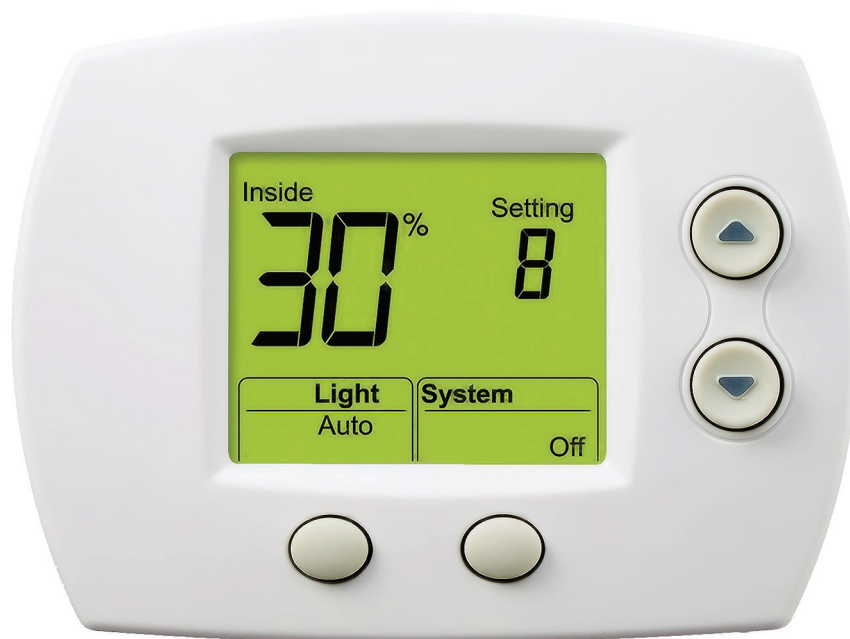


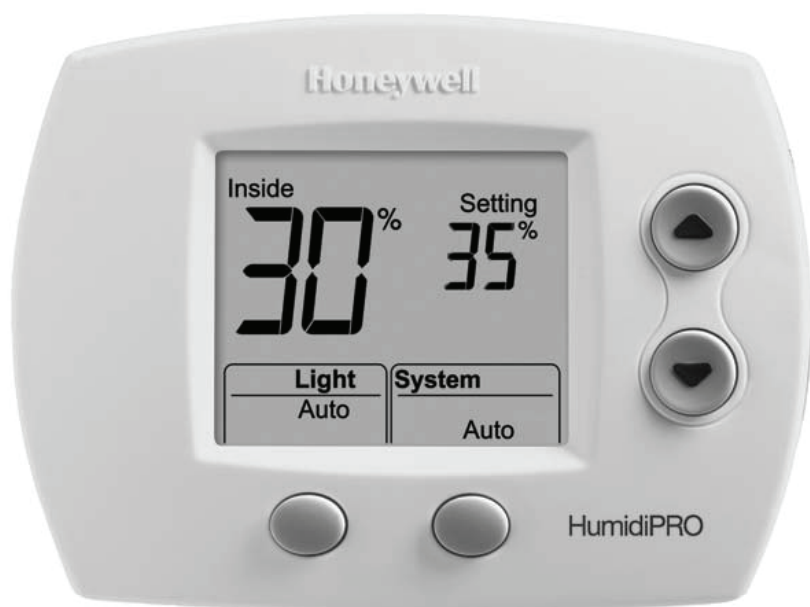
# Humidistats

## Humidity Controls

Digital | Mechanical

IOM Manual





## Installation Instructions

# HumidiPRO H6062 Digital Humidity Control

## When Installing this Product

Read these instructions carefully, failure to follow them could damage the product and cause a hazardous situation.

Check the ratings given in the instructions and on the product to make sure the product is suitable for your application

Installer must be a trained, experienced service technician.

After installation is complete, check out product operation as provided in these instructions.

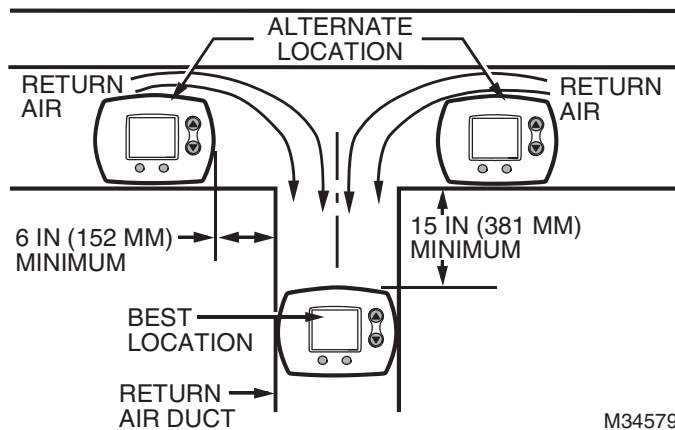
## Cautions

Electrical shock or equipment damage may occur.

Disconnect power supply before beginning installation.

## Duct Installation (recommended) **OR** Remote Mount Installation

1. Choose a location on the **RETURN** duct.

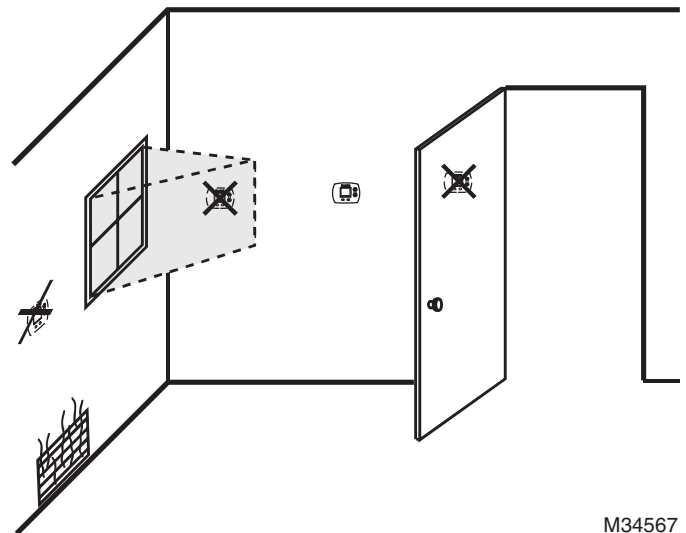


M34579

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

1. Choose a location in the living area.

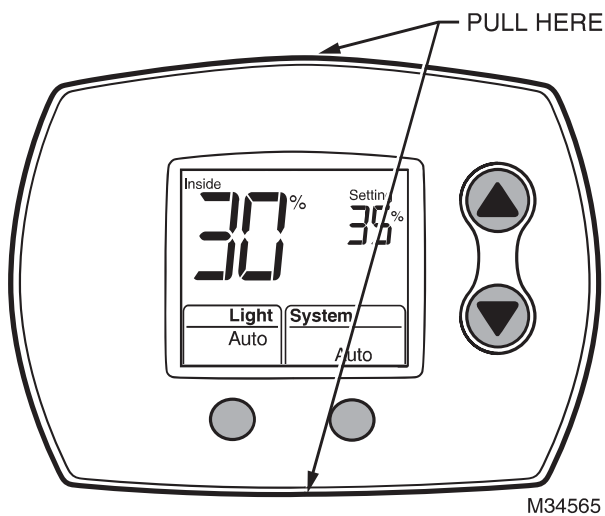
**NOTE:** Select a location clear of drafts or excessive humidity. Avoid mounting near doors or windows, or in bathrooms or kitchens.



M34567

## Duct-Mount Installation

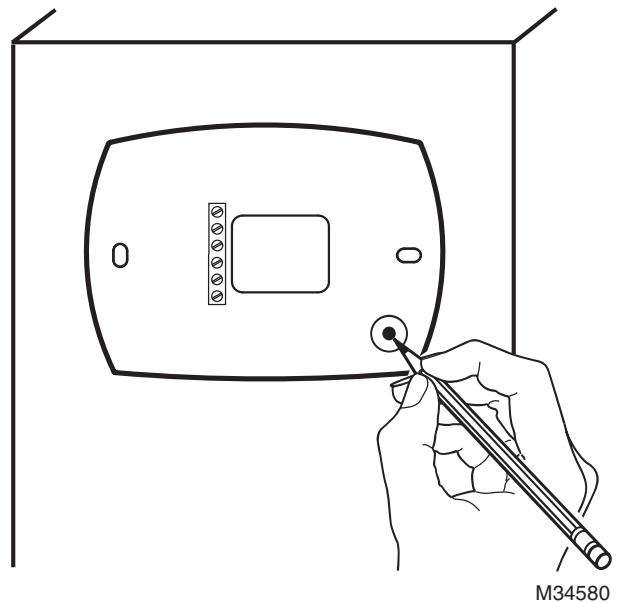
2. Separate wallplate from humidistat.



