

APPLICATION

The H49A and H69A controllers mount in the return air duct of a forced air heating system to provide control of a central humidifier and/or dehumidifier. Their snap-acting switch breaks contact on a relative humidity rise to set point.

ELECTRICAL RATINGS (A at 50/60 Hz):

H49A

	120 Vac	240 Vac
Full Load	7.5	3.8
Locked Rotor	45.0	22.8
Resistive	15.0	7.5

H69A

	TERMINALS	
	R-W 120 Vac (N.C.)	R-B 120 Vac (N.O.)
Full Load	7.5	3.0
Locked Rotor	45.0	18.0
Resistive	15.0	3.0

INSTALLATION

WHEN INSTALLING THIS PRODUCT . . .

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.

CAUTION

Disconnect power supply before beginning installation to prevent electrical shock or equipment damage.

Follow mounting instructions furnished by the humidifier or furnace manufacturer if available; otherwise, see instructions given below.

LOCATION

Locate the control element in the main return air duct where it will be exposed to return air from the living space. The temperature at the element must not fall below 60° F [16° C] or exceed 125° F [52° C]. If the furnace or duct design allows a temperature rise at the furnace during the blower OFF cycle, locate the humidistat far enough away from the furnace to ensure that the resulting heat will not reach the sensing element.

Where possible, mount the controller on the side of the duct so the portion extending into the duct is on a horizontal plane with the open side of the element bracket

facing downstream. This makes the set point adjustment easily accessible and shelters the sensing element from lint and dirt. Figs. 1-3 show preferred and alternate locations for the H49A and H69A in a variety of return air duct configurations. Be sure to allow the minimum dimensions from the elbows or junctions as indicated in each figure.

MOUNTING

NOTE: The sheetmetal mounting screws furnished require punched or drilled pilot holes.

1. Using the mounting template, cut the element opening and make pilot holes for the mounting screws.
2. Remove control cover by pulling straight outward. Do not remove adjustment knob to remove cover.
3. Place the control element in the opening and fasten the control to the duct with 2 screws.

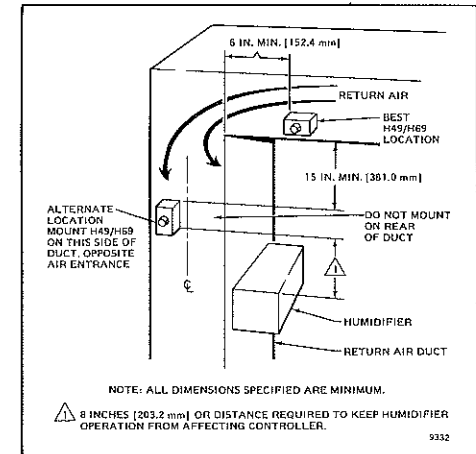


Fig. 1—Mounting location options.

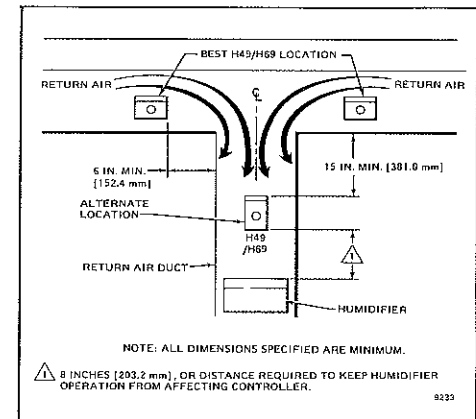


Fig. 2—Mounting location options.

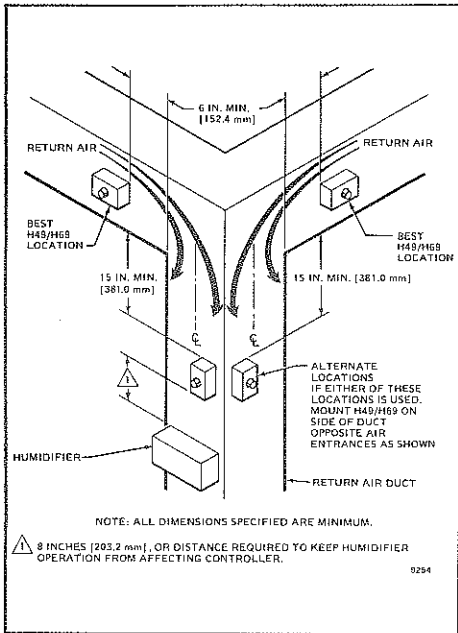


Fig. 3—Mounting location options.

WIRING

Disconnect power supply before connecting wiring to prevent electrical shock or equipment damage.


When connecting cable or conduit to this control, use care to avoid strain on the control case.

All wiring must comply with applicable electrical codes and ordinances. Follow furnace or humidifier manufacturer's instructions if available. A humidifier controller is usually connected so it will operate only when the furnace fan is running. See Figs. 5 and 6.

IMPORTANT

The push-in connectors on this device are not suitable for use with aluminum wire.


