

# 500-32 Series 406MHz Multi Function Personal Locator Beacon



PLB 500-32 SERIES  
OPERATING  
INSTRUCTIONS

ACTIVATION Press and hold the 'Power' button for 5 seconds. The 'Beacon' light will flash and the 'GPS' light will illuminate. The device will transmit a distress signal.

DE-ACTIVATION Press and hold the 'Power' button for 5 seconds. The 'Beacon' light will stop flashing and the 'GPS' light will turn off. The device will stop transmitting.

TEST Press the 'Test' button. The device will transmit a test signal.

USE Tx Rx FUNCTION WHEN  
RESCUE CRAFT ARE HEARD

Techtest Limited, England.

# Multi Function PLB 500-32 Series 406MHz

- COSPAS / SARSAT Class 2
- Beacon only and speech mode variant
- Eurocae ED-62A
- Waterproof to 10 meters (non bouyant)
- Reprogrammable on aircraft
- Low weight and small size
- Simple self-test function
- Retractable, flexible, trailing or life vest antenna options

One of the smallest and lightest PLBs on the market today the 500-32 series is ideally suited for use on both fixed and rotary wing aircraft. In emergency use the PLB activation is simple, either using the manual activate button or more automatically via the lanyard activation. Various antenna options facilitate the PLB's use with Pilot's life vest, life rafts or stowage on commercial aircraft.

The PLBs are fully compliant with the COSPAS-SARSAT 406MHz satellite system, featuring embedded GPS for enhanced location accuracy. The 121.5MHz enables SAR homing/DF and duplex speech when the SAR aircraft is in visual range. The unit is rugged with a 10 year life; the only maintenance being battery replacement every 5 years. Operator programming or re-programming can be provided via an optional programming kit.

## Specification

### Modulation (121.5MHz)

Continuous Swept Tone at least 700Hz within Sweep Range.

Sweep Range 1.6KHz to 300Hz (i.e. downwards)

Sweep Rate 2-3Hz

Amplitude Modulated with Rectangular Wave

Modulation Depth - 67% minimum (80% typical)

Speech ITU A3E

### Modulation (406MHz)

0.5 Secs 5W pulse every 50 secs

Phase modulation of  $\pm \pi/3$  rad (peak)

Digital modulation (see C/G G.005 Iss. 2 Rev 1, Section 3) to include:

- Bit Synchronisation
- Frame Synchronisation
- Protected Field
- Emergency-Code/National Use Field
- Long Message

### GPS Receiver (Embedded)

- Hot Start (avg) <9 sec
- Warm Start (avg) <35 sec
- Cold Start (avg) <39 sec
- Receiver L1 C/A Code
- Protocols NMEA
- Sat. Signal Reacquisition Time 100ms
- Number of Channels 12
- Min Signal Level Tracked -172dBw
- Power Consumption 82mW

### Power Output

406MHz >24 hours 5W (+37dBm  $\pm$ 2dBm)

121.5MHz >48 hours 100mW (+20dBm)

### Mechanical

Activation Manual or Lanyard

Dimensions 132mm x 72mm x 34mm nominal

Weight <450 g nominal

Colour Yellow

The unit is designed to survive for up to ten years with the only maintenance being battery replacement every five years.

### Compliance

The PLB is compliant with the following specifications:

Civil EUROCAE ED62A / RTCA DO-204A  
RTCA DO-160C / COSPAS/SARSAT.

### Approvals

Cospas/Sarsat approval 111