

Taco SR504-2

Taco SR504-2 4-Zone Switching Relay with Priority Instruction Manual

Model: SR504-2

1. INTRODUCTION AND OVERVIEW

The Taco SR504-2 is a 4-zone switching relay designed for hydronic heating systems. It provides control for up to four independent heating zones, allowing each zone to be managed by its own thermostat. This unit incorporates a priority feature, which ensures that a designated zone (typically the domestic hot water zone) receives heating priority over other zones when activated. The SR504-2 is engineered for reliable and efficient operation in residential and light commercial applications, simplifying wiring and control for multi-zone heating systems.

2. SETUP AND INSTALLATION

Installation of the Taco SR504-2 should be performed by a qualified heating technician or electrician in accordance with all local codes and regulations. Ensure power to the heating system is disconnected at the main service panel before beginning any installation work.

2.1 Mounting:

- The SR504-2 is designed for DIN Rail mounting. Securely attach the unit to a suitable surface in a dry, accessible location near the boiler and zone valves/circulators.
- Ensure adequate ventilation around the unit to prevent overheating.

2.2 Wiring:

- All wiring connections are made via screw terminals. Refer to the wiring diagram provided with the physical product for specific connections.
- Connect the main power supply to the designated terminals.
- Connect each zone thermostat to its respective zone input terminals.
- Connect the zone valves or circulators to their corresponding zone output terminals.
- Connect the boiler control terminals to the boiler's thermostat input.
- Identify and connect the priority zone thermostat and circulator/valve to the priority terminals.



Image 1: The Taco SR504-2 4-Zone Switching Relay. This image displays the compact, green-cased unit with visible labeling for the Taco brand and model number SR504. The unit features connection points on the top surface, indicating its role as a central control component for heating systems.

3. OPERATING INSTRUCTIONS

The Taco SR504-2 operates automatically based on thermostat calls from each connected zone.

- **Zone Activation:** When a thermostat in any of the four zones calls for heat, the SR504-2 activates the corresponding zone valve or circulator and signals the boiler to fire.
- **Priority Function:** If the designated priority zone (e.g., domestic hot water) calls for heat, the SR504-2 will temporarily suspend heating to non-priority zones to ensure the priority zone is satisfied first. Once the priority zone's demand is met, the relay will resume normal operation for other zones.
- **Indicator Lights:** The unit typically features indicator lights for each zone and for boiler activation, providing visual confirmation of system status. Refer to the product's specific labeling for light functions.

4. MAINTENANCE

The Taco SR504-2 is designed for long-term, maintenance-free operation. Regular maintenance is generally not required for the relay itself, but periodic inspection of the overall heating system is recommended.

- **Annual Inspection:** During routine heating system maintenance, have a qualified technician inspect the wiring connections to the SR504-2 to ensure they are secure and free from corrosion.
- **Environmental Conditions:** Ensure the unit remains in a dry environment, free from excessive dust or moisture.
- **Cleaning:** If necessary, gently wipe the exterior of the unit with a dry, soft cloth. Do not use liquid cleaners or solvents.

There are no user-serviceable parts inside the SR504-2. Do not attempt to open or repair the unit.

5. TROUBLESHOOTING

If you experience issues with your heating system, consider the following troubleshooting steps. Always disconnect power before inspecting wiring.

- **No Heat in a Zone:**
 - Check the thermostat for that zone to ensure it is calling for heat and set above the ambient temperature.
 - Verify that the zone valve or circulator for that zone is functioning correctly.
 - Inspect wiring connections at the SR504-2 and the zone components.
- **No Heat in Any Zone:**
 - Ensure the main power supply to the SR504-2 is active. Check circuit breakers.

- Verify the boiler is operational and receiving the call for heat from the SR504-2.
- Check the main thermostat (if applicable) or boiler controls.
- **Priority Zone Not Functioning Correctly:**
 - Ensure the priority zone thermostat is calling for heat.
 - Verify the priority zone's wiring is correctly connected to the designated priority terminals on the SR504-2.

If these steps do not resolve the issue, it is recommended to contact a qualified HVAC technician for further diagnosis and repair.

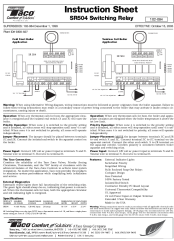
6. SPECIFICATIONS

Model Number	SR504-2
Brand	Taco
Number of Zones	4
Priority Feature	Yes
Operation Mode	Automatic
Contact Current Rating	5 Amps
Connector Type	Screw
Contact Material	Silver, Gold, Copper
Mounting Type	DIN Rail Mount
Product Dimensions	14 x 9 x 3 inches
Item Weight	6 pounds
UPC	687752389531

7. WARRANTY AND SUPPORT

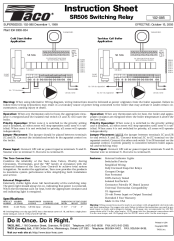
For specific warranty information regarding your Taco SR504-2, please refer to the documentation included with your product at the time of purchase or visit the official Taco Comfort Solutions website. Warranty terms typically cover manufacturing defects for a specified period from the date of installation.

For technical support, service, or to locate an authorized service provider, please contact Taco Comfort Solutions customer service directly. Contact information can usually be found on the product packaging or their official website.



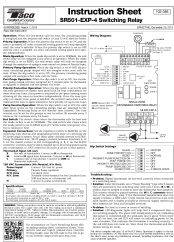
[Taco SR504 Switching Relay Instruction Sheet](#)

Instruction sheet for the Taco SR504 Switching Relay, detailing its operation, features, specifications, and wiring for both Cold Start Boiler and Tankless Coil Boiler applications. Includes installation and safety warnings.



[Taco SR506 Switching Relay Instruction Sheet](#)

Instruction sheet for the Taco SR506 Switching Relay, detailing wiring diagrams, operation, priority settings, jumper placement, power input, external diagnostics, and specifications for both Cold Start Boiler and Tankless Coil Boiler applications. Includes features and manufacturer information.



[Taco SR501-EXP-4 Switching Relay: Installation and Operation Guide](#)

Comprehensive instruction sheet for the Taco SR501-EXP-4 Single Zone Expandable Switching Relay. Covers operation, wiring diagrams, specifications, troubleshooting, and warranty for HVAC heating systems.



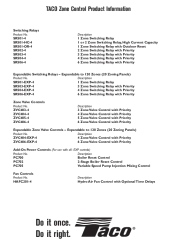
[Taco SR502/503/504/506-5 Switching Relay Instruction Sheet](#)

Comprehensive instruction sheet for Taco's SR502, SR503, SR504, and SR506-5 switching relays, covering installation, operation, wiring, troubleshooting, and specifications for HVAC zone control systems.



[Taco SR502-506-5 Switching Relay: Installation, Operation, and Wiring Guide](#)

Comprehensive guide for Taco's SR502, SR503, SR504, and SR506-5 switching relays, covering installation, operation, wiring, troubleshooting, specifications, and warranty information.



[TACO Zone Control Product Information and Wiring Guide](#)

Comprehensive overview of TACO zone control products, including switching relays, zone valve controls, and add-on power controls, with detailed product information, specifications, and wiring diagrams for HVAC systems.