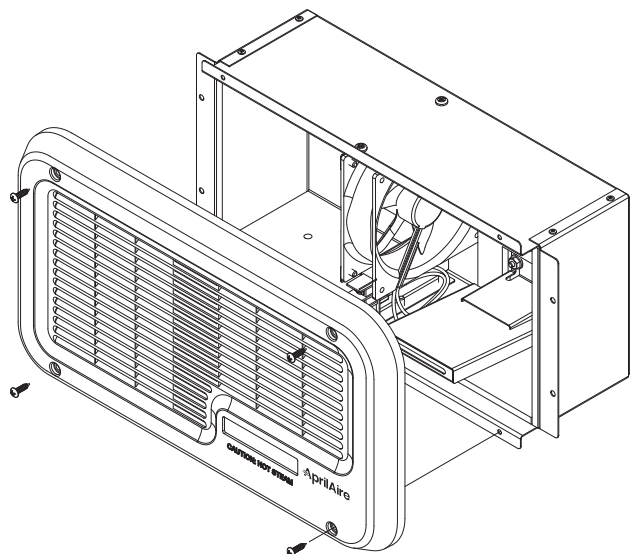


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## GRILLE INSTALLATION

Use the four provided 5/8" screws to attach the fan pack grille to the fan housing and drywall. See **FIGURE 10**. If painting the grille is desired, see a painting professional for acceptable paint products for high temperature (212°F), high humidity environments and polycarbonate.

**FIGURE 10 – GRILLE INSTALLATION**



90-2212

## START-UP PROCEDURE

Once the Steam Humidifier and fan pack are installed, turn on main power to humidifier and open saddle valve. Turn on the Steam Humidifier and turn humidistat set point up. The fan pack blower will turn on. Once canister fills and water boils, steam will flow from the manifold and the fan will distribute it to the room. Set humidistat to desired RH.

### WARNING

The front of the fan pack will be hot. Steam may not always be visible. Do not touch the front of the fan pack or place hand in front of the steam discharge manifold.

Verify that there are no leaks at steam hose connections.

The fan pack will operate on a call for humidity and the production of steam by the Steam Humidifier. When the call for humidity is de-activated, the fan pack blower will continue to operate for 2 minutes to distribute the remaining steam in the steam hose.

## MAINTENANCE

### After replacing the Model 80 Steam Humidifier Canister:

- Ensure fan is operating during a call for humidification.
- Check drain, steam and condensate hoses for kinks, blockages, leaks or cracks. Replace if necessary.
- Ensure steam outlet of the fan pack is not blocked.

Refer to the **Series 800 Steam Humidifier Installation & Maintenance Instructions** for full maintenance procedure.

## TROUBLESHOOTING

If a problem arises with the AprilAire Fan Pack, please review the following troubleshooting guide for possible causes and solutions. If the problem persists, contact AprilAire Technical Support at 800.334.6011. Please be prepared to describe the exact nature of the problem.

**TABLE 1 – TROUBLESHOOTING GUIDE**

Problem	Possible cause	Action
Water dripping from fan pack	Tubing connection	Check all connections.
	Fan not operating	See "Fan does not operate".
	Steam outlets blocked	Clean steam dispersion manifold outlet.
	Foaming in canister or steam hose	Rinse components with clean water.
	Air drafts in the space	Do not install near supply ducts or ceiling fans.
Fan does not operate	Wiring	Check wiring.
	Steam Humidifier power	Check that Steam Humidifier is powered and on.
	No humidity call	Adjust humidistat setting. Check location of humidistat.
	Circuit board output	Confirm 24 VAC output from Steam Humidifier FAN PACK terminals during a call for humidity. Confirm that the Steam Humidifier contains a 75 VA transformer.
	Motor failure	Replace fan motor.
Noise	Fan noise	Check for obstructions or damage to fan.
	Gurgling	Add a Drip Tee and Drain Trap (Part #4028) to the steam line as close to the Steam Humidifier as possible to divert condensation to drain. See <b>FIGURE 4</b> .

## SERVICE PARTS

PART NO.	DESCRIPTION
65	Digital Manual Humidistat
4028	Drip Tee & Drain Trap
5662	Grille
4999	Fan
5558	Modulating Humidistat

## LIMITED WARRANTY

### Terms of Coverage

Your AprilAire® Fan Pack is expressly warranted to be free from defects in materials or workmanship for five (5) years from date of purchase.

### What Is Covered

The exclusive obligation of AprilAire under this Limited Warranty shall be, at the sole discretion of AprilAire, to supply, without charge, a replacement for any component or product which is found to be defective. A defective part will be replaced pursuant to this Limited Warranty with a genuine AprilAire part. A defective product will be replaced pursuant to this Limited Warranty with a new AprilAire product of equal or similar features and functionality if the original product has been discontinued or is no longer available.

### Not Covered by the Limited Warranty

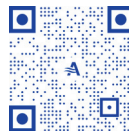
- Consumable or maintenance products, such as, but not limited to: Air Filters, Evaporative Humidifier Water Panels, Steam Canisters, or Steam Humidifier Electrode Wires.
- Products purchased from third parties that were previously used, such as previously-used products purchased from eBay, similar third party/auction sites, or individuals selling used products.
- Labor charges, shipping costs, removal fees, service fees, or reinstallation costs.
- Materials furnished by the installer.
- Damage caused by misuse, abuse, improper installation, or failing to install, use, or maintain the product in accordance with the instructions provided.
- Damage to HVAC equipment caused by improper installation(s) or misapplication installation(s).
- Modifications, changes, repurposing, or alterations to the AprilAire product.
- Extended warranties or satisfaction guarantees offered by third parties.
- Cosmetic damage or normal wear and tear, including, but not limited to: scratches, peeling finish, or dents that do not impede the mechanical functionality of the product.
- Damage caused by acts of nature, including but not limited to: fire, collision, flood, wind, power surge, lightning strike, or mold.
- Damage caused during transit.
- Damage caused during installation due to failure to follow local, state, or federal laws, statutes, codes, or ordinances.
- Damage caused by defects in materials furnished by the installer.

### Limit of Liability

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFOREMENTIONED EXPRESS WARRANTY PERIOD. APRILAIRE LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFOREMENTIONED IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT(S) FROM FAILURE TO INSTALL THE PRODUCT ACCORDING TO THE APRILAIRE INSTALLATION INSTRUCTIONS. IF THE LIMITED WARRANTY IS VOID DUE TO MISAPPLICATION OR IMPROPER INSTALLATION, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation(s) may not apply to your situation. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

### Register Your AprilAire® Product



Thank you for choosing AprilAire. Register your product at [aprilaire.com/warranty](https://aprilaire.com/warranty) to receive important updates and notifications, and to streamline the process in the unlikely event you file a claim.

Your warranty registration information will not be sold or shared outside of this company.

### Make a Warranty Claim

For questions regarding the Limited Warranty or to initiate a claim, contact AprilAire Customer Service at 1.800.334.6011 Monday through Friday, 7:00 a.m. to 5:00 p.m. Central Time.

At the sole discretion of AprilAire, you may be required to: return the product not later than thirty (30) days after the warranty period to the place of purchase or (if directed) to AprilAire, contact a professional contractor to provide warranty service, submit a product for testing related to a warranty claim, and/or send pictures of the original product with the serial number (if applicable) to AprilAire Technical Support for inspection as a condition to reviewing a claim and/or receiving a replacement product under this Limited Warranty.

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