

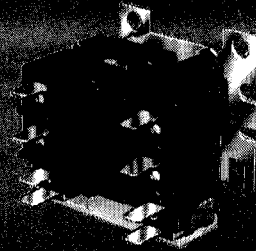
Honeywell

THE R8229A-C RELAYS AND R8246A CONTACTOR ARE FOR USE IN RESISTANCE ELECTRIC HEATING APPLIANCES.

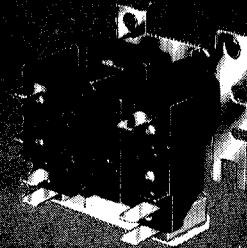
- Approved for applications with pilot duty limits by Underwriters Laboratories Inc. and Canadian Standards Association; maximum design economy.
- R8229A is a dpst relay with 2 sets of power contacts.
- R8229B is a dpst relay with one set of power contacts, one set of pilot duty contacts.
- R8229C is a spst relay with power contacts.
- R8246 is a dpst contactor with 2 sets of power contacts.
- R8229 power poles rated for 5 kW resistive, R8246 rated for 10 kW resistive.
- Combination rated contacts on one pole allow a fan motor and heating element(s) to be controlled by the same pole.
- Low coil VA allows use of smaller transformers.
- Simple ON-OFF switching—readily understood, easily serviced, and eliminates cold drafts on system startup.
- Quiet operation. Suitable for use on equipment installed in living areas.
- Adapted from well-known Honeywell line of relays and contactors. Field proven reliability.
- Constant 0.23 amp current draw. Provides optimum thermostat performance.
- Ambient temperature range of minus 40 to plus 165 F (minus 40 to 74 C).
- Quick-connect terminals.
- Relay and contactor bases are the same for interchangeable mounting.
- Single-screw mounting with panel tab.

R.E.
REV. 10-78 (.08)

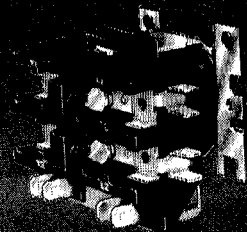
ELECTRIC HEAT PRIMARY



R8229A,B



R8229C



R8246A

R8229A,B,C R8246A

Form Number

60 2396 4

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:

- R8229A—dpst switching relay with 24V ac coil.
- R8229B—dpst switching relay with 24V ac coil; one set power rated contacts, and one set pilot duty contacts.
- R8229C—spst switching relay with 24V ac coil.
- R8246A—dpst contactor with 24V ac coil.

CONTACT RATINGS:

R8229A, B, and C ratings per pole—

MOUNTING MEANS: Two screws (up to No. 10 size) through holes in base, or may be mounted on a shear formed panel tab, with one screw. See Fig. 4.

R8246 CONTACTOR OPTIONS:

- No. 10 terminal screws.
- Clamp type pressure terminals (SEMS).
- Pressure lugs.

MAXIMUM AMBIENT TEMPERATURE: 165 F [74 C].

| VOLTAGE | LOAD POLE(S)a,b,c,d | | | | | PILOT DUTY POLE ^a (B MODELS ONLY) | |
|--------------------|---|------|----------------|-----|------------------------|---|-------------|
| | COMBINED INDUCTIVE AND RESISTIVE ^c | | INDUCTIVE ONLY | | RESISTIVE ONLY AMPERES | | |
| | TOTAL AMPS ^b | AFL | ALR | AFL | | | ALR |
| 120, 208, 240, 277 | 26.0 | 6.4 | 18.0 | 7.0 | 35.0 | 25.0 | 3 VA min., |
| 480 | 13.6 | 3.2 | 9.0 | 3.5 | 17.5 | 12.5 | 125 VA max. |
| 600 | 10.4 | 2.56 | 7.2 | 2.8 | 14.0 | 10.0 | at 24V ac |

^aR8229B pole positions: terminals 1-3, load poles; terminals 4-6, pilot duty pole.

^bR8229C pole positions: terminals 1-3, load poles; terminals 4-6 omitted.

^cOn R8229A, a combined resistive and inductive load can be connected to either pole. Do not connect an inductive load to both poles.

^dEither contact of R8229A is rated for a 5 kW resistive load in combination with the motor load as shown in the table.

R8246 ratings per pole—

| VOLTAGE | FIRST POLE | SECOND POLE ^a | | | | |
|--------------------|------------------------|---|-----------|----------------|------|------|
| | RESISTIVE ONLY AMPERES | COMBINED INDUCTIVE ^a AND RESISTIVE | | INDUCTIVE ONLY | | |
| | | TOTAL AMPERES ^b | INDUCTIVE | | AFL | ALR |
| | | | AFL | ALR | AFL | ALR |
| 120, 208, 240, 277 | 48.0 | 48.0 | 7.0 | 42.0 | 12.0 | 72.0 |
| 480 | 24.0 | 24.0 | 3.5 | 21.0 | 6.0 | 36.0 |
| 600 | 19.2 | 18.5 | 2.8 | 16.8 | 4.8 | 28.8 |

^aA combined resistive and inductive load can be connected to either pole of the relay and contactor. Do not connect an inductive load to both poles.

