

<b>Epsilor - Electric Fuel Ltd.</b>			
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**The conditions and tests for TSO approval of this article are minimum performance standards. Those installing this article, on or in a specific Type or class of aircraft, must determine that the aircraft installation conditions are within the TSO standards. TSO articles must have separate approval for installation in an aircraft. The article may be installed only according to 14 CFR part 43 or the applicable airworthiness requirements.**

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## 1. Purpose

This Manual is intended to provide descriptive information of the Survivor Locator Light WAB-LDA, information for its maintenance and overhaul, instruction concerning the proper mounting of the light on the life vests or life rafts to ensure continued compliance with prescribed minimum performance standards and pertinent operating instructions.

## 2. Description of Device

The Survivor Locator Light WAB-LDA consists of a water-activated battery and a light assembly, connected by an electrical wire.

The battery consists of a cathode made from a copper compound, sulfur and inert components flanked by magnesium alloy anodes in an injection-molded plastic case. The case contains three holes, one on the bottom and one on each side near the top. The holes allow water to enter the cavities between the cathode and flanking anodes and act as an electrolyte.

The light assembly consists of a LED mounted on a PCB and covered by a clear plastic lens.

The WAB-LDA is constructed from materials that comply with the flammability requirements stated in Appendix 1a and 1b of TSO-C85b.

## 3. Operating Instructions

The battery of the WAB-LDA is activated automatically after immersion of the battery in fresh water or seawater. The light will then illuminate automatically, reaching the minimum required light output within 5 minutes in saltwater, or 10 minutes in fresh water as required by TSO-C85b.

## 4. Maintenance and Overhaul Information

1. No maintenance is required.
2. Periodic overhaul is not required. Overhaul at end of life is not possible. Defective or passivated units should be disposed and replaced.

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### 3. Inspection of WAB-LDA

- a) Visually inspect the holes in the battery housing and the area where the cap of the battery housing connects to the battery housing body. The product will be deemed inoperative if particulate gray residue is present in either of these areas.

## 5. Instructions for Mounting on Life Vests

1. The recommended method for mounting the WAB-LDA on life vests is (see Attachment 1):
  - a) Attach light assembly to vest at the fabric attachment point ring provided on vest, by first inserting lens through fabric attachment point ring and then pushing upper ring on plastic bulb holder through fabric attachment ring.
  - b) Attach battery firmly to vest harness by wrapping around several times with adhesive strip or other attachment means recommended by vest manufacturer. The battery must be positioned so as to be totally immersed in water.
2. An alternative method for mounting the WAB-LDA on life vests is:
  - a) Sew light assembly to vest light attachment point, attaching at any four of eight holes provided in lower ring of plastic bulb holder.
  - b) Continue as 5.1.b.

## 6. Instructions for Mounting on Life Rafts

1. The recommended method for mounting the WAB-LDA on life rafts is (see Attachment 1):
  - a) Insert light assembly in raft light holder.
  - b) Insert battery in battery holder opposite the light holder. The battery must be positioned so as to be totally immersed in water.
2. Other means provided by raft manufacturer.

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## 7. Storage Instructions

1. Lights, whether in containers, cartons or assembled on life vests, should be kept in a cool, dry, environment.
2. Containers/Cartons should not be stored directly on a floor or anywhere else where there is a concern that they might get wet.
3. Lights should be kept in the original packing cartons until needed.

## 8. Limitations of the Device

1. The device is designed to provide light intensity of at least one (1.0) candlepower (cd) in all of the directions required by TSO-C85b, for a minimum of eight (8) hours after activation.
2. Once activated by immersion in water or any other ionically conductive liquid, even if subsequently removed and dried, the device should not be used again as a safety appliance under TSO-C85b or equivalent.
3. The device is considered usable as a safety appliance under TSO-C85b as long as it is stored according to section 7.1 and passes visual inspection according to section 4.3(a).

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## Attachment 1. WAB-LDA INSTALLATION.

