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Troubleshooting ATG Lithium Batteries

Do you have technical problems with an ATG product? We offer comprehensive support to address your needs. Rely on our technical expertise to help you resolve common troubleshooting issues.

My ATG lithium battery is unresponsive, dead, flat.

The battery will enter safe mode, typically triggered when the voltage drops to 10.5 volts or lower. To explore various methods for restoring your battery from safe mode, please follow this link.

To restore your ATG lithium battery from safe mode, ensure you have a charged battery (such as a car battery), jumper cables, and a battery charger. Then, proceed with the following steps.

- First, ensure that all loads and inputs are disconnected from the ATG battery.
- Then, connect the ATG battery in parallel with another battery, referred to as battery number 2.
- Check the voltage on both batteries; they should now show similar values due to the parallel connection.
- Proceed to connect an A.C. to D.C. charger to the ATG battery and start the charging process.
- It is recommended to use a three-stage charger rated between 20 and 40 amps for batteries over 60ah. For batteries under 60ah, the charger's current output should be roughly half of the battery's capacity, as demonstrated by these examples:
 - 50ah battery would use a 25amp charger
 - 24ah battery would require a 12amp charger
 - 7ah battery would need a 3.5amp charger.
- After the charger begins charging the ATG battery, disconnect battery number 2. The charger will continue to charge the ATG battery, helping it exit safe mode. Allow the charger to complete the full charging cycle.



Should you have a portable Jump Starter available, please proceed with the steps below to restore your ATG lithium battery from safe mode.

- First, ensure that all loads and inputs are disconnected from the ATG battery.
- Then, connect the Jump Starter cables to the battery, making sure to match Positive to Positive and Negative to Negative.
- Afterward, link an A.C. to D.C. charger to the ATG battery, with a recommendation for a three-stage charger of 20 amps or more.
- Activate the jump starter to deliver power to the ATG battery, which will prompt the charger to detect and start charging the battery.
- Once the charging process begins, disconnect the Jump Starter from the battery.
- The charger will proceed to charge the ATG battery, helping it exit safe mode.
- Allow the charger to complete the full charging cycle.

Should you have a portable solar panel, please proceed with the steps below to restore your ATG lithium battery from safe mode.

- Ensure that all loads and inputs are disconnected from the ATG battery.
- Disconnect the solar controller or regulator from the solar panel.
- Proceed to connect the unregulated solar panel to the ATG battery.
- Maintain this connection for five minutes, after which you should disconnect the unregulated solar panel from the ATG battery.

The ATG battery will exhibit voltage availability, making it suitable for connection with a charger or a regulated solar panel.

It is important to understand that an ATG can enter safe mode through various conditions, including over-current, over-voltage, high temperature, cross polarity, and discharging below 10 volts. In all cases, except for discharging the battery below 10 volts, the battery has the capability to automatically exit safe mode. For instance, if the internal temperature of the battery rises to 80 degrees, it will enter safe mode, but once the temperature drops below 80 degrees, the battery will automatically return to normal operation. We offer a range of products designed to assist ATG batteries in exiting safe mode independently.



My battery goes into safe mode under load.

Ensure that the load does not exceed the discharge current rating of the battery. Refer to your battery's specifications on the ATG website or your user guide for the discharge rating of your battery.

The maximum charge my battery can reach is 13.5 volts.

If the float voltage of your charging method is below 13.5V, which represents a full charge for an ATG lithium battery, the battery will only reach this voltage during charging. The optimal charging parameters for a lithium battery charger are outlined below.

- Bulk: 14.4v
- Absorption: 14.2v
- Float: 13.5v

When the float voltage of your charging method is set below 13.5 volts, the battery will charge only to that specific voltage.



The battery charges to more than 14 volts, but the voltage decreases once the charger is unplugged.

When a charger is attached, a lithium battery can charge to more than 14 volts. After disconnecting the charger, the battery's voltage will typically settle within the range of 13.5 to 13.8 volts. A resting voltage of 13.5 volts or higher indicates that the battery is fully charged.

My battery is not functioning effectively within the smart battery box.

When preparing to use an ATG lithium battery in a smart battery box, it is important to take the following actions:

- Ensure that your ATG lithium battery is fully charged before installation in the smart battery box, with a recommended voltage of at least 13.5v. This is essential, as the smart battery box assumes the battery is at full charge upon installation. Installing the battery at a lower voltage will restrict access to its complete capacity.
- Set the capacity setting of your battery box to reflect the usable capacity of your ATG lithium battery. For specifics on usable capacity, please refer to the specifications on our website or consult your user manual.



My battery is self-discharging.

An ATG lithium battery will not experience self-discharge in a short time frame unless a load is connected.

To conduct a battery test, please adhere to the following instructions:

- Remove the battery from its current configuration.
- Disconnect all loads from the battery, ensuring that nothing is connected.
- Connect a charger and charge the battery to a voltage range of 13.3 to 13.5 volts.
- After charging, disconnect the charger and wait for 5 minutes before measuring the voltage to find the resting voltage.
- Completely isolate the battery and check the voltage after 24 hours.
- Measure the voltage again after an additional 24 hours and compare the two readings. If the voltages are identical, this indicates the presence of a parasitic load in your installation that is drawing power from the batteries.

Do you need further assistance? Please call Alan on 0499 313 474