DIGITAL YACHT

TECHNICAL NOTES

Article Number -   00022-2011

Date -   18th May 2011

Article applies to - **All AIS Receivers that have a USB interface**

ISSUE: Fault Finding AIS100/200 range and iAIS when connected to PC

Our popular AIS100 and AIS200 range of AIS receivers (including iAIS) all feature a USB interface to connect them to a PC. When everything works this is great solution for getting AIS data in to a Navigation Software application running on the PC, but if problems occur with installing the driver or configuring the Navigation Software, it is not always easy to tell where the problem lies. The following step by step guide explains a simple method of fault finding the system.

Resolution

Once you are sure that there is a good 12v or 24v supply voltage correctly connected to the Red (+) and Black (-) wires on the AIS power/data cable, follow the steps below to find the problem;

1)   When you plug the USB lead in to your laptop, are you getting the normal "double beep" that you hear when you plug devices in? If you are not, try plugging the AIS in to another USB port and if this still does not cause a "double beep" to sound then the AIS unit is suspect and needs to be returned to Digital Yacht for repair.

2)   If the answer to 1) is yes, please can you go to the Windows Device Manager and confirm if the AIS drivers have installed properly. You will see a screen similar to the one below if the driver has not installed correctly....
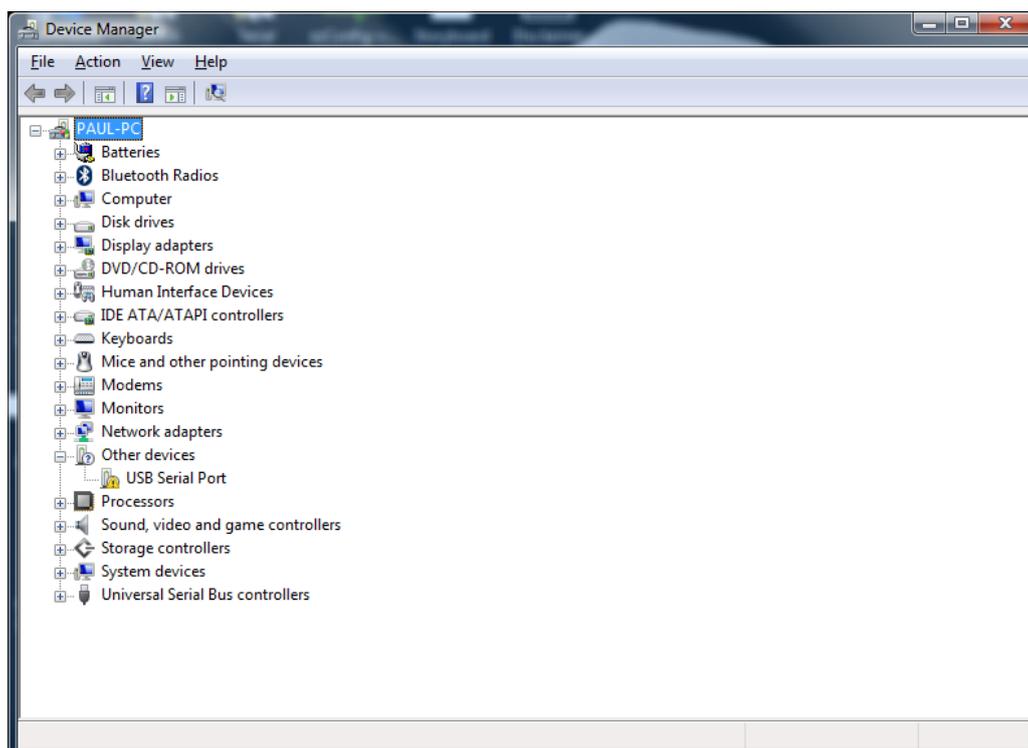
Note the USB Serial Port device with an exclamation mark next to it in the "Other Devices" section – this is how the AIS is shown if the drivers have not installed correctly. You will need to follow the instructions in Tech Note 00001-2010 to fix this.

