

SAFETY INSTRUCCIONES

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS For NIMH BATTERIES

Never make wrong polarity connection when charging and discharging battery packs. Always double check polarity of battery's connector to make sure red wire to red wire and black wire to black wire.

Please always use a smart charger (with automatic power cut-off function) to charging NiMH battery, charging NiMH battery without an attention may cause battery explod.

When charging NiMH battery, please always put the battery in a wire-proof place to avoid any accident happen.

Please always following specification listed on our web page to charging and discharging NiMH battery.

For larger battery pack (10Ah or larger) , please always use a smart charger with temperature sensor to avoid over heating which may cause the accident. NiMH batteries have higher energy than NiCd battery, but they have higher self discharging rate and shorter shelf life. Therefore, please always keep NiMH cells / battery pack in charged condition after using or before storing them.

Suggest you charging NiMH batteries and packs at least every six months, otherwise NiMH battery will reduce capacity or dead. For safety reason, we usually ship NiMH battery without fully charged. You must charging NiMH battery before use, and allow 3-5 cycles of charging and discharging for battery capacity to recovered.

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS For LI-ION / POLYMER BATTERIES

You must read these safety instructions and warnings before using or charging your batteries.

Lithium Polymer and Li-ion batteries are volatile. Failure to read and follow the below instructions may result in fire, personal injury and damage to property if charged or used improperly.

By purchasing Lithium Polymer and Li-ion battery, the buyer assumes all risks associated with lithium batteries. If you do not agree with these conditions, please consider Nimh or Nicd battery or return the battery immediately before use.

Li-Ion and Polymer battery & packs may explode and cause fire if misuse or defective. We require all Li-ion batteries & packs buyers must be professionals and have capability to handle emergency.

Must follow our instruction exactly which is listed on batteryspace.com product page to control charging and discharging current.

When charging Battery Pack, please put battery in a fire proof container. Please don't leave battery pack and charger on the wood material or carpet and unattended.

Must keep Li-Ion & Polymer battery pack away from children.

If you build your own battery pack by our battery module, please make sure to charge each module separately by using our smart charger. The purpose is to keep each battery pack balanced during charging. The PCB inside will protect this module only.

Never make wrong polarity connection when charging and discharging battery packs. Always double check polarity of battery's connector to make sure red wire to red wire and black wire to black wire.

Lithium batteries has it's cycle life, please replace old battery with new one when it reaches it's service life or when it is two year old, whichever comes first.

Test battery properties is your own responsibility. Please test Li-Ion battery you bought from us before using or sell to your customer to ensure battery can be operated properly and safely in your device. [Please click here to learn what is UL safety test standard for Li-Ion battery / pack](#). For more information, please contact [Underwriters Laboratories](#) directly.

Must report your applications, charging and discharging rate if the Li-ion / polymer battery pack is over 14.8V, we won't ship it out without this information. Please [download](#), fill the form and fax back to 510-525-4728. Attn: BatteySpace-Tech

General Guidelines and Warnings

1) **Use specific Lithium Polymer/Li-ion charger only. Do not use a NiMH or NiCd charger**- Failure to do so may a cause fire, which may result in personal injury and property damage.

2) **Never charge batteries unattended.** When charging LiPo/Li-ion batteries you should always remain in constant observation to monitor the charging process and react to potential problems that may occur.

3) Some LiPo/Li-ion chargers on the market may have technical deficiencies that may cause it to charge the LiPo/Li-ion batteries incorrectly or at an improper rate. It is your responsibility solely to assure the charger you purchased works properly. Always monitor charging process to assure batteries are being charged properly. Failure to do so may result in fire.

4) ***If at any time you witness a battery starting to balloon, swell up, smoke or hot, discontinue charging process immediately, disconnect the battery and observe it in a safe place for approximately 15 minutes.*** This may cause the battery to leak, and the reaction with air may cause the chemicals to ignite, resulting in fire.

5) Since delayed chemical reaction can occur, it is best to observe the battery as a safety precaution. observation should occur in a safe area outside of any building or vehicle and away from any combustible material.

6) ***Wire lead shorts can cause fire!*** If you accidentally short the wires, the battery **must** be placed in a safe area for observation for approximately 15 minutes. Additionally, if a short occurs and contact is made with metal (such as rings on your hand), severe injuries may occur due to the conductivity of electric current.

7) A battery can still ignite even after 10 minutes.

8) In the event of a crash due to bad shipment or other reason, you must remove battery for observation and place in a safe open area away from any combustible material for approximately 15 minutes.

