

229050 (24-volt) and 229051 (120-volt) Current Sensing Relays

Designed to Interface with Most Heating and Cooling Systems

These relays sense current rather than measure voltage, making them more reliable. They are less expensive than using traditional flow switches, pressure switches or other types of relays. The relay installs around the blower motor's common lead and interface easily into the circuitry.

The current sensing relay case is constructed from high-impact plastic. The lead wire bracket is protected by a soft sponge insert, in order to prevent damage to the motor/blower wire and/or accidental contact with any metal.

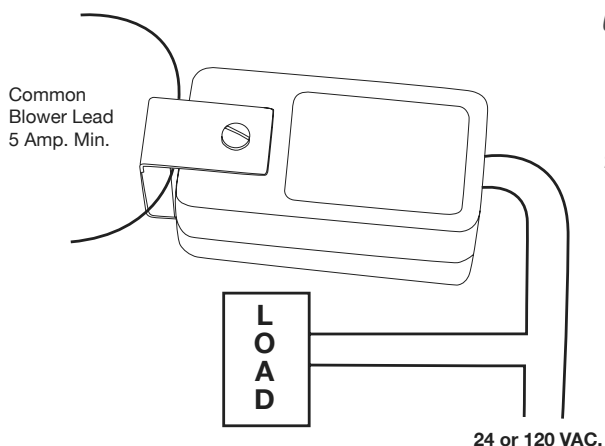
Important:

The wire lead bracket needs to carry a minimum of 5.0 amps for proper operation. If the current draw is less than 5.0 amps, wrap the lead wire around the bracket so that it passes between the bracket and relay housing two or more times.

Caution:

Turn off all power to the furnace motor circuit and cabinet.

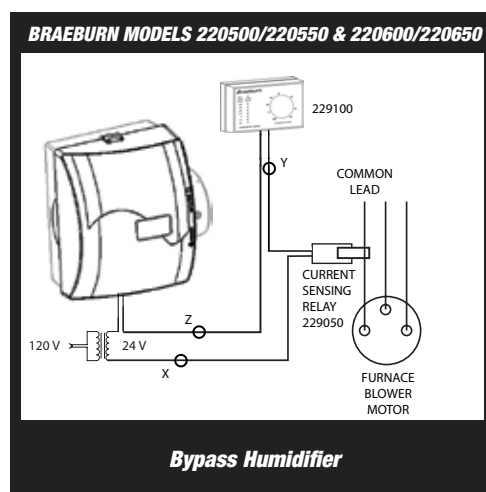
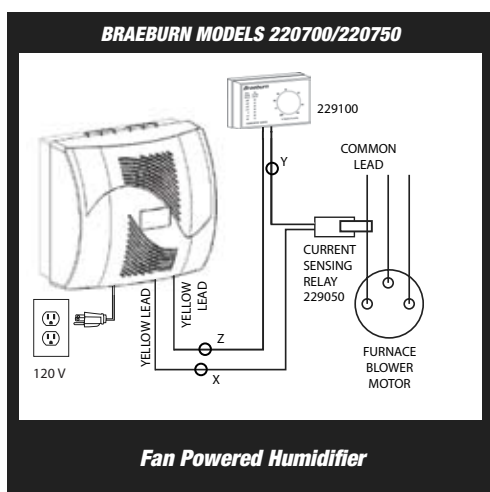
229050 and 229051 Current Sensing Relays



General Installation Procedures

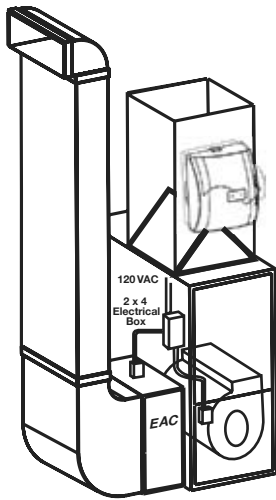
- Follow the step-by-step instructions for mounting the humidifier, found in the humidifier installation manual.
- Please follow these wiring instructions:
 - Turn off electrical power to the furnace. Attach the current sensing relay around the common lead of the furnace blower motor. The relay must be located at least 3" from any transformer. Make sure the relay's metal bracket does not touch any other metal. (See detail A)
 - Confirm the voltage of the switched load matches the current sensing relay.
 - Wire the current sensing relay as required for this installation. Refer to the figures shown below as reference. For Digital Humidistats, refer to the Digital Humidistat wiring diagrams.
- Follow the instructions supplied with the humidifier to complete the installation.

Model 229050 Wiring Diagrams (24 Volt)



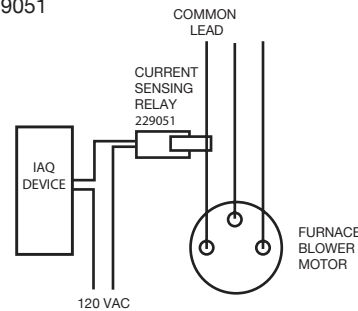
Model 229051 120 Volt Installation Instructions

Fan Powered Humidifiers and Electronic Air Cleaners



1. Install the Indoor Air Quality Accessory according to the manufacturer's instructions.
2. Install the 229051 on the common wire of the blower motor as shown in the diagram .
3. Open the main power junction box on the side of the furnace and run the leads of the 229051 into the junction box.
4. Connect the leads of the 229051 in series with one of the Indoor Air Quality device leads. Connect the remaining lead and ground wire. The 120 VAC source must be independent of the furnace blower motor.

5. Check all wire connections, close junction box and restore furnace to working order. Test proper functioning by observing that the air cleaner's indicator lamp turns on when the blower runs and turns off when the blower stops.



Checkout Procedures

1. Replace all safety devices.
2. Reconnect power to furnace.
3. Activate furnace blower motor.
4. Check load for operation. It should now be working properly. Check indicating lamp or other conditions showing that the load is receiving power.
5. Switch off the blower unit. The power to the device should shut off.
6. If the device is activated properly and turns off when the power through the common wire is removed, installation is complete.
7. If the device is not powered when the blower is turned on:
 - Ensure the device's power switch is in the "ON" position.
 - Recheck all wiring.
 - Check line fuses.
 - Confirm that five or more amps is flowing through the control wire. Wrap additional turns around the bracket if necessary.

Technical Specifications

24-volt and 120-volt Current Sensing Relay

	229050 24-volt Model	229051 120-volt Model
Voltage Range	21-24 VAC, 50-60 Hz	100-125 VAC, 50-60 Hz
Sensing Current	Minimum 5 amps	Minimum 5 amps
Operating Ambient Temperature Range	40°F - 104°F	40°F - 104°F
Load Ratings	Maximum (12 watts) 0.50 amps Minimum (3 watts) 0.12 amps	Maximum (130 watts) 1.5 amps Minimum (3 watts) 0.03 amps

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