

READ COMPLETE SAFETY INSTRUCTIONS AND INSTALLATION TEMPLATE BEFORE STARTING

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.

FAN POWERED HUMIDIFIER

WARNING

- ELECTRICAL SHOCK HAZARD.** Disconnect electrical power to the furnace and install lock-out tag before starting installation. Failure to do so could result in serious injury from electrical shock.
- SHARP EDGES HAZARD.** Sharp edges may cause serious injury from cuts. Use care when making plenum openings and handling ductwork.
- 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

- RISK OF PROPERTY AND EQUIPMENT DAMAGE.**
- Do not install humidifier where freezing temperatures could occur. The water line could freeze and crack causing water damage to the home.
 - Do not install humidifier on the furnace cabinet.
 - Do not install humidifier on a plenum face where the blanked off ends of the cooling coil will restrict air movement through the humidifier.
 - 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.
 - Do not connect the humidifier power cord to multi-speed furnace blower motors or blower motors other than 120 VAC. Premature component failure may result.
 - When installing Manual Humidifier Control on a downflow furnace, ensure blower continues to run after a heat call is satisfied to eliminate high temperatures from damaging the Control.
 - Do not install humidifier where water pressure exceeds 125 psi, since damage to the humidifier may result. Follow codes in effect concerning pressure reduction.
 - Do not install humidifier on the supply plenum where static pressure exceeds 0.4 in. wg.

SPECIFICATIONS

HUMIDIFIER DIMENSIONS

Width 15²⁹/₃₂"
Height (including solenoid valve and drain spud) 18"
Depth 10¹¹/₃₂"

PLENUM OPENING

14³/₄"W x 14⁵/₁₆"H

WATER FEED RATE

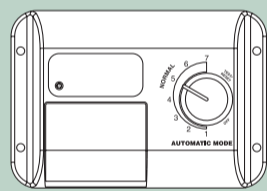
6 gph

ELECTRICAL DATA

120 VAC-60 Hz, 0.8 AMP

WIRING DIAGRAMS

HumidiTrac™ Automatic Humidifier Control



For detailed Automatic Humidifier Control installation and wiring instructions, see Form IM-AHC-03 included with Control.

