IMPORTANT BATTERY SAFETY INFORMATION

AY UP LIGHTING SYSTEMS

WWW.AYUP-LIGHTS.COM

KEEP THIS DOCUMENT FOR REFERENCE

***** CHARGE YOUR BATTERY(S) FIRST BEFORE USE, SEE BELOW *****

INTRODUCTION

This document outlines the instruction, responsibility and care for the Ay Up Power System.
Users must read and understand this whole document before using the Ay Up Power System.

Lithium Ion Polymer batteries are as safe and as dangerous as any other type of rechargeable battery. Use them correctly and they will perform safely and well. When using rechargeable batteries, it is very important to design the complete system with cell specifications, the charging system, and the application taken into consideration. A correctly designed system will ensure safety alongside maximum performance. This is exactly what we have done with the Ay Up power system.

***** Charging your Battery(s) for the first time *****

When you first charge your battery(s) it should take at least 1 hour. When charged please check that the fuel gauge blinks 3 times indicating a fully charged battery. If your charger indicates that it is fully charged within the first hour of charging, and the battery only blinks once or twice on the fuel gauge, your charger may be faulty and is not inputting a charge to the battery. Contact us first for help on rectifying your charger before using the new battery(s). Even a new battery will be rendered useless if stored in a discharged state for a matter of weeks and will void your warranty.

Safety:

Ay Up Lithium Ion Polymer batteries have been designed specifically for our Lighting Systems with safety as the main criteria. Not only are we using high quality cells for this application, but each battery has an integrated circuit (IC) on board to protect the battery from many abuses. We have addressed the following:

Discharge current:

The battery cell type is fully compatible with the power requirements of the Ay Up Lighting System. In addition, the on-board IC will cut off power when the discharge current runs above 1.5 Amps.

Over Charging:

Both the IC on the battery and the charger will cut off power when the voltage reaches 8.4V. This presents two layers of protection against over-charging. In addition, the charging current is a low 500mAh, well within the safety limits for the cells.

Under Voltage:

The on-board IC will cut off power when the voltage drops to 5V. This will prevent the cells from permanent under-voltage damage. Users must charge the battery straight away to prevent permanent damage to the battery cells.

Short Circuit:

There is a solid-state short circuit protection on the IC. In a situation where the battery is exposed to a short circuit, (for example if the battery cable is damaged) power from the battery is immediately cut off. This protects the user, the light and the battery. To reset the battery after a short circuit simply plug the battery back into the charger. If the charger circuit does not detect a fault it will reset the battery circuit and begin charging.

Water Resistance:

Each battery is protected by a serviceable rugged waterproof plastic casing. The battery is designed to function when completely submerged to a maximum depth of 0.5 metre in fresh water.

Impact damage:

The robust battery casing is capable of withstanding a 5 metre drop to concrete without breaking or cracking.

Caution:

It is imperative to use Ay Up branded chargers to charge all Ay Up batteries. This is because the charger, adaptors and battery specifications have been designed to be completely compatible. You can charge your batteries at any discharge state, be it from 5 minutes use or 5 hours use as Lithium batteries have no memory. When not using your batteries please store in a dry, cool place. **It is recommended that you charge, discharge then fully recharge at least every 3 months to prevent cell damage.** This term is called 'Cycling your Battery'.

The battery and charger circuits have been designed to operate together. Do not attempt to use any other charger or adaptor to charge Ay Up batteries. Doing so could damage the battery circuit. Ay Up batteries have been designed for low current draw so are unlike any other battery you will come across. They have the internal circuitry to monitor short circuit, overload, reverse polarity and cell balance charging. All these smarts are auto reset once the fault is removed or rectified. If your batteries behave oddly do not use and notify us by email at warranty@ayup-lights.com

Please turn over

Warranty:

Our warranty on batteries and chargers is valid for 12 months from time of purchase. The warranty is limited to manufacturer's defects and / or assembly only and warranty is not transferrable. **NOTE**: Battery cell damage caused by storing batteries in a low or discharged state is not covered under warranty. For warranty issues, send us an email at warranty@ayup-lights.com we will contact you as soon as possible.

