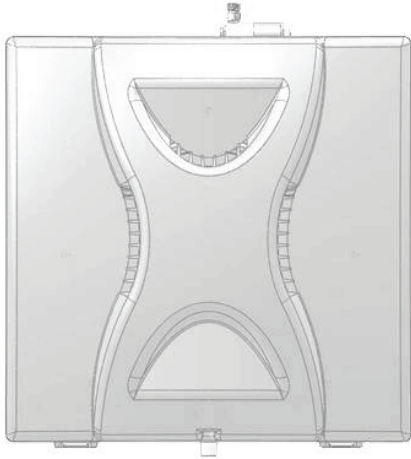


Installation Instructions



A13314

Fig. 1 - Small Fan Powered Humidifier


NOTE: Read the entire instruction manual before starting the installation.

SAFETY CONSIDERATIONS

Improper installation, adjustment, alteration, service, maintenance, or use can cause explosion, fire, electrical shock, or other conditions which may cause death, personal injury or property damage. Consult a qualified installer, service agency or your distributor or branch for information or assistance. The qualified installer or agency must use factory-authorized kits or accessories when modifying this product. Refer to the individual instructions packaged with the kits or accessories when installing.

Follow all safety codes. Wear safety glasses, protective clothing, and work gloves. Have a fire extinguisher available. Read these instructions thoroughly and follow all warnings and cautions included in literature and attached to the unit. Consult local building codes and the current edition of the National Electrical Code (NEC) NFPA 70.

In Canada, refer to the current editions of the Canadian Electrical Code CSA C22.1.

Recognize safety information. When you see this symbol  on the unit and in instructions or manuals, be alert to the potential for personal injury. Understand the signal words **DANGER**, **WARNING**, and **CAUTION**. These words are used with the safety-alert symbol. **DANGER** identifies the most serious hazards, which **will** result in severe personal injury or death. **WARNING** signifies hazards, which **could** result in personal injury or death. **CAUTION** is used to identify unsafe practices, which **may** result in minor personal injury or product and property damage. **NOTE** is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label.

CAUTION

UNIT DAMAGE HAZARD

Failure to follow this caution may result in unit damage.

Unit must not be installed where freezing temperatures could occur. Do not install unit on the furnace or fan coil jacket. Do not install unit where ends of cooling coil could restrict airflow to the humidifier. Condensation damage could occur if home has closed-off, unheated rooms.

INSTALLATION

The small fan powered humidifier can only be installed on the supply plenum of a forced-air system. This unit requires an external 115-vac (fused) plug-in receptacle near the equipment for proper operation.

It is recommended to install the humidifier where it can be easily serviced.

Step 1 — Inspect Package and Check Equipment

1. Inspect contents of packaged humidifier. If shipment is damaged, file claim with shipping company.
2. Confirm the package contains the following:
 - a. Humidifier base (with drain spud bottom)
 - b. Water panel
 - c. Water distribution tray
 - d. Humidifier cover (containing fan and cord)
 - e. Humidistat
 - f. Saddle valve
 - g. Sheet metal screws
 - h. Installation Instructions / Owner's Guide / Warranty Certificate

