

S 2682 Dual Battery Isolator Kit 12V

Altronic Distributors warrants this product for one year from date of purchase from Altronics or its resellers to the consumer. If this item is part of an installation or another product, please contact the installer or supplier for your warranty.

During the warranty period, we undertake to repair or replace your product at no charge if found to be defective due to a manufacturing fault. The warranty excludes damage by misuse or incorrect installation (i.e. failure to install and operate device according to specifications in the supplied instruction manual), neglect, shipping accident, or no fault found, nor by use in a way or manner not intended by the supplier. For speakers, misuse includes burnt out voice coils.

For repair or service please contact your **PLACE OF PURCHASE**.

If this item was purchased directly from Altronics please make a warranty claim by:

1. FOR MAIL ORDER CUSTOMERS (includes school and trade orders),

- Ring us on 1300 797 007 and quoting your tax invoice number.
- Upon contacting Altronics, we will issue an R.A. (Return Authorisation). As Altronics have a number of service agents throughout Australia, a copy of the R.A. will be emailed, faxed or mailed to you with full instructions of how and where to send the goods. The freight for shipping goods back to Altronics for all repairs is at the customer's expense.
- A copy of the R.A. form, (or at the very minimum, the R.A. number) must accompany the goods to effect the repair.
- Altronics will pay the return freight to the customer where the warranty claim has been accepted.
- Please quote the R.A. number in any correspondence to us.

2. FOR OVER THE COUNTER PURCHASES; to make a warranty claim, please return the goods to us in any of our stores, with a copy of your proof of purchase (tax invoice).

- Upon leaving the goods at one of our stores, an R.A. number will be issued to you.
 - Once repaired, you will be contacted, advising that the goods are ready to be collected from the store.
- It is at Altronics discretion as to whether the goods will be repaired or replaced (whilst under warranty); and as to whether identical goods will be used to replace the item due to changes of models / products.

Note: Under no circumstances should you attempt to repair the device yourself or via a non-authorized Altronics service centre, as this will invalidate the warranty!

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Distributed by Altronic Distributors Pty. Ltd.
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S 2682

Dual Battery Isolator Kit 12V/125A (140A)

Operating Instructions



Package Contents

1 x Dual Battery Isolator VSR with mounting screws, 1 x 6m length of 10mm² red cable terminated at both ends, 1 x 61cm (24") black earth cable, 2 x Positive Marine battery terminals, 2 x Negative Marine battery terminal, 1 x 22-16 Copper crimp lug, 3 x 25-8 Copper crimp lugs, 1 x Red heat shrink, 1 Black heat shrink, 6 x 200mm cable ties

Tools Required

- Cutting pliers, side cutters or cable stripper to cut and strip the cable (**T 2745A**)
- Crimping tool or electricians pliers for terminal crimping (**T 1528A**)
- Spanner set or socket set (**T 2166**)
- Philips screwdriver (**T 1970A**)
- Hair dryer or Hot Air Gun (**T 2110**) or flameless gas Heat Gun (**T 2480**) for heat shrink
- Power drill and 3.5mm (9/64) drill bit
- Voltmeter (**P 0672**)

Introduction

This kit allows two batteries to be charged from your engine's alternator simultaneously. When your engine is running, and the starter battery is sufficiently charged, the isolator will commence charging the second (auxiliary) battery. When the voltage of the starter battery drops (i.e. the engine is off), the isolator kit disengages and ceases charging the auxiliary.

The starter battery is isolated and this eliminates the possibility of draining it, thereby ensuring that there is always enough charge to start the vehicle engine. The isolator also protects from startup electrical spikes, any sensitive electronic equipment that is powered by the auxiliary battery. The Dual Isolator Battery Kit requires no special knowledge of vehicle electrics to install, and uses tools available in most home workshops. Please read and retain these instructions for future reference. These instructions assume you have purchased and mounted your auxiliary battery (preferably a deep cycle battery) in your vehicle.