NOTE: Never store a discharged rechargeable battery. Doing so can be dangerous, could harm the battery and make it difficult to charge again. This is not covered under warranty.

Safety Precautions:

Be responsible to yourself and others when handling and charging rechargeable batteries.

Caution - Keep the batteries in a dry place when not in use. Never leave a charging battery unattended and always charge on a concrete, stone or non-flammable surface. If charging in your home, workshop or office always fit a smoke alarm and check the functionality of the alarm regularly. If charging from your car, caravan or boat, never leave a charging battery unattended.

Do not leave batteries, charged or discharged in a hot car.

Store batteries in a safe cool place when not in use, either in a steel toolbox, the AY UP Charging and Storage Wallet or other fire-retardant case.

Keep away from Children.

1. Always remove the battery from its pouch or head strap and inspect for damage before attempting to charge
2. Do not attempt to charge if the battery pack is swollen or cracked
3. Do not attempt to charge if the battery cable is damaged
4. Do not attempt to charge if there is a strange odour coming from the battery pack
5. When storing or charging your battery make sure the battery is dry
6. Charge the battery in dry conditions only
7. Do not use if the charger is damaged
8. Do not use any other charger to charge an Ay Up branded battery
9. Do not modify the charger, power adaptor, battery or the battery cable
10. The maximum charging time for the SLB-01 and B2000 is 6 hours, Half Epic batteries is 4 hours and Epic is 8 hours. If the charger does not fully charge the battery within these times (indicated by the green LED on the charger), disconnect the battery and check for damage
11. If the charger feels hot when charging, disconnect the battery from the charger and the charger from the power supply. Check for damage
12. If the battery feels hot when charging, disconnect the battery from the charger and the charger from the power supply. Check for damage
13. Do not use if the ambient temperature is above 40ºC
14. During charging, the battery must be placed in a well-ventilated area
15. If in doubt, do not use and contact warranty@ayup-lights.com for advice

Charging your Battery

The Ay Up charger circuit has been designed together with the battery circuit and safety checks are carried out during the entire charging process. Never try and charge an Ay Up battery with anything other than an Ay Up charger and AC adaptor.

Battery Charging Instructions:

1. Plug either the 12V Car Adaptor or the AC Adaptor into the input socket on the charger
2. Remove the battery from its pouch and check for damage to the battery
3. Plug the battery(s) into the charge ports. The light will blink red for charging then when charged will turn to steady green
4. When the charging process has finished un-plug the battery(s) and unplug the AC adaptor from the wall socket. Charge one or two batteries at a time, each port operates independently from each other

Battery Operation - Control = Fuel Gauge, 3 light modes and flashing mode:

- Push once to turn on then release
- Push once then release to cycle through modes - High 100%, Med 60%, Low 30%
- Push and hold for 1 second then release to turn off
- To enter flashing mode with the battery off, push and hold until flashing then release
- To exit flashing mode and to turn off press once then release
- To enter fuel gauge with light on push and hold. The light will flash - Once = low, Twice = 60% charge and Three times = fully charged
- To exit from fuel gauge simply release the button and the light will return to the same power mode as before

Battery Care:

- Dry the battery after use, especially the connector. Smear silicone grease on the connector to protect it
- Inspect the battery for damage before storing or charging
- Store the battery with 2 flashes on the fuel gauge
- Store the battery in a cool, dry place. Either in a steel toolbox, AY UP Charging and Storage Wallet or other fire-retardant case
- When flying with your batteries, discharge your battery to low (1 flash on the fuel gauge) or discharge the battery so only low power mode operates. This is a requirement for Airline Safety. Always contact your airline before travelling with batteries as airline regulations are changing constantly. Remember to charge your battery as soon as possible.

NOTE - Always store your batteries with at least 2 blinks on the fuel gauge. If a battery is left discharged for more than a few weeks, it may be unable to hold its charge to capacity. Warranty will become void if left un-charged.

For more information visit WWW.AYUP-LIGHTS.COM