

OPERATION and MAINTENANCE INSTRUCTIONS

Product Name: Lifebuoy Light

Product Type: LNK-LB-01B

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SECTION I PURPOSE

The operation and maintenance instruction is used to guide users how to operate and maintain LNK-LB-01B lifebuoy light properly.

SECTION II DESCRIPTION

2.1 Introduction

LNK-LB-01B lifebuoy light is lithium battery-powered man overboard emergency light to be installed with lifebuoy. The light was designed with gravity sensor and water sensors double activation systems. So once the lifebuoy light into water, the head of LED lamp will automatically upwards owing to the gravity design. Meanwhile the light will be automatic activated and keep outputting the flashing white light more than 2.0cd light intensity during at least 24 hours (14 hours at -1℃), which can uninterruptedly indicate the lifebuoy position to increase the success rate of rescue. The light can self-float on the water.

If the head of LED lamp downwards or the light leaves from water, the light will automatically turn-off.

2.2 Product Structure

2.2.1 LNK-LB-01B lifebuoy light consists of main body with battery, LED lamp, water sensors and clip (with rubber caps) & rope for installation. The structure is shown as below Figure2-1:

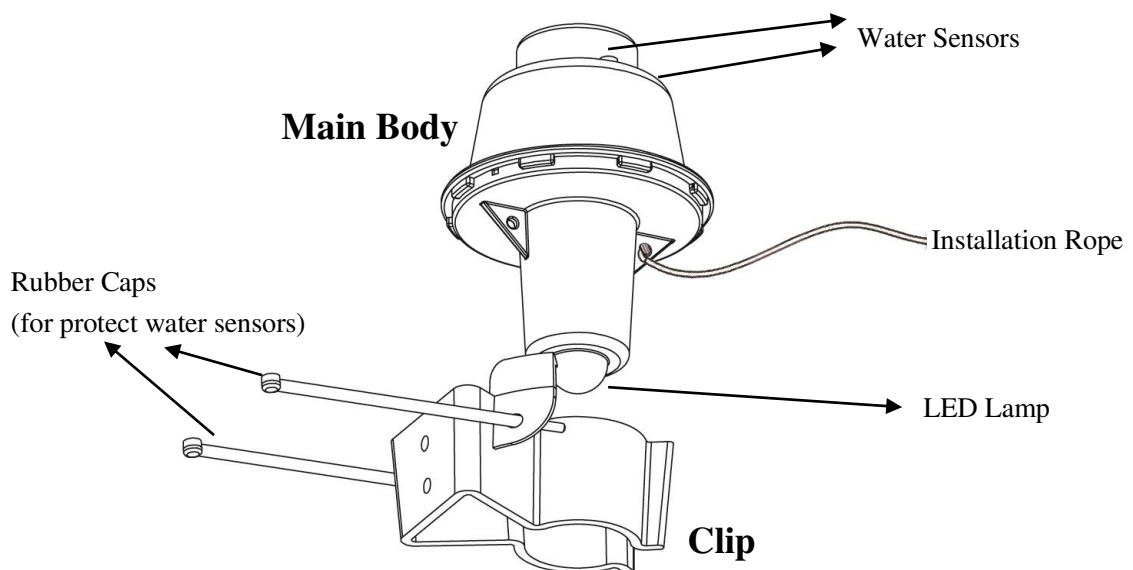


Figure 2-1 Product Structure

2.3 Technical Parameter

Technical parameter	Specification
Battery	Lithium battery
Light source	LONAKO patented LED
Chromaticity	White
Light type	Flashing
Flash Frequency	50~70times/min
Luminous Intensity	≥2.0 cd
Operation Life	≥24h over 2.0 cd (14h at -1°C)
Drop height	76 meters
Storing Temperature	-30°C ~ +65°C
Working Temperature	-1°C ~ +30°C
Expiry Date	5years
Weight	Light:180g Clip:36g
Dimension	Main body: Φ90*124mm
Activation	Automatically turn on when head of LED lamp upwards and water sensors contact water same time. Automatically turn off otherwise
Performance	Fire-resistant, Oil-resistant, Mould-proof, Corrosion-proof, Water-proof.
Environment Performance	Meet RoHS and asbestos-free requirement
Standards	MSC.81(70) as amended
Certifications	MED

