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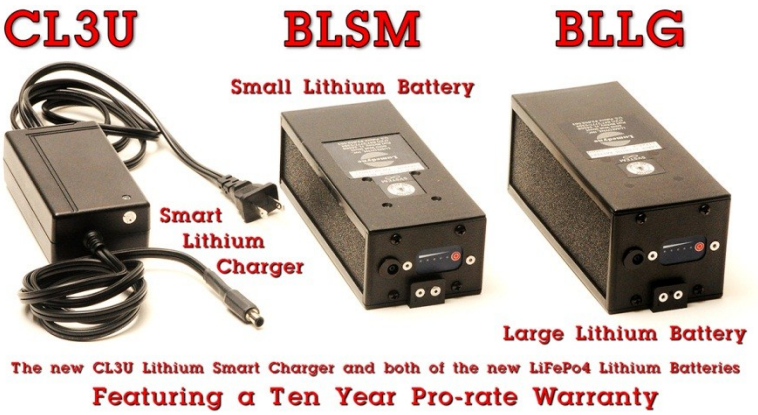
Proudly Made In The USA

Lumedyne Lithium Battery Charging Instructions

Lithium Batteries:

BLSM Small LiFePo4 Lithium Battery - 12.8Vdc 3.2Ah (That's about 41 Watt-hours) 2.2"x 3"x 7" 1.25 lbs
BLLG Large LiFePo4 Lithium Battery – 12.8Vdc 6.4Ah (That's about 82 Watt-hours) 2.75" x 3" x 7" 2.1 lbs

These batteries are safe for air shipping and air transport as carry-on or checked baggage according to IATA UN3481 Section II. They do NOT require additional documents as each battery is "In Equipment" inside our case and are well under the 100 Wh limit that keeps these rated as "Small". See reverse side for more details.



Lithium Battery Charger:

CL3U Extra Fast International Lithium Charger 3 Amp
Input 100-240V AC 50/60Hz at 1.5A – Output 14.4V DC at 3A
USA style AC Power Cable is included
Plug adaptors can be included for export orders
The input voltage is worldwide compatible

The Lumedyne Lithium batteries use LifePo4 cells from the highest quality manufacturer we can get. These cells are both safer than Lithium-Ion cells and provide over five times the average life span. Recycling a Lumedyne flash is a high current workload and thus, we have selected cells which are stronger for that purpose. We expect over 2000 charge cycles from these batteries while maintaining the consistent "like new" performance and will guarantee the flashes per charge performance with a pro-rate warranty that lasts for ten years! The Batteries basically lose 10% of their value per year. Contact us for more details or exact pricing.

Due to the higher voltage and consistent performance of the Lithium cells over the NiCad (normal) Lumedyne Batteries, the Lithium Batteries will cause the battery gauges on the Lumedyne Packs to read fully charged for about 85% of the charge and will only indicate a low battery at the very end of the charge cycle. While some factory adjustments could be made to the battery gauge in your Pack, it is perhaps easier to simply use the battery gauge built into the battery itself by simply pressing the small button on the front of the battery to see the charge level on the five LED display. The Lumedyne Packs will only operate correctly in the range of the last four lights. So the battery is effectively dead when it gets down to one red light on the display.

These battery cells are not as likely to burn-up as Lithium-Ion cells but should never be placed in or near a fire. These cells will not explode such as Lithium-Ion batteries but they can go into thermal overload and burn at very high temperatures if they are abused or misused, punctured or shorted out by physical destruction of any form. We have provided internal protection circuits which should protect you and the battery cells. Do NOT open the battery or attempt to bypass the protection circuits in any way.

It is extremely important that you only charge the Lumedyne Lithium batteries with the approved Lithium Charger. Using another style of charger will not likely generate a correctly charged battery and might be extremely dangerous. Do not use the Automatic Ultra Chargers which charge the NiCd and NiMh Lumedyne Batteries to attempt to charge the Lithium Batteries as false readings will cause poor performance and will not work correctly.

The Small Lithium Battery should be charged in a little over an hour with the Extra Fast Charger CL3U. When a Small Lithium battery is new you can expect 150 flashes at 400ws. We guarantee 125 or more flashes at 400ws from each charge cycle with our two year full warranty. That's over 1000 flashes at 50ws. You may experience even higher performance and we expect the batteries to last for many years, even beyond our warranty.

The Large Lithium Battery will charge in less than three hours with the Extra Fast Charger CL3U. It has twice the capacity of the Small one, so it starts out providing around 300 flashes at 400ws and it is guaranteed to provide over 250 flashes at 400ws or 2000 flashes at 50ws, guaranteed with a pro-rated ten year warranty.

The CL3U is a smart Lithium Charger with three rates of charging for the longest life of your battery. It starts moderate and goes to very fast charging then back to moderate and finishing at a very low rate. This is not only safer, but also healthier for your battery.

