



Vision and Innovation

## **Warranty Statement**

Congratulations! The product you have selected comes from HELLA - one of the world's leading manufacturers of lighting products. The product comes with a 5 year warranty from end user purchase covering faults in materials, components or workmanship.

In the unlikely event that you should experience a confirmed warranty related problem with your purchase. HELLA will, at its discretion, either repair, replace or refund the purchase price of the product.

Warranty services may be obtained by returning the product within the warranty period to the HELLA dealer where the product was originally purchased.

This warranty is in addition to and does not preclude any other rights or remedies available to the consumer under any local legislation related to the provision of goods or services.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

This warranty does not cover:

- 1.) Claim/s as a result of normal wear and tear or of any modifications and / or alterations to the product in any
- 2.) Claim/s as a result of non-compliance of the assembly, service and operating instructions and/or any unfit or improper use.
- 3.) Any expenses incurred in the process of making the claim.

Note: For lamps sold in Australia warranty services are provided by HELLA Australia Pty Ltd, 54-76 Southern Rd, Mentone VIC 3194. Customer Service 1800 061 729, custservice@ha.hella.com, www.hella.com/hella-au/21.html

For general comments about Hella marine products please contact us on E-mail at techfeedback@hellamarine.com

## **LED Degradation Caused by Service Life Conditions**

The luminous intensity of LEDs gradually diminishes over time, even as electricity consumption remains constant. The rate of decline in luminous intensity is linked to the current output flowing through the LEDs and their operating temperatures. Hella marine has evaluated the service life conditions of NavLED® navigation lamps to ensure long term safety at sea and compliance with international standards such as ABYC C-5:2021 & ISO 19009:2015.

For continued adherence to the light output criteria outlined in its certification, Hella marine suggests replacing the NaviLED®PRO 3NM Masthead lamp once it has accumulated 25,000 hours of operation. To determine if the service life threshold has been reached, you'll need an estimated annual usage in hours along with the lamp's production date. The production date is engraved onto the front of the lens in the following format:

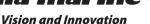
DDMMYY HHMMSS (Dav/Month/Year Hour/Minute/Second)

For instance, if a lamp with a production date of 140823 153520 is estimated to operate for 1500 hours annually, it's conceivable that the service life threshold will be reached after 16 years of usage - approximately around 2039.

In the context of typical recreational boating standards, even with regular night sailing, it's unlikely that the service life threshold will be reached. Additionally it is recommended that regular checks are made during the service life of the lamp to ensure that there haven't been any LED failures.



# Hella marine 🕮



## **INSTRUCTION SHEET: NaviLED® PRO** 3 Nautical Mile Masthead Lamp for: 2LT 959 940-2xx

Hella marine LED navigation lamps offer many advantages over conventional bulb lamps. Significantly reduced power consumption, ultra long life and high tolerance to shock and vibration make the LED lamps the ideal choice for the harsh marine environment.

The Hella marine NaviLED®PRO series are precision optical instruments, tested and type approved to comply with international maritime regulations. They are covered by a 5 year warranty.

**Material Description** UV resistant lens, high impact resistant shroud

Minimum Visible Vistance 3 Nautical Miles

Vessel Size: Recreational vessels < 20m

Cable Pre-wired with 2.5m of twin core marine cable

Multivolt™ 9-33V DC **Operating Voltage** 

**Power Consumption** < 2.5W (0.2A@ 12V / 0.1A @ 24V)

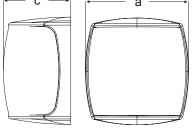
**Degree of Protection** IP 67 - Completely sealed Weight 150g (including cable)

International Approvals IMO COL REG 72, ISO 19009:2015, EN 60945:2002

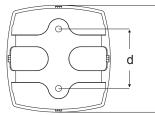
RINA Type Approval Certificate No. ELE118523PU

USCG 33 CFR 183.810. ABYC C-5 Imanna Laboratory (Date: 1/08/2023)

### **Dimensions**



ABYC C-5 Tested by:



a = 87mm / 3.43"

 $\epsilon$ 

b = 90 mm / 3.54" c = 57mm / 2.25"

d = 50mm / 1.97

#### **Electromagnetic Compatibility (EMC)**

This LED lamp is an electronic device. The electrical circuits contain components that suppress possible interference, both emission as well as susceptibility, to the limits prescribed in international regulations.

#### Protection against damage due to voltage spikes

This lamp is protected against reverse polarity connection, positive voltage spikes up to +500 volts and negative voltage spikes of up to 700 volts.









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## Lamp positioning

#### General recommendations

When the lamp is operating, the light should not be obstructed or concealed by superstructures or other objects.

#### Position in relation to vessels centre line

The masthead lamp must be positioned in a vertical position and at a right angle to the vessel's centre line with the signal direction arrow pointing straight ahead (see Fig. 1).

### Horizontal positioning

The light shall be displayed forward of amidships, except on a boat less than 20 metres in length, where the masthead lamp need not be placed forward of amidships (see Fig. 2), but must be placed as far forward as practicable taking into account the vertical positioning requirements above the gunwale or sidelights — as described below.

### Vertical positioning

On a powerboat

- over 20 metres in length: the masthead lamp must be placed at a height above the hull of not less than 6 metres. The height must be more than the breadth of the hull, but no more than 12 metres above the hull.
- between 12 and 20 metres in length: the masthead lamp must be placed at a height above the gunwale of not less than 2.5 metres.
- less than 12 metres in length: the masthead lamp must be placed at least 1 metre higher than the sidelights.

**Note:** Consideration for country specific rules may be required.

Fig. 1 Right angle to the vessel's centre line

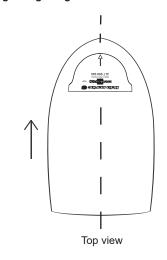


Fig. 2 Horizontal positioning

Amidship



## **Wiring Colour Coding**

Colour	Connect to
Black	Negative (-ve)
Red	Signal (+ve)

LED modules are polarity conscious. Reverse polarity will not damage this product but will inhibit its function.

HELLA recommends wire connections be soldered, and heat shrink tubing applied to seal the joint.

**Note:** Lamp must be protected by a fuse rated at 3 amperes maximum.

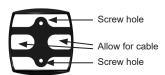




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## **Assembly**

Step 1 – Make provision for the power cable Use mounting shroud as a template to drill screw holes and make provision for the cable.



### Step 2 - Mount the Shroud

- 2.1 Shroud must be installed with markings on the top horizontal surface.
- 2.2 Arrow on top of shroud must point straight ahead.
- 2.3 Fix shroud with two M5 or 10 gauge fasteners.



#### Step 3 - Insert the optic assembly

Note: Arrow on top of shroud and arrow on top of optic assembly must point in the same direction.

- 3.1 Feed power cable through shroud
- 3.2 Push optic assembly into shroud
- 3.3 Connect power



### Removal

#### Step 1

Carefully insert 2 screw drivers between optic assembly and shroud.



Step 2
Pull optic assembly out.



**Note:** Do not open. No servicable parts inside.

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