ATTENTION INSTALLER:

This product must be installed by a qualified heating and air conditioning contractor. Failure to do so could result in serious injury from electrical shock. This product must be installed in compliance with all local, state and federal codes.

MODEL 6000 LARGE BYPASS HUMIDIFIER

**WARNING**

1. **ELECTRICAL SHOCK HAZARD.** Disconnect electrical power to the furnace before starting installation. Failure to do so could result in serious injury from electrical shock.

2. **SHARP EDGES HAZARD.** Sharp edges may cause serious injury from cuts. Use care when making plenum openings and handling ductwork.

3. **RISK OF SCALDING.** Water temperature over 125°F can cause severe burns and scald instantly. Shut off the hot water supply before disconnecting or tapping into any hot water supply line.

**CAUTION**

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

2. Do not install humidifier or bypass connection on the furnace cabinet.

3. Do not install humidifier or bypass connection on a plenum face where the blanked off ends of the cooling coil will restrict air movement through the humidifier.

4. Do not set humidity level above recommended or to recommended level if condensation exists on inside windows of any unheated space, as condensation damage may result. Excess humidity can cause moisture accumulation which can allow the possibility for mold growth in the home.

5. Do not connect humidifier transformer to blower motor wiring. Premature component failure may result.

6. When installing Humidifier Control on downflow furnace, ensure blower continues to run after a heat call is satisfied to eliminate high temperatures from damaging the Control.

7. Do not install humidifier where water pressure exceeds 125 psi, since damage to the humidifier may result. Follow codes in effect concerning pressure reduction.

8. Do not install humidifier on systems with greater than 0.4 in. wg pressure differential between supply and return plenums.

**SPECIFICATIONS**

- **HUMIDIFIER DIMENSIONS**
  - Width (including solenoid valve): 15 3/8"
  - Height (including drain spud): 15 3/4"
  - Depth: 10 1/4"

- **BYPASS DUCT OPENING**
  - 6" diameter

- **PLENUM OPENING**
  - 9 1/8"W x 12 5/8"H

- **WATER FEED RATE**
  - 3 gph

- **ELECTRICAL DATA**
  - 24 VAC-60 Hz, 0.5 AMP

**INSTALLATION OPTIONS**

The humidifier can be installed on either the supply or return plenum of a forced air handling system and is easily reversible for installation with right hand or left hand bypass duct connections. The humidifier dimensions and serviceability must be considered when selecting the best location for the humidifier.

Here are 2 examples of many types of installations.

**IMPORTANT**

- **USE 120 VAC POWER SOURCE OTHER THAN FURNACE MOTOR CIRCUIT.** HOWEVER, THE TRANSFORMER CAN BE POWERED OFF THE HOT 120 VAC LINE BEFORE IT ENTERS THE FURNACE.
- **DO NOT WIRE TRANSFORMER INTO FURNACE BLOWER CIRCUIT.**

**IMPORTANT**

- **WHEN MODEL S1-HURELAY24VAA CURRENT SENSING RELAY IS USED:**
  - WIRE MODEL S1-HURELAY24VAA CURRENT SENSING RELAY INTO 24 VAC HUMIDIFIER CONTROL CIRCUIT ONLY! DO NOT INSTALL IN TRANSFORMER PRIMARY CIRCUIT.

**WIRING DIAGRAM**

For detailed Automatic Humidifier Control installation and wiring instructions, see separate sheet included with Control.

**TEMPLATE MUST BE LEVEL**
1. Remove front cover by pressing center tabs on top and bottom of the cover (1) and base (2). Pull feed tube (3) out of the water distribution tray (4). Tip the evaporative assembly forward and lift it out of the humidifier. (See Figure 1)

2. The humidifier comes assembled for left side discharge. If converting to right side discharge, the base can be rotated so round collar is facing to the right. Swap the location of the hole plug (10) and drain spud (9) if using a right side discharge. To remove the cap, push outward from inside the housing while lifting the cap up slightly on the outside. To remove the drain spud, twist and pull from the outside of the base.

3. Using a level, position this template at least 3 inches above the furnace housing or coil. If applicable, for clearance of the drain line. Trace around template edges. Remove the template and accurately cut the plenum opening 9 1/2’’x 12 1/2’’x H, being careful to avoid injury from sharp edges.

4. Place the humidifier into the plenum opening, install sheet metal mounting screws (not furnished) at the top and sides of the humidifier interior.

5. Install a 6” collar in a convenient location on the opposite plenum. Attach a 90° elbow and measure the length of 6” round duct required to make the connection. The design of the humidifier collar provides a solid connection with the bypass duct through the use of inside support ribs and pre-formed holes for sheet metal screws. Slip the duct inside the collar of the humidifier, up to the support ribs. Using the pre-formed holes at the top and bottom of the humidifier collar, secure the duct to the humidifier collar with two sheet metal mounting screws (not furnished). Support bypass ducts longer than 4 feet to prevent sagging.

6. Reinstall the evaporative assembly back into the base, with the bottom of the scale control insert (8) sitting firmly in the inside of the drain spud (9). Push the feed tube back into the water distribution tray. (See Figure 2) Put the front cover back on. If the nameplate (11) is upside down, remove it and rotate the nameplate so it is right side up, and snap back into place. Turn damper handle (8) to the open position “WINTER” for the cooling season, or closed position “SUMMER” for the cooling season. Locate and install the Humidifier Control by following the instructions shown in step #7A. For Automatic Humidifier Control installation instructions, see separate sheet included with the Automatic Control.

7. Connect electrical power to furnace before proceeding!

8. The humidifier solenoid valve and Control operate on 24 VAC. In order for the humidifier to turn on, the furnace blower must be operating and the Control must be calling for the humidifier. If the furnace has 120 VAC “ACC” or “HUM” terminals, which are activated only during furnace blower operation or a heat call, then the humidifier solenoid valve and control will be interrupted in series with those terminals. If the furnace has 24 VAC “ACC” or “HUM” terminals, which are activated only during furnace blower operation or a heat call, then the transformer provided can be connected in series with the terminals.

9. Tap into a water supply line with the saddle valve furnished. See instructions on saddle valve package. The humidifier will function with hard, softened or softened water. The use of service hot water (140°F MAX) and constant blower operation will provide maximum evaporative capacity. When installing humidifier on heat pump system, humidifier must be supplied with service hot water.

10. Connect tubing from the saddle valve to the inlet side of the solenoid valve using 1/4” O.D. copper tubing (not furnished). Run drain line from drain spud to floor drain. CAUTION: If hose clamp is used, do not overtighten, drain spud could crack. Be sure drain line has continuous slope. NOTE: Do not sweat or directly attach metal drain line to fitting. Do not use solvent type adhesive when connecting plastic drain line, since damage to fitting could result.

11. Open saddle valve completely and turn on furnace. Turn up Humidifier Control so that humidifier will turn on. Allow humidifier to run until water is observed coming out of the drain line. Check to see if humidifier and saddle valve are watertight. Check operation to make sure that all electrical components function properly. Set Humidifier Control to level recommended in Owner’s Manual.

NOTE: BEFORE LEAVING THE JOB SITE, MAKE SURE:
1. Saddle valve is fully open.
2. All plumbing connections are watertight.
3. Humidifier functions properly.
4. Bypass damper is in proper position.

importantly! be sure owner’s manual containing instructions for operation and warranty information is given to owner in order to avoid unnecessary calls. Warranty is void unless humidifier is installed by qualified heating and air conditioning contractor due to possible misapplication of product.