

SMART RELAY (SOLENOID)

The Smart Relay (SR) is designed for use in multi-battery applications as a solenoid priority system to protect the chassis charging system from excessive loading while allowing auxiliary batteries to be charged.

Basic operational characteristics

A: Protect the charging system:

The Smart Relay monitors the battery system to determine if the batteries are being charged. When the engine batteries reach 13.0-13.4 volts, indicating charging is taking place, the SR will engage, joining the two battery banks. If the drain on the charging system by the auxiliary or main battery bank reduces the system voltage below 12.6-12.8 volts, the SR will disconnect the battery banks from each other, thus protecting the respective battery banks from excessive drain.

B: Assist in engine starting (optional)

When the starter is activated the SR compares the voltage of both battery banks. IF the chassis' battery is lower than the auxiliary battery bank, the SR will engage allowing the auxiliary battery bank to aid in vehicle starting. The start signal must be at least three volts for the operation to occur.

Features

- ❑ Isolates each battery circuit and eliminates multi-battery drain.
- ❑ Allows each battery to discharge and charge according to its own status.
- ❑ Solid-state electronic control box. Sealed to protect against oil, gas, salt, water and harsh environments.
- ❑ Built-in surge protection.
- ❑ Disconnect delay. (*)
- ❑ LED indicator (on/contact closed).
- ❑ Prevents dust and water ingress (IP66).
- ❑ Heavy-duty sealed relay (solenoid).
- ❑ Manual override function for option. (**)
- ❑ CE certified.

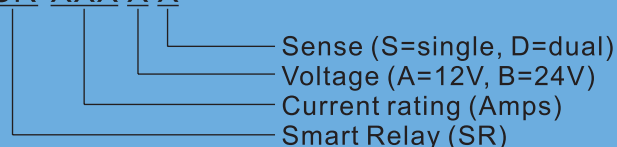
NOTE:

*: The disconnect has a 5-10 seconds delay preventing the relay from disconnecting during a momentary drop in voltage.

** : Manual override is activated by connecting the override wire to 12V DC. This bypasses the automatic voltage sensor allowing the relay to be engaged below the set voltages.

Available models

SR-XXX X X



NOTE:

Single sense: senses the main battery voltage only.

Dual sense: senses both the main and the aux battery voltage.

Typical models

MODEL	AMPS	VOLTAGE	SENSE
SR100AS	100	12V	single
SR200AS	200	12V	single

NOTE: 24V and dual-sense series models for option .



