

LIGHT FOR ME

hand torch user's manual

4XPG

Please read the following user's manual carefully before the first use of the products and keep it for future reference. Scuba diving is treated as an extreme sport and requires proper training and certification. Using scuba equipment by an untrained and inexperienced person without proper certification may cause health damage and even risk of death. Light-for-me backup lights are designed to be used underwater only.

Overview

- up to 1600 lumens
- 4 x XPG LEDs
- protection against LEDs' overheating - when the microprocessor detects too high temperature, it lowers the current flowing through LEDs
- protection against deep discharge of batteries - when the microprocess detects a critical voltage, the torch flashes 5 times and then after a few minutes it switches off. Since this moment, the fifth red diode will be flashing for one minute in series: 5 flashes every 10 seconds. This means the battery level is too low to switch the torch on.
- protection against reversed polarity - if by chance the batteries are placed the other way round, it will not caused any damage to or reaction by the torch



Power source

4XPG Hand Torch can be powered by: **2 x 18650 Li-Ion** batteries or **2 x 26650 Li-Ion** batteries.

It is recommended to use high quality batteries of capacity at least 2600mAh. Burntime depends on the quality, overall condition and charge level of the batteries used and ambient temperature.

The batteries should be put into the backup's body with the sign - (minus) to the head and with the sign + (plus) to the inner part of the body - see photo .

4XPG Hand Torch is equipped with protection against deep discharge of batteries so to get the best possible burntime the batteries used should be unprotected. Recommended batteries are given below.

4XPG Hand Torch is equipped with battery adaptors enabling the user to use either 18650 or 26650 batteries. Adaptors are already placed in the 4XPG body. To power the torch by 26650 Li-Ion battery type, simply remove the adaptors. If later the torch is to be powered by 2 x 18650 Li-Ion batteries, first place the adaptors in the torch body and then place the batteries.

4XPG Hand Torch is also equipped with a battery extender - see photo. Depending on the brand of 18650 Li-Ion battery, their length may differ. If after placing the 18650 Li-Ion batteries inside the body, they are not level with the adaptor, place the battery extender between the two 18650 Li-Ion batteries - see photo. Do not place the extender in any other place.



Switching on/off

Light-for-me 4XPG hand torch is switched on/off by twisting the head to the body. To switch the light on, hold the body with one hand and twist the head in a clockwise direction with the other. To switch the light off, hold the body with one hand and twist the head in an anticlockwise direction with the other.

When switching the 4XPG hand torch off under water, stop twisting the moment the light goes off. If you continue to twist the head after the light went off, you may flood the 4XPG hand torch.

4XPG hand torch is designed to be used underwater only. It is allowed to switch the light on on the surface to test if it works properly, but for maximum of 5 seconds. Longer use of the light on the surface may cause the LED to get too warm and get damaged as a result. Do not direct the light into yours or anyone else's eyes.