DIAGRAM A
STANDARD FURNACE
VARIABLE SPEED FURNACE
VARIABLE SPEED FAN COIL

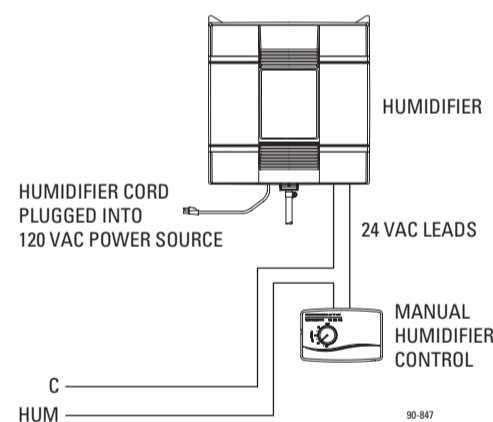


DIAGRAM B
STANDARD FAN COIL
WITH BLOWER ACTIVATION RELAY

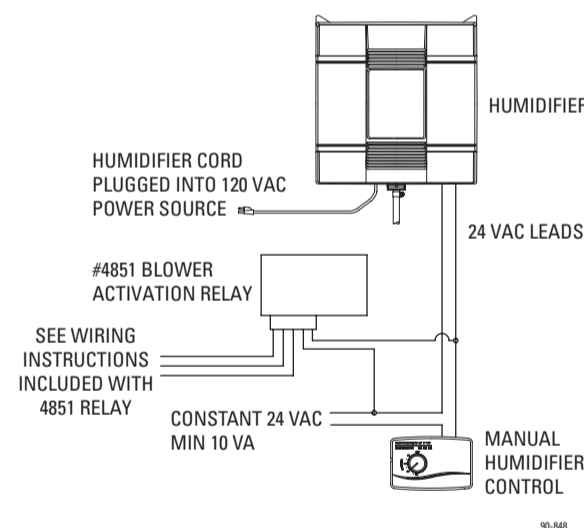


DIAGRAM C
HUMIDITY SENSING THERMOSTAT HOOK-UP
WITH ALL INDOOR EQUIPMENT

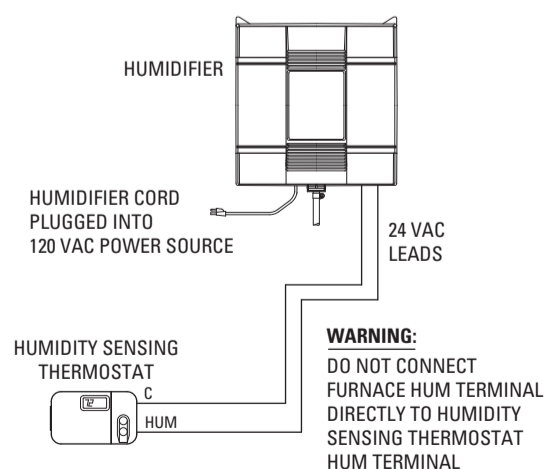


DIAGRAM D
ZONING HOOK-UP
WITH EQUIPMENT CONTROLLER

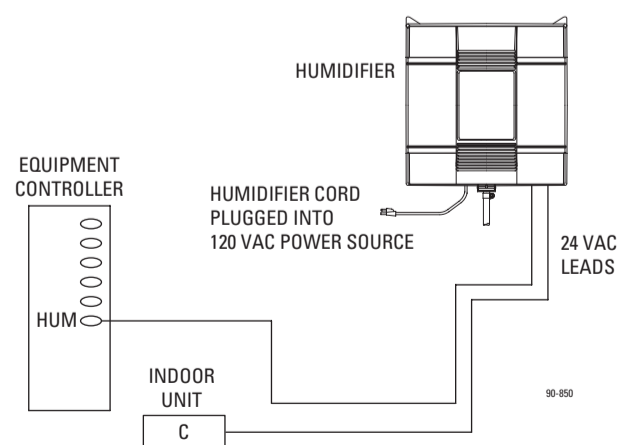
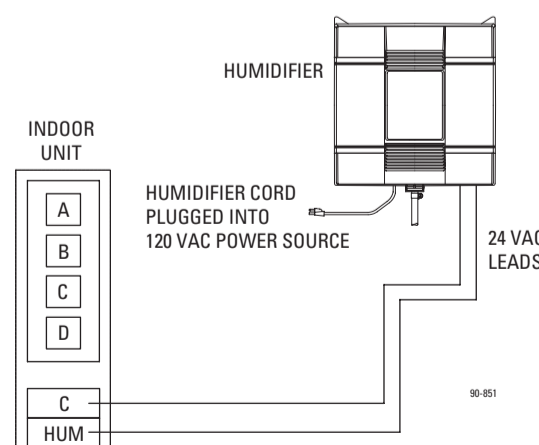
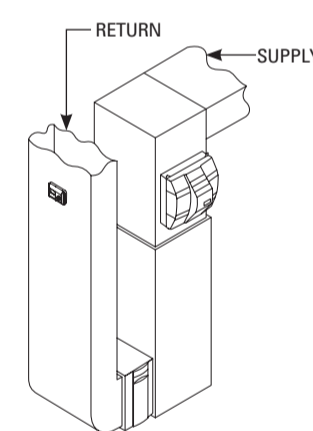


