

Application

R8285A,B Control Centers provide low voltage control of line voltage fan motors and auxiliary circuits in heating,

cooling, or air conditioning systems. For model specifications, refer to Table 1.

TABLE 1—R8285 MODEL SPECIFICATIONS.

Control Center	Replacement Relay	Contact Rating		Switching	Input Voltage (Vac)	See Wiring Diagram
		AFL	ALR			
R8285A	R8222B	12	60	spdt	120 or 208/240	Fig. 1
R8285B	R8222D	12	60	dpdt	120, 208/240, or 120/208/240	Fig. 2

The R8285A has spdt switching for two-speed fan motor applications.

The R8285B has dpdt switching for *Total Comfort* applications with electronic air cleaner, humidifier, and blower motor.

CONTACT RATINGS: Refer to Table 2.

TABLE 2—R8285A,B CONTACT RATINGS.^a

Voltage	120 Vac	208/240 Vac
Full Load (amp)	12	6
Locked Rotor (amp)	60	35

^aMeets UL 3/4 horsepower requirements.

RELAY COIL RATINGS:

Inrush: 20 VA maximum.

Sealed: 9 VA nominal.

Wattage: 5 watts.

Pickup Voltage: Must pick up below 18 volts.

TRANSFORMER RATINGS:

Power Rating: 40 or 50 VA.

Primary Voltage: 120, 208/240, or 120/208/240 Vac.

Secondary Voltage for 40 VA at 1.67 Amps: 24 Vac.

Secondary Voltage for 50 VA at 2.08 Amps: 24 Vac.

Open Circuit Secondary Voltage: 27.0.

Overload Protection: Inherent.

Voltage Frequency: 60 Hz.

Installation

WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.

2. Check the ratings given in these instructions and on the product to ensure the product is suitable for your application.

3. Ensure installer is a trained, experienced service technician.

4. After completing installation, use these instructions to check product operation.



CAUTION

Disconnect power supply before beginning installation to prevent electrical shock and equipment damage.

MOUNTING

The R8285 mounts on a standard four inch square junction box. Make wiring connections in the junction box, then fasten the R8285 to the junction box by placing the junction box screws through the notches in the R8285 mounting plate.

NOTE: The R8285 must be mounted in an enclosure. The R8285 may be mounted in any position except with the mounting plate horizontal and the relay on top of the mounting plate.

WIRING R8285A, B MODELS

All wiring must comply with local codes and ordinances. Disconnect power before making wiring connections to prevent electrical shock or equipment damage.

1. Make primary connections to line voltage power supply. On multitap models, make sure you are using correct leads or terminals for available power supply. See Fig. 1.

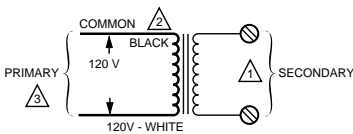
2. On multitap models with leadwires, insulate ends of unused leads by taping or capping with a solderless connector.

3. Make secondary connections to 24 Vac control circuit.

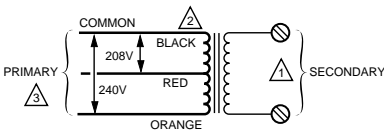
4. Refer to Figs. 2 or 3 for typical wiring diagrams.

Fig. 1—Schematic for single and multitap transformers.

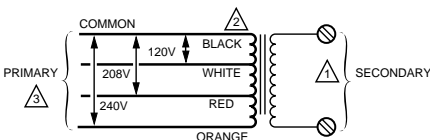
120 VAC MODELS



208/240 VAC MODELS



120/208/240 VAC MODELS



△ SECONDARY CONNECTIONS ARE SCREW TERMINALS, 1/4 INCH QUICK-CONNECTS OR BLUE AND YELLOW LEADWIRES.

