

AQFLA

Morse Signal Torch

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 AQFLA Morse Signal Torch.

SECTION 2 – DESCRIPTION

2.1 Introduction

The AQFLA Morse Signal Torch is designed to ISO18813:2006 standards. It is IP67 waterproof, self-floatable with a highly efficient LED light and powerful battery, delivering a 300cd light intensity for more than 9 hours.

The torch has two functions:

- 1) Gently press the switch to send Morse signal code as 1 of Figure 2-1.
- 2) Deeply press the switch for a steady light as 2 of Figure 2-1.

The package contains a spare alkaline battery and LED bulb, it is an ideal safety device for liferafts and lifeboats.

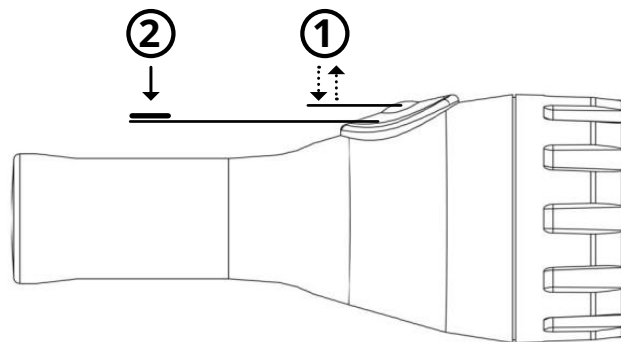


Figure 2-1 Switch Operation

2.2 Product Structure

2.2.1 AQFLA Morse Signal Torch consists of main body, alkaline battery, PCB pack, LED bulb and lampshade. The structure is shown as below Figure 2-2:

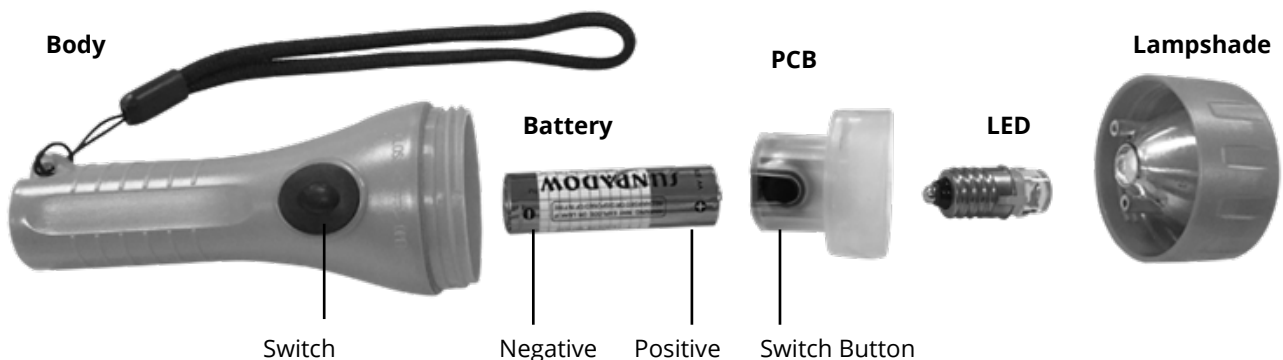


Figure 2-2 Product Structure



2.3 Technical Specifications

Battery	1 x AA Alkaline Battery
Light Source	Highly Efficient LED
Chromaticity	White
Max. Frequency	≥180 times/min
Function	Morse Signal and Steady Light
Light Intensity	≥200cd (25±5 °C)
Operation Time	≥12h
Waterproof Level	IP67
Buoyant	Self-floatable
Storage Temperature	-30 °C – 65 °C
Best Working Temperature	-1 °C – +30 °C
Weight	Torch: 65g / Whole packaging: 115g
Dimension	Main body: 105 x Φ42.36mm / Packaging Box: 114 x 48 x 45mm
Activation	Gently pressing the switch to output Morse code; Deeply pressing to lock switch and output steady light.
Performance	Fire-resistant, oil-resistant, mould-proof, corrosion-proof, water-proof
Environment Performance	Meet RoHS and asbestos-free requirement
Standards	ISO18813-2006

Table 2-1 Technical specification

2.4 Labeling

2.4.1 Standard product label for the AQFLA Morse Signal Torch is shown below.



Figure 2-3 AQFLA Label

2.4.1.1 Label will be fixed to the surface of the package box.

2.4.1.2 Label contains:

- 1 Basic information: Product code, product name, company website, fulfilled standards, manufacturer and safety information.
- 2 Manufacturing Batch Number (see 2.4.2).
- 3 Maintenance Record.

