# Some Facts about MeLED4



A nice set of two MeLED4, including chargers

The MeLED4 is designed as heavy duty equipment. All parts are of good quality.

All housing parts are aluminum of > 2mm.

The gross light current is ca. 1200 lumen. Switchable in 5 steps. From 0 to max 130% LED current.

There is no battery protection, but a red light on the rear to show low battery voltage. Light can be generated until ca 3.5 volts, also battery damage is probable, but light is safety! On lowest level, also with flaw battery, you will have light for hours.

The battery housing is able to take standard RC cars 7-cell batteries.

To charge, remove only a screwed plug and connect to the charger.

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### The lamp itself



From the front the four LED's are a recognizable specialty.





On the back you see plastic. It is red lighted when battery has low voltage, otherwise it is not lighted.

The knob on the top can be turned endless. Each 6 positions the switching cycle restarts. Positions are: 0 - 15% - 33% - 66% - 100% - 130%

At 100 % the used Seoul LED's are rated for 50'000 hours, remaining at > 50% luminosity. 130% will decrease lifetime noticeable. (But who dives > 50K hours ???)



The consumed current is depending from battery voltage.

The circuit starts producing light until ca 3 Volts. This might damage battery, but is intended as first priority of this concept is "light" !

The max current trough LED is adjusted at production, and the below table is not representing the value of every single lamp, but can be taken as a good hint to calculate "burning time"

Basic idea: when red light is on, reduce one position.

Pos 1 and red light on = case of special situation when light is needed versus eventual battery damage!



Experience is that position 3 is the normal diving position, therefore with batteries of ca. 3300 mAh more than 1.5 hours can be expected. In the moment batteries of 5100mAh are available and can be used.

Position 1 is intended for usage with low voltage batteries.

In this position "Luminosity" is enough versus probable damages of under voltage. Also the circuit tries to regulate versus low input current to minimize battery damage, it cannot be guaranteed in al circumstances!

The electronic circuit is designed for input currents of max 3.5A, non depending to input voltage. A voltage of more than 10 Volts is not allowed, and can severely damage circuit and LED's !!!

#### How to Charge

The battery housing is additionally covert by a cycle rubber hose; makes fixing easier.



Insert plug from charger and wait until red light changes to green



The batteries are of 7-cell type.

Please read original manual of the charger and follow the rules.

Please do not charge with cell-counter-switch on other position than factory preset.

Current can be adapted, lower current will prolongation battery life.

The yellow button can be used to have a cycle charging.

#### How to open battery housing (exchanging / prepare for flights)



Battery housing can be opened on the black side. That way battery can be exchanged Use the pressure from your tank via some inflator and blow into "battery charging-hole".



Also a small connector allows disconnecting the battery to allow flying.

Cable is of type PUR, very difficult to damage...

## Some details for technical "curiosity"



The basic mechanical parts



Anodized



Cable junctions rated for 15 bars



Electronic with current regulation



It is not foreseen to open the electronic side without destruction ! After test the rear part is additionally fixed by Loctide.



Four power led's in series







Under acrylic glass, sealed by O rings