

NEW technology and enhanced features for SmartStart battery isolator

The Redarc SmartStart dual battery isolator, used by camper trailer, caravan and motorhome enthusiasts and 4WD clubs throughout Australia, continues to lead the way... only this time with added features.

The SmartStart is a microprocessor controlled smart battery isolator. It is designed to be used in multi-battery applications as a solenoid priority system to protect the start battery from excessive discharge whilst allowing the auxiliary battery to supply non-essential loads.

Redarc are passionate about ensuring they listen to their customers when it comes to new product ideas and existing

product improvement. That's exactly the case with SmartStart and the addition of NEW and enhanced features:

- Advanced technology - runs cooler and uses less power
- Fault detection/protection – LED flashes for overvoltage or excessive voltage drop between the contacts
- Manual override feature is disabled during fault condition (i.e. overvoltage)
- The LED is permanently lit during manual override

The NEW Generation SmartStart will be available January 2009 and is clearly identified by the new packaging featuring the Toyota Prado as shown. Please note there is NO change to the part numbers only new and improved features.

For further information please contact Caroline Kerkhof, Marketing Manager at Redarc on (08) 8322 4848, visit www.redarc.com.au or send an email to power@redarc.com.au



NEW PRODUCT

SmartSense makes sense of LED lighting

Redarc continues to be at the forefront of technological developments with the release of another new product... SmartSense (part number SS1224).

SmartSense is designed to overcome the challenges involved with using LED lamp modules on prime movers and trailers.

Most LED modules draw a low current which can cause unreliable detection by the truck, resulting in symptoms such as irregular flashing of indicators or a fault light on the dash.

SmartSense senses very low level currents allowing it to operate with a wide range of LED modules for brake, tail and indicator lights. It works by presenting



higher levels of current to the lighting control module when LED modules are detected, in which case an indicator shows that an LED lamp module is connected.

SmartSense is customised to individual truck makes to minimise power usage and heat generated. It is fully encapsulated and is designed to operate in ambient temperatures up to 60°C. It does not require connection to the 24V supply, connecting directly inline with

the truck lighting control module and LEDs, with customisable connectors for easy installation. It is compatible with the following LED modules:

- Hella Duraled 2379
- Hella Multivolt 2332 (Designline)
- LED AutoLamps 125R
- Hella Duraled 2151
- Hella 2330
- LED AutoLamps 125A
- Narva 93802
- Perei combination module

SmartSense has been developed to suit Volvo, MAN, DAF and Scania to date. Other models are currently under development.

For further information please contact Lex Clarke, senior technician, or any of the friendly team at Redarc on 08 8322 4848, send an email to power@redarc.com.au or visit www.redarc.com.au.

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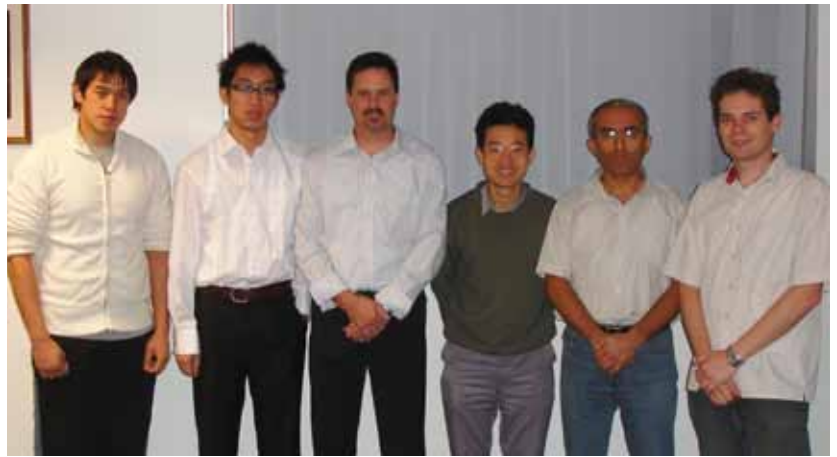
Redarc support electric vehicle project

Electric vehicles are gaining major attention as soaring fuel prices and worries about global warming make the green technology more appealing. A four member student project team from The University of Adelaide, School of Electrical and Electronic Engineering has taken the bold step to develop a working electric vehicle.

The "All Electric City Vehicle" (AECV) project aims to convert an existing MX5 (refer to pictures RHS) petrol powered vehicle into one that runs only on stored electricity. Advances in battery technology, electric motor design and at the same time excitement into alternative fuels are the main motivations for this project. The project team is supervised by Associate Professor Dr Nesimi Ertugrul.

