

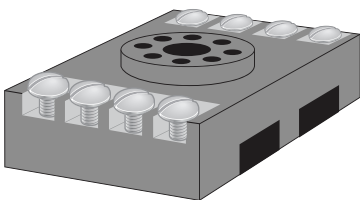
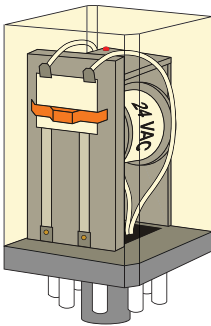


# Installation & Operation Manual

## Introduction

The tekmar Relay 003 - 24 V (ac) is for use in applications where device operation requires a voltage that differs from the control's built-in inputs or outputs. They can also be used in applications where the device operation requires a higher current than the on board relay is rated for.

- Relay 003 is energized with 24 V (ac)



## Features

- Test button
- Red LED indicator
- Pluggable base

## Benefits

- Mounts to TS35 DIN Rail
- Pre-wire and test base before plugging in relay
- Replace relay without disturbing wiring

## Note

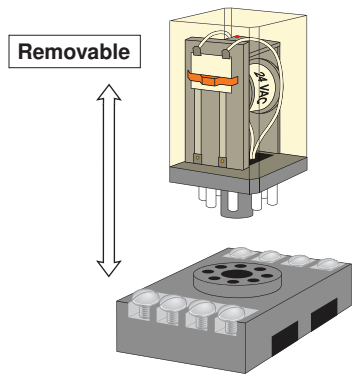
- For 120 V (ac) coil relay see D004

# 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.

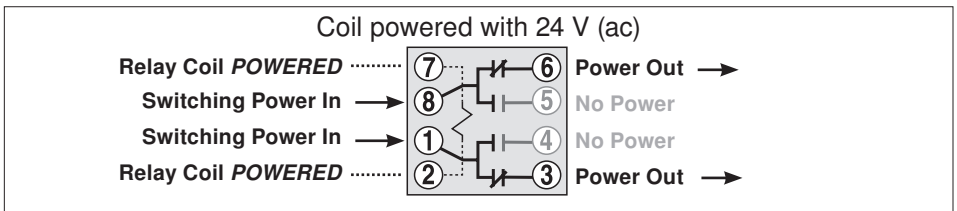
Wiring connections are made at the base terminals and are checked with the relay unplugged.

Relay 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.

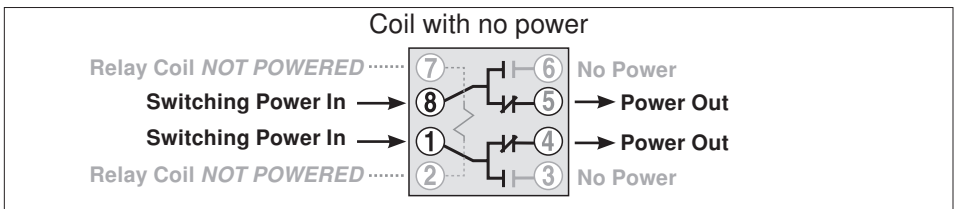


# Wiring

When 24 V (ac) is applied to the relay coil (terminals 2 and 7), the N.O. (Normally Open) contacts will close and at the same time the N.C. (Normally Closed) contacts will open. Also, the red LED indicator light on the top of the relay will turn on.

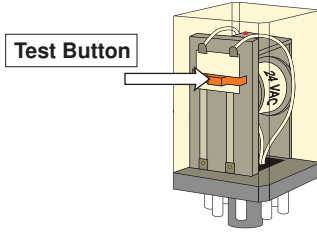


When voltage is removed from the relay coil (terminals 2 and 7), the spring will automatically return the relay contacts to the normal (un-powered) position, and the LED indicator will turn off.