### Caution: Electrical Hazard

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

3. Mark the duct-tube hole.



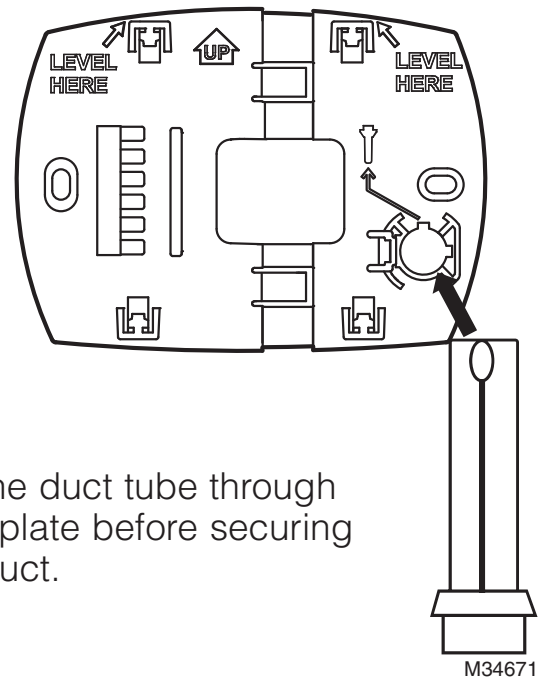
Hold the wallplate up to the desired location on the duct and make a mark inside the duct tube hole.

4. Drill the duct-tube hole.



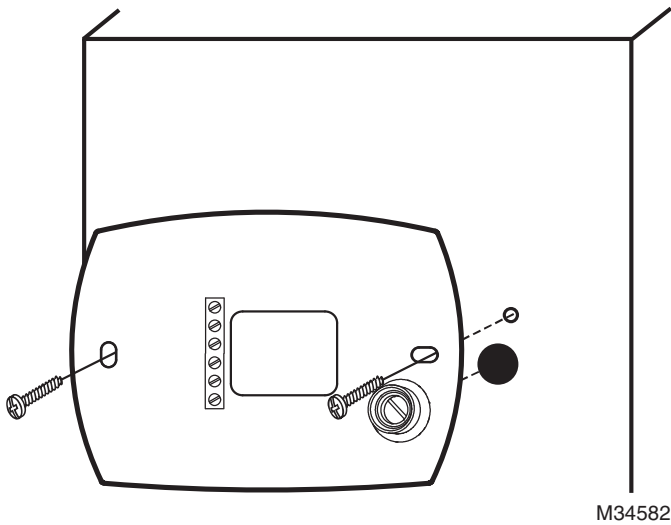
Find your mark and drill a 1/2 in. hole in the duct. This is where the duct tube will be inserted to capture air.

5. Insert the duct tube.



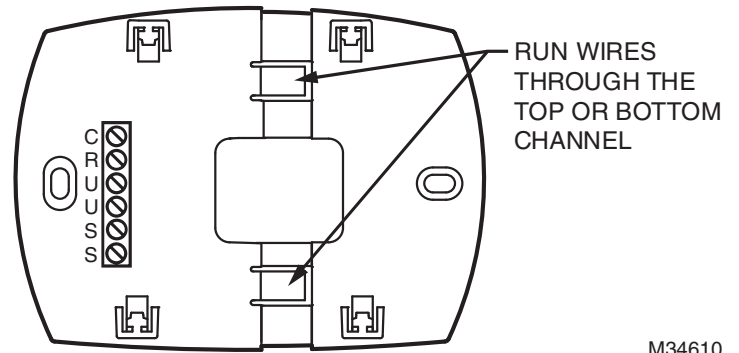
Insert the duct tube through the wallplate before securing to the duct.

6. Secure the wallplate.



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

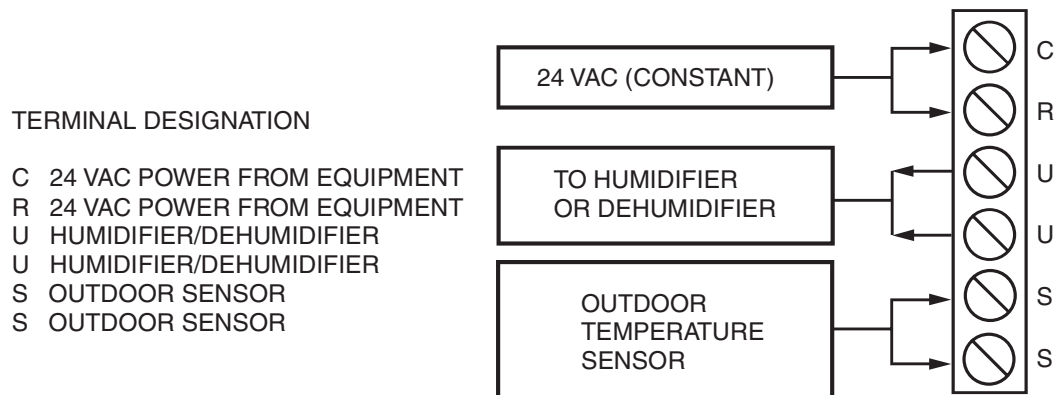
7. Run wires through the back plate.



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.



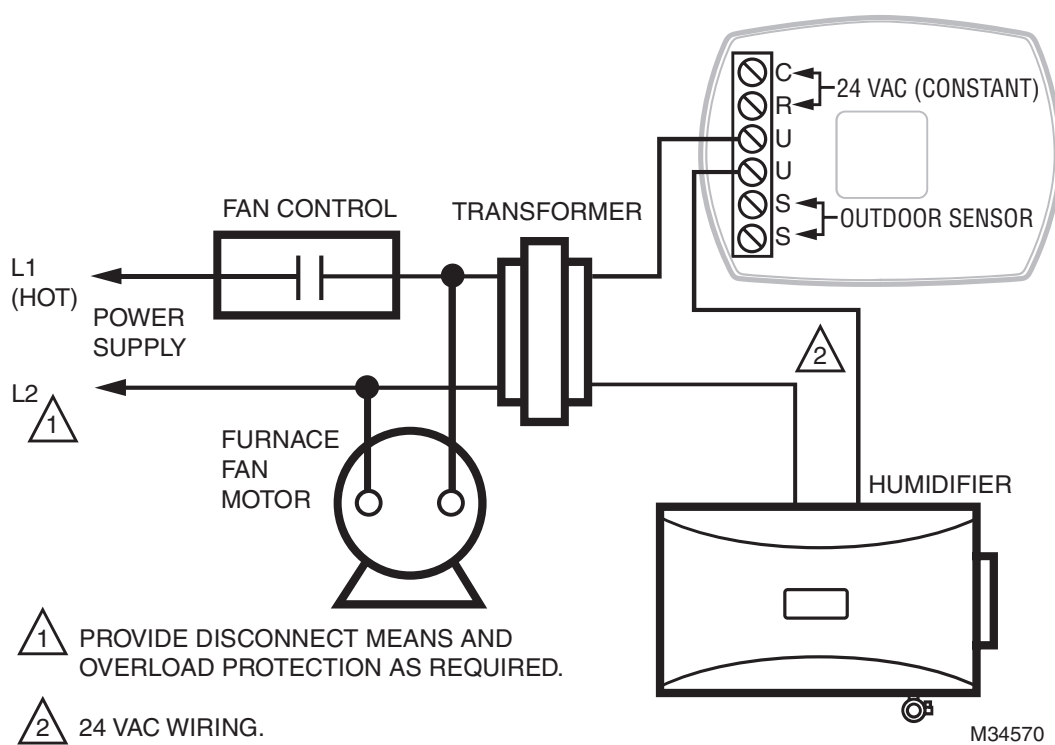
NOTES: C AND R MUST BE CONSTANT 24VAC! RECOMMENDED TO WIRE TO FURNACE/AIR HANDLER CONTROL BOARD.

