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**FAST FIND 220 PLB**

**USER MANUAL**

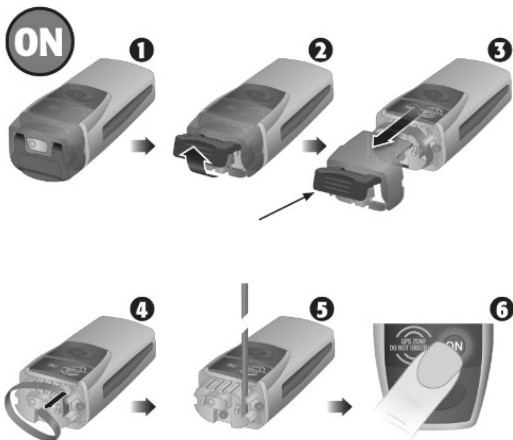
This manual is applicable to the FAST FIND 220 PLB.

**ONLY IN EMERGENCY**  
FALSE ALERTS  
ENDANGER LIVES

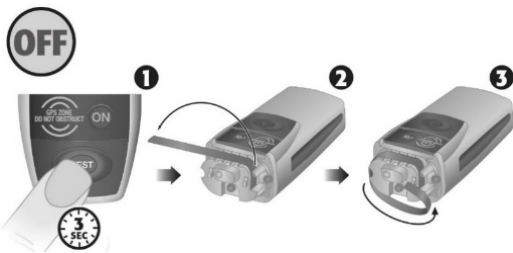
**SOS ONLY IN  
EMERGENCY**

**ONLY PULL IN AN  
EMERGENCY**

Pulling breaks the plastic anti-tamper seal that cannot be reset by the user.



**HOLD**



**ORDER NEW CAP**



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# 1 INTRODUCTION

The Fast Find 220 Personal Locator Beacon (PLB) gives you the reassurance of a last resort safeguard against any life threatening incidents that may occur anywhere in the world. If you find yourself in a remote area without any other form of emergency communication, on land or at sea, your Fast Find 220 can call for help.

When triggered, the Fast Find 220 transmits a unique serialized ID to the Cospas-Sarsat MEOSAR satellite system which can pinpoint your location anywhere on the earth's surface. This is typically within minutes, but can be up to 45 minutes depending on satellite coverage. The Rescue Coordination Centre (RCC) then forwards the details of the emergency to the appropriate local Search And Rescue (SAR) services.

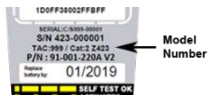


Waterproof and fully submersible to 10 meters, the Fast Find 220 features an inbuilt GPS and GALILEO receiver that can pinpoint your location to within a few meters. Dense tree cover or a steep-sided canyon can sometimes make it difficult for the GPS-GALILEO to obtain a position fix. If this is the case, the satellites will still be able to pinpoint your approximate location and the unit's secondary homing transmitter enables SAR teams to home in on your exact location once they are in the vicinity. The unit also features a flashing SOS light which can be used to attract attention.

The lithium power cell offers a minimum 24 hours continuous operation and a 6-year battery storage life.

Please take time to read this manual fully before using the Fast Find 220 as it contains important information regarding the correct use and maintenance of the product.

**IMPORTANT:** The present user manual only applies to Fast Find 220 with model number Z423. The model number is visible on the rear label of the PLB. If model number is different from Z423, please refer to the original User Manual delivered with your PLB.



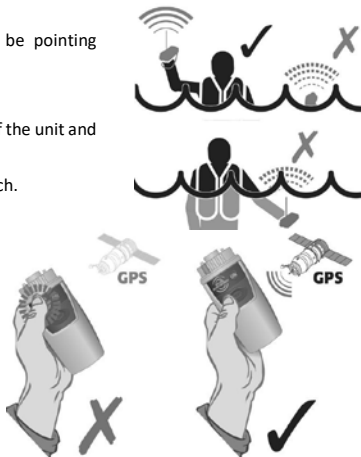
## 2 SAFETY NOTICES

It is recommended that the Self Test is performed once a month in the limit of 10 tests per year - unnecessary testing reduces battery life in the event of an emergency. Return the unit to a service center for battery replacement if battery level is low (single flash in Self Test mode).

Confirm that the battery expiry date shown is in date for the duration of intended use.

Transmission of the first emergency alert message occurs 50 seconds after the unit is activated. This allows time for the unit to be switched off before the rescue services are alerted if accidentally activated.

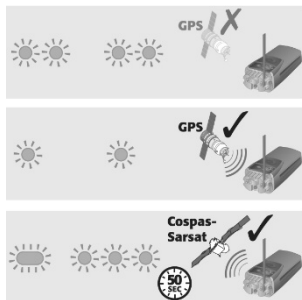
- For optimum transmission, the antenna must be pointing vertically upwards at all times.
- Do not hold the antenna.
- Fit the lanyard through the eye hole in the base of the unit and fasten securely to your clothing.
- The unit will not float without the buoyancy pouch.
- The unit is not designed to float in an upright position or transmit a distress alert when floating in water. Once activated it must always be kept above water, as direct contact with the sea will severely reduce the transmission range.
- Ensure that the area marked "GPS Zone" is not obstructed or covered in any way and always has a clear view of the sky.
- In strong winds, turn the unit so the indicator light faces into the wind.



