



# Instruction Sheet

102-418

## SR501-HC-4 Switching Relay, High Current Capacity

SUPERSEDES: June 1, 2010

EFFECTIVE: June 1, 2012

Plant ID# 9300-2795

### Features:

- External Indicator Lights
- Simplified Wiring
- Sealed Relays
- 100% Factory Tested
- Contractor Friendly PC Board Layout
- Universal Thermostat Compatibility
- UL Approved
- Extended 3 Year Warranty

### 120 VAC Application:

1 zone switching relay with boiler enable or 2 zone without boiler enable.

### 240 VAC Application:

1 zone switching relay when switching both of the circulator hot leads (L1 & L2).

### Operation:

Connect a thermostat to the R & W1 and/or W2 terminals on the switching relay. When the thermostat(s) call for heat, the relays are energized and power is given to the circulator(s).

### Zone Control Power Input:

Connect 120 volt AC power input to terminals N and H. Neutral wire to terminal N. Hot wire to terminal H.

### External Diagnostics:

The external lights show full functionality of the switching relay. The green light should always be on, indicating that power is connected. When either thermostat calls for heat, both the appropriate relay and red indicating light are energized.

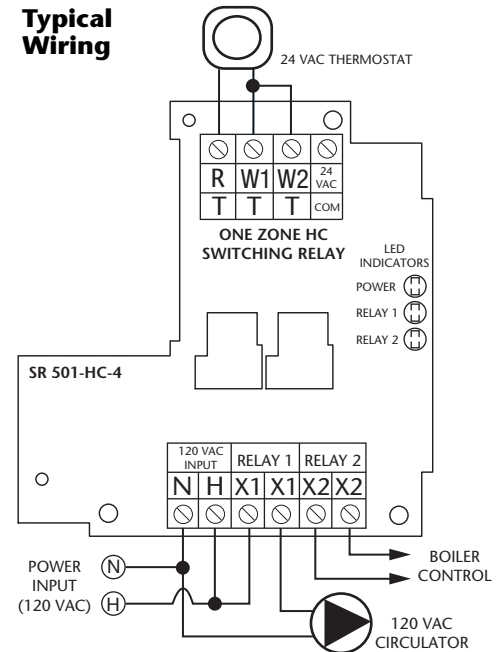
### The Taco Connection:

Combine the reliability of the Taco Zone Valves, Priority Zoning Circulators, Thermostats, and the "00" family of circulators to achieve total system integration. No matter the application, Taco now provides the products to maximize system performance while simplifying both installation and service.

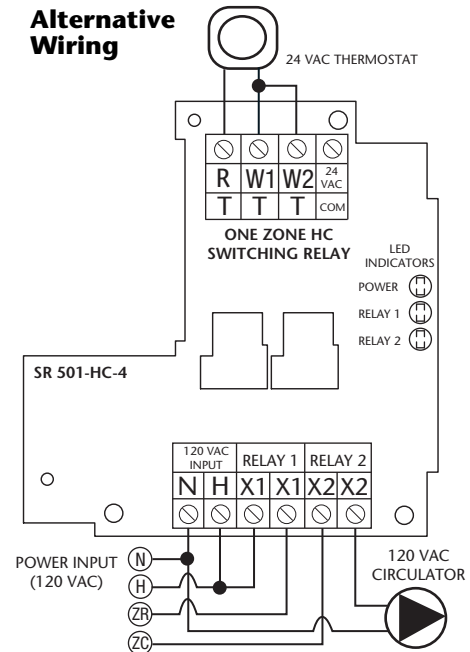
### Terminal Description:

- R Hot side of transformer. Connect to R on thermostat.
- W1 Switched R signal from thermostat #1. Connect to W on thermostat.
- W2 Switched R signal from thermostat #2. Connect to W on thermostat.
- C Common side of transformer. Connect to COM on thermostat (optional).
- N Neutral wire of power input.
- H Hot wire of power input.
- X1 Dry contacts for relay 1 (W1).
- X1 Dry contacts for relay 1 (W1).
- X2 Dry contacts for relay 2 (W2).
- X2 Dry contacts for relay 2 (W2).