DO NOT WIRE C AND R TO HUMIDIFIER TRANSFORMER!

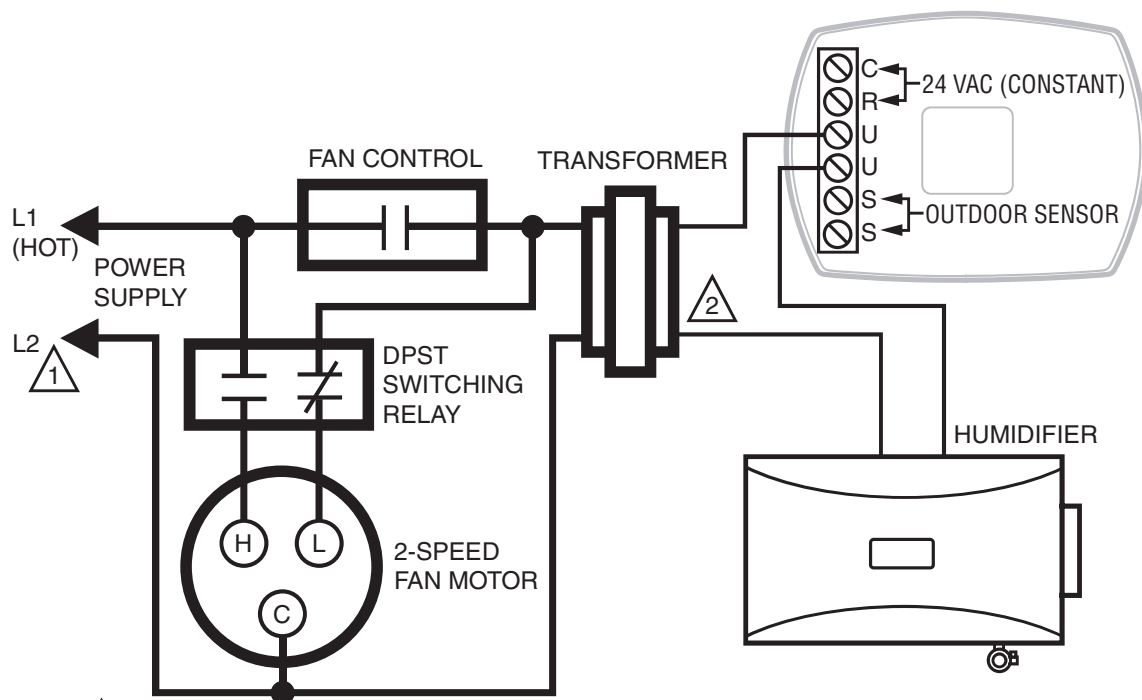
M34569



# Wiring HumidiPRO with Fan Interlock



## Wiring HumidiPRO with Fan Interlock for 2 Speed Motor

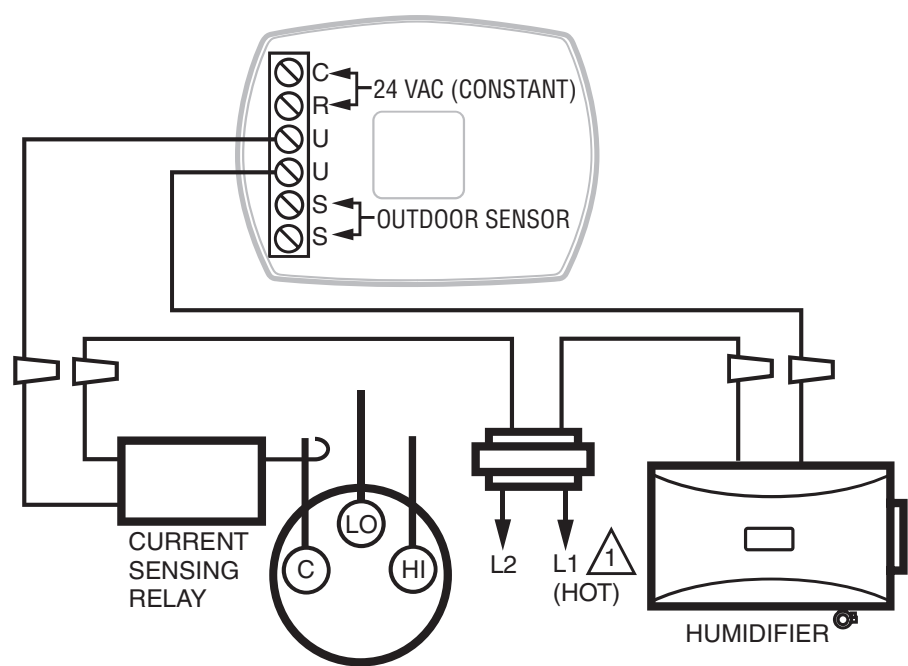


1 PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

2 24 VAC WIRING.

