



Polaris EV Lithium Pack Kit Charging, Operation and Storage Guidelines

To provide the longest lasting and best health for your Voltronix Polaris EV pack, use the recommended steps and operation below.

First Time Operation

- Our packs are shipped out partially charged.
- After install/conversion plug in your buggy to charge.
- The ORION JR BMS system will calibrate after a full charge.
- ORION JR BMS meter will show full charge once done.
 - Can take up to 10 hours to fully charge.

Normal Operation

Charging

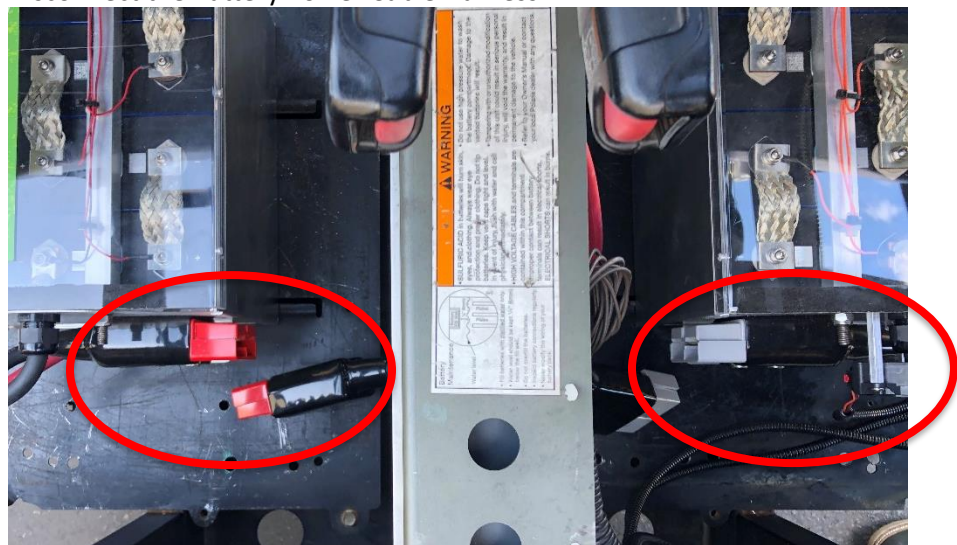
- **Only** use the DeltaQ charger that has been reprogramming by our specialists.
- Charge the buggy with key **OFF**.
- A fully depleted pack will take anywhere from 10 to 18 hours to fully charge.
- OEM Polaris charge status indicator on your buggy dashboard:
 - blinking green = charging (constant current)
 - solid green = charge complete (maintenance mode)
 - no light = BMS system disabled charge
 - red light = error
- Due to the chemistry of Lithium, our packs are susceptible to cold weather and charging should be done above 32F (0C).
 - Temperatures @ 32F and above, BMS system will allow charge.
 - Temperatures @ 0F and below, BMS system will **not** allow charge.
- To minimize range loss, it's recommended, if possible, to charge buggy in 45F or above.
- If the pack is less than 80% after 24 hours, please check for error lights.
- If no errors, power cycle the AC power and continue for 24 more hours.
- If pack doesn't reach 80% or more after 48 hours, further calibration may be needed.
 - You may operate buggy normally and charge again after battery has been used for 20% then plug in to charge and check for issues.
 - If no change, please reach us for technical support and if possible, connect a PC to the ORION JR BMS unit.

Running Operation

- The ORION JR BMS will have full time monitoring when buggy is running or charging
- Be aware of the duration of time you plan to run your buggy, recommend to operate above 10% when possible, safety cutoffs are programmed in the BMS to prevent deep discharge.
- Due to the chemistry of Lithium, our packs are susceptible to cold weather.
 - Temperatures @ 32-45F (0 to 7C) can experience up to 20% range loss
 - Temperatures @ 0-32F (-17 to 0C) can experience up to 50% range loss
- To minimize range loss, it's recommended, if possible, to store buggy in 45F or above.

Storage

- To store your buggy pack, it's best practice to leave the pack at 80% capacity/full.
- Never leave/store your buggy pack less than 20%.
- Storing your buggy for less than 2 months:
 - You may leave your buggy fully charged.
 - You may leave your buggy at 30% or above.
 - You may leave your buggy plugged in charge.
- Storing your buggy for more than 2 months:
 - **Recommended Method**
 - Plan to store your pack at around 70-90%.
 - Disconnect/unplug the buggy from charge.
 - Disconnect the Battery Power Cable Harness.



- There are the heavy-duty power connectors that link the two modules together, under the SEVCON unit connected to each battery module.
- **Other Method**
 - You may leave your buggy plugged in charge.