

INSTALLATION INSTRUCTIONS FOR COMBINATION HUMIDISTAT MODEL 052000

APPLICATION:

This humidity-control device has been designed for use with central-unit power humidifiers. It may be installed on the wall or on the return-air plenum of forced warm-air furnaces. **IMPORTANT:** Do not duct mount controller on counter flow furnaces - the heat convection will impair performance. In this case, wall mount only. The controller will operate (open and close) in line (115) volt a.c. or low (24) volt a.c. circuits.

FEATURES:

All materials are of the highest quality and have been selected for their reliability and long life. This humidistat provides continuous and positive humidity control when installed in accordance with recommended procedures. For simplicity of operation, the dial face has been keyed to a corresponding chart which shows the recommended dial setting as directly related to the outside temperature.

OPERATION:

The control switch makes contact on a "sensed" decrease in the relative humidity to the set point and starts the humidifier. Any "sensed" increase in relative humidity to the set point breaks the switch contact and stops the humidifier.

WIRING:

All wiring must conform to local codes, ordinances and regulations relating to wire size, type of insulation and enclosures. Low-

The sensing element is made of exceptionally thin (1 mil) moisture-sensitive nylon ribbon. The inherent physical properties of this element make it sensitive to relatively small changes in humidity and provides reliable operation.

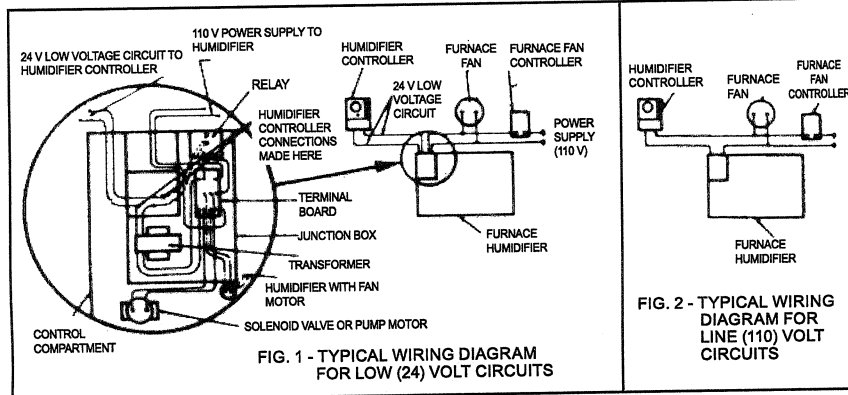
LOCATION:

Wall Mount Applications - Select a location four to five feet above the floor in a central area of the home (preferably near the thermostat). Avoid locations near hot or cold air ducts or other air-discharging equipment. **Furnace Return Air Duct Applications** - ***IMPORTANT:** Do not duct mount controller on counter-flow furnaces - the heat convection will impair performance. In this case, wall mount only.

Locate humidistat for easy inspection and operation. When routing wiring to and from controller do not fasten wiring to warm-air plenum; the high temperatures could affect the wire casing. Installing controller on return-air ducts from bathroom, laundry, kitchen, and other high humidity areas, should also be avoided to prevent improper operation.

Note: In pressure differential (by-pass) humidifier installations, used in conjunction with a return air duct, the humidistat should be installed upstream from humidifier air.

voltage wiring is not recommended for return air plenum applications because of difficulty in obtaining proper seal around wires entering the "knock-out" openings of the humidistat.



INSTALLATION FOR WALL- (LOW VOLTAGE 24 V.A.C.) MOUNT APPLICATION

CAUTION: Disconnect power to humidifier before starting installation. (Refer to Figs. 1 and 3).

Step No. 1. Remove contents from package and identify with Parts List.

- PARTS LIST**, packed with each Humidistat.
- 1 paper mounting template
 - 1 form gasket (not used with wall mount application, may be discarded)
 - 2 round grommets
 - 4 self tapping screws, 1" long
 - 2 machine screws, 5/16" long
 - 2 solderless quick-connect terminals
 - 1 metal backplate (do not remove cable connector knockouts from flange.)
 - 1 plastic trim cover
 - 1 humidity sensing control
 - 1 control knob
 - 4 self-tapping screws, 3/8" long

Step No. 4. Remove control knob from shaft of humidity-sensing control, releasing plastic trim cover.

