

# AQ8A

## Lifejacket Light

### Operation and maintenance instructions

SECTION 1	PURPOSE	2
SECTION 2	DESCRIPTION	2
SECTION 3	INSTALLATION INSTRUCTIONS	4
SECTION 4	STORAGE REQUIREMENTS	5
SECTION 5	SERVICE LIFE & SAFETY	5
SECTION 6	INSPECTION	5
SECTION 7	MAINTENANCE	5
SECTION 8	REPAIR AND DISPOSAL INSTRUCTIONS	5





## SECTION 1 – PURPOSE

These operation and maintenance instructions are designed to guide users in the correct operation and maintenance of the AQ8A Lifejacket Light.

## SECTION 2 – DESCRIPTION

### 2.1 Introduction

The AQ8A Lifejacket Light is an alkaline battery-powered emergency lights designed to be installed on all kinds of lifejackets. When the water sensor comes into contact with water, the light will automatically activate. It will output a flashing white light with an intensity in excess of 0.75cd for at least 26 hours (13 hours at -1°C), which can indicate the survivor's location for rescue purposes. It can be manually turned off and turned on while the water sensors are in contact with water.

### 2.2 Product Structure

The AQ8A Lifejacket Light consists of the main body with battery, the LED Lamp, water sensors, manual switch and the installation buckle. The structure is shown as Figure 2-1:

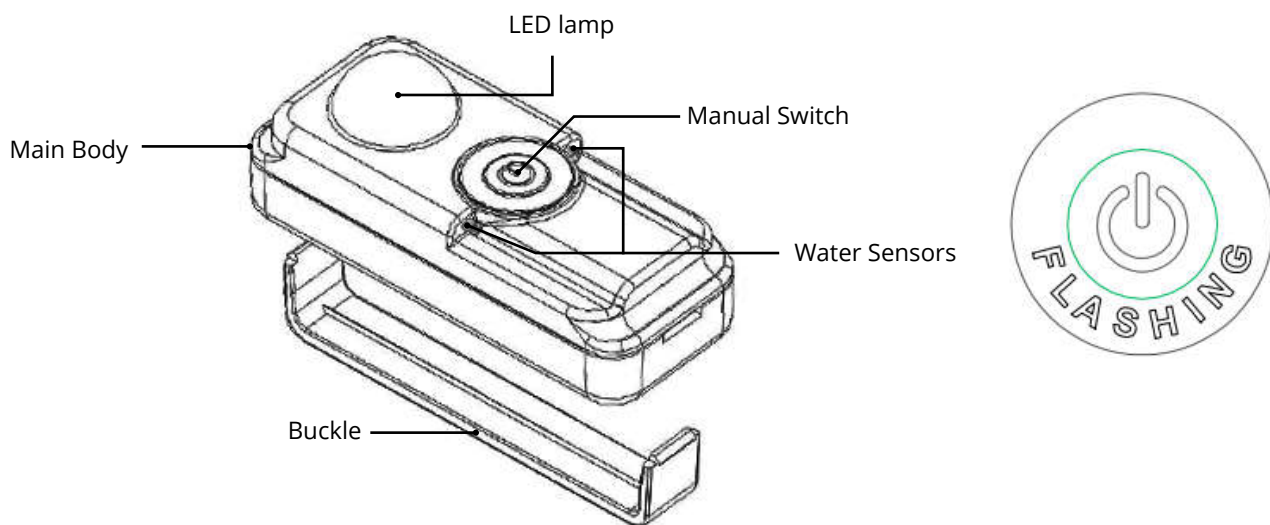


Figure 2-1 Product Structure and Manual Switch Function



**2.3 Technical Specifications**

Battery	Alkaline Batteries
Light Source	LED
Chromaticity	White
Light Type	Flashing
Flash Frequency	50-70 times/min
Luminous Intensity	≥0.75.cd
Operation Life	13h over 0.75cd at -1°C
Storing Temperature	-30°C – +65°C
Working Temperature	-1°C – +30°C
Expiry Date	5 years
Weight	38g (including buckle)
Dimension	Main body: 62.5 x 25.4 x 23.5mm Buckle: 61.2 x 9.5 x 11.7mm
Activation	Water-activation automatically on / manual off / manual on
Performance	Fire-resistant, oil-resistant, mould-proof, corrosion-proof, water-proof
Environment Performance	Meets RoHS and asbestos-free requirement Standards MSC.81(70) as amended
Certifications	MED, CCS