Table 2-1 Technical parameter

2.4 Marking

2.4.1 Standard product label markings of LNK-L B-01B lifebuoy light is shown as below pictures.

Figure2-2:

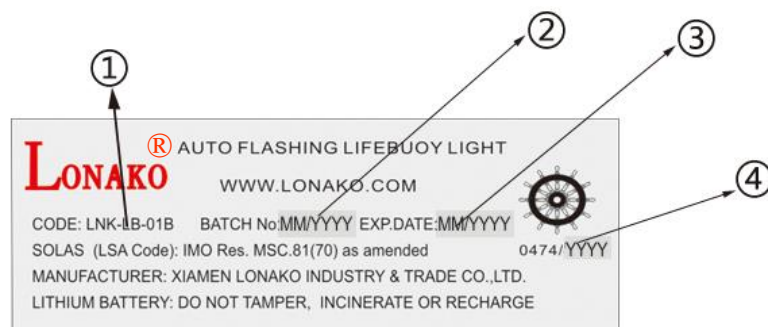


Figure 2-2

2.4.1.1 Marking Label will be fixed at side of the light`s main body.

2.4.1.2 Marking label contains:

- ① Basic information: Product name, Manufacturer`s company website, Product Code number, Fulfilled SOLAS standards, Manufacturer, safety CAUTION
- ② Manufacturing Batch Number (see 2.4.2);
- ③ Expire Date (see 2.4.2);
- ④ Wheel Mark , Notified body number 0474 , and "YYYY" at figure 2-2 ④ represents mark affixed year.

2.4.2 MFG batch number and EXP. Date show the latest status of light and manufacturing batch.

They will be shown as MM/YYYY, "MM" at figure 2-2 ② and ③ represents the month of manufacturing /expired date , "YYYY" at figure 2-2 ② and ③ represents the year of manufacturing/expired date.

SECTION III INSTALLATION INSTRUCTIONS

3.1 Installation Limitation

LNK-LB-01B lifebuoy light is suitable to be installed with all types of lifebuoys. Maximum Stowage height is 76 meters.

3.2 Installation Requirement

LNK-LB-01B lifebuoy light was supplied with installation clip (with two water sensor caps). The clip should mounted by the side of lifebuoy, and the lifebuoy light placed on the clip meanwhile it must tied together with the lifebuoy firmly with a rope. The typical installation is shown as Figure3-2. The users must ensure when lifebuoy throw into water, the light must be pull out from the clip and been thrown with the attached lifebuoy automatically:

- 3.2.1 Each lifebuoy light is packed with clip and rope. When the user is ready to install light, the clip should be separated from light like Figure3-1.
- 3.2.2 The first step of installation is to fix the clip to the suitable position by screws. The second step is to insert light head to clip and ensure the light locked in clip. The third step is covering two caps on water sensors like Figure3-2.
- 3.2.3 When the light is installed well, user should bind the rope of light with lifebuoy and fasten the rope like Figure3-3. When lifebuoy with light throw into water, light should automatically leave clip and begin to flash as soon as it contacts with water.
- 3.2.4 In order to ensure the light in good condition. Users should keep the rubber caps covering the water sensors all the time, except after the light has been pull out and put for use.

