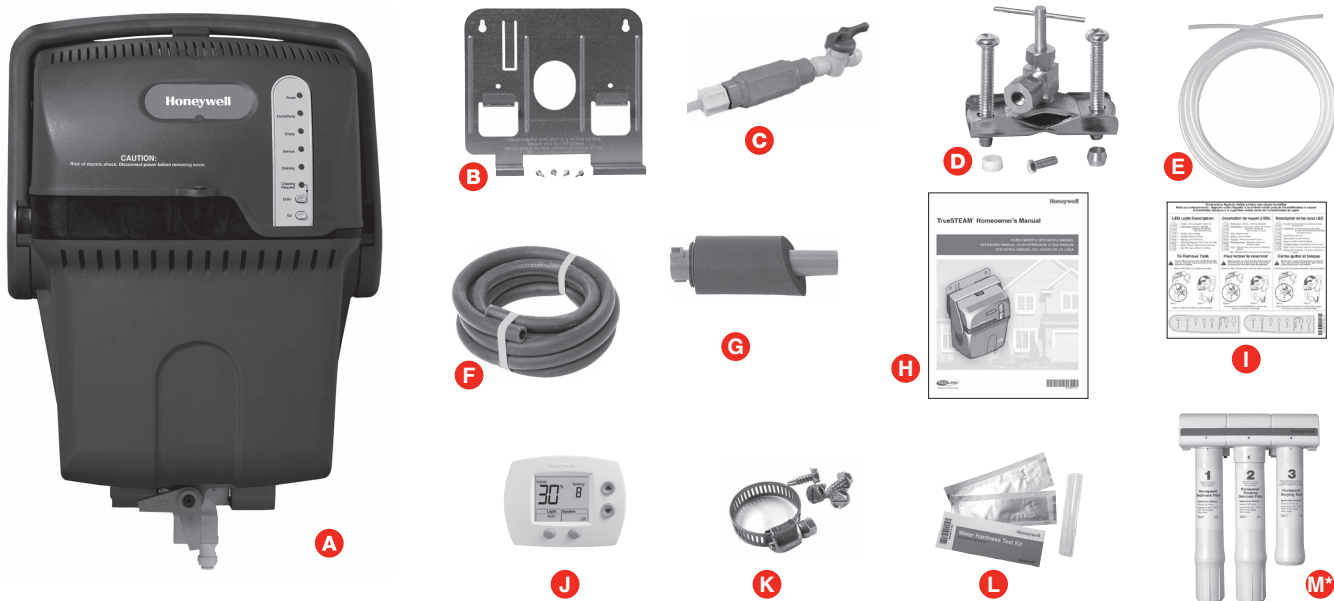


## Steam Humidifier

### PROFESSIONAL INSTALLATION GUIDE

### INCLUDED IN THIS HUMIDIFIER BOX



#### Tools needed to install Steam Humidifier

- ▶ Wire cutter/stripper
- ▶ 1-3/4-in. diameter hole saw
- ▶ 1/8-in. drill bit
- ▶ Standard screwdriver
- ▶ 18-gauge wire (up to 5 conductor)
- ▶ Torx driver T-20 and T-30

#### Other Requirements

- ▶ Steam Humidifier flushes water at or above 140°F (60°C). Refer to local codes for proper draining practices for hot water.
- ▶ Condensate pump rating of 212°F (100°C) if used.
- ▶ Drip pan with water sensor shut-off required underneath Steam Humidifier if installed in or above finished space.

- A Steam Humidifier
- B Mounting bracket and hardware
- C Backflow preventer
- D Saddle valve
- E Water supply hose
- F Drain hose (10 feet)
- G Duct nozzle and gasket
- H Owner's manual
- I Service label
- J HumidiPRO Digital Control
- K Hose clamp
- L Water Hardness Test Kit
- M RO Filter System

**\*RO Tank not needed with installation**



Remote installation requires separate purchase of the Honeywell Remote Mounting Kit (#50024917)





# Steam Humidifier

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NEED HELP? For assistance with this product please visit <http://yourhome.honeywell.com> or call Honeywell Customer Care toll-free at 1-800-468-1502.

## Read and save these instructions.

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# Critical Installation Information

## Water Quality and Hardness

Proper filtration is critical for the operation of the steam humidifier. Failure to address water quality will lead to increased maintenance requirements and possible failure of the steam humidifier and its components. Be sure to complete the following procedure well in advance of installation to ensure any additional costs are documented and understood.

It is imperative to fully understand the quality and hardness of the water that will be used on each individual steam humidifier. Water quality and water hardness can vary greatly from home to home, and even between two homes on the same street. Water test kits are included with every steam humidifier and are also available for purchase separately (50044721-001). Proper use of these kits will help determine which filtration option is right for each particular installation.

### Testing Water Quality and Interpreting Results

- The color block will recommend the best water filtration method for the home.
- Water test strips will be green when new.
- Honeywell always recommends installing a reverse osmosis filter.

1 Fill the plastic tube with water directly from the steam humidifier input water source.

Note: It is important to test the specific input to steam humidifier, as it may differ from the faucet taps in the home.

2 Dip the colored end of one of the test strips into the tube's water for 3 seconds.

3 Remove the test strip. Do not shake the strip.

4 Wait 20 seconds and then match the test strip's color to the closest color block on the water hardness scale.

Note: Strip color results are no longer valid after one minute.

Honeywell Recommends

RANGE 1

RANGE 2

RO Filter Part No. HM600XROF1

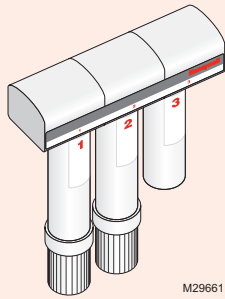
Water Softener

MCR35268A

### Choosing the Filter

If the water tests in range 2 then the steam humidifier will require the use of a whole-house water softener for optimal performance. Failure to use softened water in this situation can potentially lead to drastically increased maintenance requirements and premature failure of the steam humidifier and its components. Water hardness in this range negatively affects all facets of a home including shower heads, faucets, laundry machines (as well as steam humidifier).

**If water hardness is in range 1:**

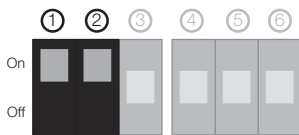


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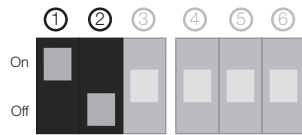
Honeywell recommends using the RO Filtration system

*Proceed to “Water Supply and Drain Connections” on page 14. See “Reverse Osmosis Filter” on page 25 to install the filter.*

**Set the Automatic Flush Cycle Timing**

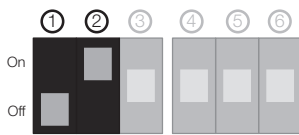


For water that is filtered through the Honeywell RO Filter System. (30 hour flush)



For water that is put through a softener before entering steam humidifier. (20 hour flush)

M29614A



For soft water without a softener or filter. (12 hour flush)

- Use DIP 1 and DIP 2 to configure how often steam humidifier will automatically flush the tank. Timing for the automatic flush is based on hours of active heating element time.
- The home’s water hardness determines how often automatic flushing should be performed.
- The automatic flush timing can be changed any time after installation by setting the DIP 1 and DIP 2 positions, as shown at left. See “Automatic Cleaning Cycle” on page 45 for a description of the automatic flushing process.



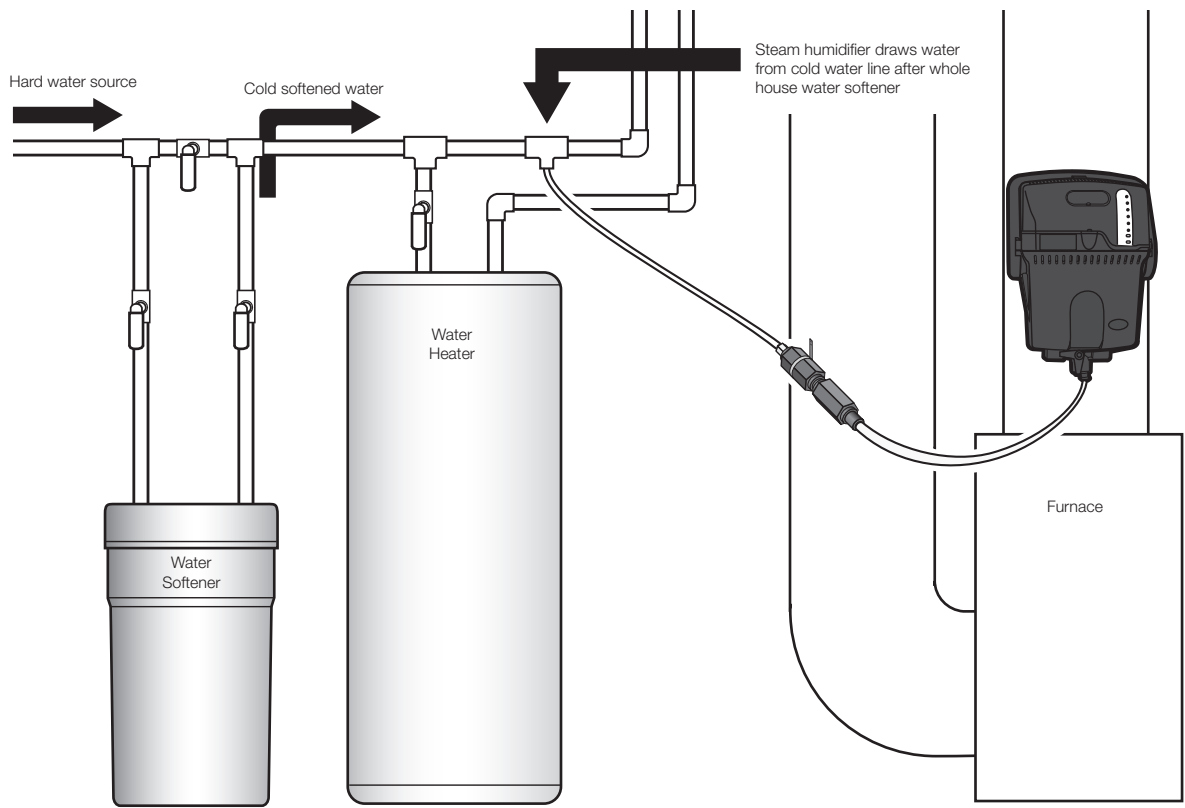
# BEST PRACTICE

Use Steam Humidifier with water that is less than 1 grain per gallon hardness. A properly functioning water softener will accomplish this.

While the steam humidifier and its available filtration options help to address the issue of water quality and hardness, homes with extreme hard water problems should consider using a whole house water softener as the primary filtration device. Use of a whole house water softener will help protect the humidifier from excessive maintenance requirements as well as undue wear and tear in homes with hard water.

In applications with a water softener, it is critical for the steam humidifier to draw its water supply from the cold water line after the water softener.

**Note:** Be sure to check all local plumbing codes before beginning installation.



M35265

## Proper Sizing of a Steam Humidifier

The Air-Conditioning, Heating and Refrigeration Institute (AHRI) has set guidelines for determining humidification capacity requirements. The recommendation is based on the cubic footage (volume) and type of home construction – assuming typical conditions. It is important to realize many homes will have humidification requirements that differ from the guidelines depending on how the circumstances differ from standard conditions.

Factors that impact the amount of humidity needed:

- Geographic Area
- Elevation
- Ventilation type
- Number of people living in the home
- Ceiling height (i.e. cubic volume)
- Window type (i.e. structure type)
- Insulation type (i.e. structure type)
- Equipment type

Converting square footage to cubic volume requires multiplying the square footage by the ceiling height (i.e. 2000 square foot space with 10 foot ceilings is 20,000 cubic feet). In general, the higher the ceilings, the smaller the square footage space each steam humidifier will cover since it must humidify the additional air volume.

AHRI defines structure type as follows:

- **Tight construction:** Well insulated with vapor retarders, tight storm doors, windows with weather stripping, dampered fireplace, and using ½ air change per hour of air infiltration.
- **Average construction:** Insulated with vapor retarders, loose storm doors and windows, dampered fireplace with 1 air change per hour of air filtration.
- **Loose construction:** Generally built before 1930 with little or no insulation, no storm doors, no insulated windows, no weather stripping, no vapor retarders, undampered fireplace, and with 1-1/2 air changes per hour of air infiltration.

It is vital to take all of these factors into account when sizing a steam humidifier for a particular home. Undersizing the humidifier will not only reduce the potential to meet the a desired humidity set point, it may also lead to extensive system fan run time or higher operating costs as the system tries to deliver to the control's setting. While oversizing the humidifier may lead to higher amp draw, the system run time will be less, which in some situations may be less expensive at the bottom line.

## Proper Sizing of a Steam Humidifier

Converting square footage to cubic volume requires multiplying the square footage by the ceiling height (i.e. 2000 square foot space with 10 foot ceilings is 20,000 cubic feet). In general, the higher the ceilings, the smaller the square footage space each Steam Humidifier will cover since it must humidify the additional air volume.

**INCLUDE ALL SQUARE FOOTAGE OF THE HOME, FINISHED AND UNFINISHED.**

**Example 1:** 2000 sq ft home: 8 ft ceilings = 16,000 cu ft. (2000 x 8)

**Example 2:** 2000 sq ft home: 10 ft ceilings = 20,000 cu ft. (2000 x 10)

**Example 3:** 2000 sq ft home: ½ with 8 ft ceilings, ½ with 12 ft ceilings. = 20,000 cu ft. ((1000 x 8) + (1000 x 12))

**INCLUDING CEILING HEIGHT, FINISHED AND UNFINISHED SPACE WILL PROVIDE A MORE ACCURATE SIZING FOR HUMIDIFICATION.**

AHRI Recommended Humidity (Gallons Per Day)	Construction Type	8,000 CU FT	12,000 CU FT	16,000 CU FT	20,000 CU FT	24,000 CU FT	28,000 CU FT	32,000 CU FT
	Tight	3.3	4.3	5.4	7.5	9.6	11.7	16
	Average	7.6	9.6	11.8	16	20.3	24.4	33
	Loose	11.7	14.9	18.1	24.5	30.8	37.1	50

Recommended Steam Humidifier	Construction Type	8,000 CU FT	12,000 CU FT	16,000 CU FT	20,000 CU FT	24,000 CU FT	28,000 CU FT	32,000 CU FT
	Tight	9 GPD	9 GPD	9 GPD	9 GPD	12 GPD	9 GPD X2	12 GPD X2
	Average	9 GPD	12 GPD	9 GPD X2	9 GPD X2	12 GPD X2	12 GPD X3	12 GPD X3
	Loose	12 GPD	9 GPD X2	12 GPD X2	12 GPD X3	12 GPD X3	12 GPD X4	12 GPD X4





Complete this information sheet and leave on all jobsites

GETTING STARTED

In the event that a service technician needs to call in to the steam humidifier support techline, the following information is typically required for the Honeywell tech support specialist to accurately evaluate each situation. Failure to have this information ready may result in resolution delays or a potentially incomplete diagnosis.

**Honeywell recommends completing the below questionnaire and leaving a copy behind at the home along with the Steam Humidifier installation guide with every steam humidifier installation.**

Honeywell steam humidifier techline: 800-814-9452



**Steam Humidifier Pre-Install Information**

Model Number of Steam Humidifier Unit	
Date Code (xxxx)	
Water Quality Test	1      2      3      (circle one)
Water Pressure Test (psi)	
Flush Cycle Setting	<b>DIP 1</b> OFF ON OFF ON (circle one) <b>DIP 2</b> OFF ON ON OFF (circle one)
Duct Static Pressure Test (in.wc.) <i>(Maximum static pressure is 0.5 in.wc.)</i>	
Condensate Pump or Drain	Pump      Drain      (circle one)
If Drain - PVC or Standard	PVC      Standard      N/A      (circle one)
Supply Voltage to Unit (V)	
Monitoring Air Flow/System Power/ None	<b>DIP 4</b> ON OFF (circle one) <b>DIP 5</b> ON OFF (circle one)
Control - Wireless or Wired	Wireless      Wired      (circle one)
Fan Control - Steam Humidifier or Controller	Steam Humidifier      Controller      (circle one)
Other (any additional relevant information)	

# Safety Definitions and Precautions

## Safety Definitions




These safety terms identify information you must read.

-  **CAUTION:** Indicates a hazardous situation which, if not avoided, could cause bodily injury or property damage.
-  **WARNING:** Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

## Safety Precautions

**Make sure you read and understand the following safety hazards before installing, using, or working with the steam humidifier:**

- Do not direct the steam nozzle at people.
- Water inside tank can be very hot. Explain this to homeowner and emphasize the warning label on steam humidifier.
- Scalding danger from draining water. When the water tank drains, the water can be hot enough to cause injury. Make sure the homeowner understands the danger of hot water and steam.

-  **CAUTION:** Voltage Hazard.  
Can cause electrical shock or equipment damage.  
Disconnect HVAC equipment before beginning installation.
-  **WARNING:** Electrocutation, Heavy Equipment, and Water Hazard.  
Can cause death, blindness, and water damage to home, and heating element failure.
-  **CAUTION:** Steam Condensation, Fire, and Freezing Water Hazard.  
Can cause failure of fan or limit control or result in water damage to home.

# Setting Homeowner Expectations

Make sure the homeowners know what to expect from their steam humidifier. Discuss the following points with the homeowners and answer any questions they have.

- **Achieving Humidity Setpoint.** It may take up to a week of continuous operation to achieve the humidity setpoint. This depends on such factors as weather, size of home, furnishings in the home, and insulation.
- **Plastic or Rubber Odor.** At startup, it is normal to smell a slight plastic odor in the home. If the remote hose is used, there may be a slight rubber odor. These odors will go away within a few days.
- **Ideal Humidity.** 35% relative humidity in typical winter weather is considered ideal by industry experts. Homeowners can adjust to their own comfort or until there is condensation on the windows. Lower the setpoint if condensation appears.
- **Unit Not Humidifying.** If steam humidifier is not running but the humidity is below the setpoint, the humidity control may have a frost protection setting. Steam humidifier will not humidify while in a drain cycle mode.
- **Setpoint Not Reached.** If humidity doesn't reach the setpoint, steam humidifier may be undersized for the home. This can be due to factors such as insulation, windows, and arid climate. Also, the outdoor temperature may be too low to maintain the humidity level. Wait for the outdoor temperature to warm closer to 20°F (-6°C). If the desired humidity is still not reached, then a larger capacity steam humidifier may be needed.
- **Home Ventilation.** Excessive ventilation sends moist air outside and replaces it with dry air. This can make it hard to maintain the humidity setpoint. If installing a ventilator, use a solution that retains moisture. An Energy Recovery Ventilator (ERV) is recommended.
- **Cleaning Required Light.** If the Cleaning Required light is on, clean steam humidifier using the steps found in the "Routine Maintenance" section on page 45, or in the *Homeowner's Operating Manual*. Steam Humidifier will continue to run normally while this light is on.
- **Hard Water.** The home's water hardness determines how often steam humidifier must be cleaned. A water hardness test kit is provided with your steam humidifier. It will help you determine the cleaning interval and filter requirements for your steam humidifier.
- **Energy Consumption.** There may be a slight increase in overall energy consumption when operating any humidifier. However, steam humidifier will make the home feel warmer. This allows the homeowner to lower the temperature setting on the thermostat. Every degree lower on the thermostat can save up to 3% on heating costs.

# Important Installation Requirements

Failure to comply with these requirements will result in voided warranty, improper installation, and service callbacks.

## Personal Safety

- Wear safety glasses while installing steam humidifier.
- Do not cut into any air conditioning or electrical line.
- Follow professional safety standards and all local regulations.

## Mounting Location

- Mount steam humidifier in a level position to avoid water damage or heating element failure.
- Install steam humidifier on the supply duct. Use the Remote Mounting Kit if duct mounting is not possible.
- Do not install steam humidifier where the ambient temperature is lower than 34°F (1.1°C) or higher than 104°F (40°C).
- Mounting area must be strong enough to support steam humidifier's weight when full of water (up to 15 lbs.).
- Choose a location that is well ventilated. Do not install steam humidifier in completely enclosed spaces, such as a cabinet or unventilated closet.
- Allow at least 1 foot clearance to ventilation holes in the steam humidifier cover. Do not cover the holes. Covering them can increase the temperature inside steam humidifier and shorten its life.
- Do not mount directly to duct board. The remote mount nozzle attachment is allowed only with a Honeywell duct board adapter kit. See "Appendix C: Parts List" on page 67.
- If used near a pool or spa, make sure steam humidifier can not fall into the water or be splashed. Also, ensure steam humidifier is plugged into a ground fault interrupted (GFI) outlet.

## Duct Nozzle

- Do not install the duct nozzle into a supply duct with static pressure exceeding 0.5 in. w.c.
- Do not install the duct nozzle through wooden sidewalls (e.g., floor joist).
- If the duct has exposed insulation on the interior, be sure the nozzle extends beyond the insulation. Clear away excess insulation at the insertion point, or replace a section of insulated duct (approximately 6 in. x 6 in.) with rigid, non-insulated sheet metal.
- Allow at least 4 in. clearance between nozzle outlet and any interior duct to avoid water condensation.
- Mount steam humidifier where the nozzle outlet has a minimum 24 in. of downstream open air space.

## Water Drainage

- Consult local plumbing codes for drain size, material, and maximum temperature allowed.

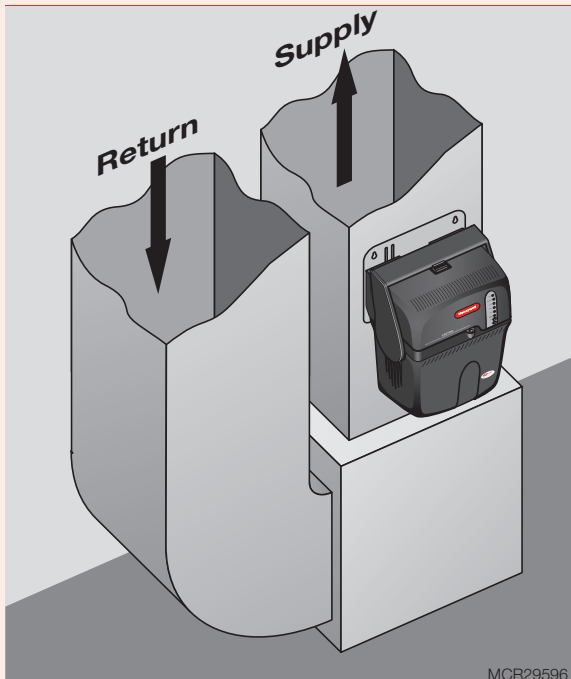
# Choosing a Mounting Method

Before installing steam humidifier in a home, you must decide which mounting method you want to use:

## Which is right for you?

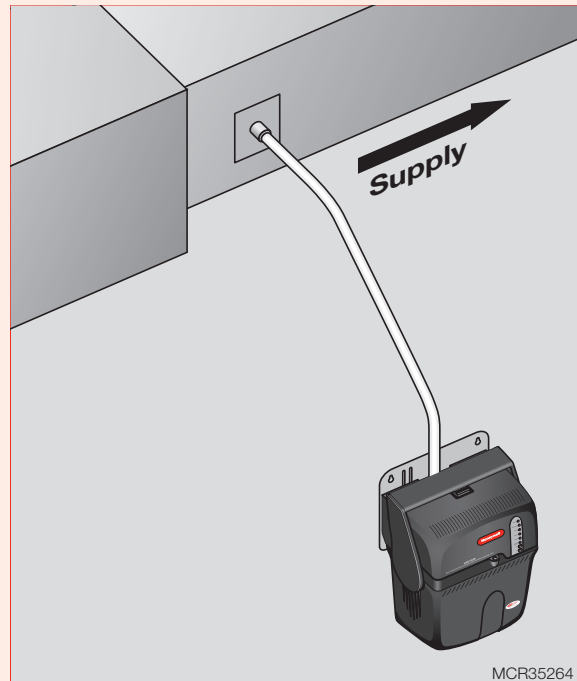
**DUCT MOUNTING** – if you can mount steam humidifier onto the supply duct of the HVAC system:

- The generated steam goes directly into the supply duct.
- This is the simplest type of installation, but it requires that a suitable mounting location can be found on the supply duct.