3) If the driver has installed correctly, you will see a screen similar to this one.....
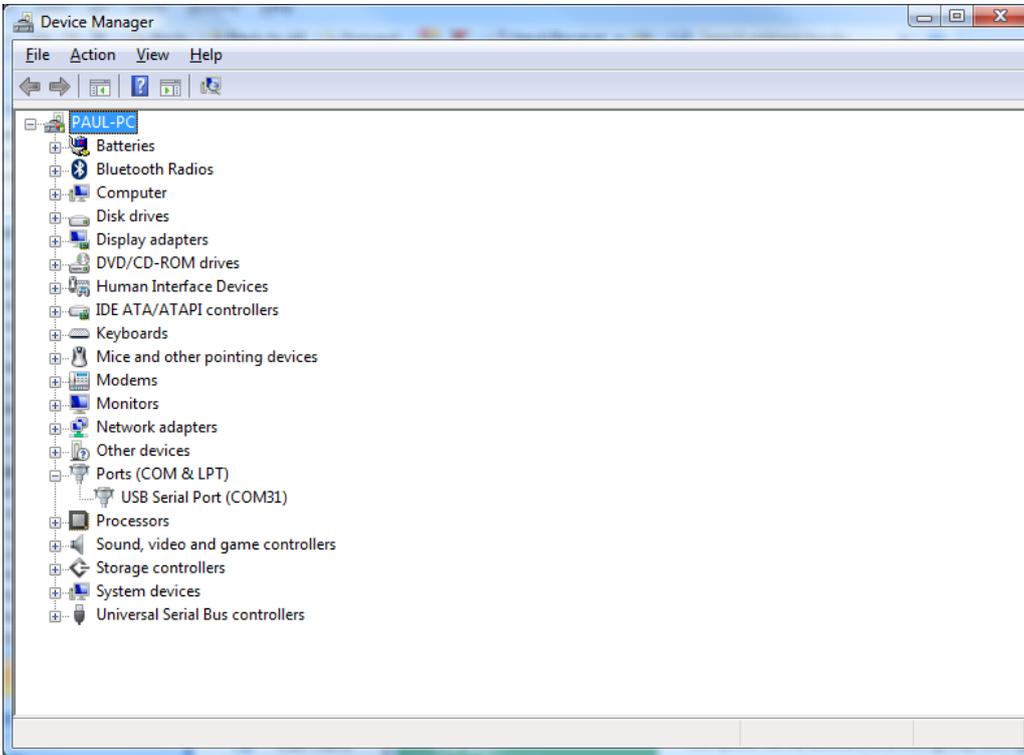
You will need to click on the + sign next to the "Ports (COM & LPT) to see the "USB Serial Port" entry and we are interested in the COM value (shown in brackets) as this tells us what COM port we must select (31 in this example) in the Navigation Software program that you want to read the AIS data on.

4) If the AIS drivers are correctly installed (as above) and you have a valid COM port number allocated, then you should run our NMEA Display program that is on the Digital Yacht CD-Rom supplied with the AIS. Simply copy the folder "NMEA Data Display Program V1.00" to your laptop and then browse in this folder and run the "NMEA Data Display Parser.exe" application file.

5) The first thing you will be asked is to select the COM port and Type of NMEA. You will need to select the COM port number that you saw in the device manager and set NMEA type to "AIS High Speed(38400)"......
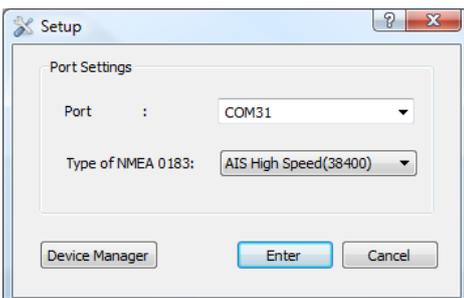
6)   Once the values are set correctly, click Enter and you will see the following screen.....
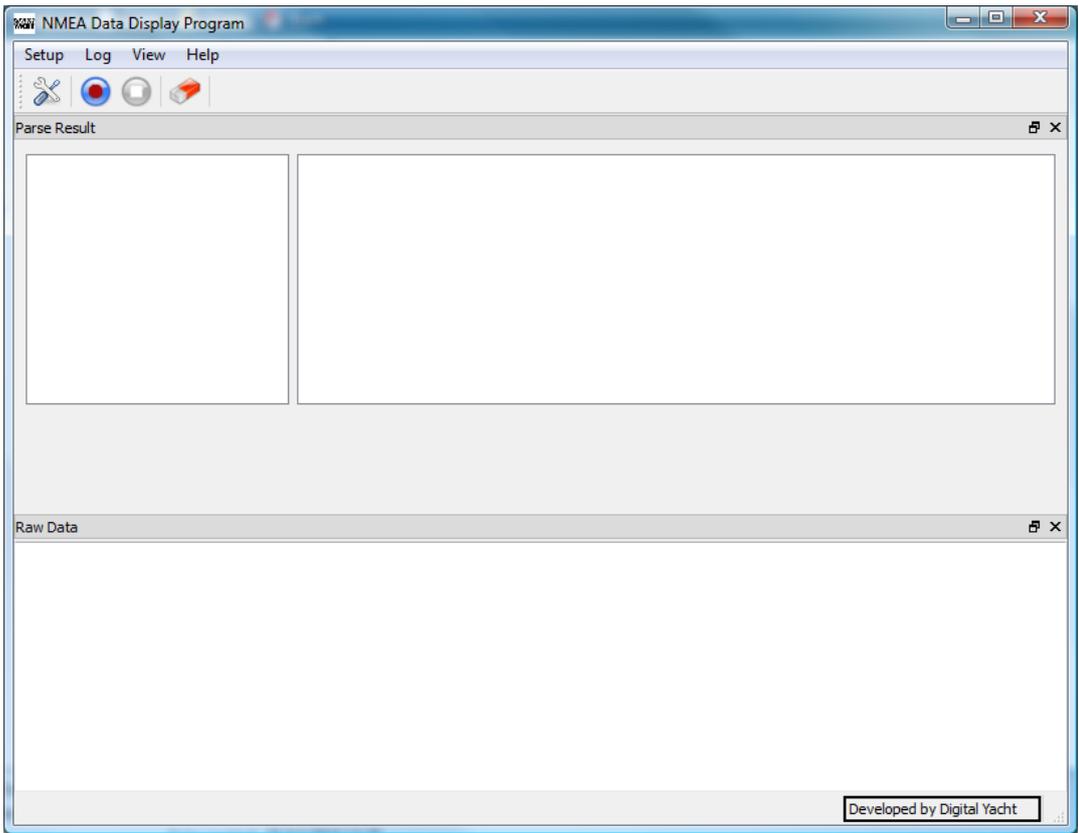
7)   Now turn the AIS off and then on and you should see this screen.....

