

Innovative solution to battery charging

The Redarc Smart Start® Battery Management System is designed to charge today's automotive type batteries to their optimal charge level from either mains power (AC), vehicle power (DC) or solar power. The Smart Start® Battery Management System (BMS) incorporates an AC 240V multi-stage charger, MPPT solar regulator, DC-DC multistage charge system, battery monitor and a dual battery isolator.

With all these features in one product, the time and money saved during installation along with the added benefits of an integrated system make the Smart Start® BMS the ultimate battery charging choice.

The Smart Start® BMS features two charging modes, Touring mode (3 stage) is for charging batteries whilst on the move and allows you to draw load on your house battery whilst charging. Storage mode (5 stage) is designed to safely charge the house battery to its optimal charge level whilst your caravan, camper or boat is in storage.

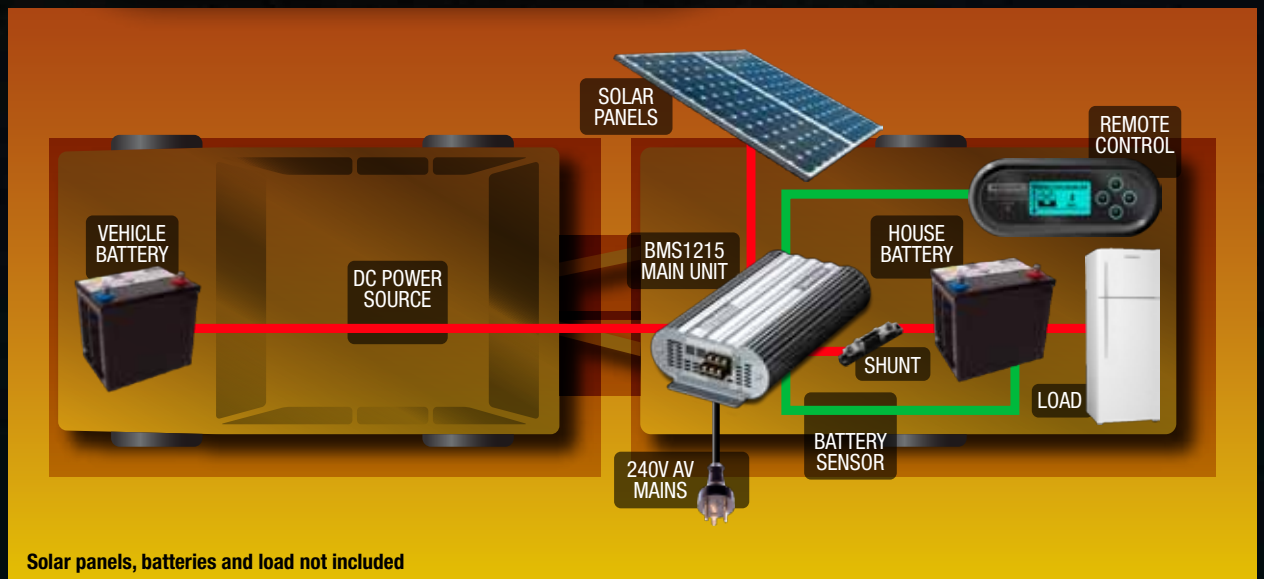
The charging profiles are specifically tailored to the type of battery under charge including Gel, AGM, Calcium or Standard Lead Acid, and the system is smart enough to be able to charge a house (auxiliary) battery of a different chemistry type to your vehicle start battery.

The Smart Start® BMS comes with a stylish Battery Monitor designed to allow you to simply and effectively know the state of your battery at all times. The Battery Monitor offers information such as Battery Time Remaining and Time to Full Charge allowing

you to enjoy your journey without fear of running out of power. The information is presented in a manner that is easily understood and yet invaluable.

The Smart Start® BMS is robust and rugged, designed and tested to withstand the harsh and varied conditions of the Australian outback. You can be assured the ultimate in battery management regardless of your location.

