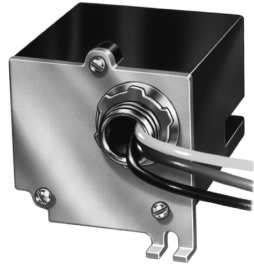




# Fan Relays

R4225A,B AND R8225A-D

## INSTALLATION INSTRUCTIONS



### APPLICATION

The R4225 Fan Relays provide line voltage control of line voltage fan motors and auxiliary circuits in heating, cooling, and heating-cooling systems. The R8225 Fan Relays provide low voltage (24 V) control of line voltage fan motors and auxiliary circuits in heating, cooling, and heating-cooling systems.

- One-half inch conduit spud fitting for mounting on a junction box
- Color-coded leadwires for easier wiring.
- Totally enclosed for long, trouble-free service life.

### SPECIFICATIONS

**IMPORTANT**

*The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this unit may not match the listed specifications exactly. Also, this product is tested and calibrated under closely controlled conditions, and some minor differences in performance can be expected if those conditions are changed.*

**Models:**

R4225A Fan Relay: SPDT switching; one normally open and one normally closed contact.

R4225B Fan Relay: SPST switching; normally open contacts.

R8225A Fan Relay: SPDT switching; one normally open and one normally closed contact.

R8225B Fan Relay: SPST switching; normally open contacts.

R8225C Fan Relay: DPST switching; one normally open and one normally closed contacts.

R8225D Fan Relay: DPST switching; one normally open main and one normally open auxiliary pole.

**Electrical Ratings:**

| Contacts        | 120 Vac  | 240 Vac  |
|-----------------|----------|----------|
| Normally Open   | 3/4 hp.  | 1 hp.    |
|                 | 14 AFL   | 8 AFL    |
|                 | 84 ALR   | 48 ALR   |
|                 | 16 A Res | 8 A Res. |
| Normally Closed | 3/4 hp.  | 3/4 hp.  |
|                 | 14 AFL   | 7 AFL    |
|                 | 84 ALR   | 42 ALR   |
|                 | 10 A Res | 7 A Res. |
| Auxiliary       | 1/10 hp. | 1/8 hp.  |
|                 | 3 AFL    | 2 AFL    |
|                 | 18 ALR   | 12 ALR   |
|                 | 3 A Res. | 2 A Res. |

AFL: Amperes Full Load  
 ALR: Locked Rotor  
 Res.: Resistive

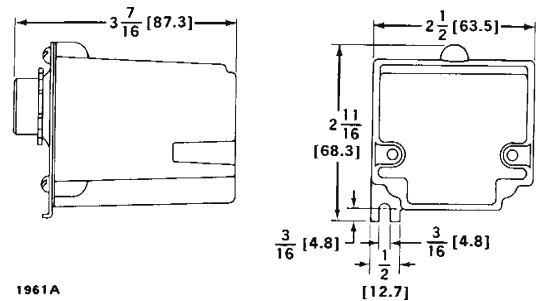


Fig. 1. R4225/R8225 installation dimensions in in. (mm).

**Coil Characteristics:**

| Coil Voltage | Inrush | Sealed | Pull in Voltage | Max. Wattage |
|--------------|--------|--------|-----------------|--------------|
| 24 V         | 11 VA  | 6 VA   | 18 V            | 3.0          |
| 120 V        | 44 VA  | 24 VA  | 90 V            | 2.7          |
| 240 V        | 88 VA  | 48 VA  | 180 V           | 2.7          |



**Contacts:**  
Silver cadmium oxide.

**Maximum Ambient Operating Temperature:**  
115 F (46 C).

**Case:**  
Molded plastic with steel mounting plate.

**Mounting Means:**  
Mounts to standard 1/2 in. knockout or optional mounting bracket (Fig. 2) with 1/2 in. (12.7 mm) mounting spud.

**Approval Bodies:**  
Underwriters Laboratories Inc. Listed: R4225A,B; R8225A-D; File No. E14480, Guide No. NLDX.  
Canadian Standards Association: R4225A,B; R8225A-D; File No. 1620.

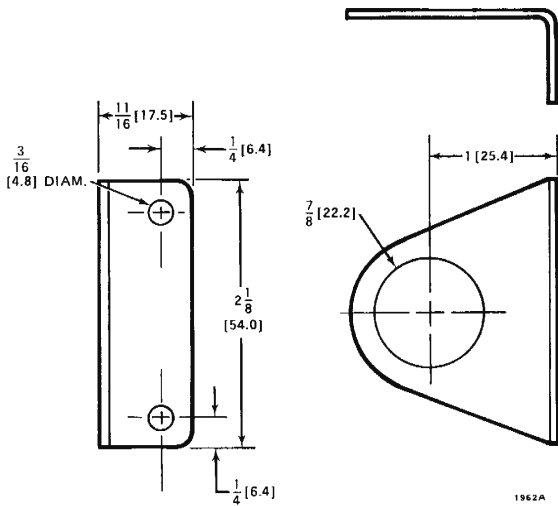


Fig. 2. Mounting bracket dimensions in in. (mm).

## INSTALLATION

### When Installing this Product...

1. Read these instruction carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check ratings given in the instructions and on the product to make suer the products in suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.



## CAUTION

Disconnect power supply before beginning wiring to prevent electrical shock or equipment damage.

## Location and Mounting

The R4225A,B/R8225A-D Fan Relays may be mounted in any convenient position. Choose a location where the maximum ambient operating temperature for the unit will not be exceeded. The relays have a 1/2 in. (12.7 mm) conduit spud for mounting a junction box.