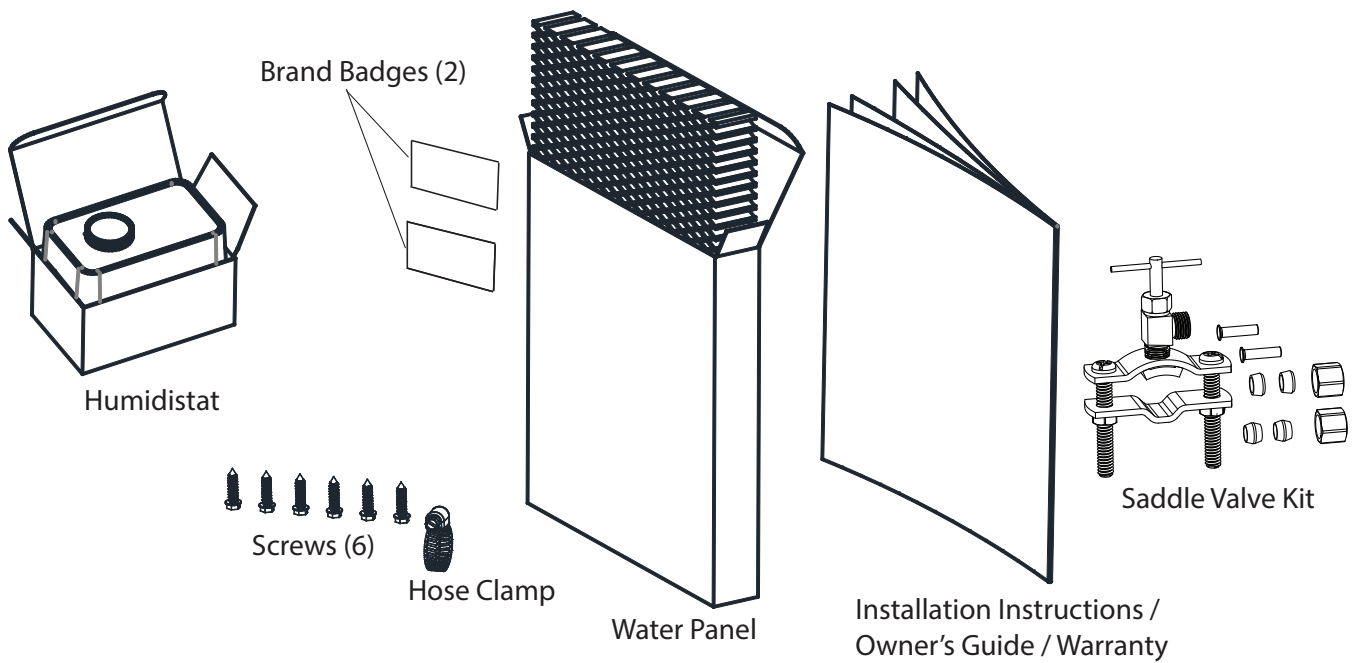


Fig. 2 - Installation Accessories Included

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NOTE: Items not furnished but required for installation include drain hose, low voltage wiring, 1/4-in. copper supply line.

Step 2 — Select Location (See Fig. 3.)

Humidifier must be installed on supply plenum only. If furnace has air conditioning coil, be sure humidifier does not interfere with coil ends. Remember to provide clearance for maintenance and evaporator pad removal.

NOTE: The humidifier is not suitable for installation on ducts with horizontal airflow. Performance will be reduced.

Step 3 — Prepare Plenum Opening

1. In the selected location on the supply plenum, carefully mark the maximum dimensions of the opening—11-3/8-in. (29.2 cm) wide by 11-1/4-in. (28.6 cm) high. **NOTE:** The tolerances on these dimensions are +0 in. and -1/8 in. Ensure that the horizontal lines are level and that the marked opening is square and vertical. **IMPORTANT:** For the humidifier to operate properly, it must be level and mounted on a vertical surface.
2. Cut the opening in the plenum.

