

Top Tips for Beach Driving



Use the 'UnifiedAR' app to view the video For Apple and Android



Which Dual Battery System do I Need?

Part 2 – DC to DC Chargers

Last week we discussed using a smart battery isolator for charging your dual battery system. This week we are going to delve into the next level up in dual battery systems, the DC to DC charger. Like the Battery Isolator the DC to DC Charger will ensure your starter battery is protected, leaving you with enough power to start the car.

How does it work?

The power is fed from the alternator to the starting battery to the DC-DC charger. The DC-DC charger works like the isolator, monitoring the voltage of the starting battery to see when your car is turned on and the alternator is charging. The unit is programmed with the chemistry of the auxiliary battery it is connected to. This allows the power to then go from the DC-DC Charger to your auxiliary battery at its optimum voltage, charging the battery to 100%.

So let's explore the reasons you would upgrade from a battery isolator to a DC to DC charger.

The first reason is due to modern technology. The majority of cars manufactured from 2006 onwards have a computer-controlled alternator which thinks about fuel consumption and emissions not charging your auxiliary

battery. This is one of the main reasons many people choose a DC to DC Charger for dual battery systems in newer vehicles.

The second reason relates to charging multiple multiple auxiliary batteries. If you have one auxiliary battery to charge you would use a 25Amp DC-DC charger (depending on battery type). If you have two or three auxiliary batteries to charge you would use a 40Amp DC-DC Charger.

Another important factor is that the isolator will only charge your AGM Batteries to 80%. However, most DC-DC chargers have a multistage charging program, so your batteries will get charged all the way to 100%. Most DC-DC chargers has the ability to charge not only AGM batteries but also Calcium, Led Acid and now even lithium batteries to 100%. The other benefit of this is that your battery will last longer if it is regularly being charged back to 100%. Many batteries will suffer from a shorter life span if continuously undercharged.

If you are driving around every day when you are on holidays with your motor running, you will easily keep your auxiliary battery topped up enough to power your fridge and accessories. However, if you are parked up at a campsite for more than a couple of days you need another option to

charge the auxiliary battery. Many DC-DC chargers come standard with a built in MPPT solar regulator so you can plug a solar panel directly into it. The solar panel will run power through this cable into the battery charger and then into your auxiliary battery. You can plug in a solar panel to keep your batteries topped up when the car isn't running so you can stay in the one spot for weeks.

There are a lot of brands on the market that have different units better suited to different situations. The Redarc BCDC units are excellent for under bonnet purposes as they are fully sealed units, protected from dust, water and vibrations. The Enerdrive DC2DC unit is a great option for caravans and canopy dual battery. It features a built-in fan so it can be mounted out of sight in cabinets and drawers. The BMPRO Mini Boost is another good option for smaller spaces such as battery boxes.

The DC to DC charger allows you to charge from two inputs (alternator and solar). The next option we will look at is a battery management system or BMS. Which will allow you to charge from a third input – 240 volts.

Author – Andrew Janes

WINTER CAMPING CLEARANCE



12V Thunder Coffee Machine & Adaptor was \$169 NOW \$124



Flexible LED Camping Light was \$99 NOW \$70



Weigh Safe 4" Adjustable Drop Down Hitch was \$675 NOW \$550

FREE LABOUR ON DUAL BATTERY SYSTEMS

**TIME FOR AN UPGRADE?
GET FREE LABOUR ON
VEHICLE DUAL BATTERY SYSTEMS
& CARAVAN LITHIUM UPGRADES**



Conditions apply. For offer details visit - www.amae.net.au/free-labour