Characteristic	Specification	
Encoded position update interval value (range)	25 min	
For Internal Navigation Devices		
- Geodetic reference system (WGS 84 or GTRF)	WGS84	
- GNSS receiver cold start forced at every beacon activation (Yes or No)	Yes	
- Navigation device manufacturer	Quectel	
- Navigation device model name and part Number	L70	
- Internal navigation device antenna type (integrated, internal, external, passive/active), manufacturer and model	Internal, AEL Crystals Ltd, DAE1575R1820A	
- GNSS system supported (e.g. GPS, GLONASS, Galileo)	GPS	
For External Navigation Devices		
- Data protocol for GNSS receiver to beacon interface	N/A	
- Physical interface for beacon to navigation device	N/A	
- Electrical interface for beacon to navigation device	N/A	
- Part number of the external navigation interface device (if applicable)	N/A	
- Navigation device model and manufacturer (if beacon designed to use specific devices)	N/A	
Self-Test Mode Characteristics:	Self-Test Mode	Optional GNSS Self-Test Mode
- Activated by a separate switch/ separate switch position (Yes or No)	Yes	Yes
- Self-test/GNSS self-test mode switch automatically returns to normal position when released (Yes or No)	Yes	Yes
- Self-test/GNSS self-test activation can cause an operational mode transmission (Yes or No)	No	No
- Results in transmission of a single self-test burst only, regardless of how long the self-test activation mechanism is applied (Yes or No)	Yes	N/A
- Results of self-test/GNSS self-test are indicated by (provide details, e.g. Pass / Fail Indicator light, strobe light, etc.)	Indicator LED/Strobe	Indicator LED/Strobe
- The content of the encoded position data fields of the self-test message has default values	Yes	N/A

Characteristic	Specification	
- Performs an internal check and indicates that RF power emitted at 406 MHz and 121.5 MHz, if beacon includes a 121.5 MHz homer (Yes or No)	Yes	N/A
- Self-test results in transmission of a signal other than at 406 MHz (Yes & details or No)	Yes, 121.5MHz for 1 sec	N/A
- Self-test can be activated directly at beacon (Yes or No)	Yes	Yes
- List of Items checked by self-test	406 Power, Synth, 121.5 Power, battery status	GPS
- Self-test/ GNSS self-test 406 MHz burst duration (440 or 520 ms)	520 ms	
- Self-test message length format flag in bit 25, ("0" or "1")	1	
- Maximum duration of self-test mode, sec	16.5secs	315.5secs
- Maximum recommended number of self-tests during battery pack replacement period	150	N/A
- Distinct indication of self-test start (Yes or No)	Yes	Yes
- Indication of self-test results (Yes or No)	Yes	Yes
- Distinct indication of insufficient battery capacity (Yes or No)	Yes	
- Automatic termination of self-test mode immediately after completion of the self-test cycle (Yes or No)	Yes	
- Maximum number of GNSS Self Tests (beacons with internal navigation devices only)	N/A	12
- GNSS Self-test results in transmission of a single burst, irrespectively of the test result (Yes or No)	N/A	No
- Maximum number of self-tests during battery pack replacement period	Unlimited	N/A
- Self-test/ GNSS Self-test can be activated from beacon remote activation points (Yes & details or No)	No	No
- List all methods of Self-test mode and GNSS Self-test modes activation. Provide details on a separate sheet to describe	Test key only	Test key only

Message Coding Protocols:	(x)	Tick the boxes below against the intended protocol options
User Protocol (tick where appropriate)	☐	Maritime with MMSI
	☐	Maritime with Radio Call Sign
	☐	EPIRB Float Free with Serial Number
	☐	EPIRB Non Float Free with Serial Number
	☐	Radio Call Sign
	☐	Aviation
	☐	ELT with Serial Number
	☐	ELT with Aircraft Operator and Serial Number
	☐	ELT with Aircraft 24-bit Address
	☐	PLB with Serial Number
	☐	National (Short Message Format)
	☐	National (Long Message Format)
Standard Location Protocol (tick where appropriate)	☒	EPIRB with MMSI
	☒	EPIRB with Serial Number
	☐	ELT with 24-bit Address
	☐	ELT with Aircraft Operator Designator
	☐	ELT with Serial Number
	☐	PLB with Serial Number
National Location Protocol (tick where appropriate)	☒	National Location: EPIRB
	☐	National Location: ELT
	☐	National Location: PLB
RLS Location Protocol (tick where appropriate) [2]	☐	EPIRB
	☐	ELT
	☐	PLB
User Location Protocol (tick where appropriate)	☐	Maritime with MMSI
	☒	Maritime with Radio Call Sign
	☐	EPIRB Float Free with Serial Number
	☐	EPIRB Non Float Free with Serial Number
	☒	Radio Call Sign
	☐	Aviation
	☐	ELT with Serial Number
	☐	ELT with Aircraft Operator and Serial Number
	☐	ELT with Aircraft 24-bit Address
	☐	PLB with Serial Number

