

Electrical System - STS

Your trailer is equipped with onboard power to operate all of the Clubhouse electrical systems. This power is provided by a group of 12-volt batteries. The batteries are solar charged and, depending on conditions and usage, should sustain usage of the trailer for about three years before needing to be replaced. The solar panels on the roof feed the solar charge controller. There is also a 110VAC shore power charging system that allows charging from an extension cord connected to wall power or a portable generator. The electrical control cabinet houses the batteries, solar charge controller, a shore power charge controller, lighting control relays and the primary electrical control panel.

Master System Switch (Fridge Switch)

Inside the front door of your trailer is a switch that shuts off power to your trailer. This switch is activated when the door is shut, preventing excess power consumption during transit or when not in use, and prevents battery depletion, while allowing the solar panels and/or AC shore power to maintain the batteries. When closing your trailer, it is best to ensure that all lights have been turned off prior to closing the back doors. In most cases, the door must be open for the electric tongue jack to be operational.

Low Voltage Disconnect

The Low Voltage Disconnect (LVD) system prevents total depletion of the power in your trailer's batteries. If the voltage from your trailer's batteries drops below a safe limit, it will automatically shut off power to the lights in your trailer to preserve battery power. When this low voltage disconnect has been triggered, a red battery status indicator will illuminate on your battery cabinet front panel. To activate 10-15 minutes of reserve lighting power, press and hold the reset button located on your battery cabinet for several seconds.

Shore Power

If charging via the onboard solar panels is insufficient for the event's demands, an auxiliary charging method is available. In situations where additional auxiliary power is needed (trailer is parked under cover, or extended use in non-sunny environments), a residential power port, or "shore power" is provided on your trailer. This allows you to plug in an extension cord from a generator or other 110 VAC power source to charge your batteries. On most gooseneck trailers, the shore power port is located under the gooseneck on the passenger side. On most bumper pull trailers, this port is located on the street (driver's) side, on the diamond tread near the bottom of the trailer. The power port is a round, black, covered port.

If batteries become fully depleted, they will likely not take a charge from either solar power or the shore power plug. They will need to be replaced.

Solar:

Your trailer is equipped with flexible solar panels affixed to the roof. These panels provide DC voltage to the charge controller located in the upper power cabinet. Output voltage (charge voltage) will vary between 12.6 volts and 14.2 volts during charging cycles. The display on the charge controller can be used to determine if the panels are active.

Maintenance:

- At the beginning of every season, inspect the condition and age of the batteries. Total number of batteries in your trailer may vary depending on the customized options in your trailer.
 - They should maintain a voltage of 12.4 - 13.4 volts during non-solar charging times. During solar charging or while on shore power the voltage on the voltmeter could read as high as 14.2 volts
 - If batteries need to be replaced, either because of age or diminished capacity, The Clubhouse recommends Group 31 AGM batteries (O'Reilly's part number: AGM31DT).
- Inspect the shore power port periodically, keeping it clean of debris. Make sure the port cover is always in place when not in use.
- Inspect any extension cord used for shore power are intact and functioning properly.
- Periodically check the integrity of the solar panels on the roof. Even though these are secured flat to the roof, they can still be snagged by a wayward tree limb and damaged. They can be cleaned with water and soft cloth.