



TYPE APPROVAL CERTIFICATE

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

Certificate Number: 272

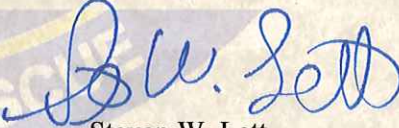
Manufacturer: ACR Electronics, USA
Beacon Type: ELT (automatic fixed)
Beacon Model: Artex ELT-3000, Artex ELT-3000 HM
Test Laboratory: TÜV SÜD Product Service Ltd., Fareham, UK
Dates of Test: February – August 2015

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. 15, October 2014
C/S T.007 Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard
Issue 4 – Rev. 9, October 2014

Date of Issue: **24 December 2015**


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: Artex ELT-3000, Artex ELT-3000 HM

Beacon Type: ELT (automatic fixed)

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

Battery Details: Lithium Manganese Dioxide (Li-MnO₂), Ultralife U-10028-T1, 2xD-cells;

Operating Lifetime: 24 hours

Transmit Frequency: 406.040 MHz

External antennas: ACR P/N 110-338 (single-input white rod antenna),
 ACR P/N 110-338-01 (single-input black rod antenna);
 ACR P/N 110-340 (single-input white blade antenna);
 ACR P/N 110-340-01 (single-input grey blade antenna);
 ACR P/N 110-341 (single-input white blade antenna);
 ACR P/N 110-343 (single-input white whip antenna).

Beacon Model Features:

- 121.5/243 MHz auxiliary radio-locating device (nominal power: 100 mW, duty cycle 49%);
- Interface to external navigation device: electrical interface: ARINC 429 and RS 232; data protocols: AB (aviation) and ARINC 429 Label 310 and 311; physical interface: 22 pin Mil-standards circular connector;
- Self-test mode (one burst of 440 ms), GNSS Self-test mode (one burst of 520 ms);
- Manual and automatic activation via a single-axis G-switch (model "Artex ELT-3000") or via six-axis G-switch (model Artex ELT-3000 HM");
- 2-wire remote switch P/N A3-06-2759 Rev. B;
- 5-wire remote switch P/N 345-6196 Rev. F1 (requires external 14/28 VDC power supply);
- External Buzzer P/N 452-6505 Rev. B;
- Programming adaptor;
- 406-MHz transmitter automatically switches off after 24 hours of operation.

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	Yes Standard Location: ELT with 24-bit Address
No EPIRB Non Float Free with Serial Number	No EPIRB Non Float Free with Serial Number	Yes Standard Location: ELT with Aircraft Operator Designator
No Radio Call Sign	No Radio Call Sign	Yes Standard Location: ELT with Serial Number
Yes Aviation	Yes Aviation	No Standard Location: PLB with Serial Number
Yes ELT with Serial Number	Yes ELT with Serial Number	No National Location: EPIRB
Yes ELT with Aircraft Operator and Serial Number	Yes ELT with Aircraft Operator and Serial Number	Yes National Location: ELT
Yes ELT with Aircraft 24-bit Address	Yes 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)		