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# **Lifebuoy Light**

**Product Code: LNK-LB-01B** 

# Operation and Maintenance Instructions LNK-OM-LB-01B/B1

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### **Section I** Purpose

This set of instruction serve to guide users on how to operate and maintain LNK-LB-01B Lifebuoy Light properly.

### Section II Description

#### 2.1 Introduction

LNK-LB-01B Lifebuoy Light is a lithium battery-powered man overboard emergency light designed for installation with lifebuoys. It features a gravity sensor and water sensors double activation system, ensuring that when the lifebuoy light is in water, the LED lamp's head automatically points upwards due to the gravity design, activating the light. It will continuously emit a flashing white light with a light intensity of more than 2.0cd for at least 24 hours (14 hours at -1°C), effectively indicating the lifebuoy's position and increasing the chances of successful rescue. The light can self-float on water and will automatically turn off when the LED lamp's head is downwards or when the light is out of the water.

#### 2.2 Product Structure

2.2.1 LNK-LB-01B Lifebuoy Light consists of the main body with battery, LED lamp, water sensors, a clip with rubber caps and a rope for installation. The structure is shown as below in Figure 1.

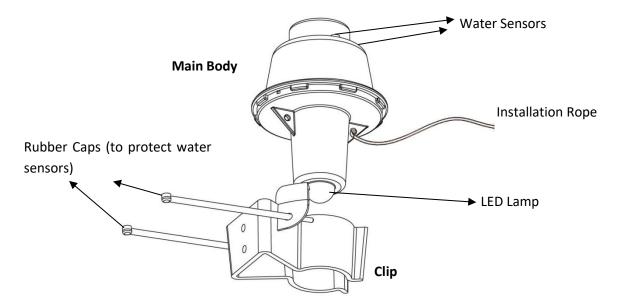


Figure 1 Product Structure

#### 2.3 Technical Parameters

<u>Table 1</u> Technical Parameters

Technical Parameters	Specification
Battery Type	Lithium battery
Light Source	LONAKO patented LED
Chromaticity	White
Light Type	Flashing
Flash Frequency	50 $\sim$ 70times/min
Luminous Intensity	≥2.0 cd
Operation Life	≥24h over 2.0 cd (14h at -1°C)
Maximum Stowage Height	76 meters
Storage Temperature	-30°C ∼ +65°C
Working Temperature	-1°C ∼ +30°C
Expiry Date	5 years from date of manufacture
Weight	Light: 180g
weight	Clip: 36g
Dimensions	Main Body: Ф90*124mm
	Automatically turn on when the LED lamp is upright
Activation	& and water sensors contact water simultaneously;
	Automatically turn off otherwise
Danfa was a sa	Fire-resistant, Oil-resistant, Mould-proof,
Performance	Corrosion-proof, Waterproof
Environment Performance	Meet RoHS and asbestos-free requirement
Standards	MSC.81(70) as amended, USCG161.110,
Stallualus	IEC 60945 as amended, ISO 24408
Certifications	MED, USCG

### 2.4 Product Mark

### 2.4.1 The product mark of LNK-LB-01B Lifebuoy Light is shown in Figure 2 below.



Figure 2 Product Mark

2.4.1.1 The product mark will be displayed on labels or engraved on the main body of the light. The font used on the product mark may vary depending on specific requirements, but the content itself will remain unchanged.

#### 2.4.1.2 The product mark contains:

- ① Basic information: Product name, Manufacturer's name, logo and company website, Product code, Fulfilled SOLAS & USCG standards, Safety caution
- ② Wheel Mark, where "0474" represents the notified body number and "YYYY" represents the mark affixed year.
- 2.4.2 The manufacturing date or manufacturing batch number of LNK-LB-01B Lifebuoy Lights are printed or engraved on the product body in the form of MM/YYYY, where "MM" represents the month of manufacturing, "YYYY" represents the year of manufacturing.

#### Section III Installation Instructions

### 3.1 Compatibility

LNK-LB-01B Lifebuoy Light is compatible with all types of lifebuoys. The maximum stowage height is 76 meters.

#### 3.2 Installation Guidelines

LNK-LB-01B Lifebuoy Light is supplied with installation clip and rope (including two water sensor caps). The clip should be mounted on the side of lifebuoy, and the lifebuoy light should be placed on the clip. It must be securely tied to the lifebuoy using a rope. It is important to ensure that when the lifebuoy is thrown into the water, the light is automatically released from the clip and remains attached to the lifebuoy.