For further information and free technical assistance contact the friendly staff at Redarc Electronics.
Email: power@redarc.com.au
Phone: (08) 8322 4848



Solar panels, batteries and load not included

NEWS@REDARC



Winter 09 Visit www.redarc.com.au for tech-tips and up-to-date info



New and improved Smart Start® SBI

Redarc have released a new and improved model of its Battery Isolator Series. The Smart Start® SBI is a microprocessor-controlled battery isolator designed for use in multi-battery applications as a solenoid priority system protecting the start battery from excessive discharge, whilst allowing the auxiliary battery to supply non-essential loads.

It is compact in size, easy to install and is a cost-effective protection against a flat battery. It is available in four models; 12V DC or 24V DC incorporating 100A or

200A continuous ratings and can be used in 4WD and commercial vehicles.

The 200A models are designed for extremely heavy-duty operations.

The unit monitors the start battery voltage. When the start battery reaches 13.2V (26.4V for a 24V system) the Smart Start® SBI connects the auxiliary battery to the charging system. When the system voltage drops below 12.7V (25.4V) the solenoid opens isolating the start battery from the auxiliary battery.

The new Smart Start® SBI features sophisticated fault detection and LED indication to warn the user of faults that could include overvoltage, voltage drop and excessive current draw conditions. It also features power saving technology. This means the unit will only draw approximately 0.15A when engaged and dissipate less heat allowing it to operate at a cooler temperature.

It can be used with dissimilar battery types for example, in a vehicle where the main is a standard cranking battery and the auxiliary is a deep cycle battery. It is ideal for installations that cannot tolerate the voltage drop associated with diode battery isolators.

The Smart Start® SBI incorporates electronic components that will prevent the solenoid from generating high voltage transients making it ideal for use on modern vehicles fitted with smart electronics and comes with a two year warranty.

For further information visit www.redarc.com.au



If we have a technical enquiry, or we need advice on the type of product to use, we can simply ring Redarc and they will help in any way they can. Very often we have rung Redarc with a problem and they have been able to suggest the product which will best do the job or customise a product to suit our requirements."

A & I Auto Electrics
1/2 - 8 Daniel Street
Wetherill Park
New South Wales 2164
Phone (02) 9609 5053

Ian also praised the service and free tech help line that Redarc offer. "it's brilliant!"

CLIENT PROFILE

A & I Auto Electrics

A & I Auto Electrics was founded in 1990 by brothers Ian and Andrew Heathcote, as a mobile auto electrical business, specialising in the truck and earthmoving equipment markets.

The business has grown rapidly during this time and they currently have 7 mobile service units and an extensive workshop at Wetherill Park, NSW.

Further cementing A & I Auto Electrics reputation, they have been the proud recipients of the Business Awards for Fairfield city in 2005, 2006 & 2008.

A & I Auto Electrics business covers a wide range of products and services, including roof and rear mount evaporative coolers and cab air conditioning, mobile phone, sound systems, lighting, aluminium and stainless needs for your cab.

They have a full and comprehensive range of spare parts and their impressive showroom is packed with all the latest and finest products to suit anyone's needs. A large part of A & I Auto Electrics business is voltage conversion and voltage products for all types of applications, and Ian Heathcote was quick to point out that Redarc are the main player in this part of the business. "Redarc products are quality, it's that simple", Ian said. "It is critical for our business and our customers livelihood, that we use products of the best quality, and Redarc are our first choice for any voltage product".



The team from A & I Auto Electrics

New Pure Sine Wave Inverter Series

The Redarc pure (true) sine wave inverters are designed to replicate mains power from either a 12V or 24V source.

The output from a Redarc pure sine inverter is in most cases, an improvement on the quality of electricity supplied by utility companies.

Redarc inverter models

R-12-150S/R-24-150S	150W
R-12-350S/R-24-350S	350W
R-12-700S/R-24-700S	700W
R-12-1000S/R-24-1000S	1000W
R-12-1500S/R-24-1500S	1500W
R-12-2000S/R-24-2000S	2000W
R-12-3000S/R-24-3000S	3000W

To operate higher-end electronic equipment, a Redarc pure (true) sine wave inverter is recommended.

Advantages of Redarc pure (true) sine wave inverters:

- Output voltage wave form is Pure (True) Sine Wave with very low harmonic distortion and clean power like utility-supplied electricity.
- Inductive loads like microwave ovens and motors run quieter and cooler.
- Reduces audible and electrical noise in fans, fluorescent lights, audio amplifiers, TV, game consoles, fax and answering machines.
- Prevents crashes in computers, corrupt print outs, glitches and flickering of monitors caused by some modified sine wave signals.