Within the Raw Data pane of the second screen:

Bootloader Version: 020200.1.0.16
Application Version: 020100.1.0.11
Serial Number: 27105127
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Dual Channel AIS Receiver
Bootloader Version: 020200.1.0.16
Application Version: 020100.1.0.11
Serial Number: 27105127
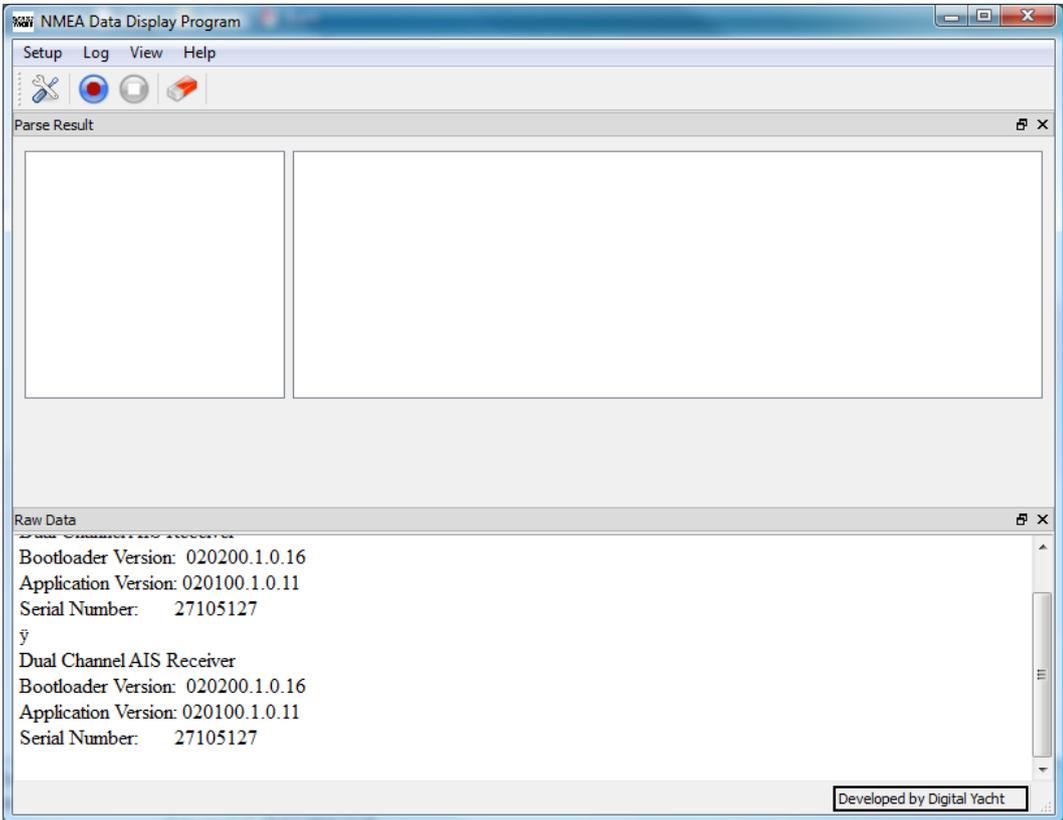
Note that in the image above the unit has been turned on/off twice and each time the Bootup screen appears proving the AIS is powering up correctly and communication with the PC is possible.

