INSTALLATION INSTRUCTIONS FOR SMALL AND LARGE BYPASS HUMIDIFIERS

READ COMPLETE SAFETY INSTRUCTIONS AND INSTALLATION INFORMATION BEFORE STARTING.

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.

ATTENTION INSTALLER:

WARNING

1. 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.
2. Sharp edges may cause serious injury from cuts. Use care when making plenum openings and handling duct.
3. Hot water temperatures in excess of 125°F may cause serious injury from burns. Make sure water supply is shut off before connecting the water supply.

CAUTION

1. Do not install unit where freezing temperatures could occur.
2. Do not install unit or bypass connection on the furnace cabinet.
3. Do not install unit or bypass connection on a plenum face where the blanked off ends of the cooling coil restrict air movement through the humidifier.
4. Do not set humidity higher than recommended. Condensation damage may result.
5. Do not connect a transformer to multi-speed furnace blower motors or blower motors other than 120 VAC. Premature component failure may result. Connect secondary transformer leads as last step.
6. Do not set humidity up to recommended levels if there is condensation on the inside windows of any unheated living space. Condensation damage may result.
7. Do not install unit on the supply plenum where duct static pressure exceeds 0.3" W.C.
8. Do not install humidifier where water pressure exceeds 125 psi, since damage to the unit may result. Follow codes in effect concerning pressure reduction.

Specifications

SBP SMALL BYPASS HUMIDIFIER	LBP LARGE BYPASS HUMIDIFIER
Unit Dimensions 12 7/8"W x 12 3/4"H x 9 1/8"D, 6" dia. round opening	**Unit Dimensions** 13 1/8"W x 15 1/2"H x 9 1/8"D, 6" dia. round opening
Plenum Opening 9 3/8"W x 9 1/2"H	**Plenum Opening** 9 7/8"W x 12 3/4"H
Water Feed Rate 3 gph	**Water Feed Rate** 6 gph
Electrical Data (UL) 24V-60Hz, 0.5 AMP	**Electrical Data** (UL) 24V-60Hz, 0.5 AMP

Diagram A:

FOR HUMIDIFIER OPERATION DURING "HEAT CALL" ONLY

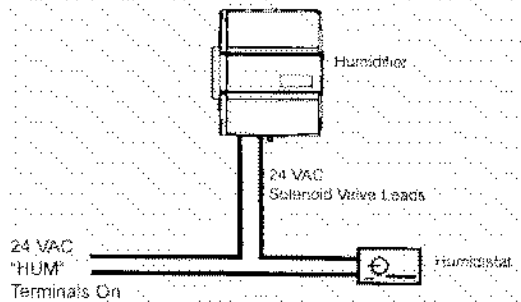


Diagram B:

For Humidifier Operation When Blower Is Energized

NOTE: CONNECT SOLENOID VALVE TO HOT WATER IF HUMIDIFIER WILL BE OPERATED INDEPENDENT OF HEATING CALLS.

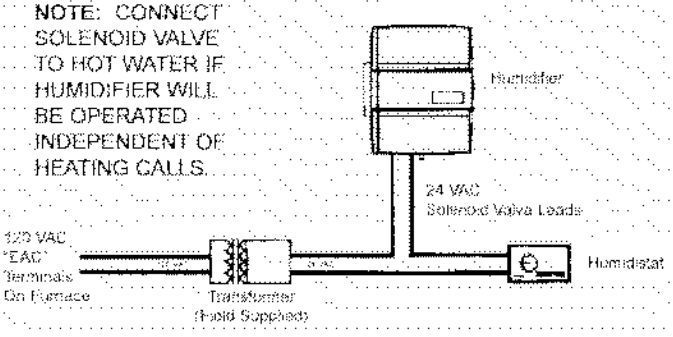
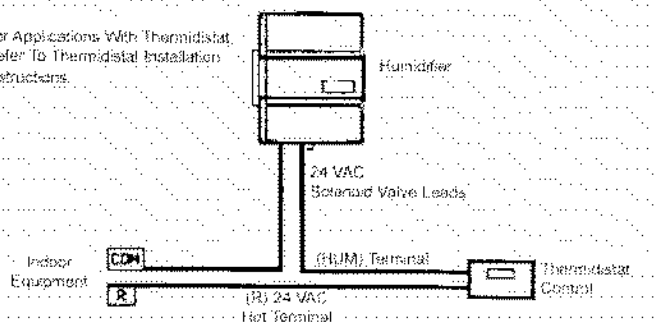


