

HUMIDISTAT OWNERS MANUAL



INSTALLER: PLEASE LEAVE OWNERS MANUAL WITH HOME OWNER.

I. SAFETY

WARNING! Improper electrical wiring can result in fire or loss of humidity control. Disconnect electrical power before installing and servicing. Failure to disconnect electrical power may result in injury or death. The wiring must conform to all building codes and ordinances as required by local and national code authorities having jurisdiction for this installation.

The 229100 must be installed by a qualified Technician. Failure to properly install the 229100 may result in property damage or personal injury.

Homeowners must read instructions and understand the operation of the 229100 and the humidifier(s) it controls.

Improper operation can result in over or under humidification. Over humidification can result in condensation, structural damage and mold. Condensation within a building's structure can cause loss of structural strength. Condensation can also enable mold and mildew growth resulting in personal injury and damage to building structure and contents.

II. APPLICATION

The 229100 humidistat provides low voltage control of humidifiers installed in central heating systems. The humidistat has a SPST switch and is designed for mounting on the return air duct.

RANGE: 10% to 85% RH ELECTRICAL RATING: 30 VAC / 60 VA

OPERATION

Set the control knob to the desired humidity setting. The recommended setting for optimum humidification is 30% to 50%. The vertical position on the knob is approximately 42% RH.

Setting the humidistat above or below the recommended settings may not provide satisfactory results for your home.

OUTDOOR TEMPERATURE	RECOMMENDED SETTING
40°F 4°C	45
30°F -1°C	40
20°F -7°C	35
10°F -12°C	30
0°F -18°C	25
-10°F -23°C	20
-20°F -29°C	15

III. INSTALLATION INSTRUCTIONS

PRECAUTIONS

The installer must be a qualified technician. Disconnect electrical power before beginning installation. Do not install the humidistat on the warm air duct. Conduct a thorough checkout before leaving the installation.

DUCT MOUNTING ON THE RETURN AIR - PREFERRED METHOD

Do not install the humidistat on the warm air duct or within 48" of UV light.

1. Locate the humidistat at least 24" upstream of the humidifier or bypass on the return air duct. Avoid areas of direct radiation like secondary heat exchangers in the fan compartment.
2. Remove face by inserting screwdriver into pry slot and twisting (see fig 2)
3. Use the plastic duct mount plate as a template. Accurately mark and drill the (4) 3/32" mounting holes and cut away the 4-1/4" x 2-1/2" section of the duct inside the duct mount plate.
4. Place duct mount base gasket on the humidistat base and mount the base with four screws. Low voltage wire may enter the humidistat under the gasket (see fig 2).
5. Connect wires to screw terminals on the control assembly as shown in wiring diagrams. Replace face and knob.

WALL MOUNTING INSTRUCTIONS

NOTE: Requires wall mount kit (Model 229110)

1. Chose a location for the 229100 about five feet above the floor on an inside wall with average room temperature and relative humidity conditions.
2. Drill a small hole in the wall and run low voltage wiring to the location chosen. Pull about 6" of wire through the hole. Use the entire mounting gasket (both inside and outside portions) to seal the wall opening or use foam tape to prevent drafts from affecting the humidistat operation. (see fig. 3)
3. Remove the knob on the humidistat. Squeeze the top and bottom of the base to release the face of the humidistat.
4. Mount the base horizontally over the wires. Attach directly to the wall, using the two screws provided in the slotted holes.
5. Connect wires to screw terminals on the control assembly as shown in wiring diagrams. Replace face and knob.

WIRING

WARNING! Disconnect electrical power before beginning installation. The wiring must conform to all building codes and ordinances as required by local and national code authorities having jurisdiction for this installation. Refer to the following wiring diagrams.

CHECKOUT

With furnace in operation, turn humidistat to "ON" position. Observe humidifier operation.

SETTINGS

WARNING! Do not set relative humidity too high during cold weather. Over humidification can result in condensation, structural damage and mold. Condensation within a building's structure can cause loss of structural strength. Condensation can also enable mold and mildew growth resulting in personal injury and damage to building structure and contents.

Refer to OPERATION for proper settings.