9) If for any reason you need to cut the terminal wires, it will be necessary to cut each wire separately, ensuring the wires to not touch each other or a short may occur, potentially causing a fire.

10) To solder a connector: Remove insulating tape of Red wire and solder to positive terminal of a connector, then remove insulating tape of Black wire and solder to the negative terminal of connector. Be careful not to short the wire lead. If you accidentally cause the battery to short, place it in a safe open space and observe the battery for approximately 15 minutes. ***A battery may swell or even possibly catch fire after a short time.***

11) Never store or charge battery pack inside your car in extreme temperatures, since extreme temperature could ignite fire.

12) Never drop the batteries.

13) We suggest you put the battery in an enclosure to protect it from damages by liquid or dropping from height accidentally.

Charging Process

1) Never charge batteries unattended.

2) **Put battery in the fireproof container and charge in an isolated area, away from other flammable materials. Always have fire extinguisher for emergency use.**

3) Let battery cool down to ambient temperature before charging.

4) **Do not charge batteries packs in series.** Charge each battery pack individually. Failure to do so may result in incorrect battery recognition and charging functions. Overcharging may occur and fire may be the result.

5) When selecting the cell count or voltage for charging purposes, select the cell count and voltage as it appears on the battery label. As a safety precaution, please confirm the information printed on the battery is correct.

Example: The label on a 2-Cell battery pack in series will read charge as 2-Cell (7.4V), or may cause fire. You must select 2-Cell for charging.

Example: The label on a 3-Cell battery pack in series will read charge as 3-Cell (11.1V), or may cause fire. You must select 3-Cell for charging.

6) Selecting a cell count other than the one printed on the battery (always confirm label is correct), can cause fire.

7) **You must check the pack voltage before charging.** Do not attempt to charge any pack if open voltage per cell is less than 3.3v

Example Do not charge a 2-cell pack if below 6.6v

Do not charge a 3 cell pack if below 9.9v

8) **You must select the charge rate current that does not to exceed 1C (one times the capacity of the battery).** A higher setting may cause fire. The below chart is calculated at 1 x capacity of pack. *Example* 2000 mAh: Charge below 2.0 Amps. We strongly recommend using our Li-ion battery charger to charge our batteries.

4800 mAh: Charge below 4.8 Amps

5500 mAh: Charge below 5.5 Amps

6150 mAh: Charge below 6.1 Amps

Storage & Transportation

1) Store battery at room temperature between 40 and 80 degrees F for best results.

2) Do not expose battery pack to direct sunlight (heat) for extended periods.

3) When transporting or temporarily storing in a vehicle, temperature range should be greater than 20 degrees F but no more than 150 degrees F.

4) Storing battery at temperatures greater than 170 degrees F for extended periods of time (more than 2 hours) may cause damage to battery and possible fire.

Caring for

- 1) Charge battery with good quality Lithium Polymer charger. A poor quality charger can be dangerous.
- 2) Set voltage and current correctly (failure to do so can cause fire).
- 3) Please check cell voltage after the first charge.

Example 1-Cell: 4.2V (4.15 to 4.22)

2-Cell: 8.4V (8.32 to 8.44)

3-Cell: 12.6V (12.48 to 12.66)

4-Cell: 16.8V (16.64 to 16.88)

5-Cell: 18.5V (18.30 to 18.60)

4) **Do not discharge battery to a level below 3V per cell under load.** Deep discharge below 3V per cell can deteriorate battery performance.

5) Use caution to avoid puncture of the cell. Puncture of cells may cause a fire.

6) Charging the battery every 2 months to keep it fresh if you don't use it.

Operating Charging Temperature:

32 to 113 degree F

Discharge: 32 to 140 degree F

Let battery cool down to an ambient temperature before charging.

During discharge and handling of batteries, do not exceed 160 degree F.

Life

Batteries that lose 20% of their capacity must be removed from service and disposed of properly. Discharge the battery to 3V/Cell, making sure output wires are insulated, then wrap battery in a bag for disposal.

Product Warranty

Product warranty is limited to original defects in material and workmanship. Warranty does not cover collateral damage. Due Misuse, abuse, incorrect charging and other inappropriate use of this product are not covered under warranty.

IMPORTANT SAFETY INSTRUCTIONS AND WARNINGS For PRIMARY LITHIUM BATTERIES

This is a Non-Rechargeable Battery. Please do not recharge.

Do not mix lithium batteries with other types of batteries.

The storage area should be clean, cool (not exceeding +30 Deg C), dry, and ventilated

Do not use if the battery casing is damaged

This is consumable battery, no return, no refund after sale. We do not responsible for any damages and consequences damages caused by misusing