

# Lithium Ion Battery Pack Information

Lithium ion batteries are an advanced battery chemistry that is light weight and provides high capacity. Some key features are:

- No memory effect
- 30% less self-discharge compared to NiMH batteries
- Environmentally safe alternative to lead-acid batteries (no free lithium metal)

Your battery has integrated safety features:

- Over-charge protection
- Under-voltage protection
- Over-current protection

## Precautions

*Use the provided Lithium Ion charger only. Do not use a NiMH or NiCd charger-* Failure to do so may cause a fire, which may result in personal injury and property damage.

*Never charge batteries unattended.* When charging Lithium Ion batteries you should always remain in constant observation to monitor the charging process and react to potential problems that may occur.

*If at any time you witness a battery starting to swell, smoke, or get 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.

Since a 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.

*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.

A battery can still ignite even after 10 minutes.

In the event of damage 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.

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

Never drop the batteries.

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

If your battery is damaged, do **NOT** continue to use it.

## Charging Process

Never charge batteries unattended.

*Charge the battery in an isolated area, away from other flammable materials. Always have fire extinguisher for emergency use. DO NOT CHARGE IN PROVIDED BATTERY HOLDER.*

Let battery cool down to ambient temperature before charging.

*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.

Only use the provided charger to charge the batteries.

Cognisys, Inc. shall not be held liable for misuse/abuse of this product.

If you have any questions please e-mail us at [support@cognisys-inc.com](mailto:support@cognisys-inc.com) or call us at (248)365-0052

## **Limited Warranty**

All battery products are warranted to be free from defects in materials or workmanship for ninety (90) days from the date of purchase. Within this period, Cognisys Inc. will, at its sole option, repair or replace any components which fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This warranty does not cover failures due to abuse, misuse, accident or unauthorized alterations or repairs.

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