



Bulletin	1009
Effective	9/24/80
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INSTALLATION AND OPERATING MANUAL FOR CALDWELL
DUAL HUMIDISTAT AND/OR THERMOSTAT KIT

Packing List

<u>Control Unit</u>	<u>Part Description</u>	<u>Quantity</u>
Dual Humidistat and/or Thermostat Kit	Dual Kit	1
	Bolt Bag	1
	Bulletin 1009	1

WARNING - WARRANTY IS VOID IF CONTROLS ARE TAMPERED WITH.

Installation Instructions

Installation is typical on all Caldwell humidistat and/or thermostat controls, and relay controls. Units are designed to allow mounting to bin wall, thus eliminating need for transition door or cutting hole in bin wall. Refer to page 5 for a typical illustration on how the installation should appear.

- 1) 4 - 11/64" diameter holes and 2 - 5/8" diameter holes are required for mounting controls. Refer to figures 1 and 2 on page 4 for an illustration. It is very important to locate these 6 holes properly so take precautions in drilling correctly. All holes must be drilled in the center of a hill corrugation and approximately halfway between ground level and drying floor. Do not have sensing controls located such that substructure will block air movement to the controls.
- 2) Remove lid from humidistat and/or thermostat controls. Use 2 sheet metal screws to fasten the box to the bin. Fasten securely making certain the rubber grommets are centered over the 5/8" holes drilled in the bin.

THERMOSTAT CONTROLS ONLY - After mounting of control is complete, place the heat sensor bulb through 3/8" diameter hole supplied in the protective shield. Extend the probe through the grommet and into the bin without any obstructions. NOTE: Be careful not to break or kink the capillary tube when installing the sensor bulb.

- 3) Remove lid from the relay box. Use the remaining 2 sheet metal screws to fasten the box to the bin. Fasten securely.



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Wiring Instructions

1. Inside the relay box is a heater to dual kit cord and a power relay cord which are already wired to the relay. Take the heater to dual kit cord and slip the unconnected end through the right hole in the bottom of the box. Take the power relay cord and slip it through the center hole in the bottom of the box. Now take 2 strain reliefs from the bolt bag and place one on each cord approximately 2" from the end of the cord. Snap them in the holes securely.
2. Remove the heater to dual kit cord presently wired to the humidistat and/or thermostat box. Clip the terminals off both wires and place (2) ring terminals on the wires. The ring terminals can be found in the bolt bag. Now slip the cord through the left hole in the bottom of the relay box and wire it identical to the heater to dual kit cord presently in the relay box. Use the same strain relief that was on the cord and snap it in the hole securely. Use the wiring diagram decal which can be found on the inside of the relay box lid or page 6 to be sure the relay is wired correctly.
3. A 5/8" diameter knockout is supplied in the humidistat and/or thermostat control box lid. Knock it out using a punch and hammer. If the knockout is not apparent, a 5/8" diameter hole will need to be drilled. Location for the hole is approximately 1 7/8" from the bottom and 1 3/16" from the right edge.
4. Take the power relay cord and place a strain relief approximately 2" from the end and snap it into the 5/8" diameter hole on the right of the lid humidistat and or thermostat control.
5. The 5/8" diameter hole on the left of the lid is supplied for 18-3 S-J 300 volt wire which will be your power supply. The required length of the wire will depend on the distance between the power source and the control box. (Refer to page 5 for an illustration). Strip approximately 8" of insulation off one end and place the remaining strain relief approximately 2" from the end of the insulation. Snap the strain relief into the hole.
6. A 5/32" diameter hole is required to be drilled in the humidistat and or thermostat control box lid approximately 3" from the bottom and 1 3/16" from the right edge. The hole is to be used to ground the assembly.
7. Strip the ground wire (green) on the power supply cord back 1/4" and place a ring terminal on it. The ground wire on the power cord presently has one on it. Place both ground wires over the 5/32" diameter hole and fasten the wires securely with the 1/8" x 5/8" machine screw, 1/8" external star washer, and 1/8" hex nut. Be sure the wires are to the inside of the box.
8. Strip the neutral wire (white) on the power supply cord back 1/4". The neutral wire on the power relay cord presently is stripped back. Take the two wires and twist them together and place a yellow scotchlock on them securely.



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9. The wiring of the hot wires (black) differ depending on which controls are being used. Use the wiring diagram decal on the inside of the relay box lid or page 6 for an illustration on how to wire the hot wires (black) and as a final check to be sure everything is wired correctly. Then fasten the lids back onto each box securely.