Step No. 5. Secure sensing control to metal backplate (keep flange of backplate facing controller), using two No. 6 x 3/8" self-tapping screws supplied.

Step No. 6. Insert rubber grommet into hole at bottom center of metal backplate. Pull wires through grommet opening.

Step No. 7. Secure metal backplate to wall with the four 1" self-tapping screws, using one plastic spacer per screw to hold backplate away from wall.

Step No. 8. Secure wiring to sensing control using solderless quick-connect terminals.

Step No. 9. Attach Plastic trim cover to metal backplate locating metal backplate flange tabs into slots on bottom of plastic trim cover (FIG. 6 detail). Swing plastic trim cover over sensing-control shaft. Be sure plastic trim cover is firmly sealed over backplate. Secure plastic trim cover to sensing control using two No. 6 x 3/8" self-tapping screws.

Step No. 3. Pull wires from humidifier through wall at wiring hole.

Step No. 10. Press control knob onto sensing control shaft.

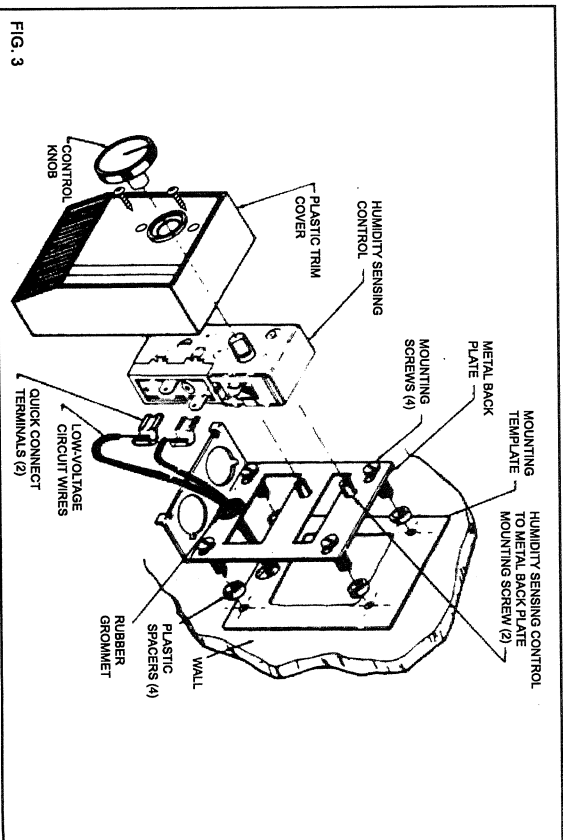


FIG. 3

INSTALLATION FOR FURNACE (LINE VOLTAGE 115 V.A.C.) RETURN AIR PLENUM APPLICATION

CAUTION: Disconnect power to humidifier before starting installation. (Refer to Figs. 2 and 4).

Step No. 1. Remove contents from envelope; identify with Parts list.

Step No. 2. Select location on return air plenum allowing sufficient room for exit of wiring from bottom of controller. The mounting template is the same size as the controller - use it to determine location.

Step No. 3. Tape mounting template in level position at selected location. Punch or drill four mounting holes and cut rectangular opening in duct according to instructions on template. Note: Be sure cut edge of opening is flush with duct as uneven edge may prevent proper seal of controller to plenum and cause improper operation.

Step No. 4. Remove control knob from humidity sensing control, releasing plastic trim cover.

Step No. 5. Secure sensing control to metal backplate (keep flange of backplate facing controller), using two No. 6 X 3/8" self-tapping screws.

Step No. 6. Remove cable connector knockout from backplate flange. Route wiring from humidifier through opening and attach armor cable and connectors (not furnished.)

