



Storage Procedure

Storing your battery at the correct specifications is important as it keeps the battery in the healthiest state possible for the fastest deployment when needed. Consult the table below for proper storage conditions.

Storage		
Storage Temperature & Humidity Range	< 1 Month	-4~95°F (-20~35°C), 45~75%RH
	< 3 Months	14~86°F (-10~30°C), 45~75%RH
Long Term Storage	If the battery needs to be stored for > 3 months the voltage should be 13.2V for a 12V battery (or 3.3V x number of cells in series) (~50%SOC), and stored at the recommended storage specifications shown above. Additionally, the battery needs at least one charge-discharge-recharge to 50% SOC cycle every six months.	
Self-discharge rate	≤3% per month	

Typical storage scenario: Up to 3 months:

1. Fully charge the battery. Record and maintain the storage VOLTAGE reading (not SoC%) for your warranty.
2. Turn the battery **OFF** by the On/Off/Storage switch. If you have an external BMS, it is preferred to fully disconnect the BMS from the MODULE by pulling apart the Anderson EURO DIN connector.
3. Keep the battery in an environment according to the specifications shown above.

Long Term Storage: 6 Months Maximum

1. Reduce the battery SOC to 3.3V/cell which is 50% ±10% SOC. **Note:** See chart below for cell voltage calculation. In order to maintain your warranty, please RECORD the voltage reading at the 3-month date you reduced the state of charge. **Please keep a record of this value for warranty validation purposes.** (NOTE: for some it may be inconvenient to access the battery system at the 3-month mark to perform a charge-discharge cycle. You may choose to keep the battery at full charge voltage for the entire 6-month time period. Studies show that a small loss of capacity may occur with all lithium ion batteries.
2. Turn the battery **OFF** via the On/Off/Storage switch. If you have an EXTERNAL BMS, we suggest you disconnect the BMS from the module or modules by pulling apart the large Anderson EURO DIN connector.
3. Keep the battery in an environment according to the specifications shown above.
4. Every 6 months, you must charge the battery to 100% SOC, then discharge the battery to RVC, then charge it back to 50% ±10% SOC. This cycle from full to reserve then up to the storage VOLTAGE is important for long life.

Battery Voltage	Number of Cells	~50% SOC Voltage
12V	4	13.2
16V	5	16.5
24V	8	26.4
36V	12	39.6
48V	15	49.5
51V	16	52.8
64V	20	66
76V	24	79.2
96V	30	99
102V	32	105.6
201V	63	207.9