

# CURRENT SENSING RELAY MODEL A50 (24 VOLT)

FOR INTERFACING HUMIDIFIERS WITH ALL TYPES OF  
FORCED AIR FURNACES AND AIR CONDITIONING EQUIPMENT



The Model A50 (24 volt) Current Sensing Relay has been designed for interfacing humidifiers with most heating and cooling systems. This type of relay is more reliable and inexpensive than using sail switches, pressure switches or other types of relays.

The Model A50 is easily installed around the common lead of the blower motor and inserted into the circuitry. (See wiring diagrams on back.) This relay does not measure voltage, it senses current.

The relay case is made from high impact plastic. The lead wire bracket is sponge packed to prevent laceration of wire and accidental contact with metal. The sponge used snugs the lead wire so that it does not move around.

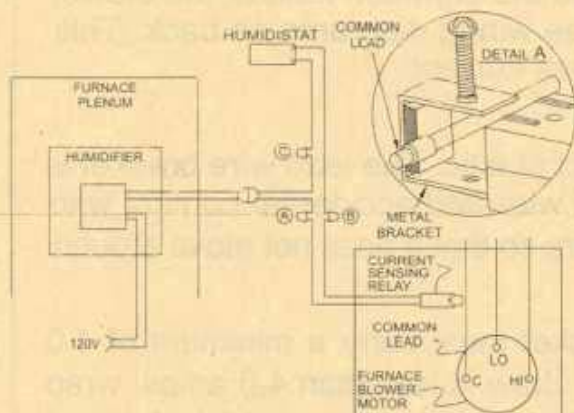
***Important:*** The wire lead sponge bracket must carry a minimum of 4.0 amps for proper operation. If the current draw is less than 4.0 amps, wrap the lead wire around the bracket so that it passes between the bracket and relay housing two or more times.

# Installation Instructions for Current Sensing Relay Model A50

## MODEL A50 WHEN HUMIDIFIER WITH LINE VOLTAGE MOTOR AND LOW VOLTAGE CONTROL

**CAUTION:** DO NOT CONNECT THE 120V POWER TO THE FURNACE MOTOR CIRCUIT. IT CAN BE POWERED OFF THE HOT 120V LINE BEFORE IT ENTERS THE FURNACE.

- Follow the step-by-step procedure noted on the humidifiers installation manual for mounting the unit. DO NOT connect the electrical, water supply or drain at this time.
- See wiring instructions below:
  - Turn off electrical power to the furnace. Attach the Model A50 Relay around the common lead of the furnace blower motor (see detail A). The relay must be located at least 3" from any transformer. Also the metal bracket on the relay must not touch any other metal.
  - Connect one lead from the Model A50 Relay to one of the 24V wires from the humidifier with wire nut (A). (Additional wire length may be needed.)
  - Connect the remaining lead from the model A50 Relay to the humidistat wire with a wire nut (B).
  - To complete the circuit, connect the second lead from the humidistat to the 24V lead from the humidifier with a wire nut (C).
- Complete the installation per the instructions supplied with the humidifier.

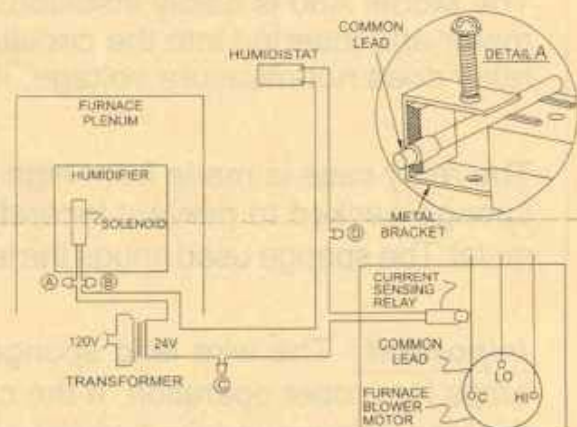


**IMPORTANT**  
THE 120V POWER SOURCE OTHER THAN FURNACE MOTOR CIRCUIT. HOWEVER IT CAN BE POWERED OFF THE HOT 120V LINE BEFORE IT ENTERS THE FURNACE.

## MODEL A50 WITH SEPARATE TRANSFORMER PROVIDED

**CAUTION:** DO NOT CONNECT THE 120V/24V STEP DOWN TRANSFORMER POWER TO THE FURNACE MOTOR CIRCUIT. IT CAN BE POWERED OFF THE HOT 120V LINE BEFORE IT ENTERS THE FURNACE.

- Follow the step-by-step procedure noted on the humidifiers installation manual for mounting the unit. DO NOT connect the electrical, water supply or drain at this time.
- See wiring instructions below:
  - Turn off electrical power to the furnace. Attach the Model A50 Relay around the common lead of the furnace blower motor (see detail A). The relay must be located at least 3" from any transformer. Also the metal bracket on the relay must not touch any other metal.
  - Connect one lead from the water valve to the 24V transformer (A).
  - Connect the other lead from the water valve to the humidistat (B).
  - Connect one lead from the Model A50 Relay to the other terminal of the 24V transformer (C). (Additional wire length may be needed.)
  - To complete the circuit, connect the other Model A50 Relay lead to the humidistat (D).
- Complete the installation per the instructions supplied with the humidifier.



**IMPORTANT**  
USE 120V POWER SOURCE OTHER THAN FURNACE MOTOR CIRCUIT. HOWEVER IT CAN BE POWERED OFF THE HOT 120V LINE BEFORE IT ENTERS THE FURNACE.