



## SART Tester

### General description

The International Marine Organization requires that all GMDSS equipment is to meet the appropriate performance requirements. In case of test failure ships may be detained in port.

The 9GHz Search and rescue radar transponders (SART) is an important safety device and it must be checked annually or during shore-based maintenance.

The SART Tester is designed to provide accurate, independent validation of the operation of any Radar-SART in accordance with the requirements of SOLAS - 74/88 and other local classification authorities.

The SART Tester is specified equipment for ship surveyors, classification societies and administrative authorities.

The SART Tester allows ensuring the SART meets the appropriate performance requirements. The SART Tester is portable and easy in use. It is far more effective and reliable than the primitive self-test function offered by any SART. The printed test results or results shown on LCD display make it easier to carry out further analysis of the SART efficiency.

### Operation / Features

It is very simple to check RADAR-SART operation by means of SART Tester.

Turn on the tester and then turn on the RADAR-SART. Make sure that there is at least 1,5 meter distance between the tester and the SART and make some simple actions to carry out the test



procedure.

The SART Tester will receive the RADAR-SART signal, measure the frequency carrier, signal duration, frequency sweep number and estimate the power level of emitted signal.

The time of one measurement cycle does not exceed 2 minutes.

All data will be saved in memory for further processing. The measured data can be viewed by means of built-in LCD or can be transferred to any PC or laptop.

The tester is lightweight, hand-held and has user-friendly interface, handy keyboard and LCD with backlight.

The tester power supply is performed by built-in rechargeable power supply unit.

### Features:

- All manufacturers RADAR-SART can be tested;
- Reception the signal within the range of 9140...9560 Mhz frequencies;
- Easy and quick audio-control of the sweep signal presence;
- Internal database of received messages;
- Easy connection to PC, laptop, notebook to process the stored data;
- Windows user friendly desktop application for database storage and review, process and test reports printout;
- Longlife batteries, easy replace;





- Easy recalibration without returning back to factory;
- 1 year warranty.

### PC Connection

On completing all the tests it is required to process the measured data, make ready and print test reports using Tester PC software.

Thus the RADAR-SART Tester can be easily connected to any PC or laptop. The connection is carried out by means of special cable included in standard delivery set and special software available on this website. The minimal requirements are Microsoft OS (such as Windows XP, Windows Vista or Windows 7) and at least 1 physical COM-port.

No special hardware configuration is required.

Tester PC connection is very simple. All you have to do is to attach one end of the USB cable to the tester and the other one to the PC. No extra software installation is required. Just run the executive file and press DOWNLOAD MESSAGE button. All saved data will be transferred to PC.

### Technical description

- The tester allows to perform: automatic measurement of SART parameters. The time of one measurement cycle does not exceed 2 minutes.

- measurement of response signal carrier frequency within the range 9140...9560Mhz;
- measurement of response signal duration within the range of 50...150mcs;
- indication of response signal power level within the range of  $P_r=300\dots950mW$ ;
- 1 cycle operation time without recharging is not less 7 hours
- automatic monitoring of checked parameters with displaying them on LCD and connection to PC for further processing.
- storage of 10 measured parameter blocks in the nonvolatile memory.

The current consumption of the device power supplied by batteries (built-in battery 6 V) in standby mode is  $< 85\text{ mA}$  and in measurement mode is  $< 270\text{ mA}$ .

The built-in battery of the device can be charged by power supply adaptor from 220V AC network. Maximum battery charging time does not exceed 16 hours.

The device guarantees the accuracy of voltage monitoring and indication on liquid crystal display within  $\pm 5\%$ .

Measurement of SART parameters is made through the broadcast by means of antenna.

According to service conditions the device is designed for operation in the internal shielded ship rooms at the temperature  $+5^\circ\text{C}$ ... $+55^\circ\text{C}$ , and relative air humidity of 95%.



### Complete set of the SART Tester

- RADAR-SART Tester
- PC Cable (Tester's outlet – COM-Port)
- Power supply and recharge unit
- Technical description and operation manual (English)
- Device packing



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