



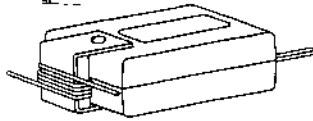
Installation Instructions For MODELS 50 AND 51 CURRENT SENSING RELAYS

READ COMPLETE INSTALLATION INSTRUCTIONS BEFORE STARTING

WARNING: 120 volts may cause serious injury from electric shock. Disconnect power to the furnace before attaching the Model 50 or 51 Current Sensing Relays.

CAUTION: 1. Do not connect relay without load in series (see wiring diagram)
2. The humidifier will malfunction if 120 VAC power is connected to the furnace motor circuit. However, it can be powered off the hot 120 VAC line before it enters the furnace.

Models 50 and 51 Relay

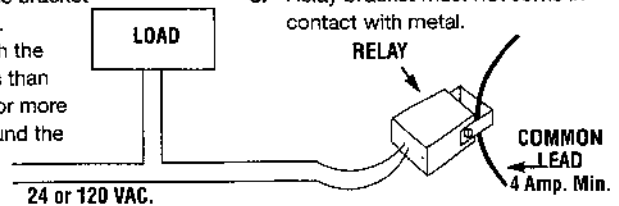


General Information

1. Not approved for directly controlling motors of safety related applications.
2. Always disconnect power before working on the Current Sensing Relay or its connected load.
3. Follow all local electrical and safety codes, the National Electrical Code (NEC), and OSHA requirements.

General Installation Procedures For Models 50 and 51 Relays

1. Disconnect power before installing.
2. The Models 50 or 51 Relay must be located at least 4" from any transformer.
3. Remove the screw from the bracket and place the common wire that will activate the relay between the bracket and the plastic case.
4. If the current through the common wire is less than **4 amps**, wrap it one or more additional turns around the metal bracket.
5. Replace the metal screw in the bracket.
6. Complete the wiring as shown in the appropriate diagram.
7. Read the checkout procedure.
8. Relay bracket must not come in contact with metal.



MODEL 50 HUMIDIFIER WIRING DIAGRAMS

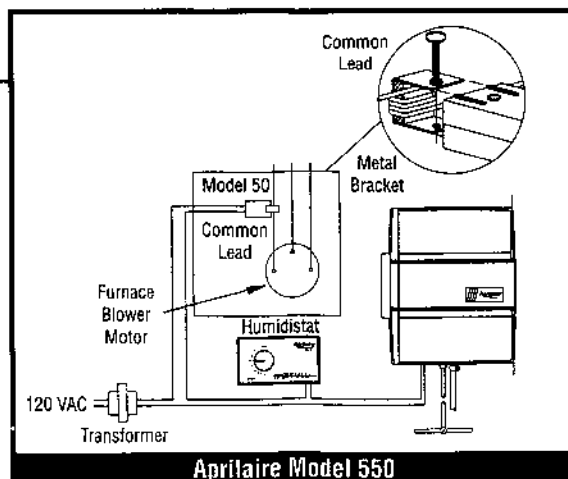
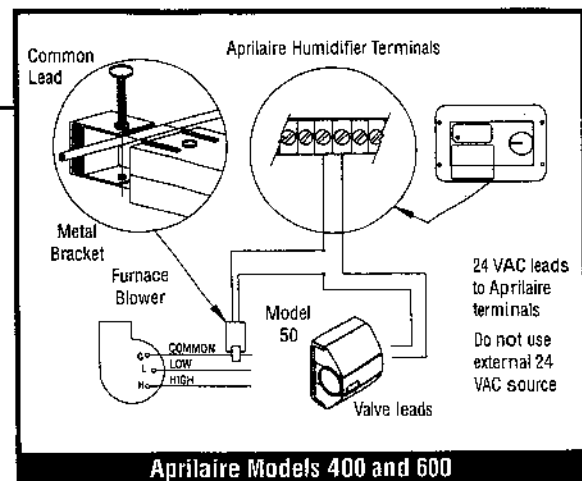
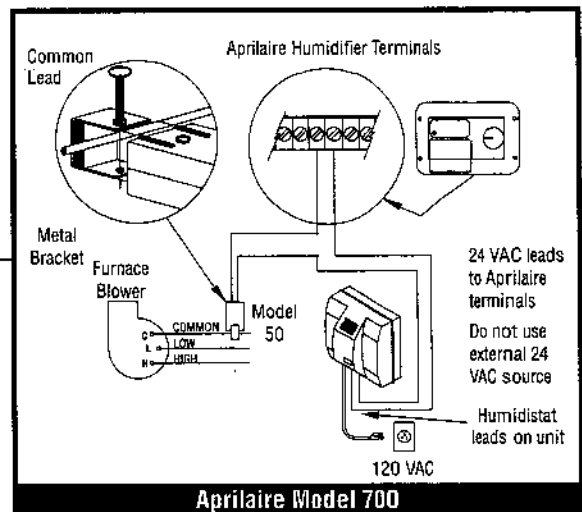
1. Connect one lead from the Model 50 Relay to one of the leads from the Automatic Humidifier Control or manual humidistat.
2. Connect the remaining lead from the Model 50 Relay to one the leads from the humidifier.
3. Complete the installation by following the instructions on the template supplied with the humidifier.