8)   If you continuously see the bootup text scrolling down the screen, then this can indicate an unstable resetting problem, which requires a software update. Please contact Digital Yacht for more info.

9)   If no AIS targets are being received, then this is the only text you will see, if however you are receiving valid AIS targets, you will see the screen shown below....
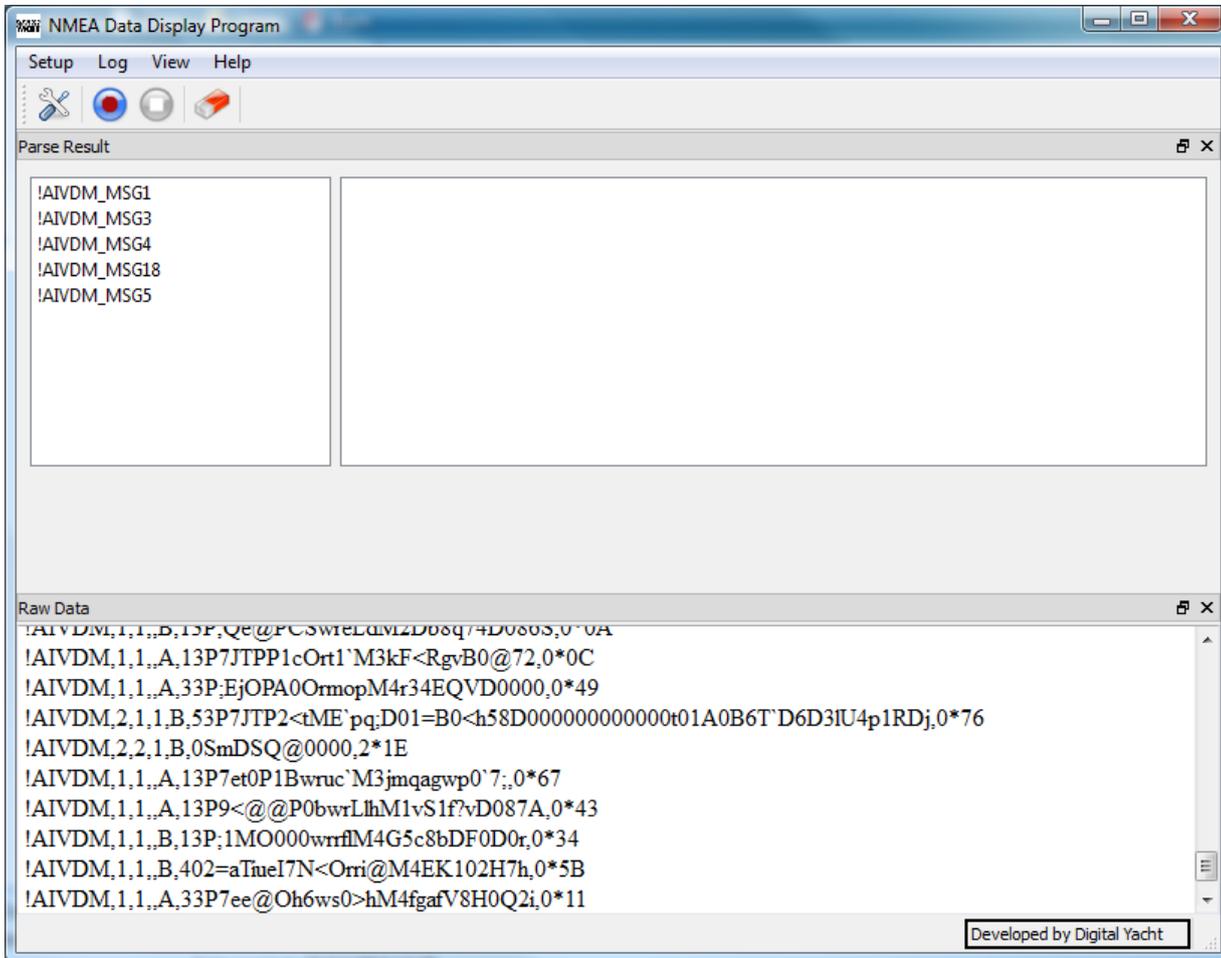
If you get to this point, then the AIS is working perfectly and your fault lies in the Navigation Software.