[2] RLS protocols will be effective as of 1 November 2015. The use of RLS-enabled beacons will be regulated by national administrations. Since the RLS functionality might affect the 406 MHz beacon performance, amendments to the type approval procedure for these beacons could be required. Beacon manufacturers should consult the Cospas-Sarsat Secretariat before undertaking the type approval of RLS-enabled beacon models.

Beacon includes a homer transmitter(s) (Yes or No) - homer transmitter(s) frequency - homer transmitter(s) power	Yes 121.5 MHz 16 dBm ±2dB
- homer transmitter(s) duty cycle - duty cycle of homer swept tone	97 % 34 %
Beacon transmission repetition period satisfies C/S T.001 requirement that two beacon's repetition periods are not synchronised closer than a few seconds over 5 minute period, and the time intervals between transmissions are randomly distributed on the interval 47.5 to 52.5 seconds (Yes or No)	Yes
Other ancillary devices (e.g. voice transceiver, remote control, external audio and light indicators, external activation device). List details on a separate sheet if insufficient space to describe.	Strobe Light rate 2.5 seconds
Beacon includes automatic activation mechanism (Yes or No) Specify type of automatic beacon activation mechanism	Yes Water Activation
Beacon includes features and functions not listed above, related or non-related to 406 MHz (Yes or No) List features and use a separate sheet if insufficient space	No
Beacon model hardware part number (P/N) and version	900S-01448 Issue 01.00 900S-01528 Issue 01.00 (for AUS/NZ only)
Beacon model software/firmware P/N, version, date of issue/releases	500S-01449 Issue 00.04, 7/2/2014
Beacon model printed circuit board P/N and version	101S-01367 Issue 01.00
Beacon Manufacturer Point of Contact (POC) for this Type Approval application:	Name and Job Title: David Sheekey Product and Approvals Manager Phone: +44 (0) 1843 282930 E-mail: david.sheekey@oceansignal.com

Dated: 06/06/2014..... Signed: ..D. C. Sheekey.. David Sheekey, Product and Approvals Manager
(Name, Position and Signature of Beacon Manufacturer Representative)

Photos of the beacon in all operational configurations

T.007: 5.f Photos of Declared Operating Positions

There is no commercial brochure available at the time of submission. The brochure will be available at the time of public release of the product and will be supplied to COSPAS-SARSAT at this time.

The EPIRB1 is designed to operate floating in water, on the deck of a boat or in a liferaft. The EPIRB may be held in the hand in the liferaft or placed in a suitable pocket in the liferaft, where fitted.

Figure 1: EPIRB1 Series operating Mode – Floating in water

Figure 2: EPIRB1 Series Operating Mode – On Deck

Figure 3: EPIRB1 Series Operating Mode – Handheld (representative of operation in a liferaft)

