

# Keep auxiliary batteries equally charged



The REDARC range of Charge Equalizers is designed for use where 12 volt power is drawn from one battery in a two battery 24 volt system and ensures one battery is not being drained of its power or charged unequally. Not only will a Charge Equalizer extend the lifetime of your batteries, it will also keep your speciality equipment running smoothly and safely.

Available in two models, the 25 amp (CE25) and 40 amp (CE40S2), REDARC Charge Equalizers will split battery power evenly and manage the charge of a 12 volt supply in a 24 volt vehicle.

The state of the art 25 and 40 amp models feature automatic isolation and boast the most efficient design and compact hardware available.

All REDARC Charge Equalizers are manufactured to withstand the harshest conditions, are ideal for commercial needs and designed using the same rugged technology as REDARC's BCDC In-vehicle Dual Battery Chargers.

### Look at all the benefits...

- Reduce down time and running costs by extending battery life
- Peak load currents are limited only by the battery
- Based on the award-winning In-vehicle Dual Battery Charger platform
- Suited for commercial applications
- Designed for the harshest conditions



# Charge Equalizers

REDARC Charge Equalizers are designed to manage a high current, 12 volt supply in a 24 volt vehicle.

They allow 12 volts to be tapped from the center of a series-connected, two battery, 24 volt DC electrical system while still ensuring an equal charge across the two batteries.

The CE25 has a 25 amp maximum output and the CE40S2 has a 40 amp maximum output.

Both feature input isolation which removes the need for an input relay or isolator, making them incredibly easy to install.

REDARC Charge Equalizers draw their power from a battery, rather than from a current limited device. This allows for a much larger peak current draw.

They have proven their reliability in commercial applications under the harshest conditions.

Because of their high peak current capability and fast transient response, REDARC Charge Equalizers are ideally suited to loads that require a safe, clean and stable 12 volt supply.

## Equal power, equal charge

Taking 12 volts from the centre point of a 24 volt battery bank is a common way to use 12 volt devices on heavy transport vehicles and

earth-moving machinery. A good example of this is an electric hydraulic pump for lifting tailgates, decks, ramps, or cranes.

This has enabled high current loads to draw the power whilst the engine is running without a dedicated (auxiliary) 12 volt battery of their own.

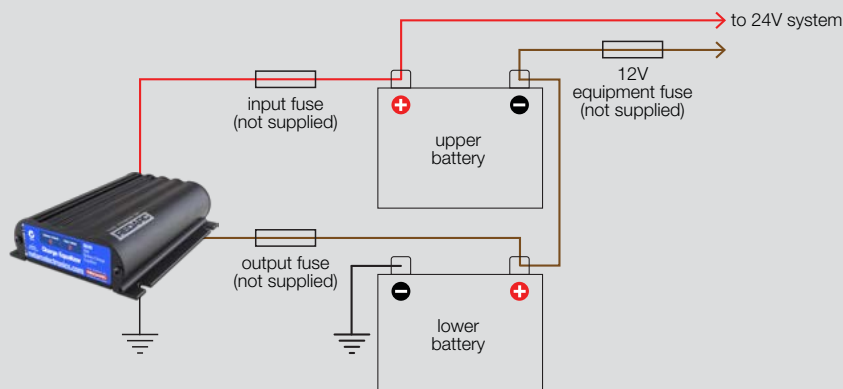
However, this can cause the 'lower' battery to be undercharged and the 'upper' battery to be overcharged, causing the batteries to be unbalanced. This can cause:

- Poor engine starting
- Poor operation of 12 volt loads
- Sensitive load dropouts
- Visible leakage of distortion of the upper batteries
- Costly battery servicing
- Reduced battery life and premature battery failure

The solution is a Charge Equalizer, whose job is to monitor the voltages on both the upper and lower batteries and manage current flow between them at a rate that means the two batteries have the same charging effort applied at all times.

With the addition of a Charge Equalizer, starting power is maintained, battery service life is returned to normal, and unnecessary down time is avoided.

## Standard CE connection



## CE25 and CE40S2

REDARC have incorporated technology from the award-winning In-vehicle Dual Battery Charger range into the CE25 and CE40S2.

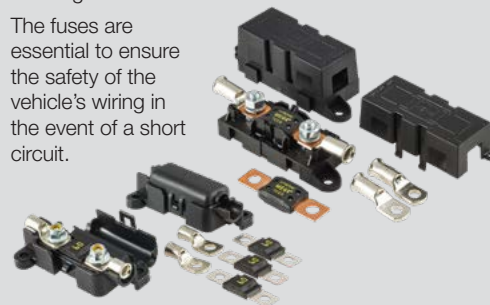
These two products offer improved functionality, reduced installation complexity and feature input isolation negating the need for an input relay or isolator.

## Charge Equalizer installation

For maximum efficiency the REDARC Charge Equalizer must be fitted as close as practical to the lower battery.

Fuses or circuit breakers (not provided) **must** be fitted to the input and output wires as outlined in the diagram at left.

The fuses are essential to ensure the safety of the vehicle's wiring in the event of a short circuit.



## Operation

The Charge Equalizer operates in a two battery 24 volt DC system. The output voltage of the Charge Equalizer is regulated to half the input voltage.

12 volt power is available from the lower battery in a 24 volt system via the center tap (bridging link).

The Charge Equalizer ensures that the state of charge is equal across the upper and lower 12 volt batteries in a 24 volt bank.

	CE25	CE40S2
Supply range	20 - 32V DC	20 - 32V DC
Output current rating	25A	40A
Operating temperature	-4° to +176° F	-4° to +176° F
Recommended input fuse size*	40A	50A
Recommended output fuse size*	40A	50A
Dimensions (D x W x H)	5.91 x 4.72 x 1.46"	5.91 x 4.72 x 1.46"
Weight	1.54lb	1.54lb

Visit [redarcelectronics.com](http://redarcelectronics.com) for more information

For product support contact your regional distributor - a complete list can be found at [redarcelectronics.com/distributors](http://redarcelectronics.com/distributors) - or send an email to [power@redarcelectronics.com](mailto:power@redarcelectronics.com)

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\* Fuses not supplied. Details and specifications are subject to change without notice.  
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