

SHARK RANGE

When quality vision is essential

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User Manual



Lantern
SHARK

imenco
SUBSEA CAMERAS

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Introduction

Thank you for purchasing an Imenco product.

The Lantern Shark is a high output flash for the Tiger Shark digital stills camera. It facilitates high quality images at distances up to 10m, that makes it ideal for capturing remote objects.

Safety guidelines

Read and understand all sections in this manual before installing or operating this product. Installation of this product should only be performed by qualified personnel.

WARNING! This product contains no user serviceable parts. Do not open, alter or disassemble this product. Failure to comply with this warning can result in electric shock, damage to equipment and void of warranty.

Before use

Item checklist

Before starting, check that the following items have been included with your Lantern Shark. Contact Imenco or your local dealer if anything is damaged or missing.

1. Lantern Shark flash unit
2. 3 metre cable
3. User manual (this document)

Function test

Make sure your new product is working as intended. Connect your system as further described in this manual and make sure all functions are working. Imenco cannot be held liable for any loss or inconvenience caused by the use of a faulty product.

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Installation

Installation of this product should only be performed by qualified personnel.

Mount the camera on a secure and vibration free surface using only the supplied brackets.

Connect the Lantern Shark directly to your Tiger Shark stills camera using the included 3 metre cable.

Operation

Caution: Turn off the power before connecting or disconnecting the power cable.

Caution: Avoid long term testing in air as overheating can cause damage to internal components.

Connector configuration

Study the connector configuration diagram in Appendix 1 and make connections accordingly.

LED light control

The high intensity LED modeling light is switched on/off by using the "Flash Light" button on the Tiger Shark cameras remote control unit.

Flash control

Flash output intensity is automatically controlled by the Imenco Tiger Shark camera. In addition the flash output can be user adjusted up and down in 12 levels using the pictured buttons on Tiger Shark cameras remote control unit. The flash level scale goes from "-6" to "+6", where "0" is the default setting.

The level you adjusted the flash to will not be reset if you power down the Tiger Shark camera using the remote control unit. But if the Tiger Shark loses power the flash level will be reset.

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Maintenance

After use in seawater or other corrosive environments, rinse unit and cables in fresh water.

Inspect the front port for dirt and dust and remove any surface dirt using compressed air.

Clean the front port glass using a mild detergent and a soft cloth. Do not use alcohol or solvent based cleaning solutions! Avoid circular wiping patterns.

Reapply silicon based lubricant to the connector regularly as needed.

Service

This product contain no user serviceable parts. Service and modifications are to be carried out by Imenco personnel or by qualified third party after appointment. Failure to comply may result in personal injury, damage to equipment and void of warranty.

Technical specification

Physical properties

Dimensions:	Ø: 100mm x L: 175mm (excl. connector)
Weight air / water:	5.0kg / 4.0kg
Housing material:	Duplex Stainless Steel
Depth rating:	3,000 MSW

Power

Operating voltage:	24V DC (accepts 18 V - 36 V DC)
Current draw:	1.5A total, 200mA for modeling light alone 36W @ 24V DC
Recycle time:	1 - 6s, depending on the connected cameras sensitivity level setting

Appendix 1 - Connector configuration

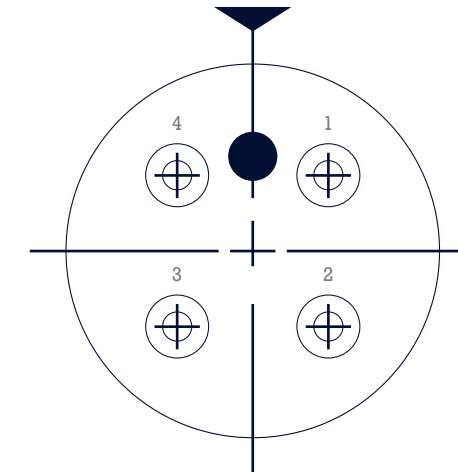
Connector: BH-4-MP

PIN 1 = 0V / Gnd

PIN 2 = 24V DC

PIN 3 = Light On/Off

PIN 4 = Flash trigger



Appendix 2 - Checklist

Specifications	Pro	FT
Mainboard version		
Connector type		
Connector rotation		
Pinout		
Material certificate		