Step No. 7. Secure metal backplate to duct with four 1" self-tapping screws, aligning foam gasket between duct and backplate. The gasket has been designed larger than backplate in order to seal plastic trim cover to plenum. **DO NOT** trim gasket to smaller size.

Step No. 8. Secure wiring to humidity sensing control using two quick connect terminals.

Step No. 9. Attach Plastic trim cover to metal backplate locating metal backplate flange tabs into slots on bottom of plastic trim cover (FIG. 6 detail). Swing plastic trim cover over sensing-control shaft. Be sure plastic trim cover is firmly sealed over backplate and making contact with foam gasket on all sides. Secure plastic trim cover to sensing control using two No. 6 x 3/8" self-tapping screws.

Step No. 10. Press control knob onto sensing control shaft.

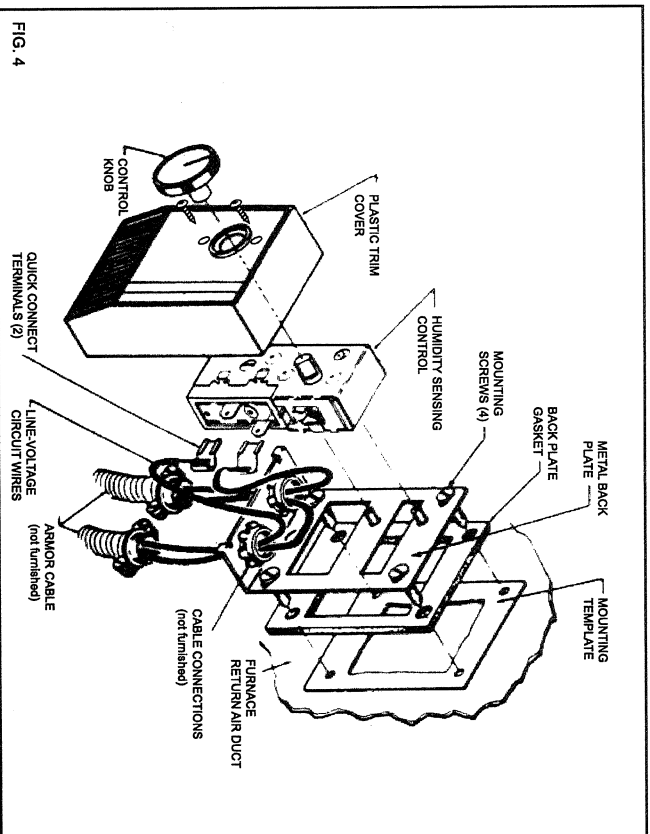


FIG. 4

INSTALLATION FOR FURNACE RETURN-AIR PLENUM APPLICATION (LOW VOLTAGE 24 V.A.C.)

CAUTION: Disconnect power to humidifier before starting installation. (Refer to Figs. 1 and 5).

Step No. 1. Remove contents from envelope; identify with Parts list.

Step No. 2. Select location on return air plenum allowing sufficient room for exit of wiring from bottom of controller. The mounting template is the same size as the controller - use it to determine location.

Step No. 3. Tape mounting template in level position at selected location. Punch or drill four mounting holes and cut rectangular opening in duct according to instructions on template. Note: Be sure cut edge of opening is flush with duct as uneven edge may prevent proper seal of controller to plenum and cause improper operation.

Step No. 4. Remove control knob from humidistat sensing control, releasing plastic trim cover.

Step No. 5. Secure sensing control to metal backplate (keep flange of backplate facing controller), using two No. 6 x 3/8" self-tapping screws.

Step No. 6. Remove one knockout plug (as shown) from the backplate flange, insert the large Neoprene Grommet with the funnel shape downward and route wiring through this grommet.

Step No. 7. Secure metal backplate to duct with four 1" self-tapping screws, aligning foam gasket between duct and backplate. The gasket has been designed larger than backplate in order to seal plastic trim cover to plenum. **DO NOT** trim gasket to smaller size.

