

1.0 Purpose

This Manual is intended to provide descriptive information of the Model CFX-I Marine Lifejacket Light, operating instructions, information for its maintenance and overhaul, instruction concerning the proper mounting of the light on lifejackets to ensure compliance with minimum performance standards, and limitations for the device.

2.0 Description of Device

The Model CFX-I is a SOLAS approved lifejacket light which is activated automatically when immersed in water. The CFX-I consists of a battery and light encased in one plastic housing.

1. The battery consists of two CR123A primary Lithium Manganese Dioxide cells. The housing contains two windows that allow water to wet the contacts of an electronic circuit. The electronic circuit detects water and activates the light. The battery has a switch rod that can be moved in two positions. Upper position "AUTO" allows automatic activation of light upon immersion of the battery in water. Lower position "OFF" deactivates the light. The design allows for delay time built in to prevent inadvertent extinguishing of the light if the battery is not continuously immersed.
2. The light assembly consists of a miniature incandescent lamp covered by a frosted acrylic lens.

3.0 Operating Instructions

Make sure that the switch rod is in upper position "AUTO", if not – move it up to allow operation. The battery of the CFX-I is activated automatically in less than one minute following immersion of the battery in fresh water or seawater, and the light will begin flashing automatically.

4.0 Maintenance and Overhaul Information

1. Maintenance or periodic overhaul is not required. Overhaul at end of life is not possible.
2. Recommended inspection of CFX:
 - a. Electrical Test of battery and lamp:
 - i. Make sure that the switch rod is in upper position "AUTO".
 - ii. Create an electrical short between the exposed electrical contacts using tweezers or other conductive wire.
 - iii. Check that the lamp lights up and starts flashing. An inoperative light should be rejected.

- iv. Reset the light by sliding the switch to the lower position “OFF” and then slide back to the upper position “AUTO”
 - b. Visual Inspection:
 - i. Replace lifejacket light if the battery housing shows obvious signs of mechanical damage (e.g., cracking or discoloration of the plastic, bulging at one end of the case, etc.).
 - ii. Make sure that both contacts in the battery windows (the water sensors) are clean.
 3. Defective units should be returned to the manufacturer or otherwise disposed of.

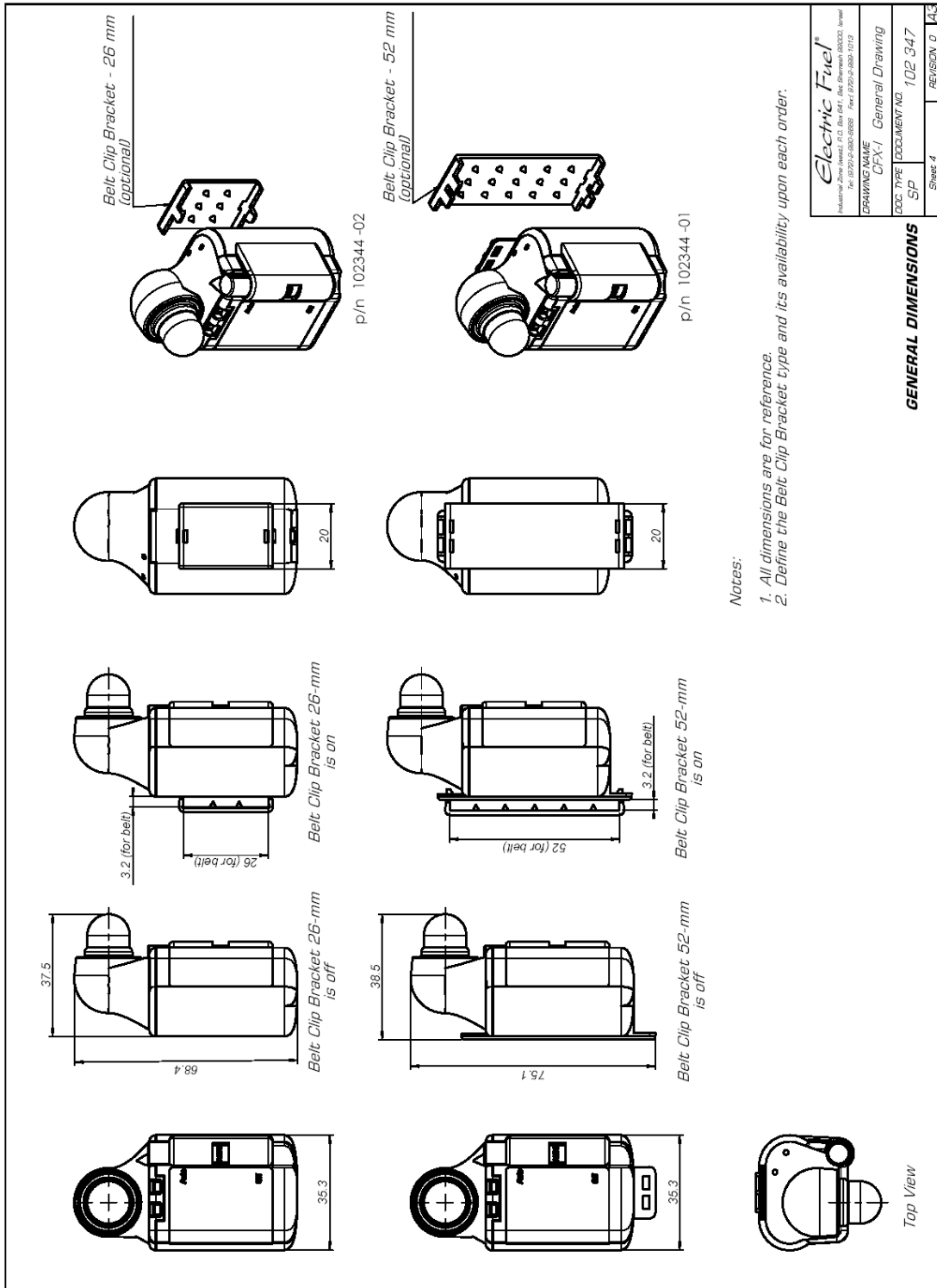
5.0 Instructions for Mounting on Lifejackets.

Some recommended methods for mounting the CFX-I on life vests are:

1. One may attach the battery firmly to a strap using a plastic clip bracket provided with the CFX-I (see page 4). Feed the strap along the back of battery and fasten the bracket to the battery by pushing the clip’s plastic hooks through the corresponding holes on the battery housing. The plastic spikes should face inwards, holding the strap firmly in place.
2. Alternatively, one may attach the battery firmly to a strap or fabric with tie wraps, or by attaching firmly with adhesive strip.

6.0 Limitations of the Device.

1. The device is designed to provide flashes of light at a rate of approximately 53 flashes per minute with an effective luminous intensity of at least 0.75 candlepower (Cd) in all directions of the upper hemisphere of the lens, as required under IMO SOLAS regulations, for a minimum of eight (8) hours after activation.
2. Once activated by immersion in water or any other conductive liquid, even if subsequently removed and dried, the device should not be used again as a safety appliance under any marine safety regulation.
3. The device is limited to a service life of five (5) years from the date of manufacture. Until then, it is considered usable as a safety appliance, under IMO SOLAS regulations, if the battery does not show signs of mechanical damage and the light bulb is operative.
4. CFX contains lithium batteries. Do not dismantle, tamper, recharge or incinerate.
5. Storage: Avoid extreme humidity and temperatures.
6. Disposal: Dispose of used batteries in accordance with local regulations.



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GENERAL DIMENSIONS