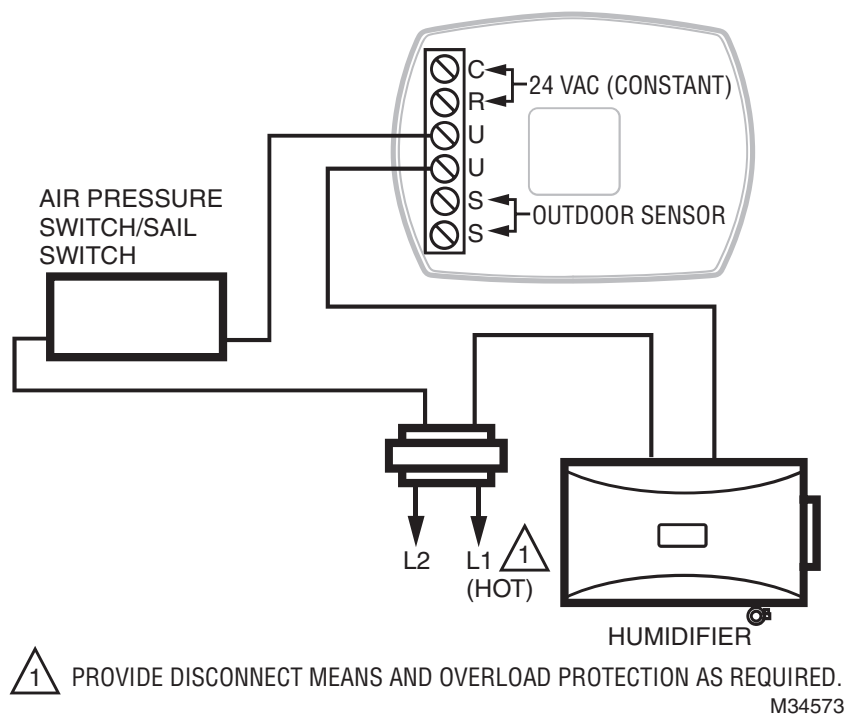
M34571

# Wiring HumidiPRO with Current Sensing Relay

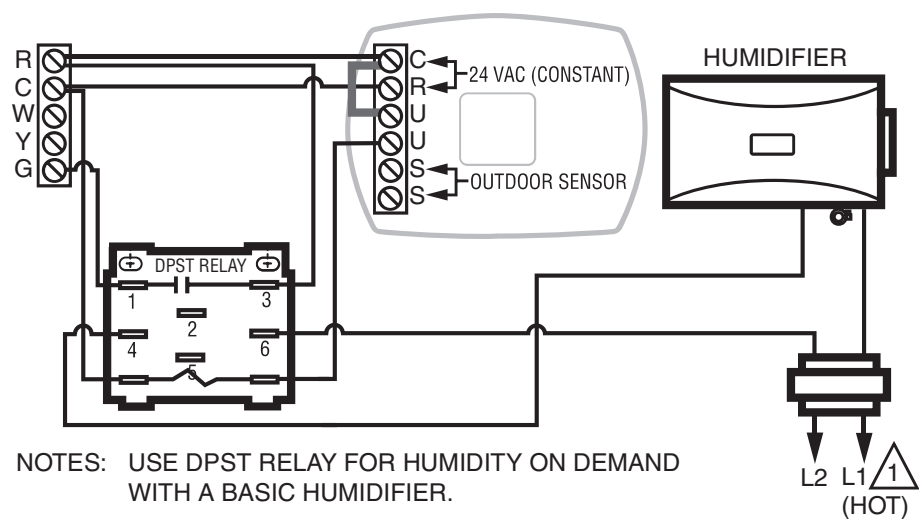


**1** PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.  
M34572

## Wiring HumidiPRO with Sail/Pressure Switch



# Wiring HumidiPRO to FORCE FAN ON (Basic Humidifier)

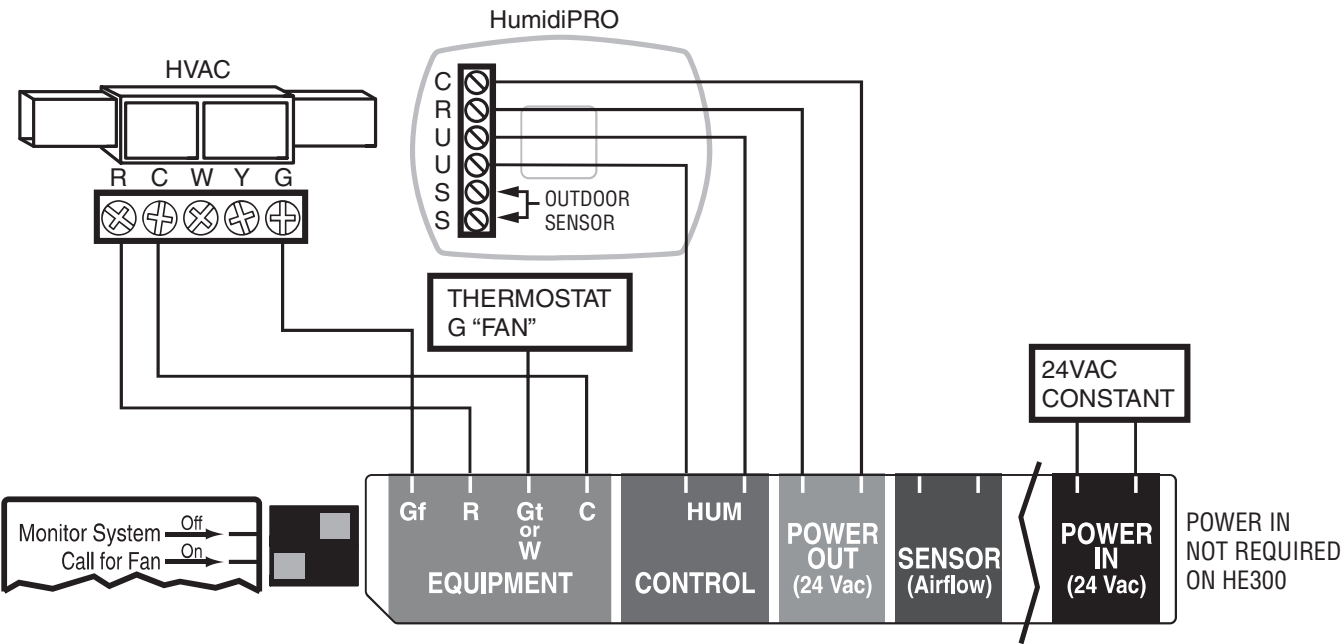


NOTES: USE DPST RELAY FOR HUMIDITY ON DEMAND WITH A BASIC HUMIDIFIER.

HUMIDIFIER MUST BE PLUMBED TO HOT WATER WHEN FORCING FAN.

HONEYWELL ADVANCED HUMIDIFIERS DO NOT NEED A RELAY TO FORCE FAN.

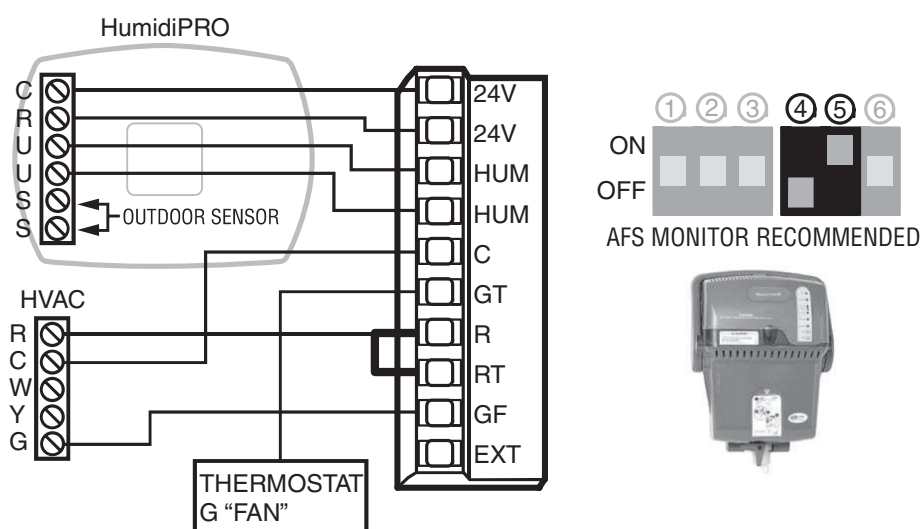
# Wiring HumidiPRO to TrueEASE Advanced Humidifier with Fan Interlock (HE150/HE250/HE300)



NOTE: SEE TrueEASE INSTALL GUIDE FOR DETAILED WIRING INFORMATION.

M34577

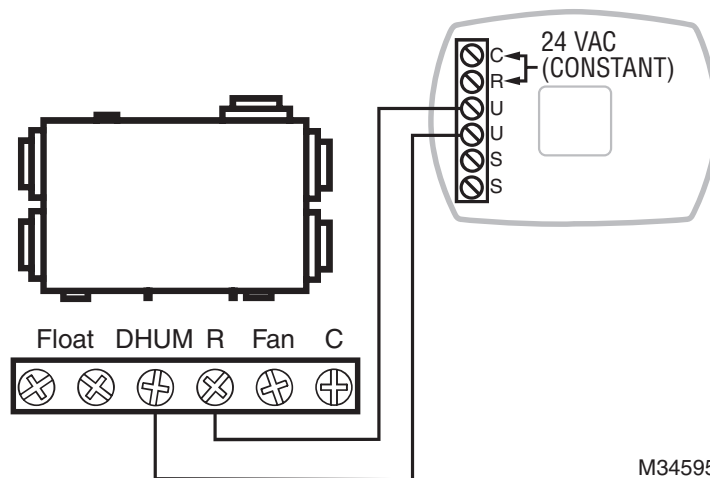
# Wiring HumidiPRO to TrueSTEAM Advanced Humidifier



NOTE: SEE TrueSTEAM INSTALL GUIDE FOR DETAILED WIRING INFORMATION.

M34576

## Wiring HumidiPRO to Dehumidifier



M34595



# Mounting the Outdoor Sensor

(Not required if window protection isn't needed)

## Location

Mount the sensor where:

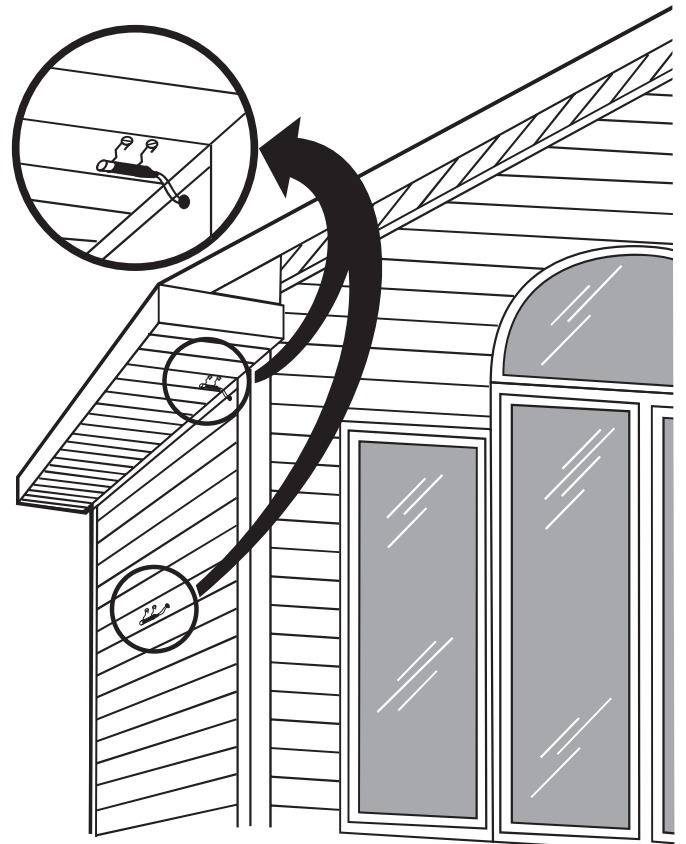
- it cannot be tampered with.
- there is good air circulation.
- surface is flat.
- wire distance between sensor and humidistat is less than 200 feet.
- it can measure true outdoor ambient temperature.

