



## SERVICE NOTE

System involved           Echosounder  
 Subject                    Transducer (Sensor) to be checked before docking  
 Engineer                   AvB  
 File name / version       S23003 Echosounder.doc  
 Date last change         Wednesday, October 25, 2023  
 Contact                    [albert@maritronic.nl](mailto:albert@maritronic.nl)  
 Website                    [www.maritronic.nl](http://www.maritronic.nl)

Related vessels:           River class / River plus class



Problem:                   One ship does have failed forward and aft sensor while possible already for a long time one sensor was out of order, now the vessel does sail without echosounder until next docking which is the first opportunity to replace the sensor.

Advise:                    Check forward and aft sensor a few months before docking, even when sensor does work it may be already seawater inside indicating the sensor is going to fail.

### How to check

Use a megger set voltage below 200V or old type analog multimeter, Modern multimeter like a fluke is not capable to measure the correct resistance because the combination of sensor materials and salt water do act like a battery and generate low voltage, meter may even show negative ohm value.

Measure at the junctionbox for and aft because a small transformer is placed here.

Switch off echosounder. Disconnect sensor wires in junctionbox

Measure between sensor wires and to ground

More than 10Mohm       = Good

Less than 10Mohm       = Not good

Less than 1 Mohm       = Bad

Less than 100Kohm      = Considered Defect (even when echo is received)

Resistance wire 1 to wire 2       \_\_\_\_\_ ohm

Resistance wire 1 to ground       \_\_\_\_\_ ohm

Resistance wire 2 to ground       -----ohm

Sensor                    Good / Not good / Bad / Defective

Date checked               \_\_\_\_\_

Checked by                 \_\_\_\_\_

In case there are any question related to the service note do not hesitate to contact us.

The echosounder sensor does have a junctionbox with a transformer and coil inside, Because the transmit frequency of fore and aft sensor is different the components are different.  
On some vessels is not the correct junctionbox fitted.

MB-502 50Khz for 50B-6B transducer, for Forward  
Inside box Transformer T-203BJ and Coil T-204B  
MB504 200Khz, for 200B-8B transducer For aft Inside  
box Transformer T-205AJ and Coil T-206A



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