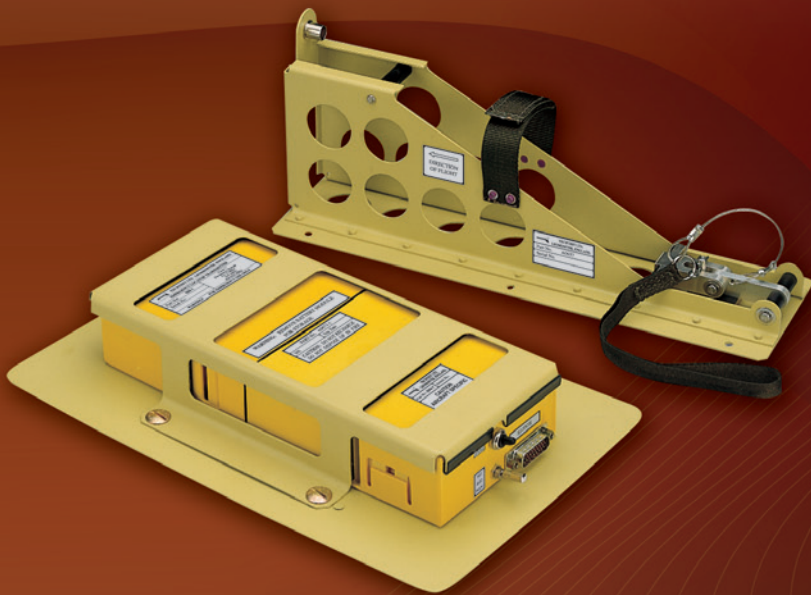


503 Series Emergency Locator Transmitter



503 Series Emergency Locator Transmitter

Fully Approved TSO C91a & C-126 COSPAS / SARSAT Approval 97

- Extended frequency coverage
- Full remote operation
- Fixed and rotary wing operation
- Multi-axis G switch for full aircraft compatibility
- Solid state G switch operation eliminates false/rogue operation
- Fixed/portable options
- Easy aircraft removal for man portable Personal Locator Beacon use
- Modular construction
- GPS option

The need to accurately pin-point downed aircraft through the use of an Emergency Locator Transmitter (ELT) has always existed. The increasing use of both COSPAS/SARSAT and Global Positioning System (GPS) has highlighted the need for an ELT System with expanded range capabilities.

The Techtest 503 ELT System offers just that; full frequency coverage including 121.5MHz, 243MHz and 406.025MHz. The optional inclusion of last known GPS co-ordinates can be input directly into the system or there is the ability to have embedded stand-alone GPS within the G Switch unit.

Housed within high quality durable thermoplastic, the ELT units are through coloured yellow thermoplastic for high visibility.

Unique features of the 503 Series of ELT are the ability to have full remote extended range operation, incorporating a multi-axis G Switch, together with both fixed or portable ELT function in one unit.

Portable operation allows for fast, snap release of the housing, with simple removal of the transmitter unit for use as a man portable Personal Locator beacon should this be required.

Specification

Transmitter Signal

Frequency	121.5MHz / 243.0MHz / 406.025 MHz
Peak Effective Radiated Power	0.1W at 121.5 / 243.0MHz 5.0W at 406.025MHz
Frequency Stability	2 x 10 ⁻⁹ per min
Transmission Duration	24Hrs min, 5W PERP at -40° C 48Hrs min, 0.1W PERP at -40° C
Repetition Rate	520ms (±1%) every 50 secs (±5%)

Activation

Manual	The 503 Series of ELT's can be manually operated via the cockpit mounted remote switching panel.
Automatic	The ELT can be reliably activated by the multi-axis G Switch.

Dimensions 255 x 105 x 45mm

Weight 1.3kg

Battery Storage Life 6 years

Approvals TSO C91a and C126

CAA WR01029

COSPAS/SARSAT Approval No. 97

Compliance

The 503 series of ELT's are compliant with the following specifications:
COSPAS/SARSAT specification C/ST.001
EUROCAE ED-62 / RTCA DO-204
EUROCAE ED-14C / RTCA DO-160C
CAP 208 Aircraft Radio Equipment Issue 2
January 1991 Volume 1, Part 1

Product Range

Part Number	
503-1	Transmitter Only
503-4	Remote Controller
503-7	Multi-axis G Switch Module
503-17	Remote Controller with back lighting
503-19	Multi-axis G Switch Module for helicopter mounting
503-20	Remote Controller with NVG lighting
503-35	Multi-axis G Switch Module with embedded GPS
503-36	Multi-axis G Switch Module with embedded GPS for helicopter mounting

Accessories

Part Number	
10-102-19	ELT Rigid Whip Antenna - Aircraft Mounted
10-102-33	ELT Rigid Whip Antenna - Aircraft Mounted
10-118-28	ELT Blade Antenna - Aircraft Mounted
10-118-35	ELT/GPS Blade Antenna - Aircraft Mounted
10-274-1	ELT Flexible Whip Antenna - Transmitter Mounted
A0637	Mounting Tray - Portable Installation
A0637-1	Mounting Tray - Fixed Installation