For further information on Redarc Pure Sine Wave inverters please contact Dylan Pinkard at Redarc on (08) 8322 4848 or email power@redarc.com.au

TECH TIP

What size inverter?

Many of you have customers requesting large inverters with unrealistic expectations on how long they can be operated in a typical vehicle. For example you may have a request for a 3000W inverter to run an air conditioner in their campervan.

In a 12V vehicle, a 3000W load would draw approx 300A from the 12V battery. This figure may be meaningless to your customer. The simple way to explain this is to talk in terms of driving lights - 3000W is the same as thirty 100W driving lights. Your customer will have a much better appreciation of how long their battery would last with this many driving lights operating. The standard vehicle system will not support this size inverter without additional

batteries, a heavy duty alternator and large diameter cables.

- Q. How much current is drawn from the 12V (or 24V) battery when running an inverter?
- A. The simple answer is - divide the load watts by 10 (20). For example, for a load of 300W, the current drawn from the battery would be: $300 \div 10 = 30A$ ($300 \div 20 = 15A$)
 Note: It is the actual load watts, not the inverter rating that counts. So a 1500W inverter with a 500W load would be 50A (25A), not 150A (75A). The same inverter with a 1200W load would draw 120A (60A). The figures in brackets indicate 24V systems.

What size inverter do I need to run my microwave?

- Q. I want to run my 700W microwave on an inverter, will an 800W inverter be enough?
- A. The power rating of a microwave is the output (cooking) power. A microwave draws



more than that from the 240V input. It is the input power that must be considered when choosing an inverter. The input power can be twice as much as the output power. To determine the input power, check the plate on the back of your microwave. Shown here is a picture of a typical plate, note the output power is 700W (as it is on a 700W microwave) but the input power is 1400W.

If you need further assistance please call Lex Clarke on (08) 8322 4848

Typical inverter usage



Visit www.redarc.com.au for tech-tips and up-to-date info



Michael Hammer

Michael Hammer is a new member of the Redarc sales team in the role of Product & Service Support Technician. Michael graduated earlier this year with an Advanced Diploma in Electronic Engineering and has had previous experience as a Sales Assistant at Dick Smith's Electronics.

Michael has a huge appetite for knowledge and is a very competent individual. Michael's friendly manner and ever-growing product knowledge will be an asset for our customers.

Outside of work Michael enjoys Snowboarding, movies, cycling, and playing retro video games.

For technical assistance please call Michael on (08) 8322 4848 or email mhammer@redarc.com.au



WEBSITE UPDATE

The internet is fast becoming the first port of call for anyone researching a new purchase. It's now so easy to just get on the internet and search for your answers. The Redarc website has recently undergone an update of the product data to assist our customers navigate around the site. The "Products" listing as shown on the left has been changed to clearly outline our product groups and has also been updated to include some of our latest releases.

Please feel free to check out the website and offer any feedback to power@redarc.com.au. Please also keep an eye out as more updates are just around the corner.

www.redarc.com.au



VIP VISITOR

A visit from the Governor

On the 10th of June 2009, Redarc was privileged to host a visit by His Excellency Rear Admiral Kevin Scarce AC CSC RANR Governor of South Australia as part of a series of industry visits. The Governor toured the factory and met many of our team. He was pleased to learn about Redarc's ongoing commitment to Research & Development and commended us on our impressive facility.



L to R: His Excellency Rear Admiral Kevin Scarce AC CSC RANR Governor of South Australia, Redarc Managing Director Anthony Kittel & Customer Development Manager Mark Bruce.

ACCOLADES

Redarc wins Technology Application Award

Redarc was the only South Australian manufacturer to win one of nine national Manufacturing Monthly Endeavour Awards announced in Melbourne in May.

Redarc was successful in winning the Technology Application Award ahead of thirteen finalist contenders.

Overall winner was Toyota Motor Corporation who was crowned "Australian Manufacturer of the Year". Now in its sixth year, the Endeavour Awards is the only national awards program specifically for Australia's manufacturing industry.



Anthony Kittel receives the Manufacturing Monthly Endeavour Award from Stuart Gowty

Redarc Electronics

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