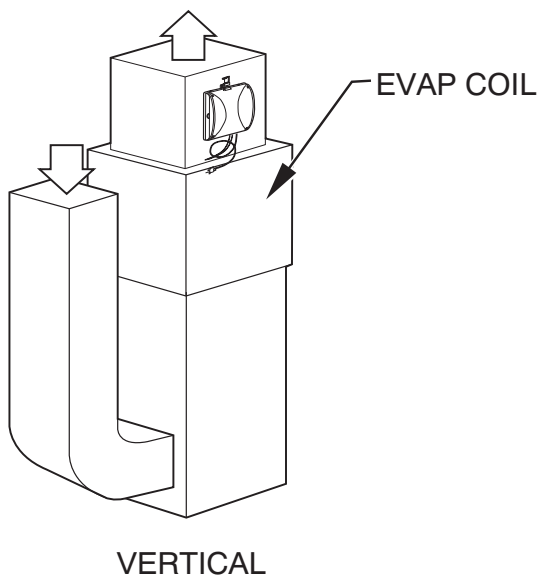


Fig. 3 - Installation Location of Fan-type Humidifier

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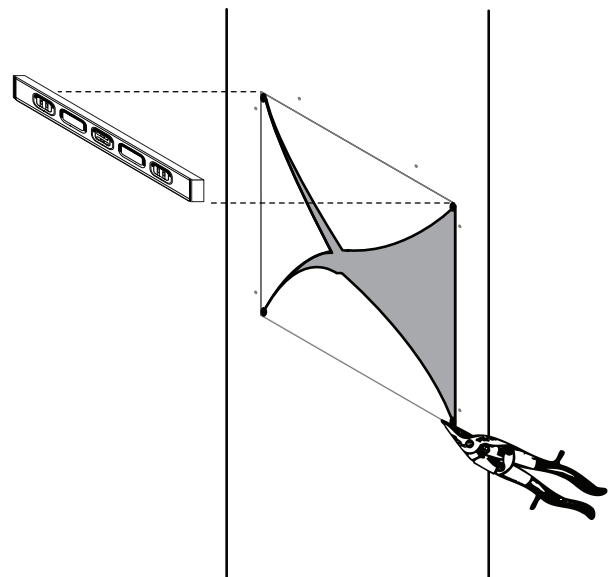


Fig. 4 - Preparing Plenum Opening

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Step 4 — Mount the Humidifier

1. Remove the front cover from the humidifier
2. Hook the base of the humidifier over the sheet metal at the bottom edge of the cutout opening.
3. Place the base of the humidifier in the cutout (The solenoid valve is on the top.)
4. Mark the location of the 6 screw holes

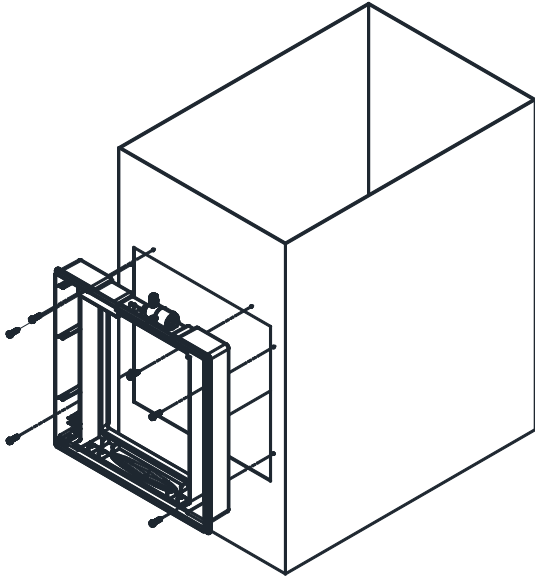


Fig. 5 - Mark the Screw Hole Locations

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5. Remove the base of the humidifier from the cutout so that the screw hole markings are easily visible and accessible for drilling or punching.
6. Attach humidifier base to plenum using the screw holes in the base.
7. Place water distribution tray on top of water panel (Important: the black marking on one edge of the water panel denotes the top of the water panel.) The distribution tray is attached to that end.

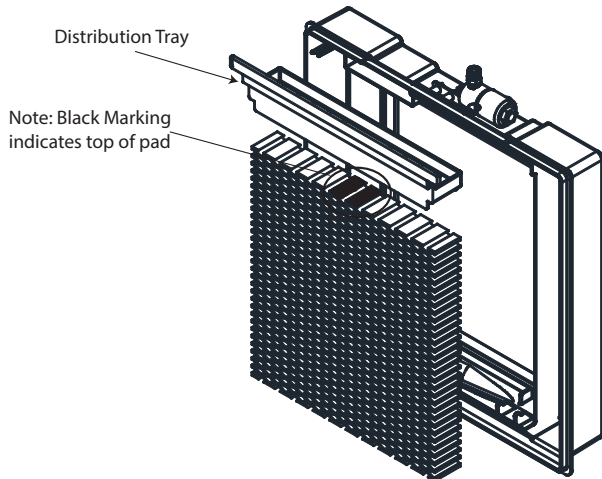


Fig. 6 - Water Distribution Tray Placement

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8. Place the water panel with attached distribution tray inside the base frame, making sure the tray ends slide over the guide flanges and that the tray top flange seats flush. The black marking indicates the top of pad.
9. Attach the front panel assembly to the frame, ensuring that the electrical connection in the cover mates up with the one in the base.