When you plug in the Charger the green light on the CL3U will come on. When it is charging, the light will glow red. When it is finished and the Battery is full, the smart Lithium Charger will indicate green again and will slow the charging to a very slow trickle. It is healthy for the batteries to be left on this slow trickle for several hours or days and it is actually a good "conditioning step" on occasion to leave the Battery on the charger for an extended time period. (A day is more than enough time) It is not recommended to leave the Battery on charge all of the time. However, the Batteries will hold their charge for several months before actually needing a top-off charge.

We expect you will have many years of healthy service from these batteries. When they are finally exhausted, you should return them to Lumedyne or another authorized Lithium battery disposal/recycling facility. Please contact Lumedyne directly with any questions or concerns regarding the safe use and charging of these Lithium Batteries. 1-800-LUMEDYNE is 800-586-3396 or call +1-727-847-5394

The Lumedyne LiFePo4 Batteries are safe for transport and for traveling. They are both rated as Small Lithium Batteries because they have less than 100 Wh of power rating. (The BLSM is 41 Wh and the BLLG is 82 Wh) Also note that the plastic enclosure around the actual Lithium cells makes these "In Equipment". Additional batteries (in their plastic cases) are considered separate equipment and are not considered "Spares" as that would be the term for the battery cells without the enclosure. You do not need to tape anything prior to transport as the connections are all internal inside the battery.

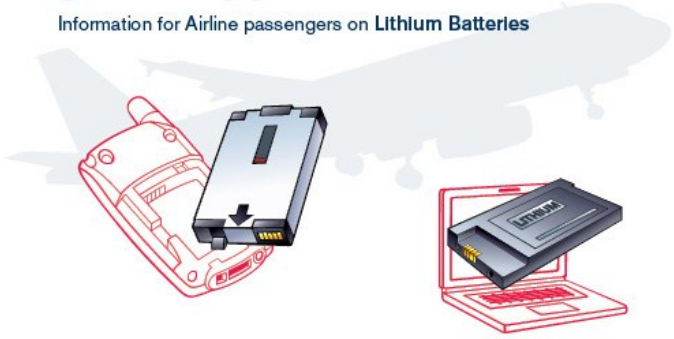
Never open the enclosure or allow any conductive objects or liquids into the compartment or connectors. All batteries are further protected with a high current BMS (Battery Management System) that protects the battery during use, during charge and from short circuit. Should a direct short occur or the battery to run down too low, it will be completely blank and "dead" until it is reset by being placed on charge at least for a moment because that resets the safety circuit inside of the battery.

UN 3481 "Lithium polymer batteries in compliance with Section II of PI 967"

IATA

What's your type?

Information for Airline passengers on **Lithium Batteries**



For more information contact your airline or visit:
www.iata.org/dangerousgoods

Printed in Canada 09/2010

Whether a lithium battery can be carried by air or not depends on its configuration and either Watt-hour (Wh) rating (for rechargeable) or Lithium Content (LC) (for non-rechargeable).

Use the following table to determine if your battery is acceptable:

Watt Hour Rating (Wh) or (Li Content)	Configuration	Carry-on Baggage	Checked Baggage	Operator Approval
≤100 Wh (2g)	In Equipment	Yes	Yes	No
	Spares	Yes (No Limit)	No	
>100 to ≤160 Wh	In Equipment	Yes	Yes	Yes
	Spares	Yes (Max 2)	No	
>160 Wh	Must be presented and carried as Cargo in accordance with the IATA Dangerous Goods Regulations			

To convert Amp-hours (Ah) to Watt-hours (Wh) multiply Ah x Voltage

The terminals of all spare batteries must be protected from short circuit by; enclosing them in their original retail packaging or taping over the terminals or separate plastic bags for each battery.

Spare batteries may not be placed in checked baggage.

Batteries contained in equipment such as laptop computers, cameras, mobile phones, etc must be switched off and measures taken to ensure that they cannot be accidentally activated when placed in checked baggage.

Examples of Lithium Batteries

Small Lithium Batteries and Cells include mobile phone batteries, watch batteries, MP3 player batteries and most original laptop batteries. The maximum rating for these batteries is 100 watt-hours (Wh).

Medium Lithium batteries and cells include larger batteries and cells – examples include some extended life batteries for laptop computers, and batteries used by audiovisual professionals. A "medium" battery provides between 100 and 160 watt-hours of power.

Large lithium batteries and cells are primarily those used in industry. A large rechargeable battery provides over 160 watt-hours of power. Large batteries may be found in some electric and hybrid vehicles, as well as mobility devices and scooters.

Note: Other commercially available types of batteries such as Ni-Cad, (nickel cadmium), and alkaline can be carried safely in either checked or carry-on baggage provided they are adequately protected against short circuit.