Tests	Pro	FT
Flash light test		
LED light test		
Pressure test		
Ground test		

Housing	Pro	FT
Port		
Connector		
Finish		

Completion	Pro	FT
Serial No. engraved		
Serial No. documented		
Case		
Manual		

Serial: _____

Date: _____

Signature: _____

Pro: Tests during production | FT: Final tests done by second technician

Worldwide support



For further information concerning Imenco's 3 year worldwide warranty, please visit www.imenco.com

Warranty



Imenco AS ("Imenco") warrants this product against defects in materials and workmanship for a period of three (3) years from the date of original purchase ("Warranty Period"). Imenco's warranty obligations for the product are limited to the terms set forth below:

Imenco must be notified in writing within 14 days of such defect or failure, at which time Imenco will provide instructions on the warranty claim procedures to be followed.

If a defect arises and a valid claim is received by Imenco within the Warranty Period, at its option, Imenco will (1) repair the product at no charge, using new or refurbished replacement parts, (2) or exchange the product with a product that is new or which has been manufactured from new or serviceable used parts and is at least functionally equivalent to the original product.

Imenco warrants replacement products or parts provided under this warranty against defects in materials and workmanship from the date of the replacement or repair for ninety (90) days or for the remaining portion of the original product's warranty, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Imenco's property.

EXCLUSIONS AND LIMITATIONS

This limited warranty applies only to the product manufactured by or for Imenco that can be identified by the "shark range", trade name, or logo affixed to it. This limited warranty does not apply to any non-imenco hardware product or any software, even if packaged or sold with the Imenco hardware product. Non-imenco manufacturers, suppliers, or publishers may provide a separate warranty for their own products packaged with the Imenco hardware product.

Software distributed by Imenco under the Imenco brand name is not covered under this limited warranty. (Refer to Imenco's software license agreement for more information).

This warranty does not apply: (a) to damage caused by accident, abuse, misuse, misapplication, or to non-imenco products; (b) to damage caused by service performed by anyone other than Imenco; (c) to a product or a part that has been modified without the written permission of Imenco; (d) if the product has not been given the overhaul and preventive maintenance given by Imenco and stated in the user manual, or (e) if any Imenco serial number has been removed or defaced.

To the maximum extent permitted by law, this warranty and the remedies set forth above are exclusive and in lieu of all other warranties, remedies and conditions, whether oral or written, express or implied. Imenco specifically disclaims any and all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. If Imenco cannot lawfully disclaim or exclude implied warranties under applicable law, then to the extent possible any claims under such implied warranties shall expire on expiration of the warranty period. No Imenco reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

To the maximum extent permitted by law, Imenco is not responsible for direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other legal theory, including any costs of recovering or reproducing any program or data stored in or used with the Imenco product, and any failure to maintain the confidentiality of data stored on the product. Imenco specifically does not represent that it will be able to repair any product under this warranty or make a product exchange without risk to or loss of programs or data.

For consumers who have the benefit of consumer protection laws or regulations in their country of purchase or, if different, their country of residence, the benefits conferred by this warranty are in addition to all rights and remedies conveyed by such consumer protection laws and regulations. To the extent that liability under such consumer protection laws and regulations may be limited, Imenco's liability is limited, at its sole option to replacement or repair of the product or supply of the repair service again.

OBTAINING WARRANTY SERVICE

Please review the online help resources referred to in the accompanying documentation before seeking warranty service. If the product is still not functioning properly after making use of these resources, access the online website: www.imenco.com/support for instructions on how to obtain warranty service. Before a warranty service is shipped for repair the shipment and product has to be marked with a service no. issued by Imenco.