DIAGRAM E
NEW COMMUNICATING CONTROL HOOK-UP
WITH ALL INDOOR EQUIPMENT

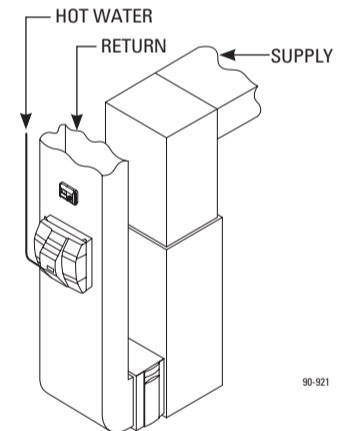


INSTALLATION OPTIONS

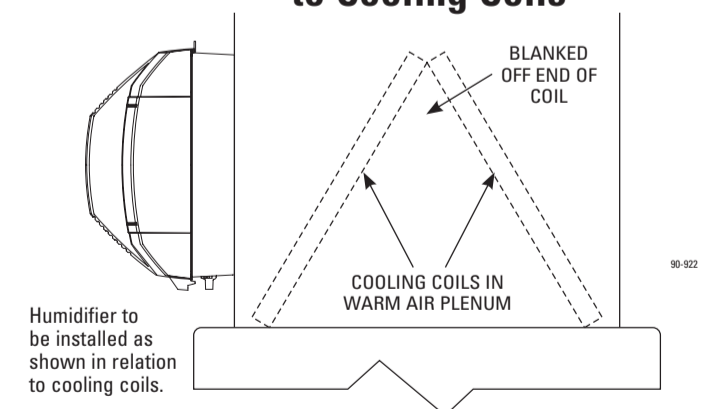
Typical Installation



Alternate Installation



Orientation of Humidifier to Cooling Coils



NOTES

- The humidifier is not suitable for installation on ducts with horizontal airflow. Performance will be reduced.
- When installing humidifier on a heat pump system, use hot water. The heated water supplements the reduced supply air temperature as added heat for evaporation.

TEMPLATE MUST BE LEVEL

READ REVERSE SIDE FIRST!

- TOP -

READ REVERSE SIDE FIRST!

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FURNISHED ITEMS

24 VAC Manual Humidifier Control

Saddle Valve

Humidifier Installation Template

ITEMS NOT FURNISHED

Mounting screws
(sheet metal screws)

Water supply line (1/4" copper)

Drain line (1/2" I.D. hose)

24 VAC Transformer

Low voltage wire

Current Sensing Relay
Part No. P-110-005 (if required)