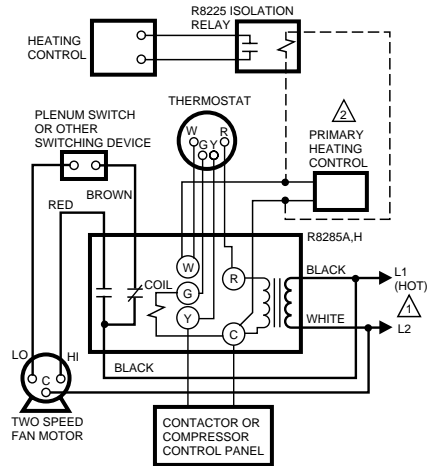
△ BLACK IS COMMON WITH RESPECT TO THE TRANSFORMER WINDING ONLY AND NOT THE EXTERNAL CIRCUIT.

△ SOME MODELS AVAILABLE WITH 1/4 INCH QUICK-CONNECTS.

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IMPORTANT: Only use Underwriters Laboratories Inc. listed connectors when making external circuit connections to the line voltage leadwires of this device.

Fig. 2—R8285A typical hookup in two-speed fan motor application.

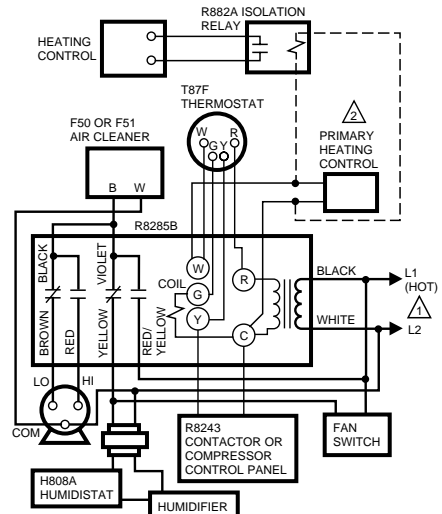


△ POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

△ USE OPTIONAL HOOKUP WITH ISOLATING RELAY (DASHED LINE) IF HEATING CONTROL HAS A SEPARATE POWER SUPPLY. ISOLATION OF THE POWER SUPPLIES MAY ALSO BE ACCOMPLISHED BY USING SPECIAL THERMOSTAT SUBBASE COMBINATIONS WITH ISOLATED CIRCUITS (SUCH AS T87F-Q539A 1147, T834A, T822A). REFER TO SPECIFICATION SHEETS FOR DETAILS.

M1157B

Fig. 3—R8285B typical hookup in two-speed fan motor Total Comfort application.



△ POWER SUPPLY. PROVIDE DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

△ USE OPTIONAL HOOKUP WITH ISOLATING RELAY (DASHED LINE) IF HEATING CONTROL HAS A SEPARATE POWER SUPPLY. ISOLATION OF THE POWER SUPPLIES MAY ALSO BE ACCOMPLISHED BY USING SPECIAL THERMOSTAT SUBBASE COMBINATIONS WITH ISOLATED CIRCUITS (SUCH AS T87F-Q539A 1147, T834A, T822A). REFER TO SPECIFICATION SHEETS FOR DETAILS.

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Checkout

Always conduct a thorough checkout when installation is complete. Operate the system through at least one complete cycle to assure that the system equipment and the R8285 operate as intended.

Service



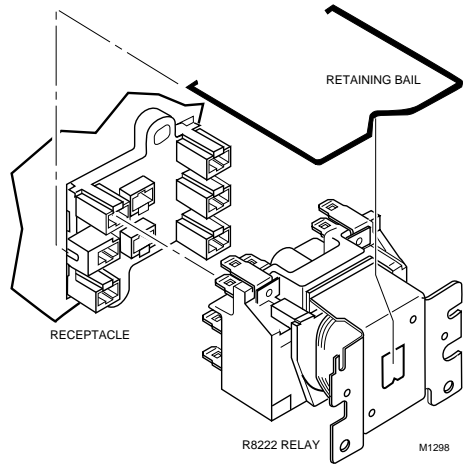
CAUTION

Disconnect the power supply before servicing to prevent electrical shock and equipment damage.

The R8285 relay is field replaceable. Replace the relay as follows:

1. Refer to Table 1 for the appropriate replacement relay.
2. Remove the plug-in relay from the receptacle and replace with the new relay. See Fig. 4.

Fig. 4—Replacing R8285 relay.



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