

# AQLBA

## Alkaline Lifebuoy Light

### Operation and maintenance instructions

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## SECTION 1 – PURPOSE

These operation and maintenance instructions are designed to guide users in the correct operation and maintenance of the AQLBA Lifebuoy Light.

## SECTION 2 – DESCRIPTION

### 2.1 Introduction

The AQLBA Lifebuoy Light is a alkaline battery-powered man overboard emergency light to be installed with a lifebuoy. The light was designed with a gravity sensor activation system.

When the lifebuoy light enters the water, the head of LED lamp end will automatically float upwards above water due to the gravity design. The light will automatically activate and output a flashing white light more than 2.0cd light intensity for at least 14 hours at -1 °C, which can indicate the lifebuoy position for rescue.

The gravity sensor activation system will deactivate the light automatically once the head of LED lamp is downwards.

### 2.2 Product Structure

The AQLBA Lifebuoy Light consists of the battery case, 2 Alkaline battery, head of the light with LED lamp, clip and a rope for installation. The structure is shown as below:

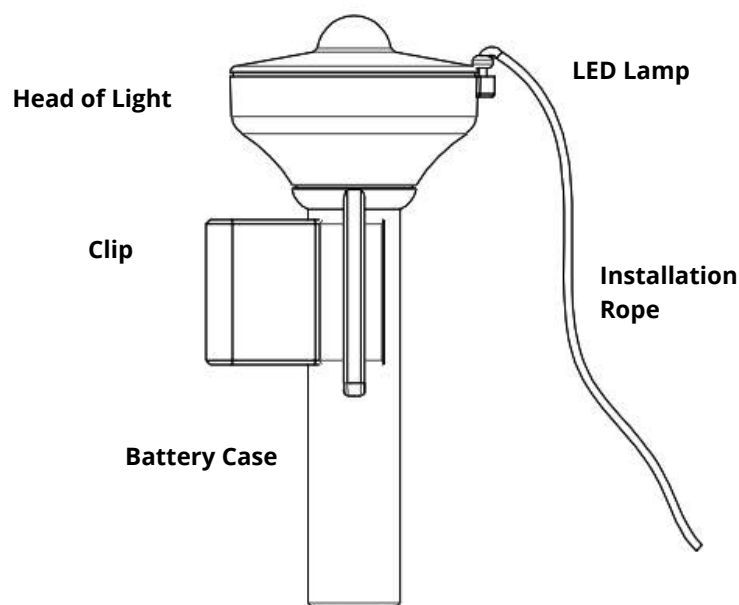


Figure 2-1 Product Structure

## 2.3 Technical Specification

Battery	2* AA Alkaline Battery (replaceable)
Lamp	LONAKO Patented LED
Chromaticity	White
Function	Flashing
Flash Frequency	50 – 70 times/min
Luminous Intensity	≥2.0cd
Operation Life	At least 14h over 2cd at -1 °C
Storing Temperature	-30 °C – +65 °C
Working Temperature	-1 °C – +30 °C
Expiry Date	5 years
Weight	114g (Including clip)
Dimension	Main body: Φ60 x 144mm
Activation	Automatically turn on when the head of light is upward and automatically turn off when the head of light is downward.
Performance	Fire-resistant, Oil-resistant, Mould-proof, Corrosion-proof, Water-proof, Resistance UV
Environment Performance	Meet RoHS and asbestos-free requirements.
Standards	MSC.81(70) as amended
Certifications	MED

Figure 2-2 Technical Specifications

## 2.4 Labeling

2.4.1 Standard product label for the AQLBA Lifebuoy Light is shown below.



Figure 2-3 AQLBA Label

2.4.1.1 Label will be fixed to the side of the light's main body.

2.4.1.2 Label contains:

- 1 Basic information: Product code, product name, company website, fulfilled SOLAS standards, manufacturer and safety information.
- 2 Manufacturing Batch Number (see 2.4.2).
- 3 Expiry date
- 4 Wheel Mark with notified body number 0474 and "YYYY" represents year the mark was attained.

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" represents the month of manufacturing /expired date, "YYYY" represents the year of manufacturing/expired date.

## SECTION 3 – INSTALLATION

### 3.1 Installation

The AQLBA Lifebuoy Light can be installed with all types of lifebuoys.

### 3.2 Installation Requirements

The AQLBA Lifebuoy Light is supplied with an installation clip (with two water sensor caps). The clip should be mounted adjacent to the lifebuoy, and the light placed on the clip and firmly tied to the lifebuoy with the rope. The typical installation is shown as Figure 3-3.

3.2.1 The lifebuoy light comes with a clip and rope. Separate the clip from the light for installation as Figure 3-1.

3.2.2 Fix the clip in a suitable position using screws, insert the light head to the clip and ensure the light is secure, then cover the two caps on the water sensors as Figure 3-2.

3.2.3 When the light is installed, securely fasten the rope to the lifebuoy as Figure 3-3. When the lifebuoy is thrown into the water, the light must be automatically pulled from the clip and thrown into the water with the lifebuoy.

