503 Series Deployable ELT

Techtest Limited

HR Smith Group of Companies
www.hr-smith.com

503 Series Deployable ELT

The need to accurately pinpoint downed aircraft through the use of a Crash Position Indicator (CPI) or Automatically Deployable Beacon (ADELT) has always existed.

The Techtest 503-16 deployable ELT series combines full Cospas/Sarsat coverage together with the transmission of last known GPS co-ordinates to accurately locate downed aircraft.

Features include; on aircraft programming of Cospas/Sarsat protocols allowing for easy removal and replacement of the beacon, a modular design allowing for ease of maintenance and a multi-axis programmable G-Switch that ensures reliable operation against CAA Specification 16.

The 503-16 series is utilised globally by all major helicopter manufactures and operators.

CPI Beacon

- 121.5MHz, (243MHz optional) & 406MHz
- GPS co-ordinates transmitted via 406MHz long message
- Class A ELT
- Automatic and Manual deployment controls
- FDR and CVR memory module (optional)

Cockpit Control Panel

- System test
- Beacon transmit guarded switch
- Beacon deploy guarded switch
- 'Test' and 'Beacon Deployed' LEDs
- Compatible with Night Vision Goggles (NVG)

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System Interface Unit

- System 'Arm' and 'Off' guarded switch
- Multi-Axis programmable G-Switch
- Back-up battery

Beacon Release Unit

- Compressed spring for deployment
- CPI beacon attachment point
- Water activated switch (optional)

Transmitter Signal

Frequency	121.5MHz/243MHz*/406.025MHz
Peak Effective Radiated Power	75mW at 121.5MHz 5.0W at 406.025MHz
Frequency Stability	2 x 10^{-9} per min
Transmission Duration	24Hrs min, 5W PERP at -40˚C 48Hrs min, 75mW PERP at -40˚C
Repetition Rate	520ms (±1%) every 50 secs (±5%)

Activation

Manual	The 503 Series of CPI can be manually operated via the cockpit control panel
Automatic	The CPI can be reliably activated by the multi-axis G-Switch or together with the on-board water activated switch

Compliance

The 503 Series of CPIs are compliant with the following specifications:

COSPAS/SARSAT specification C/ST.001
EUROCAE ED-62/RTCA DO-204/RTCA DO-183
EUROCAE ED-14C/RTCA DO-160C
CAA Specification No16, Issue 2

Dimensions, Weight and Battery Storage Life

CPI Beacon	
Part No. 503-16 Part No. 503-16GPS Part No. 503-16MM	305mm x 92mm (12 ins x 3.62 ins)
Battery Storage Life	5 years
Cockpit Control Panel Part No. 503-22 Series	146.2mm x 38mm x 66mm (5.75ins x 1.5ins x 2.6ins)
Beacon Release Unit Part No. 503-21 Part No. 503-21-1 (with integrated water activated switch) Part No. 503-21-2	140mm x 70mm x 67mm (5.5ins x 2.76ins x 2.64ins)
System Interface Unit Part No. 503-24 Series Part No. 503-42 Series	217mm x 120mm x 82mm (8.5ins x 4.7ins x 3.2ins)
Water Activated Switch Part No. 503-23-2	140mm x 59mm x 31mm (5.5ins x 2.6ins x 1.2ins)
Beacon Deployment Control Part No. 503-41	140mm x 55mm x 89mm (5.5ins x 2.17ins x 3.5ins)
Aircraft Ident Config. Unit Part No. 503-40	150mm x 66mm x 40mm (5.9ins x 2.6ins x 1.57ins)

Approvals

TSO C91a, JTSO-2C91a, TSO C126 and JTSO-2C126
CAA WR01029
COSPAS/SARSAT Approval 244
TCCA

*optional

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Techtest Limited

Design, Manufacture & Supply of Search and Rescue Equipment

PLB Units

Our range of PLB's transmit modulated signals on 121.5 / 243MHz distress frequency with characteristics in accordance with STANAG 7007, plus 406MHz in accordance with COSPAS/SARSAT.

ELT's

All 503 series Emergency Locator Transmitters are designed to work with the COSPAS-SARSAT emergency satellite system and operate on 406 MHz, 121.5 MHz and 243 MHz. The latest upgrade utilises the iridium satellite network for aircraft tracking and automatic ELT Activation.

Direction Finding SAR

Our DF system is designed to reduce the time to locate 121.5MHz, 243 MHz and 406MHz emergency locator beacons. The system is capable of monitoring four separate beacons at once and comprises of three modules: an antenna, a cockpit display and a control unit.

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