

## Newsletter and Technical Tips – Autumn 2007

### New Factory Development

Following a successful bid for a \$1.6 million grant from the Structural Adjustment Fund for South Australia (SAFSA), Redarc is completing a \$4 million state-of-the-art, purpose built factory.

SAFSA was a joint venture of Invest Australia and the South Australian Government with its main aim, to produce more sustainable jobs in Adelaide. Redarc Electronics has already increased its staff to 40 and aims to employ another 28 by 2012. Integral to Redarc's new factory will be lean manufacturing techniques, aimed at increasing productivity and reducing waste, allowing us to better service you, the customer.

Anthony Kittel, Redarc's Managing Director, said, "These new processes will allow us to receive an order in the morning and ship it out the same day. Our quality

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systems and responsiveness will ensure we are competitive against any country in the world".

On 4th December, 2006, Redarc employees celebrated the "turning of the first sod" and the anticipated date of completion is mid August, 2007.



*REDARC employees celebrate the turning of the first sod*



*Damian Kleiss*

### Employee Profile

#### Damian Kleiss

Damian Kleiss relocated his family from the Sunshine Coast to Adelaide in September 2005 following his recruitment by REDARC. Damian is an electronic engineer & a key member of our Engineering Design Team. Damian has been fascinated by electronics since he was thirteen and he has worked in electronics related industries for fourteen years. Seven of those years involved after market automotive electronics including Dick Smith Electronics and Sound In Motion. He also is experienced with AC/DC Inverters having been previously employed by a specialist inverter manufacturer. Damian's ambition is to achieve a career focused on the design of electronic systems. Damian is married with two children. He is a keen mountain and BMX bike rider with his children, a 4WD enthusiast and loves camping & fishing.

[www.redarc.com.au](http://www.redarc.com.au)

### Smart Battery Charger gets the thumbs up

Following our Smart Battery Charger editorial that has been published in such publications as Trailer Body Builder & Auto Electrical & Airconditioning News the product has featured in full page advertisements in the March 2007 editions of 4WD Monthly and Caravan & Motor Home. The response received to date from the marketplace has been fantastic. Many customers have been referred to the trade around Australia & New Zealand to purchase our Smart Charger.

There is no substitute for real life customer experience and we share some of our feedback below.

“Most battery chargers are unable to recover a dead flat calcium battery. The Redarc Smart Charger saves us from sending batteries back to the manufacturer. We are finding that calcium content batteries are becoming widely available. We have customers using the REDARC to charge deep cycle batteries overnight for use with underground surveying equipment without the risk of overcharging. We are also using the REDARC charger for remote emergency power packs and to charge the calcium batteries in our work vehicles”.

**Stephen Clarke**

*Director, Romac Electrical Services, NSW*

“Supercharge Batteries South Australia have been impressed by the chargers ability to charge a calcium-calcium battery to 100% quickly, and at an economical price. By having each battery fully charged we will maximise the life span and performance of our batteries”.

**Scott Forrestal**

*State Manager, Supercharge Batteries, South Australia*

“As a supplier of calcium-calcium batteries, we were experiencing regular issues and complaints from customers regarding their batteries not accepting charge from their vehicle charging systems nor regular battery chargers. We believed the batteries were faulty however upon returning these to the manufacturer we were advised



that they were not acceptable for warranty and in fact tested serviceable. We tested the Redarc Smart Charger on many of these ‘suspect’ batteries and managed to bring them back to full charge. This has saved our business much time and money and ensured customer satisfaction”.

**Greg Reen**

*Director, Reen Auto Electrics & Air Conditioning, Broome WA*

“The unit could be rightly described as a “Battery Management Computer”, as the charger has the capability of sensing over the entire cycle of charge the state of acceptance of the battery to charging, and has an inbuilt battery fault finding and reporting capability. Total excellence for in-field use”.

**Bob Gell**

*Operations Commercial Manager, Royal Automobile Association of South Australia Inc.*

“Battery reliability is an issue for all farmers and in my opinion every farmer should own a REDARC Smart Charger. Our experience has proven that your charger puts more charge into the battery than anything I have previously used. I also note that the vehicles tend to ‘turn over’ (start) much easier”.

