

MB Poseiodon Blue Light

OPERATING INSTRUCTIONS



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I. LABINO THE COMPANY

Labino AB is a Swedish-American, family owned company dedicated to the development and manufacture of UV lamps since 1994. Since its inception, Labino AB has been committed to high standards of quality in the design and manufacture of new innovative products, helping NDT professionals worldwide to make the world a safer place. Labino AB high quality lights are designed to comply with all relevant international and ASTM standards, and are distributed to over 55 countries worldwide.

Labino AB lights are used in multiple applications, industrial as well as non-industrial such as Nondestructive Testing, Medical Laboratories, Crime Laboratories, Forensics, UV Curing, Leak Detection and others. We are very confident you will enjoy using our new generation of lights that are much lighter and more compact than many comparable products on the market today, but with even more power and higher safety standards. Labino remains committed to environmentally friendly technologies and materials.

Labino is a proud member of:

ASTM

ISO

Nadcap

ASNT

2. MODELS AVAILABLE OF MB POSEIDON

The model and serial number of your specific Labino lamp is found at the mark plate on the top of the head of your lamp. MB Poseidon is available as A/C (mains) operated as well as battery operated version.



MAINS OPERATED LIGHTS



BATTERY OPERATED LIGHTS

MB Poseidon Mains

MB Poseidon Battery

P/N: LI11

P/N: LI10

MB Poseidon generates an intensity of approximately $8\,500\ \mu\text{W}/\text{cm}^2$ (at 38 cm or 15 inches) with a beam diameter of 23 cm² (9 in) with intensity $>1\,200\ \mu\text{W}/\text{cm}^2$ at 38 cm distance. Battery lifetime is approx. 2.5 hours. The lamp offers a beam that is extremely homogenous – without any footprints showing from the LEDs, shades, dark spots or other disturbing defects in the beam.

For information about spare parts and accessories, please visit www.labino.com

3. UNPACKING THE EQUIPMENT

Check that the lamp has not been damaged during transport. In the event of external damage to the PACKAGE, do not accept the package from the freight company.

In the event of external damage to the PRODUCT, please contact the supplier without testing whether the lamp works.

Make sure that no part is missing. If a part is missing, contact your supplier.

4. TRANSPORTATION OF THE EQUIPMENT



Warning! Shipping of batteries:

Make sure you ship all products including lithium batteries according to IATA Dangerous Goods Regulations (DGR). DO NOT ship broken lithium batteries. Broken batteries shall be disposed in accordance with local waste disposal regulations.

5. HANDLING OF THE EQUIPMENT / INTENDED USE

Although the lamp is very sturdy, in view of the extensive electronic equipment it contains, it should nevertheless be treated with a certain amount of care.

The lamp can be switched on and off at any interval.

Waterproof

Tested waterproof classification “IP68 1.1 m, 31 min”, means that the lamp can withstand water from above without any harmful side-effects. It can be held up to 1.1 meter under water, for up to 31 minutes.

Cleaning – do not disassemble unit for cleaning

Exterior surfaces should be cleaned with a soft lint free cloth and mild detergent. Isopropanol and a microfiber cloth shall be used to perform the cleaning of the filters. Disassembly voids warranty.

Temperature

Make sure the unit has good ventilation. Do not mount the unit at a closed compartment and do not cover any part of the unit. The unit is cooled by convection to surrounding air, remove all obstacles for efficient convection.

Maximum ambient temperature is 40° C (104° F).

Intended use

Intended use of the equipment is to inspect an object by irradiating the surface with blue light emitted from the light source (MB Poseidon). The light is specially designed to perform Non Destructive Testing.

The user should always wear Yellow contrast goggles supplied with the equipment.

6. SERVICE AND OPERATING INSTRUCTIONS

FUNCTIONAL DESCRIPTION

Standard versions:

- Position 1: Blue radiation – Press the switch to activate.
- Position 2: Off position – Press the switch a second time to deactivate the lamp.

