

**Aprilaire<sup>®</sup> HUMIDISTAT** (Part No. 4016) is designed for low voltage service to control humidification equipment. An increase in relative humidity expands the nylon ribbon which opens the control switch to stop operation of the humidifier. A decrease in relative humidity reverses the process and closes the control switch.

**LOCATION**

1. Locate on inside wall of living area approximately 5' above floor, or in the furnace return air plenum or duct.
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 humidistats.

5. Make sure all splices are mechanically and electrically secure.
6. To remove dirt or other foreign matter from nylon ribbon and control interior, dust lightly with a fine soft brush.
7. See Part No. 4039 for return air installation.

**GENERAL INSTRUCTIONS**

1. DO NOT ATTEMPT TO REPAIR OR RECALIBRATE CONTROL IN THE FIELD ... Controls requiring service should be returned to RESEARCH PRODUCTS CORPORATION, Poynette, Wisconsin 53955.
2. Do not mount humidistat on counter flow furnace. Furnace malfunction will result in improper humidifier operation.
3. Be sure the control is installed on 24 volts only.
4. Make sure no bare wires are exposed or insulation damaged. Insulation on wire should extend to head of binding screws.

**SPECIFICATIONS**

RANGE .....15% to 50%

OPERATING DIFFERENTIAL ..... .8% RH MAXIMUM

**DIMENSIONS (Inches)**

Length ..... .4½"  
 Height ..... .2¾"  
 Depth ..... .2½"

**ELECTRICAL DATA**

SPST Switch  
 2 wires  
 24 volts A.C.  
 Maximum load (contacts) 5.2 amps.

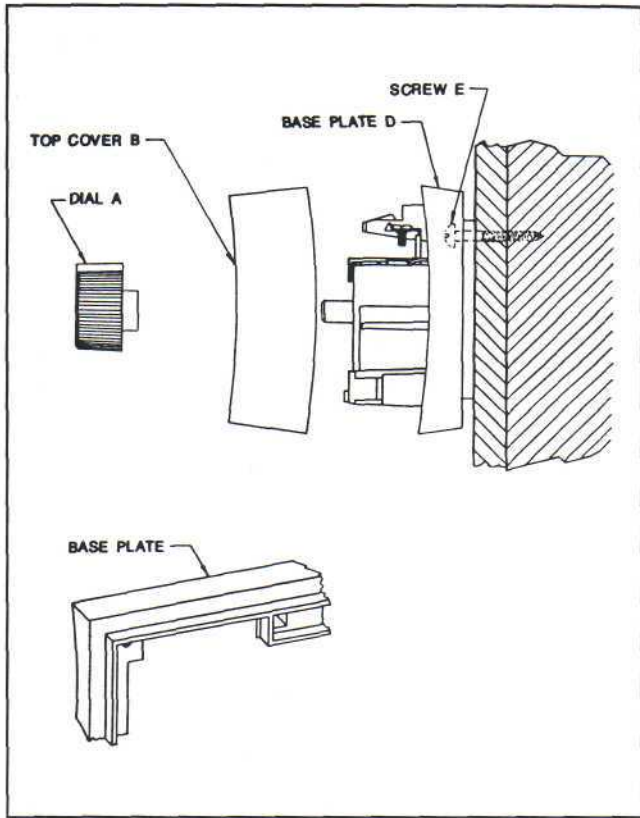


Fig. 1

Photo No. 1

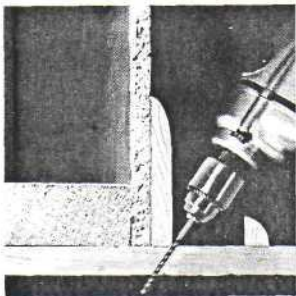


Photo No. 2

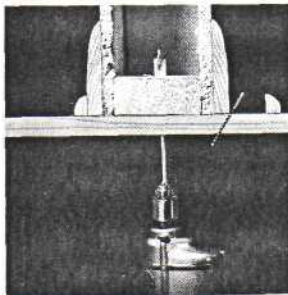


Photo No. 3

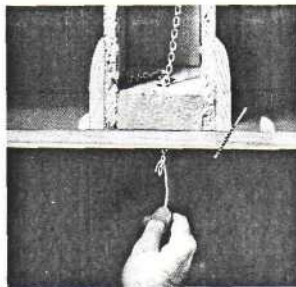
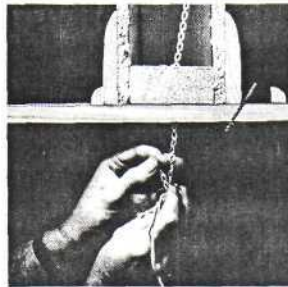


Photo No. 4



**Installation and wiring** (See Part No. 4039 for return air humidistat installation instructions)

1. Select humidistat location. Directly below, after removing quarter round molding, drill a 1/8" guide hole at an angle through floor. Leave drill in place for observation from basement. Use 4" long drill (Photo No. 1).

2. At the guide hole, drill a 1" hole up through the plate into the stud space. Check to see if stud space is clear (Photo No. 2).

3. Drill a hole in the wall at the selected humidistat location, 1/2" in diameter. Use a plumb bob or level to position directly above guide hole.

4. Attach a weight to a piece of cord or use a small chain and insert through hole in wall until it rests on plate. Use a stiff wire with the end formed into a hook and pull the chain or cord down into the basement (Photo No. 3).

5. Tie the humidistat wire securely to the cord or chain (Photo No. 4).

6. Pull low voltage leads up from basement and out through hole in wall. Before mounting the humidistat, the hole in the wall should be plugged to prevent drafts affecting the humidistat reading. All wiring should conform with the National Electrical Code and local regulations.

7. (See Fig. 1.) Gently pull dial (A) from humidistat cover (B). Cover is held in place by snap clips. Remove cover by pulling carefully. Never allow hands to come in contact with sensing element.

8. Pull low voltage leads through opening in base plate (D).

9. Attach wires to binding screws on back of humidistat. (Note: If wires are "bunched" between humidistat and wall, base plate may become warped or cracked and calibration may be affected.)

10. Attach base plate with humidistat to the wall using two screws (E).

11. Reassemble humidistat cover by snapping back in place. Press on dial. Remove 1/8" drill and replace quarter round.



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