Pre-test discharge data and analysis, table F-E.2

T.007: 5.c Pre-test Battery Calculations

rescueME EPIRB1 Battery Calculations for Cospas-Sarsat

Characteristic	Designation	Units	Value	Comments
Beacon manufacturers declared maximum allowed cell shelf-life (from date of cell manufacture to date of battery pack installation in the beacon)	TCS	Years	2.5	
Declared beacon battery replacement period (from date of installation in the beacon to expiry date marked on the beacon)	TBR	Years	12.5	
Battery pack electrical configuration	2 parallel packs each of 3 123 cells in series			
Cell model and cell chemistry	Q-Lite CR123A Lithium Manganese Dioxide			
Nominal cell capacity		A-hrs	1.7	
Nominal battery pack capacity	CBn	A-hrs	3.4	
Annual battery cell capacity loss (self-discharge) due to aging, as specified by cell manufacturer at ambient temperature	Lsdc	%	0.84	Increase over Cell Manufactureres data (0.46%) agreed between C/S and Ocean Signal
Calculated battery pack capacity loss due to self-discharge: LCBN =CBN - [CBN *(1 - LSDC /100) ^(TBR+Dcage)]	Lcbn	mA-hrs	**404.10**	
Number of self-tests per year NST	Nst		12	
Average battery current during a self-test IST mA	Ist	mA	40.75	
Maximum duration of a self-test TST sec	Tst	Sec	16.50	
Calculated battery pack capacity loss due to self-tests during battery replacement period: LST = IST*TST*TBR*NST / 3600	Lst	mA-hrs	**28.016**	
Maximum Number of GNSS self-tests between battery	Ngst		12	
Average battery current during a GNSS self-test of maximum	Igst	mA	11.5	
Maximum duration of a GNSS self-test TGST sec	Tgst	sec	315.5	
Calculated battery pack capacity loss due to GNSS self-tests during battery replacement period: LGST = IGST*TGST*NGST / 3600	Lgst	mA-hrs	**12.09**	
Average stand-by battery pack current	ISB	mA	2.00E-05	
Other Capacity Losses	L_{OTH}	mA-hrs	**14.4**	Not Originally Calculated*
Battery pack capacity loss due to constant operation of circuitry prior to beacon activation: LISB = ISB*TBR*8760	Lisb	mA-hrs	**2.19**	
Calculated value of the battery pack pre-test discharge LCDC = LCBN + 1.65*(LST + LGST + LISB)/1000 + L_{OTH}/1000	LCDC	mA-hrs	**488.30**	

*Additional current drawn by the water contacts when activated.

S Nolan Technical Director Ocean Signal Limited
6th August 2014

List and analysis of operating modes, Table F-E.1

T.007 5.d Battery Consumption Modes

From the analysis given below it can be seen that the worst case mode that draws the maximum battery is for the EPIRB1 model with GNSS receiver in the operational condition activated by the water contacts, with the strobe on and with the GNSS receiver in search mode (no GPS signal present).

During stowage the EPIRB1 will be fitted in its manual release bracket which inhibits the water contacts. When released from the bracket the EPIRB1 is in standby mode with the water contacts enabled. The additional current the water contacts draw when enabled, but not activated is included in the stand by mode figure given in line 1.

There are no other operating modes that draw peak currents higher than during the highlighted mode (line 5).

	Beacon Operating Modes	Mode Manually selectable	Measurement interval , Sec	Average Current, mA	Peak Current, mA
1	Standby mode	Automatic	300	0.00002	
2	Self Test mode	Manually to self test on auto off	16.50	40.75	1082.00
3	Operating mode switch activated with GPS receiver in search mode (406MHz + Homer + GPS Acquisition + Strobe Light)	Manual	50.00	38.15	1059.10
4	Operating mode switch activated(406MHz + Homer + GPS Sleep + Strobe light)	Manual	50.00	31.61	1053.00
5	**Operating mode water activated with GPS receiver in search mode (406MHz + Homer + GPS Acquisition + Strobe Light)**	**Automatic**	**50.00**	**38.45**	**1059.40**
6	Operating mode water activated (406MHz + Homer + GPS Sleep + Strobe light)	Automatic	50.00	31.91	1053.30
7	GPS Test mode (GPS Acquisition)	Manually to GPS Test on auto off	315.50	11.50	18.00

Note: for the Australian and New Zealand markets, the EPIRB1 will be supplied as Category 3 only. Category 3 is only allowed in these two markets and does not require automatic water activation. Therefore this variant of the EPIRB1 will be built as hardware number 900S-01528, omitting the water contacts. Because the water contacts are now omitted, the maximum current draw will be as specified in line 3, which is less than the maximum current draw specified for other variants.

