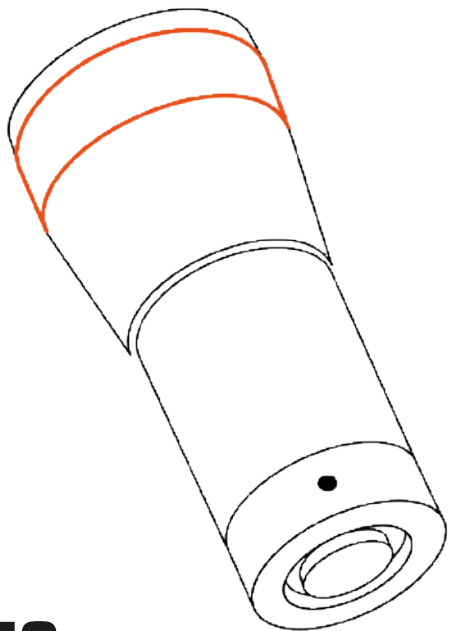


AMMONITE[®]
S Y S T E M

LED SPELEO

M A N U A L



**LED
SPELEO**
UMBILICAL LIGHT

THANK YOU FOR CHOOSING AMMONITE SYSTEM

We are hopeful that your experience with Ammonite System products will be smooth and flawless. To ensure that please read this manual and follow the rules within.

For any questions please check our website www.ammonitesystem.com, contact us by e-mail or our fanpage on Facebook.

PURPOSE

Ammonite System LED SPELEO is a universal umbilical dive light for use as the main light source during recreational diving, technical diving and underwater works.

LED SPELEO is designed for underwater use. However, it is possible to use the headlight on the surface for a very limited time in the LOW and OPERATIONAL modes.

Always avoid sudden cooling of LED SPELEO light.
Do not immerse hot headlight in the water as it may cause its damage.

Before using the LED SPELEO, its tightness should be checked, i. e. if all the parts tightened with the o-rings are correctly screwed and whether the connecting cable is properly tightened. O-rings cannot be soiled, any damage such as: scratches, cracks and cuts may cause leaks and in the consequence lead to the light damage.

The casing of the LED SPELEO is made from aluminium and polymer (Delrin®); tempered glass, PVC and NBR rubber were used as auxiliary materials.

Electrical, electronic parts placed inside, might be also harmful to the environment.

The symbol placed on the product or on its package indicates that this product cannot be treated as household waste.

It should be handed over to the applicable collection point for the used up electrical and electronic equipment.

By providing a proper storage you may prevent dangerous consequences to the environment and human health.

Recycling helps to preserve natural resources.

For more information about recycling of this product, please contact your local authorities or authorities responsible for environment protection, your household waste disposal service or the shop where the product was purchased.

At the end of the use the battery should be placed in a special container or brought to a collection point for the recycling of electrical and electronic equipment.

In order to do this please read current environment protection regulations.



LIGHT INTENSITY CONTROL

LED SPELEO is equipped with the switch that enables to regulate the light output and operating time.

LED SPELEO is also equipped with battery discharge warning system.

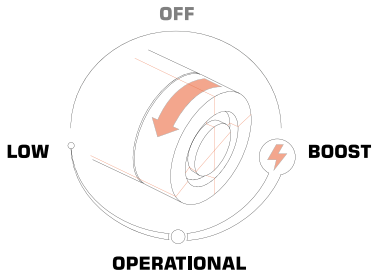
This enables optimal light output and operating time management due to the water visibility and planned length of the dive.

It also extends the operating time when the battery is low raising diving safety.

Before switching the light on you should connect the battery to the head and then turn the knob.

When the knob changes its position, it can be felt like a specific click. Switching the torch off should be done in a similar way. The knob can be turned in both directions.

LED SPELEO light has three output intensity levels of:



LOW – 20 % light output
the lowest energy consumption, the longest working time

OPERATIONAL –60% light output
optimal energy consumption and working time,
recommended in most conditions

BOOST – 100% maximum light output,
maximum energy consumption, the shortest working time

BATTERY DISCHARGE WARNING SYSTEM



When the battery is discharged to the 10% level the light flashes repeatedly for a few times and then, regardless of the switch position, headlight operates only in LOW mode (20% of light output).

In such case the battery needs to be changed or recharged. Further use of LED SPELEO in LOW mode is possible until the battery is completely discharged.

FASTENING OF THE HEADLIGHT

Ammonite System LED SPELEO is intended to be kept in the hand with or without Goodman's handle.

Thanks to Goodman's handle both hands are free during diving. However, depending on the diver's individual preferences, a different way of fastening of the torch is possible.

You can attach a bolt snap to a dedicated slot on a Goodman's handle or you may also attach a bolt snap with a piece of a string on the dedicated groove on the cable plug.

By default, the Ammonite System umbilical light accumulator is on a standard basis fastened to a hip belt on the right side of the harness.