### 3 INDICATOR LIGHT

As soon as the PLB is activated, the indicator light will start to flash:

- Two flashes every second indicates the unit is activated and is attempting to acquire a GNSS position fix.
- One flash every 3 seconds indicates that a GNSS position fix has been acquired.
- A long flash followed by three rapid flashes every 50 seconds indicates that the PLB has transmitted a distress signal along with the current GNSS position.



While the PLB is active, pressing the **ON** button again will cause the indicator light to flash a Morse code SOS pattern. This can be used to attract attention in low light conditions. The SOS pattern is repeated four times each time **ON** is pressed.

**NOTE:** To conserve battery life a maximum of 30 presses is allowed, after which this feature is disabled.



## 4 CAUTIONS

### ACTIVATE ONLY IN AN EMERGENCY

- This PLB should only be used in SITUATIONS OF GRAVE AND IMMIDENT DANGER to life.
- False alerts endanger lives and cause expensive disruption to Search & Rescue services. **Deliberate misuse of the device could result in a penalty.**
- Spring action antenna. Mount and deploy in such a way as to avoid eye injury.
- Product and battery pack contain no user-serviceable parts. Do not dismantle.
- Contains lithium batteries. Do not incinerate, puncture, deform, short-circuit or recharge.
- Avoid cleaning the unit with chemical solvents as this may damage the case material.
- Radio Licensing. This product is a radio transmitter. Although US and UK owners are not required to hold a radio license to operate a PLB on land, some administrations may require that the user holds a valid radio license to cover its ownership and use.
- This product emits low levels of radio frequency energy during operation. Avoid handling the antenna once activated.
- The unit will not float if removed from the buoyancy pouch, fit a lanyard restraint when near water to avoid loss.
- The top cap is fitted with an anti-tamper seal which is broken on activation of the unit and must then be replaced. A new cap should then be fitted and the battery has to be replaced following any operation other than a Self-test or a GNSS Test.
- For future servicing by a service center, keep the original packaging for transportation.
- **False alarm:** If the unit has been accidentally activated or you are no longer in danger prior to the arrival of the rescue services, switch off the unit and contact the relevant rescue services as soon as possible to provide the following: 15-Hex ID, date, time, duration and cause of false alarm, location at the time of activation.



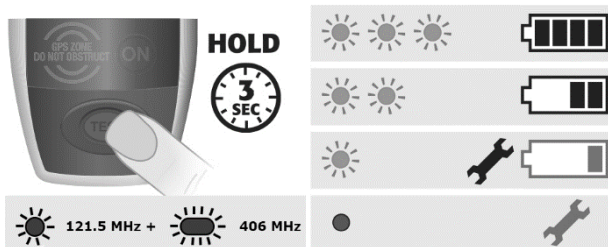
## 5 SELF TEST

These Self Tests verify all key functions of the PLB including the remaining battery life and transmitter operation.

**WARNING: ONLY SELF TEST IN THE FIRST FIVE MINUTES OF THE HOUR.**

NOTE: The **TEST** button must be pressed hard to activate - if necessary, use a blunt object such as a pencil.

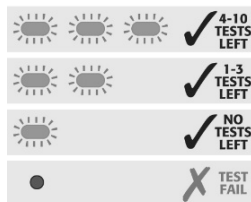
- Press the **TEST** button for 3 seconds and release it. The indicator light flashes once after release.
- After a few seconds, there will be one short flash for 121.5 MHz homing signal transmission and one long flash for 406 MHz test signal transmission.
- At the end of the test, there will be a sequence of flashes.
- The PLB will switch off after the test is completed.



## 6 GNSS SIGNAL ACQUISITION TEST

**IMPORTANT:** To preserve battery life, a maximum of 10 GNSS Tests are permitted during each battery's 6 year storage life, after which further GNSS Tests are prohibited until the battery is replaced.

- Begin this test indoors, out of view of the open sky.
- To start the GNSS Signal Acquisition Test, press and hold the **TEST** button again for 15 seconds until the indicator light will start flashing slowly, indicating that the GNSS is searching for a signal. Then, release the **TEST** button.
- Move outside so that the PLB now has a clear view of the sky.
- Ensure "GPS Zone" on unit is not obstructed.
- Unit will flash slowly until GNSS fix is acquired. When no GNSS Test remains, the unit will only flash once a single long flash and the PLB will switch off without performing the GNSS Test.
- A series of long flashes indicates a successful GNSS fix and the number of GNSS tests remaining.
- If no GNSS fix is acquired after 5 minutes, the test will fail and the indicator light will stop flashing.