Warren Tuck is the Project Leader and is currently in his final year of Computer Systems Engineering at University of Adelaide. Warren is currently employed at Redarc Electronics as part of his industrial work experience placement. Redarc are a major sponsor of the AECV project and are contributing by way of financial support and technical expertise in battery management.

The project team aim to have the AECV drive unassumingly on the public road without requiring fill ups at the local petrol station. To achieve this, the car



Left to right - Danh Nguyen, Xiaojie Han, Warren Tuck, Dr. Wen L. Soong, Nesimi Ertugrul, Lynnard Cucksey

will firstly be road registered, complying with all required safety standards, and obtaining approval from the relevant motoring bodies.

From an engineering point of view, design, testing and implementation of the power delivery system is the main challenge. Issues such as battery capacity, motor feedback and control, charging mechanisms and simulations of real-world performance are key areas that the project team is focusing on to ensure a successful outcome. The AECV will be used to promote The University of Adelaide Electrical & Electronic Engineering courses throughout South Australian high schools in 2009. The aim is to encourage students to consider electrical and electronic engineering as an exciting career.

For more about this exciting project visit www.aecv.adelaide.edu.au



Redarc wins EICTA award

The Electronics and ICT Association (EICTA) presents awards for excellence each year, to individuals and groups in eight categories. Awards for excellence have been presented to the South Australian electronics industry since 1984

The 2008 Awards were presented at the EICTA's annual dinner held on October 31 at the Shores function venue.

Redarc Electronics won the Environmental Sustainability Award. This award recognises outstanding achievement by

a company in adopting measures that minimise its environmental footprint and contribute to a more sustainable future.

The judges noted the principal areas that Redarc have made measurable advances in:

- Implementation of the RoHS directive and its impact
- Lean manufacturing/thinking to reduce waste
- Recycle programs and their results
- Energy saving programs/renewable energy programs and their impact
- Greenhouse gas reduction and carbon-offset initiatives

This follows on from Redarc's success in May when we won the Government of

South Australia, Zero Waste sponsored Innovation in Sustainability Awards for Southern Adelaide.



Melissa Bickley (Procurement Co-ordinator) and Milan Grcic (Quality Manager) accepting the Hostworks-sponsored 2008 Environmental Sustainability Award

Pilbara Motor Group

The Pilbara, WA's second most northerly region covers a massive 500,000 km² of rugged outback and is known as the engine room of Australia. The region has a population of approximately 45,000 people, most of who live in the western third of the region.

One of the business success stories of the region is the Pilbara Motor Group (PMG). PMG was established in 1996 and has since grown to become a well renowned Toyota and Nissan dealership for the northern regions of Western Australia. They have locations in Port Hedland, Karratha and Perth (Perth being a vehicle build centre only) employing a total of 80 staff.

A major contributor and key feature within the business is the service and spare parts divisions catering for all mechanical and auto electrical needs. The following post extracted from a website forum is typical of the great service provided by the PMG team.

"Gday all, brand new Prado had its first service/ check up on Saturday. I was very happy with the service given and the attention to issues I brought up (roo bar touching body panel). When I enquired about wiring looms for spot lights the service guy bent over backwards to help out. Gave me the IPF wiring loom kit (including relay and switch), instruction paper and even



PMG staff, left to right: Mark Bowins, Sharla Karol, Nathan Branch and Carl Lewis

advised me that the vehicle is a negative switch configuration and which wire to splice into! Thanks to the Toyota dealership crew (Pilbara Motor Group) in Karratha for their great support. Cheers and cold beers."

Pilbara2

Mining is a key driver of economic growth in the region and PMG supply the new vehicle requirements to many of the mining companies in the region. The vehicles are fitted with numerous accessories and ruggedized for the harsh environment. When it comes to mining vehicles they have specific performance requirements and they must comply with the very strict occupational health and safety standards designated by the mining companies.

Carl Lewis, Spare Parts Manager, commented that "Redarc are a great assistance to PMG, offering many products for our mining needs including day time running light kits, smart dual battery isolators, handbrake alarms,

dual jump start systems, low coolant alarms and various voltage conversion products. The fact that Redarc products are designed and manufactured in Australia gives us great confidence that their products can handle the harsh conditions. Whether it be their customer service, application and product support or prompt delivery; you just can't beat Redarc's friendly professional approach to business".