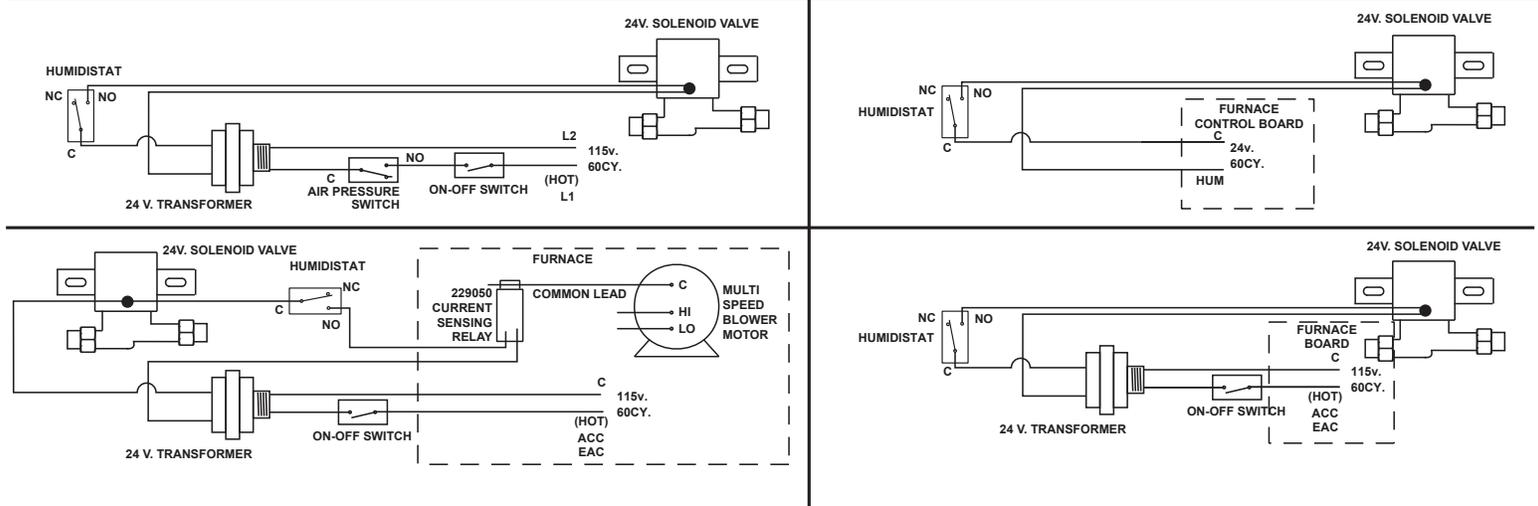
TROUBLESHOOTING

SYMPTOM	DIAGNOSTIC STEPS
No Humidifier Operation in "ON" position	<ol style="list-style-type: none"> 1. Set thermostat to operate both furnace burner and blower. Operation may be necessary for system power. 2. Check voltage at humidifier control terminals. There should be no voltage for Power Humidifier. Voltage should be 20-30 VAC for most others. 3. Inspect humidifier wiring. Refer to wiring diagrams.
DO NOT LEAVE IN "ON" POSITION, OVER HUMIDIFICATION WILL OCCUR.	
Humidifier operation in "ON" position only	<ol style="list-style-type: none"> 1. Humidity level in the home is higher than knob setting. Humidifier control will not operate the humidifier until humidity level is reduced.
Humidifier operation continuous	<ol style="list-style-type: none"> 1. When the humidity in the home is less than the knob setting, the control will operate humidifier until the humidity is higher. Reduce knob setting. 2. Use "ON" position. Verify that the humidifier operates. 3. Remove wires from control terminals. If humidifier continues to operate, check solenoid valve.
Humidifier turns on and off repeatedly	<ol style="list-style-type: none"> 1. Check voltage at humidifier control terminals. There should be no voltage for a Power Humidifier. Voltage should be 20-30 VAC for most others. 2. If mounted on return air duct, make sure humidifier control is at least 24" upstream of humidifier's air discharge.