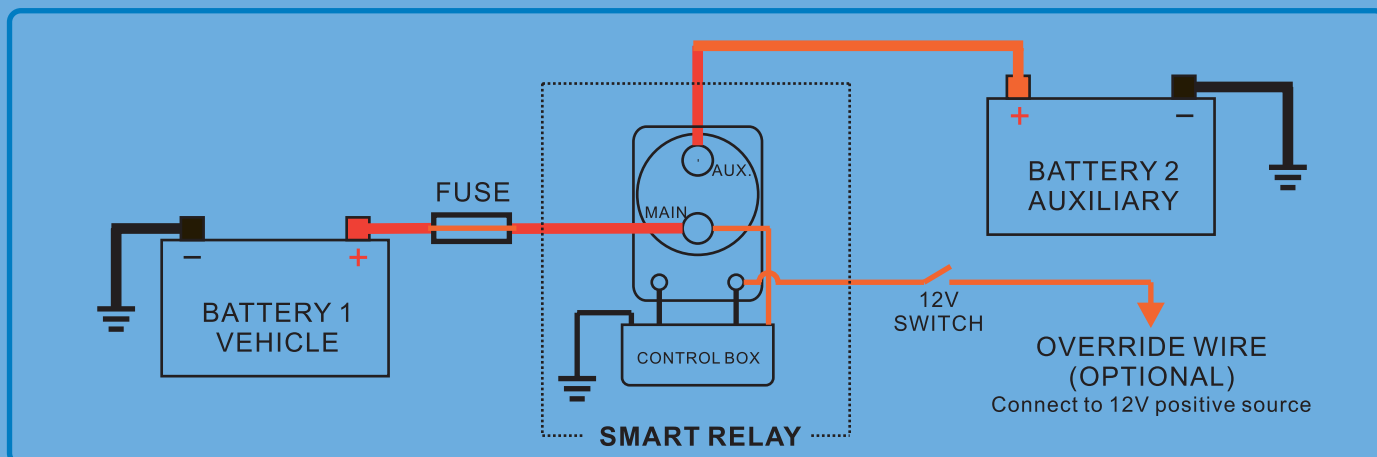
Model: SR-100AS

Specifications

- ❑ Voltage: 12 Vdc
- ❑ Continuous current : 100Amp
- ❑ Intermittent current: 200Amp
- ❑ Engage voltage: 13.3Vdc
- ❑ Disengage voltage: 12.8dc
- ❑ Disengage delay: 5 sec.
- ❑ Charging type: parallel
- ❑ Control: MCU
- ❑ Current draw: 520mA-charging, 10mA-standby
- ❑ Surge protection: built-in
- ❑ Mounting: surface/firewall
- ❑ Recommend fuse: 100Amp
- ❑ Minimum cable size: #6AWG(13mm²)
- ❑ Power studs: M8, copper
- ❑ Nuts: steel with zinc plated
- ❑ Torque setting: 3.75Lb-ft(5NM)
- ❑ Override: optional (requires 10V min.)
- ❑ Dimensions: 3.0"x3.28"x2.87"
- ❑ Weight: 0.5Lbs(0.23Kgs)

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Typical installation



Model: SR-200AS

Specifications

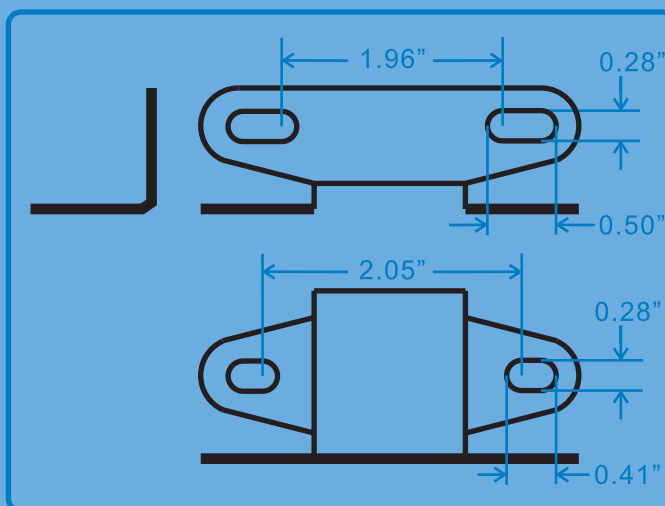
- ❑ Voltage: 12 Vdc
- ❑ Continuous current : 200Amp
- ❑ Intermittent current: 400Amp
- ❑ Engage voltage: 13.3Vdc
- ❑ Disengage voltage: 12.8dc
- ❑ Disengage delay: 5 sec.
- ❑ Charging type: parallel
- ❑ Control: MCU
- ❑ Current draw: 680mA-charging, 10mA-standby
- ❑ Surge protection: built-in
- ❑ Mounting: surface/firewall
- ❑ Recommend fuse: 200Amp
- ❑ Minimum cable size: #2AWG(33mm²)
- ❑ Power studs: M8, copper
- ❑ Nuts: brass
- ❑ Torque setting: 3.75Lb-ft(5NM)
- ❑ Override: optional(requires 10V min.)
- ❑ Dimensions: 3.63"x4.02"x3.35"
- ❑ Weight: 1.55Lbs(0.70Kgs)

Recommended cable size

Conductor cross-section

AWG	Mm ²	Ampacity(105°C insulation)
8	8.39	80
6	13.3	120
4	21.2	160
3	26.6	180
2	33.6	210

Mounting holes: SR-100XX



Mounting holes: SR-200XX