Table 2-1 Technical specification

**2.4 Labeling**

2.4.1 Standard product label for the AQ8A Lifejacket Light is shown below.

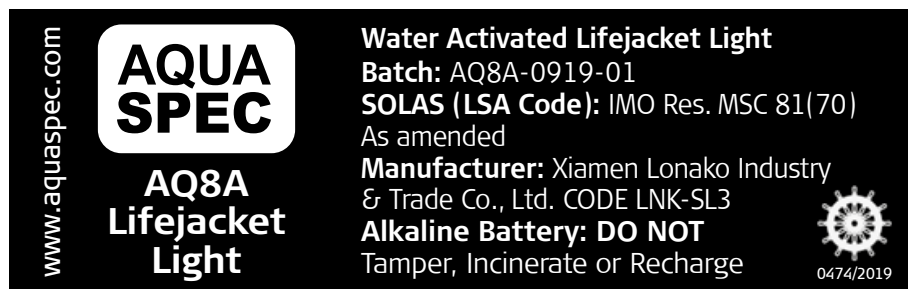


Figure 2-2 AQ8A Label

2.4.1.1 Label is fixed at bottom of the light's main body.

2.4.1.2 Label contains:

1 Basic Information: Product code, product name, company website, batch information, fulfilled SOLAS standards, manufacturer and safety information.

2 Wheel Mark: 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.

2.4.2.1 MFG batch number and EXP. Date will be printed on the side of the main body;

2.4.2.2 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 INSTRUCTIONS

#### 3.1 Installation Limitation

The AQ8A Lifejacket Light is suitable for all types of lifejackets.

#### 3.2 Installation Requirement

The AQ8A Lifejacket Light is supplied with fix buckles. The buckle is normally placed behind a belt of the lifejacket or fixed through the fibre at suitable position near the shoulder of lifejacket.

The light must provide maximum visibility after installation, while ensuring the water sensors have water contact the lifejacket is in use. The typical installation is shown below:

3.2.1 The lifejacket light should be firmly mounted on the lifejacket and the whole LED lamp part should be clearly seen in the 360° horizontal direction without any obstruction.

3.2.2 The installation position must ensure that the water sensors on main light body will have contact with water when the lifejacket drops in the water.

3.2.3 Installation procedures are shown below. Figure 3-1 shows the suggested installation position of the light. Figure 3-2 shows the installation steps of the lights.

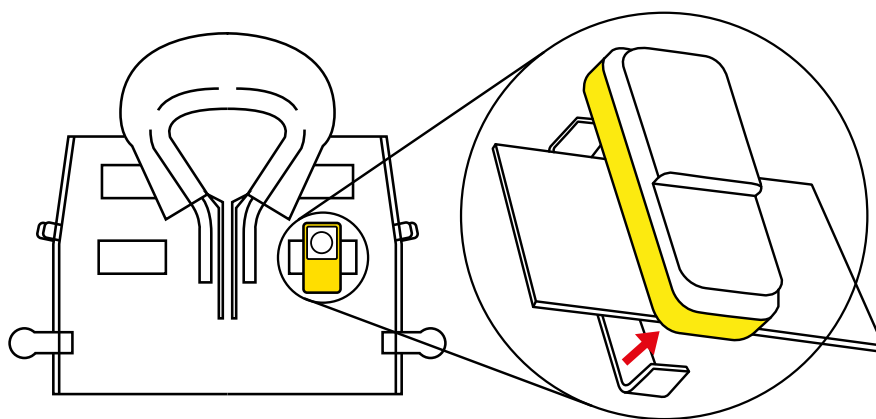


Figure 3-1

Figure 3-2



## SECTION 4 – STORAGE REQUIREMENTS

### 4.1 Storage Environment Requirements

The AQ8A Lifejacket Light should be stored in a clean, pollution and liquid free environment.

### 4.2 Storage Temperature and Humidity Requirements

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

## SECTION 5 – SERVICE LIFE & SAFETY

5.1 The AQ8A Lifejacket Light has a five year life from the date of manufacture. During the service time, the storage and application conditions must meet the storage requirements set out in Section 4.

5.2 Once the light was been activated, it can operate for more than 26 hours at over 0.75 cd light intensity (13 hours at  $-1^{\circ}\text{C}$ ). After the battery runs out, the light should be removed from the life jacket and replaced.

5.3 The AQ8A Lifejacket Light contain batteries that 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  $-30^{\circ}\text{C}$  –  $+65^{\circ}\text{C}$

## SECTION 6 – INSPECTION

### 6.1 Inspection Time

The AQ8A Lifejacket Light should be inspected before installation or regularly inspected together with lifejackets 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, as the light should start flashing at once, and by manually pressing the switch on main body. The light can be turned off using the switch.
- 6.2.3 Remove the light from the water and dry the water sensors, the light can be turned off with the manual switch but cannot be turned on again after 2 seconds.
- 6.2.4 If the light is not functioning as described, it should be regarded as defected. The defective light should be removed from the life jacket and replaced by a new light.

## SECTION 7 – MAINTENANCE

The AQ8A Lifejacket Light is maintenance free. During storage, do not touch the water sensors with hands and ensure the sensors are kept dry at all times.

## SECTION 8 – REPAIR AND DISPOSAL INSTRUCTIONS

### 8.1 Repair Instructions

The AQ8A Lifejacket Light cannot be repaired. Just dispose of used, expired or defective lights and replace.

### 8.2 Disposal Instructions

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