

# tekmar<sup>®</sup> - Data Brochure

D 003

Relay 003 – 24 V (ac) Coil

09/09

## Mechanical Installation

The Relay base can be mounted directly to a flat surface, or onto a standard TS35 DIN rail.

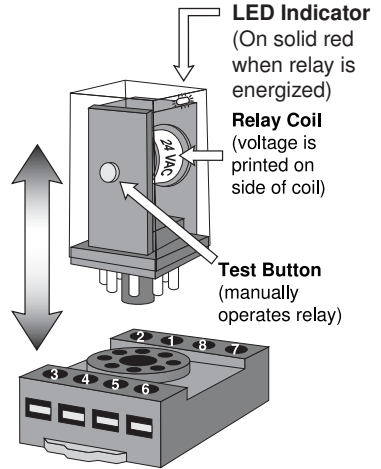
Follow local codes for installation of the relay and wiring. For class 2 circuits, no enclosure is required. For all other circuits, the relay should be mounted in an approved enclosure.

Wiring connections are made at the base terminals and are checked with the relay unplugged.

Relay 003 plugs directly into its base.

Pushing the test button on the side of the relay will manually close the N.O. (Normally Open) contacts and open the N.C. (Normally Closed) contacts.

There is a red LED indicator that turns on when the relay coil is energized. This relay is visible as indicated through the top of the relay and provides visual verification when the relay is “on”. When the relay coil is “off” the LED will also be off.



### Relay Base

Relay pulls straight out of base. Base can be pre-wired and wiring can be tested before plugging in relay. Relay can be replaced without disturbing the wiring.

## Electrical Installation

The Relay contacts are rated for a maximum current of:

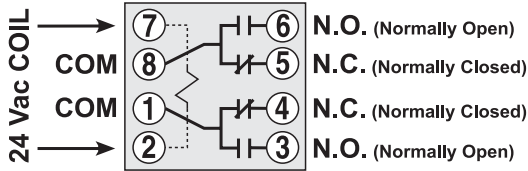
- 10 A resistive 10 A inductive at 120 V (ac), 1/3 hp,
- 10 A resistive 7 A inductive at 250 V (ac),
- 10 A resistive 2 A inductive at 28 V (dc).

24 V (ac) is required to energize the relay coil.

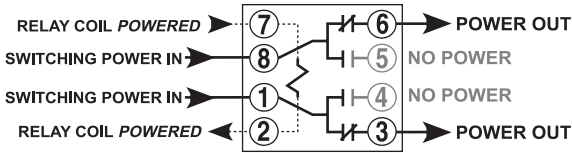
The relay coil uses 2.5 VA when powered.

## OPERATION

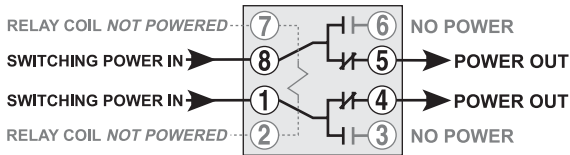
When 24 V (ac) is applied to terminals 2 and 7, the coil is energized and the N.O. (Normally Open) contacts will close at the same time as the N.C. (Normally Closed) contacts open. Also, the red LED indicator light in the top of the relay will light up. When the 24 V (ac) is removed, the spring will automatically return the relay contacts to the power-down position, and the LED indicator will turn off.



**All tekmar wiring diagrams show relays in the power-down condition as illustrated above.** When the coil is energized, the relay will switch its contacts as illustrated in the two diagrams below.

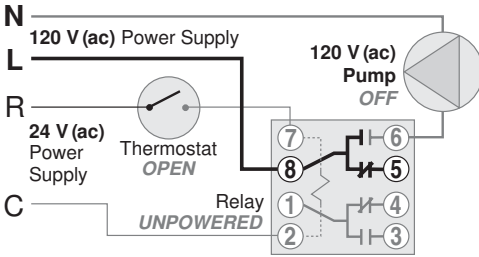


Relay 003 with power to coil.

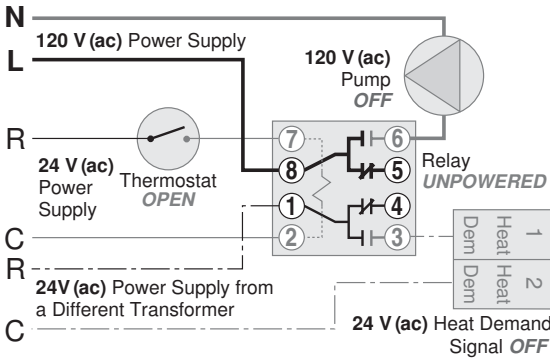
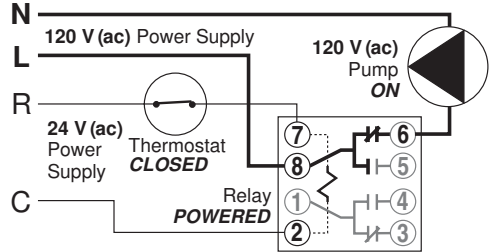


Relay 003 with no power to coil.

