

LCA1224 low coolant alarm

The LCA1224 low coolant alarm can be used in a 12 volt or 24 volt automotive system or remote water pumping system to monitor radiator coolant level. It will provide a visual and audible alarm if the coolant falls below the chosen level or if the pump loses priming.

It will give warning of a sudden loss of coolant (from a burst radiator hose, for example) alerting you to switch off the engine, preventing any damage due to overheating.

Applications

Stationary engines

- Generators

Industrial

- Forklifts
- Tractors
- Earthmoving equipment

Automotive

- Passenger vehicles
- 4WD vehicles
- Trucks
- Buses

Primary benefits

- AC sensing - the probe is supplied with AC, it doesn't produce electrolysis that causes corrosion
- Dual voltage - suitable for 12 volt or 24 volt, negative or positive earth systems
- Self-test - on ignition turn on, the LED flashes twice and the audible alarm emits four short bursts
- Broken wire detection - if the wire to the probe is broken it will sound the alarm and illuminate the LED
- Anti-slosh delay - if the radiator is not quite full, the LED flashes after ½ second but the audible alarm will not turn on for 3-4 seconds... there is a visual reminder to top up but no annoying alarms
- Output connections allow an external warning LED and buzzer to be used when the LCA1224 is not visible or audible to the driver



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 2007 will be Friday December 21. We will recommence trading on Monday January 7.

Redarc launches new packaging

Over the last 12 months we have undergone a makeover to lift not only the profile of Redarc but our image too.

This has culminated in a distinctive, new look that makes Redarc easily identifiable and reflects the industries that you, our customers, are in.

We can't believe it's been a year since our updated catalogue was released with a new image and design. Since then, the makeover has extended to this newsletter, business cards and many new product brochures.

As many of you would have noticed by now, the makeover has finally extended to our packaging! We have already received many positive comments from you about the new boxes.

One of the most positive comments has been the latching system for opening and closing the box. We have designed the

box so the product can be easily removed without damaging the packaging. So if your customer decides they no longer want the product, you can simply put the product back in the box and seal it up.

We also heavily feature, with the three white symbols, the fact that our products are Australian designed and built and all come with a "no-hassle", two year warranty.

The bright red boxes have been designed to stand out in a warehouse or stock



aisle, making it easier for you to find our products. While the generic boxes fit many different products, our plan is to eventually provide individual boxes for our top selling twenty products, similar to our SB112 and SBC1205 boxes.





Redarc's grand opening day

On November 14th we officially opened our new \$5 million high technology Innovation Centre at Lonsdale.

The Federal Industry Minister, Mr Ian Macfarlane officially opening the new Centre in front of Redarc staff, customers and business associates.

We had outgrown our existing premises and this new Innovation Centre will support our growth plans over the next twenty years.

In July 2005 we took a risk and purchased 8,500 square metres of land in Lonsdale.

In early September 2005 it was announced by Minister Macfarlane and Minister Foley that Redarc was successful in achieving a grant under the Structural Adjustment Fund. That grant along with some help from our friends at BankSA would ensure that we were in a financial position to undertake the construction of this facility.

Over the next year we set out to design a building that would enable us to pursue our mission of being a world-class provider of electronic solutions.

We particularly wanted to create an environment for our engineers where innovation thrives. Quite simply, the future prosperity of Redarc depends in large part on our ability to maximise innovation and creativity.

Our building has been designed to minimise the environmental impact with full recycling facilities and site water being collected for use in the gardens. We plan to introduce solar panels in the future to supply energy back to the grid.



The building features a lot of glass to bring the outside in and create a pleasant work environment. It also ensures that there are no barriers between individual departments, allowing us to fully develop our team culture.

The building however is just the shell. We have completely redesigned the way that we manufacture our products. We have introduced automation, including state-of-the-art, lead-free electronic component surface-mount assembly line and custom-designed and built test equipment. This will ensure that our product quality is maintained at the highest possible level.

As you might expect with any change so huge it is an ongoing process. We have taken giant steps and this achievement has been made possible thanks to Redarc's greatest asset – an extremely talented, dedicated and loyal workforce.

We have made a strategic decision to bring all elements of our business under one roof. Which means we can now research, design, develop and manufacture our products in Adelaide, keeping total control over all processes.

We also realised some years ago that Redarc could not compete with China's mass-production abilities and we made a conscious decision to be an innovator, not an imitator.

This will give us a powerful advantage over our competitors in the power conversion market.

Our new Innovation Centre gives us the ability to further develop lean manufacturing and maintain world-leading quality control over all of our components

We can also get our products to market faster because we're not at risk of being



held up by an external components supplier. It's a fantastic outcome for our company and our customers.