^bThis is a vectoral sum of the combined inductive and resistive loads. Either contact of the R8246 is rated for a 10 kW resistive load in combination with the motor load as shown in the table. (continued on page 3)

ORDERING INFORMATION

WHEN PURCHASING REPLACEMENT AND MODERNIZATION PRODUCTS FROM YOUR TRADELINE WHOLESALE OR YOUR DISTRIBUTOR, REFER TO THE TRADELINE CATALOG OR PRICE SHEETS FOR COMPLETE ORDERING NUMBER, OR SPECIFY—

1. Order number.
2. Voltage and frequency.

IF YOU HAVE ADDITIONAL QUESTIONS, NEED FURTHER INFORMATION, OR WOULD LIKE TO COMMENT ON OUR PRODUCTS OR SERVICES, PLEASE WRITE OR PHONE:

1. YOUR LOCAL HONEYWELL RESIDENTIAL DIVISION SALES OFFICE (CHECK WHITE PAGES OF PHONE DIRECTORY).
2. RESIDENTIAL DIVISION CUSTOMER SERVICE
HONEYWELL INC., 1885 DOUGLAS DRIVE NORTH
MINNEAPOLIS, MINNESOTA 55422 (612) 542-7500

(IN CANADA—HONEYWELL CONTROLS LIMITED, 740 ELLESMERE ROAD, SCARBOROUGH, ONTARIO M1P 2V9)
INTERNATIONAL SALES AND SERVICE OFFICES IN ALL PRINCIPAL CITIES OF THE WORLD.

COIL RATINGS:

| | |
|---|----------|
| Pickup Voltage (maximum) ^{a,b} | 18V ac |
| Pickup Voltage (nominal) ^{a,b} | 14V ac |
| Dropout Voltage (nominal) | 6V ac |
| Maximum Inrush VA at Rated Voltage | 6.2 VA |
| Nominal Inrush VA at Rated Voltage | 5.5 VA |
| Sealed VA (maximum) | 6.2 VA |
| Sealed VA (nominal) | 5.5 VA |
| Sealed Amperes (nominal) | .230 amp |

^aVoltage listed is for the base mounted vertical.
^bInstantly applied voltage simulating thermostat operation.

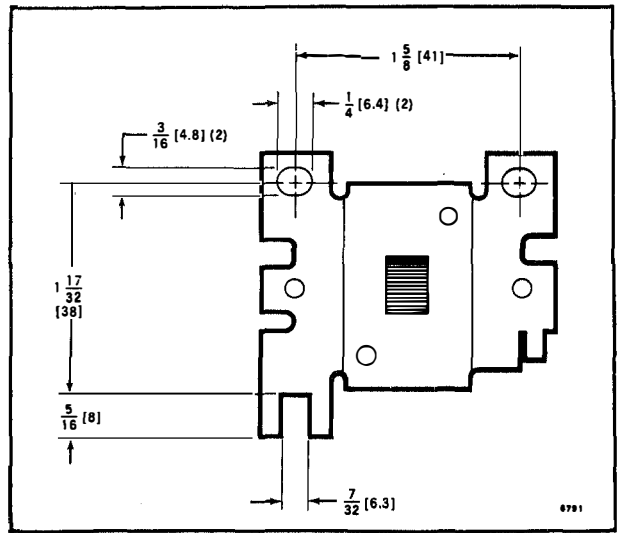
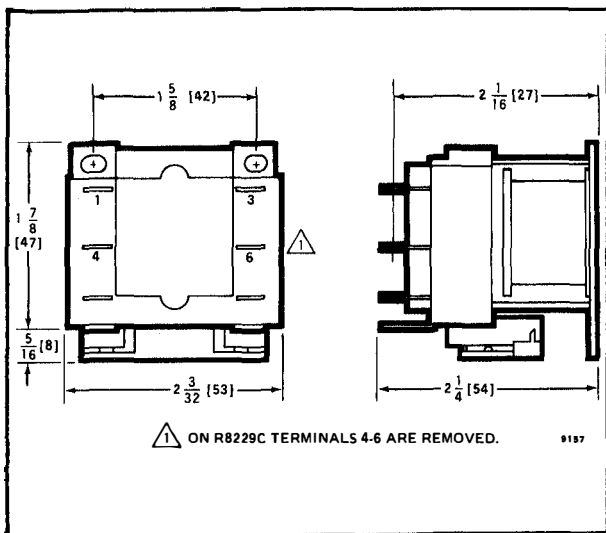
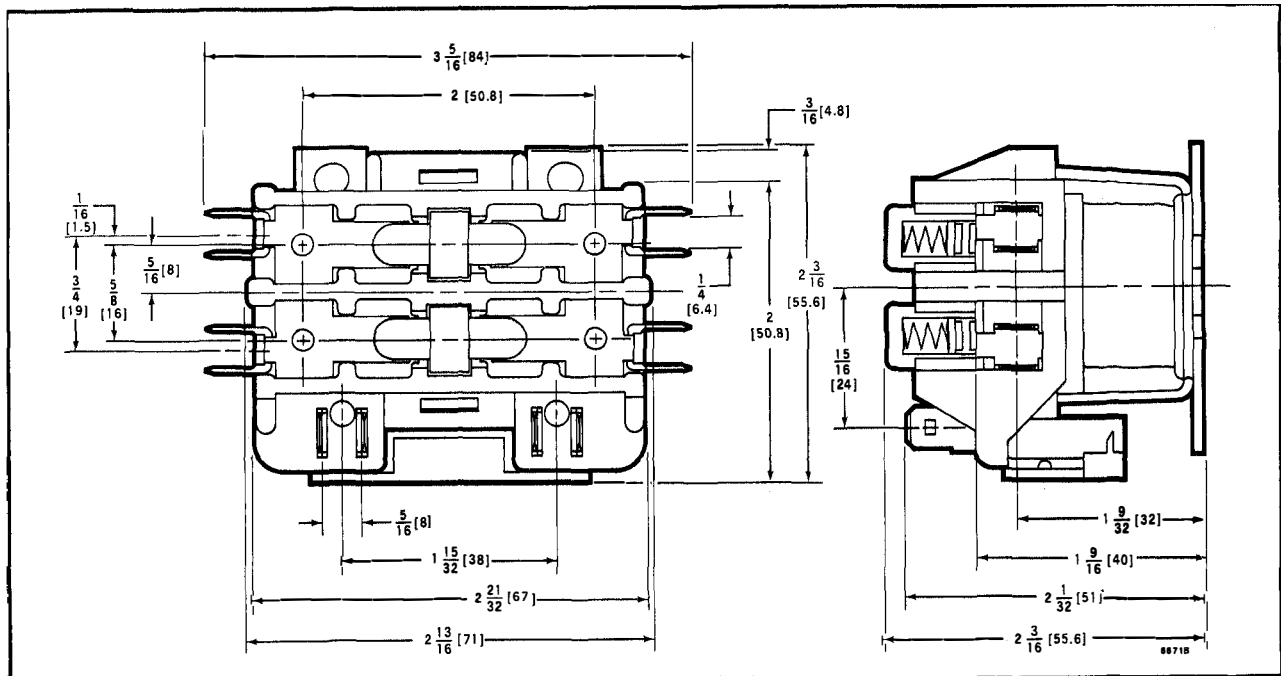
TERMINALS: Male standard 1/4 inch quick-connects.