MAINS OPERATED UNIT

- The external PSU may not be used for purposes/products other than those prescribed by Labino.
- The external PSU is built for operation from mains (AC). During the connecting and disconnecting procedure of the PSU, the lamp has to be shut-off. After this procedure, the lamp can be operated as usual.

Mounting:

1. Dry environment: Connect the PSU in a dry location. Mind heat dissipation of the PSU.
2. Connect: Connect mains cable to mains outlet.
3. Green light: When connected, the LED indicator lights green.

BATTERY OPERATED UNIT

- The Battery must not be used for purposes/products other than those prescribed by Labino. Battery must not be charged with any charger not supplied by Labino.
- Voltage: 3.6 V
- Capacity: 3 400 mAh
- Two batteries are required to operate the lamp.

Mounting:

1. Mount the batteries in the handle.
2. Open lid for battery slot by unscrewing the two screws holding the lid.
3. Batteries slides into slot. Mind polarity of batteries.
4. Mount lid by screwing it back on to handle.

Battery indicator:

Four colors indicates the status of the battery:

- a. Green: over 75 % charged
- b. Yellow: 50-75 % charged
- c. Orange: 25-50 % charged
- d. Red: 10-25 % charged
- e. Red blinking: less than 10% charged

MB Poseidon can be used also while the batteries are charging. The LED indicator shows than the staus of the charging (yellow or green).

Charging by connecting the Power Supply Unit to MB Poseidon:

1. Dry environment: Connect the external PSU in a dry location. Mind heat dissipation of the PSU.
2. Connect the external Power Supply Unit to the connector in the back of the MB Poseidon head.
3. Connect mains cable to mains outlet.
4. LED indicator: Shows yellow for charging and changes to green when the batteries are fully charged.

Charging the batteries in the external battery charger:

1. Dismount batteries by unscrewing the lid on the handle.
2. Remove batteries from slot.
3. Connect AC adapter to mains outlet.
4. Connect AC adapter circular DC jack to the charger
5. Observe battery polarity when inserting the batteries into the charger. Misplacement of the batteries in the charger can damage the charger.
6. Place battery in charging dock and make a gentle push.



7. TECHNICAL DATA

Weight	Mains operated: • 702 gr (8.76 oz) Battery operated: • without battery: 688 gr (8.27 oz) • with battery: 781 gr (11.55 oz)
PSU for AC (Mains) version	Mains voltage PSU: 100–240 V 50/60 Hz Output voltage: 11.5 V DC / 3A/40W Operation status LED: Green
Charger for Battery version	Mains voltage PSU: 100–240 V 50/60 Hz Output voltage: 11.5 V DC / 3A/40W Operation status LED: Green
Battery	2 x 3.6 VDC Operating time \approx 2.5 hrs
Charging time	Usage of the external charger charges the batteries fully within 8 hours. Usage of the internal charger (via a connector at the back of the unit) charges the batteries fully within 4 hours.
Irradiation at distance of 15" (380 mm)	Center \approx 6 500 μ W/cm ²
Peak wavelength	440 nm +/- 5 nm

8. STORAGE AND DISPOSAL

- Store MB Poseidon and extra batteries in a dry and cool environment (below 30°C).
- Store and handle batteries with care, keep away conductive objects that can short cut batteries.
- Do not dispose battery in fire or water.
- Consumed batteries shall be recycled at local waste disposal sites.

9. WARNING AND SAFETY



General Irradiation Safety Information

Blue light can cause burn injuries on your eyes. The exposure to light should be considered with care.

Unprotected and prolonged exposure to high intensities of blue light might result in skin injuries. Even brief exposure can be hazardous if the eyes are exposed directly to blue light.

Blue light is Dangerous – Protect yourself!

It is advised to always shield the eyes/face. For maximum protection and whenever possible hands and arms should also be covered with long sleeves and gloves of a non-fluorescent material.

- **Yellow goggles:** It is of utter importance to use the protection. To protect eyes – use Yellow Goggles.
- **Gloves:** Be sure to use gloves that protect you not only from chemicals or cuts, but from radiation. And make sure that they do not fluoresce.