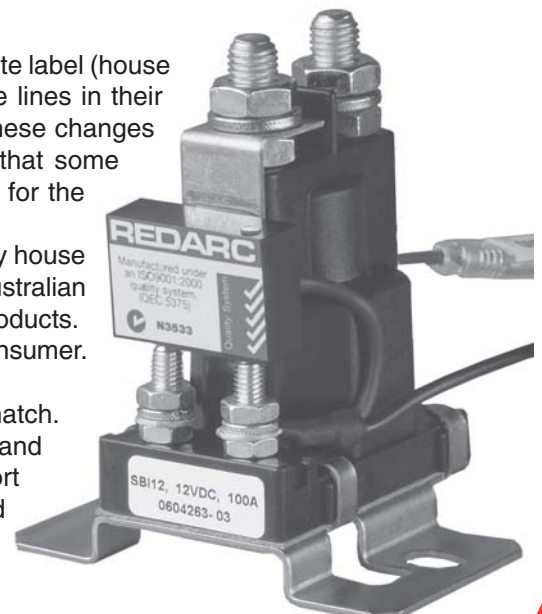
**Ian Jones**

*Director, Specialised Industrial Autronics, Merredin WA*

### ‘Private label’ (aka house brand)

We are all aware that the major supermarkets have launched their private label (house brand) ranges and announced plans to increase the number of these lines in their stores. Private labels should increase profits for the supermarkets. These changes will result in some savings for shoppers, but commentators predict that some favourite smaller brands will be swept from the shelves to make way for the private label products.

The same practice is occurring within the auto parts industry, with many house brands being created. This places immense pressure on smaller local Australian manufacturers such as REDARC, particularly with cheap imported products. We rely on you, the Trade, requesting our products and educating the consumer. In return we back you up with continued product innovation, excellent service and technical support that our competitors cannot match. If you see a product that looks like REDARC but does not carry our brand then it is not a genuine REDARC product. REDARC customer support staff has recently been receiving many calls from the Trade confused as to the products that look like REDARC, particularly our SmartStart Battery Isolator. The main thing to remember is that if it does not carry our REDARC brand then it may well be an inferior imitation.



*SBI 12 pictured*

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### NEW PRODUCT Multi Voltage Reducer – Ideal for Golf Buggies

REDARC Electronic Design Engineer, Clinton Smith, has recently completed the design of the SMFMV series, a new family of voltage reducers, that operate in 36VDC or 48VDC electrical systems providing a safe 12V (13.8V) output. They are suitable to operate a wide range of electronic equipment, lamps and small electric motors used in golf buggies and houseboats etc. Models are also available for battery charging functions. The product family is available with a maximum continuous output of up to 30 AMPS.

#### Specification:

INPUT VOLTAGE RANGE: ..... 30 – 55VDC. (NOMINAL 36 or 48V)  
OUTPUT VOLTAGE: ..... 13.8VDC  
OUTPUT CURRENT: ..... UP TO 30 AMP CONTINUOUS

#### Wiring:

VIOLET WIRE ..... +36 or 48 V DC INPUT  
BLUE WIRE ..... +36 or 48 V IGNITION CONTROL INPUT  
BROWN WIRE ..... +12VDC (+13.7VDC) OUTPUT  
GREEN WIRE ..... 0 V DC (GROUND)

Elite Auto Electrics in Gladstone, Queensland kindly field-tested the product for use in a 36V golf buggy to operate a 12V flashing light and indicators. Peter Hart from Elite, reports that, “the product has passed all of our customer’s rigorous testing and they are very impressed”. Stock of this



Clinton Smith

product is now available and for further information please call REDARC on (08) 8186 5633. For the record, Clinton Smith has a strong background in the auto electrical industry, being the son of Neil from NKS Auto Electrical in Broken Hill.

### REDARC SUPPORTERS REEN AUTO ELECTRICS & AIR CONDITIONING

Greg Reen knows the auto electrical and airconditioning needs of Kimberley motorists, after spending 16 years servicing Derby, Fitzroy Crossing, Halls Creek and now Broome. Greg’s business, Reen Auto Electrics and Airconditioning, specialises in automotive work on cars, trucks, boats and earthmoving vehicles and machines.