## 7 SPECIFICATION

Standards .....	COSPAS-SARSAT T.001/T.007 class2, RTCM 11010.2 ETSI EN 302152-1, AS/NZS 4280.2, NSS-PLB11
Sealing depth .....	Immersion to 10 m (30 ft) for 5 minutes
Operating temperature .....	-20 to +55 °C (-4 to + 131 °F)
Storage temperature .....	-30 to +70 °C (-22 to +158 °F)
Altitude .....	12,192 m (40,000 ft)
Buoyancy .....	Category 2, will not float (keep in buoyancy pouch provided)
Battery type .....	Lithium Manganese
Transmit duration .....	> 24 hours @ -20 °C (-4 °F)
Battery life (storage) .....	6 years
Battery replacement .....	Service center
Battery Use .....	Logged by microprocessor
Transmitter Frequency .....	406.031 MHz (alert) / 121.5 MHz (homer)
Transmitter Power .....	5 W (alert) / 50 mW (homer) nominal
Unique ID Number .....	Factory or dealer programmed
GNSS Receiver .....	GPS(L1)+GALILEO(E1), 72 channel, ceramic patch antenna
Size (D x W x L) .....	34 x 47 x 106 mm (1.34 x 1.85 x 4.17 in)
Weight .....	152 g (5.36 oz)
Indicator Light .....	High brightness LED signal light
SOS flash light .....	Morse code SOS flash pattern, 30 operations
Activation .....	Manual, three stage
Self-test .....	Tests transmitters, battery and light
Standard Compass Safe Distance .....	1 m (3 ft)
Warranty .....	1 year (+ 4 years with online registration)

*This PLB will not float unless held in the buoyancy pouch provided. A PLB is not an ELT or an EPIRB and does not meet the regulatory requirements for an ELT or an EPIRB.*

## 8 REGISTRATION INFORMATION

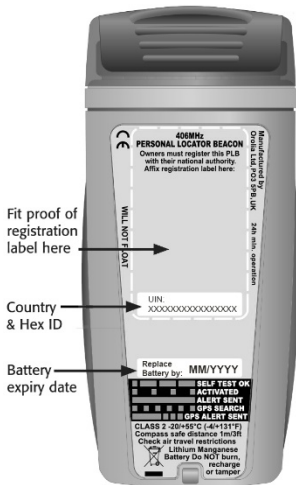
Registration of the PLB with the relevant national authority is mandatory. For further information applicable to your region refer to the information on the registration form provided and the annex at the end of this manual.

Some national authorities provide the registered user with a label which must be fitted to the rear of the PLB as proof of registration.

**Failure to register the PLB is illegal and could delay a Search & Rescue response.**

Some national authorities require a completed registration application form to be submitted by letter or fax, others offer an online registration.

**Sale or transfer:** The new owner must file a new user registration. Should the country hosting the user registration also change then the PLB will need to be re-programmed by a service agent.



## 9 ACCESSORIES

Included with your Fast Find 220 PLB are:

- A buoyancy pouch (float pouch)
- A neck lanyard (not to scale)
- A universal pouch



## 10 TRANSPORTATION

- The product contains a lithium metal battery with a lithium content exceeding 2 g and a total net quantity of 0.068 kg. It is classified as dangerous goods for transportation purposes: Class 9, UN3091, Lithium metal Batteries Contained in Equipment.
- **Transport by air:** the product cannot be carried on a passenger aircraft either as carry-on or checked in baggage. For transport by air, the product must be packaged and shipped as cargo via a qualified dangerous goods shipper. Packing instruction P970 Section 1 applies.
- **Transport by sea:** It may be possible to carry the product in a private vehicle or as carry-on baggage – this must be checked with the ferry company/shipping line prior to travel. If this is not allowed, the product must be packaged and shipped as cargo via a qualified dangerous goods shipper. Packing instruction P903 applies.
- **Transport by road:** The transport of dangerous goods regulations do not apply to items carried in a private vehicle for personal use. Product being transported by courier/road haulier must be packaged and shipped as cargo via a qualified dangerous goods shipper. Packing instruction P903 applies.

## 11 EU DECLARATION OF CONFORMITY

Orolia Ltd hereby declares that the Type Z42x is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive 2014/53/EU.



Orolia Ltd hereby declares that all materials, components and products supplied are in full compliance with RoHS & Weee Directives.

Use of this equipment is subject to restrictions of use and / or licensing in the following EU countries:

AT	BG	CY	CZ	DE	DK
EL	ES	FI	FR	HR	HU
IS	IT	LI	LU	LV	MT
NL	NO	PL	PT	RO	SI
SK	UK				

## 12 END OF LIFE STATEMENT

- At the end of its life, the product must be disposed of according to local laws and regulations and it must be disposed of separately from household waste.
- The battery should also be removed to prevent false alerts.
- Do not incinerate, but take it to a recycling facility.

