

## MANUAL

### UNDERWATER LIGHTING GRALmarine K2 max, KX max

#### This set comprises of:

- LED torch
- set of high quality batteries (3 x LR14 alkaline batteries)

#### K2 max, KX max TORCH:

- created for use as a backup torch
- can serve as a primary torch in recreational diving
- construction:
  - torch body is built of a surface anodized aluminum
  - torch is switched on / off by tightening / loosening the head with no more than one turn (avoid excessive loosening of the head under water)
  - batteries are placed inside of the torch with the positive pole (+) on top, any other batteries insertion will not activate the torch
- the source of light is one Cree XRE diode (K2 max) or one XML-2 diode (KX max), with a color temperature of 5500 – 6000 K
- requires three LR14 alkaline batteries, applying rechargeable ones can damage the head (LED burnout)
- tested to a depth of 150 meters, 300 meters on request

#### ➤ Preparation of the torch for diving:

- check the proper working of the torch before diving
- check if the batteries are in a good condition
- check the o-rings for dirt and damage

#### ➤ Maintenance of the torch after diving:

- rinse with fresh water
- dry
- remove dirt regularly
- glass is to be wiped with a soft, moist cloth, do not use alcohol-based detergents (these cause tarnishing and cracking of the window surface)
- periodically check the condition of the o-rings, replace when worn or damaged (size of the o-rings on the torch body: 23 x 2)
- periodically check the condition of the thread, lubricate with silicone grease or silicone with Teflon grease - this eases the torch's operation and reduces stress on the o-rings
- periodically open the torch with the aim of releasing the accumulated gas –batteries release a gas, which may lead to possible damage by increasing pressure inside of the torch and pushing window out, remove batteries while the torch is longer stored
- care for mechanical damage, distortions to the torch may cause leaks

#### ➤ Warnings:

- do not use a different power source other than alkaline LR 14 batteries
- do not alter the torch construction
- do not throw the torch
- do not immerse in water or dive with a loose torch head or with an open torch

#### DEALING WITH USED AND DAMAGED EQUIPMENT:

Lighting gear used by divers can be recycled and freely returned to the dealer or manufacturer. Batteries are the main environmentally hazardous components. The other components such as aluminum and copper are a source of raw materials after recycling. For these reasons, diving equipment should not be disposed with general waste. In accordance with the law pertaining to the disposal of used electrical and electronic equipment:

Art. 73 - Any person disregarding the prohibitions of Art. 35, by not disposing [recyclable] equipment to the proper collecting entity, is subject to a fine.

Art. 74 - Any person disregarding the prohibitions of Art. 36, by disposing [recyclable] equipment with other waste, is subject to a fine.