**REMOTE MOUNTING** – if a suitable mounting location can not be found on the supply duct:

- The steam humidifier can be mounted up to 20 feet away from the supply duct for select models.
- A remote hose must be installed to carry steam from steam humidifier to the supply duct.
- You will need to use a remote mounting kit (see “Appendix C: Parts List” on page 67).



This manual covers duct mounting of steam humidifier. For Remote Mounting Instructions, see “Remote Installation” on page 20 or “Document 69-2317” (included with Remote Mounting Kit).

Before proceeding:

I have decided to use:  Duct Mounting  Remote Mounting

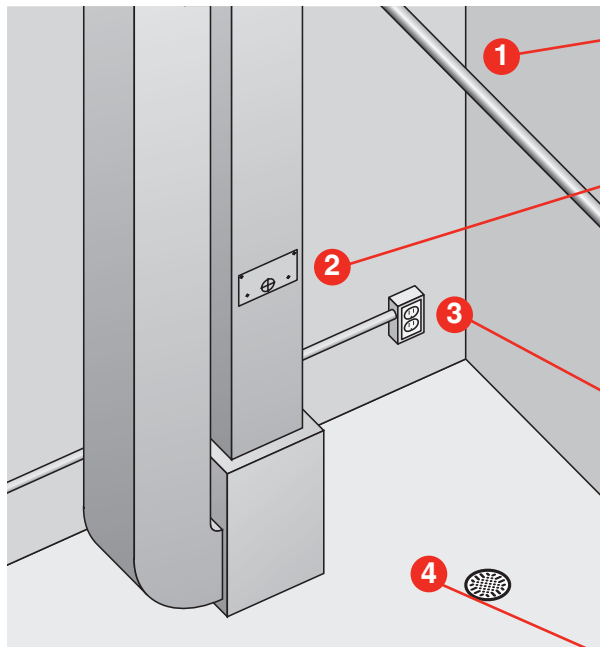
# Duct Mounting

Before beginning Duct Mounting:

- I have confirmed local codes for proper draining practices for hot water
- I have chosen an installation location that meets the requirements on page 10

Follow these steps to mount steam humidifier directly to the supply duct of the homeowner's HVAC equipment.

## STEP ONE: Select a Mounting Location



M29598

Choose a location that has access to a cold water supply pipe.

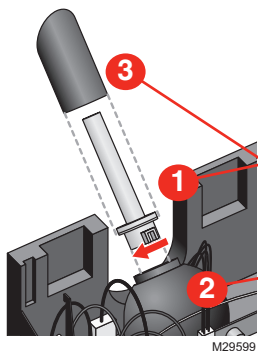
Select a vertical or horizontal surface on the HVAC supply duct, with adequate clearances, where steam humidifier can be mounted.

Make sure there is a 120 VAC electrical outlet rated for the steam humidifier being installed.

Steam Humidifier	Required Minimum Circuit Capacity:
HM609	10 Amps
HM612	12 Amps

Ensure the location is near a drain with a high-temperature water rating. Consult local plumbing codes for proper drainage. If no main floor drain is available, see "Other Plumbing Options" on page 17.

## STEP TWO: Connect the Duct Nozzle



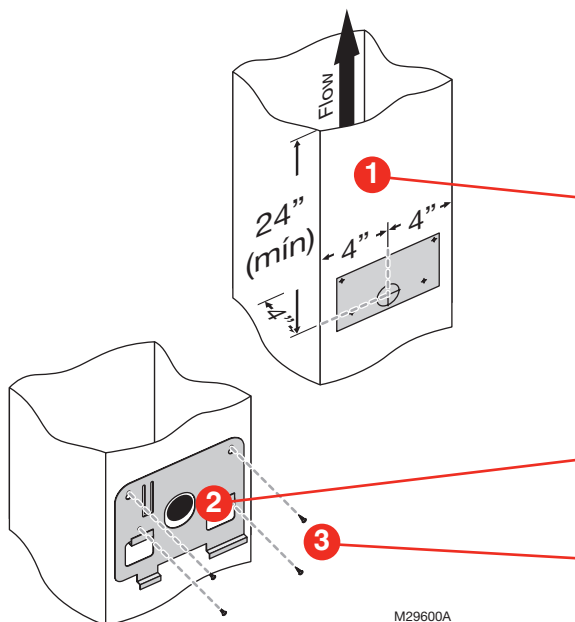
M29599

Make sure the o-ring gasket is properly seated in the groove.

Insert the duct nozzle into steam humidifier. Twist clockwise to ensure a tight seal.

Slide the foam gasket over the nozzle.

### STEP THREE: Install Mounting Bracket to the Duct



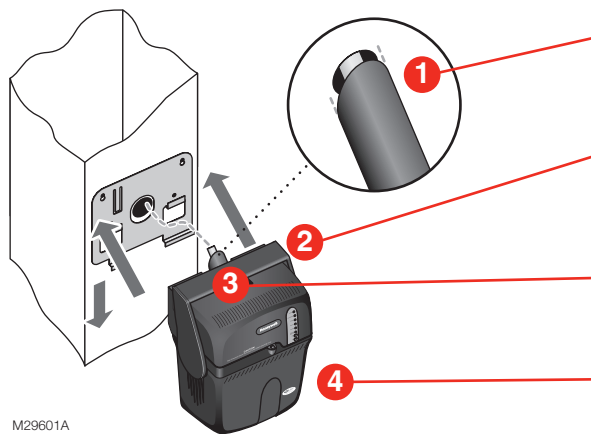
Position the template on the supply duct:

- Make sure the template is level and in the desired position on the duct.
- Ensure proper clearances from A-coil.
- Make sure the duct nozzle will have proper clearances from duct walls.
- Minimum 4-inch clearance from nozzle outlet to any duct wall.
- Minimum 24 inches of downstream open duct air space. (Needed to prevent water condensation.)

Drill the 1-3/4 inch hole.

Secure the mounting bracket to the duct, using four self-drilling sheet metal screws provided.

### STEP FOUR: Install Steam Humidifier onto the Mounting Bracket



Make sure the foam gasket is positioned correctly over the nozzle.

Lift steam humidifier into place against the mounting bracket. Insert the nozzle directly into the duct hole.

Check the foam gasket – it must form a tight seal in the duct hole.

Push down to secure steam humidifier to the bracket arms.

Before proceeding to Plumbing:

- I selected a duct mounting location
- I connected the duct nozzle
- I installed the mounting bracket to the duct
- I installed the steam humidifier onto the mounting bracket

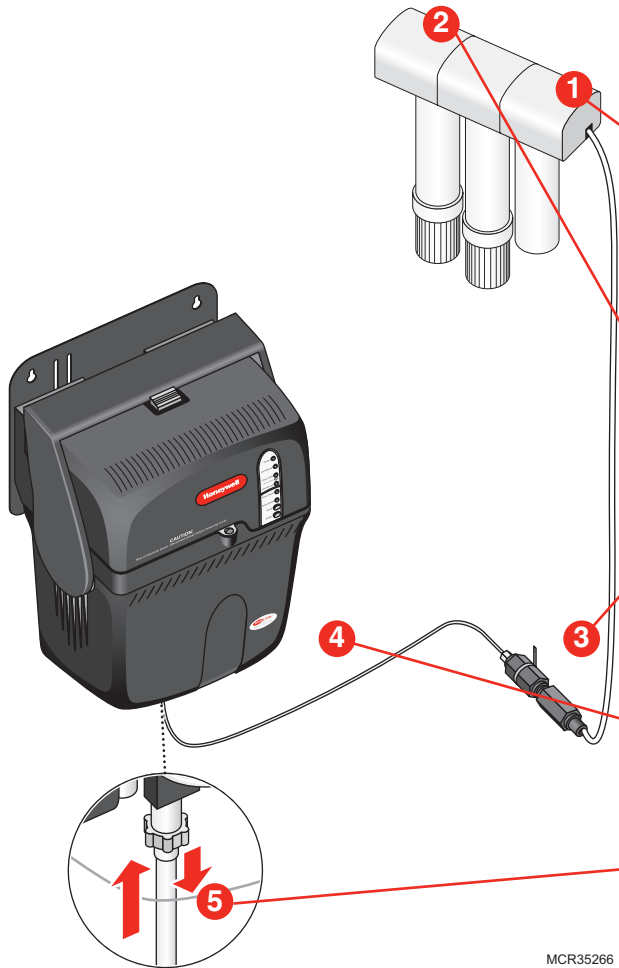


## BEST PRACTICE

Use a manual shutoff valve when tapping into a water line.

# Water Supply and Drain Connections

## STEP ONE: Connect the Cold Water Supply



Do not use hot water supply. Cold water is required to cool boiling water to safe draining temperatures.

Insert one end of the water line into the water filter or reverse osmosis kit. Use the 1/4-inch plastic water line provided. Apply a modest pull to ensure a tight fit.

Use clamps or ties to secure the water filter in a location that allows for removing and replacing it in the future. Honeywell recommends changing the water filter or RO canisters 1 & 2 annually, or as needed based on water conditions.

Install the provided backflow preventer, as required by code. See "Reverse Osmosis Filter" if using the Reverse Osmosis Filter.

Cut the water line so it is long enough to reach from the water filter to the supply fitting on the bottom of the steam humidifier.

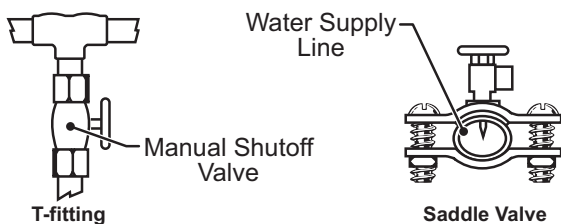
Insert the water line into the steam humidifier supply fitting.

Note: Failure to check for a tight fit with plastic water line could result in the line coming loose in the future. Apply modest pull to ensure water line is properly seated and secure.

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PLUMBING

## STEP TWO: Tap into a Water Line

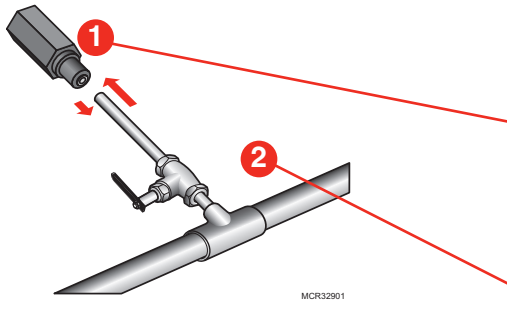


M29605

- Consult local codes for proper plumbing.
- Use the saddle valve provided or a T-fitting and manual shutoff valve to tap into a cold water line.
- Refer to the literature included with the valve you chose and the local plumbing codes. Use proper technique for the valve.



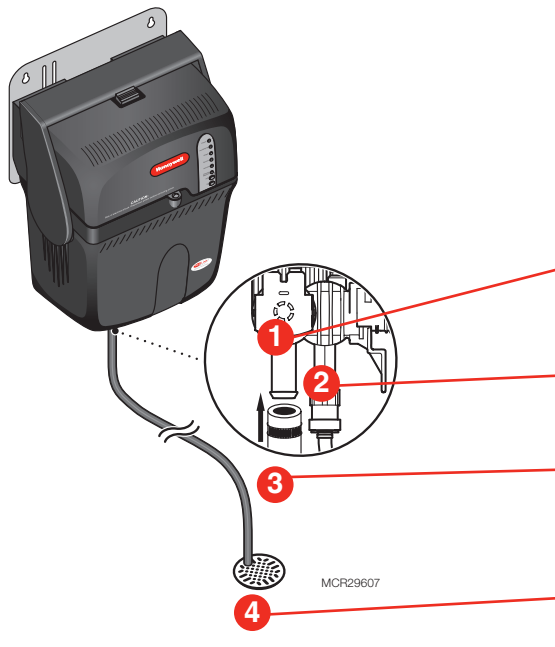
### STEP THREE: Connect Steam Humidifier to the Cold Water Pipe



Connect one end of the remaining length of water line to the backflow preventer. Apply a modest pull to ensure a tight fit. See “Reverse Osmosis Filter” on page 25 if using the Reverse Osmosis Filter.

Connect the other end of this line to the saddle valve or T-fitting and manual shutoff valve.

### STEP FOUR: Connect to the Water Drain



- Consult and follow local plumbing codes for drain pipe size and maximum temperature requirement.
- The ideal installation is directly to the main floor drain using the rubber hose provided.
- If direct floor drain access is not available, see “Other Plumbing Options” on page 17.

Connect the 1/2-inch drain hose provided to the drain fitting on the bottom of the steam humidifier.

Use the hose clamp provided to secure the drain hose to the barbed fitting.

Route the drain hose to the floor drain. The hose must have a continuous downward slope.

Direct the hose outlet into the floor drain. Secure the hose to reduce the risk of hot water pooling or splashing.

**Note:** Some building codes require an air gap between discharge hose and floor drain.



#### CAUTION: Scalding Hazard.

During operation, hot water may exit drain and can cause burns from scalding. Make sure the hose is securely connected to the drain.

Before proceeding to Wiring:

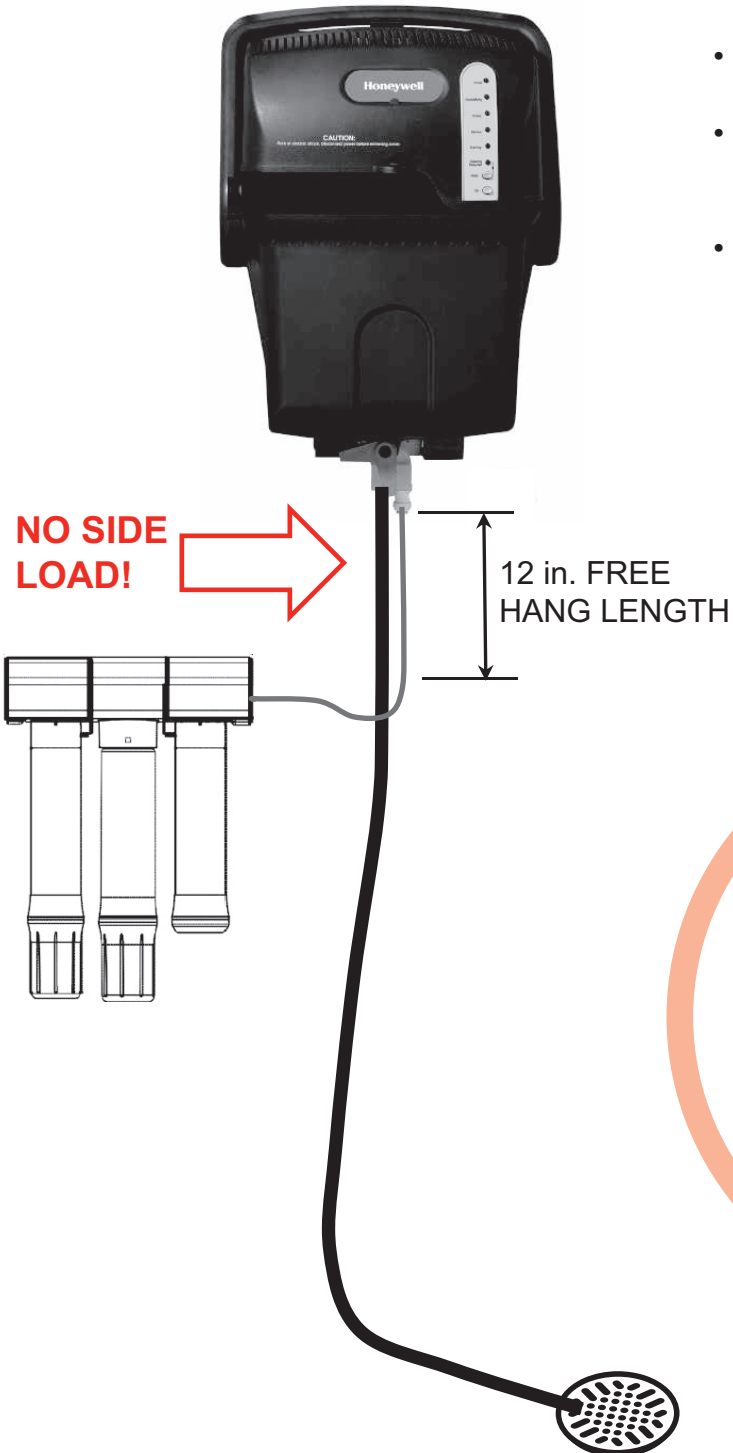
- I have confirmed minimum required circuit capacity
- I have connected the water supply using cold water
- I have installed the drain connection

## Water Supply and Drain Connections (continued)

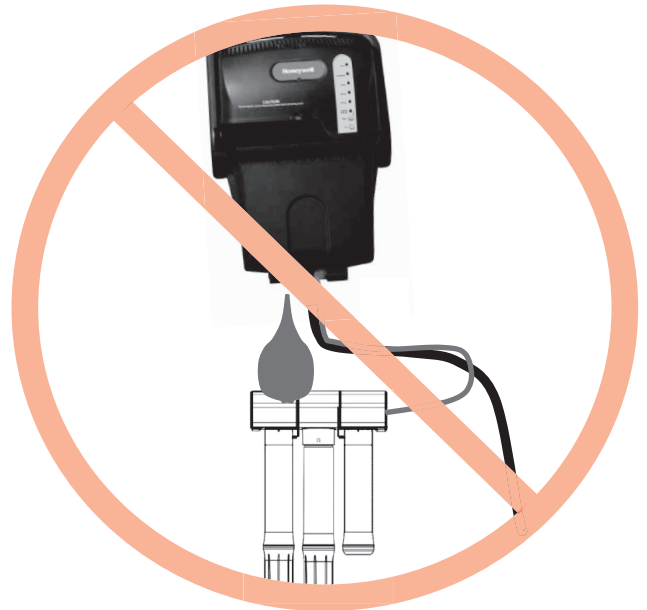


### CAUTION

EXCESSIVE SIDE LOADS ON DRAIN AND FILL HOSES CAN CAUSE LEAKS.



- Allow 12 inches of drain hose and fill hose to hang free before bending
- If RO Filter is installed directly below Steam unit, install to either side of drain and fill hoses.
- If a bend is required after 12 inches of free-hang length, a strain relief bracket, or an elbow may be used. Consult and follow local plumbing codes, and ensure a continuous downward slope of drain hose.



# Other Plumbing Options

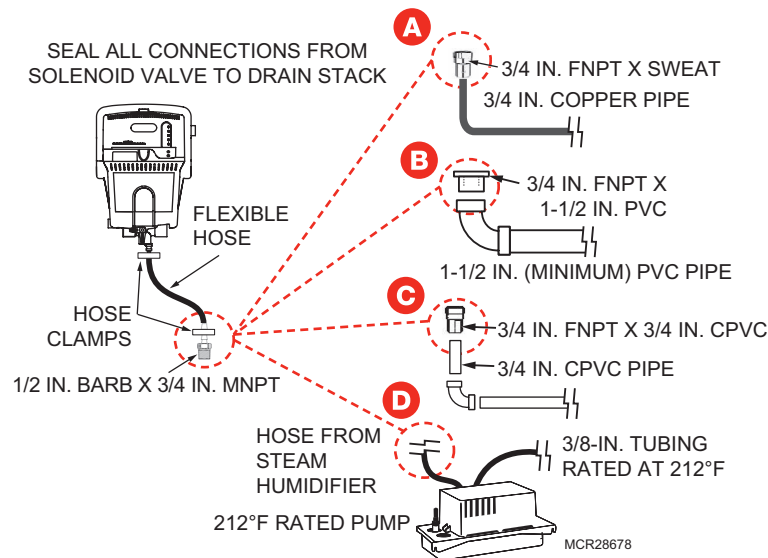
The following diagrams are for applications where standard draining to a floor drain is not available. Choose the plumbing option that suits your installation. Use A, B, C, or D based on type of pipe or condensate pump. Consult and follow local plumbing codes in addition to these instructions.

## For All Options Shown:

- Support rubber hose every 6 in.
- PVC must be schedule 40 or higher rating.
- All plastic pipe joints are welded.
- Drain into a P-trap that will remain wetted at all times.

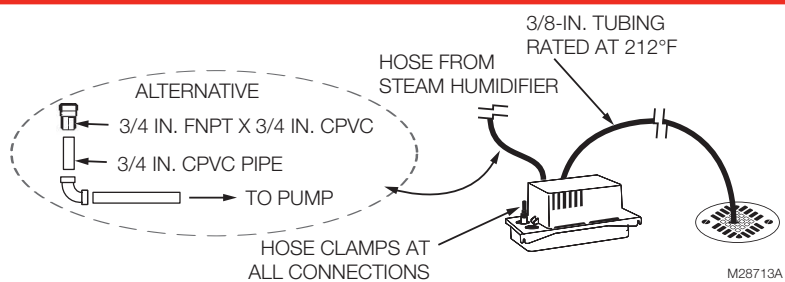
## Connect to Steam Humidifier

Common to all plumbing options.



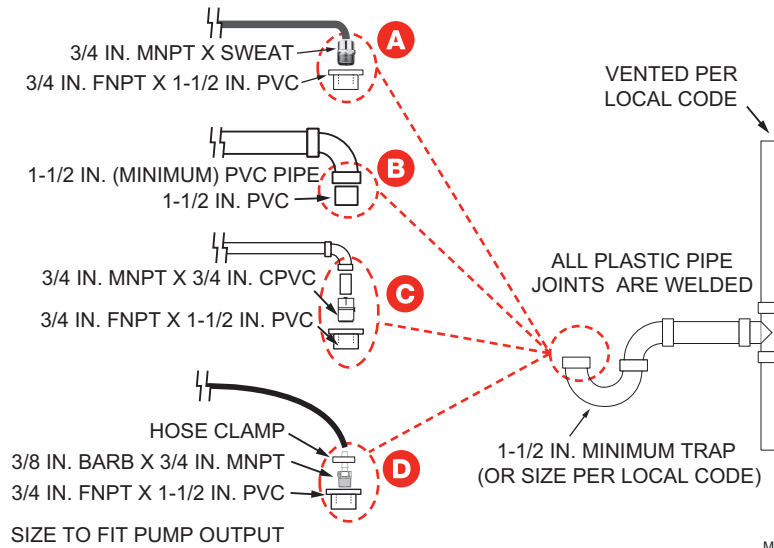
PLUMBING

## Option 1: Plumbing to drain with condensate pump.

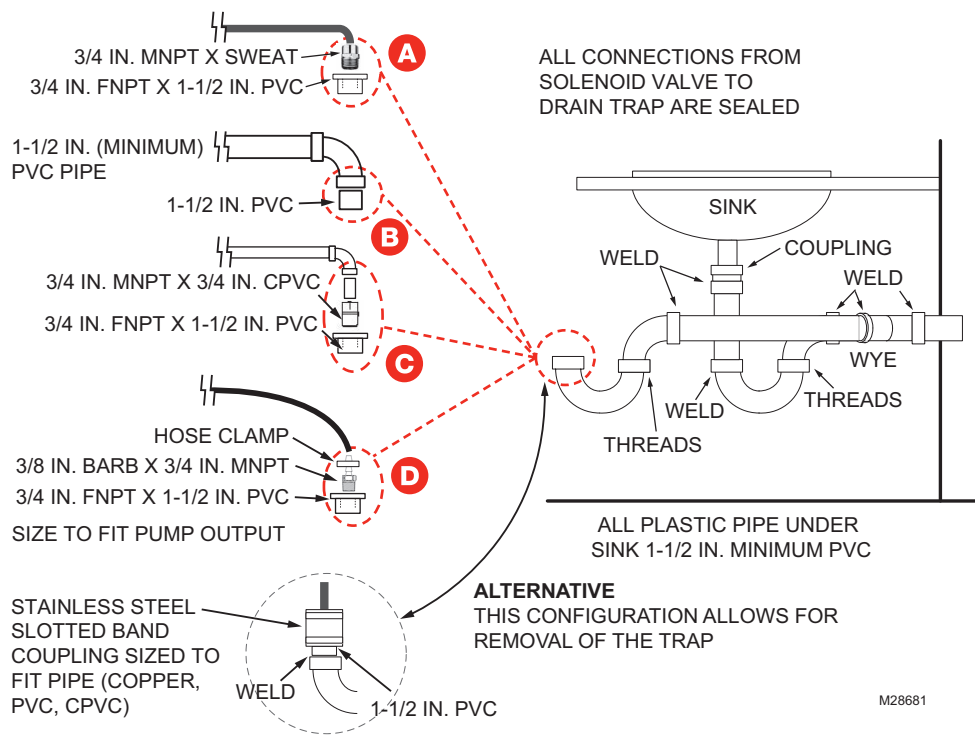


- Use Hartell A3X-115 condensate pump or equivalent (212°F temperature rating, > 1 GPM pump flow rate).
- Pump must be powered when Steam Humidifier is operating.
- Use a pump with a built-in overflow sensor or install the pump in a drip pan with wet switch wired to turn off Steam Humidifier.