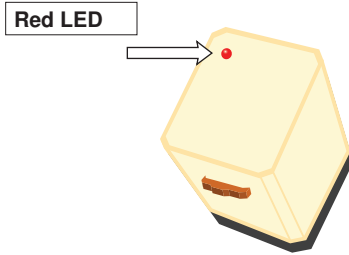


# Testing

Push the test button on the front side of the relay to manually close the N.O. (Normally Open) contacts and open the N.C. (Normally Closed) contacts for testing purposes.

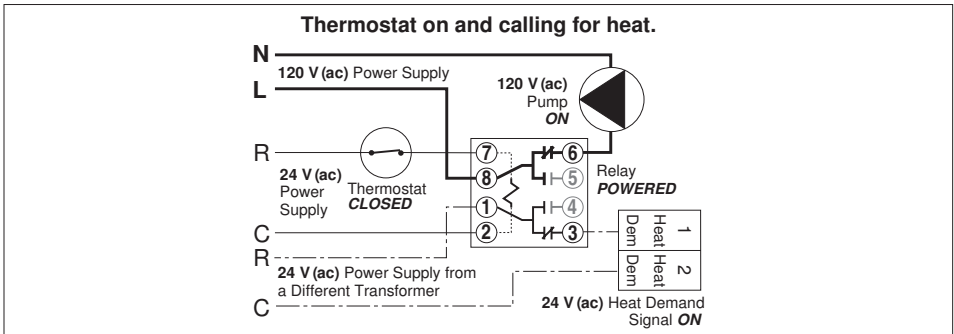
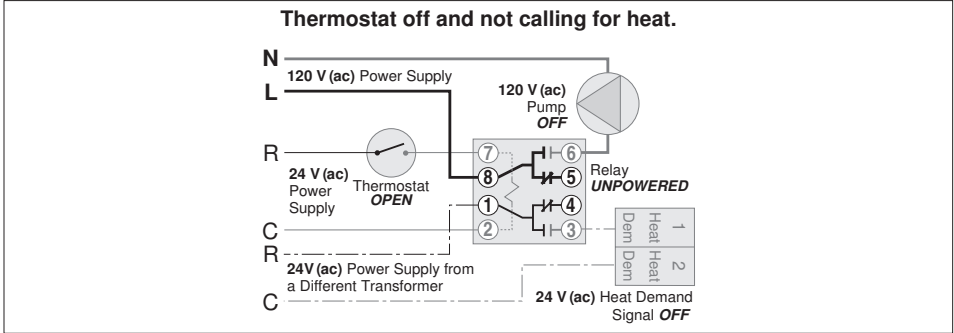


The red LED indicator turns on when the relay coil is energized. This LED is visible as indicated through the top of the relay and provides visual verification when the relay is "on". When the relay coil is "off" the LED will also be off.



# Application

Low voltage thermostat energizes Relay 003 to turn on a 120 V (ac) zone pump. A heat demand is sent to a tekmar control.



# Specifications & Warranty

<b>Relay 003 (24 V (ac) coil)</b>	
Literature	D003, C003
Packaged weight	0.4 lb (180 g)
Dimensions	3" H x 1-9/16" W x 2-3/8" D (75 x 40 x 60 mm)
Approvals	CSA C US
Power supply (coil)	24 V (ac) +10%, -20%, 50 Hz 2.7 VA, 60 HZ 2.3 VA
Relay contacts (max.)	10 A resistive @ 250 V (ac) N.O., N.C. 10 A resistive @ 30 V (dc) N.O., N.C. 7 A inductive @ 250 V (ac)
Relay contacts (min.)	10 mA 1 V (dc)
Ambient conditions	Indoor use only, -40 to 140°F (-40 to 60°C), RH < 85% Non-condensing

**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.

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**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.

	tekmar Control Systems Ltd., Canada tekmar Control Systems, Inc., U.S.A. <b>Head Office: 5100 Silver Star Road</b> <b>Vernon, B.C. Canada V1B 3K4</b> <b>(250) 545-7749 Fax. (250) 545-0650</b> Web Site: www.tekmarcontrols.com	Product design, software and literature are Copyright © 2011 by: tekmar Control Systems Ltd. and tekmar Control Systems, Inc.
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