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 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.

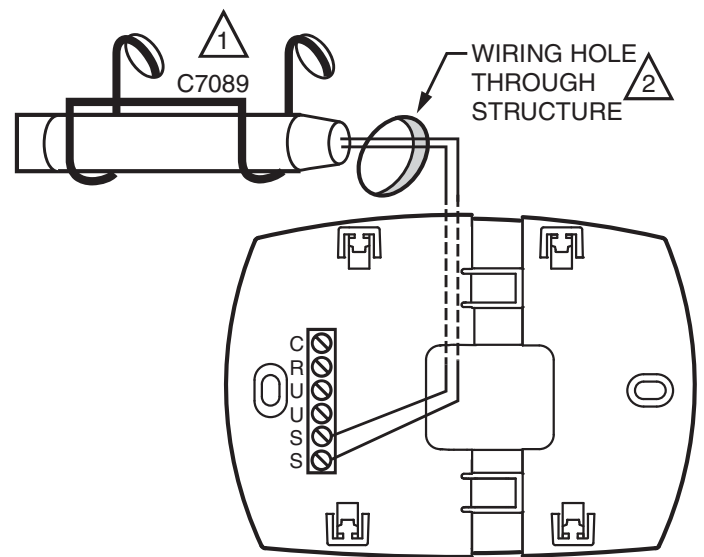
## Caution

**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.



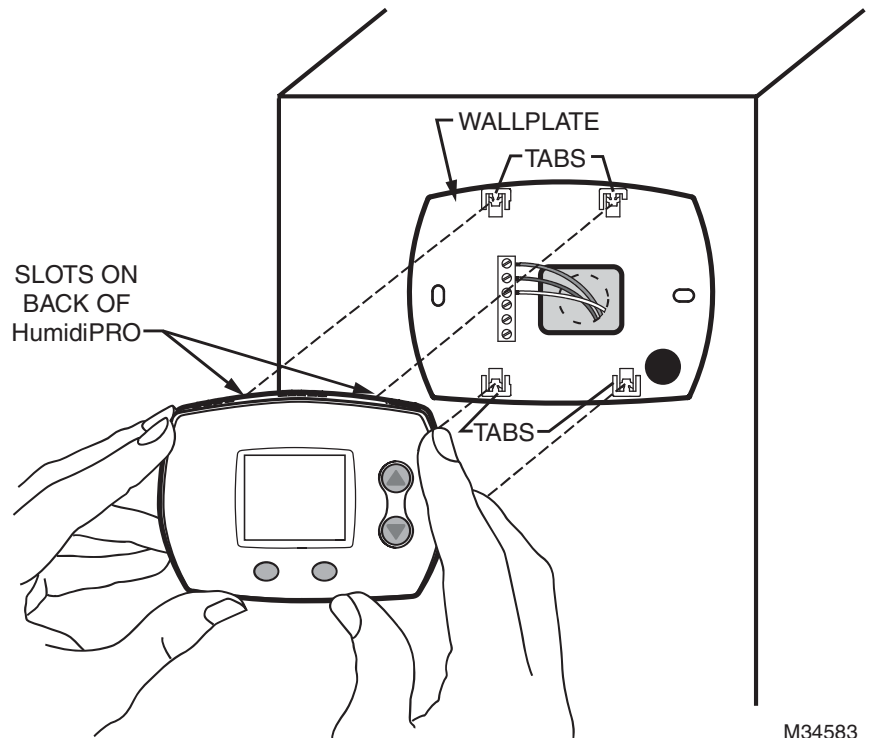
**1** USE APPROPRIATE MOUNTING MEANS FOR THE TYPE OF STRUCTURE.

**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.



M34583

## 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

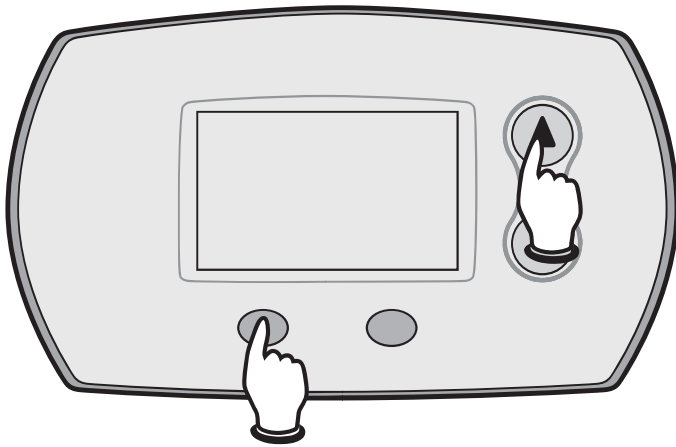
See next page to customize feature operation.

## Installer System Test

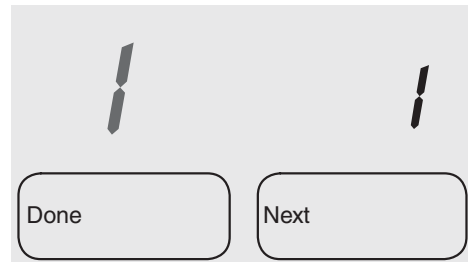
If Advanced Installer Setup is not required, skip to "Installer System Test/Checkout" on page 27.

## 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.



M29387A

Press ▲ or ▼ to change settings.

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

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



Function Number	Setting	
	Displayed	Description
<b>1 System Type</b>	<b>1</b>	<b>Humidifier</b>
	<b>2</b>	Dehumidifier
<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>	
<b>19 High Hum Limit</b>	Range: 10% - 90% <b>Default = 60%</b>	

Function Number	Setting	
	Displayed	Description
<b>20 Low Hum Limit</b>	Range: 10% - 90% <b>Default = 10%</b>	
<b>21 High Dehum Limit</b>	Range: 10% - 90% <b>Default = 80%</b>	
<b>23 Low Dehum Limit</b>	Range: 10% - 90% <b>Default = 40%</b>	
<b>25 Dehumidifier Compressor Lockout</b>	0 - 5 Minutes <b>Default = 0 Minutes (OFF)</b>	
<b>30 Humidity Sensing Calibration</b> This feature will offset the sensed indoor humidity.	Range: -9% to +9% <b>Default = 0</b> (Displays Actual RH%)	
<b>35 Outdoor Temperature Sensor Calibration</b> This feature will offset the sensed outdoor temperature if needed.	Range: -9° to +9° <b>Default = 0</b> (Displays Actual Outdoor Temp)	

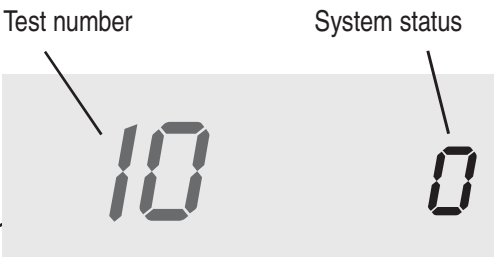
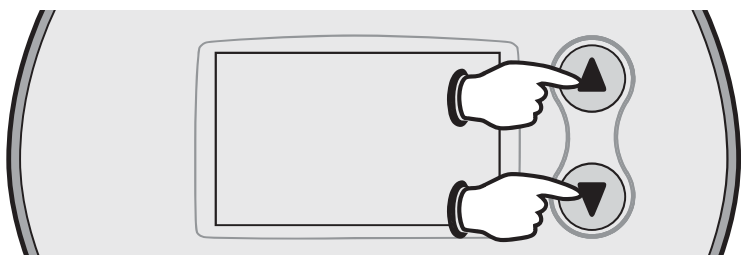
## Honeywell HumidiPRO™ Frost Index

		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.