The company has invested heavily in leading manufacturing technology to enable products ordered in the morning to be shipped out as soon as that evening or the next day.

Our aim is to lift exports to 20% within five years – the motor home market in the US and Europe is huge and we can see a lot of demand for our niche market electronic products.

Charging a 12 volt auxiliary battery from a 24 volt supply

Some of Redarc's most frequently asked questions are on our charge equaliser range.

A standard charge equaliser has an output of half the input voltage. This is ideal for charging the "bottom" battery (the 12 volt battery connected to ground) in a 24 volt battery bank, allowing 12 volt to be drawn from this point to run 12 volt accessories, radios, etc. without the batteries becoming unequally charged.



CE20

A standard charge equaliser may also be used to charge an auxiliary 12 volt battery if it is very close to the 24 volt battery bank.

Another scenario is that a customer has a 24 volt truck and needs to charge a 12 volt auxiliary battery mounted on the truck or trailer, a long distance from the 24 volt truck battery bank.

In this application we recommend the Redarc 13.8 volt charge equaliser range (CEx-13.8). They have a fixed 13.8 volt output, for an input range of 19-33 volts, ensuring the 12 volt auxiliary battery receives adequate charge.

For best results in this situation, install the 13.8 volt charge equaliser as close as possible to the 12 volt battery, for two reasons:

1. The input current is only about 60% of the output current. This would mean that the voltage drop on the long input wire will only be 60% of what the voltage drop would have been on a long output wire.
2. The output will be regulated to 13.8 volts even if the input is only 19 volts (note: a standard charge equaliser would only output 9.5 volts in this situation).

These two factors will minimise the effect of voltage drop on long runs of cable, ensuring optimum charging of the 12 volt auxiliary battery.

The following diagram shows the wiring of a 12 volt auxiliary battery being charged from a 24 volt system, using a 24 volt Redarc SmartStart battery isolator (SBI24) in the 24 volt input wire to the charge equaliser (CEx-13.8).

Adding the SBI24 is recommended for two reasons:

1. The charge equaliser won't start operating until your 24 volt batteries have reached 26.4 volts, enabling the truck to start under full 24 volt power without excess loads.
2. The charge equaliser will continue to charge the 12 volt battery even when the truck is turned off, this will continue until the 24 volt batteries have discharged to 25 volts, giving your 12 volt battery longer charging time.

The Redarc range of charge equalisers (standard and 13.8 volt models) allow for loads with extremely high peak current (200+ amps) as the peak current is taken directly from the battery.

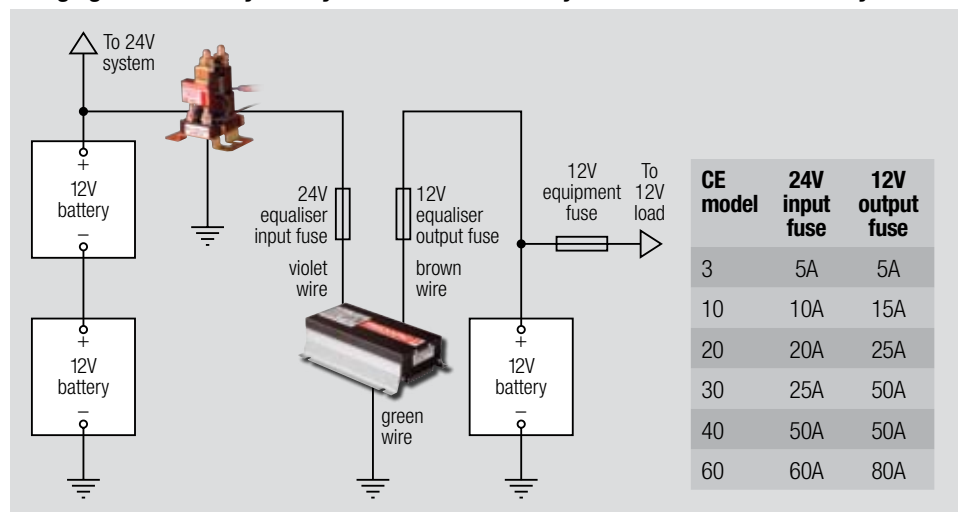
They are ideally suited to loads requiring a safe, clean and stable 12 volt supply.

They are also suited for variable current loads such as winches, motors, lamps, and fridges, as the 12 volt supply is taken direct from the lower 12 volt battery or remote auxiliary 12 volt battery on a 24 volt vehicle.

It is also important to remember that the standard and 13.8 volt charge equalisers are the same price; you just need to choose the correct unit for the right application.

