

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.

3 Nautical Mile NaviLED[®] PRO International Approvals

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

3 Nautical Mile NaviLED[®] PRO Navigation Lamps

Approval Type	ABYC and NMMA
Length (LOA)	Powerboats up to 20 meters in length.
Additional Approval	USCG / IMO COL REG
Length (LOA)	Powerboats over 50 meters in length.
Approval Type	RINA (TA No. ELE69605CS)
Length (LOA)	Powerboats up to 50 meters in length.

Please refer to www.hellamarine.com to view the RINA certificate.

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 Powerboat
Port / Starboard / Stern Navigation Lamps**

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.

Positioning of Lamps

Navigation Lamps must be mounted as follows;

Port and Starboard Lamps;

Parallel to the vessels centre line. (see Fig.1)
Vertical to the vessels centre line. (see Fig.2)

Stern Lamps:

Right angles to the vessels centre line.
Vertical to the vessels centre line. (see Fig.2)

The signal direction arrow should point;

Right ahead for Port / Starboard lamps (Side Lamps)
Right astern for Stern lamps.

Without obstruction to the light output.

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

Port / Starboard (Side Lamps)

Must be mounted in the same thwartships position and at the same height above the construction water line (CWL), but at least 1.00M lower than the Masthead Lamp and mark the effective beam of the vessel.

If this is not possible, the distance between the individually mounted Side Lamps should not be less than 85% of the maximum beam of the vessel.

NaviLED PRO[®] Bi-colour Option.

Two NaviLED PRO[®] Side Lamps may be mounted 'back to back' to form a Bi-colour lamp (see Fig.3) and used instead of single colour Side Lamps. These must be mounted on the vessels centre line, but a least 1M lower than the Masthead Lamp.

Fig. 1 Parallel to the vessels centre line.

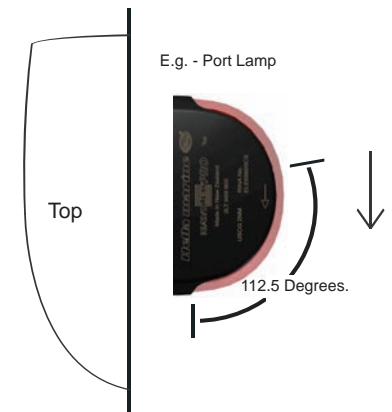


Fig.2 Vertical to the vessels centre line.

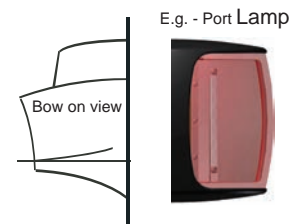
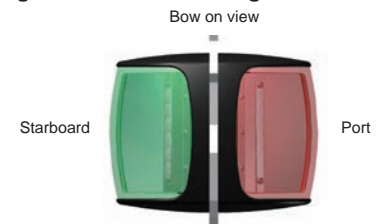


Fig.3 Bi-colour Mounting.



ASSEMBLY AND REMOVAL INSTRUCTIONS

Naviled[®]PRO Port / Starboard / Stern 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

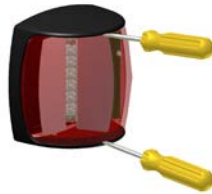


Shroud
Optic Assembly

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 and right astern for Stern 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

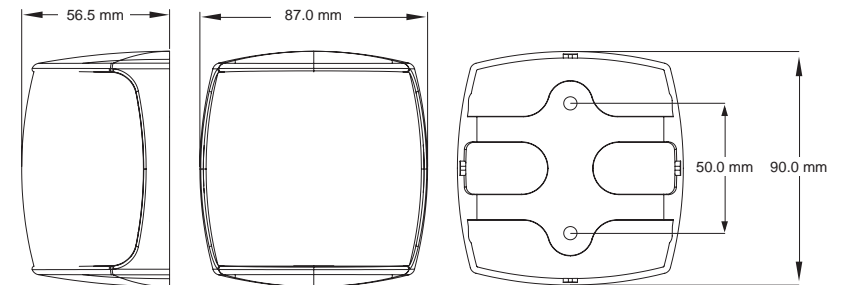
Naviled [®] PRO - 3 Nautical Mile Powerboat Lamps		
Description	Black Shroud	White Shroud
Port Lamp	2LT 959 900-20X	2LT 959 900-21X
Starboard Lamp	2LT 959 908-20X	2LT 959 908-21X
Stern Lamp	2LT 959 909-20X	2LT 959 909-21X

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Naviled[®]PRO 3 Nautical Mile Powerboat Port / Starboard / Stern Navigation Lamps

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 2W
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 2W

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

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