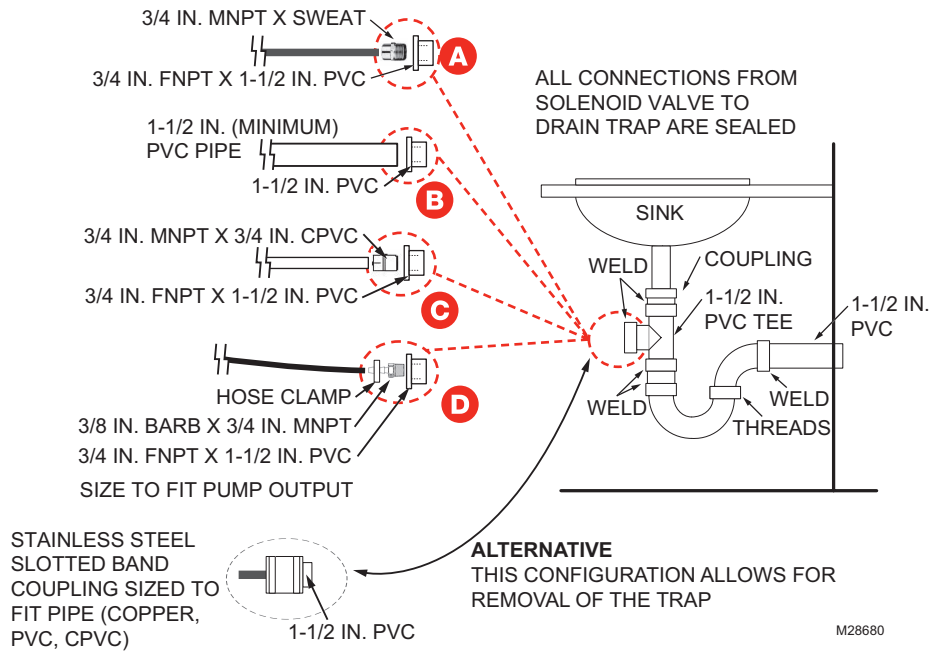
## Option 2: Plumbing to a dedicated trap.



## Option 3: Plumbing to sink with a dedicated trap.



## Option 4: Plumbing to sink trap.





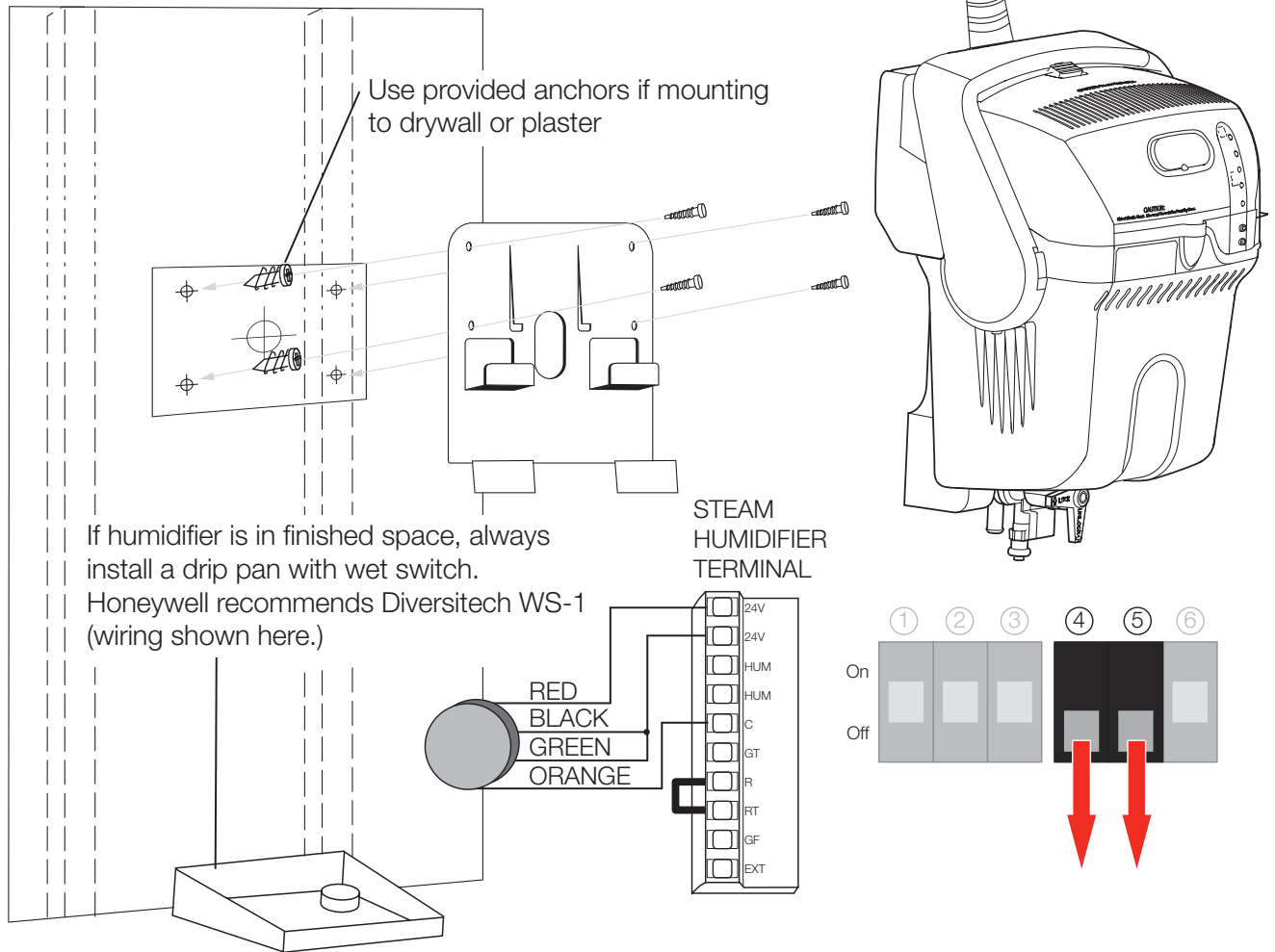
**BEST PRACTICE**

If humidifier is in finished space, always install a drip pan with wet switch. Honeywell recommends Diversitech WS-1 (wiring shown here).

## Remote Installation

Use remote installation when no suitable duct mounting location can be found on the homeowner's HVAC system. For detailed instructions on remote installation, see the steam humidifier Remote Mount Kit Installation Instructions (69-2317).

Always pitch the remote Adapter Nozzle upwards

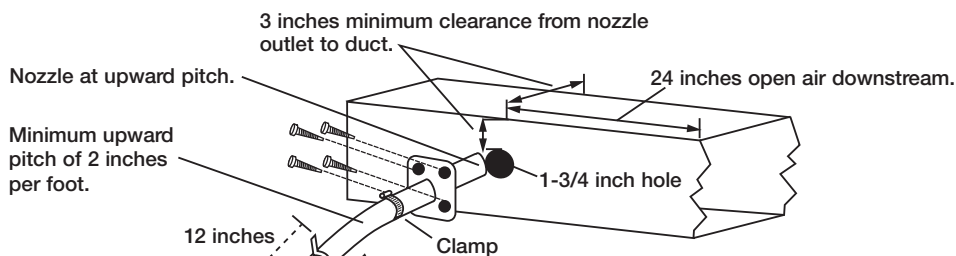
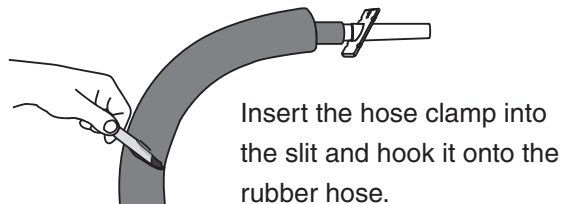
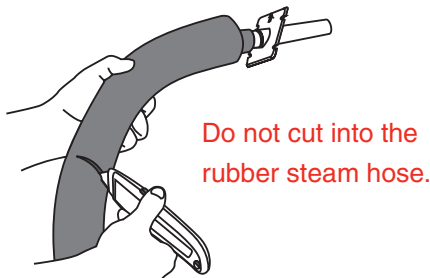


MCR28708

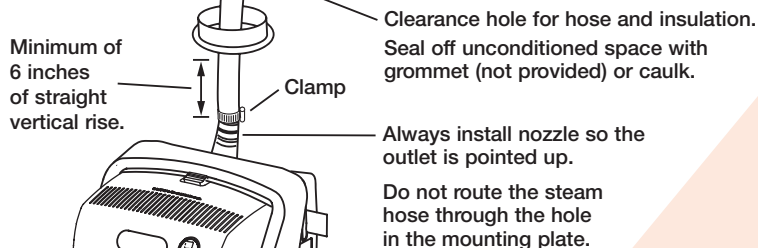


Always inspect the hose installation after at least 1 hour of steam production to confirm that there are no sags in the hose or leaks at the connection points.

Cut a slit in the insulation half way around the hose.

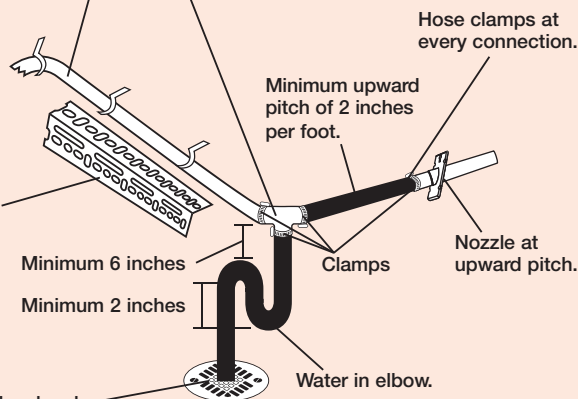


Avoid sharp kinks and prevent bends. On straight runs, use perforated angle iron. Otherwise, secure hose every 12 inches using provided hooks.



### If hose slopes downhill...

Downward slope can not be more than 3 feet below humidifier steam outlet. Provide a 212°F rated Tee at the lowest point. Do not use plastic Tee.



On straight runs, use perforated angle iron. Otherwise, support hose every 12 inches using provided hooks.

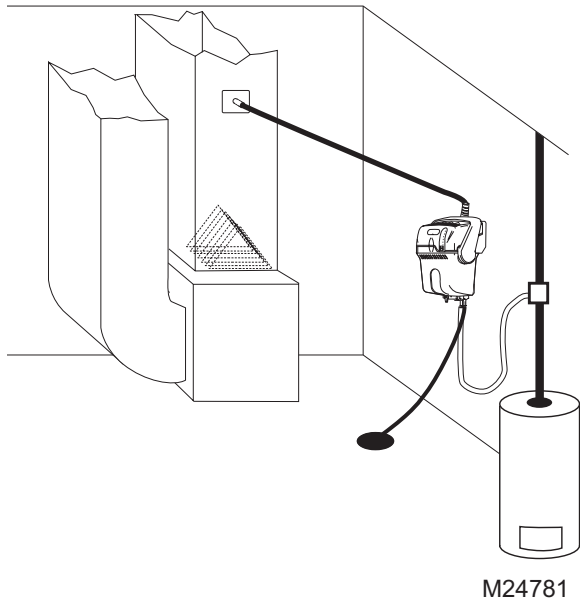
Always consult and follow local plumbing codes for drain pipe size and maximum temperature requirement.

Note: Some building codes require an air gap between discharge hose and floor drain.

M29636

# Proper Hose Installation

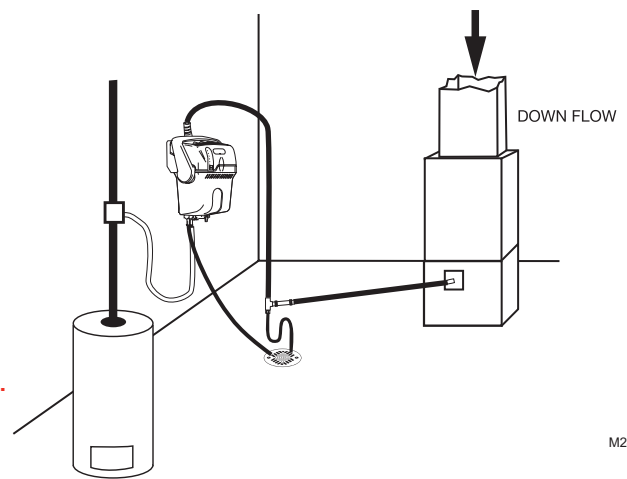
## Furnace or Mechanical Room Remote



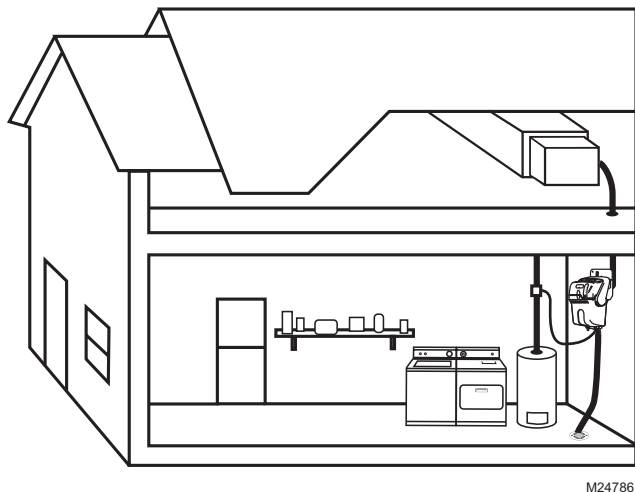
Note: If air handler location temperatures will drop below freezing at any time, Steam Humidifier must be mounted in a conditioned space, running a remote hose to the duct.

**CAUTION**  
Hot water temperature above 140°F (60°C) can cause burns from scalding.

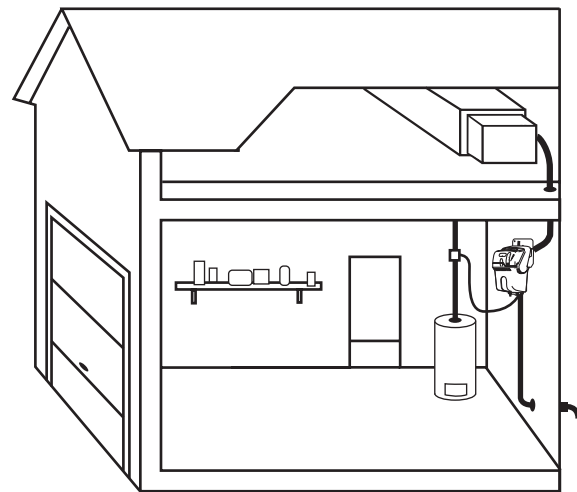
## Duct Mount Remote



## Living Area Remote Options

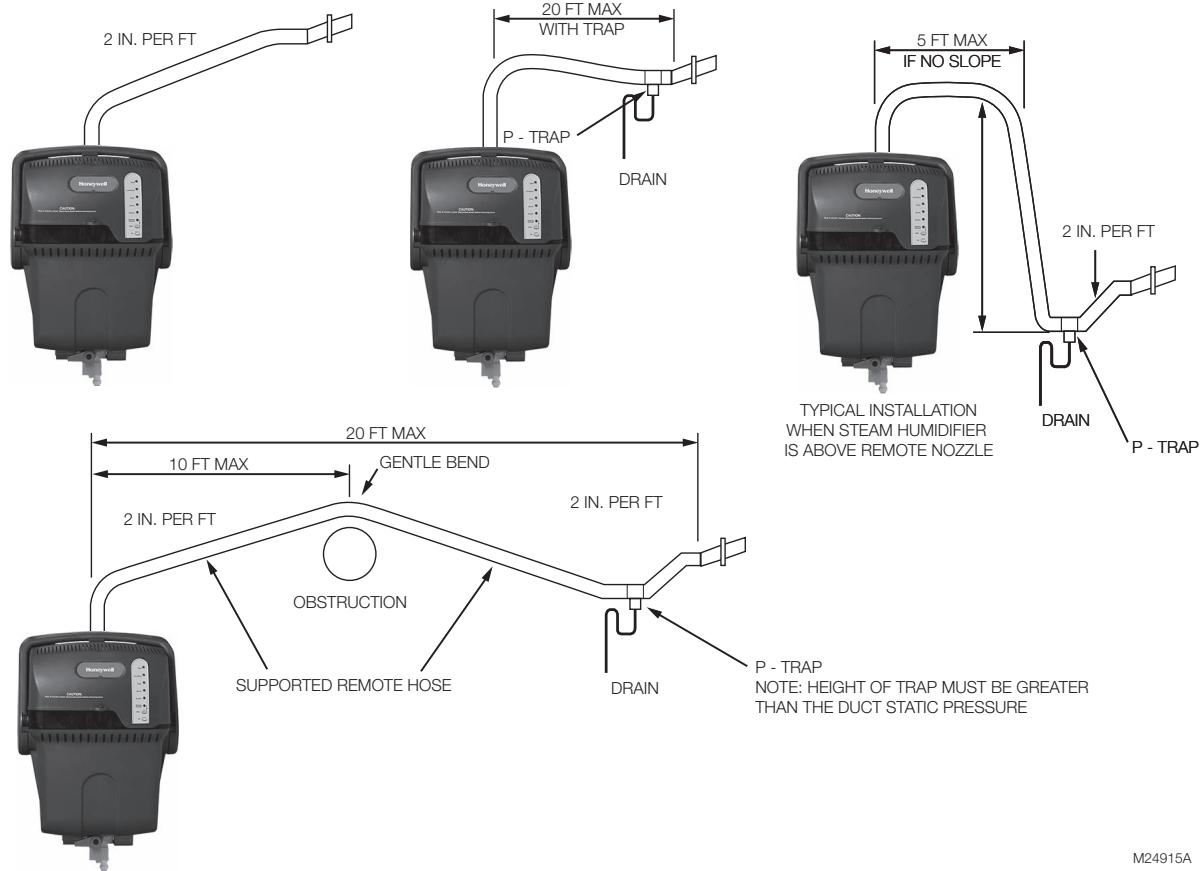


## Garage Remote



Draining water may be hot. Ensure drain outlet not exposed.





M24915A

**NOTES:**

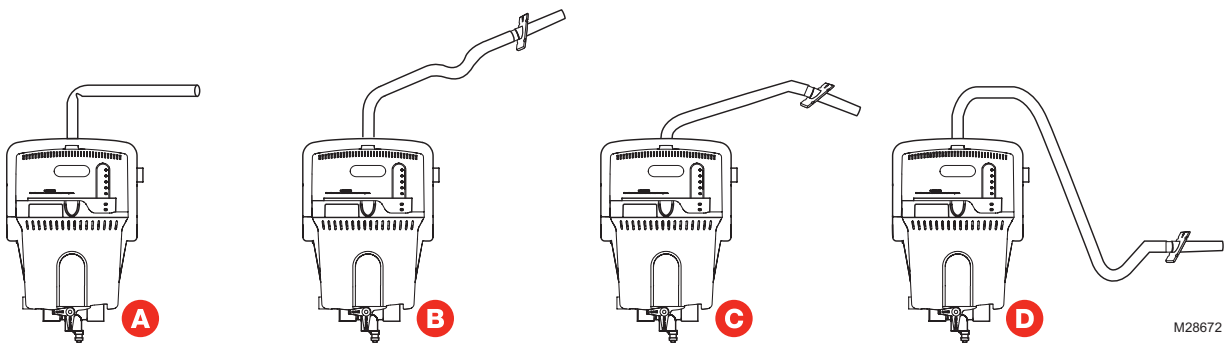
- Slope hose up in direction of steam flow at 2 in. per foot;
- Slope hose down in direction of steam flow at 3/4 in. per foot;
- Maximum length of remote steam hose is 20 ft.
- Height of P-traps must be greater than the duct static pressure. (Typical 3 in. will suffice.)
- Minimize sharp bends and elbows.
- Insulating the remote hose in unconditioned spaces will sustain efficiency better than not insulating the hose.



Never support the hose by attaching it to materials that could potentially sag over time (such as PVC) or cannot support the remote hose weight.



## AVOID THESE COMMON MISTAKES



- A** Sharp hose bends. Horizontal run does not have minimum pitch of 2 in. per ft.
- B** Sharp hose bends. Hose not continuously supported at least every 12 in., resulting in hose sag.
- C** Sharp hose bends. Does not have at least 6 in. vertical rise immediately out of humidifier, and nozzle is not pitched up.
- D** Horizontal run does not have minimum pitch of 2 in. per ft. Sharp hose bends. Downward pitch does not have trap at its lowest point.

# Reverse Osmosis Filter

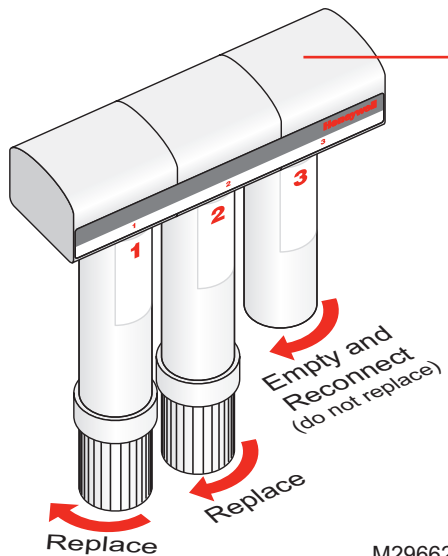
If the steam humidifier owner's home has water tested in range 1 on the water test strip, the Honeywell Reverse Osmosis (RO) Filtration System (HM600XROF1) should be installed in the water supply line. Failure to use the RO kit in these situations will lead to increased maintenance requirements and possible failure of the steam humidifier and its components.

The RO Filtration System consists of a base chassis, with three filter cylinders:

- Water first passes through the #1 sediment removal filter.
- Then it passes through the #2 reverse osmosis filter.
- Clean water fills the #3 clean water staging tank and the storage tank reserve.

Finally, this reserve flows into the steam humidifier tank when the tank runs low and the solenoid valve opens. A drain line carries reject water from the RO Filtration System to a suitable drainage point in the home.