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

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

## Installer System Test/Checkout (continued)

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

**Caution: If running a dehumidifier, compressor protection is bypassed during testing; avoid cycling the compressor too quickly.**

**Note:** Some dehumidifiers may already have built in compressor protection.

## Specifications

Humidity Ranges:

- Total Range Available: 10% to 90%

Humidify:

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

Operating Ambient Temperature

- 32° to 120°F (0° to 48.9°C)

Dehumidify:

- Default: 40% to 80%

Operating Relative Humidity

- 5% to 90% (non-condensing)

## Troubleshooting

If you have difficulty with your humidity control, please try the following suggestions. Most problems can be corrected quickly and easily.

### **Display is blank**

- Check circuit breaker and reset if necessary.
- Check for 24VAC between R and C at the wall plate.
- Make sure power switch at heating and cooling system is on.
- Make sure furnace door is closed securely.

### **Humidity settings do not change**

Make sure the humidity is set to an acceptable range:

- Check current range stop settings in Installer Setup.
- Auto Mode: 1–10 (up to 11 if Humidity Boost is enabled)
- Manual Mode: 20%–60%
- Dehumidification Mode: 40%–80%

## Troubleshooting (continued)

### **Humidifier/ Dehumidifier will not turn on**

- Make sure the equipment fan is running.
- Make sure System Setting is ON.
- Make sure there is power going to the Humidifier or Dehumidifier.
- Check the humidity table to see if Window Protection is preventing a call for humidity. (Auto Humidification Mode Only).
- Check whether Compressor Lockout is enabled.
- Check whether High Temperature Shut-off is enabled (ISU-17) and Outdoor Temperature is less than selected Shut-off Temperature.

# H46C Humidity Controller

## INSTALLATION INSTRUCTIONS

### APPLICATION

The H46C Humidity Controller is used with portable and central unit dehumidifiers to maintain relative humidity. The H46 has an spst, snap-acting switch designed for line voltage circuits and two leadwires for switch box mounting.

### INSTALLATION

#### When Installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.



### CAUTION

**Electrical Shock Hazard.**  
**Can cause electrical shock or equipment damage.**  
Disconnect power supply before connecting wiring.

### Location

Select a location about 5 ft (1.5m) above the floor in an area with good circulation at average temperature and humidity for the area to be controlled. Avoid locations near hot or cold air ducts and discharged air from the controlled equipment.

### Mounting

1. Remove the setting knob.
2. To remove cover, pull cover forward from device.
3. Install a 2 in. x 3 in. (51 mm x 76 mm) vertical switch box at the selected location.
4. Using the two screws provided, fasten the adapter plate to the switch box, as shown.

5. Pull the wires from the switch box through the opening in the adapter plate and connect to the H46 leadwires with the solderless connectors provided. See Fig. 2 and 3 for typical hookup.
6. Push the wires back into the switch box.
7. Place the H46 against the adapter plate, making certain the tab at the bottom of the plate fits into the notch on the H46.
8. Fasten the H46 to the adapter plate by tightening the captive screw.
9. Replace the cover and the setting knob.

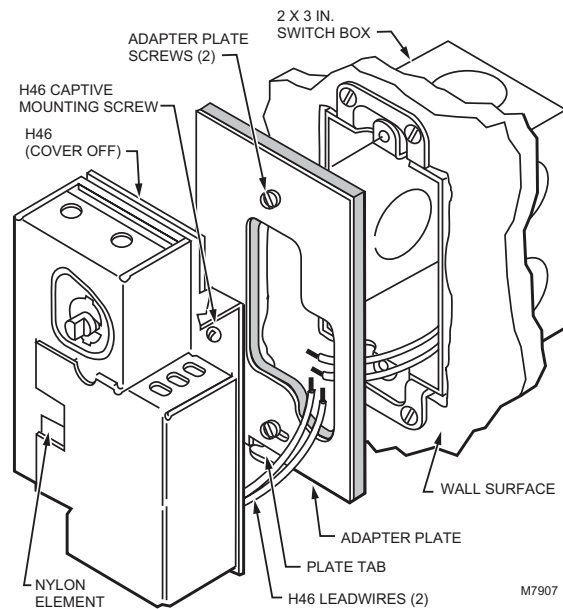


Fig. 1. Mounting H46C on vertical switch box.

### Wiring

Disconnect power supply before connecting wiring to avoid electrical shock or equipment damage. All wiring must comply with local codes or equipment damage. All wiring must comply with local codes and ordinances. Do not exceed contact and coil ratings when wiring into system. See Fig. 2.



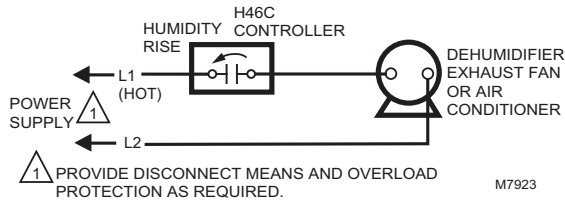


Fig. 2. Typical H46C wiring diagram.

## Connections and Operation

A dehumidistat in combination with the thermostat can be used to run the air conditioner to control relative humidity levels. The dehumidistat and thermostat can be wired in parallel or in series.

Wiring in parallel allows the dehumidistat to independently control the humidity level, but could cause overcooling of the home. During unoccupied times, the homeowner should set the thermostat to a relatively high setting and control moisture using the dehumidistat.

Wiring in series prevents overcooling but the air conditioner runs only when both the thermostat and dehumidistat are calling. During unoccupied times, the homeowner should set the thermostat to a relatively low setting and control moisture using the dehumidistat.

## SETTING AND ADJUSTMENT

The H46 makes contact on a relative humidity rise to the setpoint to start the dehumidifier. On a decrease in relative humidity to the setpoint (minus the differential), the switch breaks contact to stop the dehumidifier. Turn the knob clockwise to the setting stop to place the H46 in the On position. Turn the knob counterclockwise to the setting stop to place the H46 in the Off position.

## CHECKOUT

After completing all mounting and wiring, turn on the power supply. Place the system into operation by turning the setting knob toward the low end of the scale until the dehumidifier motor starts. Turn the setting knob slowly toward the high end of the scale until the dehumidifier motor stops.

