



BASIC FAQ, MAINTENANCE, AND OTHER INFORMATION

What regular maintenance is required monthly or annually?

At least monthly you should check and fill the battery cells water levels. This should be done more frequently with extended periods of high outside temperature conditions. Also, the top of the batteries under the metal covers should be washed down with a garden hose. This is to keep the normal cell venting residue from building up and causing low current transfer and corrosion.

When filling the battery water, we recommend using de-ionized water for best performance and longer battery life. An inexpensive de-ionized water system is available at the link noted here:

https://www.amazon.com/Aquatic-Life-Deionized-Spot-Free-Rinse/dp/B07H8MQTMD/ref=sr_1_5?crid=2EGT6TW6FJ78D&keywords=water%2Bdeionizer%2Bfor%2Bcar%2Bwashing&qid=1694706574&prefix=water%2Bdei%2Caps%2C399&sr=8-5&ufe=app_do%3Aamzn1.fos.006c50ae-5d4c-4777-9bc0-4513d670b6bc&th=1

Prior to adding water to the cells, it is important to verify that the SOC (state of charge) of the batteries is 80% or greater. This is indicated on the inverter screen as described below. When filling the cells, the water level should be at the bottom of the tube minimum or just slightly higher into the tube slot. Do not fill above the visible plates when the charge is below 80%. Only add water just to the point that it is visible at the plates when the batteries are in a low SOC. After the SOC is above 80% then the water level can be topped off as described above.

The solar panels should be washed off with water as needed to keep dust and dirt build up to a minimum. A light detergent and soft brush can be used if necessary. The backup generator will require engine oil changes occasionally as needed based on run time as listed in the generator manual. There is a digital display on the generator panel that will show the run time in hours as you push the display button.

Where can I see the battery charge levels?

When looking inside the front cabinet, there are two yellow inverters. The inverter on the right side is referred to as the Primary inverter and the left one is referred to as the Secondary inverter. Looking at the right-side Primary inverter display, you will see general information scrolling across the display screen. While information is scrolling there will be an indication readout "Batt SOC" with a % value. Example: Batt SOC 82%. This is indicating that the battery state of charge is 82% fully charged. This reading can go up to 100% as the battery charge vs usage varies. More about this SOC value, when the loads and usage drain the batteries to 50% or less the backup propane generator will automatically start. The generator helps supplement the loads and also charges the batteries. When the SOC level reaches 80% - 90% the propane generator will automatically shut off. Another good reading to note while the information is scrolling across the screen is the "Batt Vltg". This is the indication of the current voltage of the battery bank. This reading could be from 45 to 54 volts depending on charge and load status. These would be normal readings.

What noise should I expect to hear and when? For example, it sounds like it is running/charging all the time when the sun is out.

There will be noise from the unit most of the time, especially in warm weather due to the cooling fans running. There are multiple fans within the inverters, there are two fans within the Midnite Classic charge controller, and there are fans built into the cabinet that run when it is warm. Some of these are somewhat loud especially the charge controller. This is normal.

Can the unit be set up on “Standby” or only used when power is needed?

This is a normal status for many users. It is important to always keep the solar trailer system powered up regardless of the need for output AC power. The system maintains itself in a state of readiness when completely powered up even in standby. The power switches on the inverters and in the “Midnite” switch box should never be turned off except in an emergency shutdown situation or for a particular maintenance activity.

Can the unit over charge?

The unit will not over charge. Everything is monitored and controlled through the entire system to maintain the optimum state of charge and prevent over charging.

What do I need to know to keep this equipment in good working order for years to come?

The most important part of keeping the unit in good working order is to maintain the batteries as described above. Also keep the cabinet interior clean and outside vegetation from building up around the trailer.

Is there a warranty with the purchase of the solar trailer?

There is an express limited warranty with the purchase of the solar trailer. Limited warranty details depend on the particular component and manufacturer. The limited warranty is void with improper use, failure to maintain the unit, and incorrect electrical connections.