Beacon manuals

ocean SIGNAL

User Manual

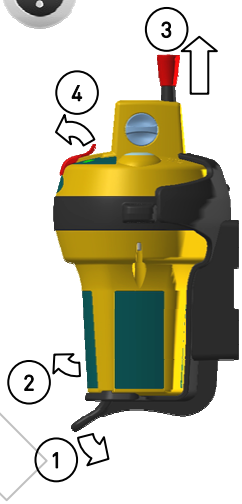
rescueME EPIRB1

Emergency Position Indicating Radio Beacon

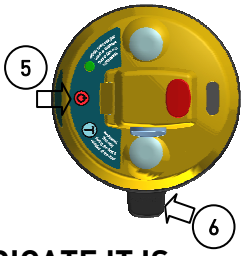
English

IN CASE OF EMERGENCY

USE ONLY IN SITUATIONS OF GRAVE OR IMMINENT DANGER



- **REMOVE THE EPIRB FROM THE BRACKET**
- **PULL THE ANTENNA OUT FROM THE BODY TO ITS FULL EXTENT* USING THE RED TAB.**
- **REMOVE BREAK OFF TAB**
- **LIFT THE FLAP UP**



- **PRESS THE ON KEY (5) FOR ONE SECOND TO ACTIVATE THE BEACON.**
- **THE GREEN LED WILL FLASH TO INDICATE ACTIVATION**
- **RELEASE THE ON KEY.**
- **THE STROBE LIGHT WILL START FLASHING TO INDICATE IT IS ACTIVATED**
- **REMOVE THE ,LANYARD COVER (6)**
- **HOLDING THE FREE END OF THE LANYARD, THROW THE EPIRB INTO THE WATER.**

* Pull the antenna out until firm resistance is felt. The antenna will extend to 25.5cm.

Refer to section 3.2 for deactivation instructions.

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1. GENERAL

1.1 Introduction

The rescueME range of products provides the user with the latest technology specifically designed for compact size and ease of operation. The EPIRB1 is a Class 2, Category 2 Emergency Position Indicating Radio Beacon (EPIRB) for manual release only. It is intended as a carry off EPIRB, but may also be used as a supplementary alerting device as specified in SOLAS regulations.

1.2 Exposure to RF Electromagnetic Energy

This product also complies with EN62479 (EU) and RSS-102 (Canada).

1.3 Warnings

- It is a legal requirement to register your EPIRB with your National Authority.
- Only use your EPIRB in a situation of grave and imminent danger. Deliberately misusing your EPIRB or setting it off accidentally may result in prosecution and a fine.
- Your EPIRB contains small lithium batteries. Please see section 5.2 for information on safe transportation.
- The battery in your EPIRB should be replaced immediately if it has been activated, or if the test indicator shows the battery as 'used', or if the expiry date marked on the unit has been exceeded.
- Please read these instructions carefully. Failure to follow the guidance in this manual may result in loss of warranty.

1.4 Operating Mode

Your EPIRB1 may be operated in a variety of modes.

1.4.1 Floating in water (a)

This is the preferred method of operation. Ensure the EPIRB is firmly tied to the life raft or person before deployment.

1.4.2 On deck (b)

When deploying the EPIRB on a deck, ensure it is vertical and clear of obstructions that might impede a clear view of the sky.

1.4.3 In a safety raft (c)

The EPIRB may be deployed in a liferaft, where it should be held in a vertical position so that there is a clear view of the sky.

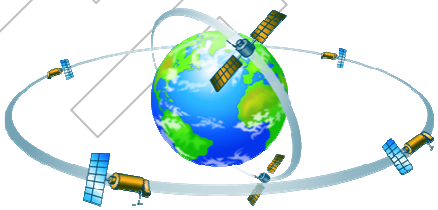
a) EPIRB floating in water

b) EPIRB deployed on deck

c) EPIRB used in a liferaft.

