



Article Number - 00059-2014

Date - 20th May 2014

Article applies to - AIT2000 Class B Transponder + WLN10HS Wireless NMEA Server

ISSUE: Driving an Autopilot using iNavX App for iPhones/iPads

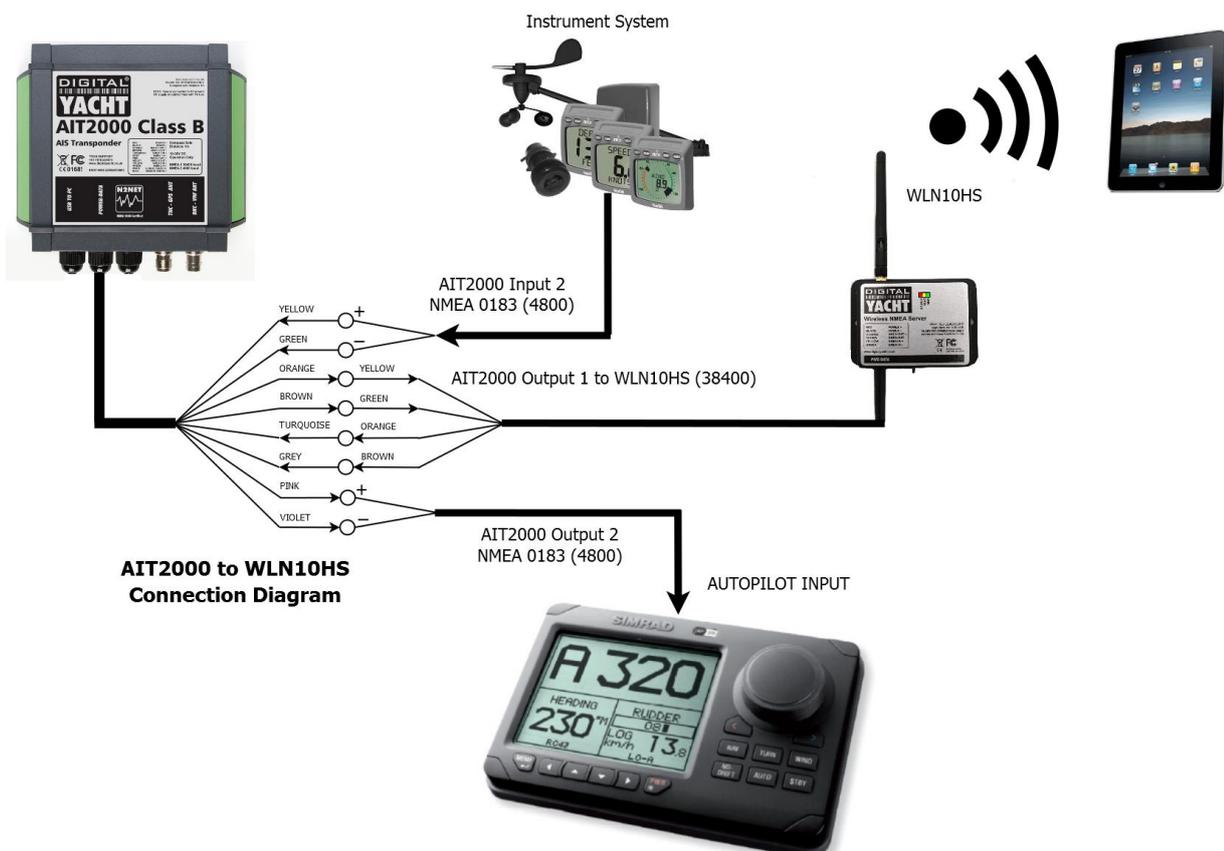
Many of our customers use iNavX on their iPads and iPhones to display AIS data from our wireless NMEA products. We have received a few requests asking if it is possible to wirelessly drive an Autopilot from the iNavX application. In the past, we have said that this is not possible, but whilst doing some development work on our AIT2000 Class B Transponder we have found a way to convert the wireless NMEA data from the iNavX app and output this on the low speed 4800 baud output of our AIT2000.

Normally the 4800 baud output of our AIT2000 is used to provide GPS data to a VHF radio, however, by following this Tech Note you can configure the NMEA0183 output to send the iNavX navigation data (APB and XTE) to an autopilot.

If you have a newer Autopilot with an NMEA2000 connection, then our latest NavLink wireless NMEA2000 unit is a better solution, to connect the AIT2000, NavLink and Autopilot via the NMEA2000 network.

