

# COAST TO COAST SOLAR SYSTEMS FOR RV'S

## FAQ



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**Q:** What type/design are these panels??

**A:** The Coast to Coast Solar panels are a 'MONO-CRYSTALLINE' Panel.

**Q:** How many different panels/other types of panels are available in the market??

**A:** There are three types of panels available;

1. *Mono-Crystalline* 2. *Poly-Crystalline* 3. *Amorphous/Thin film*

**Q:** What is the difference between the 3 different panel listed above??

**A:** **Monocrystalline;** Monocrystalline cells are cut from a chunk of silicon that has been grown from a single crystal. These are used in the more expensive types of solar panels and are more efficient in converting the sun's rays to electricity.

**Poly-Crystalline;** A polycrystalline cell is cut from multifaceted silicon crystal. More surface area is required due to inherent flaws and these panels are less efficient in converting the sun's rays.

**Amorphous/Thin film;** Amorphous/Thin film panels are also less efficient than polycrystalline and mono-crystalline panels, so a larger surface area is required.

(Up to 3 times the size compared to the Mono-Crystalline/Poly-Crystalline panels)

**Q:** How do I tell the difference between these 3 different types??

**A:** 1. Mono-crystalline cells tend to be uniform in appearance. Normally made up of square or rectangle sections, and black in colour.

2. Poly-Crystalline tends to have a 'Shattered' Glass type look and Purple in colour.

3. Amorphous/Thin film is made up of a complete cell all black in colour.

**Q:** What is the lowest costing panel type??

**A:** Amorphous/Thin film Panels are the lowest in cost, though For RV use, these panels are not efficient enough, with the current technology, as you require at least 3times the size in panel compared to the Mono-Crystalline.

**Q:** Do I need to use a Solar Regulator??

**A:** YES, a regulator controls the amount of charge that is supplied to the battery. It converts the variable voltage produced by the solar panel/sun light, to a steady output for battery charging.

**Q:** How many solar panels can be used on the 7AMP Solar regulator??

**A:** It will handle up to 7AMP of Solar input. (In general one only of the fixed panel range, e.g. 1x 60w or 1x80w or 1x110w)

**Q:** What is the difference between the 7A & 30A model Regulators??

**A:** The 7Amp regulator is the Entry level regulator for smaller solar systems, where the 30Amp model will allow for more panels to be connected (up to 30A control) and offers a LCD display, that will enable the customer to check the battery charge voltage, Solar input current (in AMPS) & Output load current (in AMPS). It also has the added function of Over discharge, so if a light or TV was to be left on or Battery voltage was reduced to a low battery charge, it will disconnect the LOAD circuit so it will not affect the batteries life span (Batteries do not like to be discharged to a complete 0% charge, other wise it will take many hours to recover or may not even recovery at all after a constant load has been applied)

**Q:** I have a Motor home with a 24V house battery system, Will these panels work with my setup??

**A:** No, at present Coast to Coast only carries the 12V Range of Panels and Solar Regulators.

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**Q:** How many solar panels & Batteries do I need, to install in my RV??

**A:** It all depends on the current loads from devices used, and the amount of time that you wish to spend set up at a camp site, away from 240V power.

If you add up all the items that are used, in Amps, and the hours that you use the devices for. It will give you the Amps used through out the day. Then you can check with the Solar Panel specification to match it to the most suited panel.

(NOTE: on an average sunny day a window of approx 5-6 hours can be achieved depending on the position of the sun, so a single 110w panel with a maximum of 6.24A can charge approx of 30amps over the day into the battery system)

**Q:** What is an average amount of panels installed (in Watts)

**A:** From Customer feedback the most common solar setup would contain 2x 80w solar panels & 2x 100Amp/hr batteries with a 30Amp regulator. This still will allow for future upgrades if required.

**Q:** What happens if I have a few overcast/cloudy days while I am away?

**A:** You may find that your battery voltage is lower than expected, it is advised to either install another solar panel and/or battery. The Extra solar panel will provide more solar charge when the sun is present, and the extra battery will allow for longer run periods when there is little or no sun present.

**Q:** What if I have a RV and do not want to park in the Sun, as the extra heat within the RV is not pleasant??

**A:** Coast to Coast has the Collapsible Range of solar systems, available in 80W & 120W systems that has the Regulator attached to the rear of the Master panel, it simply connect to the Battery in the RV or Camper trailer.

**Q:** What If I have the fixed range fitted to my RV, can I still use the Collapsible range as well??

**A:** YES, the two systems can be used in conjunctions with each other, or as stand alone systems.

**Q:** Are the Mono-Crystalline solar panels 100% Shade Tolerant?

**A:** NO, the Amorphous/Thin Film solar panels are Classed as Shade tolerant panels.

The Coast to Coast, Mono-Crystalline solar panels have been fitted with a By-Pass Blocking Diode setup, so if the panel is covered by shade in areas of the panel, it will still produce power. Power may be reduced by up to 50% in the shaded position.

**Q:** Can the panels withstand the harsh weather in Australia??

**A:** YES, these panels with withstand 25mm hail stones @ speeds up to 80Km/h, and high winds up to 130Km/h, all housed in an Anodized Aluminum Frame to withstand rust.

**Q:** How are these panels mounted to the roof of my RV??

**A:** Coast to Coast, has designed a bracket system that will work on many different designs roofs, each packet contains the correct amount of components to mount one panel.

**Q:** What Warranty is offered with these panels??

**A:** 1year on Manufacturing Defects & 15 years on power output (will Guarantee a minimum 80% power output for 15years of operation)