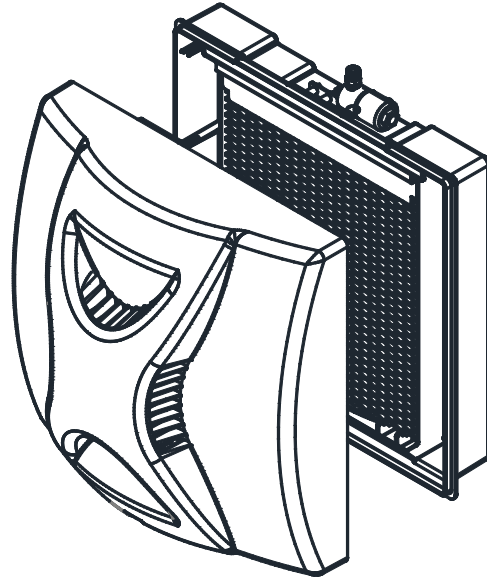


Fig. 7 - Attach Front Panel

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Step 5 — Attach the Drain Hose

1. Attach 1/2-in. I.D. plastic drain hose (field supplied) to drain spud at bottom of unit, using hose clamp.
2. Make sure drain hose is not kinked, has a sufficient constant downward slope, and is free of traps due to sagging. Follow any applicable local codes.
3. Route the drain hose to sufficient drain. Secure the drain hose so that it will not be dislodged from drain.

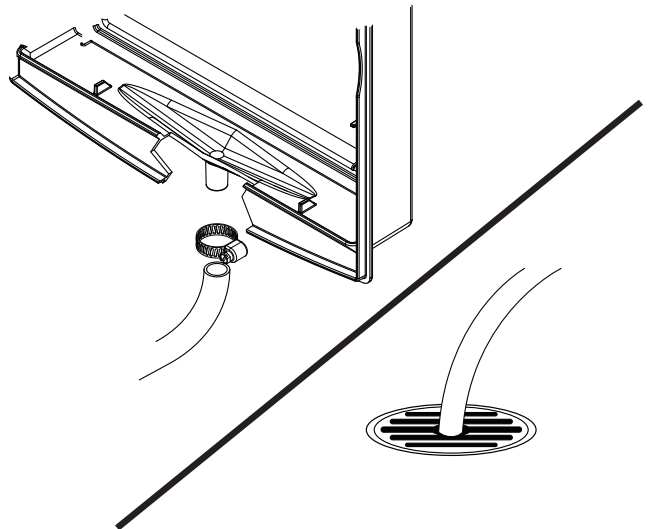
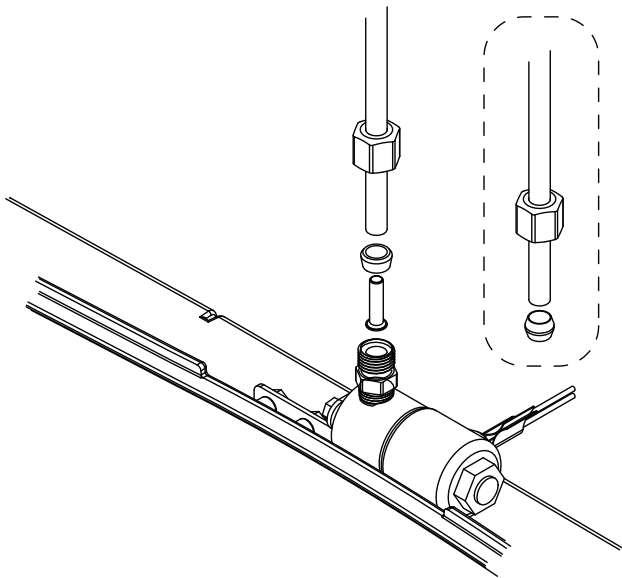


