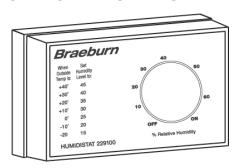


# 229100

### **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 wall mounting in the living area, or mounting on the return air duct.

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

#### **OPERATION**

Set the humidity level control knob to the setting shown next to the current outdoor temperature. Using other settings may cause over or under humidification.

OUTDOOR TEMPERATURE		RECOMMENDED SETTING
40°F	4°C	45
30°F	-1°C	40
<b>20°F</b>	-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. The foam gasket is used for mounting on a return duct only. Conduct a thorough checkout before leaving the installation.

WALL MOUNTING THE HUMIDISTAT NOTE: Choose a location for the humidistat that is about five feet above the floor on an inside wall with average room temperature and relative humidity conditions.

- 1. Drill a small hole in the wall and run low voltage wiring to the desired location. Pull about 6" of wire through the hole. Plug the opening to prevent drafts from affecting the humidistat operation.
- 2. Remove faceplate from the humidistat case by gently prying with a flat head screwdriver in the notch located at the bottom of the faceplate directly below the "OFF" setting indicator.
- 3. Mount the humidistat case horizontally over the low voltage wires you pulled. Attach directly to the wall using two screws provided. Drywall anchors may be necessary for proper mounting.
- 4. Locate the faceplate and connect one wire to each of the two terminals on the bottom of the switch mechanism.
- 5. Reattach the faceplate to the humidistat case.

#### FLUSH MOUNTING THE HUMIDISTAT ON THE RETURN AIR DUCT

NOTE: Locate humidistat at least 24" upstream of the humidifier discharge on the RETURN air duct. Avoid areas of direct radiation like secondary heat exchangers in the fan compartment.

- 1. Apply the mounting template to an appropriate location and drill/cut as shown.
- 2. Remove faceplate from the humidistat case by gently prying with a flat head screwdriver in the notch located at the bottom of the faceplate directly below the "OFF" setting indicator. Discard the humidistat case.
- 3. Turn the faceplate over and note the 4 drill centers located in each corner and the 1 drill center located directly below the switch mechanism.
- 4. Carefully drill out the 5 holes while supporting the faceplate to prevent fracture.
- 5. Run low voltage wires through the opening below the control knob and connect one wire to each of the two terminals on the bottom of the switch mechanism.
- 6. Attach the humidistat faceplate to the duct with the four screws provided. For a proper seal, some ductwork will require the use of the included foam gasket. Install the gasket between the duct and the humidistat faceplate.

#### **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	Set thermostat to operate both furnace burner and blowe Operation may be necessary for system power.	
	<ol><li>Check voltage at humidifier control terminals. There should be no voltage for Power Humidifier. Voltage should be 20-30 VAC for most others.</li></ol>	
	3. Inspect humidifier wiring. Refer to wiring diagrams.	

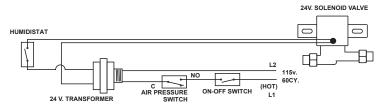
### DO NOT LEAVE IN "ON" POSITION, OVER HUMIDIFICATION WILL OCCUR.

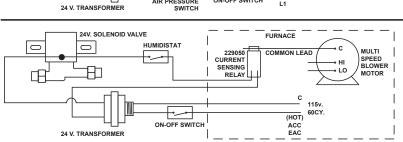
Humidifier operation in "ON" position only	Humidity level in the home is higher than knob setting.     Humidifier control will not operate the humidifier until humidity level is reduced.
Humidifier operation continuous	<ol> <li>When the humidity in the home is less than the knob setting, the control will operate humidifier until the humidity is higher. Reduce knob setting.</li> <li>Use "ON" position. Verify that the humidifier operates.</li> <li>Remove wires from control terminals. If humidifier continues to operate, check solenoid valve.</li> </ol>
Humidifier turns on and off repeatedly	<ol> <li>Check voltage at humidifier control terminals.         There should be no voltage for a Power Humidifier.         Voltage should be 20-30 VAC for most others.     </li> <li>If mounted on return air duct, make sure humidifier control is at least 24" upstream of humidifier's air discharge.</li> </ol>

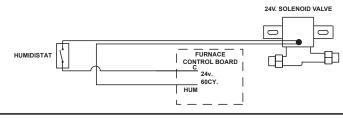
#### **PRECAUTIONS**

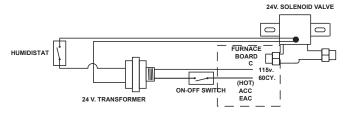
The installer should be a qualified Technician. Disconnect electrical power before beginning installation. Install the humidistat on the return air duct using the foam gasket. Conduct a thorough checkout before leaving the installation.

# WIRING DIAGRAMS FOR BRAEBURN® 220500 and 220600 HUMIDIFIERS

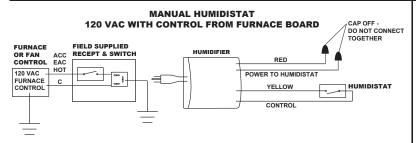








# **WIRING DIAGRAMS FOR BRAEBURN® 220700 HUMIDIFIER**



NOTE: Red wires are for humidistat power if required.

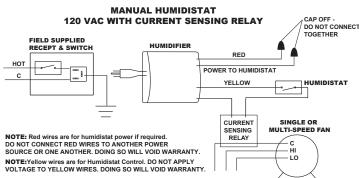
DO NOT CONNECT RED WIRES TO ANOTHER POWER

SOURCE OR ONE ANOTHER. DOING SO WILL VOID WARRANTY.

NOTE:/vellow wires are for Humidistat Control. DO NOT APPLY VOLTAGE

TO YELLOW WIRES. DOING SO WILL VOID WARRANTY.

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.



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 2215 Cornell Avenue Montgomery, IL 60538





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Call us toll-free: 866-268-5599 (U.S.)
630-844-1968 (Outside the U.S.)