- 3.2.1 Each lifebuoy light is packed with a clip and rope. When installing the light, separate the clip from the light, as shown in <u>Figure 3</u>.
- 3.2.2 The first step of the installation process is to securely fix the clip to a suitable position using screws. The second step is to insert the light head into the clip and ensure that it is locked in place. The third step is to cover the two water sensor caps, as shown in Figure 4.
- 3.2.3 Once the light is properly installed, bind the rope to the lifebuoy and fasten it securely, as shown in <u>Figure 5</u>. When the lifebuoy with the light is thrown into the water, the light should automatically detach from the clip and begin flashing as soon as it comes into contact with water.
- 3.2.4 To maintain the light in good condition, always ensure that the water sensors are covered using the rubber caps, except when the light has been removed for use.

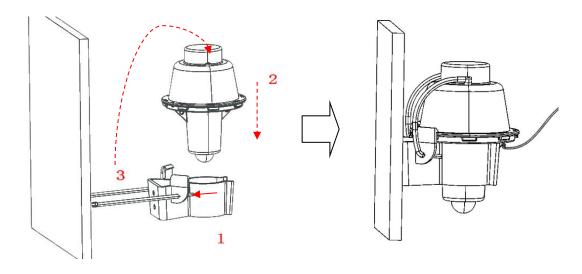


Figure 3 Figure 4

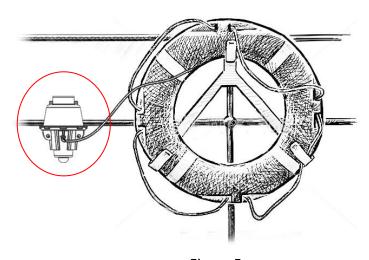


Figure 5

# **Section IV** Storage Requirements

### 4.1 Environment Requirements

LNK-LB-01B Lifebuoy Lights should be stored in a clean, non-polluted and liquid-free environment.

### 4.2 Temperature and Humidity Requirements

Storage temperature should be within -30°C  $\sim$  +65°C (-22°F  $\sim$  +149°F) and the environment humidity should be less than 80%.

### **Section V Service & Safety**

- 5.1 The service life of LNK-LB-01B Lifebuoy Light is five years from the date of manufacture. During the service time of the lights, storage and application conditions should meet the requirements listed in Section 4.
- 5.2 Once the light has been activated, it can work continuously for at least 24 hours at more than 2.0cd (14 hours at  $-1^{\circ}$ C). After the battery runs out, the light should be removed from the installation position and replaced with a new unit.
- 5.3 LNK-LB-01B Lifebuoy Light contains lithium batteries. These processes must be handled correctly:
  - 5.3.1 Do not dismantle battery pack.
  - 5.3.2 Do not make any external electrical connection.
  - 5.3.3 Do not recharge.
  - 5.3.4 Do not incinerate.
  - 5.3.5 Store between -30°C $\sim$ +65°C.

## **Section VI** Inspection

#### 6.1 Routine Inspection

LNK-LB-01B Lifebuoy Light should undergo inspections prior to installation and should be inspected regularly alongside lifebuoys after installation.

### 6.2 Inspection Methods

- 6.2.1 Visually inspect the lights for any sign of damage or corrosion.
- 6.2.2 Test the lights by immersing it into water and ensure that the light is upright. The lights should be activated immediately. Upon drying the water sensors or inverting the lights, the lights turn off.
- 6.2.3 If any defects are observed in the appearance or functionality of the lights, it should be regarded as defected. The defective light should be removed from the lifebuoy and replaced with a new unit.

#### Section VII Maintenance

LNK-LB-01B Lifebuoy Light are maintenance-free, but during the stowage period, do not touch the water sensors and ensure the water sensors are kept dry at all times. Ensure that the LED lamp faces downwards at all times.

# **Section VIII Repair & Disposal Instructions**

#### 8.1 Repair Instructions

LNK-LB-01B Lifebuoy Light are non-repairable. Dispose and replace used, expired or defective lights with a new unit.

### 8.2 Disposal Instructions

Disposal of used, expired or defective lights should be in accordance with local regulations. This process should be done through an approved environment disposal agent.

# **Section IX** Packaging Instructions

- 9.1 The lights will be packed individually in plastic bags and a master carton.
- 9.2 Each light will be packed together with an instruction manual, a clip and a rope.
- 9.3 Each master carton contains 50 units of lifebuoy lights. The dimensions of the master carton are 470\*375\*305mm and the gross weight of each master carton package is about 12.9 KG.

(END)