NOTE: Female quick-connects should be selected with care. The use of a premium grade quick-connect, such as the AMP Faston "250" series, or equivalent is recommended.

DIMENSIONS: See Figs. 1 and 2.

UNDERWRITERS LABORATORIES INC. COMPONENT RECOGNIZED: File No. E59779, Guide No. NLDX2.

CANADIAN STANDARDS ASSOCIATION COMPONENT RECOGNIZED: File No. LR35066.



INSTALLATION AND SERVICE

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 the instructions and on the product to make sure the product is 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 installation to prevent electrical shock and equipment damage.

LOCATION AND MOUNTING

Mount the primary controller on a flat, solid surface as close as possible to the equipment being controlled. They may be mounted in any position. Secure in place with 2 screws through holes or slots in the mounting base. See Fig. 1 for mounting dimensions. They may be mounted with a shear formed panel tab and a single screw as shown in Fig. 4.

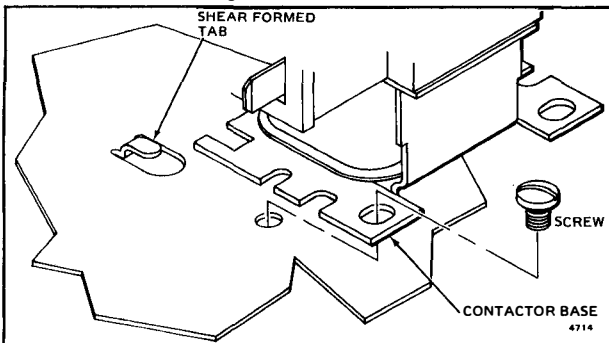


FIG. 4—MOUNTING PRIMARY CONTROLLER.

WIRING

All wiring must comply with local codes and ordinances. Crimp female quick-connects to the system wires and attach to the male quick-connect terminals. The relay has molded terminal numbers and circuit diagram for easy identification when wiring. The contactor has terminal numbers stamped on the top.

Figs. 5 and 6 show internal circuits for R8229B and C. Figs. 7 through 13 show hookups using both models. The circuits in Figs. 11, 12, and 13 conform with blower interlock requirements of UL 1096 Standard for Electric Central Air Heating Equipment. This standard requires that on multistage thermostat applications the fan motor be interlocked to the first load switch controlled by each thermostat stage.

The R8229 and R8246 are Underwriters Laboratories Inc. and Canadian Standards Association approved for use with both line voltage and pilot duty (low voltage) limits. See Figs. 14 and 15. The use of one pilot duty limit generally permits the use of fewer components at a lower overall cost.