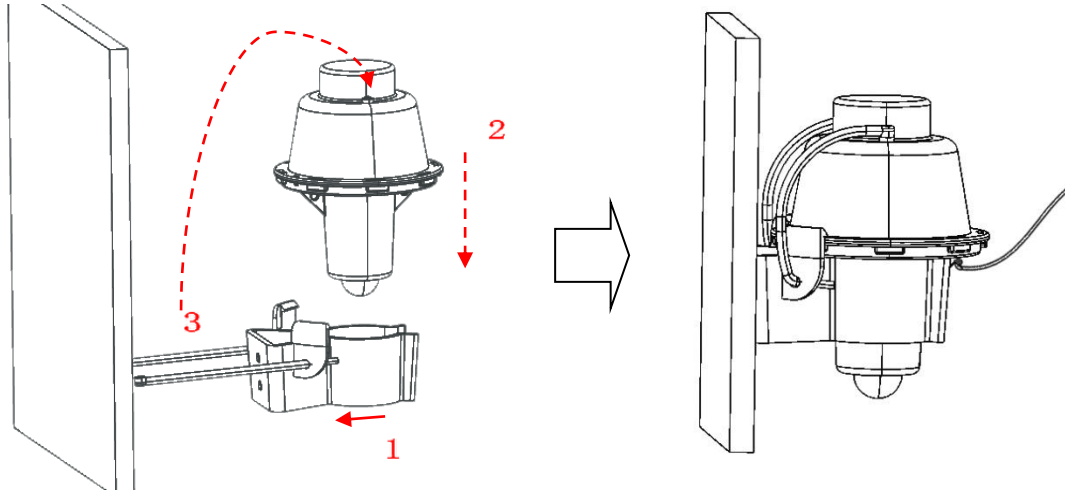


Figure 3-1

Figure 3-2

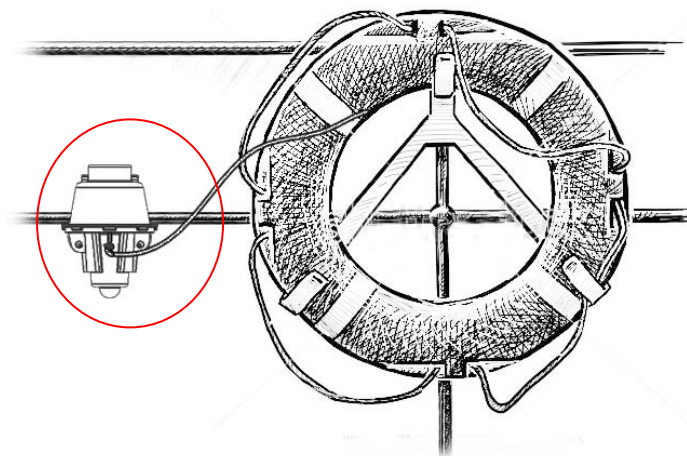


Figure 3-3

SECTION IV STORAGE REQUIREMENTS

4.1 Storage Environment Requirements

LNK-LB-01B lifebuoy light should be stored in a clean, non-pollution and liquid free environment.

4.2 Storage Temperature and Humidity Requirements

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

SECTION V SERVICE LIFE & SAFETY

5.1 The life of LNK-LB-01B lifebuoy light is five years from the date of manufacture. During the service time the storage and application conditions meet the Section IV storage requirements.

5.2 Once the light was been activated ,it can keep working for more than 2.0 cd light intensity during at least 24 hours (14 hours at -1°C). After the battery runs out, the light should be removed from the installation position and replaced by a new light.

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~+65°C.

SECTION VI INSPECTION

6.1 Inspection Time

LNK-LB-01B lifebuoy light should be inspected before installation or regularly inspected together with lifebuoys after installation.

6.2 Inspection Methods

6.2.1 Visually inspect the light for signs of damage or corrosion.

6.2.2 Test the light by immersing it in water and turn LED lamp upwards at same time, as the light must flash. And when the light leaving from water, or LED lamp downwards then the light will be turned off automatically.

6.2.3 If any defective appearance is found or not functioning well the light should be regarded as defected. The defective light should be removed from the life jacket and replaced by a new light.

SECTION VII MAINTENANCE

LNK-LB-01B lifebuoy light is maintenance free, but in the storing period, do not contact water sensors with hands and ensure the water sensors keep dry all the time, meanwhile make sure the LED lamp end downwards.

SECTION VIII REPAIR AND DISPOSAL INSTRUCTIONS

8.1 Repair Instructions

LNK-LB-01B lifebuoy light cannot be repaired. Just dispose the used and expired lights or other defective light, and replace with new one.

8.2 Disposal Instructions

Dispose of used and expired lights in accordance with local regulation. This process should be done through an approved environment disposal agent.

SECTION IX PACKAGING INFORMATION

- 9.1 The lights will be packed by plastic bags and Master carton .
- 9.2 Each light will be packed together with the instructions, clip and rope in the plastic bag.
- 9.3 One master carton contains 50units lifebuoy lights. The size of master carton is 470*375*305mm and gross weight of each master carton package is about 12.9kg。

SECTION X MANUFACTURER INFORMATION

Company name: XIAMEN LONAKO INDUSTRY & TRADE CO., LTD.

Add: N307, Weiye Building, China Pioneering Park, Xiamen, Fujian361009, China

Tel: +86-592-5689172

Fax: +86-592-5689173

Email: info@lonako.com

Web: www.lonako.com