TECHNICAL NOTES

Article Number - 00008a-2010

Date - 6th Dec 2010

Article applies to - **ANT200**

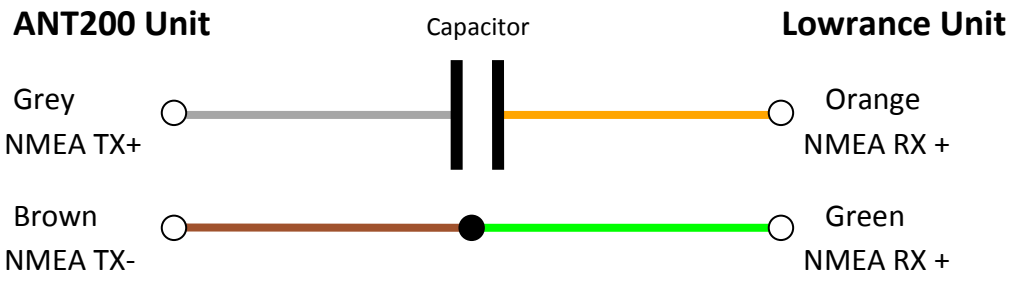
ISSUE: NMEA Output cannot drive Lowrance HDS5 and HDS7 Units

The latest Lowrance HDS5 and HDS7 units feature a differential RS422 type input for connecting external NMEA0183 devices. Although the Digital Yacht NMEA0183 output has been tested successfully with many different manufacturers equipment, including other Lowrance (Navico) products, correct NMEA0183 data transmission did not occur with the HDS5 and HDS7 units.

After a series of tests and consultations between Digital Yacht and Navico, a solution has been found and this technical note details the simple fix.

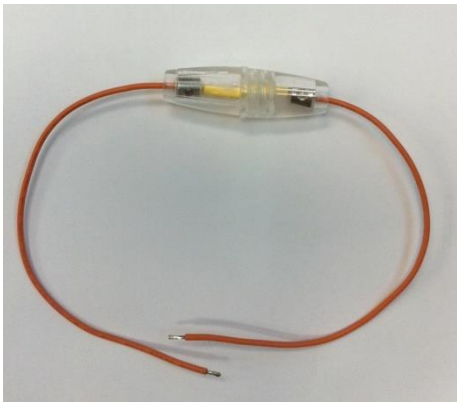
RESOLUTION:

The fix involves connecting a 100nF ceramic capacitor in-line with the NMEA Positive Signal wire between the Digital Yacht AIS and the Lowrance HDS unit.



This capacitor AC couples the Non-Differential NMEA0183 signal to the Differential RS422 signal and allows the signal to go positive and negative with no DC bias, thus letting the Differential RS422 interface in the Lowrance read the data correctly.

To make things easy to fix onboard the vessel, Digital Yacht have created a capacitor assembly (capacitor inside a fuse holder), with two leads coming out either end. Simply insert this in-line with the NMEA+ signal wire and the Lowrance unit will start to read the AIS data from the Digital Yacht unit.



This capacitor assembly is available for all customers who wish to connect one of the Digital Yacht AIS units listed above with a Lowrance HDS5 or HDS7 unit. Simply e-mail requesting your Capacitor Assembly to info@digitalyacht.co.uk and remember to include your name, postal address and date and place of purchase. International customers will have to pay shipping costs.