COSPAS SARSAT

TYPE APPROVAL CERTIFICATE

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

Certificate Number: 198

Manufacturer:	ACR Electronics Inc., Fort Lauderdale, USA
Beacon Type(s):	PLB
Beacon Model(s):	PLB-350B and PLB-350A
Test Laboratory:	TUV Product Service, UK
Date of Test:	January – June 2009

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 - Rev. 9, October 2008

C/S T.007   Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard
Issue 4 - Rev.3, October 2008

Date Originally Issued: **15 June 2009**

D. Levesque
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:	PLB-350A and PLB-350B

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

Battery Details:	Sanyo CR123A Lithium Manganese Dioxide (Li-MnO$_2$, 4 cells, ⅔ A-size)

Operating Lifetime:	24 hours

Transmit Frequency:	406.037 MHz

Beacon Model Features:

- 121.5 MHz auxiliary radio locating device (50 mW, duty cycle 98%);
- Strobe light, 21 flashes/minute;
- Internal GPS model: Wonde Proud, model A1-11-0688-1 (*);
- Self-test mode, one burst of 440 ms;
- Integrated antenna;
- GNSS self-test, one burst of 520 ms (*);
- Slim and Float variants of beacon casings; and
- Beacon was tested in PLB configuration ("on dry ground" 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		USER-LOCATION PROTOCOLS		LOCATION PROTOCOLS	
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	Yes	Standard Location: ELT with 24-bit Address (*)
Yes	EPIRB Non Float Free with Serial Number (**)	No	EPIRB Non Float Free with Serial Number	Yes	Standard Location: ELT with Aircraft Operator Designator (*)
Yes	Radio Call Sign (**)	No	Radio Call Sign	Yes	Standard Location: ELT with Serial Number (*)
Yes	Aviation (**)	No	Aviation	Yes	Standard Location: PLB with Serial Number (*)
Yes	ELT with Serial Number (**)	No	ELT with Serial Number	Yes	National Location: EPIRB (*)
Yes	ELT with Aircraft Operator and Serial Number (**)	No	ELT with Aircraft Operator and Serial Number	Yes	National Location: ELT (*)
Yes	ELT with Aircraft 24-bit Address (**)	No	ELT with Aircraft 24-bit Address	Yes	National Location: PLB (*)
Yes	PLB with Serial Number (**)	No	PLB with Serial Number		
Yes	National (Short Format Message) (**)				
No	National (Long Format Message)				

NOTES: (*)   - applicable to PLB-350B (GPS enabled model);
            (**)   - applicable to PLB-350A (non-GPS model).