### Typical Wiring



### Alternative Wiring



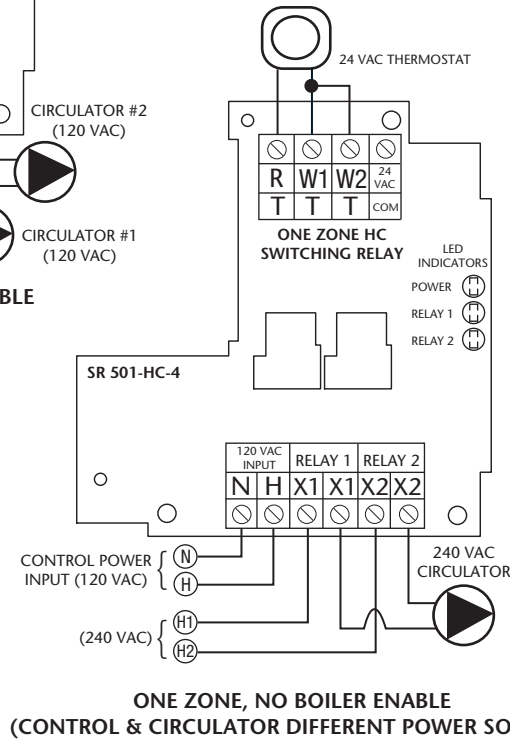
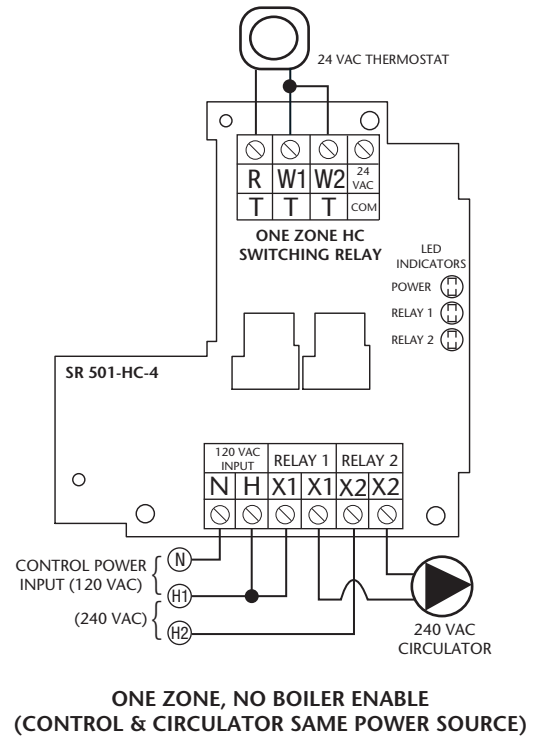
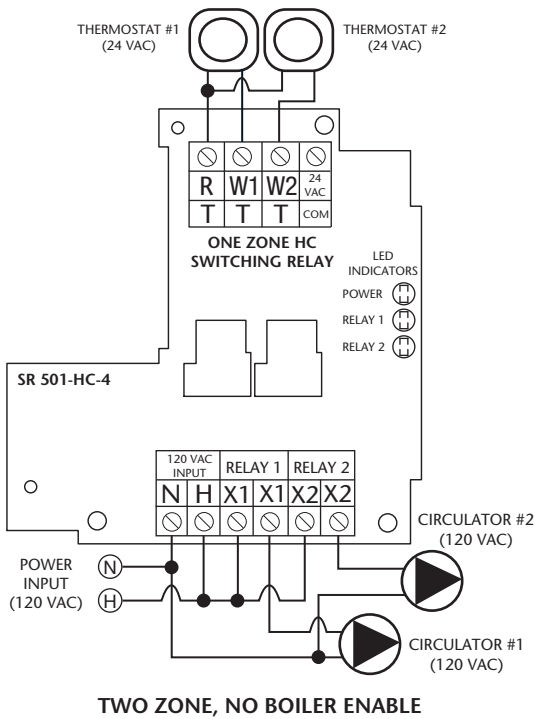
**NOTE:** When using Alternative Wiring diagram, the boiler operating control's ZC terminal will see the load of the circulator(s).