Installation Procedure - Part 1

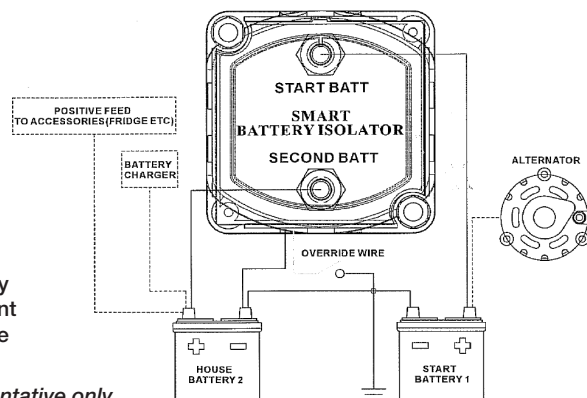
1. Isolate the starter battery by removing the negative terminal.
2. Select a location for the Smart Battery Isolator [SBI] that is:
 - a. Easily accessible
 - b. Will not have the cables running near exhausts
 - c. Is as close as possible to the starter battery.
3. Remove the lower mounting plate from the SBI to use as a template and mark the position of the four holes to be drilled. Drill the holes using a 3.5mm (9/64) drill bit.
4. Secure the two blind holes of the base with the short 4mm screws.
5. Take the 6m length of red cable, which has been terminated at both ends. Begin from the centre of the mounting plate and run the cable along the inner guard and firewall to the positive terminal of the starter battery (be careful to keep the wiring away from any moving parts). Cut the cable to length.
6. Repeat the above process to the positive terminal of the auxiliary battery.
7. Strip the unterminated ends of both cables back 15mm. Fit the copper lugs and crimp in place, making sure the connection is secure. Alternatively you can solder the cable to the lug if you wish.
8. Slide the heat shrink over the lug and cable then heat with an appropriate heating tool until secure.
9. Attach the insulated ring terminal to the black wire on the SBI. This is an earth wire and it is important that it has a secure and clean (bare metal) contact. If possible select a nearby bolt or screw that is earthed to the body.
10. Attach both red cables to the SBI and tighten the retaining nuts. The cable from the start battery goes to the stud on the SBI with the painted red dot. The cable from the auxiliary battery goes to the unpainted stud.

Note: You will have to cut the notched sections in the SBI housing where you require the cable to exit.

Installation Procedure - Part 2

Note: Smart Battery isolator is equivalent to Voltage Sensitive Relay (VSR)

Diagram is representative only



1. Mount the SBI to the bottom plate and fix with the two longer 4mm screws.
2. Secure the black earth lead on the SBI to the selected earth point.
3. Fit the positive (Red +) battery terminal and the negative (Black -) battery terminal to the auxiliary battery and tighten.
4. Auxiliary battery black earth lead - Select a nearby body bolt or drill an 8mm hole in the inner guard and secure one end of the 61cm black earth lead. Make sure to have a secure and clean (bare metal) connection.
5. Attach the RED lead from the SBI to the positive (+) terminal of the auxiliary battery and then secure the cable using the cable ties.
6. Attach the other end of the black earth lead to the negative (Black -) terminal of the auxiliary battery.
7. Before fitting the battery terminal to the positive side of the start battery, check the type of the existing battery terminal and if it has a stud and nut on the terminal to secure the existing wiring connect to the existing terminal.
8. Attach the Red cable from the SBI to the positive (Red +) terminal of the start battery and secure the cable using the cable ties.
9. Reconnect the start battery earth cable.

Testing the efficacy of the kit connections

- Test for a proper earth on the auxiliary battery by placing a voltmeter across the positive (Red +) and negative (Black -) terminals and take a reading. Remove the negative (-) probe and place it on an earth point on the body or engine (not the point to which the earth cable is mounted). Both readings should be the same. If the readings are not the same, check that the earth cable has a clean and secure mounting.
- Start the vehicle's engine.
- When the starter battery's voltage reaches 13.3V, the relay will close automatically and allow the auxiliary battery to be charged. This is indicated by the illumination of the red light on the front panel of the SBI.
- Ensure that the auxiliary battery is charging by checking that the voltage is above 13.0V.
- Turn off the engine.
- Check that the SBI disengages when the starter battery's voltage falls below 12.8V. This can take some time, so to speed up the process, turn on the headlights or leave the door open and interior lights on.

Specifications

Continuous rating: 125A

Intermittent rating: 140A

Voltage rating: 12V d.c. (max 15V d.c.)

Cut in voltage: 13.3V d.c.

Cut off voltage: 12.8V

Isolator dimensions: 67mm (L) x 67mm (W) x 53mm (H)

Emergency Override feature

LED Status Indicator

Suitable for 12V d.c. Marine, 4WD, Caravan and Solar applications

Power Consumption: 10mA Standby, 330mA Engage

NB: Voltage Relay Sensitive (VSR) is also available separately as part S 2680.