## Parts of the RO Filter



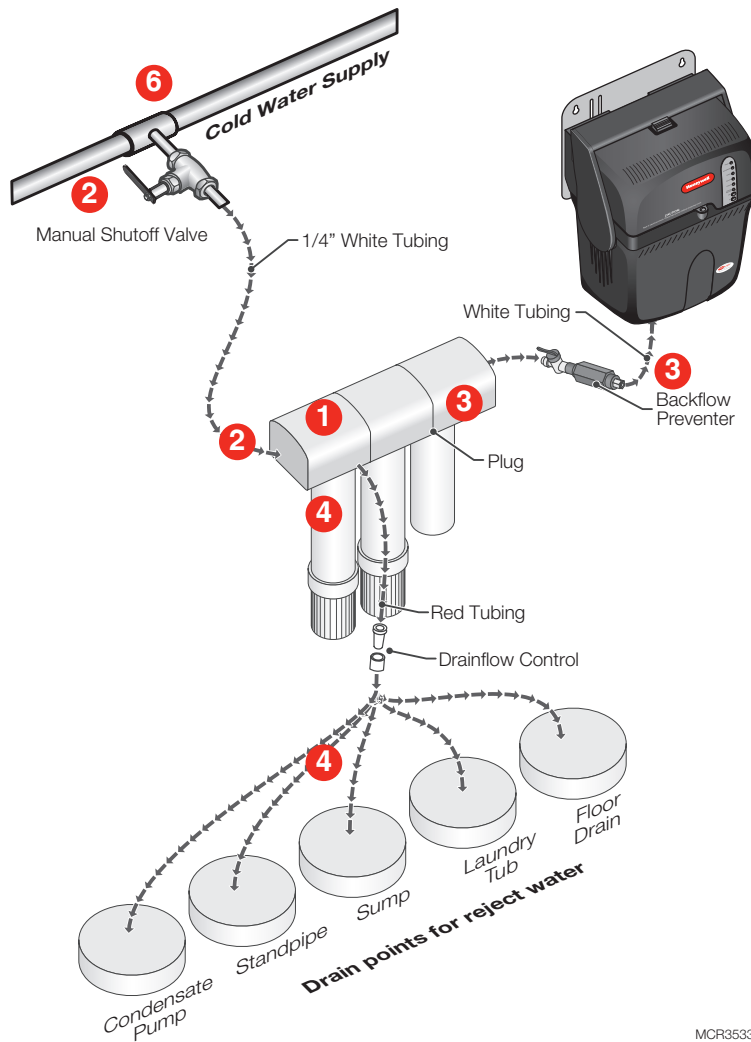
M29662

### Base Chassis

1. **Sediment Removal Filter** – Replace at least once each humidification season.
2. **Reverse Osmosis Filter** – Replace at least once each humidification season.
3. **Clean Water Staging Tank** – Not necessary to replace, but unscrew and empty water at the end of a humidification season.

## Setting up the RO Filter

See the instruction sheet packaged with the RO Filtration System for complete installation instructions.



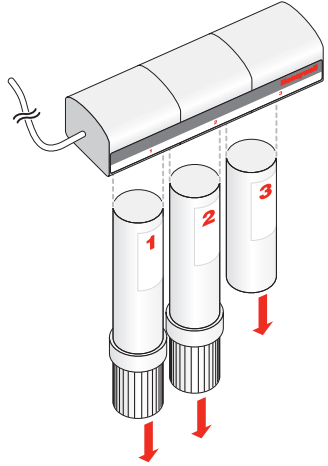
1. Mount the base chassis to a surface capable of holding up to 7 pounds between the home's cold water line and the steam humidifier location. (Mounting hardware is provided.)
2. Connect the 1/4-inch white water line to the home's main cold water supply. Connect the other end to the inlet port on the base chassis.
3. Connect the 1/4-inch white water line to the outlet on the base chassis. Connect the other end to the backflow preventer. Connect another water line between the backflow preventer and the steam humidifier supply fitting.
4. Connect the red tubing to the reject water port on the base chassis, and to a suitable drain on the other end.

**IMPORTANT:** Refer to and follow local codes for proper drain installation. Refer to additional drain requirements in the steam humidifier installation guide when coupling the RO Filter drain with the steam humidifier drain.

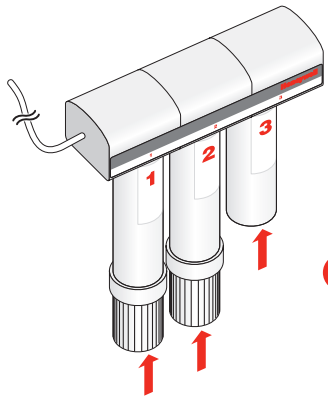
MCR35331

## Maintaining the RO Filter

Honeywell recommends the following maintenance steps be performed at least once each humidification season.



Remove filters #1, #2, and #3, in this order.



Reconnect filters in this order:

- Empty water from the #3 filter and reconnect to the RO System. (Do not replace.)
- Connect a new #2 filter.
- Connect a new #1 filter.

M29663

# Before Wiring Steam Humidifier

Before wiring the steam humidifier:

- I will read the section “Understand the DIP Switches” beginning on this page
- I will read the section “Deciding on the Wiring Configuration” beginning on page 30

## Using the DIP Switches

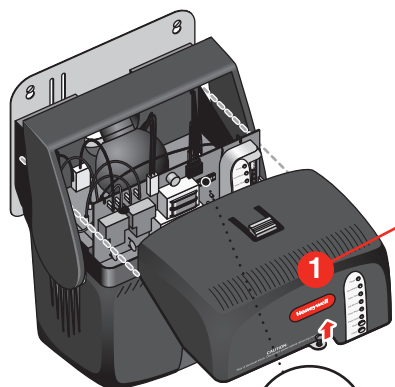
The wiring features are configured by DIP settings, which are described under the steam humidifier cover.

### STEP ONE: Remove the Steam Humidifier Cover



#### CAUTION: Voltage Hazard.

Be sure steam humidifier is not plugged in when removing the cover.



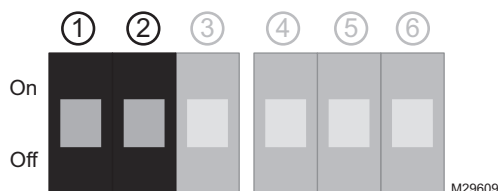
Loosen the cover screw.

Slide cover out from front.

With the cover removed, you will see six DIP switches to the left of the user interface panel. This manual refers to DIPs 1–6 from left to right.

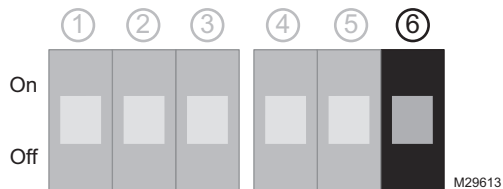
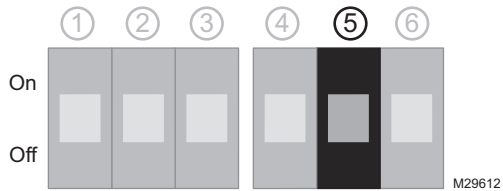
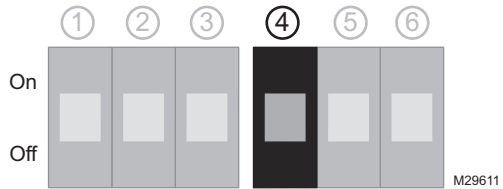
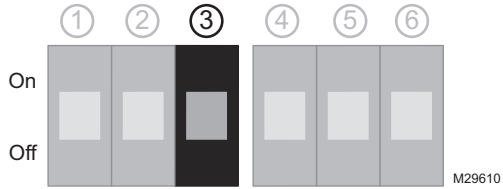


### STEP TWO: Understand the DIP Switches



**DIPS 1 and 2 are used for maintenance.**

**DIP 1 and DIP 2:** Together, these two DIPs specify how often the automatic flush cycle is performed. See “Set the Automatic Flush Cycle Timing” on page 3.



**DIPS 3, 4, and 5 are used to configure the humidifier operation for your unique application.**

**DIP 3:** Used to enable wireless operation.

- If DOWN (default), wireless terminal is disabled.
- If UP, wireless terminal is enabled.

**DIP 4:** Used to configure power monitoring.

- If DOWN (default), steam humidifier looks for R input before allowing humidity.
- If UP, steam humidifier does not look for R Input before allowing humidity. Power is still allowed to pass through if R is wired. See *“Make Power Monitoring Decision” on page “STEP ONE: Make Power Monitoring Decision” on page 30.*

**DIP 5:** (optional) Used to prevent humidification when air is not moving throughout the duct. Requires a remote air flow sensor.

- If DOWN (default), steam humidifier does not look for air movement through an air proving device.
- If UP, steam humidifier looks for C connection before allowing humidity. Wire an air proving device between steam humidifier C and System C. See *“Make Add-On Air Proving Decision” on page 32.*

**Note:** Setting DIP 5 up requires DIP 4 to be down. If DIP 4 is up, DIP 5 position will not be used.

**DIP 6:** Not used at this time.

# Deciding on the Wiring Configuration

Before making decisions about wiring configurations:

- I understand when to use the DIP switches and how to set them for the humidity control.

Steam humidifier wiring is different from evaporative pad humidifier wiring. In addition to solenoid water valve actuation, steam humidifier can monitor system power and regulate system fan operation.

You need to decide on the configurations you will use before wiring the steam humidifier. These decisions will affect how the connections are made, how the DIP switches are set, and how steam humidifier operates for the homeowner.

## STEP ONE: Make Power Monitoring Decision

Power Monitoring is a configuration that allows steam humidifier to humidify only when it has confirmation that the HVAC system transformer has power. This helps prevent steam from entering the supply duct when the HVAC system is not operating. There are two ways to configure power monitoring, depending on the humidity control used:

- **CONFIGURATION 1** – Using a thermostat with integrated humidity control
- **CONFIGURATION 2** – Using a humidistat separate from the thermostat

**CONFIGURATION 1 — using a thermostat with an integrated humidity control such as VisionPRO IAQ or Prestige — is ideal for contractors who:**

- Want simplified wiring – steam humidifier only needs to be connected to the HUM terminals from the control.
- Provide integrated system and accessory control in the living space.
- Are using VisionPRO IAQ or Prestige thermostat.

*Proceed to “Wiring Basics: Configuration 1” illustration at top of next page.*

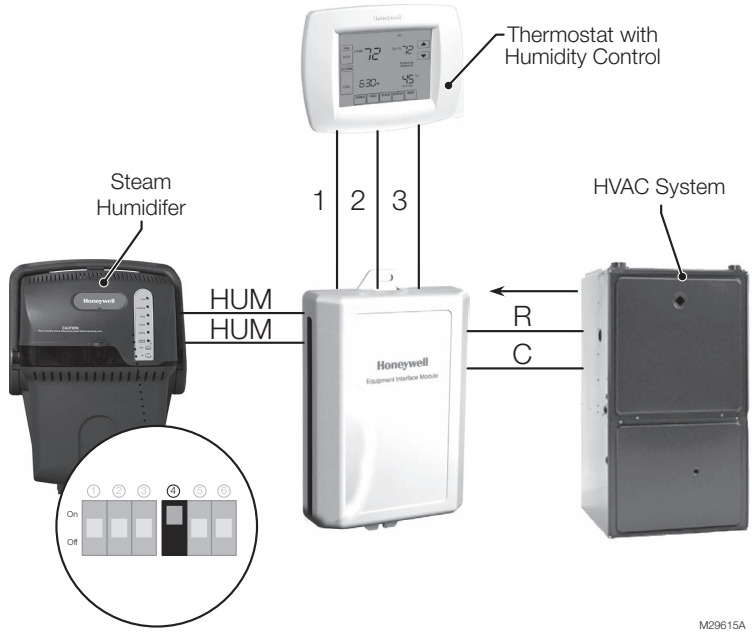
**CONFIGURATION 2 — using a humidistat separate from the thermostat such as H6062 or TrueIAQ — is ideal for contractors who:**

- Use a humidity control separate from the thermostat.
- Wish to locate the humidity control on the return duct.

*Proceed to “Wiring Basics: Configuration 2” illustration at bottom of next page.*



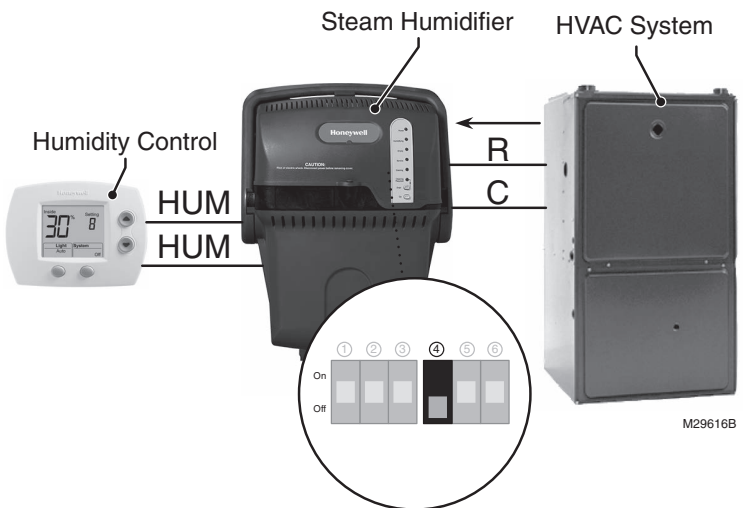
**IMPORTANT NOTE:** The images below are not complete wiring diagrams. It only depicts power monitoring and is not meant to be a stand alone diagram. Please refer to the “Wiring the steam humidifier” section in the following pages for complete wiring diagrams.



**WIRING BASICS: CONFIGURATION 1**

**When using a thermostat with integrated humidity control (such as VisionPRO IAQ or Prestige):**

- The thermostat is powered by the system transformer. In this configuration, the thermostat must have power or steam humidifier will not be able to produce steam.
- Because the thermostat knows when the system transformer has power, set DIP 4 to UP, so that it is not looking for an R input from the system R.
- If Thermostat is **NOT POWERED** by the system transformer, it is required to monitor the R input. Leave DIP 4 **DOWN**. (factory setting)



**WIRING BASICS: CONFIGURATION 2**

**When using a humidistat separate from the thermostat (such as H6062 or TruelAQ):**

- Steam humidifier generally supplies power to the humidistat. In this configuration, steam humidifier must monitor HVAC system power to determine if humidity is allowed.
- Leave DIP 4 in the DOWN position (factory setting), and wire the HVAC system R and C to the steam humidifier R and C. Steam humidifier will verify power is present before allowing steam production.

WIRING

## STEP TWO: Make System Fan Regulation Decision

System Fan Regulation is a configuration that requires steam humidifier to monitor the HVAC system fan and make sure the fan is on if humidity is needed. This helps ensure that airflow will distribute humidity into the living space, and prevents water condensation in the duct. There are two ways to configure system fan regulation, depending on the humidity control used:

- **CONFIGURATION 1** – Using a thermostat with integrated humidity control
- **CONFIGURATION 2** – Using a humidistat separate from the thermostat

### Which is right for you?

**CONFIGURATION 1 — using a thermostat with an integrated humidity control such as VisionPRO IAQ or Prestige — is ideal for contractors who:**

- Want integrated control of the humidifier and HVAC system in the living space.
- Want the system fan to turn on immediately upon a call for humidity.

*Proceed to “Wiring Basics: Configuration 1” illustration at top of next page.*

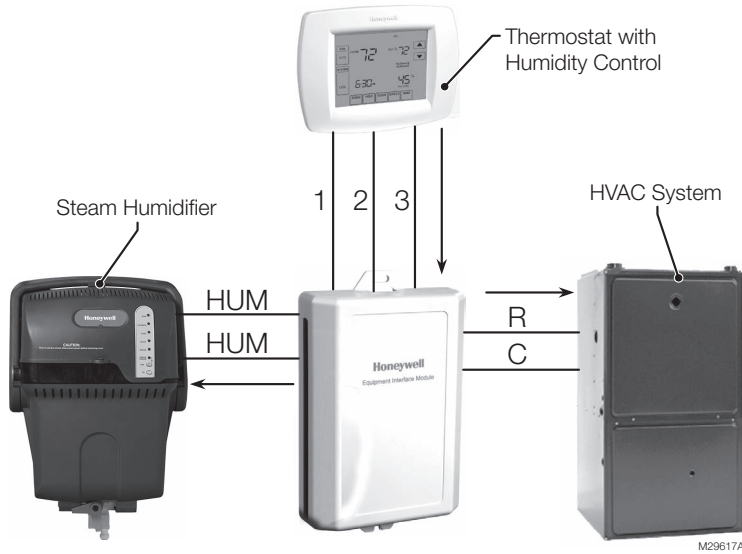
**CONFIGURATION 2 — using a humidistat separate from the thermostat such as H6062 or TrueIAQ — is ideal for contractors who:**

- Use a humidity control separate from the thermostat.
- Wish to avoid excessive air circulation in the home. Steam humidifier fan calls will not be sent out of the steam humidifier GF terminal until the water temperature reaches 176°F (just before boiling).

Note: This feature can be used with VisionPRO IAQ as well.  
See page 35, 42.

*Proceed to “Wiring Basics: Configuration 2” illustration at bottom of next page.*

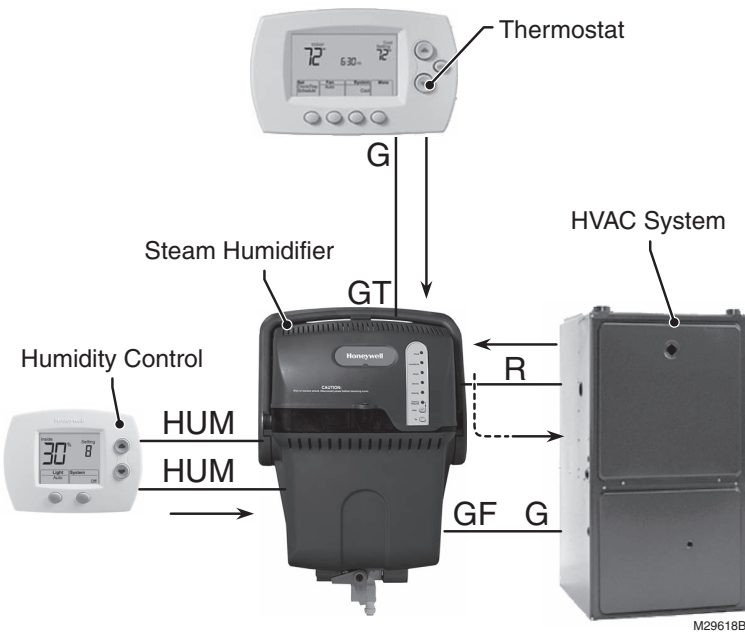
**IMPORTANT NOTE:** The images below are not complete wiring diagrams. It only depicts power monitoring and is not meant to be a stand alone diagram. Please refer to the “Wiring the steam humidifier” section in the following pages for complete wiring diagrams.



**WIRING BASICS: CONFIGURATION 1**

**When using a thermostat with integrated humidity control (such as VisionPRO IAQ or Prestige):**

- A thermostat controls the fan and steam humidifier. The control will not allow steam production unless the system fan is on.
- Wire Thermostat G to the HVAC system G as normal.
- Wire steam humidifier HUM terminals to the system HUM terminals.



**WIRING BASICS: CONFIGURATION 2**

**When using a humidistat separate from the thermostat (such as H6062 or TruelAQ):**

- The external humidity control does not monitor or control the system fan. Steam humidifier must confirm that the fan has power before allowing humidity.
- Break the thermostat G to HVAC system G connection. Wire thermostat G to steam humidifier GT. Wire steam humidifier GF to HVAC system G.
- Thermostat G calls will pass directly through steam humidifier. If this signal is not present, and humidity is needed, steam humidifier will relay power from its RT terminal to GF and out to HVAC system G to ensure the fan has power for humidity calls.

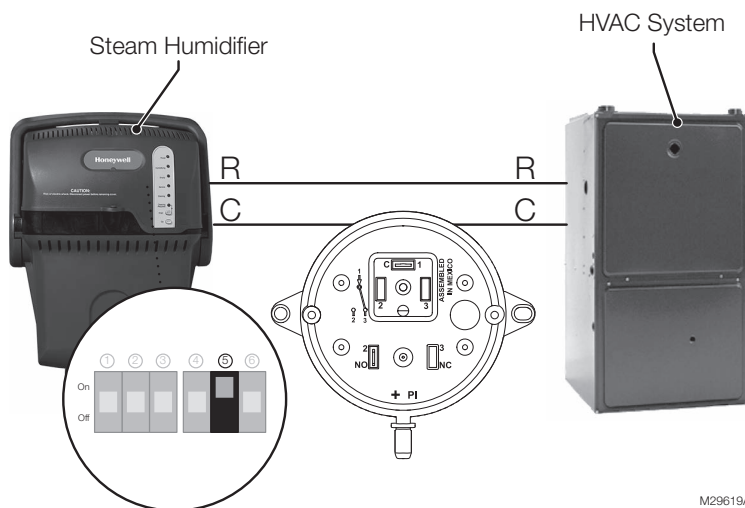
WIRING

### STEP THREE: Make Add-On Air Proving Decision

The steam humidifier can also monitor physical air movement through an optional air proving device. If an air proving device is added, the steam humidifier will create steam only if the fan is moving air through the supply duct.

**Honeywell HIGHLY recommends adding an Add-On Air Proving Device for ALL Steam Humidifier installations.**

**IMPORTANT NOTE:** The image below is not a complete wiring diagram. It only depicts power monitoring and is not meant to be a stand alone diagram. Please refer to the “Wiring the steam humidifier” section in the following pages for complete wiring diagrams.



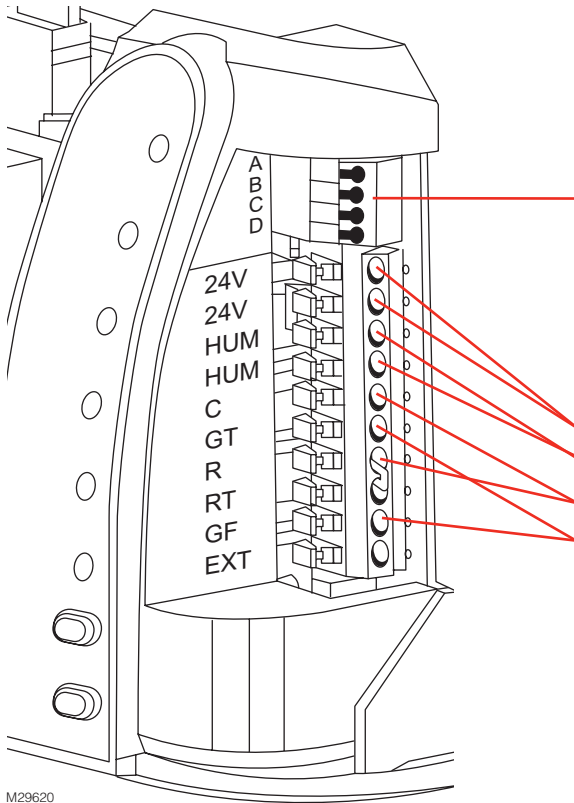
### WIRING BASICS

- Wire steam humidifier R and C to HVAC system R and C with an air proving device in-line on C.
- Configure air proving through DIP 5 on steam humidifier. Set DIP 5 up and keep DIP 4 down.
- Steam humidifier will look for physical air movement through its C connection before steam enters the duct.

# Wiring the Steam Humidifier

You will need to wire steam humidifier using the diagram that applies to your humidity control. Remember to include the wiring and DIP settings required for power monitoring, system fan regulation, and add-on air proving (if used).

## Using the Terminals



Use the terminals (found inside the cover) to wire steam humidifier to the humidity control and the HVAC system.

### RedLINK Wireless Terminals

- A – Hot
- B – Send signal
- C – Receive signal
- D – Common

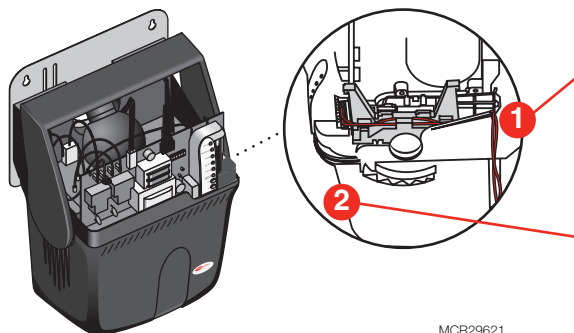
Note: If using wireless control, set DIPs 3 and 4 to the UP position.

### Low-voltage Terminals

- 24V – Output voltage
- HUM – Low-voltage terminals for humidity control.
- C, R – Inputs from HVAC system transformer.
- GT, GF – GT input is from thermostat G. GF output goes to HVAC system G.
- RT – Connects to thermostat R terminal, which is normally switched to call for fan.
- EXT – When a 24-vac fan board is not used to control blower (hydronic or cooling-only applications), this connection with GF provides dry-contact closure for fan calls. EXT/GF may be wired to a low-voltage relay control center to provide line-voltage fan control.

WIRING

## Routing the Wires



Route wires through the raised tabs and out the notch at the rear of the chassis.