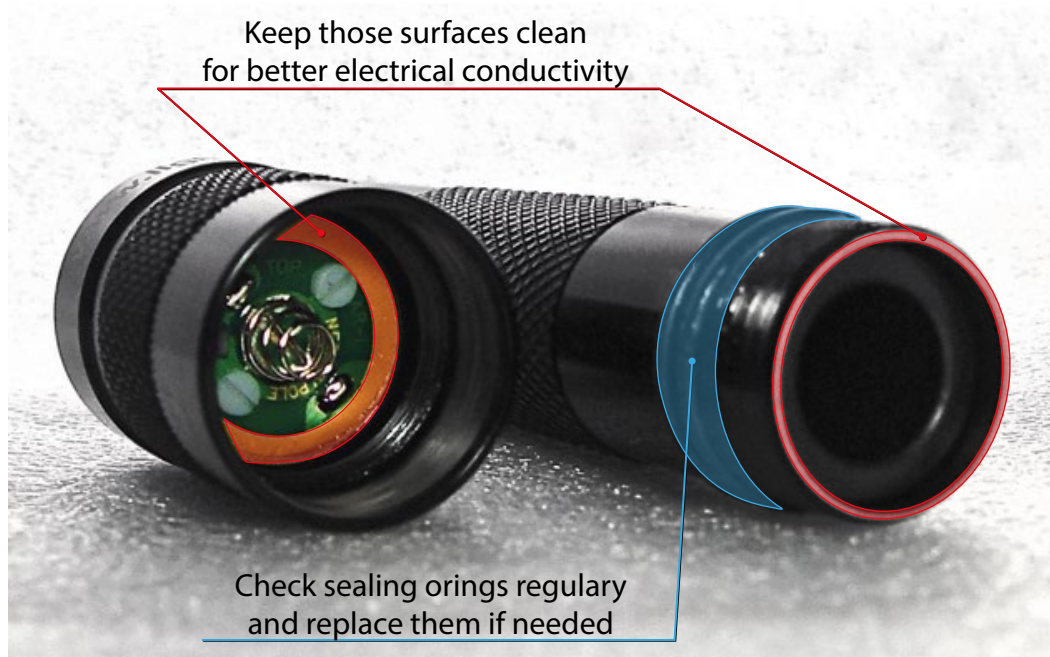
Maintenance

Before every dive check the condition of orings that seal the body of the 4XPG hand torch. Torn, cut or damaged orings should be replaced for new ones as they may be prone to flooding of the torch.

The orings sealing the body to the head should be lightly greased with technical petroleum jelly (pure vaseline) which makes it easier to operate the light underwater and helps it stay watertight. Remove any dust or grain from the orings before twisting the body to the head.

While slowly twisting the body to the head make sure the sealing orings are correctly placed in their position and are not twisted or sticking out. Orings should sit firmly in their grooves and should not be too loose as they may not work properly underwater. After each day of diving, rinse the 4XPG torch in fresh water (head twisted to the body) and dry it. Check the sealing orings and grease them if necessary. Store the torch with the batteries taken out. Store the batteries according to their manufacturer's advice.

From time to time clean the surface that touches the inside of torch head (marked in the drawing) and the silver ring around the spring inside the torch head. These surfaces need to be clean and grease-free in order for the 4XPG hand torch to work properly.



Recommended batteries

- Samsung ICR
- Panasonic NCR 18650B series

18650 Li-Ion battery characteristics:

- cylindrical lithium-ion cell
- nominal voltage around 3.7V
- positive terminal nub at one end and flat negative terminal at the other
- for safety reasons recharging requires use of chargers specified for these cells
- dimensions: 18.3mm x 65.2mm (diameter x length)
- no memory effect and no scheduled cycling required to prolong the battery's life
- high capacity
- stable discharge voltage
- high voltage / light weight battery

26650 Li-Ion battery characteristics:

- cylindrical lithium-ion cell
- nominal voltage around 3.7V
- positive terminal nub at one end and flat negative terminal at the other
- for safety reasons recharging requires use of chargers specified for these cells
- max dimensions: 26.4mm x 66.5 (diameter x length)
- no memory effect and no scheduled cycling required to prolong the battery's life
- high capacity
- stable discharge voltage
- high voltage / light weight battery

Tech Specifications

4XPG Hand Torch

Purpose	main hand light
Material	anodised aluminium
Max operating depth	100m
Number of LEDs	4
LED type	XPG
Power	16W
Lumen output	max 1600
Light angle	20 degrees
Light temperature	6300K
Switch type	head-to-body twist
Max dimensions	204mm (length) 39-55mm (Ø)
Weight w/o batteries	270g
Weight with batteries	??
Batteries	2 x 18650 Li-Ion or 2 x 26650 Li-Ion (not included)

Troubleshooting

Problem	Solution
I have flooded my 4XPG torch. I can see some water inside the head.	In case of flooding the torch: untwist the head from the body, remove the battery and dry it, the inside should be rinsed with fresh lukewarm water and backup should be left open for the time of at least 72 hours. The head should be left to dry with the glass directed downwards while drying. The flooding of the head may result in lowering the power of emitted light. Check the battery's manufacturer advice for flooding the battery. For safety reason do not use the battery again. Contact the light-for-me manufacturer.
The light flashes from time to time, even with fully charged batteries.	Check the battery - charge it if necessary; damaged or suspiciously looking battery should be replaced with a new one. Check the torch with a different battery. Clean the 'touch surfaces' described above. Should the issue continue, contact the light-for-me manufacturer.
I have forgotten to take out the batteries after my last dive and the backup does not work now.	Check the battery's manufacturer for advise. Clean the 'touch surfaces' described above. Check the torch with a different battery. If the issue continues, contact the light-for-me manufacturer.
I charge the batteries full but still get less burn time than stated.	It is recommended to use high quality genuine batteries. Burn times given with 4CPG hand torch are based on the data given by their manufacturers. Burn time may differ +/-10% from the stated one depending on the ambient conditions when diving and battery- / charger-related issues. If the burn time is visibly shorter, try the backup with a different battery. If in doubt, contact the light-for-me manufacturer.