TYPE APPROVAL CERTIFICATE

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

Certificate Number: 1003

Manufacturer:	ACR Electronics Inc., Fort Lauderdale, USA
Beacon Type:	PLB (EPIRB Coded)
Beacon Model(s):	PLB-410 / PLB-435
Additional Model Name:	ResQLink 410 RLS / ResQLink View RLS
Test Laboratory:	TÜV SÜD Product Service Ltd, UK
Date of Test:	June 2019 – March 2021

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 4 - Rev. 4, February 2019
C/S T.007 Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard, Issue 5 - Rev.3, February 2019

Original TAC 311 issued on 4 March 2019
RLS TACs 1003, 2003, 3003 issued on 23 April 2021

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.

6. This certificate authorizes the use of the registered name mark “Cospas-Sarsat” and of registered trademarks for the Programme’s logos, for labelling, instruction materials, and marketing of the 406-MHz beacon model identified, but not for other marketing or sales purposes (i.e., not for general uses beyond this specific beacon model).

Certificate Number: 1003 **Dated: 23 April 2021**

Beacon Models: PLB-410 (ResQLink 410 RLS) / PLB-435 (ResQLink View RLS) [1]

Operating temperature range: -20°C to +55°C (Class 2)

Battery Details: Panasonic CR123A, Lithium Manganese Dioxide (3 cells, ⅔ A-size)

Operating Lifetime: 24 hours

Transmit Frequency: 406.031 MHz

Beacon Model Features:

- 121.5 MHz auxiliary radio locating device (50 mW, duty cycle 33%);
- Strobe light, 6 flashes/minute;
- Internal GPS receiver model: uBlox., model SAM-M8Q, ACR P/N A1-11-1197 Rev.A;
- Encoded position data provided using GPS, Return Link Services provided via Galileo;
- Self-test mode, one burst of 440 ms;
- Integrated antenna;
- GNSS self-test, one burst of 520 ms;
- Beacons were tested in PLB configuration "on dry ground" and "above ground" and attached to a personal floatation device (PFD) and kept above water.

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

USER PROTOCOLS		USER-LOCATION PROTOCOLS		LOCATION PROTOCOLS	
No	Maritime with MMSI	No	Maritime with MMSI	No	Standard Location: EPIRB with MMSI
No	Maritime with Radio Call Sign	No	Maritime with Radio Call Sign	No	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
No	EPIRB Non Float Free with Serial Number	No	EPIRB Non Float Free with Serial Number	No	Standard Location: ELT with Aircraft Operator Designator
No	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	No	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	**Yes**	**RLS Location: EPIRB**
No	National (Short Format Message)			No	RLS Location: ELT
No	National (Long Format Message)			No	RLS Location: PLB
				No	ELT(DT) Location: ELT with Serial Number
				No	ELT(DT) Location: ELT with Aircraft Operator and Serial Number
				No	ELT(DT) Location: ELT with Aircraft 24-bit Address

NOTE: [1] The model "PLB-435 (ResQLink View RLS)" is identical to the base model "PLB-410", but it is fitted with an additional display window which displays pre-defined information messages to the user.