Make sure the wires are secure and do not interfere with the cover assembly.

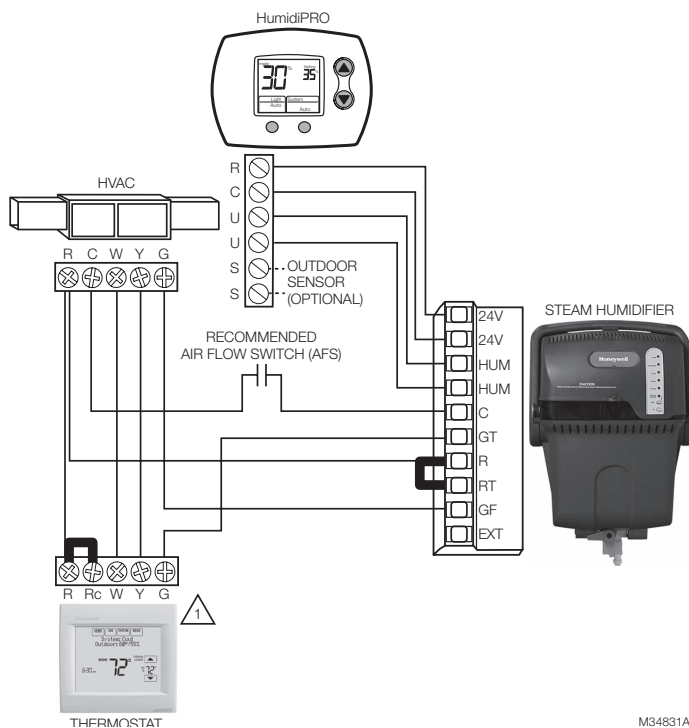
# Using the Correct Control Diagram



## CAUTION: Voltage Hazard.

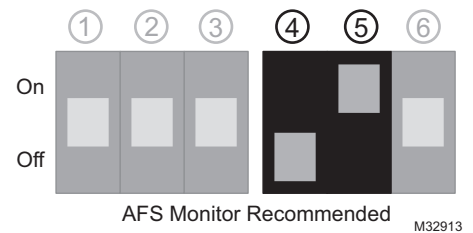
Before wiring to HVAC terminals, disconnect HVAC equipment power. Make sure steam humidifier is not plugged in.

Follow the diagram for control options 1 through 14 to wire the steam humidifier. Refer to the installation manual provided with the control for additional instructions if needed.



## OPTION 1: Dry-contact Mechanical Humidistat Wiring

⚠ Make sure that the thermostat used isolates Y from G. All Honeywell Prestige, VisionPRO IAQ, VisionPRO, and Focus Pro thermostats do this.



**NOTE:** Advanced Wiring diagrams are shown in Appendix B beginning on page 56.

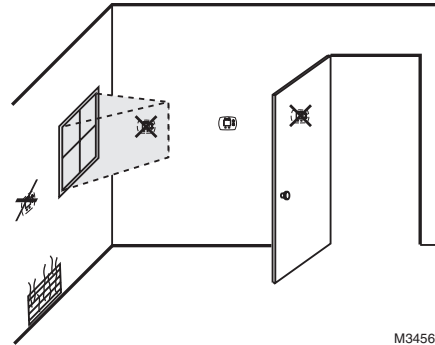
# Installing the Humidistat

## Remote Installation

Choose a location in the living area.

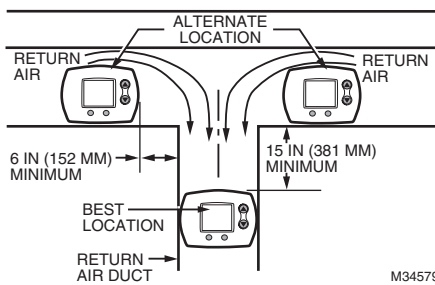
**NOTE:** Select a location clear of drafts or excessive humidity. Avoid mounting near doors or windows, or in bathrooms or kitchens.

**OR**



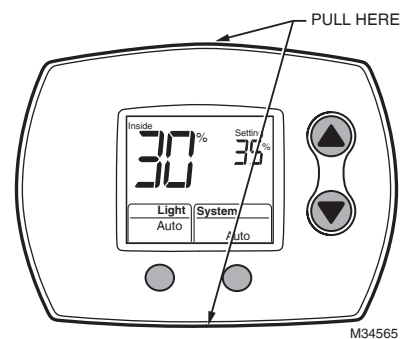
## Duct-Mount Installation (recommended)

1. Choose a location on the RETURN duct.



**Warning: Product must be mounted on the RETURN side of the duct for proper RH% sensing.**

2. Separate wallplate from humidistat.

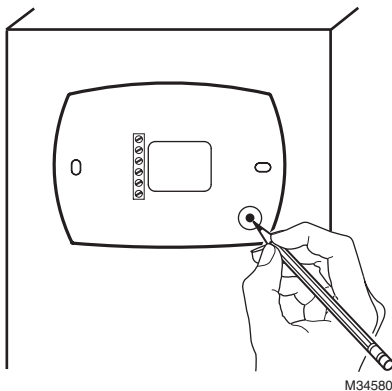


### Caution: Electrical Hazard

Can cause electrical shock or equipment damage. Disconnect power before beginning installation.

WIRING

5. Mark the duct-tube hole.



Hold the wallplate up to the desired location on the duct and make a mark inside the duct tube hole.

6. Drill the duct-tube hole.

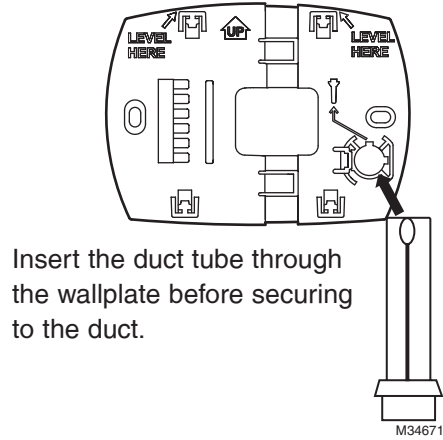


Find your mark and drill a 1/2 in. hole in the duct. This is where the duct tube will be inserted to capture air.

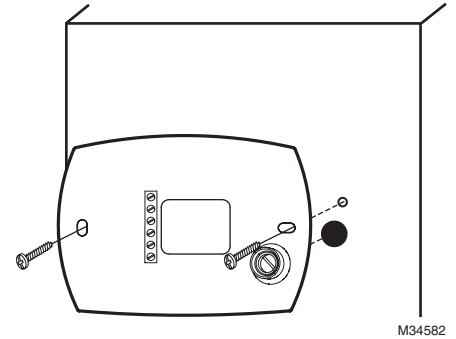
# Installing the Humidistat

## Duct-Mount Installation (continued)

5. Insert the duct tube.

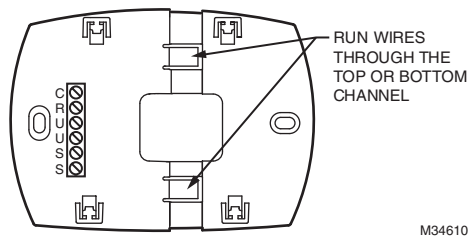


6. Secure the wallplate.



Secure the wallplate to the duct with sheet metal screws (provided).

7. Run wires through the back plate.



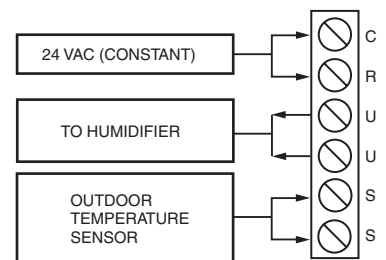
Run wires through the top or bottom channel on the back plate when duct-mounted. If installing like a thermostat on a wall, run the wires through the back.

## Wiring the Humidistat

This humidity control is wired the same way a manual humidistat (H8908) is wired. The only difference is that you also wire in power (24 VAC) and an outdoor sensor.

### TERMINAL DESIGNATION

- C 24 VAC POWER FROM EQUIPMENT
- R 24 VAC POWER FROM EQUIPMENT
- U HUMIDIFIER
- U HUMIDIFIER
- S OUTDOOR SENSOR
- S OUTDOOR SENSOR



NOTES: C AND R MUST BE CONSTANT 24VAC! RECOMMENDED TO WIRE TO FURNACE/AIR HANDLER CONTROL BOARD.

DO NOT WIRE C AND R TO HUMIDIFIER TRANSFORMER!

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# Mounting the Outdoor Sensor

(Not required if window protection isn't needed)

## Location

Mount the sensor where:

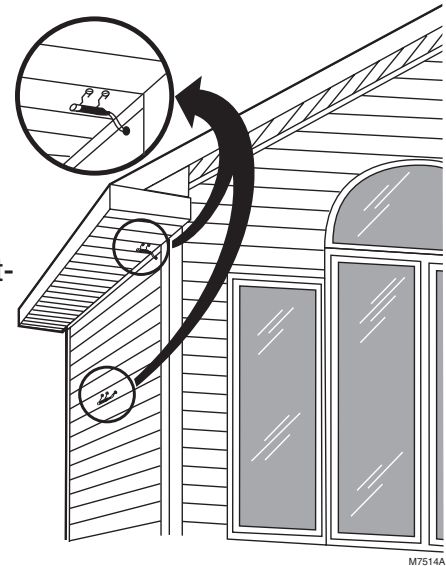
- it cannot be tampered with.
- there is good air circulation.
- surface is flat.
- wire distance between sensor and humidistat is less than 200 feet.
- it can measure true outdoor ambient temperature.

Do NOT mount the sensor:

- in direct sunlight.
- where snow, ice or debris can cover it.
- where hot or cold air blows on the sensor. (For example, a discharge line from an outdoor compressor unit, vent or fan can cause inaccurate temperature readings.)

## Steps to mount the sensor

1. Remove the sensor from the mounting clip.
2. Mark the area on the location selected for mounting the sensor mounting clip.
3. Mount the clip. Image on right shows typical locations for outdoor sensor.



# Wiring the Outdoor Sensor

**CAUTION: Electrical Interference (Noise) Hazard. Can cause erratic system operation.**

Keep wiring at least one foot away from large inductive loads such as motors, line starters, lighting ballasts and large power distribution panels.

Use shielded cable to reduce interference when rerouting is not possible.

Be sure wires have a cable separate from the thermostat cable.

Do not route temperature sensor wiring with building power wiring, next to control contactors or near light dimming circuits, electric motors or welding equipment.

Avoid poor wiring connections.

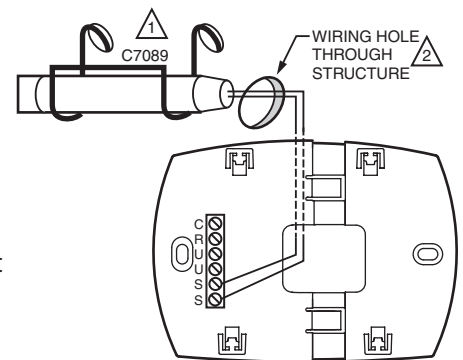
Avoid intermittent or missing building earth ground.

**CAUTION: Electrical Shock Hazard. Can cause electrical shock or equipment damage.**

Disconnect power supply before connecting wiring.

Wiring must comply with applicable codes, ordinances and regulations:

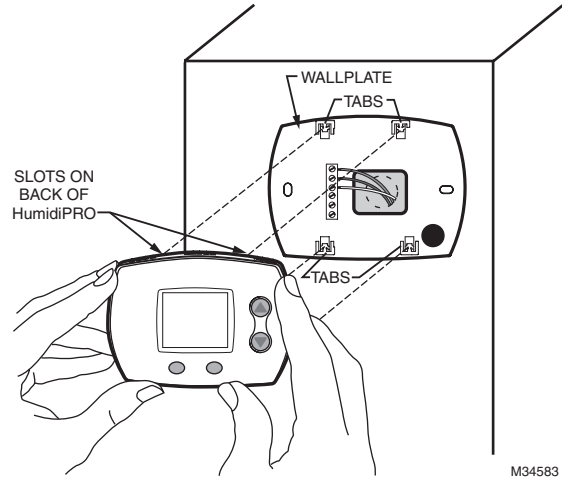
1. Wire the C7089 Outdoor Sensor to the S terminals on the humidity control. If leadwire provided with C7089 is not long enough (60 in.), run a cable to a hole at C7089 location.
  - Using color-coded, 18-gauge, shielded thermostat wire is recommended. For example of general wiring of C7089, see image at right.
  - Pigtail wiring can be used.
2. Mount C7089 in its mounting clip.
3. Plug wiring hole using nonhardening caulk or putty.



- 1 USE APPROPRIATE MOUNTING MEANS FOR THE TYPE OF STRUCTURE.
  - 2 PLUG WIRING HOLE WITH NON-HARDENING CAULK OR PUTTY.
- M34611

## Mount Humidity Control

Align the 4 tabs on the wallplate with the slots on the back of the control, then push gently until the control snaps in place.



## Checkout

Allow C7089B Outdoor Sensor to absorb outdoor air for a minimum of twenty minutes before taking a reading. With an accurate thermometer ( $\pm 1^{\circ}\text{F}$  [ $0.5^{\circ}\text{C}$ ]), measure the temperature at the sensor location, allowing time for the thermometer to stabilize before reading. Then verify the sensor accuracy by going into installer Test #20. This will show you the outdoor temperature.

## Calibration

The C7089 Outdoor Sensor is calibrated at the factory. However, you can offset the outdoor sensor reading using Function 35 in Installer Setup.

## You've just installed your Humidity Controller!

This Humidity Control has been preprogrammed to the ideal settings for most homes.

If you installed this control with an outdoor sensor, the control will operate in **AUTOMATIC MODE**, which automatically adjusts humidity to help prevent window condensation.

If you installed this control without an outdoor sensor, the control will operate in **MANUAL MODE**, giving the homeowner simple, direct control of their humidifier (RH% Setting Only).

## Advanced Installer Setup

See next page to customize feature operation.

## Installer System Test

If Advanced Installer Setup is not required, skip to "Installer System Test/Checkout" on page 43.

# Advanced Installer Setup

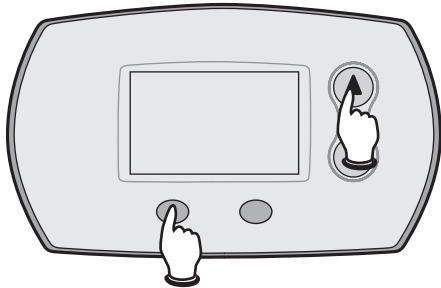
Honeywell has already programmed this control to work properly in most applications. However, you can adjust the advanced settings by following the steps below.

To begin, **press and hold** the ▲ and LIGHT buttons until the display changes.

Press ▲ or ▼ to change settings.

Press **NEXT** to advance to the next function.

Press **DONE** to exit and save settings.



M29387A

Function Number	Setting	
	Displayed	Description
<b>1 System Type</b>	<b>1</b>	<b>Humidifier</b>
	<b>2</b>	<b>Dehumidifier</b>
<b>4 Control Mode</b> Automatic Mode is Default when Outdoor Sensor Detected Manual Mode is Default when NO Outdoor Sensor Detected	<b>1</b>	<b>Automatic</b>
	<b>2</b>	<b>Manual</b>
<b>5 Automatic Mode RH% (Hum)</b> This is the humidity setpoint (RH%) the control will operate to. The homeowner does not change this and will only need to set the appropriate window protection setting.	Range: 20% - 60% <b>Default = 35%</b>	
<b>11 Automatic Mode Humidity Boost</b> Increases Preset RH% (#5) when user sets window protection to 11.	<b>0</b>	<b>OFF</b>
	5%	5%
	10%	10%
<b>17 Automatic Mode High Temp Shut-Off</b> Turns humidifier OFF when Outdoor Temperature is greater than selected setting.	Range: 40° - 90° 0 = OFF <b>Default = 65°</b>	
	Range: 10% - 90% <b>Default = 60%</b>	
<b>19 High Hum Limit</b>	Range: 10% - 90% <b>Default = 10%</b>	
<b>20 Low Hum Limit</b>	Range: 10% - 90% <b>Default = 80%</b>	
<b>21 High Dehum Limit</b>	Range: 10% - 90% <b>Default = 40%</b>	
<b>23 Low Dehum Limit</b>	0 - 5 Minutes <b>Default = 0 Minutes (OFF)</b>	
<b>25 Dehumidifier Compressor Lockout</b>	Range: -9% to +9% <b>Default = 0</b> (Displays Actual RH%)	
<b>30 Humidity Sensing Calibration</b> This feature will offset the sensed indoor humidity.	Range: -9° to +9° <b>Default = 0</b> (Displays Actual Outdoor Temp)	
<b>35 Outdoor Temperature Sensor Calibration</b> This feature will offset the sensed outdoor temperature if needed.		

# Honeywell HumidPRO™ Frost Index

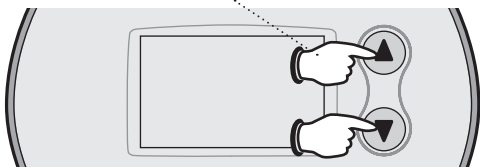
		Outdoor Temp					
		-10°F	0°F	10°F	20°F	30°F	40°F
Frost Index	1	<b>10</b> 10	<b>10</b> 10	<b>11</b> 11	<b>17</b> 17	<b>25</b> 25	<b>35</b> 36
	2	<b>10</b> 10	<b>10</b> 10	<b>15</b> 15	<b>21</b> 21	<b>29</b> 29	<b>35</b> 39
	3	<b>10</b> 10	<b>14</b> 14	<b>19</b> 19	<b>26</b> 26	<b>34</b> 34	<b>35</b> 46
	4	<b>15</b> 15	<b>19</b> 19	<b>25</b> 25	<b>32</b> 32	<b>35</b> 39	<b>35</b> 52
	5	<b>21</b> 21	<b>26</b> 26	<b>32</b> 32	<b>35</b> 38	<b>35</b> 48	<b>35</b> 58
	6	<b>29</b> 29	<b>34</b> 34	<b>35</b> 39	<b>35</b> 48	<b>35</b> 56	<b>35</b> 60
	7	<b>35</b> 39	<b>35</b> 46	<b>35</b> 52	<b>35</b> 58	<b>35</b> 60	<b>35</b> 60
	8*	<b>35</b> 56	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60
	9	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60
	10	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60	<b>35</b> 60

\*Black Numbers show highest humidity allowed when Default RH% (35%) is Selected.

**Note:** Smaller grey numbers show highest humidity allowed when Maximum RH% (60%) is selected.

## Installer System Test/Checkout

To begin, **press and hold** the ▲ and ▼ buttons until the display changes.



Test number      System status

Press ▲ / ▼ to turn system on/off.  
 Press **NEXT** to advance to next test.  
 Press **DONE** to terminate system test.

Function Number	Setting	
	Number	Description
<b>10</b> System Test	<b>0</b>	<b>OFF</b>
	1	ON
<b>20</b> View Outdoor Temperature	Shows Outdoor Temperature	

**NOTE:** Most humidifiers require airflow in the system to operate. Make sure to turn on the system fan when testing humidifier operation.

## H6062 Specifications

### Humidity Ranges:

Humidify:

- Default: 10% to 60%
- Total Range Available: 10% to 90%

### Operating Ambient Temperature

- 32° to 120°F (0° to 48.9°C)

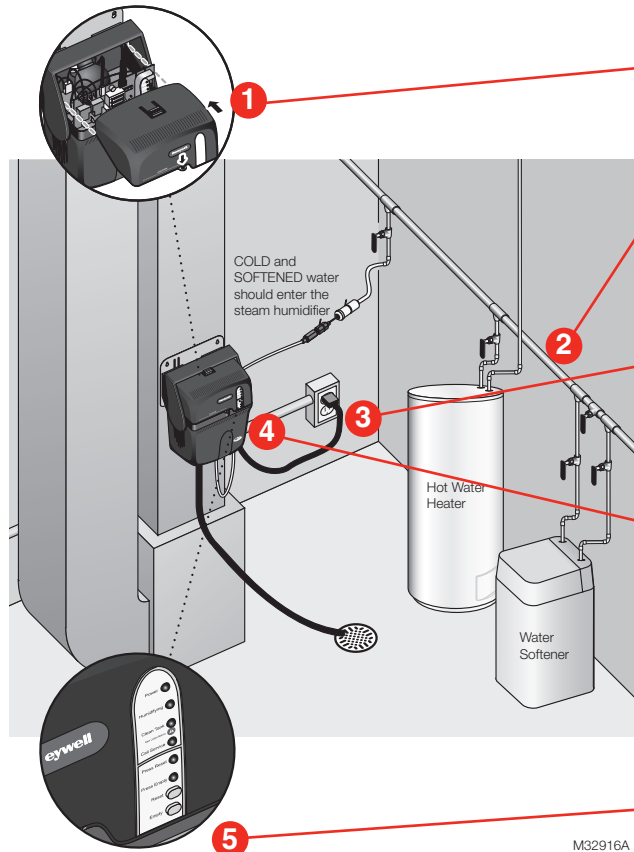
### Operating Relative Humidity

- 5% to 90% (non-condensing)

WIRING

# Startup and Checkout

When installation is complete, plug steam humidifier in and turn the humidity control on. Make sure it is running properly before turning the system over to the homeowner. Once steam humidifier is running, day-to-day operation is hands-free, except for occasional cleaning. The homeowner can use the control to adjust the humidity setpoint, adjust the frost setting (if used), or turn steam humidifier off as desired.



Slide the cover into place and secure with the cover screw.

Turn on the water supply at all valves. Cold water will flow to the steam humidifier but will not fill the tank until the unit is turned on and a call for humidity is made.

Plug in the steam humidifier power cord.

- The Power light will turn on, indicating that steam humidifier has power.

Set the humidity control (humidistat or thermostat) to call for humidity.

- The Humidifying light will start blinking. This means steam humidifier is in Stand-by.

Press/release the Go button to prepare steam humidifier for use. Steam humidifier will automatically restart if the Go button is not pressed after 5 minutes.

- The tank will fill with cold water and the humidifier light will be blinking. Water flow stops automatically when the tank is full.
- The humidifying light will stay on constantly when the steam humidifier is heating water for steam production.

Wait until steam humidifier produces steam, then check the following:

- Make sure air is blowing from furnace. Typically, the blower turns on 10 –15 minutes after the call for humidity if steam humidifier is controlling the fan.
- Check all water line connections to ensure there are no leaks before leaving the job site.
- Turn the setpoint to the desired humidity level when testing is complete. If humidity is not needed, set the control to Off.

# Routine Maintenance

Steam humidifier automatically flushes the tank throughout the humidifying season. This lowers the water hardness concentrated in the tank, and slows the accumulation of solid minerals.

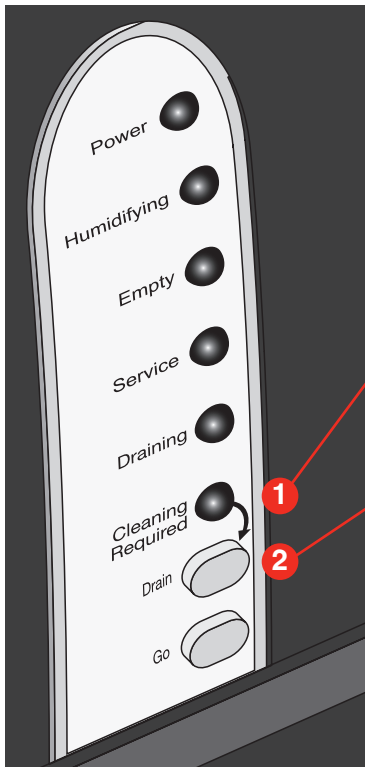
## Automatic Cleaning Cycle

- The automatic cleaning cycle takes about 45 minutes. During this time, steam humidifier will not produce any steam.
- Cold water will enter the tank to lower water temperature below 140°F (60°C) before draining.
- At the end of the cycle, steam humidifier refills the tank with fresh water and automatically returns to normal operation.

## Manual Cleaning Cycle

Honeywell recommends that steam humidifier be manually cleaned and the water filter be changed at least once each humidification season. The manual cleaning is necessary to remove solid mineral deposits left behind during operation.