To mount, remove the conduit spud nut and place the spud through the knockout in the junction box or hole in flush mounting bracket (if used). Replace nut and tighten. Drill a hole in the mounting surface and secure relay in place using a screw through tab of the mounting plate. See Fig. 1 for mounting dimensions.

## Wiring

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

All wiring must comply with local electrical codes and ordinances. Refer to manufacturer's instructions whenever possible, or refer to Figs. 3-6 for typical hookups. Control wiring on the R4225 is routed through conduit spud.

Control circuit (coil) wires for all fan relays are routed through the side of the plastic relay case.

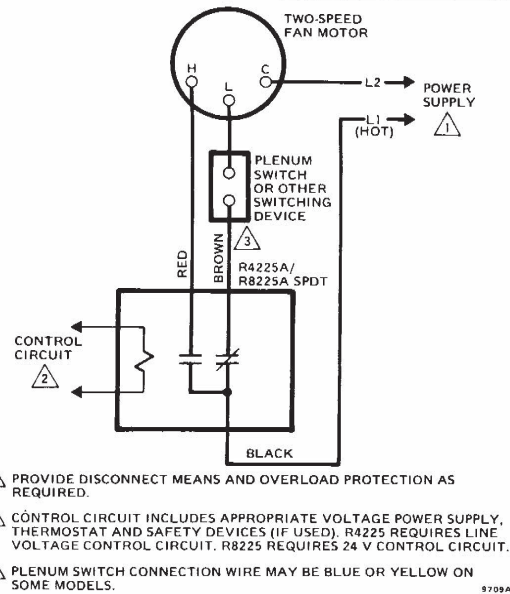


Fig. 3. R4225A/R8225A typical hookup with two-speed fan.

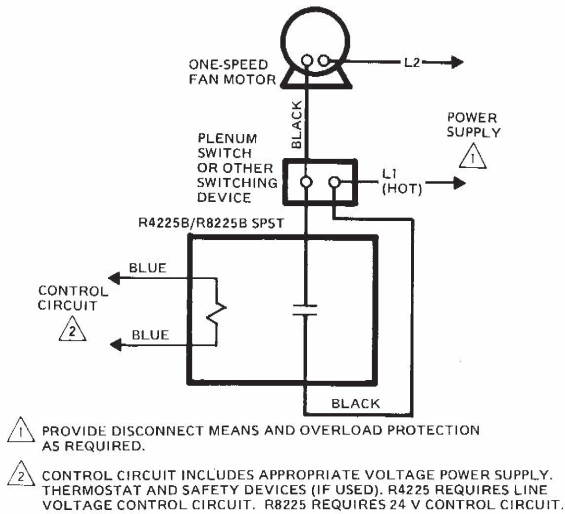


Fig. 4. R4225B/R8225B typical hookup with one-speed fan.

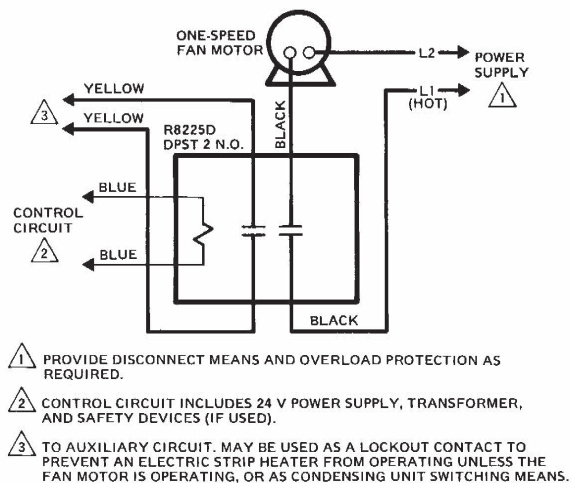


Fig. 6. R8225D typical hookup with one-speed fan and auxiliary load.

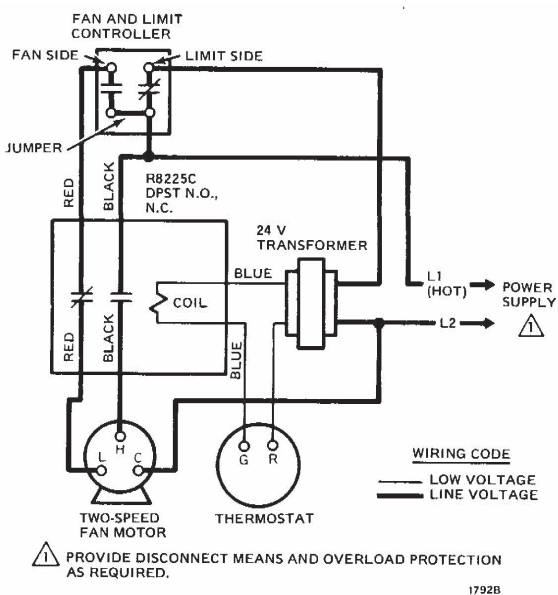


Fig. 5. R8225C typical hookup with two-speed fan and combination fan and limit controller.

## CHECKOUT

Operate the system according to the manufacturer's for at least one cycle in both heating and cooling to make sure the system and the fan relay operate as intended.

FAN RELAYS



Resideo Technologies, Inc.  
1985 Douglas Drive North, Golden Valley, MN 55422  
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[www.resideo.com](http://www.resideo.com)

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