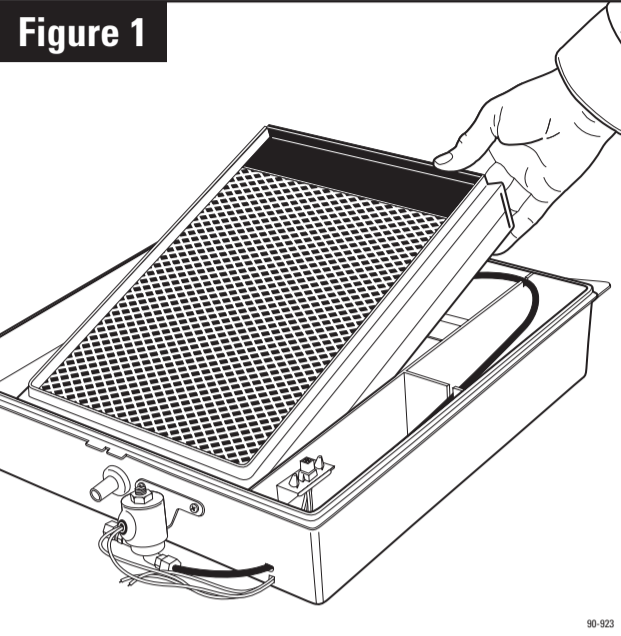


Figure 1

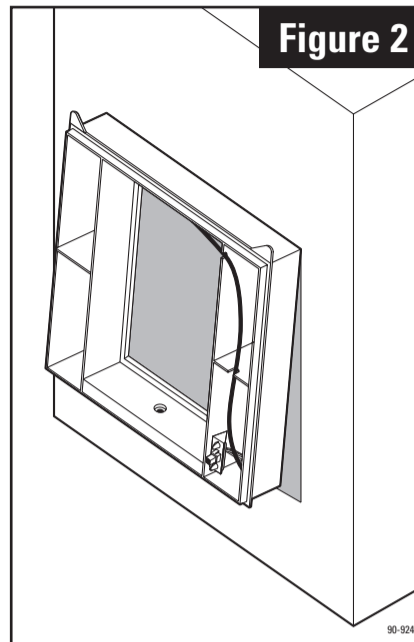


Figure 2

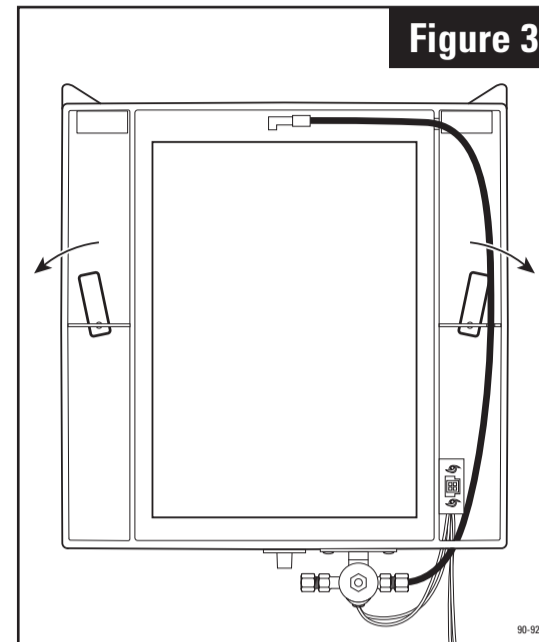


Figure 3

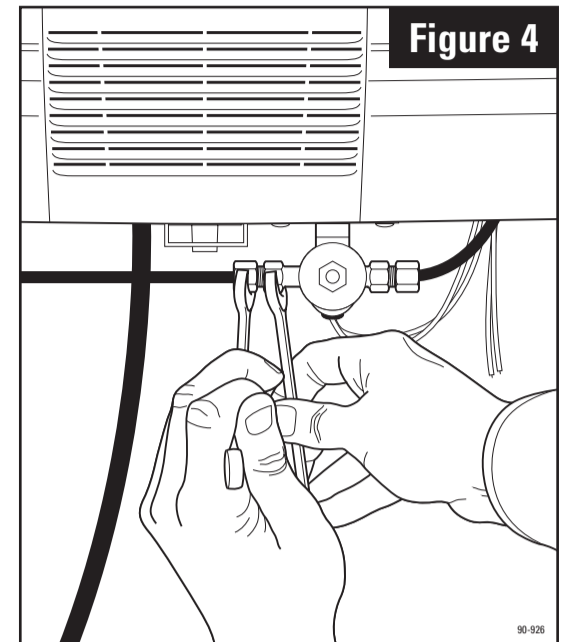


Figure 4

1. Place the humidifier on a flat surface. Unlatch humidifier cover assembly from base assembly at the bottom of the cover, lift and set aside. Pull out the evaporative assembly by grasping at the top and tipping out. (See Figure 1)

2. Using a level, position this template at least 1 1/2 inches above the furnace housing or cooling coil if applicable, for clearance of the drain line. Trace around template edges. When there is insufficient space on the supply plenum, the humidifier can be installed on the return duct provided the humidifier is supplied with hot water. Remove the template and accurately cut the plenum opening 14 3/4"W x 14 5/16"H, being careful to avoid injury from sharp edges.

3. Position the two plastic hooks on the top of base along the top edge of the plenum opening. Push base up to engage the two hooks and sheet metal along the top edge opening. Push base in and slide down so that the bottom four hooks engage the sheet metal at the bottom edge of the opening. Secure base to opening using top three screw holes in housing. An

additional hole is provided at the bottom for securing the base to the plenum. (See Figure 2)

4. While pressing the base against the plenum, reach through the center opening and turn left and right swing latches down to secure the base onto the plenum. (See Figure 3)

5. Reinstall the evaporative assembly into the base, with the bottom of the scale control insert (5) sitting firmly in the inside of the drain spud attached to the base. Push the evaporative assembly in at the top between the retaining ribs that hold the assembly in place in a vertical position. Reinstall cover assembly by hooking at the top of base assembly and latching at the bottom.