### STEP ONE: Initiate a Flush Cycle



M29628A

Solid material deposits in the tank are normal. The homeowner should expect to see some buildup in the tank and on the heating element.

- When the Cleaning Required light is on, manual cleaning is needed. Steam humidifier will still operate as normal while this light is on.
- Before removing the steam humidifier tank, it must be completely drained.

To begin draining the tank, press and hold the Drain button until the Draining light blinks.

### Manual Drain Procedure

Press and hold the Drain and Go buttons simultaneously to interrupt the water cooling cycle and immediately drain the tank.



### CAUTION: Burn and Scalding Hazard.

Use extreme caution when using the manual drain procedure. The water exiting the Steam Humidifier may be as hot as 212°F. Make sure the drain outlet can handle up to 212°F (100°C), or wait at least 45 minutes to allow the water to cool before using this feature.



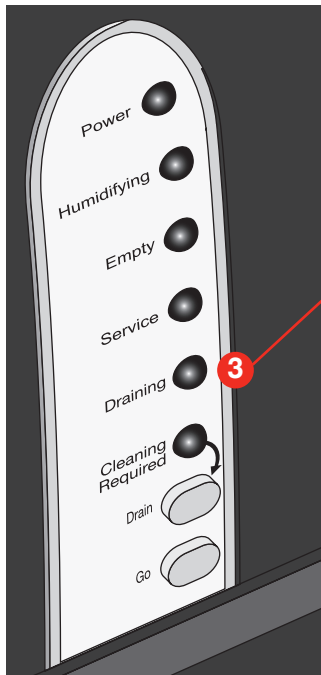
## BEST PRACTICE

Perform all cleaning steps at least once per humidification season.



### CAUTION: Scalding hazard.

- If you override the cooling action of the flush cycle, the tank will empty immediately, regardless of water temperature. Make sure the drain can handle up to 212°F (100°C) if you do this.
- During manual drain, initial water temperature may be above 140°F (60°C). Scalding water could splash out of the drain. Use caution when pressing the Drain button.



M29628A

The cleaning flush cycle is initiated when the Draining light begins blinking. The cycle will take about 45 minutes to complete. It will take longer if using RO filters.



M29629A

When the Empty light is on, the tank is empty. The tank may now be removed for cleaning or other service.

Be sure to disconnect the steam humidifier from power before beginning the cleaning procedure

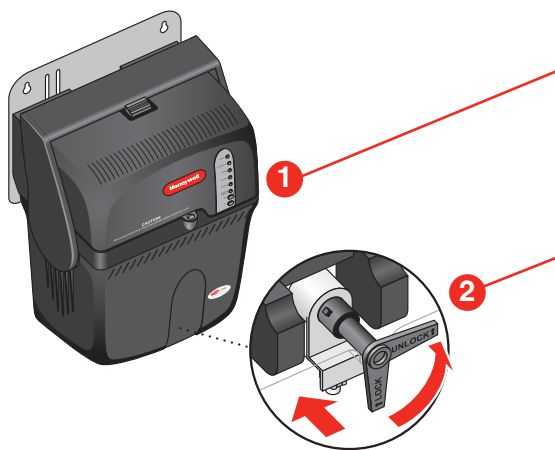




**CAUTION: Scalding hazard.**

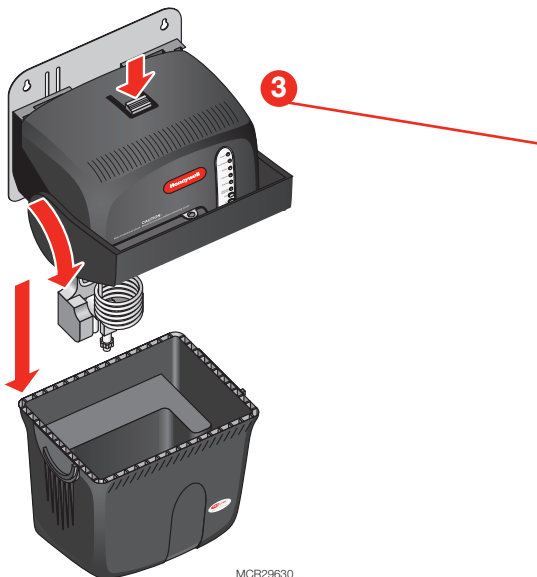
Do not attempt to remove steam humidifier from the mounting bracket during operation or when the tank is full of water. The heating element could be hot when tank is removed. Failure to comply could result in severe scalding.

**STEP TWO: Remove the Water Tank**



Make sure the tank is empty. The Empty light turns on when it is. **Note: There may be a small amount of hot water left in the tank after a drain cycle.**

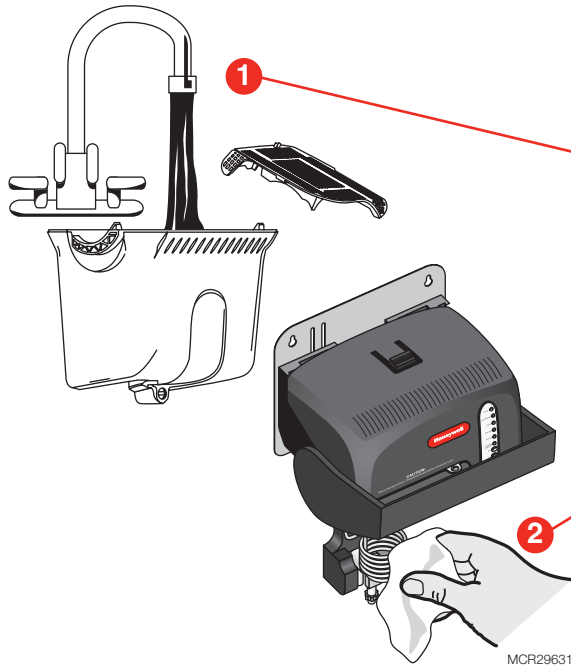
Turn the manual shutoff valve to the “Unlock” position. Grip the white water valve arm and slide it back to disengage from the tank’s black spool.



Grip the tank bottom firmly. Push down the safety release button and pull the latch forward to release the tank.

**Note: The latch remains attached to steam humidifier and is not removed with the tank.**

### STEP THREE: Clean the Tank



- Use tap water to flush loose minerals from the tank:
- Sediment screen at tank's bottom is removable.
  - For a more thorough cleaning, soak tank in water with CLR®, LimeAway® or white vinegar. Then rinse clean.
  - Tank is dishwasher safe.
  - Do not use hydrocarbon-based cleaners.

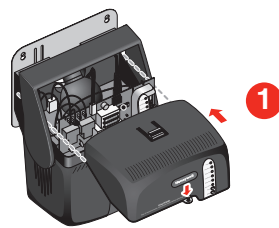
Unplug the power cord and carefully rub minerals off of the heating element and tank walls. Clear the sensor compartment holes of debris, if present.

### STEP FOUR: Replace the Water Level Sensor (if necessary)

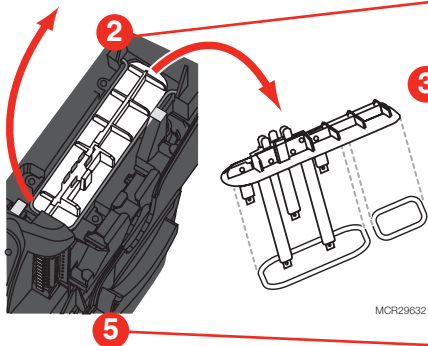


#### WARNING: Electrocution Hazard.

Steam Humidifier must be unplugged before removing the cover. Hazardous voltage could cause death or serious injury.



Remove Steam Humidifier cover and inspect water level sensor. If debris buildup is present, clean with recommended cleaning agent. If cracks or visible discoloration is noticed, replace sensor (see below).



Remove T-30 Torx screw and lift clamp.

Remove the sensor.

Ensure sensor gaskets are seated properly and are in good condition (no cracks). If cracks are noticed, replace water sensor assembly (including gaskets).

Install a new sensor if excessive mineral deposits are present, or if gaskets are in poor condition. See "Parts List" on page 67.

# Water Level Sensor Troubleshooting Steps



## **WARNING: Electrocutation Hazard.**

This test should be done when current is not present on pins. Always unplug the humidifier before testing.

### **Test Setup**

- Remove and drain the tank. The tank must be empty.
- Remove the connector from the water level sensor.

### **Test Pins**

Test is done in 5 pins as shown in the figure below.

### **Testing for Shorts**

- Use an OHM METER and set it to the highest setting.
- Place the OHM METER PROBES on top of sensor probes.
- Measure the resistance between the following locations:

Between P1 and P3

Between P1 and P4

Between P2 and P4

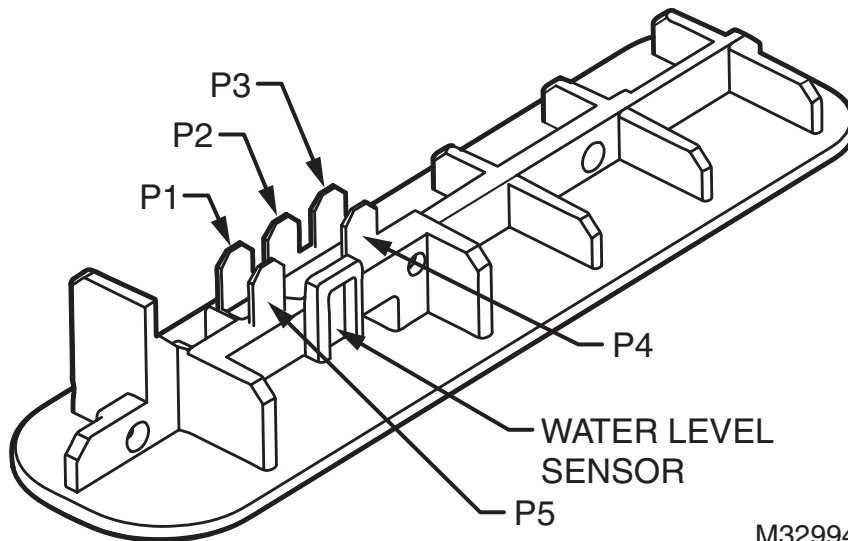
Between P4 and P5

### **Good Water Sensor**

The water sensor is good if all pins show an open-circuit reading (infinite OHMs).

### **Bad Water Sensor**

The water sensor is bad if any pins show Ohms reading. This water sensor should be replaced.



M32994

## STEP FIVE: Reinstall the Tank



Before reinstalling the tank and cover, perform these checks:

- Clear any dust from the ventilation holes in the cover.
- Clear any debris from the water drain tube.
- Make sure the water tank gasket seal is seated properly in the steam humidifier base. Make sure the gasket is in good condition (no cracks or tears) before attaching the tank.

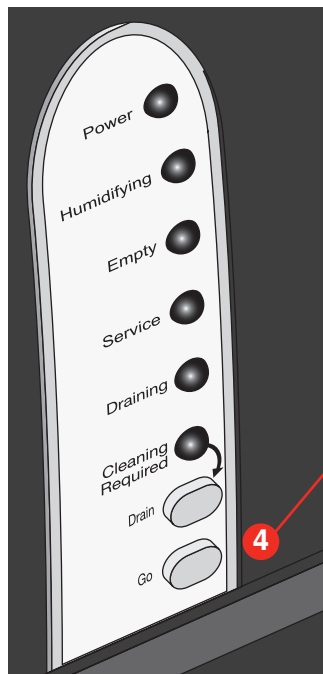
Attach tank by securing the latch. If the handle turns hard, recheck alignment.

Turn the shutoff valve to the lock position. Make sure the spool is fully seated in the valve, with the spool tab aligned with the groove in the valve. Plug in the power cord.

If the control is calling for humidity, the humidifying light will blink at startup. Steam humidifier waits 5 minutes to complete the tank reconnection before acting on this call.

Check that steam humidifier is still mounted level and is securely in place on the mounting bracket.

Press the Go button once the tank is completely reconnected. This will ready the steam humidifier to act on a call for humidity.



# Troubleshooting

Steam Humidifier has internal system diagnostics that monitor operation, maintenance schedules, and faults. If a system fault is detected, Steam Humidifier will attempt to recover up to five times in a 24-hour period.

- If Steam Humidifier is unable to recover by itself within 24 hours, the red Service light blinks in a series that indicates the fault detected.
- Refer to the table below for the fault indicated, along with the steps to fix Steam Humidifier.
- Press and hold the Go button until the Service light turns off.

No. of Service LED Blinks	Fault Description	Auto-Recoverable?	Steps to Fix (Performed Only By Professional HVAC Technician)
1	Water Heater temperature sensor is out of range.	Yes, steam humidifier will reset if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Unplug steam humidifier &amp; remove cover</li> <li>2. Check Water sensor connection to board. Remove and plug back in.</li> <li>3. Press the Go button.</li> <li>4. If fault returns, replace steam humidifier</li> </ol>
2	Water sensors failed.	Yes, steam humidifier will reset if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Unplug steam humidifier and remove cover.</li> <li>2. Disconnect water level sensor wiring.</li> <li>3. Ohm out water sensor</li> <li>4. Readings between P1 &amp; P3, P1 &amp; P4, P2 &amp; P4 and P4 &amp; P5 should all show infinite resistance. If they do not replace the sensor.</li> </ol>
3	Failure to fill tank with water.	Yes, system will return to "Ready" if fault no longer exists in three hours.	<ol style="list-style-type: none"> <li>1. Ensure inlet water is on.</li> <li>2. Check for voltage on the fill terminals for the solenoid valve (should be approx. 120vac)</li> <li>3. Check for leaks around the tank seal and solenoid.</li> <li>4. If using an RO filter make sure the flush timer is set for 30 hours</li> <li>5. If using an RO filter, follow troubleshooting information as outlined in RO install guide.</li> <li>6. If not using an RO filter, turn off water supply and replace any in line water filter.</li> <li>7. Press and hold the go button until res Service light turns off.</li> <li>8. If tank still fails to fill, press the Drain button.</li> <li>9. If tank fails to drain, unplug steam humidifier (and make sure water in tank is cool before proceeding).</li> <li>10. Follow the tank cleaning steps.</li> <li>11. Ensure you have a firm grip on the tank before releasing the tank, especially if water is present.</li> <li>12. Clear any excess debris from the tank's bottom orifice to the solenoid.</li> <li>13. Reassemble tank and plug steam humidifier back in. Press the button to reset. If water still fails to fill into the tank, replace the solenoid valve</li> </ol>

No. of Service LED Blinks	Fault Description	Auto-Recoverable?	Steps to Fix (Performed Only By Professional HVAC Technician)
4	Heating element overheated.	No	<p><b>If this is a new install:</b></p> <ol style="list-style-type: none"> <li>1. Reset the error code and power cycle the unit.</li> <li>2. If the error code comes back, replace the unit.</li> </ol> <p><b>If this is NOT a new install:</b></p> <ol style="list-style-type: none"> <li>1. Troubleshoot the water sensor</li> <li>2. If troubleshooting indicates a sensor issue, replace the sensor.</li> <li>3. If that does not resolve the issue the entire unit will need to be replaced.</li> </ol>
5	Input voltage insufficient.	Yes, system will return to "Ready" if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Verify the electrical circuit is not overloaded.</li> <li>2. Unplug and replug steam humidifier in to see if the fault returns.</li> <li>3. If the fault returns, unplug steam humidifier and remove cover.</li> <li>4. Ensure wiring connections are secure and attached.</li> <li>5. If the fault returns, replace steam humidifier.</li> </ol>
6	Water overflow sensed.	Yes, system will return to "Ready" if fault no longer exists in one hour.	<p><b>Overflow error code is usually caused by one of three things:</b></p> <ol style="list-style-type: none"> <li>1. Back pressure on the nozzle or remote hose.</li> <li>2. Back pressure on the drain tube.</li> <li>3. Low/High level probe corrosion</li> </ol>

**Ensure that static duct pressure is not above .5" wc.**

**If this is a remote install:**

1. Make sure the remote hose has a minimum rise of 2" per foot, straight downhill pitch, since even any bend can contribute to back pressure.
2. Ensure that remote hose rises 6" from the steam humidifier before it angles to the remote mount location.
3. Ensure that the remote nozzle is not pointing in to the airflow.


**Drain Tube:**

1. Ensure drain hose has a steady downhill pitch with no flat or uphill areas.
2. Ensure drain hose is not kinked or submerged in water at the drain.
3. Check functionality of condensate pump, if used.

**If the above does not resolve the issue:**

1. Unplug steam humidifier.
2. Loosen cover screw and remove cover.
3. Remove water sensor assembly.
4. Clean sensor probe assembly. May use wire brush to clean metal for water level reading.
5. Press button to reset unit.

No. of Service LED Blinks	Fault Description	Auto-Recoverable?	Steps to Fix (Performed Only By Professional HVAC Technician)
7	HVAC power not present.	Yes, system will return to "Ready" if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Ensure HVAC equipment has power.</li> <li>2. Check circuit breaker or replace fuse if circuit is tripped.</li> <li>3. Unplug steam humidifier and remove cover. Check DIP 4 position and verify correct wiring based on DIP 4 position. Check install guide section on Power monitoring Information.</li> <li>4. Plug in steam humidifier and press the Go button.</li> </ol> <p>If the fault reappears, ensure the circuit being used has the rating to support the steam humidifier. Unplug any additional equipment plugged into this circuit. If fault disappears, the circuit capacity is not properly sized to your unit.</p> <p>If the fault returns, replace steam humidifier.</p>
8	The weld monitor input is active when the heater relay is off.	No	<ol style="list-style-type: none"> <li>1. Press and hold the Go button to clear the fault.</li> <li>2. Initiate a humidity call.</li> <li>3. If the fault returns, replace steam humidifier.</li> </ol>
10	The heater relay failed to turn on.	No	<ol style="list-style-type: none"> <li>1. Check for voltage on the heater terminals/leads. There should be 120VAC with a call for humidity and water in tank.</li> <li>2. If there is not, press the Go button to clear the fault.</li> <li>3. Initiate a call for humidity</li> <li>4. If the fault returns, replace steam humidifier</li> </ol>
12	Temperature of the electronic circuit board is too high.	Yes, system will return to "Ready" if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Make sure ventilation holes in the cover are clear of obstruction. Make sure 1 foot of clearance is maintained around the cover's vent holes.</li> <li>2. Ensure steam humidifier is installed in a location with conditioned air 34°F to 104°F (1.1°C to 40°C).</li> <li>3. Turn humidistat off and allow time for electronic board to cool. This could take up to 2 hours.</li> <li>4. Turn humidistat on and press the Go button to reset.</li> <li>5. Confirm humidity call starts by checking if Humidifying light is on.</li> <li>6. Allow steam humidifier to run. Check for steam leaks around tank and ventilation holes.</li> <li>7. If the fault returns, replace steam humidifier.</li> </ol>

No. of Service LED Blinks	Fault Description	Auto-Recoverable?	Steps to Fix (Performed Only By Professional HVAC Technician)
13	Tank failed to drain.	No	 <b>CAUTION: Water in tank may be hot (&gt;140°F [60°C]).</b> <ol style="list-style-type: none"> <li>1. Press the Drain button.</li> <li>2. If tank fails to drain, turn humidistat/thermostat off and wait for water in tank to cool.</li> <li>3. Ensure tank water is cool. Once it is, follow tank cleaning steps under “Manual Cleaning Cycle” in manual.</li> <li>4. Ensure drain tube is not pinched, clogged or blocked</li> <li>5. Reassemble tank, reinstall tank and press “GO” button to reset.</li> <li>6. If tank fault persists, replace solenoid valve. (#50027997-001)</li> </ol>
14	Heater failed to boil water.	Yes, system will return to “Ready” if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Follow the tank cleaning steps. “Manual Cleaning Cycle”</li> <li>2. Ensure entire tank, heating element and reservoir area are clean.</li> <li>3. Reassemble &amp; reinstall tank</li> <li>4. Press GO button to reset.</li> <li>5. Ensure that there is 120 Vac at heating element terminals.</li> <li>6. If fault returns, replace the steam humidifier</li> </ol>
15	No airflow sensed in supply duct.	Yes, system will return to “Ready” if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Ensure optional add-on air proving device is installed and wired correctly.</li> <li>2. Unplug steam humidifier, and remove cover.</li> <li>3. Ensure DIP switches are set correctly. (DIP 4 down, DIP 5 up.)</li> <li>4. Reconnect cover and plug in steam humidifier.</li> <li>5. Press and hold the Go button to clear the fault.</li> <li>6. Check location of AF switch; new corners have less sensitivity.</li> <li>7. Measure and verify 24V on R &amp; C. If the fault persists, replace the air proving device being used.</li> </ol>
17	Power to the wireless adapter overloaded.	Yes, system will return to “Ready” if fault no longer exists in one hour.	<ol style="list-style-type: none"> <li>1. Verify wiring between steam humidifier and the wireless adapter.</li> <li>2. Ensure DIP switches are set correctly. (DIP 3 up. Also DIP 4 up if steam humidifier R and C aren’t wired.)</li> <li>3. If the fault persists, replace the wireless adapter.</li> </ol>
18	Wireless communication from wireless adapter failed.	Yes, system will return to “Ready” after one minute.	<ol style="list-style-type: none"> <li>1. Verify wiring between steam humidifier and the wireless adapter.</li> <li>2. Verify the Prestige control is operating correctly.</li> <li>3. If the fault persists, replace wireless adapter and re-enroll connection to Prestige.</li> </ol>
Cleaning Required light is on.	Tank was slow to drain during last automatic flush cycle or 12-month cleaning interval time has expired.	N/A	Follow the tank cleaning steps. See “Manual Cleaning Cycle” on page 45.



# A: Specifications

## Humidifying Capacity

HM609: up to 9 gpd (34 lpd)

HM612: up to 12 gpd (45 lpd)

## Humidified Area

HM609: 8,000–18,400 cubic feet

HM612: 12,000–24,000 cubic feet

Note: Higher volumes require more steam humidifier run time.

## Weight

	Empty	Filled with Water
HM609:	8 lbs.	15 lbs.
HM612:	9 lbs.	15 lbs.