They fit electronic cruise controls, central locking, electronic anti-rust systems, EFI and fuel injection repairs, car alarms and immobilisers. They have a range of exchange and new starter motors and alternators and also fit mobile and satellite phones to vehicles and carry a large selection of batteries. Greg commented that a specialty is preparing 4 wheel drives for harsh Kimberley conditions. We fit out a lot of utes with spotlights, worklights, fridge plugs, REDARC dual battery systems and other accessories.

“Using REDARC means quality products at competitive prices, the excellent customer service ensures I can satisfy my customers with reliable and prompt information when needed as well as first-rate technical support which is very important in remote areas”, Greg Reen says.

Greg and his family moved to Broome in late 1999 to oversee the building completion of their new premises and have operated the business from its current location in Broome since January 2000. With a fully equipped workshop, two

fully equipped vans for call-outs and mobile work and 4 staff, Greg strives to offer a prompt and reliable service with quality workmanship.



Greg Reen at left and the team at Reen Auto Electrics,

Reen Auto Electrics  
3 Mavis Rd Broome WA 6725  
Tel: (08) 9192 1411

### TECHNICAL TIPS

## Voltage Changes to our SBI12 SmartStart

In our Winter 2006 Newsletter, we reported that we had numerous inquiries about problems experienced when installing SBI12 SmartStart Solenoids in vehicles such as the Toyota 100 Series Landcruiser V8 4WD. The complaint was that the second battery isn't being charged as a result of the Smart Start not switching because the 100 Series Alternator is not reaching the required 13.6 volts. The alternator field circuit is controlled by the engine ECU and it seems that it is not allowing the voltage to rise above 13.5V. We have since received information from the field that this situation exists in a number of other vehicles including Toyota, Ford & Hyundai.

Therefore from the 1st February 2007 we have modified all 12V models being produced so they activate at 13.2 Volts bringing the auxiliary battery into the charging circuit. REDARC also reset the Smart Start turn off voltage to 12.5 volts. With these new settings the installation will work a treat. The Redarc Part Number for the SmartStart will remain the same, i.e. SBI12.

## LED Lights continue to cause faults in vehicles

### Problem #1:

*LED trailer lights flicker when connected to 24-12V trailer lighting reducers.*

### Cause:

The LEDs don't draw enough current to allow the trailer lighting reducer to operate properly.

### Solution:

Fit REDARC adaptor ACL4 (for 4 circuit LEDs) or ACL5 (for 5 circuit LEDs).

### Problem #2:

*Standard filament lights on the back of a vehicle have been replaced with LEDs, now the indicator flashes too quickly.*

### Cause:

The LEDs do not draw enough current to make the flasher can run at the correct rate. This is the same as what occurs in a normal vehicle when an indicator lamp fails.

### Solution:

Fit REDARC LDLI21-12 (for a 12V vehicle) or LDLI21-24 (for a 24V vehicle).

LDLI21-12 means Led Dummy Load Indicator 21W, 12V (as it only applies load to the indicator circuit)

### Problem #3:

*Standard filament lights on the back of a vehicle have been replaced with LEDs, now there are "Lamp fail" (or similar) warnings on the dash.*

### Cause:

The LEDs don't draw as much current as the original lamps. This fools the lighting control unit (LCU) into detecting a lamp failure.

### Solution:

Fit a REDARC LDLIBT product suitable for your vehicle. The equivalent load required to stop the LCU detecting a fault varies from vehicle to vehicle, depending on the number of filament lamps being detected. Determine the number and wattage of filament lamps in the original vehicle lighting before contacting REDARC for a suitable product.

LDLIBT means Led Dummy Load Indicator Brake Tail (it applies load to all circuits).

### Problem #4:

*LED trailer lights cause incorrect operation of ABS.*

### Cause:

The ABS monitors the trailer lighting output from the truck. If it detects that a trailer is connected (by the load of the filament lamps), the braking profile is adjusted for a trailer. LEDs do not draw enough current and this is seen as "no trailer" by the ABS and brakes operate as if there was no trailer.

### Solution:

Fit a REDARC LDLB product to the trailer, LDLB12 (for a 12V trailer) LDLB24 (for a 24V trailer). LDLB means Led Dummy Load Brake.

