

## How to Maintain your Deep Cycle Batteries



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



## Getting Set Up with Solar Panels

Solar panels are a great option for quiet, clean and free energy while caravanning or camping. With the right set up, you can travel just about anywhere without having to sacrifice life's little luxuries. Also, swapping out a noisy generator for a solar system means less noise and pollution disrupting the peace and quiet you set out to enjoy on your trip.

There are a number of different types of solar panels available for camping and caravanning. The size, type and number of panels you will need will depend on how you are planning on using the power you generate.

### Different Types of Panels

There are three main types of solar cells that are used in today's solar panels. Mono-crystalline, poly-crystalline, and thin film amorphous. Mono-crystalline panels are more expensive and work best in direct sunlight. Poly-crystalline panels are slightly less efficient than mono-crystalline panels but may function more efficiently in low-light conditions. Amorphous cells are made from thin, flexible film panels and require a larger surface area than traditional panels. The greatest advantage of the Amorphous cells is their ability to be rolled or folded in the form of solar blankets.

### Fixed, Flexible and Portable

Fixed solar panels can be fitted to the top of most caravans, trailers or 4WDs which means you can generate energy as you travel. The downside of fixed

panels is you may not always be able to position your caravan, trailer or vehicle in direct sunlight. This could reduce the amount of power that is generated from the panels.

Flexible solar panels are another option for the roof of caravans. The glass panel is fixed to a flexible material, and as a result, they're suitable for curved roofs and surfaces. These are really great because they're light, so they're suitable to pop top caravans because there's not too much weight on the roof. They're easy to mount, they do suffer from overheating sometimes because there's not a lot of airflow between this and the surface on the caravan. These types of panels may also be prone to cracking due to excessive movement when driving.

Portable panels are fast becoming the most popular option for travellers. They can be repositioned in the sun as it moves throughout the day. This allows for maximum power to be generated from the solar panels through out the day. A portable panel will add some extra time to your set up and pack down, and take up some extra storage space. A solar blanket or compact folding panel is usually the best option to save valuable space and ease of use.

### What size and how many?

How much power you need from your solar set up will depend on how you plan to use the power generated from your panels. Before purchasing your panels, you will need to work out how much power your

devices will use in a day. To do this, take the total number of amps your devices will use per hour and multiply it by the number of hours you will use them each day. Correctly calculating the size and number of panels you will need is one of the most vital and most technical parts of the process, so we always recommend consulting a professional to help with this part.

### What else do you need?

For a complete, self-sufficient setup, you will need your solar panels, a solar regulator (also known as a charge controller) and a dual battery system. You will also need an inverter if you are wanting to power 240V devices.

### Tips to get the most from your Solar:

- Solar power setups work best with low energy devices such as fridges, LED lights, air compressors and inverters.
- Avoid using the inverter to power energy-intensive appliances such as heaters or hair dryers. These will quickly drain the power you have stored in your battery.
- When selecting panels make sure the panels you choose are made from sturdy materials, they need to withstand the elements and life on the road. Also, ensure they can be stored easily when not in use and come with a well-designed carry bag.
- Keep your panels free of dust which can obstruct sunlight and detract from performance. To clean your panels, wipe them down regularly with a micro fibre cloth as using a more abrasive material may damage the panels.

Andrew Janes

NEW  
PRODUCTS  
IN STOCK



**BMPRO BatteryCheck**  
Wireless Bluetooth  
Battery Monitor  
\$198



**BMPRO TrailSafe**  
Emergency Trailer  
Break-Away Safety System  
\$199.50



**REDARC Tow-Pro Elite V3**  
Electric Brake Controller  
from \$595 (Supplied & Fitted)

## POWER UP YOUR NEXT ADVENTURE

- ⚡ **PORTABLE BATTERY BOXES** from \$541
- ⚡ **UNDER BONNET BATTERY SYSTEM** from \$995
- ⚡ **BEHIND-SEAT LEAD CRYSTAL SYSTEM** from \$1995
- ⚡ **LITHIUM CARAVAN BATTERY SYSTEM** from \$2495

