

Getting a little Vitamin D in your touring set up



Solar panels continue to be one of the most popular additions to our touring vehicles.

The technology has changed significantly in the last decade where efficiency increases have meant we can carry more power in a smaller package making portable or vehicle mounted systems produce more useable energy, and all at a cost that is so affordable that taking a solar panel is more practical for a long weekend away than adding another auxiliary battery.

The amount of gadgets that come along for the ride is growing also, meaning keeping charge up to that battery is becoming more important to make the trip comfortable. So what makes a good panel for your application, and what size should you consider?

A few questions you need to ask yourself first:

- What electrical equipment will you bring?
- How often will you use the panel?
- What conditions would you use it under?
- How big is the impact to you, if it fails when you need it the most?

The most critical question you need to consider is the electrical equipment you will bring with you as that has the biggest impact on size and type of panel. For example, if you're just bringing a 12v fridge, a couple of LED lights, your phone and laptop then a smaller sized portable solar panel may be all you require.

But if you're bringing more power intensive appliances, you may need to consider a bigger panel, such as a 150 watt panel that can be mounted permanently on the top of a camper trailer. You'll need to figure this out first, then select the right battery and from there you can choose the correct solar panel to match your needs.

Next ask yourself how often you will use the panel. This could be every day, every weekend, or maybe even once a year. Ultimately this determines the budget. If you are going to be a heavy user and travelling a fair bit, you may want to invest in both a permanent and portable solar solution. If you're a moderate user, then you might want to just get one or the other, and if you're an infrequent user, then perhaps a portable solution is all that you need.

Are you going to be doing some hard-core off roading, going beach fishing or trekking to national park tracks? Asking yourself this will determine the type you get. You may require a bit more flexibility, so having a fixed panel isn't going to help you very much. And then if you're on a boat, a portable panel is probably going to be impractical with the sway and tides, so a solar blanket is likely better here.

Finally, you need to ask yourself what are the implications for you if you don't have adequate or proper charge going into your batteries? It's easy enough to go for the cheaper imports, but is that a risk you really want to take if you're out in a remote location? If it's something you rely on (not spending half the trip stuffing around trying to get it working properly), something you will use for many years, and something that adds to your camping experience, then it's worth buying quality.

REDARC have a new solar blanket range which allows for optimal charging of 12v batteries. It includes a flexible 112 watt red Solar Blanket Amorphous Cell and three black Solar Blanket SunPower® Cells in 115, 150 and 190 watt power ratings.

What makes these blankets different is their quality cells in an extremely light weight package. The blankets are highly flexible, so it's easy enough to set them up on your boat, lay it on the grass, or hang it on top of your 4x4 and start charging your batteries straight away.

REDARC's premium blanket, the Solar Blanket Amorphous Cell is able to take better advantage of varying light intensity with Uni-Solar triple junction cells. These cells feature three separate red, blue and green concentrated cell layers that absorb a wider band of the visible light spectrum. This means that they are highly efficient and perform better under different light conditions compared to crystalline solar panels. Crystalline solar panels by their nature gradually lose a small amount of output as the temperature of the panel rises upwards of 25°C. Amorphous solar panels do not suffer this at all until really extreme weather conditions.

REDARC SunPower solar blankets are even more efficient because they capture more sunlight than conventional crystalline cells due to the grid-line electrical contacts being on the rear of the cell, and incorporate a solid copper backing for high strength which reduces cell breakages. In addition, SunPower cells do not suffer from partial shading (for example if a leaf falls on the panel) compared to conventional panels where they will lose performance or in some cases stop working all together.

Having a matt, non-reflective surface, the range of blankets by REDARC are able to make the most of the light even at increased angles from the sun. Compared to solar panels, they do not have to be perpendicular to the sun as much as possible to achieve the best performance. Both the REDARC Amorphous solar blanket and the new line-up of SunPower cell blankets have ETFE fluoro plastic laminate coating which provides high transmission of sunlight without reflection. The coating is also anti-reflective, scratch resistant and has non-stick, self-cleaning properties.



To give you an idea on how many extra days of free camping you can get, consider that all you would be powering is a 12v fridge and an LED light using a 120ah deep cycle battery. Both the 112 Amorphous and the 115 SunPower watt blanket can give you two extra days of free camping. The 150 SunPower watt gives you 5 days, and the 190 watt gives you unlimited free days camping. That's pretty good if all you wanted to do was extend your stay.

REDARC ensures that travellers get the most out of their batteries while driving by charging an auxiliary battery to a proven 100% while on the move with their BCDC In-vehicle battery Chargers or The Manager range, Battery Management Systems. The Manager range takes this to the next level by including Green Power Priority where solar power is used first to charge an auxiliary battery before topping up charge from another source. The Manager range also accepts power from 240 volt mains power and has a remote battery monitor providing battery charge information.

The range is tough, durable and made of high quality solar cells so you can trek, boat, or paddle for years and years to come. At the end of the day, look to the brands you know and trust for other quality products on your rig and you are already headed in the right direction

To find out more visit www.redarc.com.au