503 Series of Deployable Beacon with built-in GPS and FDR memory module



Crash Position Indicator

503-16 Series CPI Beacon with Memory Module

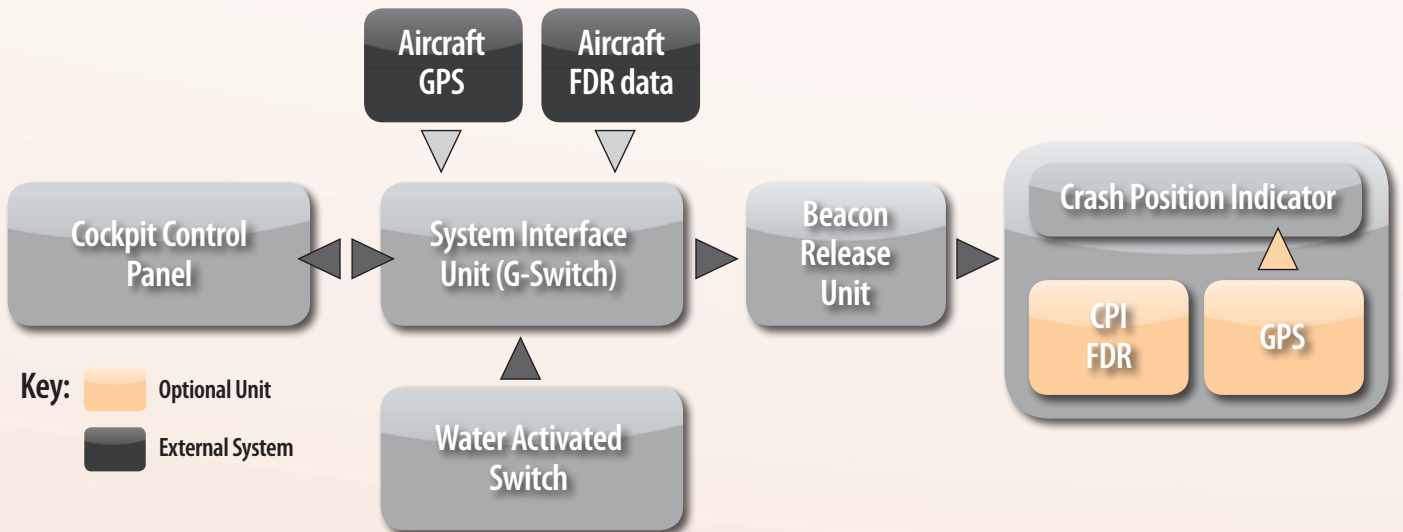
- Fixed and rotary wing operation
- Built-in GPS option
- Multi-axis G-Switch operation
- Solid state activation devices eliminates rogue operation
- On aircraft programming for Cospas/Sarsat aircraft protocols
- Flight Data Recorder (FDR) memory option
- GPS transmission of lat long data on 406 MHz message
- Maintenance lock-out for safe hangar environment
- Modular construction

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 increasing use of Cospas/Sarsat and Global Positioning System (GPS) has highlighted the need for a CPI which has expanded capabilities. The Techtest 503 Series of CPI includes full Cospas/Sarsat coverage together with the inclusion of transmission of last known GPS co-ordinates on the satellite 406MHz long message.

Features include on aircraft programming of Cospas/Sarsat protocols allowing easy removal and replacement of the CPI beacon is automatically programmed with the existing aircraft protocol.

Modular design of the system allows for ease of maintenance and multi-axis solid state G-Switch technology ensures reliable operation against CAA Specification 16.

The 503-16 Series CPI Beacon can now be supplied with an FDR or HUMS Memory Module. The Beacon is directly interchangeable with existing units and will provide the operator with the additional features displayed overleaf.



Specification

Additional Features

- Ability to download data at the aircraft through remote connector
- Ethernet recorder interface
- Records ARINC 573/717 Bi-Phase data
- Records FDR or HUMS data frame
- Automatic input data rate detection
- Memory: 500mb NAND
- Built in self test
- Fault condition output
- Data encryption
- Recording rates:

1,200 hrs @ 64wps	151 hrs @ 512wps
600 hrs @ 128wps	75 hrs @ 1024 wps
303 hrs @ 256 wps	

Ground Support Equipment

HHMPI for data download
(can also download from most fixed FDR's)
STARS software for data replay

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

*optional

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	305mm x 92mm
Part No. 503-16GPS	(12 ins x 3.62 ins)
Part No. 503-16MM	
Part No. 503-16MMGPS	
Part No. 503-16MMGPS-243	

Battery Storage Life 5 years

Cockpit Control Panel 146.2mm x 38mm x 66mm
Part No. 503-22 Series (5.75ins x 1.5ins x 2.6ins)

Beacon Release Unit 140mm x 70mm x 67mm
Part No. 503-21 (5.5ins x 2.76ins x 2.64ins)
Part No. 503-21-1 (with integrated water activated switch)

System Interface Unit 217mm x 120mm x 82mm
Part No. 503-24 Series (8.5ins x 4.7ins x 3.2ins)
Part No. 503-42 Series

Water Activated Switch 140mm x 59mm x 31mm
Part No. 503-23-2 (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 150mm x 66mm x 40mm
Part No. 503-40 (5.9ins x 2.6ins x 1.57ins)

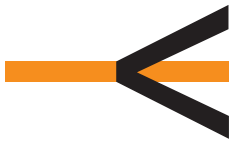
System weight 4kg nominal

Approvals

TSO C91a, JTSO-2C91a, TSO C126 and JTSO-2C126
CAA WR01029
COSPAS/SARSAT compatible

Accessories (For full range please contact Techttest Limited)

System Interface Unit Battery - Part No. A01011



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12-503-5 Programming Test Set



Specification

A portable test set designed to analyse and reprogram the COSPAS/SARSAT message embedded in the 406MHz distress signal.

The Test Set comprises a programming unit, a keyboard and a programming cable set. All are contained in a sturdy moulded, weatherproof case.

The unit can be used to program the following Techtest products:

- 500 Series Personal Locator Beacon
- 503 Series Emergency Locator Transmitter
- 15-503-134 Series Crash Position Indicator

Operating Temperature range: 0°C to +50°C

Storage Temperature range: -20°C to +70°C

Variable contrast control

Mains (240V) or internal re-chargeable battery operation

Dimension (case) 361mm x 290mm x 165mm



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