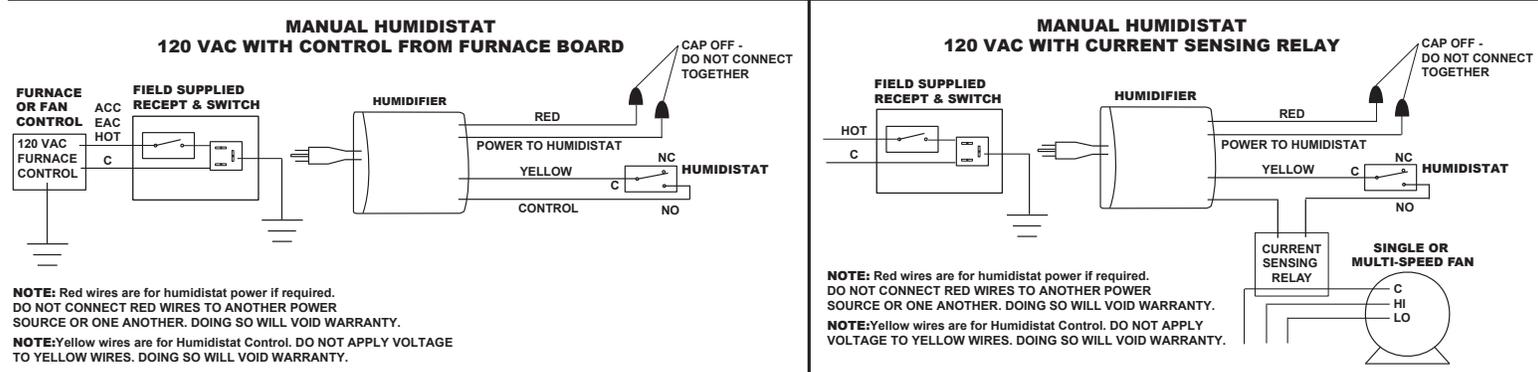
PRECAUTIONS

The installer should be a qualified Technician. Disconnect electrical power before beginning installation. Use contacts C and NO for humidifier operation. Use contacts C and NC for a dehumidifier. Conduct a thorough checkout before leaving the installation.

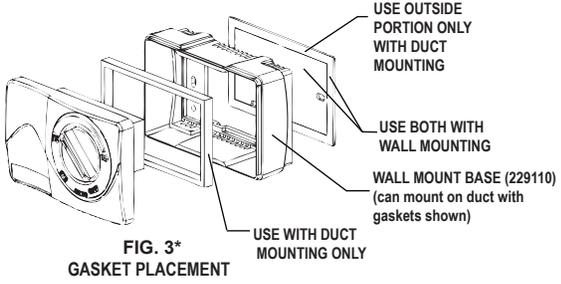
WIRING DIAGRAMS FOR BRAEBURN® 220500 and 220600 HUMIDIFIERS



WIRING DIAGRAMS FOR BRAEBURN® 220700 HUMIDIFIER

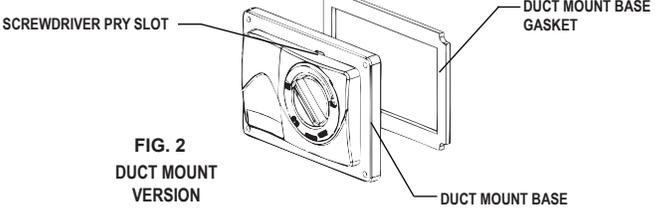


On furnaces with output terminals ACC, or EAC check output voltage to determine that terminals are 115V. Connect on-off switch in series with the hot wire.



*Requires wall mount kit (Model 229110)

On furnaces where it is desirable to use a current sensing relay, the humidifier may be wired from a continuous 115 volt power source. Install the on/off switch in series with the hot or black wire. Install the Braeburn® 229050 Current Sensing Relay in series with the humidistat circuit. The Current Sensing Relay will detect furnace operation and supply power to the humidifier accordingly.



LIMITED WARRANTY

Braeburn Systems LLC warrants each new Braeburn humidistat against any defects that are due to faulty material or workmanship for a period of one year after the original date of purchase by a professional service technician. This warranty and our liability does not include damage to merchandise or the humidistat resulting from accident, alteration, neglect, misuse, improper installation or any other failure to follow Braeburn installation and operating instructions.

Braeburn Systems LLC agrees to repair or replace at its option any Braeburn humidistat under warranty provided it is returned postage prepaid to our warranty facility in a padded carton within the warranty period, with proof of the original date of purchase and a brief description of the malfunction. This limited warranty does not include the cost of removal or re-installation.

This warranty gives you specific legal rights and you may also have other rights that vary from state to state or province to province. Answers to any questions regarding our limited warranty may be obtained by writing our corporate offices.

WARRANTY FACILITY: Braeburn Systems LLC
Attn: Warranty Department
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Montgomery, IL 60538

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630-844-1968 (Outside the U.S.)