Step No. 8. Secure wiring to humidistat sensing control using two quick connect terminals.

Step No. 9. Attach Plastic trim cover to metal backplate locating metal backplate flange tabs into slots on bottom of plastic trim cover (FIG. 6 detail). Swing plastic trim cover over sensing-control shaft. Be sure plastic trim cover is firmly seated over backplate and making contact with foam gasket on all sides. Secure plastic trim cover to sensing control using two No. 6 x 3/8" self-tapping screws.

Step No. 10. Press control knob onto sensing control shaft.

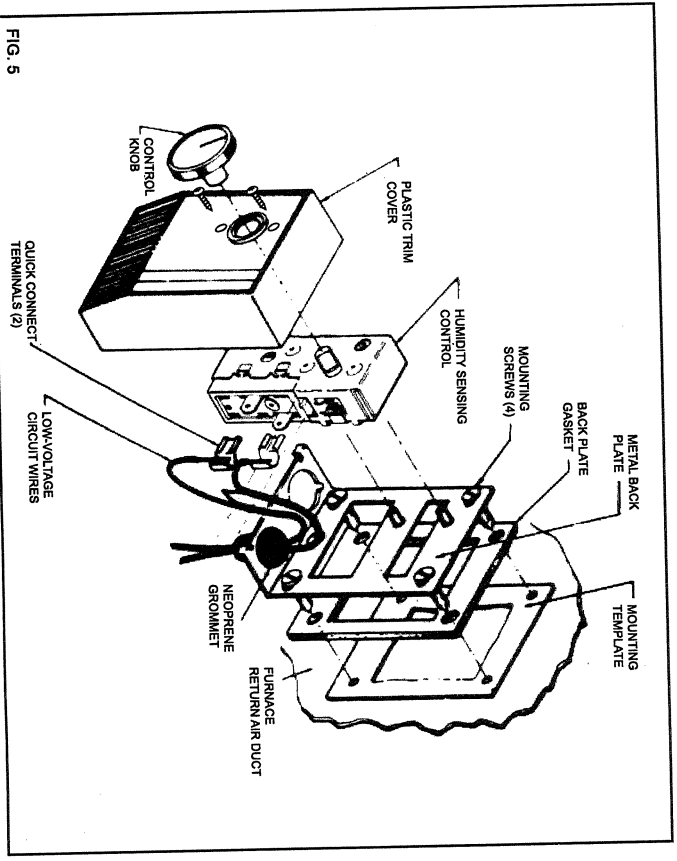
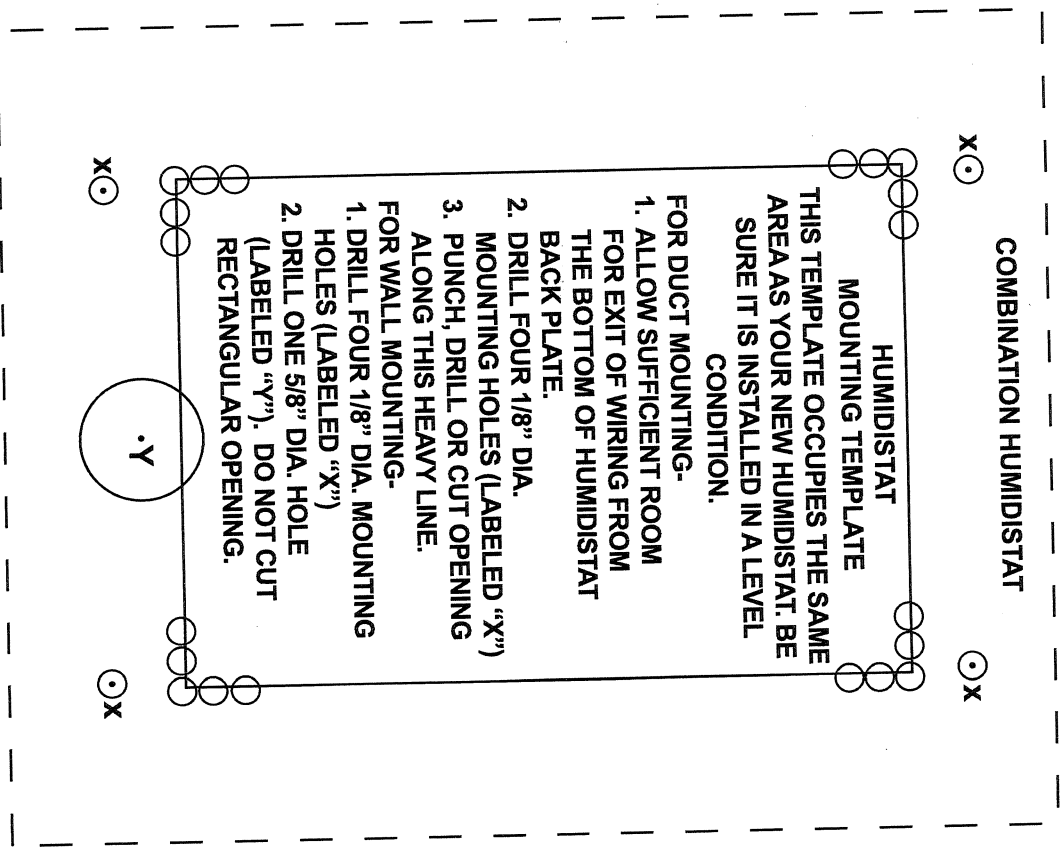