Fig. 8 - Route Drain Hose

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Step 6 — Attach Water Line to Humidifier and Supply Line

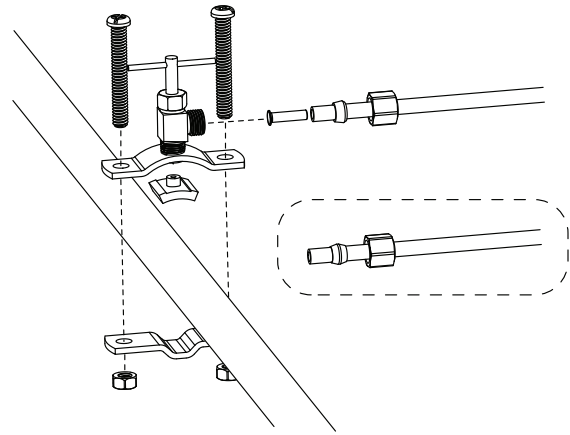
1. Turn off the water supply to the line where the saddle valve will be located. Mount the saddle valve (included) on the water supply line. Do not pierce the supply line at this time. Note: Saddle valve is self-piercing on copper lines. If steel or iron pipe is used, a 1/4-in. (6.4 mm) hole must be drilled in steel or iron pipe. Use only a grounded drill or hand drill to avoid a shock hazard. Prior to drilling, turn off water supply and drain the pipe. The humidifier will function with hot, cold, softened or unsoftened water, although hot water will provide maximum evaporative capacity. Where water pressure exceeds 125 psi, follow proper procedures and codes to reduce pressure.
2. Run 1/4-in. (6.4 mm) diameter water line grade copper tubing from saddle valve to solenoid valve.
3. Connect solenoid valve to 1/4-in. water line using compression fittings. Use two wrenches to tighten.



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Fig. 9 - Connect Solenoid Valve

4. Pierce the water line with the saddle valve. The saddle valve should completely penetrate the supply line and be fully open. (Refer to instructions on packaging of saddle valve.)



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Fig. 10 - Pierce Water Line with Saddle Valve

5. Open the water supply line.
6. Check for leaks at saddle valve and at solenoid valve connections.

Step 7 — Install the Humidistat

The humidistat included with this unit can be either wall mounted or duct mounted. Refer to installation instructions included in humidistat box.

Step 8 — Wiring the Humidistat to Furnace or Fan Coil

1. **DISCONNECT ELECTRICAL POWER TO FURNACE OR FAN COIL BEFORE PROCEEDING.**

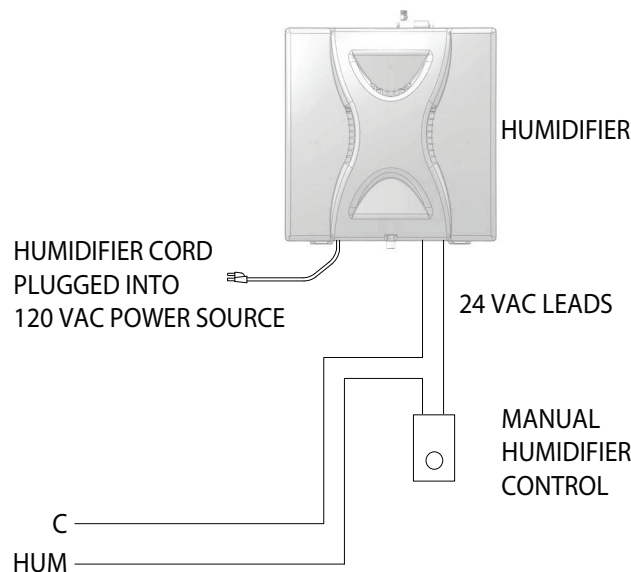
⚠ WARNING

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury or death.

Before installing or servicing system, always turn off main power to system. There may be more than one disconnect switch. Lock out and tag switch with a suitable warning label.

