

# Safe auxiliary battery charging while driving



REDARC's Smart Battery Isolator (SBI) range of products use an advanced computer processor to cleverly separate battery charging operations in multi-charging situations.

The SBI range allows you to isolate the start battery from the auxiliary battery and manages the battery charge for your auxiliary battery while on the move, providing peace of mind for overlanding adventures in a dual battery setup.

### **Avoid flat start batteries**

The REDARC SBI Dual Sensing models are also used to isolate the start and auxiliary batteries in a system where the auxiliary battery may also be charged by an external source such as solar panels or an external AC battery charger. The SBI Dual Sensing models also allow the start battery to be charged by the external source once the auxiliary battery reaches 13.2 volts. This is useful to top up the start battery.

As a microprocessor-controlled battery isolator, the REDARC SBI is designed to be used in multi-battery applications to protect the start battery from excessive discharge, while allowing the auxiliary battery to supply non-essential loads and accessories.

The REDARC SBI also warns you if either battery is over or under charged via a sophisticated LED fault detection indication.

REDARC's SBI range is suitable for either fixed voltage or temperature compensating alternator systems.

### **Look at all the benefits...**

- Overmold design absorbs shocks
- Compact size and easy to install
- Silver contacts ensure longer life and suitable for marine applications
- Power-saving technology
- Fault



# Smart Battery Isolators

Designed primarily for use in 4WD (overlanding) and commercial vehicles with a dual battery setup, the Smart Battery Isolator ensures that a low charge in the secondary battery won't drain the primary battery. It is available in models for 12 or 24 volt DC, incorporating 100 or 200 amp continuous ratings, with and without dual sensing.

The 200 amp models are designed for extremely heavy-duty operations, as found in industrial and mining situations.

The SBI monitors the start battery and the charging system. When the start battery reaches 13.2 volts on a 12 volt system (26.4 volts on a 24 volt system) the solenoid will connect the auxiliary battery to the charging system. Once the engine has been turned off, the SBI monitors the start battery voltage and, when this drops below 12.7 volts on a 12 volt system (25.4 volts on a 24 volt system),

the solenoid will turn off, isolating the start battery from the auxiliary battery.

The SBI features sophisticated fault detection and LED indication of operation to warn the user of faults that include over-voltage, voltage drop and excessive current draw conditions. It also features power saving technology. This means the unit will only draw approximately 120 milliamps when on and generate less heat allowing it to operate at a much lower temperature.

The SBI is better than a diode battery isolator due to the voltage drop associated with diode type isolation. The solenoid features silver contacts for longer life and is suitable for marine applications.

The SBI incorporates electronic components that will prevent the solenoid from generating high voltage transients making it ideal for use on modern vehicles fitted with computer control systems.

## SBI Dual Battery Isolator Kit

The SBI Dual Battery Isolator Kit (part number SBI12KIT) comes with everything needed to install a SBI12 Dual Battery Isolator including the isolator itself.

The SBI12KIT requires no crimping or soldering and features high quality MIDI 60 amp fuses and MTA fuse holders with the corresponding ring terminals already attached to the wires.



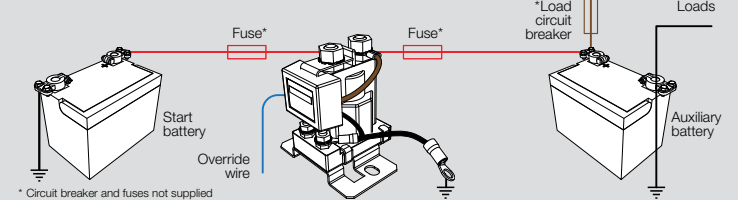
### Dual sensing models (SBIXXD)

Dual sensing models isolate the start and auxiliary batteries where the auxiliary battery may be charged by an external source such as solar.

The start battery is charged by the external source once the auxiliary battery reaches 13.2 volts.

Dual sensing models operate as standard SBIs when the start battery terminal of the SBI receives a voltage higher than 13.2 volts (in a 12 volt system) or 26.4 volts (in a 24 volt system).

### Standard SBI installation



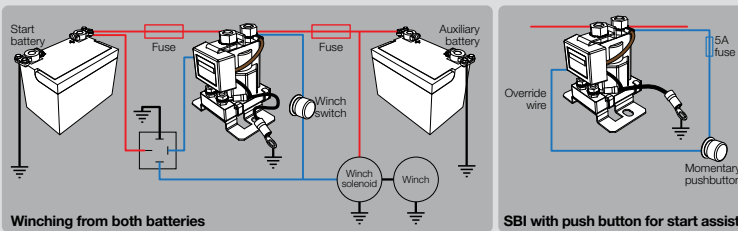
### Fuse size recommendations

#### SBI12/SBI24

Pushbutton override 100A  
No override 60A

#### SBI212/SBI224

Pushbutton override 200A  
No override 120A



### The SBI range

#### 100 amp models

**SBI12** 12 volt  
**SBI12D** 12 volt dual sensing  
**SBI24** 24 volt  
**SBI24D** 24 volt dual sensing

#### 200 amp models

**SBI212** 12 volt  
**SBI212D** 12 volt dual sensing  
**SBI224** 24 volt  
**SBI224D** 24 volt dual sensing



	SBI12/ SBI12D	SBI24/ SBI24D	SBI212/ SBI212D	SBI224/ SBI224D
Output voltage	12V DC	24V DC	12V DC	24V DC
Continuous output current rating	100A	100A	200A	200A
Maximum inrush current rating	400A	400A	600A	600A
Input fuse rating	100A	100A	200A	200A
Output fuse rating	100A	100A	200A	200A
Standby current	<5mA	<5mA	<5mA	<5mA
Dimensions (H x W x D)	3.15 x 2.95 x 2.48"	3.15 x 2.95 x 2.48"	3.94 x 3.74 x 3.54"	3.94 x 3.74 x 3.54"
Weight	0.44lb	0.44lb	1.32lb	1.32lb
Warranty	Two years	Two years	Two years	Two years

For help choosing the best dual battery setup for your needs use the free **REDARC Dual Battery System Selector**

Visit [redarcelectronics.com/dualbatterysystemselector](http://redarcelectronics.com/dualbatterysystemselector)

Visit [redarcelectronics.com](http://redarcelectronics.com) for more information

For product support contact your regional distributor - a complete list can be found at [redarcelectronics.com/distributors](http://redarcelectronics.com/distributors) - or send an email to [power@redarcelectronics.com](mailto:power@redarcelectronics.com)

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Details and specifications are subject to change without notice.

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