

## 1.0 Purpose

This Instruction Manual is intended to provide descriptive information on the Model SLX Marine Lifejacket Light and its variations, operating instructions, information for its maintenance and overhaul, instruction concerning the proper mounting of the light on lifejackets to ensure compliance with minimum performance standards, and limitations for the device.

## 2.0 Description of Device

The Model SLX and its variations is a SOLAS approved flashing lifejacket light that is activated automatically when immersed in water and can be deactivated manually. Variations of the SLX also offer manual activation or permanent deactivation. The SLX consists of a battery and light encased in either one plastic housing (SLX), or a battery assembly and a separate light assembly, connected by an electrical wire (SLX-II). See table 1 for options.

Table 1:

	Automatic activation in water	Manual on	Manual off	Permanent off/Reset
• SLX/SLX-II	✓	✓	✓	✗
• SLX/SLX-II (c)	✓	✗	✓	✗
• SLX/SLX-II (s)	✓	✗	✓	✓

The battery consists of one Lithium Manganese Dioxide cell incorporated into a water-tight sealed housing. The housing has two exposed water sensor contacts. The electronic circuit detects water and activates the light. The design prevents inadvertent extinguishing of the light if the water sensor is not continuously immersed in water. The housing also has a button for the manual switching of the light.

The light is a LED covered by a polycarbonate cover.

## Operating Instructions

The SLX is activated automatically following immersion of the water sensor in fresh water or seawater. The SLX can be turned off by pressing the button on the top of the housing. See figure 1.

- In SLX versions that allow manual activation, this can be done by repressing the same button.
- In SLX (s) versions with permanent off, the SLX can be reset for water activation by one long pressing of the same button.



Figure 1:

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### 3.0 Maintenance and Overhaul Information

1. Maintenance or periodic overhaul is not required. Overhaul at end of life is not possible.
2. Recommended inspection of SLX:
  - Electrical Test of battery and lamp:
    - i. Create an electrical short between the exposed electrical contacts using tweezers or other conductive wire, or dip the SLX in water.
      - a. *In models with manual activation as well, one can press the button on the top of the housing.*
    - ii. Check that the lamp starts flashing. An inoperative light should be rejected.
    - iii. Press the button on the top of the housing to switch the light off.
  - Visual Inspection:
    - i. Replace product if the battery housing shows obvious signs of mechanical damage (e.g., cracking or discoloration of the plastic, bulging of the case, etc.).
3. Defective units should be returned to the manufacturer or otherwise disposed of (see section 5.5).

### 4.0 Instructions for Mounting on Lifejackets.

It is the responsibility of the lifejacket manufacturer to ensure that the light is attached securely and is in the correct position on the lifejacket; or to provide instruction regarding correct positioning on the lifejacket.

Recommended methods for mounting the SLX on lifejackets are as follows:

1. Attach the SLX firmly to a strap in its designated position on the lifejacket, using the plastic clip bracket provided with the SLX. Feed the strap along the back of battery and fasten the bracket to the battery by pushing the clip's plastic hooks through the corresponding holes on the battery housing. The plastic spikes should face inwards, holding the strap firmly in place.
  - Once fastened with the clip, the light cannot be removed without breaking the clip.
2. The SLX light should be placed at the top or on the front of the shoulder of the lifejacket in accordance with the instructions of the lifejacket manufacturer.
3. Alternatively, one may use tie wraps or adhesive strip to attach the SLX to a strap or fabric, making sure not to block the water sensors.
4. The light assembly of the SLX-II should be attached to the lifejacket on the top or front of the shoulder. One may use an adhesive strip or tie wrap, or sew the light assembly to the life jacket, attaching at any four of the eight holes provided in the lower ring of the plastic bulb holder. If the lifejacket has a fabric loop for the light, feed the light assembly through the loop.

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## **5.0 Limitations of the Device.**

1. The device is designed to provide effective luminous intensity of at least 0.75 candlepower (Cd) in all directions of the upper hemisphere of the lens, as required under IMO SOLAS regulations, for a minimum of eight (8) hours after activation.
2. The device is limited to a service life of five (5) years from the date of manufacture. Until then, it is considered usable as a safety appliance, under IMO SOLAS regulations, if the battery does not show signs of mechanical damage and the light bulb is operative.
3. SLX contains a lithium battery. Do not dismantle, tamper, recharge or incinerate.
4. Storage: Avoid extreme humidity and temperatures.
5. Disposal: Dispose of used batteries in accordance with local regulations.