2.4.2 MFG number shows the latest status of light, manufacturing batch and expiry. For product traceability, users should record the MFG code. The MFG number will be shown as MM/YYYY, “MM” represents the month of manufacturing date, “YYYY” represents the year of manufacturing date.

SECTION 3 – INSTALLATION & ASSEMBLY INSTRUCTIONS

3.1 Installation

The AQFLA Morse Signal Torch is an independent handheld device, no installation is required.

3.2 Assemble Instruction After Battery & LED Replacement

The AQFLA Morse Signal Torch was originally packed in a waterproof box with a spare AA alkaline battery and LED bulb according to ISO18813:2006 standards as Figure 3-1 shows.

When replacing the battery or LED blub, users should follow the instructions below, and assemble the light back as shown in Figure 3-2:

3.2.1 Unscrew the lampshade from the “OPEN” direction as indicated on main body, remove the PCB pack and battery as shown in Figure 3-2.

3.2.2 When replacing the LED, screw off the used LED from PCB pack and replace with the spare.

3.2.3 When replacing the battery, users should place the negative and positive poles of new battery as the direction shown in Figure 3-2, positive and negative poles cannot be reversed.

3.2.4 After replacement, the switch button on PCB must be aligned with the switch button on main body. Verify whether the PCB pack was placed correctly by pressing the button gently.

3.2.5 Make sure the rubber ring is in position and tighten the lampshade by screwing in the “CLOSE” direction. Make sure it is tight enough so it is waterproof.



Figure 3-1



Figure 3-2

SECTION 4 – STORAGE REQUIREMENTS

4.1 Storage Environment Requirements

AQFLA Morse Signal Torch should be packed in the supplied waterproof box with the spare battery and LED bulb, and stored in a clean, pollution and liquid free environment.

4.2 Storage Temperature and Humidity Requirements

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



SECTION 5 – SERVICE LIFE & SAFETY

5.1 The service life of the AQFLA Morse Signal Torch 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 With the original supplied battery, the torch will operate for more than 200cd light intensity for at least 12 hours.

5.3 The original supplied battery storage life is 5 years. If users are replacing with a battery not supplied, it must be an AA alkaline battery and should be replaced annually.

5.3 The AQFLA Morse Signal Torch contains batteries that must be handled correctly:

5.3.1 Do not dismantle the batteries

5.3.2 Do not make any external electrical connection

5.3.3 Do not recharge the batteries

5.3.4 Do not incinerate

5.3.5 Store between -30 °C + 65 °C

SECTION 6 – INSPECTION

6.1 Inspection Time

The AQFLA Morse Signal Torch should be inspected annually.

6.2 Inspection Methods

6.2.1 Check that the waterproof box is intact, and inspect the torch, spare battery and LED blub for signs of damage or corrosion.

6.2.2 Check whether the spare LED bulb or battery is missing.

6.2.3 Test the torch by gently pressing and releasing the switch, the torch should output a flashing signal. By deep pressing the switch the torch should output a steady light.

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

SECTION 7 – MAINTENANCE

The AQFLA Morse Signal Torch should be maintained as required annually after inspection. During use it should be maintained when the battery runs out or the LED blub is broken.

7.1 If the waterproof box is damaged, or the torch, spare LED bulb or spare battery show signs of damage or corrosion, the defective parts should be replaced.

7.2 If the spare LED bulb and battery are missing, they should be replaced.

7.3 The battery and LED replacement should follow the instructions in 3.2.

7.4 When the battery has been replaced, the date and service station should be recorded on the label as Figure 2-3.

SECTION 8 – REPAIR AND DISPOSAL INSTRUCTIONS

8.1 Repair Instructions

The AQFLA Morse Signal Torch cannot be repaired, dispose used and defective torches 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.