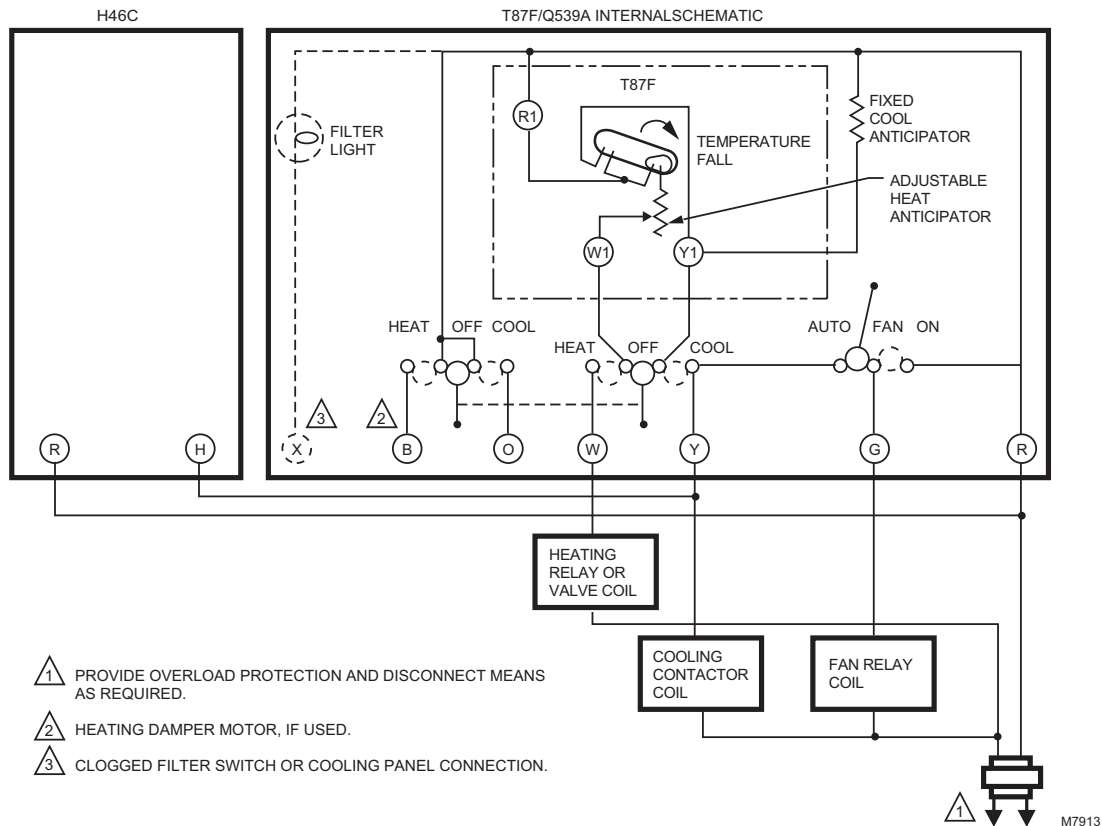
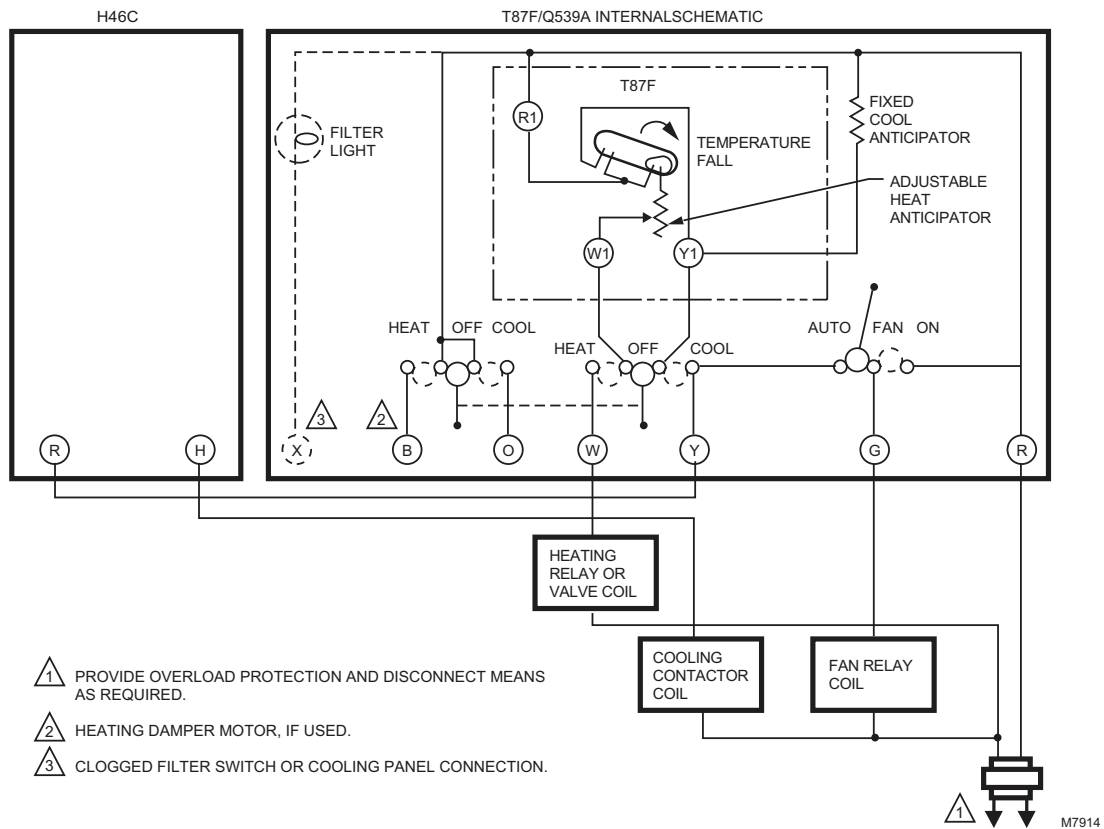


Fig. 3. Typical parallel wiring hookup for H46C with T87F/Q539A combination for dehumidification and mildew control.



**Fig. 4. Typical series wiring hookup of H46C with T87F/Q539A combination for dehumidification and mildew control.**

### INSTALLATION INSTRUCTIONS

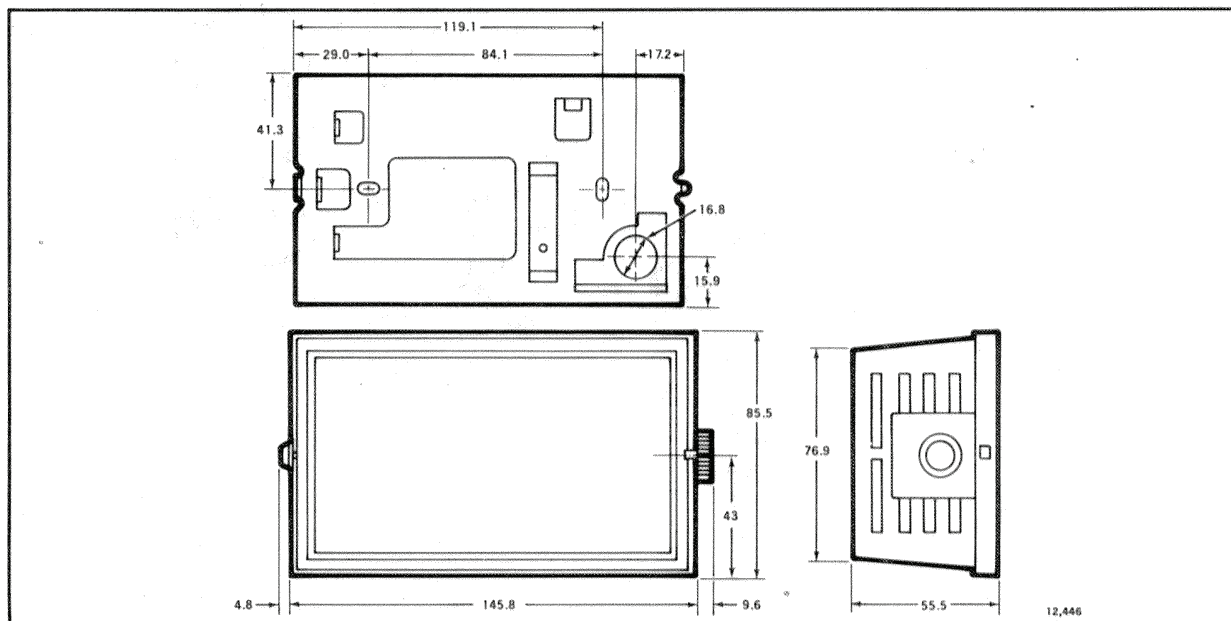


FIG. 1—DIMENSIONS IN MM.

### APPLICATION

The H600 is a humidity control which controls humidification and dehumidification equipment within a range of 20 to 80 percent RH. It has an spdt switch to operate humidification equipment on RH fall or dehumidification equipment on RH rise. The sensing element is a thin moisture-sensitive nylon ribbon wound around three bobbins. This construction enables the control to respond to small changes in relative humidity over a wide ambient temperature range. The differential is 4 to 6 percent RH and is not adjustable. All models have a locking cover and the setting knob acts as the cover removal tool.

### SPECIFICATION

MODEL: H600A Humidifier and Dehumidifier control.

SWITCHING: SPDT.

ELECTRICAL RATING:

	DEHUMIDIFIER (RED TO YELLOW)		HUMIDIFIER (RED TO BLUE)	
	120 Vac	240 Vac	120 Vac	240 Vac
Full Load	7.5 A	3.85 A	4.4 A	2.2 A
Locked Rotor	45.0 A	22.8 A	26.4 A	13.2 A
Resistive	—	—	8.0 A	4.0 A

RELATIVE HUMIDITY RANGE: 20-80 percent.

DIFFERENTIAL: 4-6 percent RH, fixed.

MAX. AMBIENT TEMPERATURE: 50° C.

SET POINT ADJUSTMENT: Removable knob.

DIMENSIONS: See Figure 1.

### INSTALLATION

#### LOCATION

Select a location about 1.5m above the floor on an inside wall with good natural air circulation at average room temperatures.

