

MAXIMUM COMFORT AND CONTROL IN HEATING

TSSHC-R1/2/3/4/5RELAY

Installation Instructions
Electric Heating Solid-State Relay

1 Application

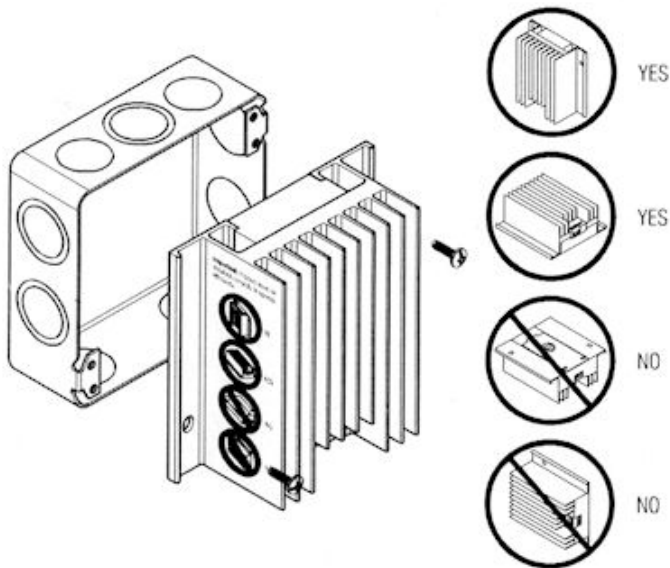
The TSSHC-R Solid State Relay is designed to control a line-voltage resistive load from a 24 VAC control signal or from signal sources of 4 to 32 VDC. It can be used with fast-commuting thermostat (e.g. cycles of 15 seconds).

The TSSHC-R is compatible with both mechanical and 2-wire or 3-wire electronic thermostats (with or without batteries).

2 Installation

The TSSHC-R must be mounted on a 4" x 4" electrical box.

WARNING: The relay must be mounted so the heat sink fins are vertical or facing upwards. You should also provide space above the heat sink for warm air to escape. Disregarding this warning may result in improper operation of the relay. Refer to the diagram below for correct mounting guidelines.

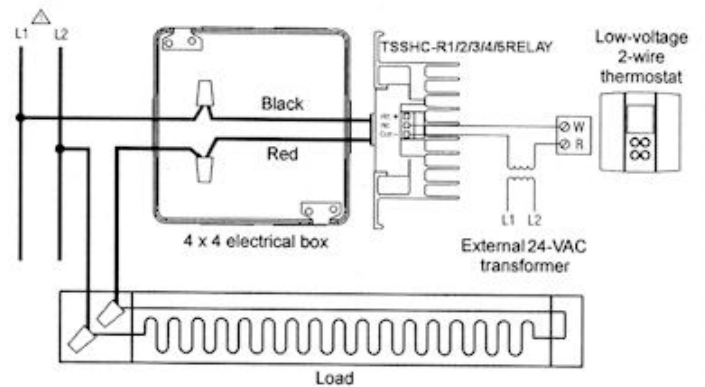


- ▶ All wiring must comply with national and local electrical code regulations.
- ▶ The installation should be carried out by an electrician.
- ▶ Disconnect power before the installation to prevent electrical shock.

- 1 Perform the wiring as per figures 1 and 2.
- 2 Secure the relay to the electrical box.
- 3 Apply power to the heating system.
- 4 Verify the installation by increasing the setpoint temperature at the thermostat to activate the relay (the LED on the relay should light up).

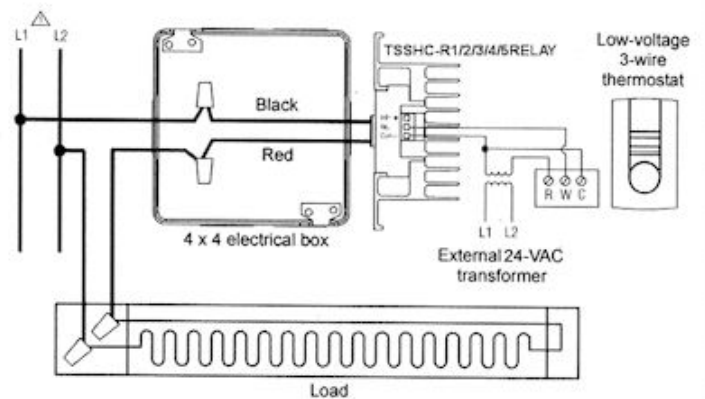
3 Typical Wiring Diagrams

WARNING: In the following wiring diagrams, the relay is illustrated sideways for the purpose of showing the terminal wiring. Refer to installation section for proper positioning of the relay.



1 You must provide an overload protection and disconnect as required.

Figure 1: Connection to a 2-wire low voltage thermostat using a 24-VAC control signal



1 You must provide an overload protection and disconnect as required.

Figure 2: Connection to a 3-wire low voltage thermostat using a 24-VAC control signal

4 Electrical Specifications

Voltage	100 to 347 VAC
Resistive load	23 A
Control signal (nominal)	AC: 24 V / 32 mA DC: 4 to 32 V / 16 mA
Guaranteed OFF signal	5 VAC 2 VDC


Ambient operating temp.: -4°F to 140°F (-20°C to 60°C)

Ambient storage: -40°F to 175°F (-40°C to 80°C)

Humidity limits: 0 to 95% non-condensing

Net weight: 15.3 oz. (434 g)

Terminal wire size: 12 AWG

Certification:  us



Technical Assistance

If you have any questions on the product installation or operation, contact us at:

SSHC, Inc
P.O. Box 769,
Old Saybrook, CT 06475
860-399-5434 voice
860-399-6460 fax
info@sshcinc.com
http://www.sshcinc.com

Warranty

SSHC warrants this product, excluding battery, to be free from defects in the workmanship or materials, under normal use and service, for a period of three (3) years from the date of purchase by the consumer. If at any time during the warranty period the product is determined to be defective or malfunctions, SSHC shall repair or replace it (at SSHC's option).

If the product is defective,

- (i) return it, with a bill of sale or other dated proof of purchase, to the place from which you purchased it, or
- (ii) contact SSHC. SSHC will make the determination whether the product should be returned, or whether a replacement product can be sent to you.

This warranty does not cover removal or reinstallation costs. This warranty shall not apply if it is shown by SSHC that the defect or malfunction was caused by damage which occurred while the product was in the possession of a consumer.

SSHC's sole responsibility shall be to repair or replace the product within the terms stated above. SSHC SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE OF ANY KIND, INCLUDING ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING, DIRECTLY OR INDIRECTLY, FROM ANY BREACH OF ANY WARRANTY, EXPRESS OR IMPLIED, OR ANY OTHER FAILURE OF THIS PRODUCT. Some provinces, states or regions do not allow the exclusion or limitation of incidental or consequential damages, so this limitation may not apply to you.

THIS WARRANTY IS THE ONLY EXPRESS WARRANTY SSHC MAKES ON THIS PRODUCT. THE DURATION OF ANY IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IS HEREBY LIMITED TO THE THREE-YEAR DURATION OF THIS WARRANTY. Some provinces, states or regions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may have other rights which vary according to the province, state or region.

TSSHC-R1/2/3/4/5RELAY Dimensions

Dimensions are expressed in INCHES [MM]