Sensitivity

Certain individuals are naturally hypersensitive to all forms of light and should avoid any exposure. In general, if itching, inflammation or other unusual symptoms occur, exposure should cease immediately. People using certain drugs that produce photosensitivity should avoid exposure to all blue light sources.

Heat

The unit generates heat that needs to dissipate through convection. Do not cover unit when operating.

Battery Safety!

Never charge the battery with any other charger than the original charger that comes with delivery. Usage of a non-Labino battery can cause serious damage to the user and the lamp.



Warning! Shipping of batteries. Make sure you ship all products including lithium batteries according to IATA Dangerous Goods Regulations (DGR). **DO NOT** ship broken lithium batteries. Broken batteries shall be disposed in accordance with local waste disposal regulations.

10. WARRANTY

Labino AB guarantees that the armatures will be free from defects in manufacture when delivered. Labino AB's obligation under this warranty is limited to repairing or replacing, at the option of Labino AB, any part(s) of the product which, if properly installed, used and maintained, proves upon factory examination to have been defective in material or workmanship. This warranty does not apply to any product or part which (1) is normally consumed in operation or (2) has a normal life inherently shorter than the stated warranty. In no event shall Labino AB be liable for special, indirect, incidental or consequential damages, nor for any damages arising out of delay in shipment or production.

Warranty for a brand new MB Poseidon lamp

- The warranty for a brandnew MB Poseidon lamp is twelve (12) months from the date of purchase.
- An invoice that shows the actual date of when the lamp was purchased, as well as the serial number of the actual unit, must be enclosed in the shipment in order to be able to claim the warranty. If the invoice is not enclosed, Labino will base the warranty period on the delivery date from Labino to the distributor.

Warranty for a repaired MB Poseidon lamp

- The warranty for MB Poseidon lamp repaired by Labino's in-house service center or an authorized Labino service center is three (3) months from the date it is shipped from Labino's in-house service center or an authorized Labino service center, unless the initial warranty is still in force.

Warranty for Labino Spare Parts

- Labino MB Poseidon lamps have essentially one consumable part that may need to be replaced after long-term usage: Lithium Ion batteries loses approximately 20 % performance after 500 charge cycles.
- Batteries have a warranty of three (3) months.

Freight

- Products not under warranty: It is in the responsibility of the customer to pay for the freight costs to and from Labino's in-house service center or a local authorized Labino service center.
- Products under warranty: It is the responsibility of the customer to pay the freight costs to Labino's in-house service center or a local authorized Labino service center. The cost for return freight of goods under warranty sent from Labino's in-house service center to distributors or end-users is paid by Labino.
- The method of shipment and choice of carrier is left to the discretion of the company bearing the freight costs.



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Repairs

- If your Labino lamp needs service or repair you may send your lamp to the nearest local authorized service center. It will benefit you with faster service and reduced freight costs by using your local service center. A complete list of service center locations can be found on our website at www.labino.com.
- You may also send your lamp to the nearest Labino distributor or the distributor from whom you purchased your Labino lamp. A complete list of distributors can be found on our website at www.labino.com.
- If you do not find a service center or a distributor in your region you can also send your lamp directly to Labino's manufacturing department in Sweden.

Labino Manufacturing and Service

Fågelsångsvägen 16, 186 42 Vallentuna, Sweden

Please be sure to send your package with “door-to-door” delivery and mark export documents with “Return for Repair” if you send the product to Labino. The package will be returned to the sender if it's not sent “door-to-door”.

Please make sure to fill out the correct documents for customs clearance, specifying that it is a return of goods for repair. If you need further assistance please contact our customer service department in Sweden at +46 8 83 90 70 or send an e-mail to us at labino@labino.com.