SOLUTION:

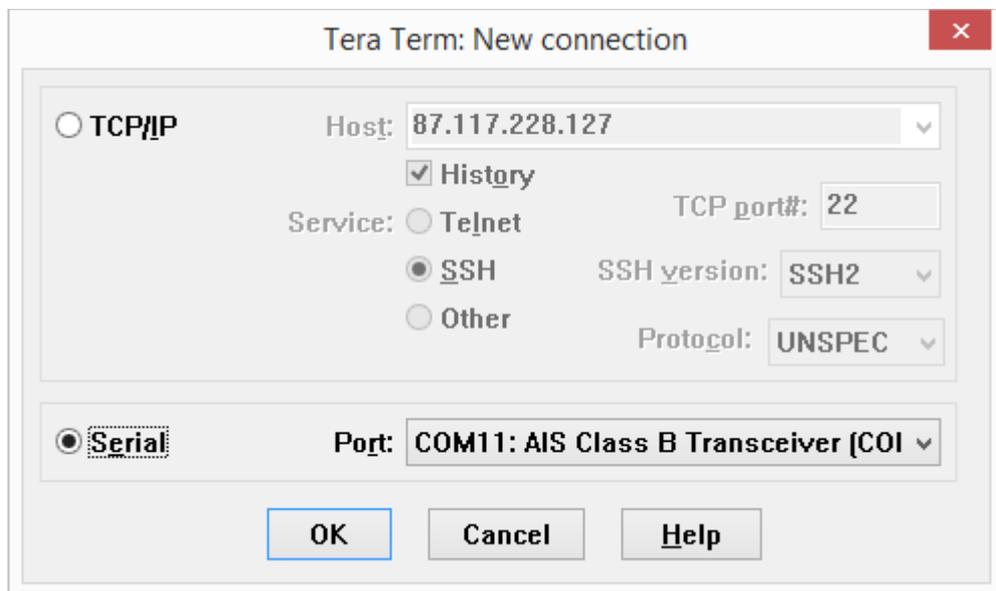
The AIT2000, WLN10HS and Autopilot should be connected as shown (instrument system is optional).



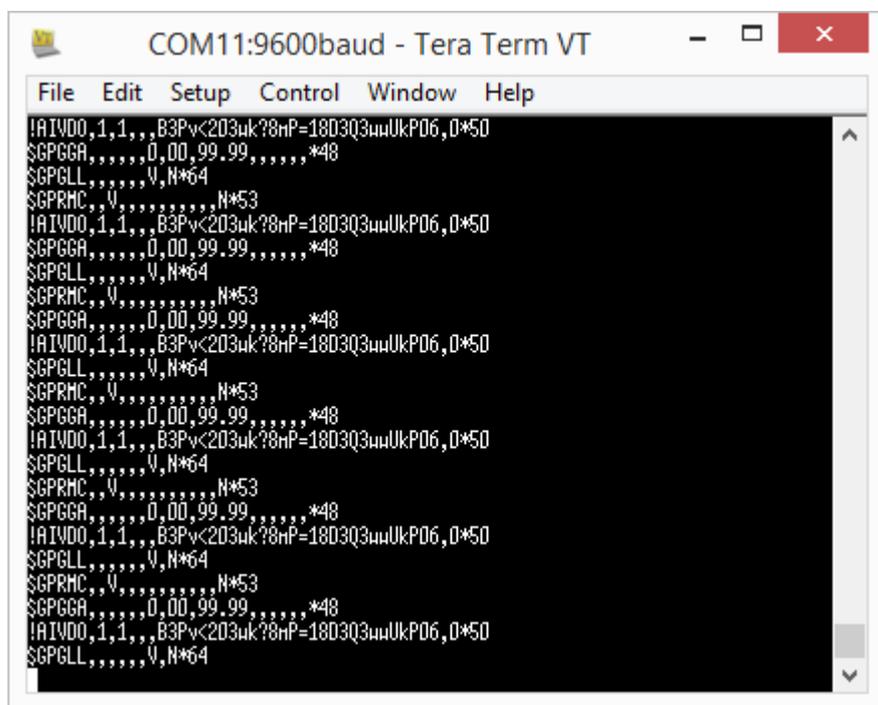
To configure the AIT2000 you will need to install a free terminal program called Tera Term on your PC. A copy of this program is included on the Digital Yacht “Software and Drivers” CD-Rom (in the Utilities folder), or is available for download at the link shown below.

<http://sourceforge.jp/projects/ttssh2/downloads/60733/teraterm-4.82.exe/>

Run Tera Term and when the “New Connection” window is displayed, select a “Serial” connection and from the drop down list select the COM port that is labelled “AIS Class B Transceiver” (COM11 in this example).