For further information and or assistance on charge equalisers or any other Redarc product, please call us on 08 8322 4848 or email power@redarc.com.au.

Charging a 12V auxiliary battery with a CEx-13.8 in conjunction with an SBI24 battery isolator



Standard charge equaliser range

Part number	Output voltage	Output power	Continuous load rating	Peak load rating	Dimensions L x W x H	Approx weight
CE3	half input voltage	45W	3.5A	200+A	70mm x 135mm x 75mm	400g
CE10	half input voltage	120W	10A	200+A	156mm x 135mm x 75mm	800g
CE20	half input voltage	240W	20A	200+A	200mm x 135mm x 60mm	1kg
CE30	half input voltage	360W	30A	200+A	300mm x 135mm x 75mm	1.5kg
CE40	half input voltage	480W	40A	200+A	300mm x 135mm x 75mm	1.5kg
CE60	half input voltage	720W	60A	200+A	450mm x 135mm x 75mm	3.5kg

13.8 volt charge equaliser range

Part number	Output voltage	Output power	Continuous load rating	Peak load rating	Dimensions L x W x H	Approx weight
CE3-13.8	13.8V	45W	3.5A	200+A	70mm x 135mm x 75mm	400g
CE10-13.8	13.8V	120W	10A	200+A	156mm x 135mm x 75mm	800g
CE20-13.8	13.8V	240W	20A	200+A	200mm x 135mm x 60mm	1kg
CE30-13.8	13.8V	360W	30A	200+A	300mm x 135mm x 75mm	1.5kg
CE40-13.8	13.8V	480W	40A	200+A	300mm x 135mm x 75mm	1.5kg
CE60-13.8	13.8V	720W	60A	200+A	450mm x 135mm x 75mm	3.5kg

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



Barbara Cromwell... 20 years on

Redarc took time out on the 28th August 2007 to congratulate and celebrate Barbara Cromwell attaining 20 years of service. Barbara has worked in the position of Administrator throughout that time. Anthony Kittel, Managing Director, said "It is a wonderful achievement by Barbara. She is a valued, loyal employee whom has worked diligently for Redarc, ensuring our finances are always in excellent order".

"Barbara has always been a strong advocate of our 'customer is king' philosophy and, for many years, was our customers' first point of contact within Redarc. Barbara maintains an outstanding quality of work and will always strive to ensure the best interests of our customers and Redarc are achieved". Barbara, in reflection on her twenty years service, had this to say; "I have enjoyed immensely the entire

20 years that I have spent in the employ of Redarc Electronics".

"I have seen Redarc grow from its humble beginnings in a house on Hilliers Road, Reynella with a workforce of eight, to our now state-of-the art, purpose-built home on Brodie Road North, Lonsdale, with a workforce nearing fifty."

"Needless to say, the growth of Redarc has bought about many changes. Whilst it is great to reflect on the good old days, and they were indeed good days, it has been wonderful being part of the

enormous growth of Redarc, particularly since the business was purchased by the Kittel family after the premature death of its founder, Bob Mackie."

"I would like to thank Margaret Mackie for ensuring the future of Redarc's employees by determining the best chances for Redarc's longevity was to sell her late husband's business to who she deemed the best candidates, in Anthony Kittel and Denis Brion, albeit they were not the highest bidder. She was indeed a good judge."



CLIENT PROFILE

Darwin Auto Electrics

Darwin Auto Electrics is a family-owned business which has been in operation since June 1986. Steve Hodges and his wife, Veronica, along with their small staff work in the industrial area of Winnellie 10 minutes drive from the city of Darwin and have been in their own shed at 39 Tannadice Street since November 1997.

Steve completed his automotive-electrical apprenticeship in Darwin just before Cyclone Tracy hit in 1974. Steve is involved in every facet of the industry and still has a keen passion for his work.

Steve says "there is always something new to learn. The industry is never dull".

Steve's goal is to give back, to the community, what he has been fortunate

enough to receive. In doing so he has trained 15 apprentices in this specialised field.

Steve is always looking for new applicants as there is always a demand for workers in this industry. Steve said, "we would be happy to employ auto electricians who are ready for a different climate change".

Steve's very busy workshop prides itself on quality customer service and dealing personally with each customer and their needs. They specialise in AC and are dealers for Denso and Air International.

"We have been affiliated with VASA since inception and we are proud to be associated with Redarc. We have found their products and service excellent

and technical support second to none. Redarc has embraced the huge changes in technology in the automotive industry in particular with timers, LED lighting, and the ever-changing demands of dual battery systems."

"We can honestly say in all the Redarc products we have used, we have never had a genuine warranty claim".



Please make a note of our new phone and fax...

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