II. DECLARATION OF CONFORMITY IN ACCORDANCE WITH EN ISO 17050-1:2010

Object of the declaration:

Product: Blue lamp, 440 nm
Model/Type: MB Poseidon Mains
MB Poseidon Battery
Part number: L110 - L111
Manufacturer: Labino AB
Address: Fågelsångsvägen 16, SE-186 42 Vallentuna, Sweden
Tel: +46 (0) 8 83 90 70 E-mail: labino@labino.com

This declaration is issued under the sole responsibility of the manufacturer.

The Object of the declaration described above is in conformity with the relevant European Union harmonization legislation:

93/68/EEC The CE Marking Directive
2014/30/EU The Electromagnetic Compatibility Directive
2006/25/EC The Artificial Optical Radiation Directive

Conformity with the European Union harmonization legislations listed above, is shown by compliance with the applicable requirements of the following standards:

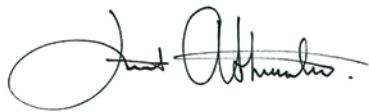
Reference and Date	Title	Notified Body or Test Lab
EN 61326-1:2013/IEC 61326-1:2012 Class B	EMC – Emission – Conducted and Radiated Disturbance.	Kemet, Sweden Thörnblads väg 6 386 90 Färjestaden SWEDEN
EN 61326-1:2013/IEC 61326-1:2012	EMC – Immunity – Electrostatic discharge, Radiated radio-freq. electromagnetic field, Fast transient/burst, Surge, Induced radio-freq. voltage, Power frequency magnetic field and Voltage dips and interruptions.	
EN 61000-3-2:2006 + A1:2009 + A2:2009	EMC – Harmonics	
EN 61000-3-3:2008	EMC – Flicker	
IEC / EN 62471:2008	Photobiological safety of lamps and lamp systems	RISE, Research Institutes of Sweden, Brinellgatan 4 504 62 Borås SWEDEN
EN 60529:1991 + A1:2000 + A2:2013 IEC 60529:1989 + A1:1999 + A2:2013	Enclosure IP68 1.1 m, 31 min	

The Object of the declaration described above is in conformity with the manufacturers requirements required for Nondestructive Testing listed below:

Reference and Date	Title	Notified Body or Test Lab
SIS-CEN TR 16638:2014	Nondestructive Testing – Penetrant and Magnetic Particle testing using Blue Light	Labino AB Fågelsångsvägen 16 186 42 Vallentuna SWEDEN

Additional Information: This Declaration of Conformity complies with the requirements of our ISO 9001:2015 Management System.

For and on behalf of Labino AB:

A handwritten signature in black ink, appearing to read 'Lisel Athanasiadis', with a large, stylized initial 'L'.

Lisel Athanasiadis

Managing Director

Place of Issue: Fågelsångsvägen 16, Vallentuna, Sweden

First Issued: 19 April 2018

The CE mark, consisting of the letters 'C' and 'E' in a bold, sans-serif font, indicating conformity with European standards.

12. LABINO AB QUALITY DECLARATION

Labino Quality Management Systems:

Labino is certified in accordance with ISO 9001:2015

Standards	Certifying body	Regarding
ISO 9001:2015	DNV, Sweden	Management Quality System
ISO/IEC 80079-34	Intertek, UK Cleeve Road Leatherhead, Surrey KT2275B GREAT BRITAIN	Explosive Atmospheres – Application of quality systems for equipment manufacture

Quality Control in Factory

Labino Quality Declaration certifies that:

1. International and valid standards have been applied to when designing and manufacturing our products.
2. A quality control system is in place and is being used in our organization.
3. A comprehensive quality test has been performed on this product before being shipped from our factory.

The lamp has been assembled and tested in accordance with:

- Labino Quality System (Unit test report attached)

Engineer performing final inspection and test report:

- Martin Lindquist Kim Johansson Kent Eriksson
- Örjan Lindquist Joakim Vestin

Signature:

Date of manufacturing:

Company Signature/ Stamp:

DISTRIBUTOR:

Labino AB shall not be held liable for any errors or omissions resulting from the test procedures that were used in validating performance of any Labino AB product nor for unforeseen errors or omissions in digital or printed material.

www.labino.com