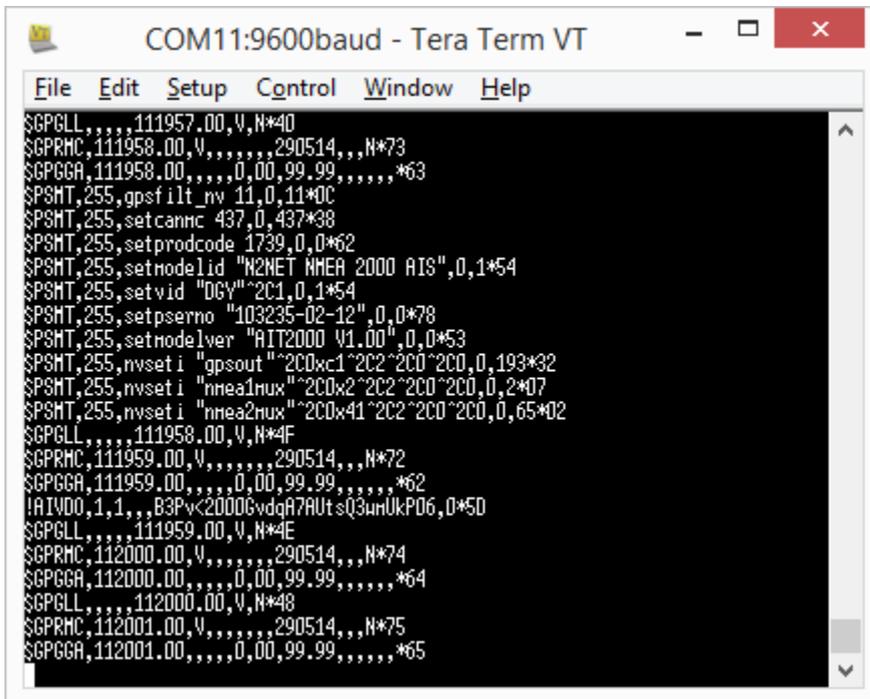
Now click “OK” and a connection will be made to the AIT2000 and you should see some NMEA messages scrolling down the window, as shown.



Now we need to send the AIT2000 a series of configuration commands but to make this easier, we have created a TeraTerm Macro file that does this for you automatically. Download the macro from here...

http://www.digitalyacht.co.uk/files/AIT2000_config_script_NewAP.ttl

Once you have downloaded the macro file, in TeraTerm click on “Control>Macro” and then select the macro file you downloaded. The Macro will now run and you should click “OK” when prompted. You should see a screen similar to the one below and the \$PSMT messages from line 4 downwards are the acknowledgements that the commands have been received and actioned. If you do not see these lines or the Macro stalls and displays an error then the configuration change has not been successful and you should contact support@digityacht.co.uk



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COM11:9600baud - Tera Term VT
File Edit Setup Control Window Help
$GPGLL,,,,,111957.00,V,N*40
$GPRMC,111958.00,V,,,,,,290514,,,N*73
$GPGGA,111958.00,,,,,0,00,99.99,,,,,*63
$PSMT,255,gpsfilt_nv 11,0,11*0C
$PSMT,255,setcannrc 437,0,437*38
$PSMT,255,setprodcode 1739,0,0*62
$PSMT,255,setnodeid "N2NET NMEA 2000 AIS",0,1*54
$PSMT,255,setvid "06V"2C1,0,1*54
$PSMT,255,setpserno "103235-02-12",0,0*78
$PSMT,255,setmodelver "AIT2000 V1.00",0,0*53
$PSMT,255,nvset i "gpsout"2C0xc1^2C2^2C0^2C0,0,193*32
$PSMT,255,nvset i "nmea1nux"2C0x2^2C2^2C0^2C0,0,2*07
$PSMT,255,nvset i "nmea2nux"2C0x41^2C2^2C0^2C0,0,65*02
$GPGLL,,,,,111958.00,V,N*4F
$GPRMC,111959.00,V,,,,,,290514,,,N*72
$GPGGA,111959.00,,,,,0,00,99.99,,,,,*62
IAIVD0,1,1,,B3Pv<2000GwdqA7AutsQ3uHUKP06,0*5D
$GPGLL,,,,,111959.00,V,N*4E
$GPRMC,112000.00,V,,,,,,290514,,,N*74
$GPGGA,112000.00,,,,,0,00,99.99,,,,,*64
$GPGLL,,,,,112000.00,V,N*48
$GPRMC,112001.00,V,,,,,,290514,,,N*75
$GPGGA,112001.00,,,,,0,00,99.99,,,,,*65
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Assuming that the macro completed successfully, a message will appear asking if you want to configure another AIT2000, select NO by typing “N” and clicking the OK button.

The AIT2000 should now be configured correctly and to apply the settings, power cycle the unit OFF and then ON again, but removing the USB lead and the 12/24v DC Supply voltage from the AIT2000.