Details concerning different ways of fastening and additional handles are available on www.ammonitesystem.com

TRANSPORT

Ammonite System umbilical dive lights are recommended to be transported with the headlight and battery apart. This way potential fire hazard is prevented.

During air travels, it is suggested to carry the torch as hand luggage. Ammonite System dry carry bag is recommended for this purpose.

Transport of electric devices with rechargeable batteries is regulated by separate regulations.

You are asked to familiarize yourself with them especially before the air travel or to contact the carrier's authorised representative.

CHARGING

To charge Ammonite System umbilical dive light do not use chargers that were not originally delivered by Ammonite System.

Chargers delivered by Ammonite System are designed for special types of batteries due to their capacity, voltage, construction and the special type of cells.

Using the charger which is not designed for the specific battery may cause its damage and the loss of warranty.

To charge the battery you should unscrew the cable's plug from the battery tank.

The charger should be plugged in the socket, the charger's cable should be connected to the Chinch type connection terminal in the battery.

Permissible parameters of the mains and the type or capacity of the batteries, which the charger is designed for, are described in the attached charger manual.

PRECAUTIONS

The umbilical light is a very strong source of light!

Avoid looking directly into the beam.

The intensity of the beam may cause the damage of the eye retina.

The headlight is also the source of the UV radiation - avoid prolonged exposure.

The headlight is not a toy! Keep out of reach of children!

Ammonite System guarantees the tightness of LED SPELEO to the pressure of ~309 PSI / 21 atm, which is equal 656,16ft / 200 m depth.

To ensure safety while diving observes depths limits and do not dive beyond the limits you are authorised to.

While in operation, the headlight may reach high temperatures.

While in use above the surface, only for a very short time, be careful, do not touch the glass after switching off, do not cool down suddenly.

Leaving the headlight on without supervision or switching it on accidentally may cause a fire.

Do not use the headlight in case of visible damage of the O-rings sealing the casing or the connecting cable, damage of the connecting cable, the glass of the head or any other damages.

Periodic monitoring of the o-rings condition in the headlight and the tank is highly recommended.

O-rings of the headlight, connecting cable and accumulator, unless the plug was unscrewed (f.e. during battery charging) should be checked before every single diving.

There is no necessity to unscrew the connecting cable from the headlight unless it is dictated by the necessity to change the cable or the headlight.

Every few dives it is recommended to smear o-rings of the connecting cable with silicone grease.

O-rings provide tightness, as long as they are not dirty or damaged (scratched, cracked, dried-up).

Ammonite System ensures the tightness of the headlight only in case of use of o-rings with the measurements specified by

the producer as proper for a particular type of torch. Part of the electronics is protected by a special compound and is not accessible to the user, which means it may be repaired or changed only by Ammonite System authorised service.

Do not use the torch in case of water entering the headlight or battery.

Water in the headlight indicates that the o-rings have been dirty or damaged.

A cable connecting the headlight with the battery tank maybe damaged as well.

In such a case, you should check the state of o-rings and the connecting cable.

If necessary, o-rings should be replaced.

If the headlight, cable or battery is damaged despite the replacement of o-rings, please contact Ammonite System for proper service.

Protect the batteries from the temperature above 104 °F / 40 °C.

Do not charge in the sun or near the other sources of heat, do not freeze and do not throw into the fire.

Ammonite System is not liable for any damage or defects resulting from the usage of the dive light for other than intended use.

GENERAL RULES FOR THE USE OF AMMONITE SYSTEM DIVE LIGHT

Preparation:

- check the battery level before diving
- check for dirt or damage to the lamp head o-rings and the terminals on the battery tank
- properly screw the cable to the headlight as well as to the battery tank
- check if the lamp head works by switching it on and off
- always have an alternative light source (backup light)

Maintenance after diving:

- rinse the reflector and battery tank with fresh water without unplugging battery tank from headlight
- dry the dive light set
- the head and battery must be absolutely disconnected during storage and transport to prevent accidental switching on
- the cable plug should be disconnected from the battery side while leaving it screwed to the headlight
- clean the equipment regularly
- wipe the front glass of the head with a soft, damp cloth

ATTENTION!

It is recommended to read additional information concerning the safety regulations and use of Ammonite System dive light equipment and the rules of safe diving with additional dive lights on www.ammonitesystem.com

OPERATING TIME:

MODE	OPERATIONAL	BOOST
ACCU TYPE 9	16h	9h 35'
ACCU TYPE 10	17h 20'	10h 25'
ACCU TYPE 14	20 h 50'	12h 30'
ACCU TYPE 24	40h 20'	24h 10'

SPECIFICATION:

light intensity up to	1300 lm	switch type	magnetic switch 3 levels of light intensity discharge warning message backup mode
light distribution	6°	max. length	116 mm
type of optics	1 x reflector	max. diameter	53 mm
total power	10 W	front glass	6 mm tempered
light source	1 x LED CREE® XML2	weight	265 g
colour temperature	cool white	weight in water	100 g
power source	external rechargeable battery	max.operation depth	200 m
material	hard anodised aluminium /DELRIN®		



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