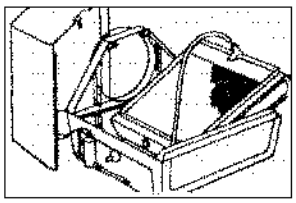
Diagram C:

For Humidifier Operation With Thermidistat Control

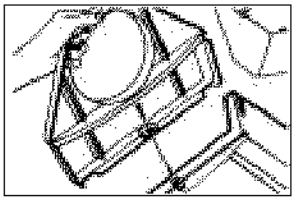
WARNING: Do Not Connect Furnace HUM Terminal Directly To Thermidistat HUM Terminal

Note: For Applications With Thermidistat Refer To Thermidistat Installation Instructions.

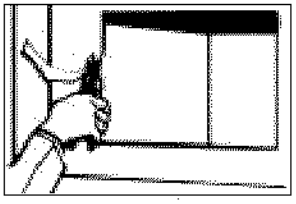




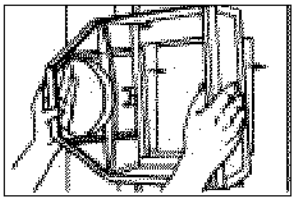
1. Place unit on flat surface, pull front cover up on right side. It snaps loose. Disconnect feed tube nozzle and lift evaporative media and scale control insert out at the top.



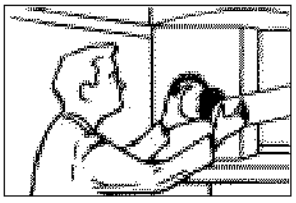
2. The unit is assembled for left side discharge. If right discharge is necessary, remove the right and left screws from the unit interior side walls and exchange the two sides. Reassemble with screws.



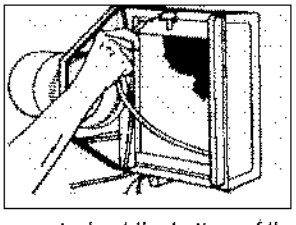
3. Draw a level line on furnace supply plenum at least 1 1/2" above furnace cabinet to allow for water supply line and drain hose. Accurately cut a plenum opening (Small Bypass Unit, 9 3/8"W x 9 1/2"H and Large Bypass Unit, 9 3/4"W x 12 1/2"H), being careful to avoid injury from sharp edges.



4. Place the unit into the plenum opening so that the locking tabs on the bottom are closed down onto the lower sheet metal edge. While holding the unit in place, install two screws at the top of the unit interior.

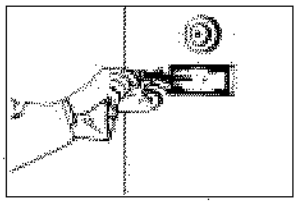


5. Install a 6" collar in a convenient location on the opposite plenum. Slip on a 90° elbow and measure the length of 6" round duct required to make the connection. The 6" duct will fit into the round collar on the side of the unit. If the furnace has central air conditioning, add a duct damper. Assemble components with sheet metal screws. Support bypass ducts in excess of 4' to prevent sagging.



6. Reattach feed tube nozzle and replace the evaporative assembly complete with the evaporative media by fitting the drain tube into the round receptacle at the bottom of the unit. Push the assembly in at the top against the beveled tabs. Replace the front cover.

7. HUMIDISTAT INSTALLATION INSTRUCTIONS



The humidistat 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 on the humidifier. A decrease in relative humidity reverses the process and closes the control switch. Install the humidistat.