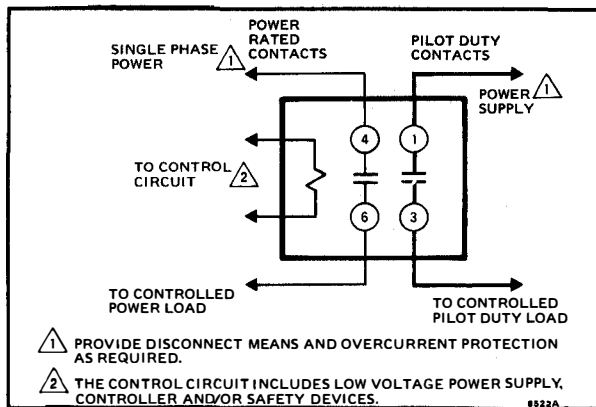


FIG. 5—R8229B RELAY WITH PILOT DUTY CONTACTS.

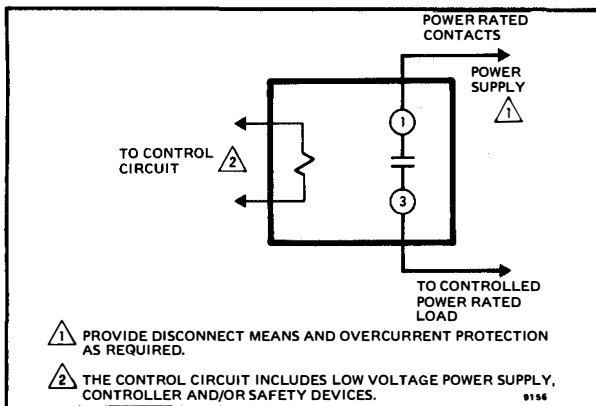


FIG. 6—R8229C RELAY WITH POWER RATED CONTACTS.

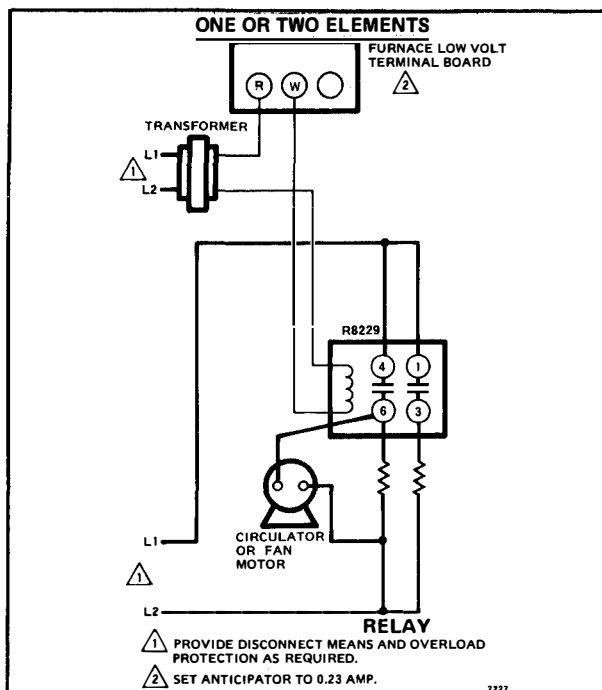


FIG. 7—ONE- OR TWO-ELEMENT WIRING WITH R8229 RELAY.

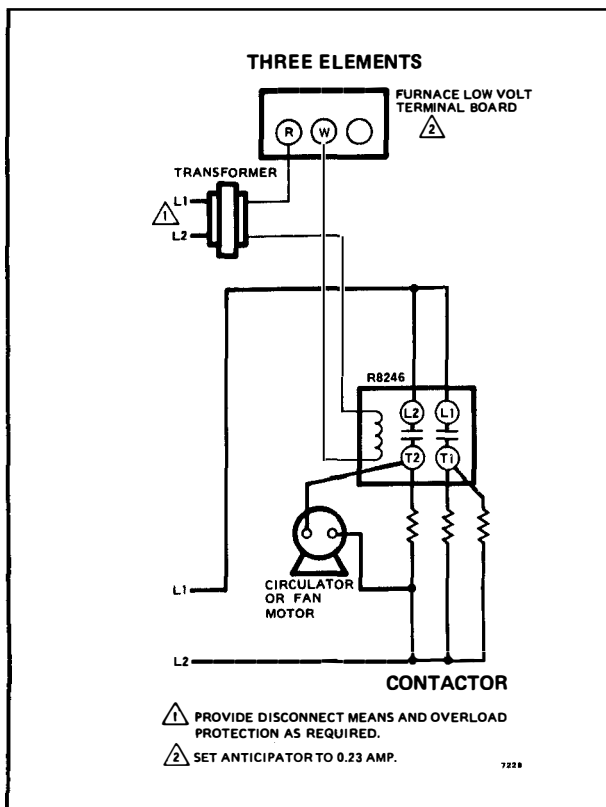


FIG. 8—THREE-ELEMENT WIRING WITH R8246 CONTACTOR.

