

Fastfind

Operational Description

Introduction

The Fastfind is a 406.037MHz PLB with a built in 121.5MHz homing transmitter. The beacon is used to locate people on land or water who are in distress. When the PLB is activated, a 406.037MHz message is transmitted every 50 seconds, as specified in the Cospas-Sarsat document G005. Doppler shift position calculation is used giving a position accuracy of typically 5km.

Beacon Description

The Fastfind consists of two separate plastic enclosures. One enclosure contains the PCB and associated switches; and the second contains the battery pack. Both enclosures are made from a Polycarbonate/ABS thermoplastic mix; and are internally sprayed with conductive coating to achieve good EMC performance. The PCB enclosure is held together by six screws. A gasket made from silicone is used to provide a waterproof seal. The battery enclosure is ultrasonically welded together to provide a water-proof seal.

The two enclosures are held together by one screw at the base of the product. The battery connection pins are sealed with two 'o'-rings to prevent water ingress into either enclosure.

The PLB has two modes of operation. Distress mode or 'live' activation and a Self-Test mode. The ON switch ('live' activation) is protected against inadvertent activation use by a plastic cover, which acts as an evident tamper seal. The PLB cannot be activated unless the red tamper cover is removed. The Self-Test mode of the PLB can be activated by holding down the OFF button for 10 seconds.

The Fastfind is programmed via an infrared data link. This means that the unique identity number can be programmed into the beacon via a USB interface. This data is then permanently stored in the PLB. This system enables swift and easy programming of the PLB without having to break the watertight seal.

Neil Jordan
Engineering Manager
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