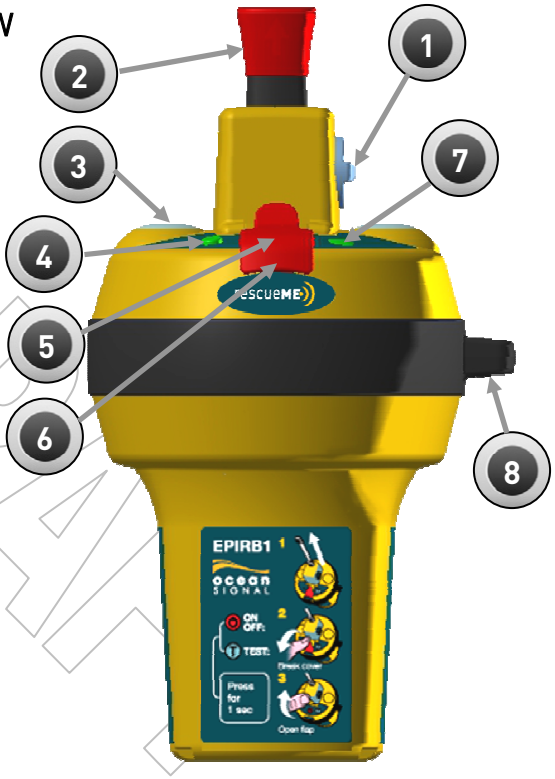
1.5 COSPAS/SARSAT System

The COSPAS/SARSAT system utilises two satellite arrays to provide distress alert and location data to search and rescue authorities. The GEOSAR system can provide near immediate alerting within the coverage of the receiving satellite. The LEOSAR system provides coverage of the polar region beyond the range of the GEOSAR system. It can calculate the location of distress events using Doppler processing techniques and is less susceptible to obstructions which could block a signal in a given direction. The system is comprised of instruments on board the satellites which detect the signals from the distress beacons. Ground receiving stations, referred to as Local Users Terminals (LUTs) receive and process the satellite downlink signal to generate the distress alerts. The distress alerts, generated by the LUTs, are then received by Mission Control Centres (MCCs) which then forward the alert to Rescue Co-ordination Centres (RCCs), Search and Rescue Points of Contacts (SPOCs) and other MCCs.



2. EPIRB1 OVERVIEW

1) Antenna rewind knob
2) Antenna pull grip
3) Strobe light
4) Indicator LED
5) **ON** Key (Under flap)
6) Break Off Tab
7) **TEST** Key
8) Lanyard under rubber band



The EPIRB is supplied with a clear label to protect the UIN information on the side of the product. Please fit this before use.

3. OPERATION

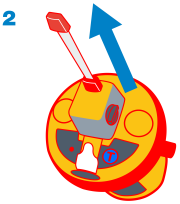
WARNING: USE ONLY IN SITUATIONS
OF GRAVE AND IMMINENT DANGER.
MISUSE MAY RESULT IN A SEVERE PENALTY

Ensure that your EPIRB1 is always fitted with an unused battery that is within the marked expiry date. Failure to do so may result in reduced operating time when used in a real emergency. Please observe the recommendations on testing in section 04.

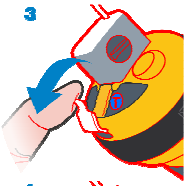
3.1 Activation

Only activate your EPIRB in situations requiring emergency assistance from the rescue authorities. Deliberate misuse of your EPIRB may result in a fine.

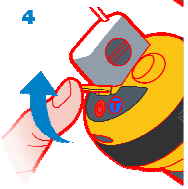
- Remove the EPIRB from its bracket by pushing the tab on the bottom of the cradle down
- To activate your EPIRB in an emergency, pull the red antenna tab out completely until firm resistance is felt (25.5cm).



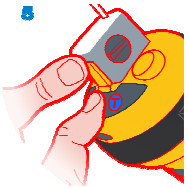
- Remove break off tab
- Lift the protective flap and press the **ON** key for one second until the green starts LED flashing and then release the key.
- During operation the green LED will flash once every five seconds while the GPS is turned on and obtaining a fix. Once a fix is obtained, the green LED will flash quickly three times.



- Each time a 406MHz transmission is made the LED will flash quickly five times; green for transmission with a GPS position and red for a transmission without a position.
- The Red LED will flash every 2.5 seconds while the 121.5MHz homing beacon is active.



- When operating the EPIRB in water, tether the beacon to your body or the liferaft.
- Hold your beacon with the antenna standing vertically. Keep the area marked 'GPS Antenna' free from obstruction, which would interfere with the GPS reception.



The EPIRB does not transmit an alert until approximately 50seconds has elapsed. This allows time to deactivate the unit if accidentally turned on. The homing beacon is not activated until after the first alert is sent.