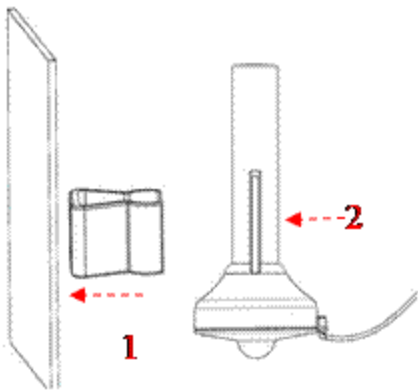


Figure 3-1

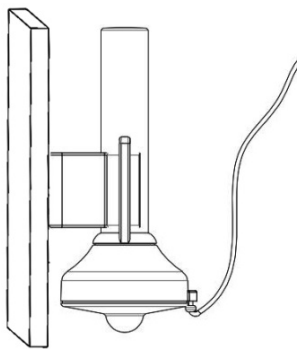


Figure 3-2

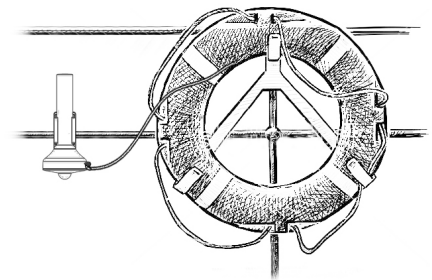


Figure 3-3

### 3.3 Replacing Batteries

The AQLBA Lifebuoy Light comes with replaceable batteries which can be replaced for maintenance purpose or when the batteries run out power:

3.3.1 Remove the light from install clip and unscrew the light.

3.3.2 Remove the used batteries and replace with 2 new AA alkaline batteries, the negative pole towards the battery case and positive pole towards the LED lamp as Figure 3-3 shows.

3.3.3 Screw the head of the light back onto the battery case. Users must ensure the rubber sealing ring is in correct position and screw it tightly to make sure the light is waterproof as Figure 3-3 shows.

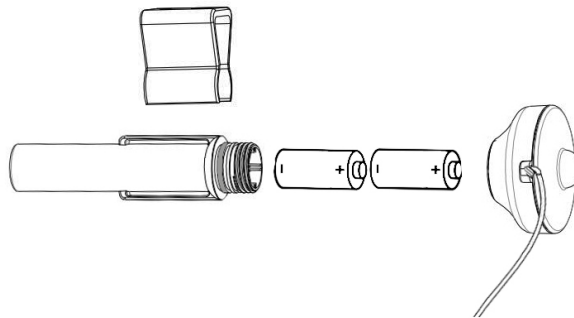


Figure 3-4 Battery Replacement

## SECTION 4 – STORAGE REQUIREMENTS

### 4.1 Storage Environment Requirements

The AQLBA Lifebuoy Light should be stored in a clean, non-pollution and liquid free environment.

### 4.2 Storage Temperature and Humidity Requirements

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

## SECTION 5 – SERVICE LIFE & SAFETY

5.1 The life of the AQLBA Lifebuoy Light is five years from the date of manufacture. During this time the storage and application conditions should meet the storage requirements in section 4.

5.2 Once the light was been activated, it will operate at 2.0 cd light intensity for at least 14 hours at  $-1^{\circ}\text{C}$ . After the battery runs out, users need to change the batteries as Section 3.3 or replace the light.

5.3 The storage life of the original batteries is 3.5 years from the manufacturing date. For the batteries not originally supplied, users should change them annually. Change batteries as Section 3.3, then put the light back into service if it is less than 5 years from the date of manufacture.

5.4 The AQLBA Lifebuoy Light contains Alkaline batteries that must be handled correctly:

5.4.1 Do not dismantle the batteries

5.4.2 Do not make any external electrical connection

5.4.3 Do not recharge the batteries

5.4.4 Do not incinerate

5.4.5 Store between  $-30^{\circ}\text{C}$  +  $65^{\circ}\text{C}$

## **SECTION 6 – INSPECTION**

### **6.1 Inspection Time**

The AQLBL Lifebuoy Light should be inspected before installation or annually inspected with the lifebuoy after installation.

### **6.2 Inspection Methods**

6.2.1 Visually inspect the light for signs of damage or corrosion. The service life of the light (except battery) is 5 years from the manufacturing date. But if there is any damage, the light should be replaced.

6.2.2 Check the manufacturing date shown on the product label. If it has been more than 3.5 years from the manufacture date, the batteries must be replaced as Section 3.3. If users are replacing a battery not supplied, it has to be AA alkaline battery and replaced annually.

6.2.3 Test the light by removing it from the clip and turning the head of the LED lamp upwards, the light should start flashing within 3 seconds. Turn the head of LED lamp downwards, it should stop flashing. If it is functioning well then place it back to clip firmly.

6.2.4 If the light is not functioning as described, it should be considered defective and replaced.

## **SECTION 7 – MAINTENANCE**

The AQLBA Lifebuoy Light is maintenance free. Store with the LED lamp end downwards.

## **SECTION 8 – REPAIR AND DISPOSAL INSTRUCTIONS**

### **8.1 Repair Instructions**

The AQLBL Lifebuoy Light cannot be repaired, dispose used and defective lights and replace.

### **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.