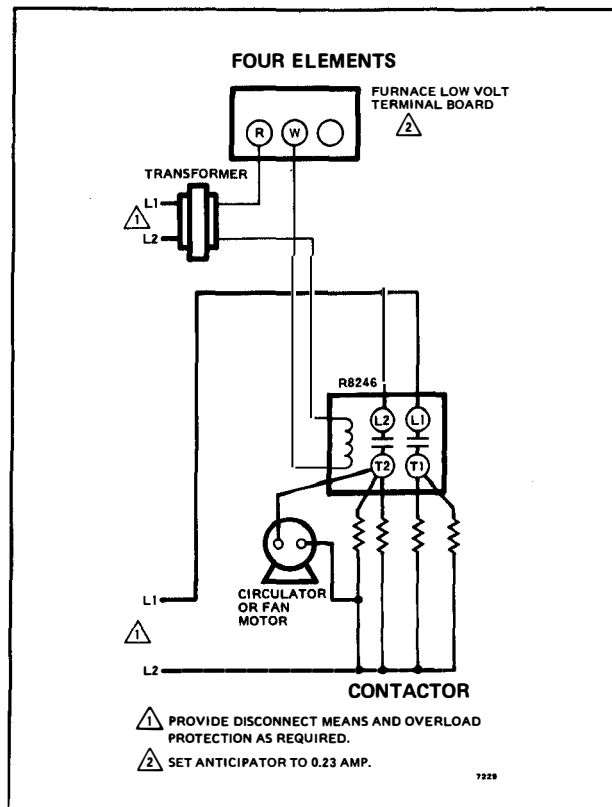


FIG. 9—FOUR-ELEMENT WIRING WITH ONE R8246 CONTACTOR, SINGLE-STAGE THERMOSTAT ONLY.

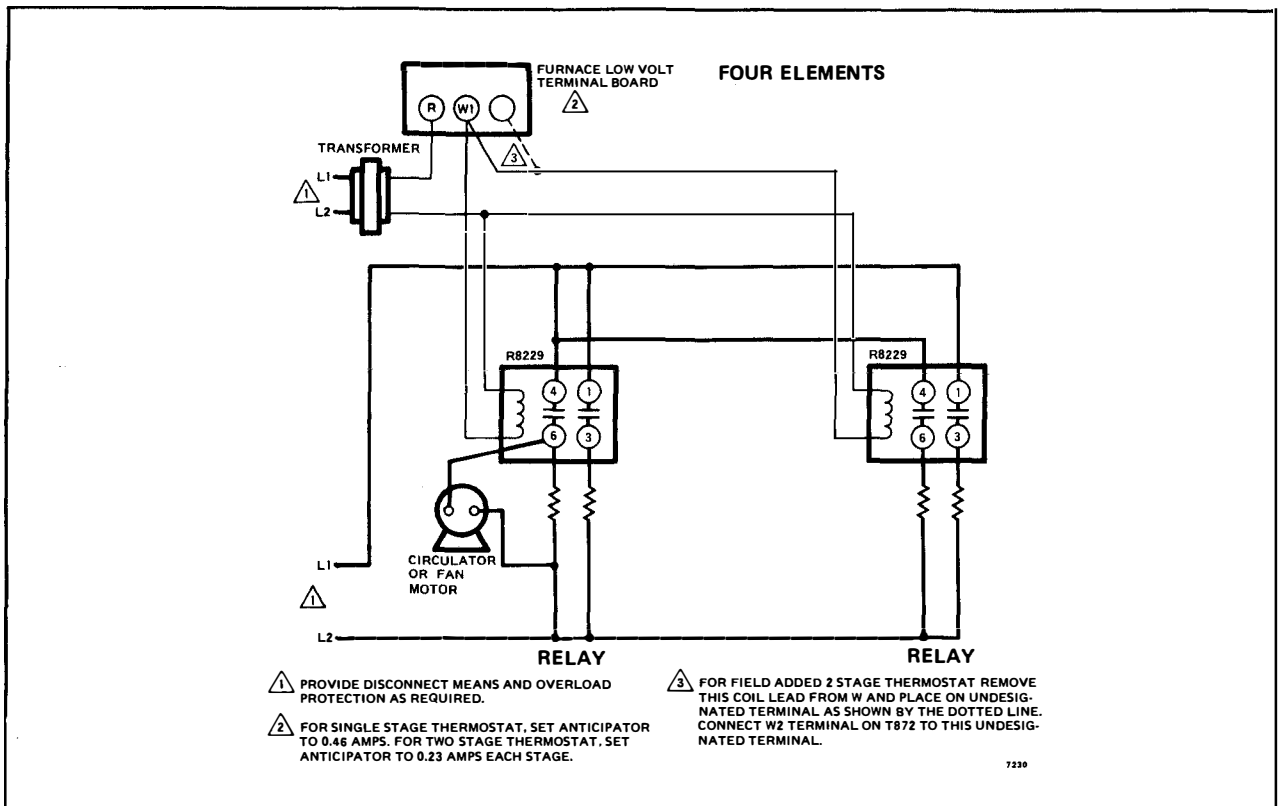


FIG. 10—FOUR-ELEMENT WIRING WITH TWO R8229 RELAYS, FACTORY-WIRED SINGLE-STAGE THERMOSTAT ONLY.