3.2 Deactivation

To deactivate your EPIRB after use or if it is accidentally activated, press the **ON** key for one second until the indicator LED flashes red twice, then release. Rewind the antenna using the knob on the top of the EPIRB. Do not push the antenna back into the EPIRB as this may cause it to be damaged.

Should your EPIRB fail to deactivate using the ON key, wind in the antenna and completely wrap the EPIRB in several layers of aluminium foil, or place in a metal container.

3.3 False Alerts

False alerts cause the rescue authorities unnecessary time and expense. To avoid false alerts make sure your EPIRB is safely stowed with the protective cover closed and the antenna fully wound in. Make sure that there is no excessive pressure applied to the protective cover. Ensure that anybody carrying the EPIRB is fully aware that this device is for emergencies and should only be used in situations of grave and imminent danger.

If you accidentally activate your beacon or otherwise set it off when a rescue is not required, contact your local emergency services as soon as possible and advise them of your beacon's 15 digit HEX code (UIN), your current location and the time the beacon was first activated.

For USA phone: 1-800-851-3051 (USAF Rescue Coordination Center)

For UK phone: +44 (0)1326 317575. (UKCG)

4. TESTING

Routine testing of your EPIRB is recommended to ensure it is in good working order if needed, but please follow the guidance notes below on the frequency that tests should be carried out. Please remember that each test will reduce the battery capacity slightly and reduce the operation time of your EPIRB during an emergency.

4.1 Beacon test

Pull the antenna out completely until firm resistance is felt (25.5cm) before commencing the test. Retract the antenna after the test.

To test your EPIRB1 is functioning correctly, press and hold the **TEST** key for one second. The red LED will come on to indicate the switch is depressed, followed by the red LED flashing rapidly, indicating test mode is activated. The switch may now be released. The strobe light will flash once (indicating that the 406 and121.5MHz signal has been transmitted). The indicator LED will flash green or amber to show a pass or red to show fail status. The unit will automatically turn off. *Note: This status indication is repeated a second time after a short delay.*

The number of green/amber flashes in each group indicates the number of hours the battery has been used for as shown in the table below.

Self Test Result Indication

No of Flashes	No of Hours Used Green/Amber Indicator*	Type of Failure Red indicator
1 Flash	0 to 1hr ✸	121.5MHz homer ✸
	1 to 2hrs ✸	
2 Flashes	2 to 4hrs ✸✸	406MHz generation ✸✸
3 Flashes	4 to 6hrs ✸✸✸	406MHz power ✸✸✸
4 Flashes	6 to 8hrs ✸✸✸✸	Faulty battery ✸✸✸✸
5 Flashes	8 to 10hrs ✸✸✸✸✸	Other failure ✸✸✸✸✸
6 Flashes	Over 10hrs ✸✸✸✸✸✸	

* Changes to Amber after 1 hour of use

Because the test transmits a short burst on the aircraft distress frequency of 121.5MHz, please only carry out this test in the first five minutes of each hour.

It is recommended to test your EPIRB once a month.

The amber test result indicates the battery has been used for over one hour or the allowed number of tests has been exceeded. The EPIRB will still operate normally in distress, but the battery should be replaced to ensure the full operating life when your EPIRB is needed

4.2 GPS test

WARNING: AS TESTING THE GPS RECEIVER EXPENDS SIGNIFICANT AMOUNTS OF BATTERY ENERGY DO NOT TEST THE GPS OPERATION MORE THAN ONCE A YEAR. TESTING THE GPS RECEIVER IS LIMITED TO 12 TESTS OVER THE LIFETIME OF THE BATTERY, AFTER THIS THE GPS TEST WILL FAIL TO ACTIVATE.

THIS TEST MUST ONLY BE PERFORMED WHERE THE EPIRB HAS A CLEAR AND UNOBSTRUCTED VIEW OF THE SKY. THIS IS REQUIRED TO ALLOW THE GPS RECEIVER TO ACQUIRE A SIGNAL FROM SUFFICIENT SATELLITES TO ALLOW IT TO DETERMINE A POSITION. MAKE SURE THE AREA MARKED "GPS ANTENNA" IS NOT OBSTRUCTED.

Press and hold the TEST key for ten seconds. The LED will illuminate red to indicate the key has been pressed then start flashing.

Note: If the TEST key is released before ten seconds, the EPIRB will enter the self test mode.