2. Use humidistat in low voltage (24VAC) applications only. Install 24VAC wiring to humidifier control as shown in the following wiring diagrams:



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Fig. 11 - Typical Wiring to Standard Furnace

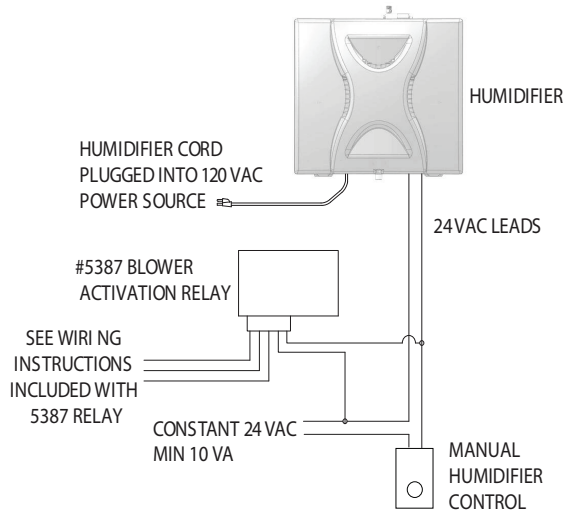


Fig. 12 - Typical Wiring to Standard Fan Coil

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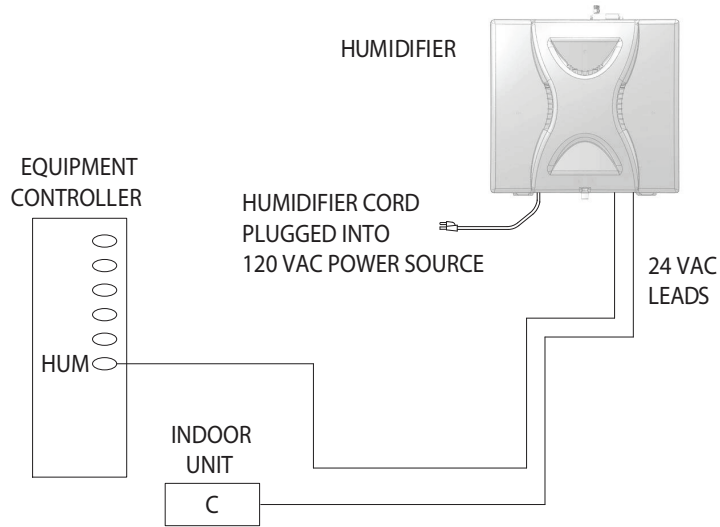


Fig. 13 - Typical Wiring for Zoning Hook-Up

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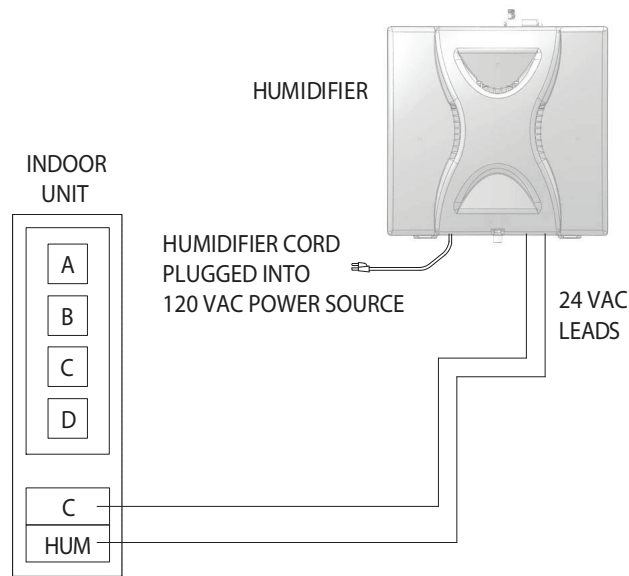


