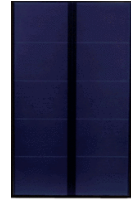


RV Solar Installation - Unisolar 64 Watt Thin Film Panel

Part One

We are proud to announce that the production of this site is now completely solar powered, as our two computers currently run off of our recently installed **Unisolar** Thin Film solar panel, which soaks up light like a sponge and allows the two of us to write and design to our hearts content, without using fossil fuels or depending on grid power.



Frankly, we're pretty excited about it. Our hardy road-boat, Mahayana (which means "The Big Vehicle," a type of Buddhism), has sailed the highways for over two years under the faint scent of French fries from the biodiesel she drinks with glee. Adding a solar panel to our array of alternative energy was a logical next step, but we found suppliers and information to be shockingly scarce...which is part of what motivated the construction of this site.

As the great Bobby Weir still sometimes sings, "*it's all too clear we're on our own.*" Switching to alternative energy made us amateur electricians for a few days, with an emphasis on *amateur*. Neither of us had a lot of experience in drilling and wiring, but there was no choice but to learn the basics. Installing a solar panel on the bus brought this home, and fortunately we had the time and patience to carry it off without mishap.



The first task, of course, was choosing the right panel. We went with the **Unisolar** model for several reasons. First, unlike its vulnerable mono-and-polycrystalline counterparts, the Thin Film technology is considered "unbreakable." Of course, you shouldn't take a sledgehammer to any solar panel, but the manufacturer asserts that it can sustain normal impact without damage.

There will surely be many unplanned tests of this claim as we travel, so we'll let you know what parking stupidities the **Unisolar** has survived, or-perish the thought-failed to. Physical damage to the panel is definitely a risk in the wooded regions we travel, so we wanted the most durable design available.

The second reason we chose the **Unisolar 64** has to do with how it collects light. The amorphous solar panel design is much more efficient in partial shading than panels composed of serial cells, which can fail to perform if even a portion of the panel is in shadow. In fact, the charge indicator light shows that the **Unisolar** is passing current to the regulator, even in complete shading on an overcast day.

The downside to the Thin Film style of collector is that the surface is not as efficient as other types of panels per square inch, which means that our 64 watt panel has the physical dimensions (about 54" X 30") one normally associates

with grid-tie panels of 100 watts or more. The ES series is versatile and is perfect for auxiliary power on boats, RVs, and remote work trucks as well as residential grid-tie and even massive megawatt arrays.

For us, the slightly larger surface is no disadvantage at all, as Mahayana has ample roof space and room for two more such panels should we ever need them.

In the next post, we'll describe the DIY installation process, what we learned, a few helpful tips for those of you considering going solar, and links to all the equipment you'll need for personal energy independence, with a little help from nature.

It feels wonderful. Thank you, old Sol.