

## **BLACK BEAR “MEGA” FLASHLIGHTS**

### **OWNER’S MANUAL FOR THE BOREALIS**

Congratulations, you have purchased the most powerful incandescent flashlight that exists today!!!

From the original idea of Wilkey Wong of using this super-bulb with nine batteries in a Maglite host, to the great carriers designed by J.Dinh and V. Hartoonian and the solution of the high temperature Kiu socket and the fantastic parabolic reflector designed by Greg Holz., you are getting the most engineered and advanced flashlight of our time.

I have a few tips in the care and feeding of this light. Follow all suggestions to the letter, especially in handling the super bulb.

#### **Operating Instructions**

As it is based on the “host” Maglite 3 D it will work as any other Maglite, except that it uses a fixed focus reflector instead of the cam action of the stock Maglite. My new GENERATION II lights use a heavily modified switch and a ceramic high temperature socket for the bi-pin super-bulb.

For maximum battery life, it is better to use the light in shorts burst of 5 or 10 minutes rather than letting it run for long periods. Briefly flashing the light on and off (like in Morse code) will decrease bulb life considerable.

#### **Bulb Precautions**

Any oil from fingerprints can cause the bulb to fail. I take special care to handle all bulbs with surgical gloves and clean them before and after they are installed with alcohol and a tissue. If you touch the bulb, it should be cleaned with alcohol and dried before using the light. Also avoid touching the interior of the reflector as any fingerprints will degrade it, and also the metalizing is very delicate and only blowing air should be used to clean it.

To protect the bulb, don’t flash the light in very short bursts. It takes a minimum of 15 seconds for the halogen-xenon gas to get hot enough to allow the tungsten filament to recycle properly.

#### **Lubrication and General Care**

All contacts surfaces of the flashlight should be clean and free from lubes, with the exception of a minimum amount in the threads of the tail-cap. A good grade of silicone can be used on the threads of the tail cap if used in or near water. Just a little will do. As shipped it have been treated with Pro-Gold, so if you are not in the water don’t use grease on the threads

#### **Batteries and Charging Information**

Allow batteries fresh from charger to “rest” for one hour and thirty minutes to two hours (depending on how long they have been in trickle charge) before using the light. Usually batteries fresh from the charger output 1.4 volts, but after that time they drop to the normal operating range of 1.2 volts. Remember that NIMH batteries have much less

internal resistance than alkalines!! If the batteries are not allowed to rest, the extra voltage will probably instaflash the bulb when the light is turned on. So let them rest for a MINIMUM OF ONE HOUR AND THIRTY MINUTES.

Recharge the batteries as soon as the light starts dimming, don't allow the beam to go yellow. If the batteries are discharged too much, they can possibly go into reverse polarity and that will kill them.

I also offer RC type chargers that charge the pack of batteries without need of removing the batteries, they are Quick chargers, but they are very sophisticated and produce a GOOD charge.

The new chargers use pulse and reverse pulse technology to recharge the batteries fast without overheating them.

#### **Loading and handling the 3AA to D adaptors**

This information does not apply if your flashlight was ordered with a one piece Cadillac or Rolls Royce carrier.

In order to ensure that the last adaptor is making contact with the spring in the tail cap, you must use the contact washer (or the positive end cap from a D-Cell Duracell battery—the caps come out easily from that model) between the last adaptor and the spring. If this is inconvenient, or the washer is lost, it is possible to crimp the tip of the tail cap spring together using strong pliers so that it makes contact with the small negative end of the adaptor.



This picture shows the proper position of the batteries in the adaptor. There is a sticker on the adaptor, but this picture may be used for reference if the sticker should become damaged or lost.

When loading the batteries into the adaptor please note the red or black witness marks on the adaptor. The little nubs will only line up with the notches in the body of the adaptor if they are aligned with the witness marks.

Treat the 3AA to D adaptor with care, the closing nubs are small and can be broken with careless handling. When the batteries are in properly, the lid should close and lock easily. I have put a little, very little, silicone grease in the nubs of the adapter, to make then easier to open and close.

### **Special Information and Long Term Maintenance**

I have a La Crosse charger which measures the capacity of individual batteries. To ensure best performance, the battery set that comes with your flashlight has been matched for capacity. All of the batteries in the set will deliver close to the advertised capacity and, with normal use, their capacity will increase, prolonging the run time a few more minutes.

**TO MAKE THE FLASHLIGHT SAFE FOR SHIPPING THE TAIL CAP HAS BEEN UNSCREWED A COUPLE OF TURNS TO BREAK THE ELECTRICITY PATH. TO USE YOUR NEW FLASHLIGHT, SIMPLY SCREW THE TAILCAP DOWN.**

I have treated all contact points with Pro-Gold, a contact enhancer, and tarnish and oxidation preventer to ensure your light will attain maximum brightness. After a year of use, you could reapply the treatment, putting a little in the threads of the tail-cap, and in the contacts of the battery carriers if you want.

Pro-Gold treatment prevents oxidation of the contacts and tarnishing and they remain performing well for years.

In addition, every two or three months the tail cap threads should be cleaned with a rag, to remove the black residue that accumulates when two aluminum surfaces rub together.

If you have any further questions about this light please P.M me or E-mail me at [jcharles11784@yahoo.com](mailto:jcharles11784@yahoo.com)

Enjoy  
Best regards  
Juan C.