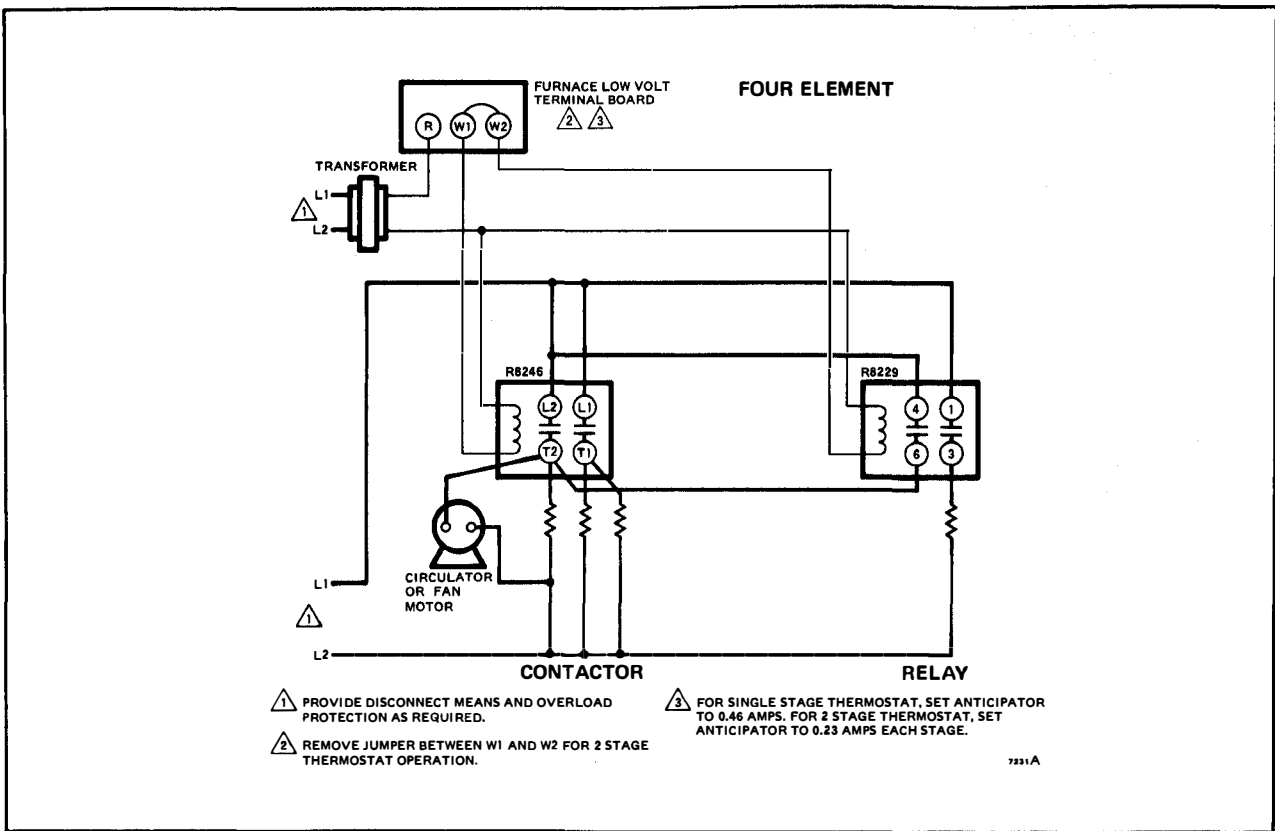


FIG. 11—FOUR-ELEMENT WIRING WITH AN R8246 AND R8229A,B FACTORY-WIRED FOR EITHER SINGLE- OR TWO-STAGE THERMOSTATS.