Pilbara Motor Group

Port Hedland

26-38 Anderson Street, Port Hedland
Phone (08) 9173 1622

Karratha

1923 Coolawanyah Road, Karratha
Phone (08) 9185 2700

Web

www.pilbaramotorgroup.com.au

Email

info@pilbaramotorgroup.com.au

TECH TIP

Charging the Breakaway battery

Q. *I have a 24V towing vehicle, how can I charge the 12V battery in my BA5000 Breakaway controller? Is a CE3-13.8 or CE10-13.8 suitable? If not, what options are available?*

A. The ideal product to use in this application is the BCDC1206. The BCDC-1206 is a three stage DC-DC battery charger that is able to supply three stages of charge - boost, absorption and float - with a typical current output of up to 6A.

For optimum charging, the BCDC1206 is best mounted on the trailer, close to the BA5000.

This overcomes the problem of voltage drop on the long cable run from the vehicle battery and, as the BCDC1206 can have an input range of 9-32V, you can be confident that the BA5000

battery will be correctly charged. An additional benefit of this product is that it can be used with either a 12V or a 24V towing vehicle.

As an alternative, if the 24V towing vehicle is fitted with an EB24A 24V adaptor for the dash mounted brake controller, a wire can be taken from the 12V battery tap to provide a small float charge to the BA5000.

The CE3-13.8 is not suitable for this application as it needs to sense the battery before it can start charging. The BA5000 internal charging diode prevents it from connecting directly to the battery, so it will not charge.

For further information please contact Lex Clarke, senior technician, or any of the friendly team at Redarc on 08 8322 4848, send an email to power@redarc.com.au or visit www.redarc.com.au.



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REDARC

THE POWER CONVERSION SPECIALISTS

STAFF PROFILE

Warranty Technician

Gary Thomas

All staff within Redarc share the value that "the customer is king"... this is the way that we approach each and every customer contact. In fact it is proudly displayed on the walls of our factory.

To this end, Redarc provides highly-regarded, free technical support service to help you answer difficult product and application questions.

A key component of our customer support activity is our warranty/service program.

Gary (Garfield) Thomas is our Warranty/Service Technician. His role is pivotal in ensuring all products returned by customers are tested, inspected,

analysed and documented as a part of Redarc's continuous improvement program. Prompt feedback via our customer service staff is then provided to our customers, based on Gary's report.

The report that Gary prepares is used for the continuing quality improvement of our products, and to provide our customers feedback regarding their installation, application or products.

Gary joined Redarc in 2002. Prior to that he had over 16 years experience with Telstra performing a variety of installation jobs. Gary's is also competent to test and tag all of our 240V AC equipment.

Gary lists Len Beadell and Captain Harry Butler as his childhood heroes. His hobbies include astronomy, motorcycles, photography and "tinkering".



The Flinders Ranges and Tasmania are among Gary's favourite holiday destinations.

Gary is well qualified for the role with licences and certificates in electrical, electronics and telecommunications.



STAFF TRAINING

Skilled people

Redarc's Production Manager, Shane Wreford has a key focus of implementing lean excellence within the Redarc manufacturing facility to drive significant cost reductions through process innovation and continuous improvements.

Lean is aimed at the elimination of waste in every area of production including customer relations, product design, supplier networks and factory management. Its goal is to incorporate working smarter, less inventory, less time to develop products, and less space to become highly responsive to customer demand while producing top

quality products in the most efficient and economical manner possible.

Shane commented that "to continuously improve and strive to achieve lean excellence we need skilled people – a skilled and motivated employee is a high performance employee."

"Our commitment to training and skill development is evident by having over 30% of production employees undertaking training in electro-technology as apprentices and trainees."

"With this commitment we are developing a more highly skilled and flexible workforce to meet our customers expectations".



Christmas holiday break



The festive season is near and all of us at Redarc would like to take this opportunity to thank you for your support over the past year and wish you all a merry Christmas and a prosperous new year. Our last working day for 2008 will be Friday December 19. We will recommence trading on Monday January 5.

*Back left-right: Zack Baker, Shaun Hards, Brendan Konings, Matthew Rankine, Liam Nolan, Scott Peckover, Shane Wreford
Front left-right: Scott Butler, Marlon Boyle, Mana Kingi, Wayne Hall, Ben Sommer*

Redarc Electronics

ABN 77 136 785 092

23 Brodie Road (North)
Lonsdale, South Australia
Australia 5160

Local

Phone (08) 8322 4848
Fax (08) 8387 2889

International

Phone +61 8 8322 4848
Fax +61 8 8387 2889



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