6. Locate and install the Manual Humidifier Control by following the instructions shown in step #6A. For Automatic Humidifier Control installation instructions, see Form IM-AHC-02 included with the Automatic Control. **DISCONNECT ELECTRICAL POWER TO FURNACE BEFORE PROCEEDING!**

6A. MANUAL HUMIDIFIER CONTROL INSTALLATION INSTRUCTIONS:

The Manual Humidifier Control is designed for low voltage service to control humidification equipment. An increase in relative humidity expands the nylon ribbon that opens the control switch to stop operation of the humidifier. A decrease in relative humidity reverses the process and closes the control switch.

LOCATION

For Wall Mount:

1. Locate on inside wall of living area approximately 5 feet above floor.
2. Do not locate Control in the direct path of furnace discharge air or drafts from open doors and windows.
3. Do not install where operation might be affected by lamps, sunlight, fireplace registers, radiators, concealed air ducts and pipes or room occupants.
4. The basic rules for location of thermostats also apply to humidifier controls.
5. Remove and discard foam gasket and secure control to wall over wire access opening with screws provided.

For Return Duct Mount:

1. Position manual humidistat at least 6" upstream of bypass duct connection or humidifier.
2. Avoid injury from sharp edges when cutting opening.
3. Make sure foam gasket is in place and secure control to duct with screws provided.

GENERAL INSTRUCTIONS

1. Do not attempt to repair or recalibrate Humidifier Control. Humidifier Controls requiring service should be returned to your distributor.
2. Use Humidifier Control in low voltage (24 VAC) applications only. Install 24 VAC wiring to Humidifier Control as shown in Wiring Diagrams, opposite side.
3. Make sure no bare wires are exposed or insulation damaged. Insulation on wire should extend to head of screws.
4. Make sure all splices are mechanically and electrically secure.
5. To remove dirt or other foreign matter from nylon ribbon and control interior, dust lightly with a fine, soft brush.

