

Solar Generator Trailer Quick Reference

Security:

- The keys to the trailer are in a lock box attached to the front right side of the trailer deck on a large D-ring. Visit <https://texassolartrailers.com/support> for contact info to obtain the access code. Do not change the access code.
- There several keys that open various locks on the trailer: Inverter box, job box (if available), diesel fuel cell (if available), and diesel generator panel (if available).
- The trailer should remain locked when in operation, and the keys go in the lock box.

Startup:

1. Use the sprung pins on either side of the panel arrays to align the panels for maximum power. Usually orienting the trailer long side to the south and tilting the panels about 30 degrees works well. Make sure all four pins are latched closed once the panels are in position.
2. Inside the inverter panel box, notice the MidNite Classic charge controller. To its right is the photovoltaic combiner panel. Open that panel and turn on all the breakers by switching them upward. This brings solar power through the charge controller, and to the batteries to keep them charged.
3. Next, notice the two yellow Sunny Island inverters. The left one is the “slave” and the right one is the “master”. Find the black breaker switch on the front panel of the slave inverter and turn it upward to turn on. Wait for the slave to power up, then turn on the master inverter breaker next. This will place both inverters in Standby Mode.
4. All control of the inverters is done from the master inverter panel, on the right. Anything you do to it, will also occur to the slave inverter, so you should not have to do anything with the slave inverter button controls. On the master, tap the <Enter> button briefly, then press and hold the <Enter> button, and this will turn on the inverters.
5. Open the breaker panel to the right of the slave inverter. Turn on all the breakers by switching them upward. This will bring power to the two 50 amp 240 volt outlets, and the 15-amp 120 volt outlet inside the box.
6. There are adapters provided to enable power delivery from the 50-amp twist-lock outlets on the side of the trailer.

Shutdown:

Shutdown is basically the reverse of startup. On step 3 above, pressing and holding the <Enter> button will bring the inverter back to standby mode, then you can shut off its breaker switch.

Long Term Standby:

For long term storage longer than a week, the breakers in the photovoltaic combiner panel should remain on so that the solar panels and Midnight charge controller will float charge the batteries.

Travel: The solar panels must be vertical during any trailer movement, and all 4 latch pins closed.

Battery Maintenance: USE PROTECTIVE EYE AND HAND GEAR

Every 1-2 months (depending on battery usage): There are two battery banks of 24 cells of 2 volts each. Batteries should be checked to make sure water levels are correct. Use distilled water to fill. Use the provided battery water filling container. Open the orange cap on each battery and check the level. Add water until the water just covers the top of the highest lead plate, and no further. Do not over-fill. Do not let contaminants get into the battery. Replace the cap securely.