10. Remove the lid of the heater control box. A 5/8" knock out is located to the left of the terminal block, remove it using a punch and hammer.

11. Take the heater to dual kit cord and place a strain relief approximately 5" from the end. Slide the end of the cord through the 5/8" hole in the bottom of the heater control box and snap the strain relief into the hole.

12. The terminal block in the heater control box has a jumper wire connecting terminals 3 and 4, remove this wire. Connect either wire of the heater to dual kit cord to either terminal 3 or 4 by sliding the quick disconnects onto the terminals. Fasten the lid back onto the box securely, and repeat steps 10 through 12 for the additional heater control box.

INSTALLATION OF DUAL HUMIDISTAT AND/OR THERMOSTAT KIT

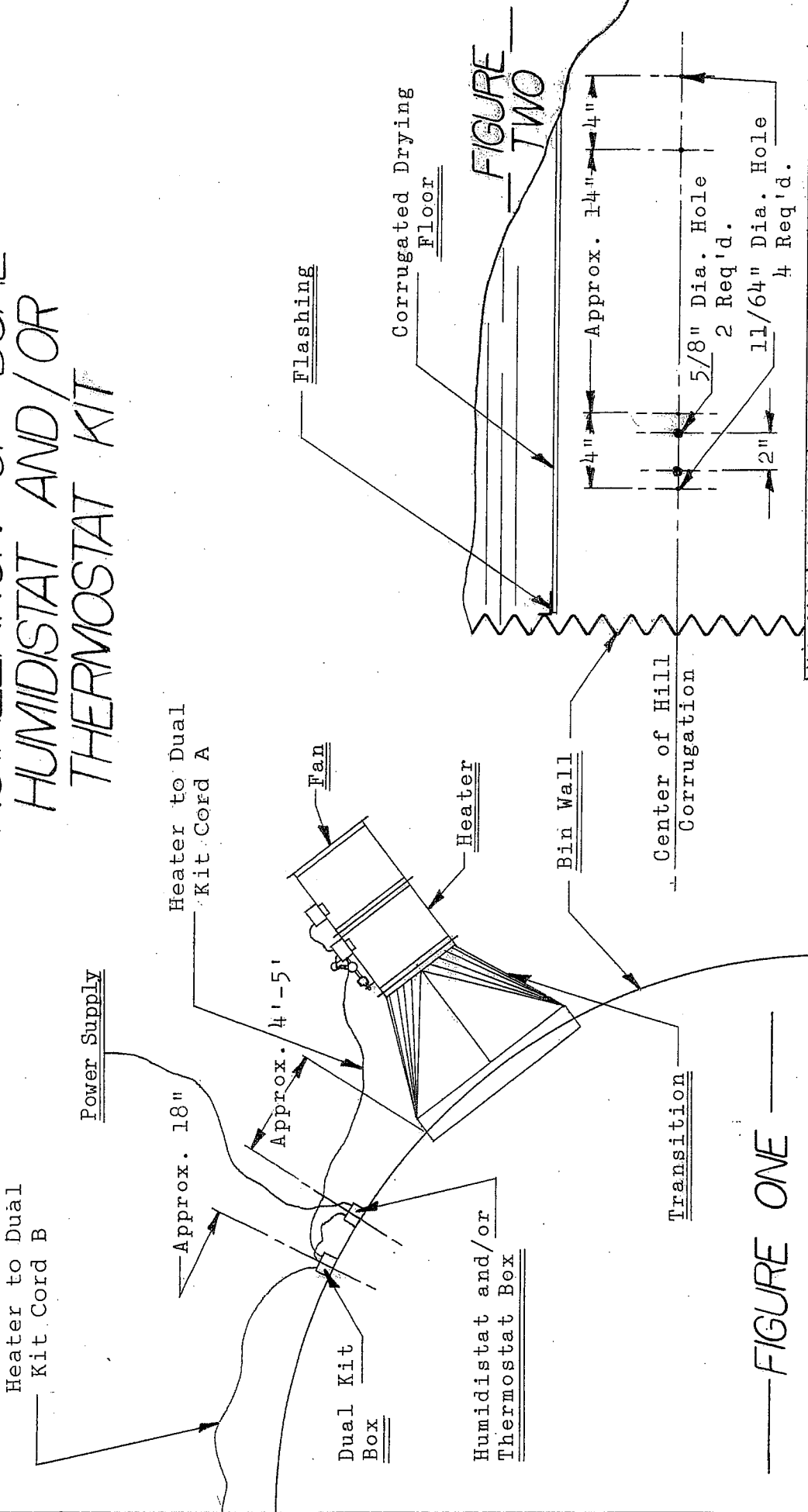


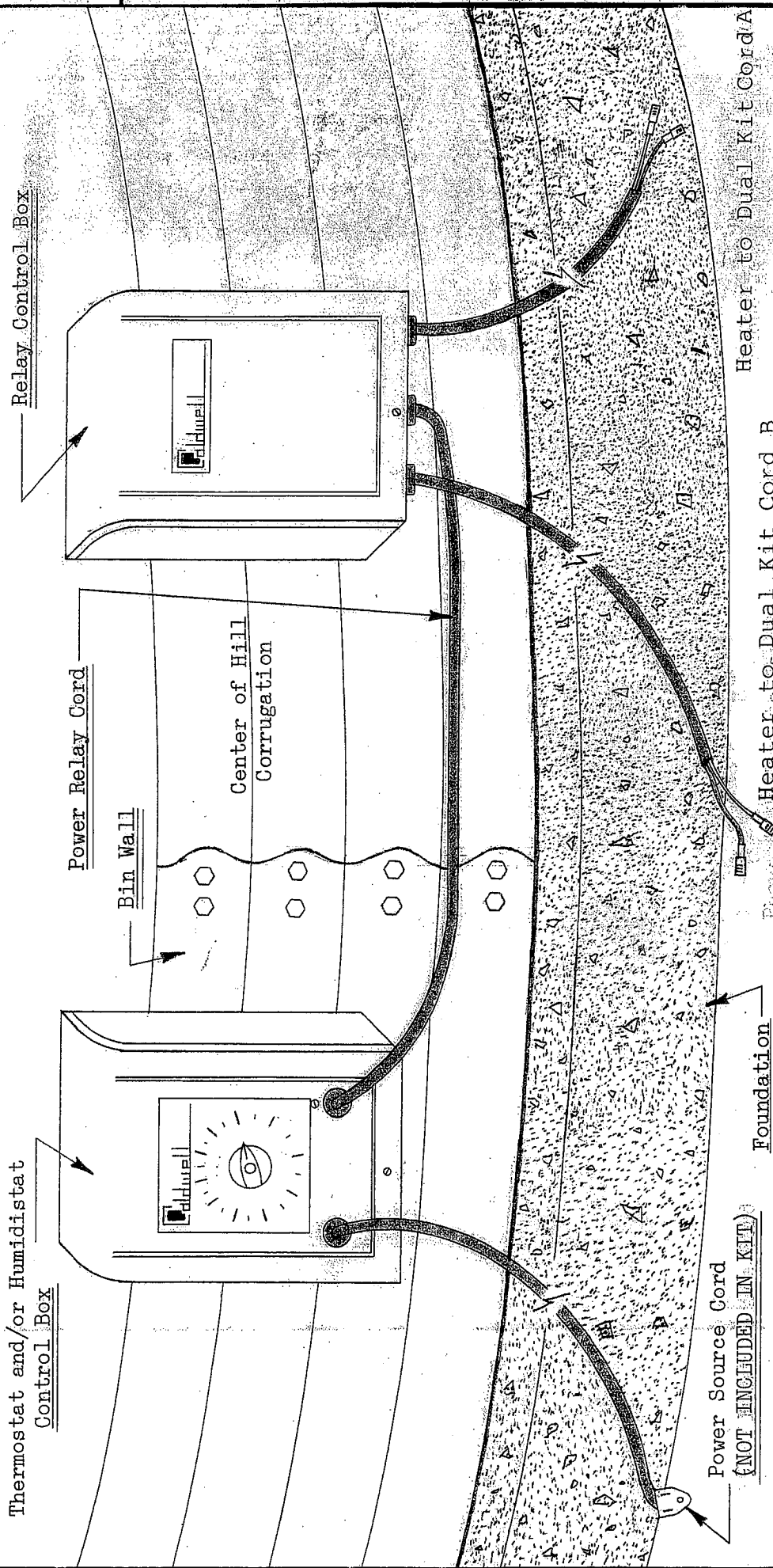
FIGURE ONE

FIGURE TWO

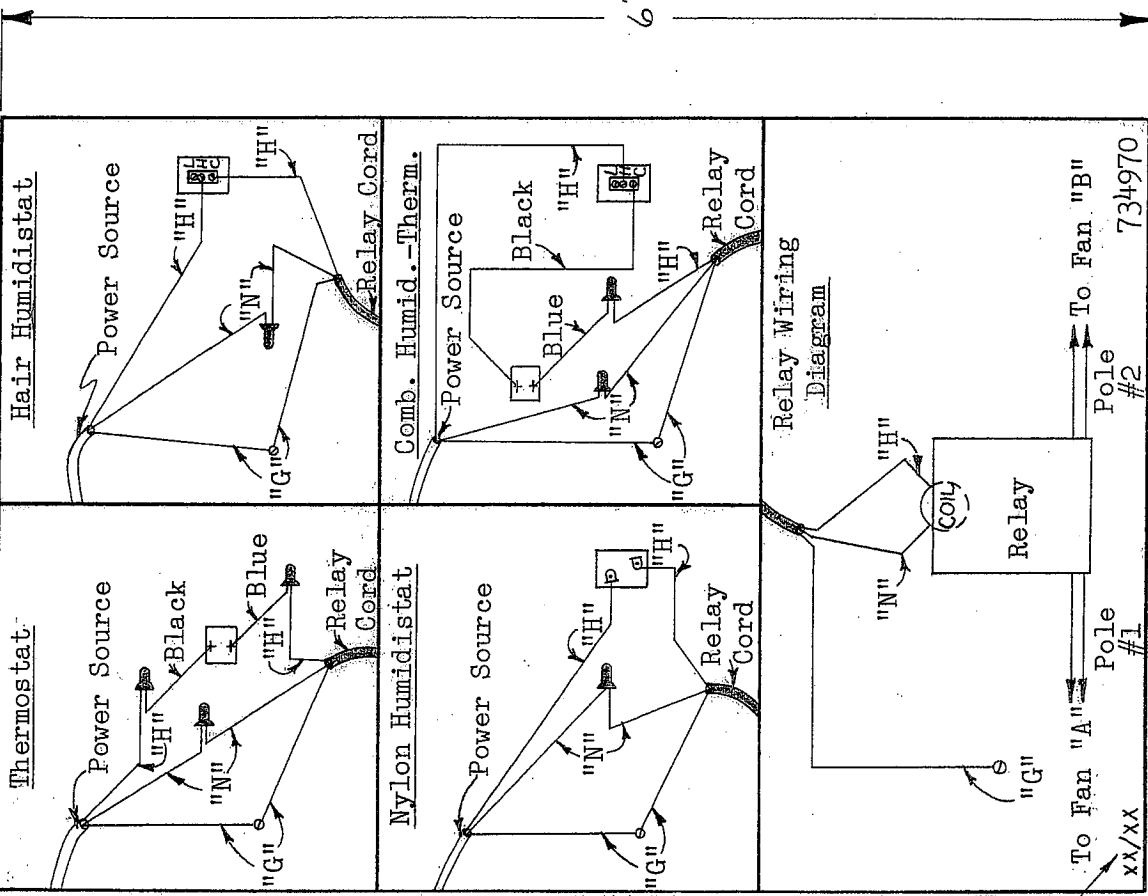
TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS ±1/32 DECIMALS ±0.10 ANGLES ±¼°		AUTHORIZED		PART NAME	
DRAWN		BY		INSTALL.—DUAL HUMID./THERM. KIT	
CHECKED		DATE		MATERIAL	
APPROVED		9/13/78		BULLETIN 1009, PG. 4	
APPROVED		10/13/78		SIZE	
REVISIONS		A		SCALE	
ERO. NO.		A		PART NO.	
DATE		A		BULLETIN 1009	

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INSTALLATION OF DUAL HUMIDISTAT AND/OR THERMOSTAT KIT



PART NAME		INSTALL. DUAL HUMID. &/OR THERM. KIT	
MATERIAL		ASSEMBLY	
SIZE	SCALE	PART NO.	BULLETIN 1009, PG. 5
A			
AUTHORIZED		BY	DATE
TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN	11/28/78
FRACTIONS ±1/32		CHECKED	
DECIMALS ±0.10		APPROVED	
ANGLES ±¼°			
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REVISIONS		ERO. NO.	DATE



ADD PRINTING DATE, MO./YR.

C		TOLERANCES UNLESS OTHERWISE SPECIFIED		AUTHORIZED		PART NAME	
B		FRACTIONS ±1/32		BY		WIRING DIAGRAM DECAL, DUAL	
A		DECIMALS ±.010		DATE		HUMID. (6, OR) THERM. KIT	
		ANGLES ±1/4°		DRAWN		MATERIAL	
				CHECKED		CLEAR BASE - BLACK PRINT	
				APPROVED		MYLAR 4" x 6"	
REVISIONS						SIZE	
ERO. NO.						A	
DATE						SCALE	
						FULL	
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