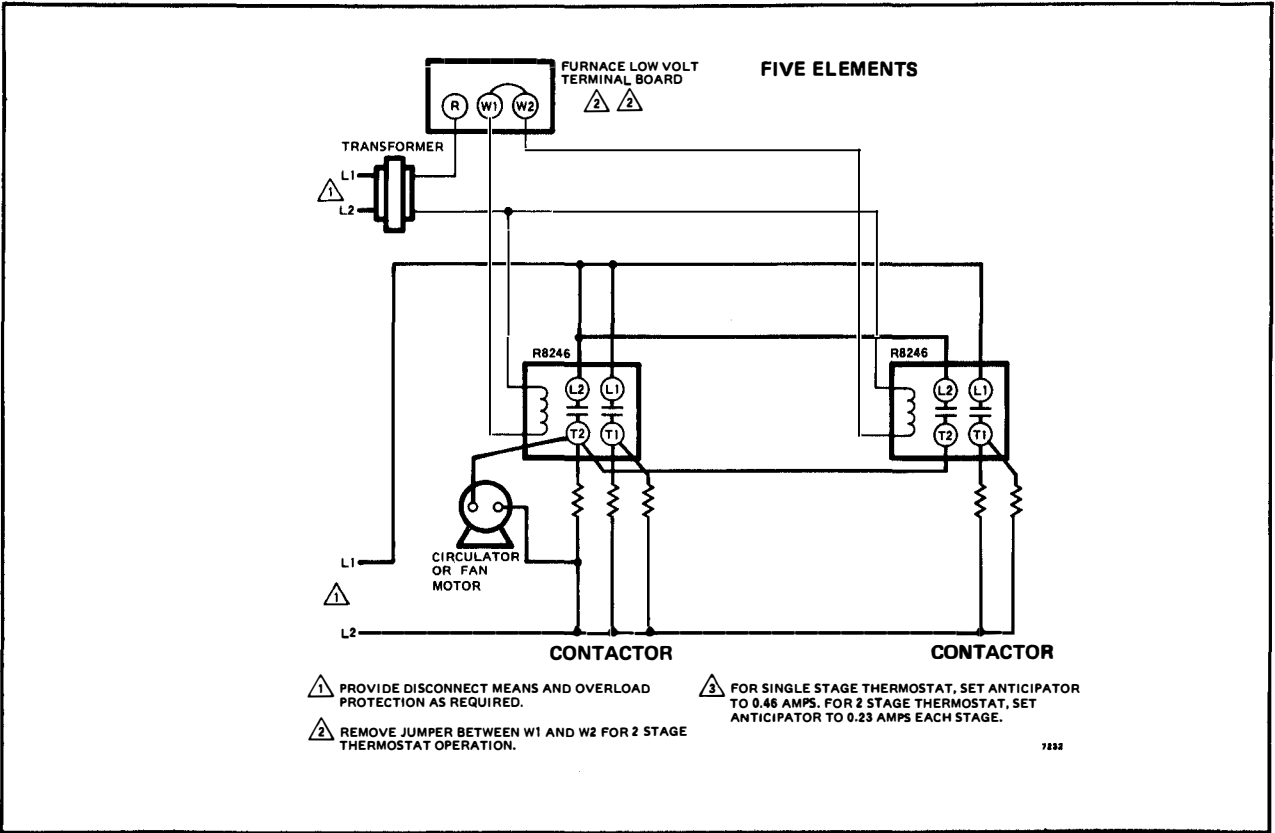


FIG. 12—FIVE-ELEMENT WIRING WITH TWO R8246 CONTACTORS, FACTORY-WIRED FOR EITHER SINGLE- OR TWO-STAGE THERMOSTATS.

