



**Musson Marine**  
Safety solutions

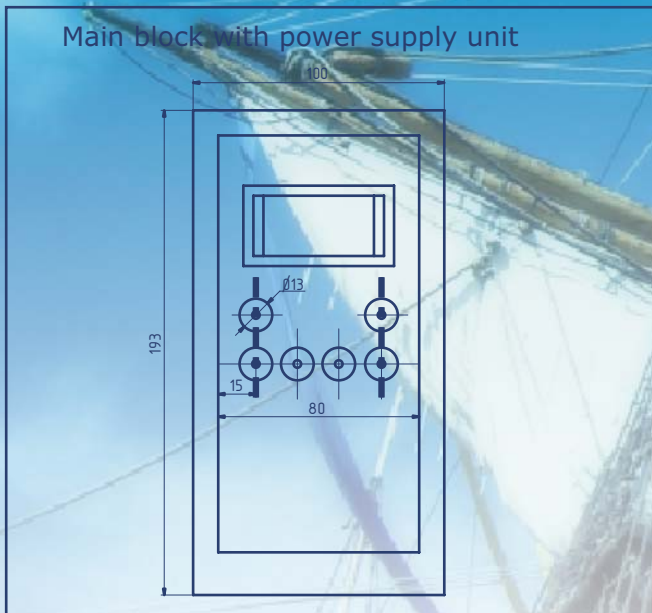
# ***BEACON Tester!***



**The BEACON Tester is designed to decode and display the encoded message from a 406 MHz Cospas-Sarsat Emergency Position Indicating Radio Beacons. The tester can be connected directly to the EPIRB or monitored "over the air" using the supplied whip antenna. The tester will decode any 406 MHz maritime protocol for EPIRB's.**

A complete measurement solution. Measures all Cospas-Sarsat frequency channels and decodes all Cospas-Sarsat protocols. Measures 406 MHz parameters, 121.5 MHz parameters modulation, and the in-band 406 MHz frequency spectrum.

The beacon industry is demanding higher quality from 406 beacons and is implementing more thorough periodic testing. Beacon Testers that only decode the 406 message are not suitable to meet the increasing demands from the industry to ensure the beacons are indeed operating properly. The ELT Tester provides thorough beacon measurement capabilities.



#### Features and characteristics:

1. Tester provides measurement of 406MHz frequency carrier with accuracy  $\pm 500\text{Hz}$ . **NOTE:** The operation frequency range of the tester is expanded to 406018...406048kHz and is divided on six subranges. The default subrange is 406023...406028kHz. The operation EPIRB frequency should be in subrange.

2. Tester provides the audio control of sweep-tone of  $121500 \pm 10\text{kHz}$  carrier frequency.

3. Tester provides the reception and decoding of emergency message either in HEX format (separately 1-112 bits, 26-108 bits, 26-85 bits, 113-144 bits), or in text format with main message's parameters. Besides, the BCH code is calculated to be compared with accepted.

4. Tester measures the positive and negative phase deviation of modulated signal with accuracy up to  $\pm 2,8$  degrees.

5. Tester provides estimation of message transmission total time with accuracy up to 0.2% and preamble duration with accuracy of  $\pm 0.2\%$ .

6. Tester provides measurement of received signal level on 406MHz frequency in range of 19...40dBm or 0,08...10W with accuracy  $\pm 1/-5\text{dB}$ .

7. Tester provides measurement of received signal level on 121.5MHz frequency in range of 13...20dBm or 20...100mW with accuracy  $\pm 3\text{dB}$ .

8. Tester allows to carry out the measurements either by HF-cable or by means of external antenna in distance of 1.5..4m; the recommended distance is 2-3 meters.

9. The HF input resistance is  $50 \pm 1,5\Omega$ .

10. Tester allows to save up to 10 measurement results in its memory.

11. The total time of one measurement cycle is not more than 2 minutes.

12. Tester is power supplied either by external 5,2...9DCV source or by 4 AAA type 1.5V batteries.

#### 13. Current consumption:

" in safe mode without LCD highlighting - not more than 80 mA  
 " in safe mode with LCD highlighting - not more than 120 mA

" in measurement mode with LCD highlighting - not more the 200 mA .

14. The estimated total time of operation supplied by batteries is 6 hours.

15. Tester is automatically turned off in 15 minutes without its usage.

16. Tester displays the voltage of internal batteries with accuracy up to 5%.

The complete set of BEACON tester includes:

- Main unit
- Connection cables
- AAA type 6V batteries (4 units)
- Software
- 6-9V power supply unit
- English manual



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