## Dimensions

11-1/4 in. W x 19 in. H x 9 in. D

## Operating Temperature Range

- Steam Humidifier: 34°F–104°F (1.1°C–40°C)
- Remote Hose/Nozzle: -50°F–250°F (-46°C–121°C)
- Operating Humidity Range: 0–95% RH, non-condensing

## Drain Operation

- Automatic Flush Schedule: Configurable to 8, 12, 20, or 30 hours of operational time (heating element active)
- Automatic Flush Cycle Time: Flush cycle takes approximately 45 minutes to empty the tank completely
- Draining Temperature Range: 34°F–212°F (1.1°C–100°C)

## Electrical Ratings and Tolerances

### Input Ratings

- Power Supply: 120VAC +10-15%, 60Hz
  - HM609: 1200W at 120VAC at full load
  - HM612: 1440W at 120VAC at full load
- HM609: 10A, 120VAC
- HM612: 12A, 120VAC
- 15A, 120VAC interlock switch
- Thermostat/HVAC power monitor (R to C): 10mA resistive at 24VAC
- Field wiring terminals: 18–22 ga. Solid
- HVAC power/airflow monitor: 10 mA resistive at 24 VAC

### Output Ratings

- Relay output contacts:
  - Fan: 1.5A full load, 7.5A locked rotor at 24VAC
  - Heat and backup: 15A resistive at 120VAC
- Fill Solenoid: 0.1A at 120VAC, 0.5 PF
- Drain Solenoid: 0.1A at 120VAC, 0.5PF
- Humidistat output contacts: 10mA resistive at 24VAC
- Humidistat power supply: 100mA at 24VAC

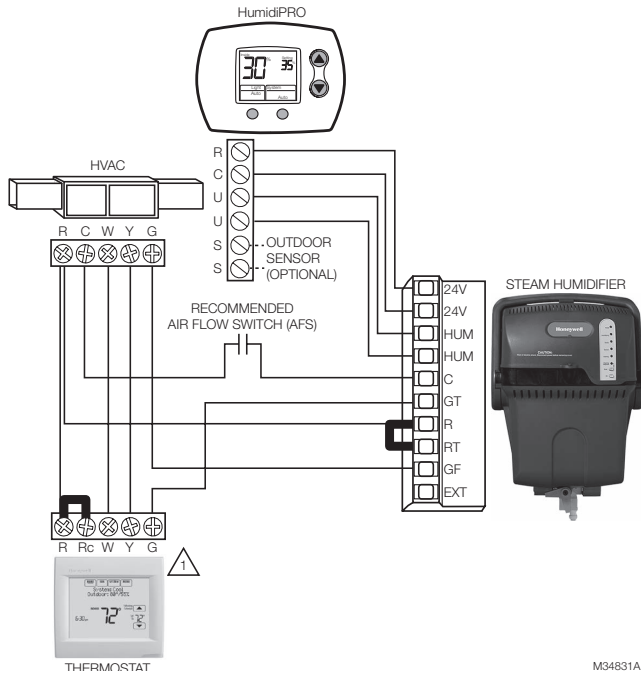
## Standards and Approval Body Requirements

- Underwriters Laboratories: UL998, File no. E185662
- Federal Communications Commission: Class B compliance, File no. YU555
- Intended to be used in accordance with the National Electrical Code (NEC), ANSI/NFPA 70, and the rules of the Canadian Electrical Code (CEC), Part 1, C22.1

# B: Advanced Steam Humidifier Wiring

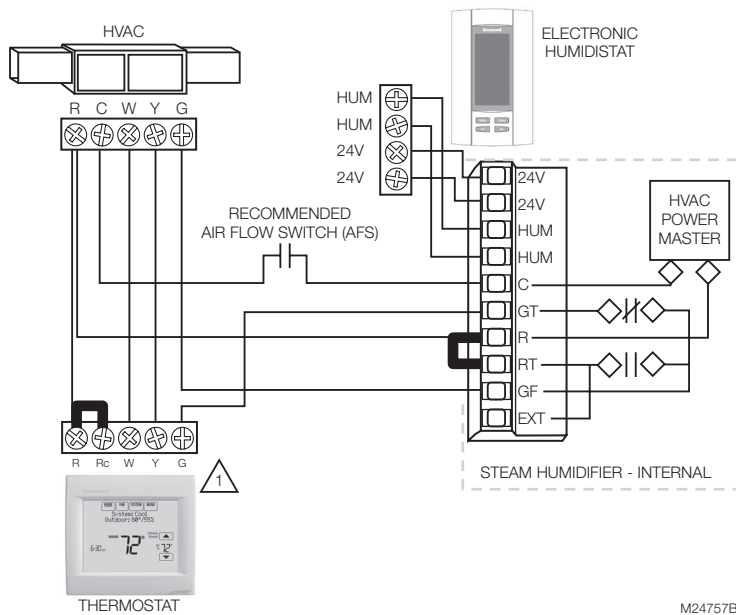
**CAUTION: Voltage Hazard.**  
 Before wiring to HVAC terminals, disconnect HVAC equipment power. Make sure Steam Humidifier is not plugged in.

Follow the diagram for control options 1 through 14 to wire the Steam Humidifier. Refer to the installation manual provided with the control for additional instructions if needed.



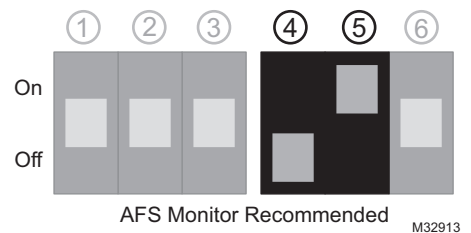
## OPTION 1: Dry-contact Mechanical Humidistat Wiring

- ⚠ Make sure that the thermostat used isolates Y from G. All Honeywell Prestige, VisionPRO IAQ, VisionPRO, and Focus Pro thermostats do this.



## OPTION 2: TrueIAQ Wiring

- ⚠ Make sure that the thermostat used isolates Y from G. All Honeywell Prestige, VisionPRO IAQ, VisionPRO, and Focus Pro thermostats do this.
- For the TrueIAQ Installer Setup, set ISU #25 to 3.

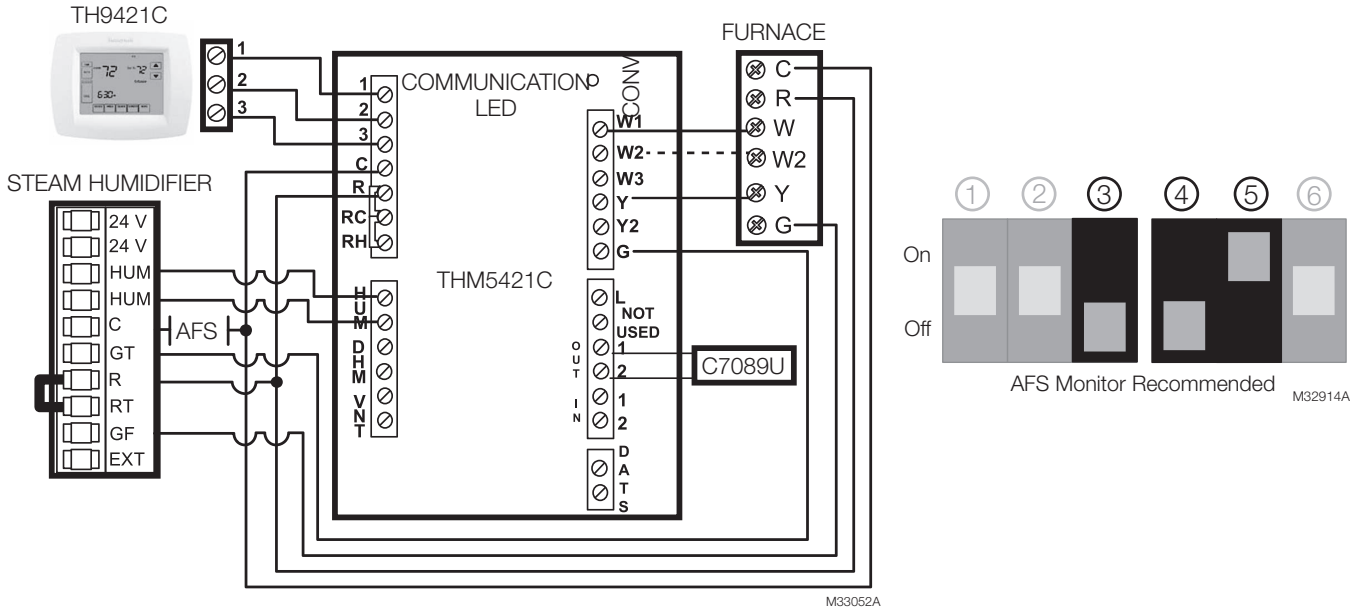


APPENDICES

# B: Advanced Steam Humidifier Wiring

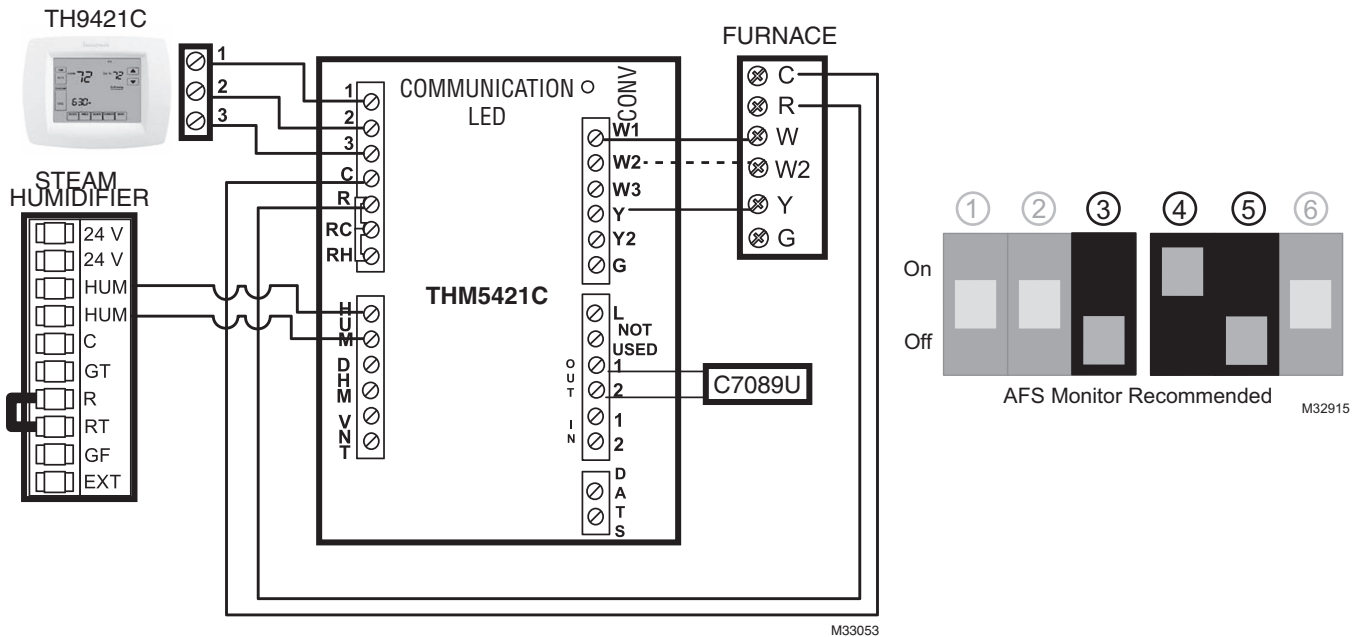
## OPTION 3: VisionPRO IAQ Wiring with Fan Delay

- Follow this diagram if you are using VisionPRO IAQ with Steam Humidifier’s fan-delay feature.
- The system fan will turn on when the water temperature reaches 176°F (80°C).
- Set installer setup #0374 to 3.



## OPTION 4: VisionPRO IAQ without Fan Delay

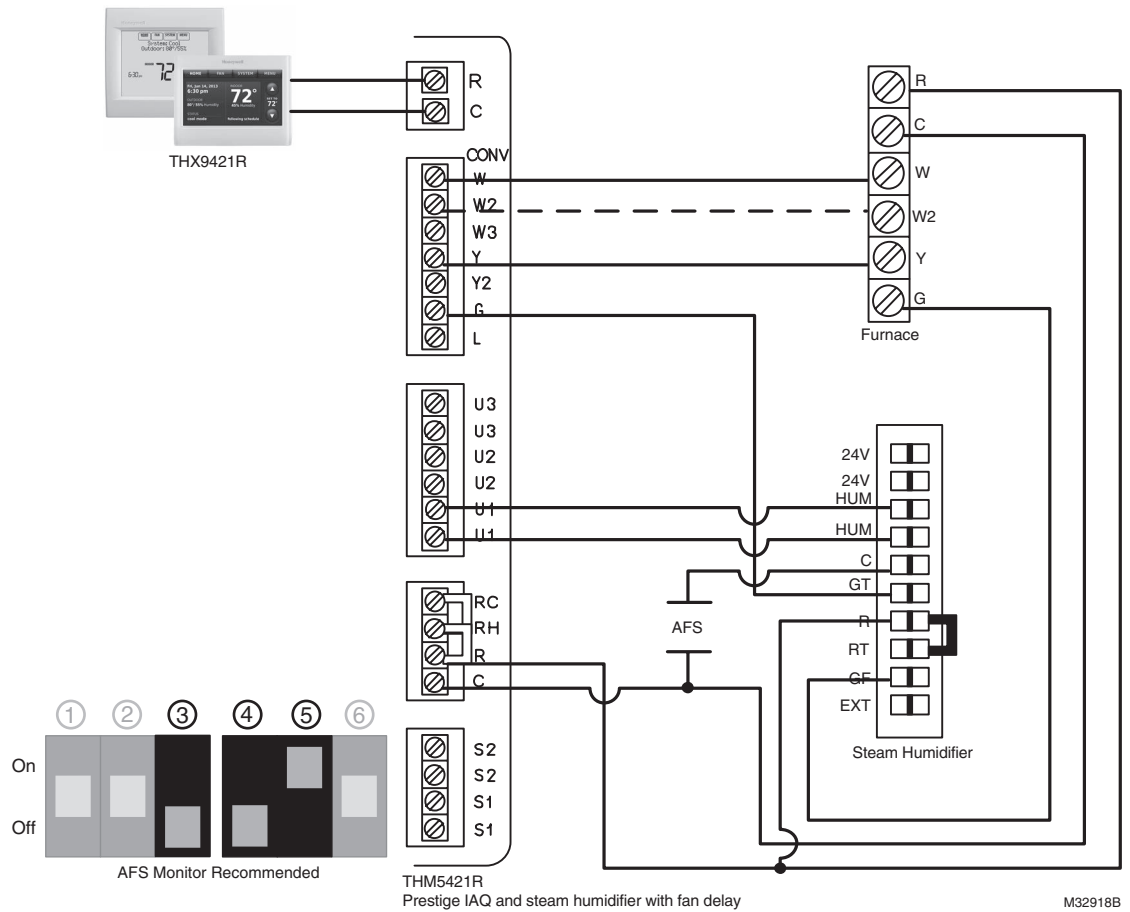
- Follow this diagram if using VisionPRO IAQ to turn system fan on immediately with humidity call.
- Set installer setup #0374 to 1.



## B: Advanced Steam Humidifier Wiring

### OPTION 5: Prestige IAQ with fan delay

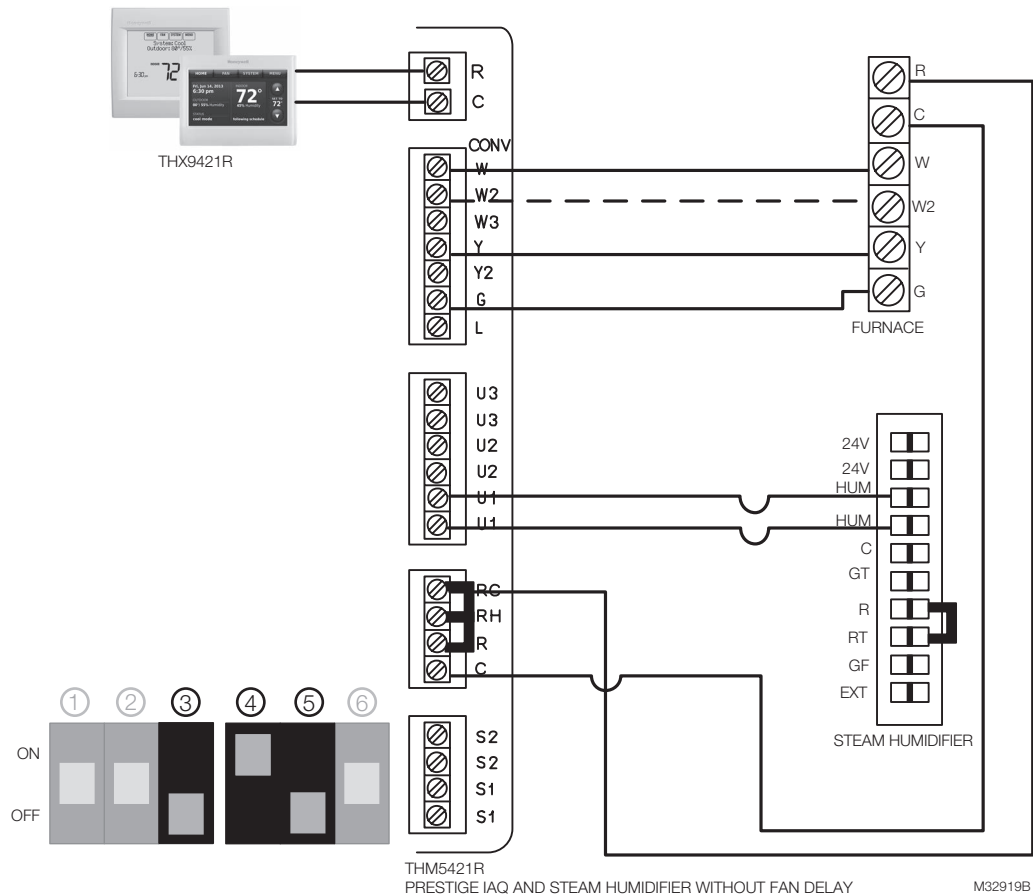
- Follow this diagram if you are using Prestige IAQ with Steam Humidifier's fan-delay feature.
- The system fan will turn on when the water temperature reaches 176°F (80°C).



## B: Advanced Steam Humidifier Wiring

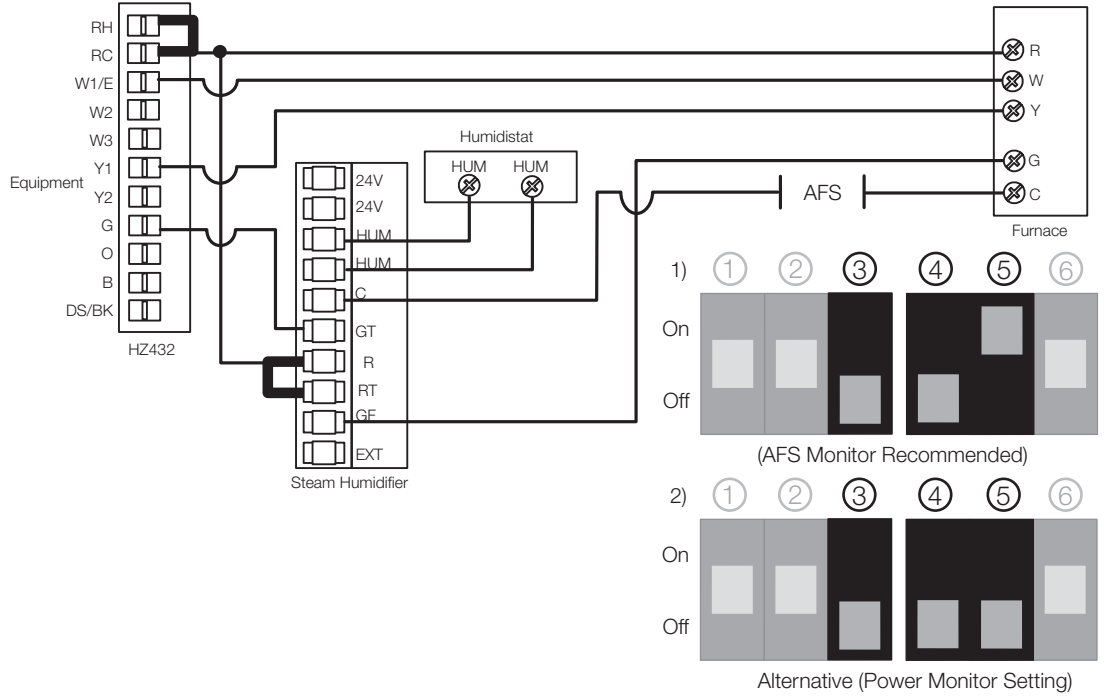
### OPTION 6: Prestige IAQ or All New VisionPRO without fan delay

- Follow this diagram if you are using Prestige IAQ to turn system fan on immediately with humidity call.