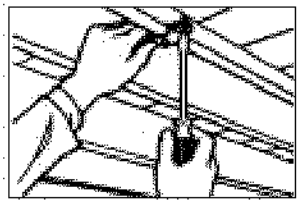
DISCONNECT ELECTRICAL POWER TO FURNACE BEFORE PROCEEDING

LOCATION

a) Locate on inside wall of living area approximately 5' above floor, or in the furnace return air plenum. Use enclosed adapter plate for return air installation.
b) Do not locate control in the direct path of furnace discharge air or drafts from open doors and windows.
c) Do not install where operation might be affected by lamps, sunlight, fireplace registers, radiators, concealed air ducts and pipes, or room occupants.
d) The basic rules for location of thermostats also apply to humidistats.

GENERAL INSTRUCTIONS

a) DO NOT ATTEMPT TO REPAIR OR RECALIBRATE CONTROL. Controls requiring service should be returned to your distributor.
b) Control must be installed using 24 volts!
c) Make sure no bare wires are exposed or insulation damaged. Insulation on wire should extend to head of binding screws.
d) Make sure all splices are mechanically and electrically secure.
e) To remove dirt or other foreign matter from nylon ribbon and control interior, dust lightly with a fine, soft brush.



8. Tap into a water supply line with the saddle valve furnished. 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 capacities. NOTE: The saddle valve is designed to be fully opened or closed. Do not use it to regulate water flow.

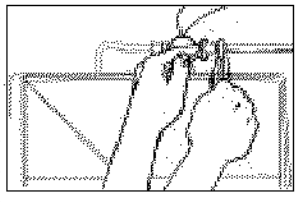
TO INSTALL ON COPPER OR PLASTIC PIPE

a) Place rubber gasket in center of hole in top saddle clamp. Place top and bottom saddle clamp around water pipe. Using bolts, tighten saddle clamps evenly – clamps should be parallel – **DO NOT** over-tighten.
b) Screw valve body into opening in top saddle clamp and tighten.
c) Tighten gland nut onto valve body.
d) Install 1/4" water supply line from humidifier using compression fittings.
e) You are now ready to pierce the pipe. Turn handle until spindle is firmly seated into valve body. The water pipe is now fully pierced. Turning spindle in shuts valve off. Open valve completely for normal operation.

TO INSTALL ON STEEL OR BRASS PIPE

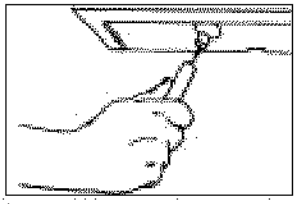
a) Shut off water supply. Open any faucet to relieve water pressure.
b) Drill 3/16" diameter hole into pipe where saddle valve will be placed.
c) Place rubber gasket in center of hole in top saddle clamp.
d) Place top saddle clamp assembly over hole so that lance fits into hole.
e) Place top and bottom saddle clamp around water pipe.
f) Screw valve body into opening in top saddle clamp and tighten.
g) Tighten gland nut onto valve body.
h) Install 1/4" water supply line from humidifier using compression fittings.

NOTE: For pipe over 1" O. D., use 1/4"-20, 1 3/4" long bolts.

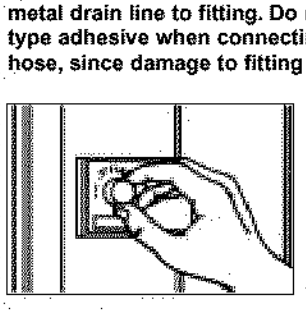


9. Connect tubing from the saddle valve to the inlet side of the solenoid valve using 1/4" O. D. copper tubing (not furnished).

DOUBLE WRENCH TO PREVENT LEAKING AND VALVE BREAKAGE!



10. Connect 1/2" I.D. plastic hose (not furnished) from unit to floor drain. Be sure drain hose has continuous slope. Use caution if hose clamp is used to not over tighten and crack drain spud. **NOTE: Do not sweat or directly attach metal drain line to fitting. Do not use solvent type adhesive when connecting plastic drain hose, since damage to fitting could result.**



11. Open saddle valve and turn on furnace. Turn up humidistat to operate unit. Allow unit to run until water is observed coming out of drain line. Check to see if unit is watertight and all electrical components function properly. Reset humidistat to recommended level.

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