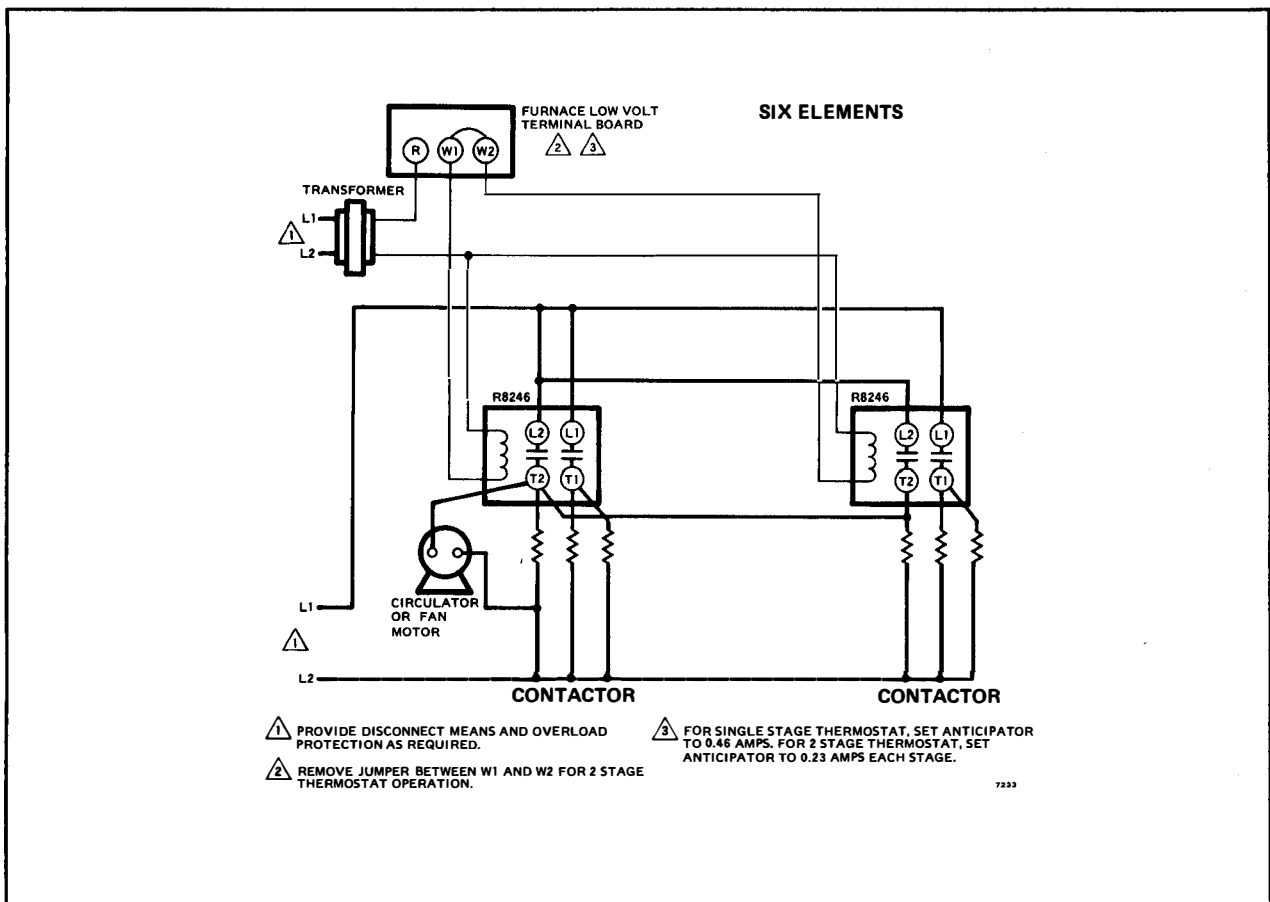


FIG. 13—SIX-ELEMENT WIRING DIAGRAM WITH TWO R8246'S, FACTORY-WIRED FOR EITHER SINGLE- OR TWO-STAGE THERMOSTATS.

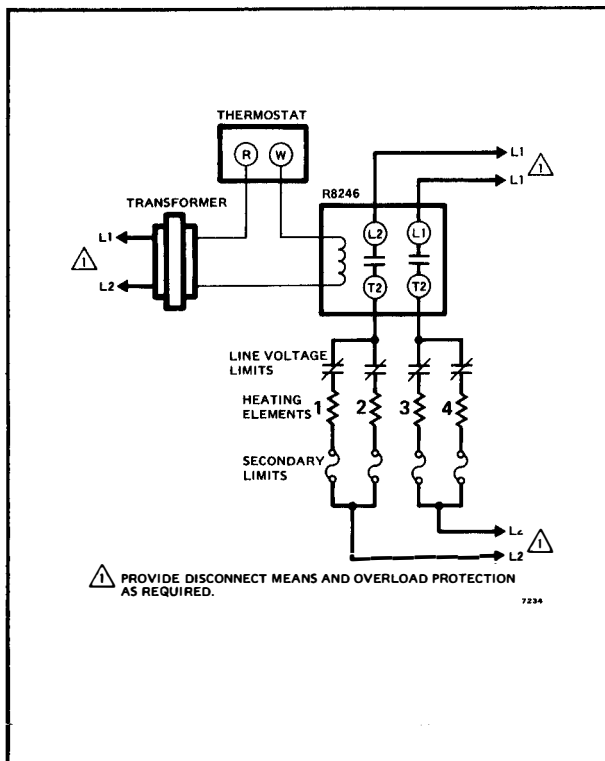


FIG. 14—R8246 IN LINE VOLTAGE LIMIT CIRCUIT.

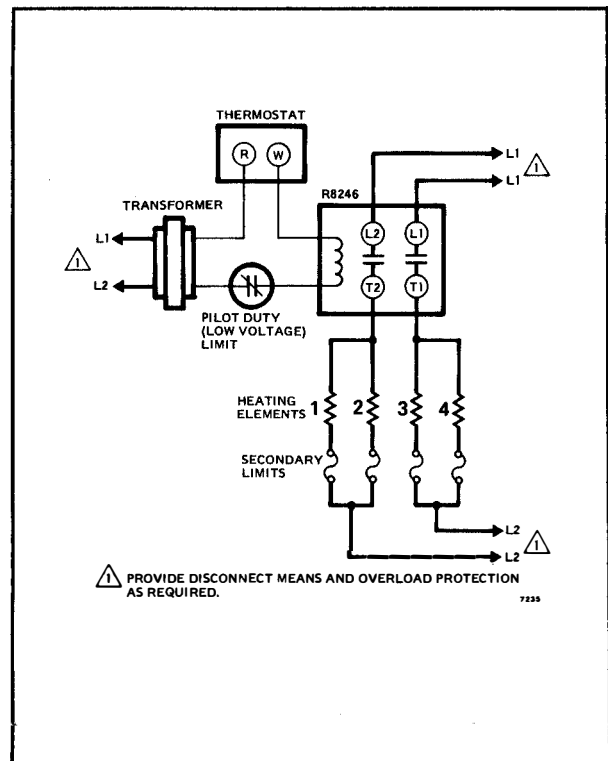


FIG. 15—R8246 IN PILOT DUTY LIMIT CIRCUIT.

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