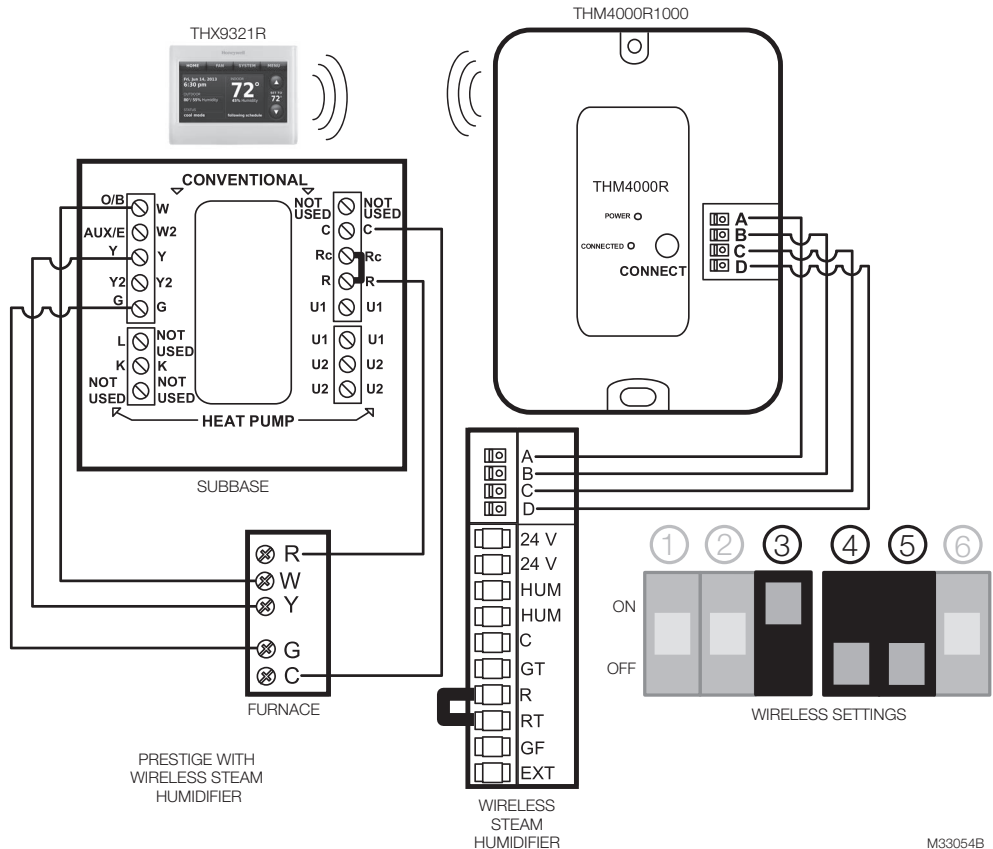


# B: Advanced Steam Humidifier Wiring

## OPTION 7: Wiring Steam Humidifier with zoning

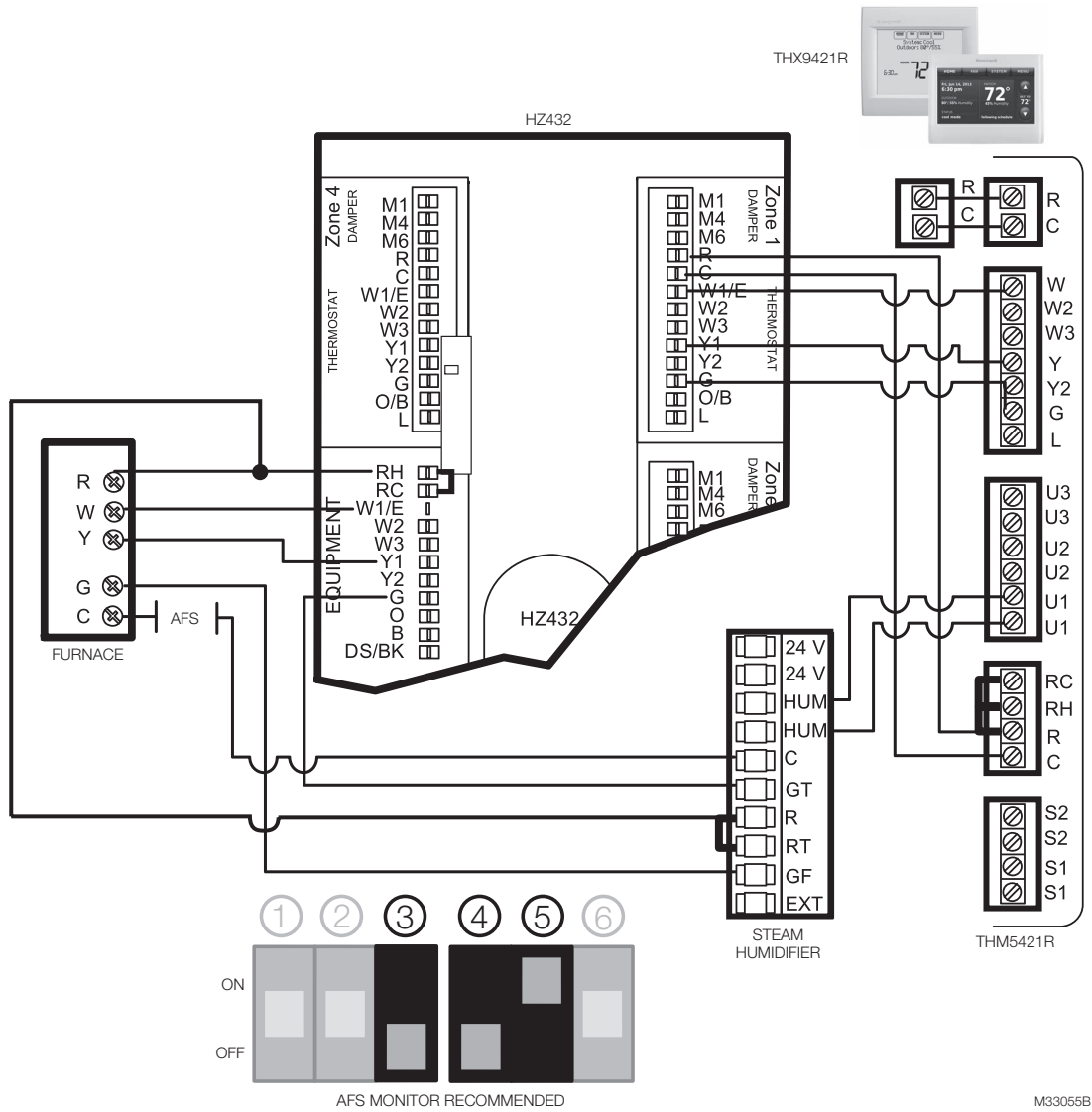


## OPTION 8: Wiring Prestige or All New VisionPRO with wireless Steam Humidifier



# B: Advanced Steam Humidifier Wiring

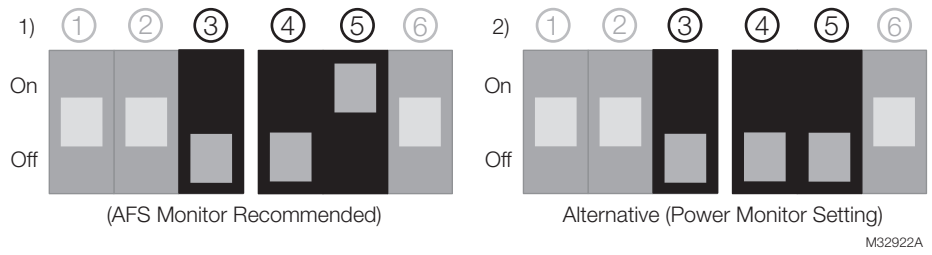
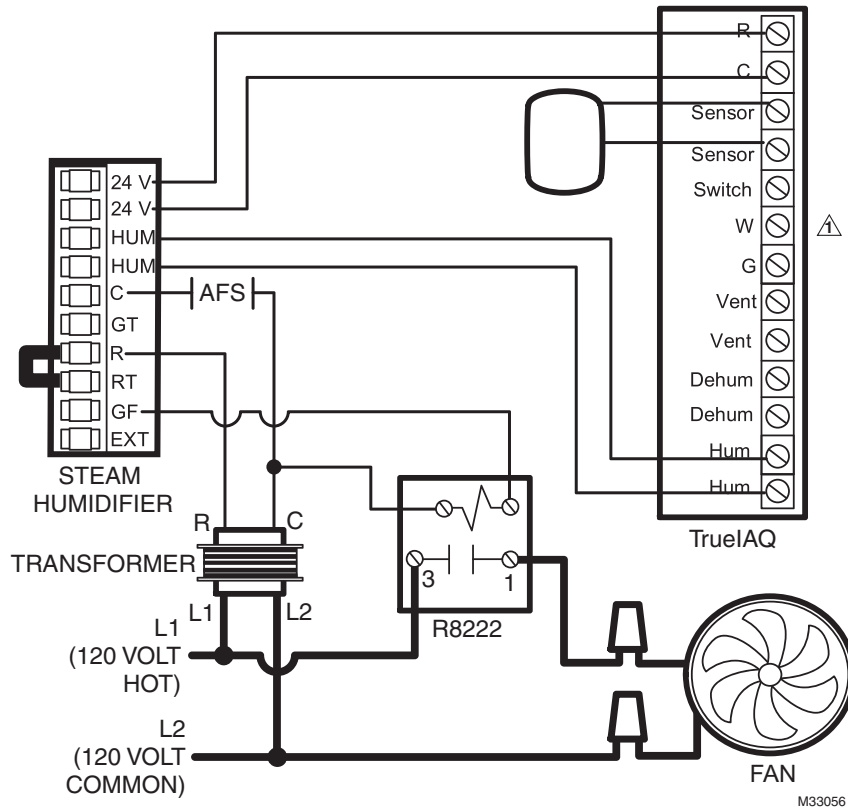
**OPTION 9: Prestige IAQ or All New VisionPRO controlling Steam Humidifier with zoning with fan delay (recommended)**



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# B: Advanced Steam Humidifier Wiring

## OPTION 10: Steam Humidifier wired to a dedicated fan/blower



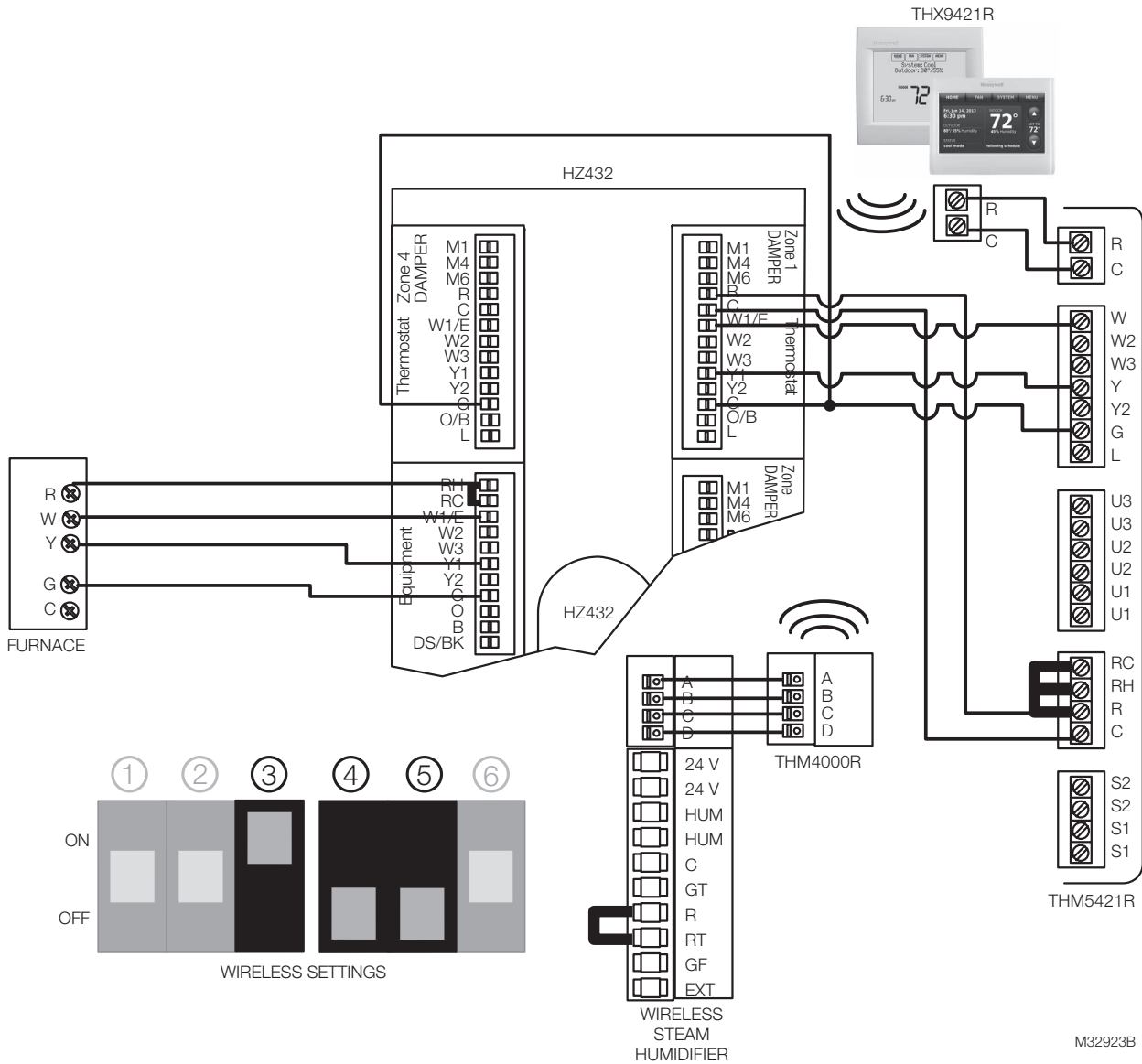
⚠ ISU 25 must be set to 3



# B: Advanced Steam Humidifier Wiring

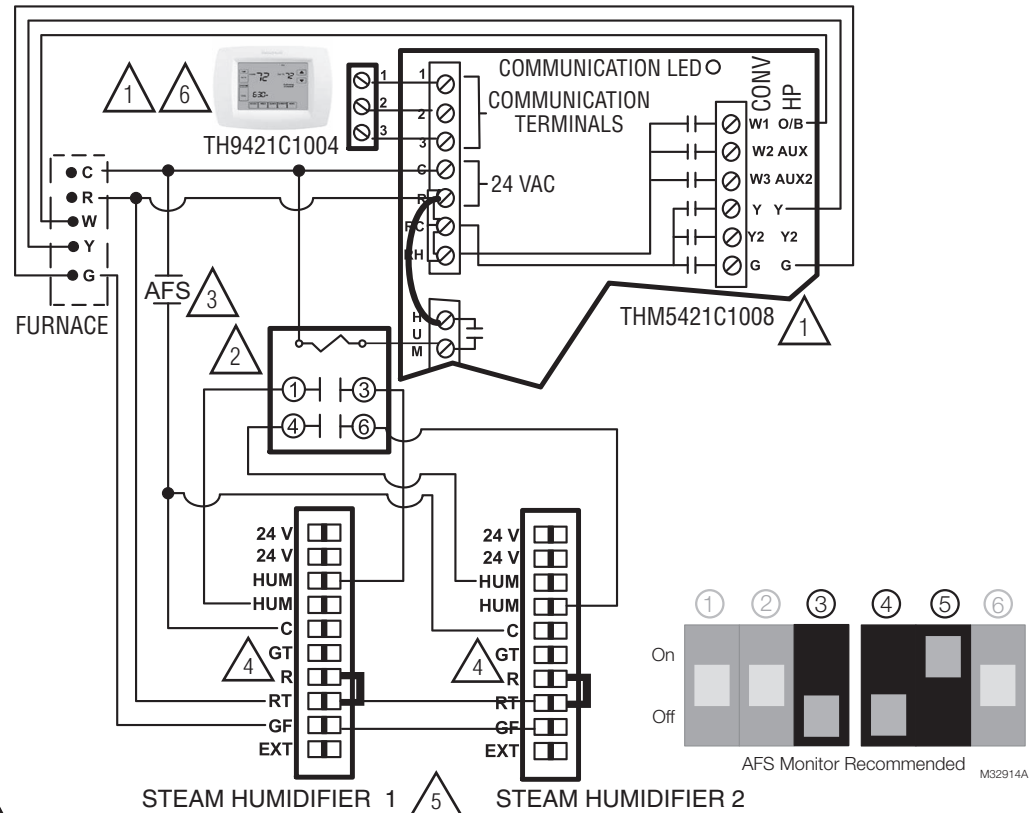
## OPTION 11: Prestige IAQ or All New VisionPRO controlling Redlink wireless Steam Humidifier with zoning

**NOTE:** To get air humidity to all zones in idle mode you would need to jump the G on all zones being used and verify that the thermostat does not have a Y/G interconnect. FocusPro, VisionPro, and Prestige models would work for this application.



## B: Advanced Steam Humidifier Wiring

### OPTION 12: VisionPRO IAQ controlling 2 Steam Humidifiers

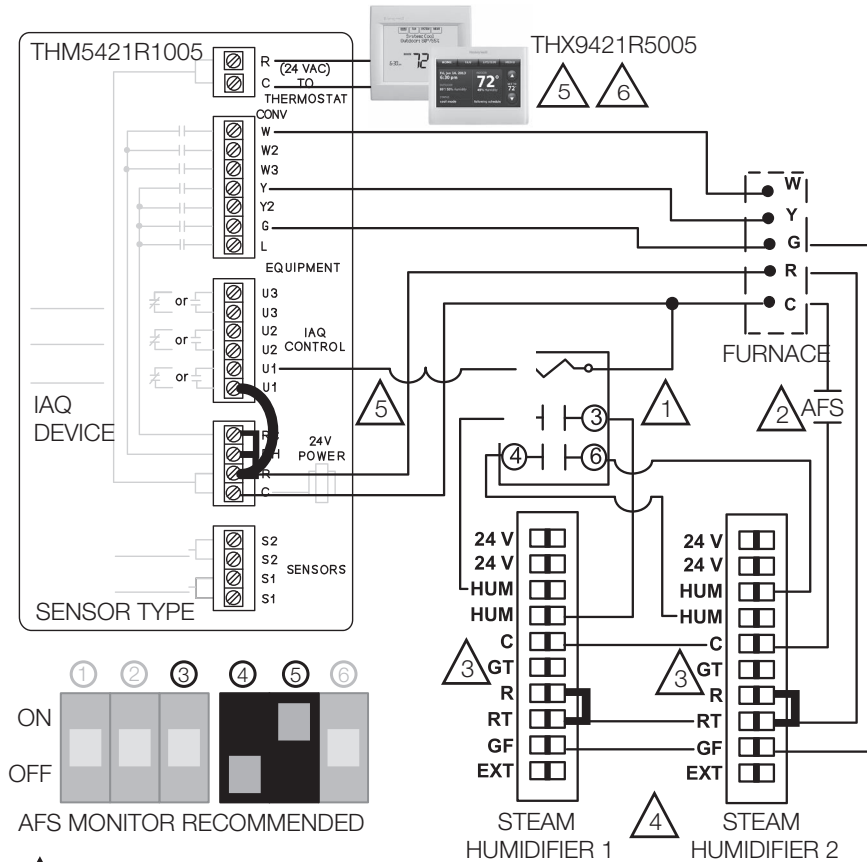


- 1 THE YTH9421C1002 KIT INCLUDES THE TH9421C1004 VISION-PRO IAQ THERMOSTAT AND THE THM5421C1008 EQUIPMENT INTERFACE MODULE. THE TH8320R1003 KIT INCLUDES THE TH942C1004 VISION-PRO IAQ THERMOSTAT, THM5421C1008 EQUIPMENT INTERFACE MODULE, AND C7089U1006 OUTDOOR SENSOR.
- 2 A DOUBLE-POLE RELAY SUCH AS THE R8228D1018 IS REQUIRED.
- 3 AN AIR-FLOW SWITCH IS RECOMMENDED. IF AN AIR FLOW SWITCH IS NOT USED THERE DOES NOT NEED TO BE A WIRE ATTACHED TO C ON THE STEAM HUMIDIFIER AND THE #4 DIP SWITCH NEEDS TO BE SET TO "ON".
- 4 GT IS NOT REQUIRED FOR THIS APPLICATION. SINCE THE VISIONPRO IAQ THERMOSTAT DOES NOT HAVE A Y/G INTERCONNECT, PARALLEL WIRING CAN BE DONE (AS SHOWN).
- 5 HM609 OR HM612 STEAM HUMIDIFIER CAN BE USED.
- 6 CONFIGURE THE THERMOSTAT TO HUMIDIFY INDEPENDENT OF FAN (INSTALLER SETUP 374 SET TO 3).

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# B: Advanced Steam Humidifier Wiring

## OPTION 13: Prestige IAQ controlling 2 Steam Humidifiers

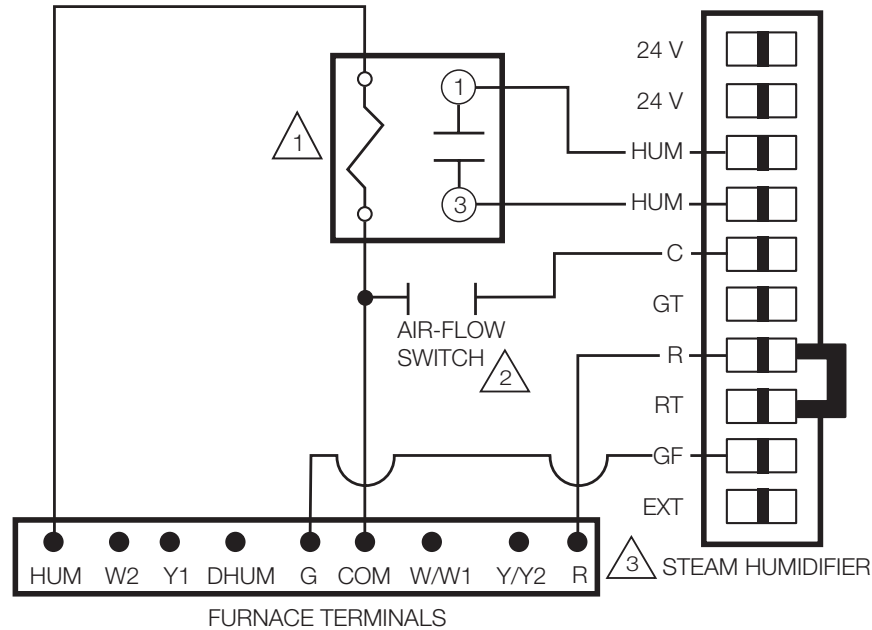


- 1 A DOUBLE-POLE RELAY SUCH AS THE R8228D1018 IS REQUIRED.
- 2 AN AIR-FLOW SWITCH IS RECOMMENDED. IF AN AIR FLOW SWITCH IS NOT USED THERE DOES NOT NEED TO BE A WIRE ATTACHED TO C ON THE STEAM HUMIDIFIER AND THE #4 DIPSWITCH NEEDS TO BE SET TO "ON".
- 3 GT IS NOT REQUIRED FOR THIS APPLICATION. SINCE THE PRESTIGE IAQ THERMOSTAT DOES NOT HAVE A Y/G INTERCONNECT, PARALLEL WIRING CAN BE DONE (AS SHOWN).
- 4 HM609 OR HM612 STEAM HUMIDIFIERS CAN BE USED.
- 5 THE U1, U2, OR U3 CONTACTS CAN BE CONFIGURED TO CONTROL A HUMIDIFIER. IN THIS DIAGRAM THE 1 TERMINALS ARE USED.
- 6 CONFIGURE THE THERMOSTAT TO HUMIDIFY INDEPENDENT OF FAN (INSTALLER SETUP 374 SET TO 3).

M33058B

## B: Advanced Steam Humidifier Wiring

### OPTION 14: Steam Humidifier wired to equipment with powered terminals with Steam Humidifier controlling the fan



#### NOTES:

- 1 YOU MUST ADD A 24VAC ISOLATION RELAY BETWEEN THE STEAM HUMIDIFIER AND THE AIR HANDLER. AN R8222B1067 COULD BE USED.
- 2 THE 50027910-001 AIR-FLOW SWITCH (AFS) IS RECOMMENDED TO ENSURE THERE IS AIR-FLOW WHEN THE HUMIDIFIER IS RUNNING. IF THE AFS IS NOT USED, THE 4 DIPSWITCH MUST BE SET TO THE ON POSITION AT THE HUMIDIFIER (UP).
- 3 INFINITY/EVOLUTION CONFIGURATION
  1. IN SETUP UNDER THE INSTALL/SERVICE MENU:
    - A. SELECT ACCESSORIES AND CHOOSE YES FOR HUMIDIFIER AND SET THE OPTION HUMIDIFY WITH FAN TO YES.
    - B. SELECT FURNACE SETUP. UNDER THE G TERMINAL SET UP, SELECT THE FAN OPTION AND SET THE FAN SPEED TO LOW.

A 24VAC ISOLATION RELAY MUST BE USED BETWEEN THE FURNACE AND THE HUMIDIFIER TO ISOLATE THE TWO TRANSFORMERS. EQUIPMENT DAMAGE WILL OCCUR IF NOT USED.

THE HUMIDIFY WITH FAN OPTION MUST BE SELECTED. THIS WILL ALLOW THE SYSTEM TO CALL FOR HUMIDIFICATION WITHOUT A HEAT CALL.

THE G TERMINAL MUST BE SET TO FAN. THIS WILL ALLOW THE HUMIDIFIER TO CONTINUE TO RUN THE FAN AFTER THE HUMIDIFICATION CALL IS SATISFIED. THE STEAM HUMIDIFIER REQUIRES THE FAN TO CONTINUE TO RUN UNTIL THE WATER TEMPERATURE IN THE RESERVOIR IS COOLED TO 170 DEG TO PREVENT STEAM FROM CONDENSING IN THE DUCTWORK.

THE INFINITY SYSTEM WILL RUN ITS FAN AT LOW SPEED WHEN IT HAS A CALL FOR HUMIDIFICATION WITHOUT A HEATING CALL. THIS AIRFLOW IS 50% OF HEATING OR COOLING AIRFLOW (WHICHEVER IS GREATER). MAKE SURE AIRFLOW SATISFIES ANY MINIMUM REQUIREMENT FOR YOUR STEAM HUMIDIFIER.

FURNACE SET UP IS SHOWN. FAN COIL SET UP WILL BE SIMILAR.

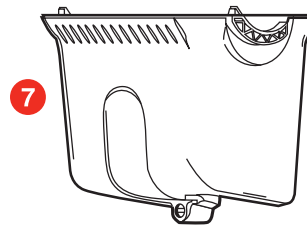
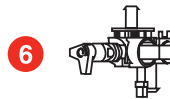
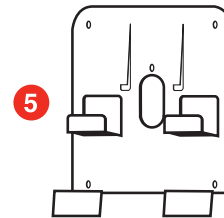
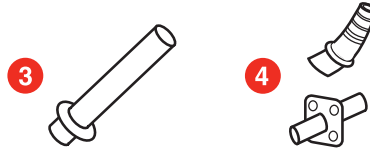
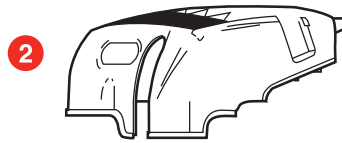
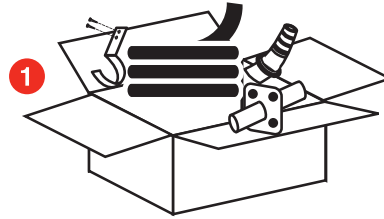


AFS Monitor Recommended

M33044A

# C: Parts List

Figure Reference	Part Number	Part Description
1	50024917-001	Remote Mounting Kit (with 10-foot hose)
1	50024917-002	Remote Mounting Kit (with 20-foot hose)
2	50028004-001	Cover
3	50028003-001	Duct Nozzle
4	50028001-001	Remote Nozzles
5	50020012-001	Mounting Bracket
6	50027997-001	Solenoid Valve
7	50033181-001	9/12 Gallon Tank and Gasket Kit
8	50027998-002	Water Level Sensor Assembly
9	32001616-001	Saddle Valve
10	50027910-001	Differential Pressure Switch for Air Proving
-	50043683-001	Shutoff Valve and Backflow Preventer
-	S866A1007	Sail Switch for Air Proving (optional)
-	H6062A1000	Digital Humidistat
-	HM600XROF1	RO Filter System
-	32005530-001	Ductboard Adapter Kit
-	50046086-001	#1 Sediment Filter and #2 RO Filter
-	50034043-001	Qty. 1 Tank Sediment screen
-	50024921-003	Qty. 1 Steam humidifier handle
-	50032048-002	Qty. 25 Resident Humidifier quick connect adapter
-	50043771-001	Qty. 25 Solenoid valve drain filter
-	32001647-001	Qty. 25 Solenoid valve inlet screen filter
-	50044721-001	Qty. 12 water hardness test kit



MCR29665





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