FIG. 5



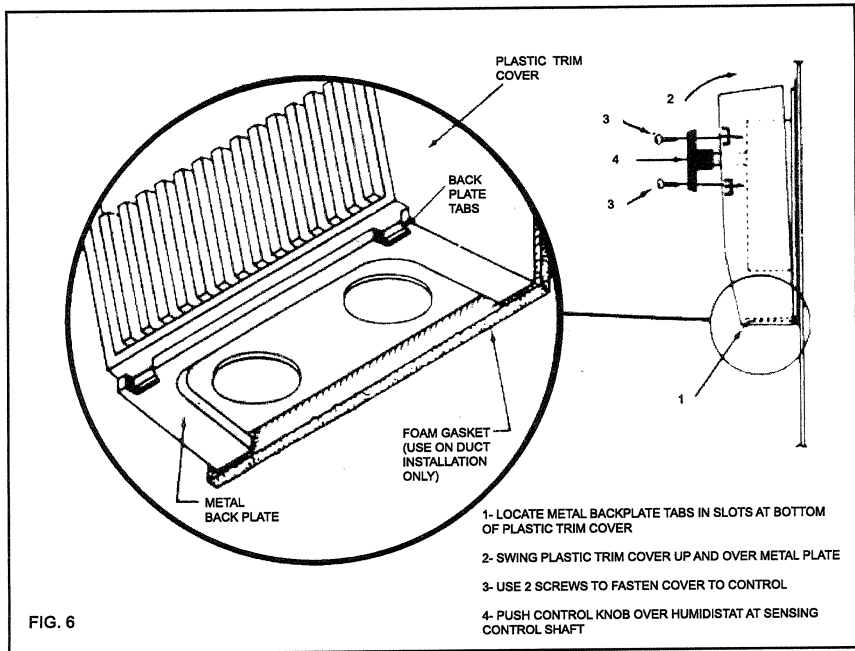


FIG. 6

CHECKOUT

After all mounting and wiring has been completed, recheck wiring. Turn on power supply. Place system in operation by turning control knob clockwise until humidifier starts running. (NOTE: The furnace fan *must* be running before the humidifier will start.) Check action of humidifier controller by turning control knob counterclockwise until the humidifier stops.

If these actions activate and deactivate the humidifier, then the humidifier controller has been properly installed and the dial should be set at proper operating position according to the outside temperature. If the humidifier fails to operate after the above procedure, check installation procedures and wiring diagram for possible errors. If o.k., leave running for two days and adjust.

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Form No. 401558C

Part No. 094008 A0099B