

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 EN 60945.



Protection against damage due to voltage spikes

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

NaviLED®PRO LED Masthead Lamp International Approvals

Hella Marine 3 Nautical Mile NaviLED PRO® Masthead Lamps are tested and type approved for Powerboats to comply with international maritime regulations.

Approval Type Length (LOA)	ABYC and NMMA Powerboats up to 20 meters in length.
Additional Approval Length (LOA)	USCG / IMO COL REG Powerboats up to 20 meters in length.
Approval Type Length (LOA)	RINA (TA No. ELE169706CS) Powerboats up to 20 meters in length.

Warranty Statement

Congratulations! The product you have selected comes from Hella Marine - one of the world's leading manufacturers marine lighting products.

Hella Marine branded products are covered by a warranty against manufacturing or material defects. (For further details please check the terms of trade with your Hella Marine agent).

The lamp module is sealed and does not have any serviceable parts inside; opening the module will invalidate warranty.

In the unlikely event that you should experience a problem with your purchase, please contact your Hella Marine agent where you purchased the product.



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

NaviLED®PRO 3 Nautical Mile 225° LED Masthead Navigation Lamp

Introduction

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.

Hella Marine NaviLED®PRO Navigation Lamps are 'Precision Optical Instruments', tested and type approved to comply with international maritime regulations.

The Masthead Lamp must be positioning as follows;

At right angles to the vessels centre line with the signal direction arrow pointing straight ahead. (see Fig.1)

Without obstruction to the light output.

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

Vertical Positioning.

On a powerboat 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.

On a powerboat less than 12 metres in length the Masthead lamp must be placed at least 1 metre higher than the sidelights.

Horizontal Positioning.

On a powerboat less than less than 20 metres in length the Masthead lamp **need not** be placed forward of amidships, but must be placed as far forward as practicable taking into account the vertical positioning requirements above the gunwale or sidelights as described above. (see Fig.2)

Fig. 1 Right angles to the vessels centre

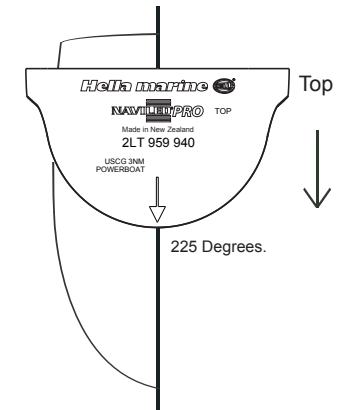
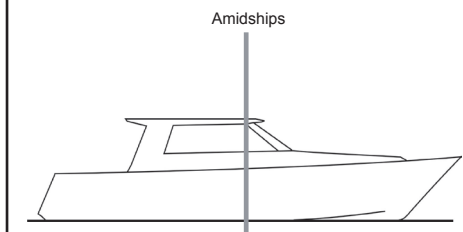


Fig. 2 Horizontal Positioning.



ASSEMBLY AND REMOVAL INSTRUCTIONS

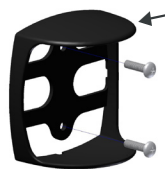
NAViLED® PRO Navigation Lamps

Assembly



Allow for cable

Step 1
Make Provision for the power cable



Markings

Step 2 - Mount the Shroud

- 2.1 Shroud must be installed with markings on the TOP horizontal surface.
- 2.2 Arrow on Shroud must point; Right ahead for Port and Starboard lamps
Right astern for Stern lamps
Right ahead for Masthead lamps

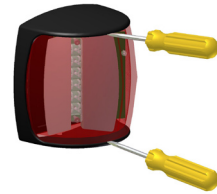


Shroud
Optic Assembly

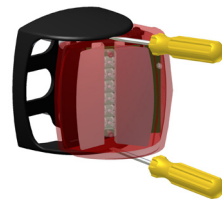
Step 3 - Insert the Optic Assembly
Note - Arrow on top of Shroud and Arrow on top of Optic Assembly must point right ahead for Port and Starboard lamps, right astern for Stern lamps, and right ahead for Masthead lamps

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

Removal



Step 1
Insert screw driver between Optic Assembly and Shroud



Step 2
Pull Optic Assembly out

The NAVILED® PRO Range

NAViLED® PRO - 2 Nautical Mile Powerboat and Sailboat Lamps

Description	Black Shroud	White Shroud
Port Lamp	2LT 959 900-00X	2LT 959 900-01X
Starboard Lamp	2LT 959 908-00X	2LT 959 908-01X
Stern Lamp	2LT 959 909-00X	2LT 959 909-01X

NAViLED® PRO - 3 Nautical Mile Powerboat Lamps

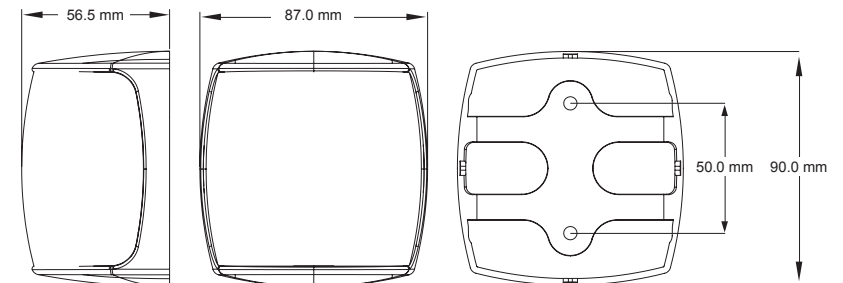
Description	Black Shroud	White Shroud
Port Lamp	2LT 959 900-20X	2LT 959 900-21X
Starboard Lamp	2LT 959 908-20X	2LT 959 908-21X
Stern Lamp	2LT 959 909-20X	2LT 959 909-21X
Masthead Lamp	2LT 959 940-20X	2LT 959 940-21X

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**NAViLED® PRO 3 Nautical Mile
225° Masthead Navigation Lamp**

Housing Description	UV resistant acrylic lens, High impact shroud
Light source	Multiple LED's
Installation	Pre-wired with 2.5m of marine cable
Operating Voltage	Multivolt™ 9-33 volts DC
Voltage Protection	Spike & Over Voltage protected to 200 volts Reverse Polarity protected to -700 volts
Power Consumption	Less than 2.5W
Protective System	Completely sealed

Dimensions



Wiring Colour Coding

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.

Colour	Connect to	Power
Black	Negative (-ve)	
Red	Signal (+ve)	Less than 2.5W

Wiring
- Supply Voltage 9-33V (DC only)

NB: Lamp must be protected by a fuse rated at 5 amperes