Fig. 14 - Wiring for New Communicating Control Hook-Up

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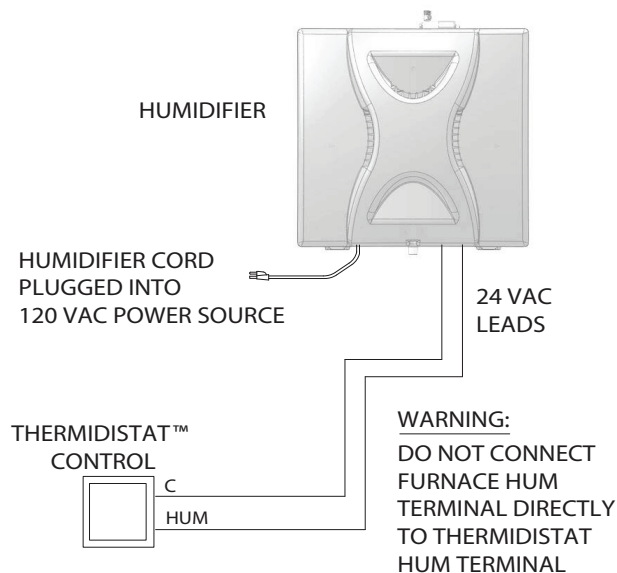


Fig. 15 - Wiring for Thermidistat Hook-Up

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Step 9 — Start-Up

1. Apply brand badge (included) to center of humidifier.

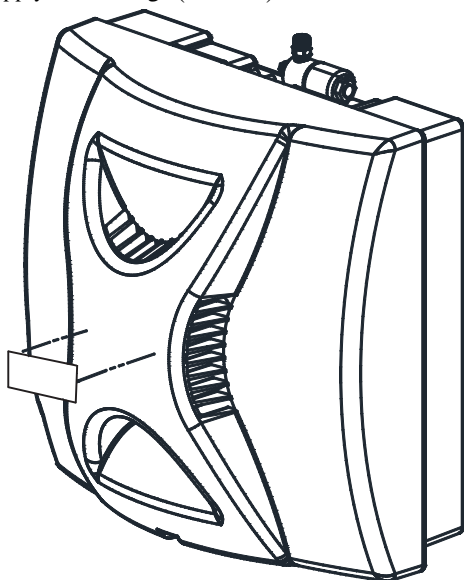


Fig. 16 - Brand Badge Application

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2. Check all connections for water leaks
3. Plug the humidifier into wall socket.
4. Set thermostat to call for heat. Set humidistat for highest humidity setting. After a few minutes of operation, check the drain connection and housing for leaks and to confirm that water is flowing through the humidifier.
5. Reverse thermostat and humidistat settings to ensure proper shut-down.
6. Reset thermostat to normal setting.
7. Reset humidistat to normal setting.

Humidistat Adjustment

Recommended humidistat setting should only be used as a guide. After adjustment of setting, allow at least 5 hours for equilibrium to be reached. Condensation on single pane windows or woodwork indicates excessive moisture. Condensation must not be allowed to continue for extended periods of time, or moisture damage can result. Lower humidistat setting in small steps until condensation disappears. However, if air is too dry, raise the setting. The table below should be used as a guideline for recommended humidistat settings.

RECOMMENDED HUMIDISTAT SETTING	
OUTSIDE TEMPERATURES	RECOMMENDED HUMIDISTAT SETTING
-20° F (-29° C)	15%
-10° F (-23° C)	20% (LO)
0° F (-18° C)	25%
+10° F (-12° C)	30%
+20° F (-7° C)	35%
+30° F (-1° C)	40% (MED)

Step 10 — Final Steps

1. Inform homeowner of proper operation, maintenance and humidistat setting. If unit is installed during cooling season, set humidistat "OFF". If unit is installed during heating season, set unit for normal operation.
2. Inform homeowner of proper pad replacement. Demonstrate the procedure. Ask the homeowner to demonstrate the procedure to you to ensure that he/she knows how to replace the panel.
3. Explain to homeowner the need to change the pad at the beginning of each heating season. (Note: In installation with high levels of minerals in the water, the pad may need to be changed more frequently.)
4. Review Owner's Guide with the homeowner. Leave Owner's Guide and Warranty Certificate with homeowner.