■ Aprilaire Model 700 Power Humidifier with Automatic Humidifier Control

■ Aprilaire Models 400 and 600 Bypass Humidifier with Automatic Humidifier Control

■ Aprilaire Model 550 Bypass Humidifier with Manual Humidifier Control

IMPORTANT Use 120 VAC power source other then furnace motor circuit. However the transformer can be powered off the hot 120 VAC line before it enters the furnace.

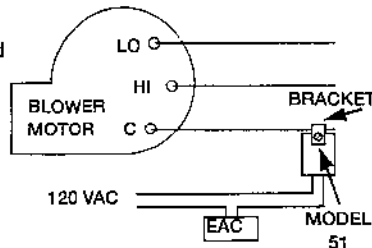


MODEL 51 TYPICAL ELECTRONIC AIR CLEANER INSTALLATION

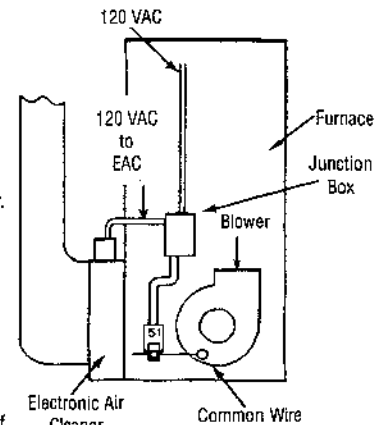
1. Install the air cleaner according to the manufacturer's instructions.
2. Install the Model 51 on the common wire of the blower motor as shown in the diagram.
3. Open the main power junction box on the side of the furnace. Run the leads of the Model 51 relay into the junction box.

4. Connect the leads of the Model 51 relay in series with one of the electronic air cleaner leads.

Connect remaining lead and ground wire of the electronic air cleaner. The 120 VAC source must be independent of the furnace blower motor.



5. The electrical installation of the Model 51 is now complete. Recheck all wire connections, close junction box and restore furnace to working order. Test proper functioning of the Model 51 by observing that the air cleaner's indicator lamp turns on when the blower runs and turns off when the blower stops.



CHECKOUT PROCEDURES FOR MODELS 50 AND 51 RELAYS

1. Replace all safety devices.
2. Reconnect power to furnace
3. Activate furnace blower motor
4. Check load for operation - it should now be operating properly (check indicating lamp or other condition showing 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 then:
 - Ensure the device's ON/OFF switch is ON.
 - Recheck all wiring.
 - Check line fuses.
 - Confirm that four (4) or more amps is flowing through the control wire. Wrap additional turns around the bracket if necessary.

SPECIFICATIONS

	Model 50	Model 51
Voltage Range	21-24 VAC, 50-60Hz	100-125 VAC, 50-60 Hz
Sensing Current	Minimum of 4.0 amps	Minimum of 4.0 amps
Operating Ambient Temperature Range	40°F - 104°F	40°F - 104°F
Dimensions	1" x 1 7/16" x 2 3/4"	1" x 1 7/16" x 2 3/4"
Load Ratings	Maximum (12 watts) 0.50 amps Minimum (3 watts) 0.12 amps	Maximum (50 watts) 0.42 amps Minimum (3 watts) 0.03 amps
Case Color	Black	Yellow
Underwriters Laboratories Recognized Component	N/A	Yes



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