**WARNING:** When using Alternative Wiring diagram, wiring instructions must be followed so power originates from the boiler aquastat. Failure to follow these wiring instructions may result in a secondary source of power being connected to the boiler that may activate it under certain circumstances, causing injury or death.

### Specifications:

PRODUCT NUMBER	NUMBER OF ZONES	INPUT VOLTAGE	WIDTH	TYPE 1 ENCLOSURE HEIGHT	DEPTH
SR501-HC-4	1 or 2	120/60/1 VAC, 90 mA	4 <sup>7</sup> / <sub>8</sub> "	6 <sup>5</sup> / <sub>8</sub> "	2 <sup>3</sup> / <sub>8</sub> "
RELAY RATING: 3/4 HP (13.8 FLA, 82.8 LRA at 120 VAC) (6.9 FLA, 41.4 LRA at 240 VAC)					
The thermostat connection supplies a 24 VAC class 2 output.					

**WARNING:** Wiring connections must be made in accordance with all applicable electrical codes. Use copper wire only. Failure to follow this instruction can result in personal injury or death and/or property damage. 12-18 gauge wire recommended for 120/240 VAC connections, 14-22 gauge wire for thermostat connections, and 14-22 gauge wire for 24 VAC source connections.



# LIMITED WARRANTY STATEMENT

Taco, Inc. will repair or replace without charge (at the company's option) any product or part which is proven defective under normal use within three (3) years from the date of start-up or three (3) years and six (6) months from date of shipment (whichever occurs first).

In order to obtain service under this warranty, it is the responsibility of the purchaser to promptly notify the local Taco stocking distributor or Taco in writing and promptly deliver the subject product or part, delivery prepaid, to the stocking distributor. For assistance on warranty returns, the purchaser may either contact the local Taco stocking distributor or Taco. If the subject product or part contains no defect as covered in this warranty, the purchaser will be billed for parts and labor charges in effect at time of factory examination and repair.

Any Taco product or part not installed or operated in conformity with Taco instructions or which

has been subject to misuse, misapplication, the addition of petroleum-based fluids or certain chemical additives to the systems, or other abuse, will not be covered by this warranty.

If in doubt as to whether a particular substance is suitable for use with a Taco product or part, or for any application restrictions, consult the applicable Taco instruction sheets or contact Taco at [401-942-8000].

Taco reserves the right to provide replacement products and parts which are substantially similar in design and functionally equivalent to the defective product or part. Taco reserves the right to make changes in details of design, construction, or arrangement of materials of its products without notification.

TACO OFFERS THIS WARRANTY IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY WARRANTY IMPLIED BY LAW INCLUDING WARRANTIES OF MERCHANTABILITY OR FIT-

NESS IS IN EFFECT ONLY FOR THE DURATION OF THE EXPRESS WARRANTY SET FORTH IN THE FIRST PARAGRAPH ABOVE.

THE ABOVE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR STATUTORY, OR ANY OTHER WARRANTY OBLIGATION ON THE PART OF TACO.

TACO WILL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS OR ANY INCIDENTAL COSTS OF REMOVING OR REPLACING DEFECTIVE PRODUCTS.

This warranty gives the purchaser specific rights, and the purchaser may have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts or on the exclusion of incidental or consequential damages, so these limitations or exclusions may not apply to you.

**Do it Once. Do it Right.®**

**TACO, INC.**, 1160 Cranston Street, Cranston, RI 02920 Telephone: (401) 942-8000 FAX: (401) 942-2360.  
**TACO (Canada), Ltd.**, 8450 Lawson Road, Unit #3, Milton, Ontario L9T 0J8. Telephone: 905/564-9422. FAX: 905/564-9436.  
 Visit our web site at: <http://www.taco-hvac.com>

Printed in USA  
 Copyright 2012  
 TACO, Inc.