Avoid: "hot spots" due to concealed pipes, warm air ducts, radiator, appliances or exposure to sun;

"cold spots" due to location on an outside wall, an unheated room on the other side of partition or drafts from stairwells or doors; "dead spots" due to lack of circulation behind doors or in corners.

The ambient temperature of the location chosen must not exceed 50° C.

### MOUNTING

1. Use the setting knob to loosen the cover locking screw. Remove cover.
2. Remove the backplate from the control assembly by loosening the captive mounting screw and sliding the control down and to the right (see Fig. 2,3).
3. Mount the backplate to the wall using the two screws provided.
4. Attach control to backplate by slipping it under tabs and tightening the captive mounting screw (see Fig. 2).
5. Connect wires as shown on Fig. 5.
6. Replace cover and tighten the locking screw with setting knob supplied.

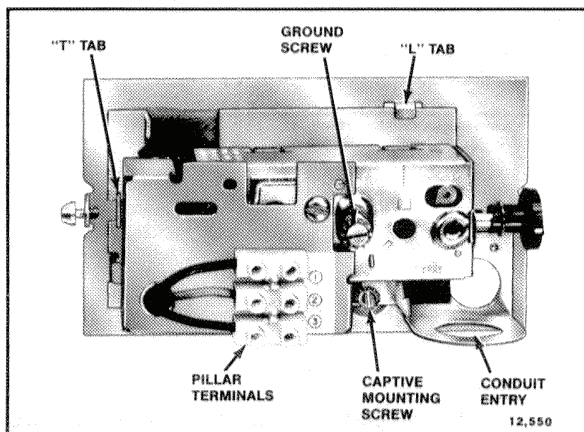


FIG. 2—COVER REMOVED.

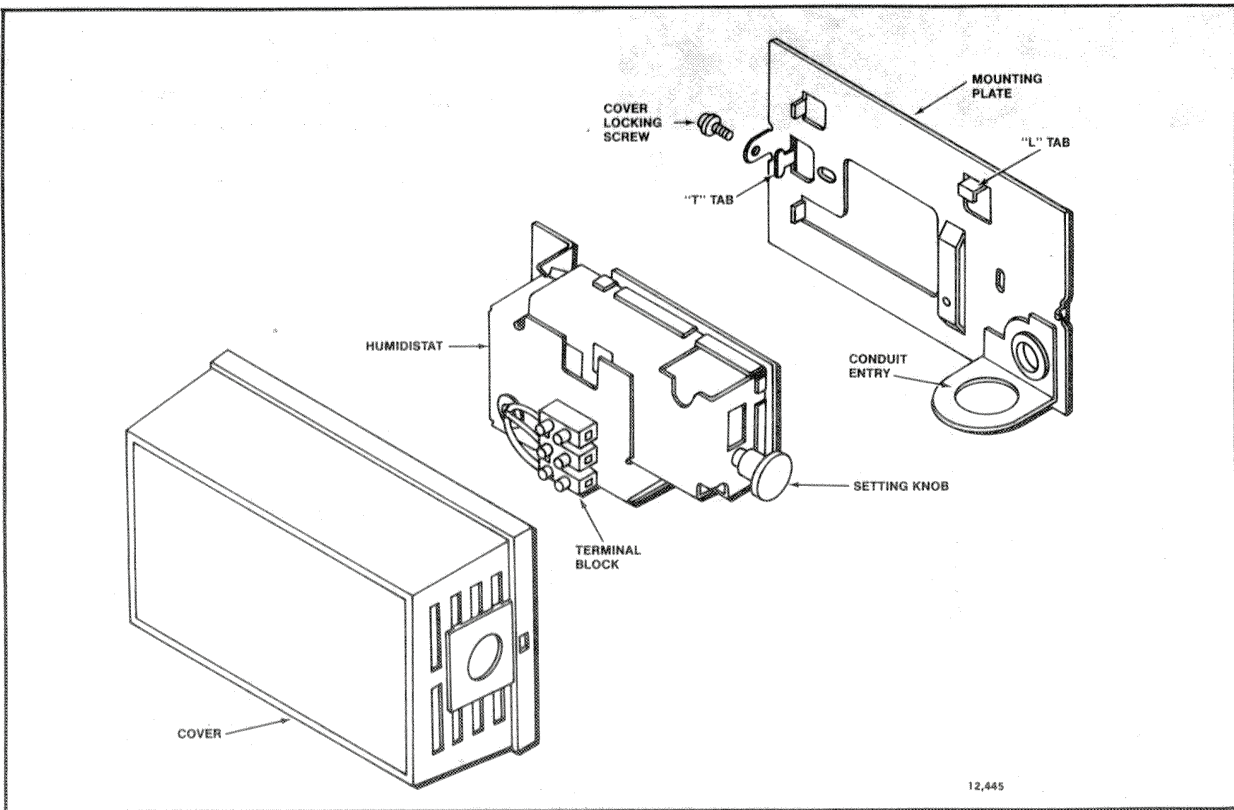


FIG. 3—MOUNTING OF H600A.

## WIRING

### CAUTION

Disconnect power supply before making wiring connections to prevent electrical shock and equipment damage.

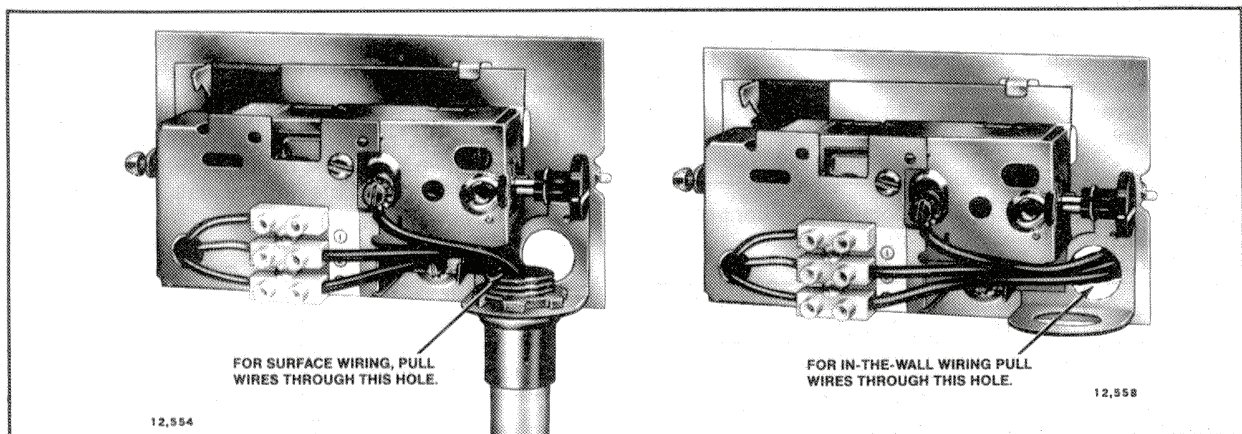


FIG. 4—THE H600 HUMIDITY CONTROL IS SUITABLE FOR SURFACE AS WELL AS THROUGH-THE-WALL WIRING.

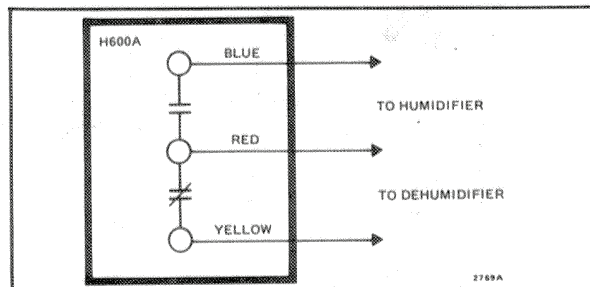


FIG. 5—H600A WIRING DIAGRAM. CONNECT RED AND BLUE LEADWIRES TO HUMIDIFIER OR RED AND YELLOW LEADWIRES TO DEHUMIDIFIER.

All wiring must comply with local electrical codes. Follow equipment manufacturer's instructions, if available; otherwise proceed as follows.

Insert wiring through hole in back plate or through conduit entry (see Fig. 2). If conduit entry is not used, hole must be closed with the rubber plug provided. If the hole in the mounting plate is exposed to an opening in the wall, plug the opening to prevent drafts from affecting the humidistat operation. Connect wires as shown in Fig. 5.

### SETTING

Adjust the relative humidity setting with the removable setting knob provided.