After ten seconds the LED will change to a long red flash and a short green flash until either a position fix is obtained or the GPS test fails. A successful test will be indicated by the strobe flashing and the green LED flashing. The number of green flashes indicates the number of GPS tests remaining. The unit automatically turns off after the test indication.

If there is no GPS position after five minutes, a failure will be indicated by the red LED flashing after which the unit will turn off.

The test can be ended at any time by holding the ON key for one second or by holding the TEST key for five seconds.

5. APPENDIX

5.1 Maintenance and Troubleshooting

Your EPIRB will require little maintenance except periodic cleaning, if required. Always use a damp cloth to clean the case and dry thoroughly. Do not use solvents or other cleaning fluids as this may cause the plastics to deteriorate. Ensure the antenna is free to unwind.

5.2 Batteries

The EPIRB1 contains Lithium batteries for long operating life. Your battery must be replaced either after the expiry date or after the EPIRB has been activated, even if only for a short period of time. Battery replacement must be done at an Ocean Signal authorised battery replacement centre.

5.3 Transport

When shipping your EPIRB the following guidance and regulations should be followed, but you are advised to contact your nearest battery replacement centre or Ocean Signal prior to shipping as regulations may have changed.

- Always pack your EPIRB securely in a stout cardboard carton. Ocean Signal advises that you keep the original packaging in case of return for service.
- For surface transport the EPIRB may be shipped 'excepted' under special provision 188.
- For air transport the EPIRB should be shipped as category UN3091 and packed under IATA packing instruction 970 section II. If you are hand carrying your EPIRB on an aircraft please contact you airline for advice.

5.4 Disposal

Care should be taken when disposing of your EPIRB when it is no longer required. It is recommended to remove the battery from the EPIRB by removing the case lid. The case screws are covered by the top label. Dispose of the battery in accordance with local waste regulations. Please note that the EPIRB1 is not user serviceable and removing the lid will invalidate the warranty.

5.5 Specifications

406MHz Transmitter

Frequency ..... 406.040 MHz ±1KHz
Output Power ..... 5W Typical
Modulation ..... Phase ±1.1 Radians Pk
..... (16K0G1D)
Encoding ..... Biphase L
Rate ..... 400 bps

121.5MHz Transmitter

Frequency ..... 121.5 MHz
Output Power ..... 40mW±2dB
Modulation ..... Swept Tone AM (3K20A3X)
Modulation Depth ..... ~97%
Frequency Stability ..... ±50ppm
Duty Cycle ..... ~35%

Low Duty Cycle Strobe

Light Type ..... Dual High Intensity LED
Flash Rate ..... 20-30 per minute

Battery

Type ..... Lithium Manganese Dioxide (LiMnO2)
Operating ..... >48Hours @ -20°C*

GPS Receiver

Satellites Tracked ..... 66 Channel
Sensitivity ..... -148dBm
Cold Start Re-acquisition ..... -163dBm
GPS Antenna ..... Microstrip Patch

General

Dimensions of Body ..... 178mm x 89mm x 100mm
Weight 422grams

Environmental

IEC60945 Category ..... Portable
Operating Temperature ..... Class 2 -20C to +55C
Storage Temperature ..... Class 2 -30C to +70C
Waterproof ..... 10m depth

Approvals

Cospas Sarsat standards T.001, T.007
Test standards ..... IEC61097-2, RTCM SC11000-2

** After 12 years storage at no greater than 20°C*

5.6 Approvals

5.6.1 Marine Equipment Directive

The EPIRB1 is approved under the EU Marine Equipment Directive 96/98/EC as amended by Directive 2012/32/EU under Annex A,1/5.6 for carry off purposes only.

5.6.2 Industry Canada Approval

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

5.7 Registration

To register your beacon, contact your national registration authority via post, email or online. Provide your 15 digit HEX ID (UIN), 5 digit checksum if required, your contact details and emergency contact information. Some countries also require additional information such as boat type and identification or alternative emergency contacts.

For UK registrations go to:

www.dft.gov.uk/mca/epirb

For USA registrations go to:

www.beaconregistration.noaa.gov/

5.8 Limited Warranty

Your Ocean Signal EPIRB1 is warranted against manufacturing defects in materials and workmanship for a period of five years from the date of purchase and in accordance with the following conditions.

