



## TYPE APPROVAL CERTIFICATE

For a 406 Megahertz Distress Beacon for use with the Cospas-Sarsat Satellite System

**Certificate Number: 284**

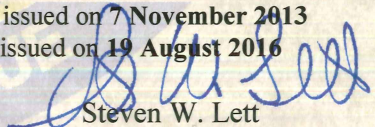
**Manufacturer:** ACR Electronics Inc., Fort Lauderdale, USA  
**Beacon Type(s):** Float-Free/ Non-Float Free EPIRB  
**Beacon Model(s):** RLB-36, RLB-37, RLB-38, RLB-40, RLB-37M  
**Test Laboratory:** TUV Product Service, UK  
**Date of Test:** March – June 2008

Details of the beacon features and battery type are provided overleaf.

The Cospas-Sarsat Council hereby certifies that the 406 MHz Distress Beacon Model identified above is compatible with the Cospas-Sarsat System as defined in documents:

C/S T.001 Specification for Cospas-Sarsat 406 MHz Distress Beacon  
Issue 3 – Revision 8, November 2007  
C/S T.007 Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard  
Issue 4 – Revision 2, November 2007

Original TAC 189 issued on 17 July 2008  
2-nd extension TAC 234 issued on 16 August 2012  
4-th extension TAC 258 issued on 18 December 2014  
6-th extension TAC 284 issued on 7 February 2017  
1-st extension TAC 213 issued on 7 March 2011  
3-rd extension TAC 246 issued on 7 November 2013  
5-th extension TAC 278 issued on 19 August 2016

  
Steven W. Lett  
Head of Cospas-Sarsat Secretariat

**NOTE, HOWEVER:**

1. This certificate does not authorize the operation or sale of any 406 MHz distress beacon. Such authorization may require type acceptance by national administrations in countries where the beacon will be distributed, and may also be subject to national licensing requirements.
2. This certificate is intended only as a formal notification to the above identified manufacturer that the Cospas-Sarsat Council has determined, on the basis of test data of a beacon submitted by the manufacturer, that 406 MHz distress beacons of the type identified herein meet the standards for use with the Cospas-Sarsat System.
3. Although the manufacturer has formally stated that all beacons identified with the above model name(s) will meet the Cospas-Sarsat specification referenced above, this certificate is not a warranty and Cospas-Sarsat hereby expressly disclaims any and all liability arising out of or in connection with the issuance, use or misuse of the certificate.
4. This certificate is subject to revocation by the Cospas-Sarsat Council should the beacon type for which it is issued cease to meet the Cospas-Sarsat specification. A new certificate may be issued after satisfactory corrective action has been taken and correct performance demonstrated in accordance with the Cospas-Sarsat Type Approval Standard.
5. Cospas-Sarsat type approval testing requirements only address the electrical performance of the beacon at 406 MHz. Conformance of the beacon to operational and environmental requirements is the responsibility of national administrations.

**Beacon Model:** RLB-36, RLB-37, RLB-38, RLB-40, RLB-37M

**Additional Model Names:** 3Si Guardian (for marketing of model RLB-37 by Ocean Safety Ltd. of UK), ResQmate<sup>(TM)</sup> G (for marketing of model RLB-37M)

**Manufacturer:** ACR Electronics Inc., Fort Lauderdale, USA

**Operating temperature range:** -20°C to +55°C

**Battery Details:** Lithium Manganese Dioxide, Panasonic CR123A, 3x3 cells of 2/3 A-size

**Operating Lifetime:** 48 hours

**Transmit Frequency:** 406.037 MHz

**Beacon Model Features:**

- 121.5 MHz auxiliary radio locating device (50 mW, duty cycle – 98%);
- Strobe light (brightness > 0.75 cd, duty cycle - 21 flashes/minute);
- Internal GPS, model ‘Wonde Proud A1-11-0688-1’<sup>(3) (4) (5)</sup>;
- Optical interface with external navigation device via NMEA0183 protocol<sup>(2)</sup>;
- Self-test mode, one burst of 440 ms;
- Integrated antenna;
- Automatic activation combined with hydrostatic release mechanism<sup>(2) (3)</sup>;
- OLED secondary indicator display<sup>(4)</sup>; and
- Beacon was tested in EPIRB configuration (“floating in water” and “above ground”) only.

**Approved Beacon Message Protocols:** Beacon is approved for encoding with the message protocols indicated with "Yes" and black text below:

USER PROTOCOLS <sup>(1)</sup>		USER-LOCATION PROTOCOLS	LOCATION PROTOCOLS <sup>(2) (3) (4) (5)</sup>		
Yes	Maritime with MMSI	No	Maritime with MMSI	Yes	Standard Location: EPIRB with MMSI
Yes	Maritime with Radio Call Sign	No	Maritime with Radio Call Sign	Yes	Standard Location: EPIRB with Serial Number
No	EPIRB Float Free with Serial Number	No	EPIRB Float Free with Serial Number	No	Standard Location: ELT with 24-bit Address
Yes	EPIRB Non Float Free with Serial Number	No	EPIRB Non Float Free with Serial Number	No	Standard Location: ELT with Aircraft Operator Designator
Yes	Radio Call Sign	No	Radio Call Sign	No	Standard Location: ELT with Serial Number
No	Aviation	No	Aviation	No	Standard Location: PLB with Serial Number
No	ELT with Serial Number	No	ELT with Serial Number	Yes	National Location: EPIRB
No	ELT with Aircraft Operator and Serial Number	No	ELT with Aircraft Operator and Serial Number	No	National Location: ELT
No	ELT with Aircraft 24-bit Address	No	ELT with Aircraft 24-bit Address	No	National Location: PLB
No	PLB with Serial Number	No	PLB with Serial Number		
No	National (Short Format Message)				
No	National (Long Format Message)				

**NOTES:**

- (1) – applicable only to the Non-Float Free, non-GPS model “RLB-40”
- (2) – applicable to the Float Free, non-GPS model “RLB-38”
- (3) – applicable to the Float Free, GPS-enabled model “RLB-37”
- (4) – applicable to the Float Free, GPS-enabled model “RLB-36”
- (5) – applicable to the Non-Float Free, manual activation GPS-enabled model “RLB-37M”