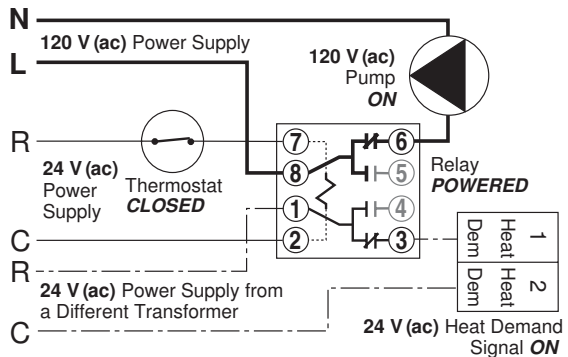
# Typical Applications



A low voltage thermostat energizes Relay 003 to turn on a 120 V (ac) Zone Pump. When the thermostat energizes the Relay 003 the LED indicator will be on.



A low voltage thermostat energizes Relay 003 to turn on a 120 V (ac) Zone Pump and deliver a Heat Demand signal to a tekmar Reset Control. When the thermostat energizes the relay, the LED indicator will be on.



## Limited Warranty and Product Return Procedure

**Limited Warranty** *The liability of tekmar under this warranty is limited. The Purchaser, by taking receipt of any tekmar product ("Product"), acknowledges the terms of the Limited Warranty in effect at the time of such Product sale and acknowledges that it has read and understands same.*

The tekmar Limited Warranty to the Purchaser on the Products sold hereunder is a manufacturer's pass-through warranty which the Purchaser is authorized to pass through to its customers. Under the Limited Warranty, each tekmar Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with tekmar's instructions, ordinary wear and tear excepted. The pass-through warranty period is for a period of twenty-four (24) months from the production date if the Product is not installed during that period, or twelve (12) months from the documented date of installation if installed within twenty-four (24) months from the production date.

The liability of tekmar under the Limited Warranty shall be limited to, at tekmar's sole discretion: the cost of parts and labor provided by tekmar to repair defects in materials and / or workmanship of the defective product; or to the exchange of the defective product for a warranty replacement product; or to the granting of credit limited to the original cost of the defective product, and such repair, exchange or credit shall be the sole remedy available from tekmar, and, without limiting the foregoing in any way, tekmar is not responsible, in contract, tort or strict product liability, for any other losses, costs, expenses, inconveniences, or damages, whether direct, indirect, special, secondary, incidental or consequential, arising from ownership or use of the product, or from defects in workmanship or materials, including any liability for fundamental breach of contract.

The pass-through Limited Warranty applies only to those defective Products returned to tekmar during the warranty period. This Limited Warranty does not cover the cost of the parts or labor to remove or transport the defective Product, or to reinstall the repaired or replacement Product, all such costs and expenses being subject to Purchaser's agreement and warranty with its customers.

Any representations or warranties about the Products made by Purchaser to its customers which are different from or in excess of the tekmar Limited Warranty are the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold tekmar harmless from and against any and all claims, liabilities and damages of any kind or nature which arise out of or are related to any such representations or warranties by Purchaser to its customers.

The pass-through Limited Warranty does not apply if the returned Product has been damaged by negligence by persons other than tekmar, accident, fire, Act of God, abuse or misuse; or has been damaged by modifications, alterations or attachments made subsequent to purchase which have not been authorized by tekmar; or if the Product was not installed in compliance with tekmar's instructions and / or the local codes and ordinances; or if due to defective installation of the Product; or if the Product was not used in compliance with tekmar's instructions.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH THE GOVERNING LAW ALLOWS PARTIES TO CONTRACTUALLY EXCLUDE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DURABILITY OR DESCRIPTION OF THE PRODUCT, ITS NON-INFRINGEMENT OF ANY RELEVANT PATENTS OR TRADEMARKS, AND ITS COMPLIANCE WITH OR NON-VIOLATION OF ANY APPLICABLE ENVIRONMENTAL, HEALTH OR SAFETY LEGISLATION; THE TERM OF ANY OTHER WARRANTY NOT HEREBY CONTRACTUALLY EXCLUDED IS LIMITED SUCH THAT IT SHALL NOT EXTEND BEYOND TWENTY-FOUR (24) MONTHS FROM THE PRODUCTION DATE, TO THE EXTENT THAT SUCH LIMITATION IS ALLOWED BY THE GOVERNING LAW.

**Product Warranty Return Procedure** All Products that are believed to have defects in workmanship or materials must be returned, together with a written description of the defect, to the tekmar Representative assigned to the territory in which such Product is located. If tekmar receives an inquiry from someone other than a tekmar Representative, including an inquiry from Purchaser (if not a tekmar Representative) or Purchaser's customers, regarding a potential warranty claim, tekmar's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.



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