Ocean Signal will at its discretion, repair or replace faulty product free of charge excluding the cost of shipping. Proof of purchase shall be required in order for a warranty claim to be valid from the original purchaser. All claims shall be made in writing to Ocean Signal or an approved service dealer.

Ocean Signal shall not be liable to the buyer under the above warranty:

- for any repairs or modifications carried out on the EPIRB using parts that are not supplied or approved by the manufacture Ocean Signal including batteries and for work carried out other than by Ocean Signal or approved service dealers,
- for any part, material or accessory that is not manufactured by Ocean Signal the consumer will be covered by the guarantee / warranty offered to Ocean Signal by the manufacturer or supplier,
- for product which has not been fully paid for,
- for any product supplied by Ocean Signal to a customer under an alternative warranty agreement,
- for the cost of shipping product to and from the customer.

The Battery is only warranted until the date of expiry and provided the unit is tested in accordance with the information in the user manual. This warranty does not apply to a used battery as indicated by the electronic witness (see page 8).

The following specific items are excluded from this warranty:

- lift up flap and associated mechanism,
- retractable antenna.

This warranty does not affect your statutory rights. This warranty is to be interpreted under English law.

For further assistance please contact our Technical Service Department.

Email: service@oceansignal.com

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United Kingdom

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Beacon technical Data sheet

EPIRB1 Technical Data Sheet

406MHz Satellite Transmitter

Frequency 406.040MHz
Tolerance ..... ±1kHz
Stability 2ppb/100ms
Output Power ..... 5watts (nominal)
Modulation ..... Phase ±1.1radians (peak)
Emission Designator 16K0G1D
Encoding ..... Bi-phase L
Data Rate..... 400bps
Duration 520ms

121.5MHz Homing Beacon

Frequency 121.5MHz
Stability ..... ±50ppm
Output Power ..... 40mW±2dB
Modulation ..... Swept Tone AM
Emission Designator 3K20A3X
Modulation Depth 85-100%
Sweep Range ..... 400Hz – 1300Hz

Strobe Light

Light Type ..... Dual High intensity LED

GPS Receiver

Sensitivity Cold Start ..... -148dBm
Sensitivity Re-acquisition ..... -163dBm
Satellites channels tracked 66
GPS Antenna ..... Microstrip patch

Battery

Type..... Lithium Primary
Chemistry ..... Manganese Dioxide (LiMnO2)
Operational Life ..... >48hours @ -20°C

Environmental

Operating Temperature Range ..... -20°C to +55°C
Storage Temperature Range ..... -30°C to +70°C
Waterproof ..... >10metres at +20°C
Drop..... 1metre @ -30°C

Dimensions

Height (Antenna stowed) 178mm
Diameter (excluding lanyard tab) 89mm

Maximum width (including lanyard tab) 100mm
Weight..... 422g

Marketing brochure

T.007: 5.f Brochure

The Ocean Signal EPIRB1 brochure images follow. The attached images are from a draft of the final version. The brochure is an A6 fan fold document with six sides. The pages are presented in the order they are intended to be read.

rescueME EPIRB1 - Your worldwide link to the emergency services

rescueME EPIRB1 the world's smallest Emergency Position Indicating Radio Beacon*

- 12 year **battery life**
- World's Smallest EPIRB
- Easily deployed antenna
- Waterproof to 15m
- 66 Channel GPS Fast Accurate Positioning

ocean SIGNAL

Communication and Safety at Sea

- Waterproof to 15m
- Antenna rewinds after use
- FREE Subscription free service

In an emergency **rescueME PLB1** provides 3 methods of communicating your location ensuring maximum chance of survival

- 406 MHz **Link via satellite to Emergency Services**
- 121.5 MHz **Homing Beacon to aid final location by Search and Rescue craft**
- **High intesity strobe for visual location**

Whenever you are at sea, the **rescueME EPIRB1** Emergency Position Indicating Radio Beacon give confidence that the emergency services can be alerted easily and reliably in an emergency.

Transmitting via the COSPAS SARSAT satellite system ensures your alert is rapidly received by the nearest rescue centre for prompt action.

Built in 66 channel GPS receiver ensures accurate position promptly reported to the SAR resources.

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