WHEN CONNECTING WIRES TO THE PUSH-IN TERMINALS, use the following procedure:

1. No. 14, 16 or 18 solid or No. 14 or 16 stranded wire may be connected to the terminals.
2. Strip insulation from wires the length shown by the strip gauge. See Fig. 4.
3. If stranded wire is used, insert a small screwdriver into the push-to-release slot (marked ) by the terminal hole, push in and hold. Then insert wire into the terminal hole and remove the screwdriver.

NOTE: Solid or tinned wire may be inserted without releasing the contact grip.

4. H69A also contains a screw terminal. Connect wiring to terminal as shown in Fig. 4 inset.

TO DISCONNECT WIRING, proceed as follows:

1. Push inward with a screwdriver to release grip on wire (as indicated at ) on front of switch.
2. With the grip released, pull out the wire.

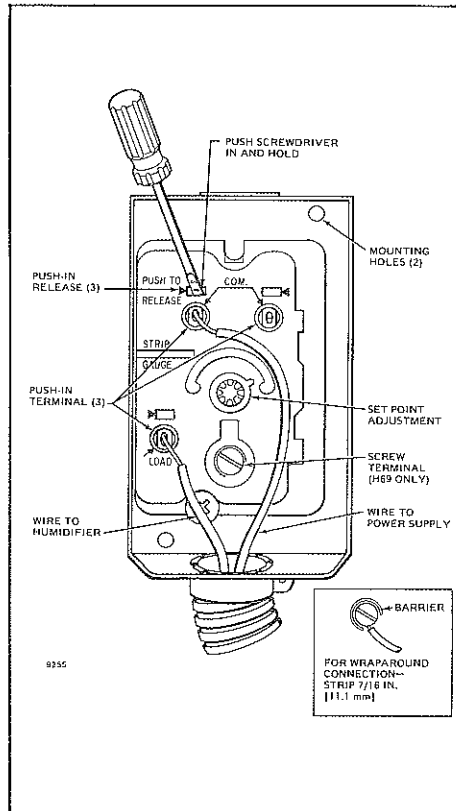


Fig. 4—Use of push-in and screw terminals.

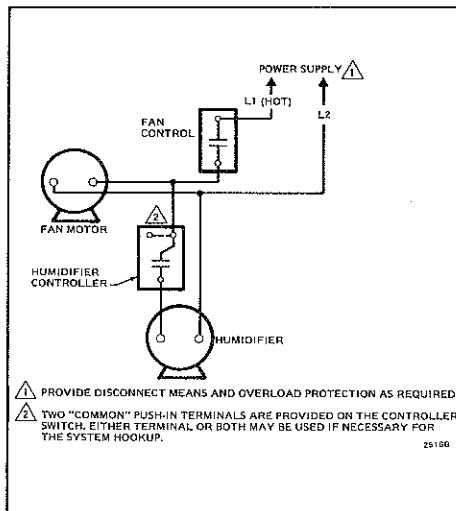


Fig. 5—H49A Humidifier Controller connections when used in a forced air heating system.

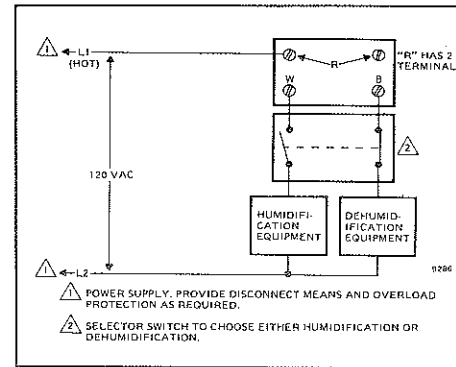



Fig. 6—Typical H69A wiring hookup.

SETTING AND ADJUSTMENT

The scale range is marked on the face of the cover. The H49A adjustment knob provides settings from 15 to 50 percent relative humidity. For manual shutoff of the humidifier turn the adjustment knob clockwise  to OFF position.

The H69A adjustment knob provides settings from 35 to 65 percent relative humidity.

Recommended humidity set points for various outdoor temperatures are printed on the mounting template. Use these recommendations as a guide when making the initial adjustment. If condensation appears on windows at the initial setting, reduce the humidistat set point 1 scale point at a time until the condensation no longer occurs. After each set point change, allow 6 hours for equilibrium to be reached before readjusting.

IMPORTANT

Condensation must not be allowed to continue for extended periods of time, as it may result in structural damage.

Calibration is factory-set and should not be adjusted.



OPERATION

HUMIDIFICATION

The H49 switch makes contact (H69 makes R-W) on a humidity fall to the set point minus differential. The switch breaks on a rise in humidity to the set point (4 to 6 percent RH).

In most humidifier systems, the furnace fan must be operating before the humidifier starts.

DEHUMIDIFICATION

The H69A makes R-B on a relative humidity rise to the set point to start the dehumidifier. A decrease in relative humidity to the set point minus the differential breaks the R-B contacts to stop the dehumidifier. Turn the control knob clockwise  to stop for positive ON operation and counterclockwise  for positive OFF.

CHECKOUT

After all mounting and wiring have been completed, turn on the power supply. Set the thermostat to call for heat; furnace fan should come on. Set the H49A or H69A to call for system operation; the controlled equipment should come on. Observe through one complete cycle to be sure all equipment is functioning as intended.