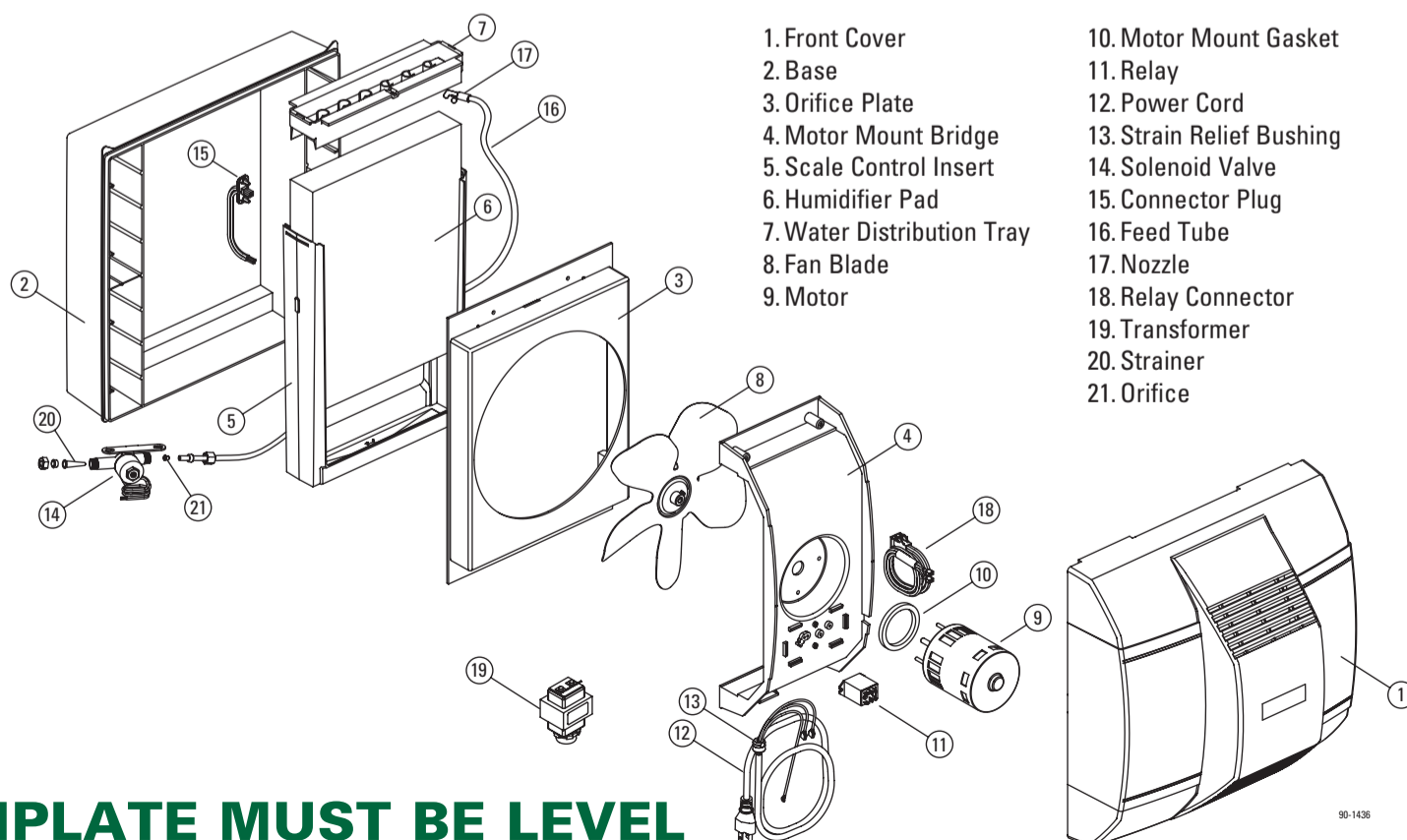
NOTE: The saddle valve is designed to be fully opened or closed. Do not use it to regulate water flow.

9. Connect tubing from the saddle valve to the inlet side of the solenoid valve using 1/4" O.D. copper tubing (not furnished). **DOUBLE WRENCH TO PREVENT LEAKING!** (See Figure 4)

10. Drain spud is designed to accept 1/2" I.D. plastic hose (not furnished). Run drain line from drain spud to floor drain. **CAUTION: If hose clamp is used, do not overtighten, drain spud could crack. Make sure drain line has constant downward slope and is not kinked. NOTE: Do not sweat or directly attach metal drain line to fitting. Do not use solvent type adhesives 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.

PARTS LIST



1. Front Cover
2. Base
3. Orifice Plate
4. Motor Mount Bridge
5. Scale Control Insert
6. Humidifier Pad
7. Water Distribution Tray
8. Fan Blade
9. Motor
10. Motor Mount Gasket
11. Relay
12. Power Cord
13. Strain Relief Bushing
14. Solenoid Valve
15. Connector Plug
16. Feed Tube
17. Nozzle
18. Relay Connector
19. Transformer
20. Strainer
21. Orifice

7. The humidifier power cord must be plugged into a 120 VAC outlet. Wire an electric outlet box to power source other than furnace fan motor circuit. Outlet box can be powered off of the 120 VAC line before it enters furnace.

In order for the humidifier to turn on, the furnace blower must be operating and the Humidifier Control must be calling for humidity. The interface between the humidifier and the furnace to detect blower operation can be accomplished several different ways. See wiring diagrams on other side for options.

8. Tap into water supply line with the saddle valve furnished. See instructions on saddle valve package. The humidifier will function with cold, hot, softened or unsoftened 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.**

NOTE: BEFORE LEAVING THE JOB SITE, MAKE SURE:

1. Saddle valve is fully open.
2. All plumbing connections are watertight.
3. Humidifier functions properly.

IMPORTANT! 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.

TEMPLATE MUST BE LEVEL