

# WTE-BT-01

## 406 + AIS SART + DSC Portable Beacon Tester & Monitor

The WTE-BT-01 is a portable and simple to use beacon tester that allows testing of AIS, 406 and DSC rescue beacons.

The WTE Beacon Tester has been designed to help meet the beacon test requirements for SOLAS and IMO circulars 1039 and 1040, as well as to assist in locating and identifying beacons for search and rescue operations.

### Features:

The following features make this device a powerful and versatile tool for testing and locating radio beacons:

- Generation and storage of beacon reports, including decoded transmission details, signal strength and frequency accuracy
- Extremely simple to use with single button test operation.
- Ability to test:
  - 406 distress radio beacons (EPIRB, PLB, ELTs) and confirm 121.5 MHz homing signal.
  - Ability to test AIS-SART radio beacons (EPIRB AIS, PLB AIS, AIS-SART).
  - DSC (Digital Selective Calling) beacons.
- Stand-alone operation, without the need for connected equipment to analyse results.
- USB connection for downloading/inspecting of generated reports on most computers and devices.
- Built-in spectrum analyser, allowing confirming operation of many VHF/UHF radio transmitters from 121 MHz to 449 MHz.
- Signal strength tools for homing signal direction finding (using a directional antenna).
- Peak signal hold for 406 beacon transmissions.
- Able to monitor multiple 406 beacons with history of signal strength.
- Dual AIS receivers for summary of vessel operation in the area.
- Portability and alert functionality for Search and Rescue applications.
- Ergonomic design that fits comfortably in your hand.
- Up to 10 hours continuous use using alkaline AAA cells.
- Able to be powered directly from USB port or from batteries.
- Second generation beacon hardware ready (available through optional upgrade)

### Benefits

The WTE-BT-01 is a professional portable beacon tester designed for verification and monitoring of 406 MHz, AIS-SART and DSC distress transmitters. It enables fast and reliable testing with simple single-button operation and automatic report generation. Accurate RF frequency and signal strength measurements ensure confidence in beacon performance. Full protocol decoding confirms correct beacon programming, Hex ID, MMSI and distress status. Intelligent sweep detection and configurable alerts reduce false alarms in operational environments. Stand-alone operation eliminates the need for external test equipment or computers. Its rugged, battery-powered design makes it ideal for maritime inspections, aviation ELT verification and search and rescue field deployment.



## Specifications:

<b>406 Frequency Range</b> .....	All used 406 Beacon frequencies 406.020 MHz – 406.045 MHz (concurrently)
<b>Battery</b> .....	6 x AAA Alkaline
<b>Antenna Connectors</b> .....	SMA female
<b>Operating Time</b> .....	Up to 10 hours battery or USB powered
<b>PC Interface &amp; Mass Storage</b> .....	USB-C

## Receiver Sensitivity:

121.5 MHz .....	-110 dBm.
406 MHz .....	-118 dBm
AIS (A) MHz .....	-110 dBm
AIS (B) MHz .....	-110 dBm

## Receiver:

<b>Maximum Input Power</b> .....	0 dBm
<b>Calibration</b> .....	Required every 2 years
<b>Frequency Accuracy</b> .....	+/-400 Hz. 100 Hz resolution
<b>RSSI Range</b> .....	-110 dBm to 0 dBm
<b>RSSI Resolution</b> .....	0.5 dB
<b>Antenna Connectors</b> .....	SMA female
<b>Operating Current</b> .....	85 mA plus 30 mA when backlight enabled
<b>Firmware</b> .....	Field upgradable
<b>Internal Storage Capacity</b> .....	4GB
<b>406 Error Correction</b> .....	Correction of up to 5 bit errors per 406 packet
<b>AIS Decode Support</b> .....	Both 161.975 MHz and 162.025 MHz.
<b>DSC Decode Support</b> ..	All format 112 distress messages on 156.525 MHz. Tests performed with 112 or 120 format messages.
<b>406 Location Protocol Support</b> .....	All COSPAS SARSAT C/S T001 Issue 3 Rev 12 Location protocols. <ul style="list-style-type: none"><li>• User Location Protocol</li><li>• Standard Location Protocol</li><li>• Standard Test Location Protocol</li><li>• National Location Protocol</li><li>• National Test Location Protocol</li><li>• RSL Location Protocol</li></ul>
<b>Test Support:</b> .....	SOLAS and IMO circulars 1039 and 1040

## Spectrum Analyser:

<b>Frequency range:</b> .....	142-175, 350 - 499 MHz
<b>RBW:</b> .....	1 kHz / 25 kHz
<b>Span:</b> .....	120 kHz / 3 MHz
<b>Mode:</b> .....	Continual or peak display
<b>Min signal:</b> .....	-120 dBm, max signal -10 dBm.
<b>Input Power accuracy:</b> .....	421-480 MHz +/-8 dB, 120-175 MHz +/-2 dB.

## Mechanical:

<b>Weight</b> .....	300 grams
<b>Dimensions</b> .....	214 x 100 x 36mm

## Environmental

<b>Operating Temperature</b> .....	-30 to +55 °C
<b>IP Rating</b> .....	IP52

For latest information and specifications please visit [wtmarine.com](http://wtmarine.com)



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