DIGITAL YACHT

SAIL BOAT   SPORT FISHING   MOTOR BOAT

NTN10 NMEA0183 TO NETWORK SERVER

Installation and instruction Manual

1. Introduction

Congratulations on the purchase of your NTN10 NMEA0183 to Network Server. It is recommended that this unit is installed by a professional installer.

ⓘ **This Quick Start Guide will provide basic information on the NTN10 to allow you to install and get the NTN10 working. Additional information may be published on the Support section of our website www.digitalyachtamerica.com**

2. Before you start

You will need the following items and tools to complete the installation:
- NTN10 NMEA0183 to Network Server
- Network cable (supplied)
- A suitable NMEA0183 connection to the vessel's navigation system
- A spare wired network connection to the vessel's Ethernet based network
- Access to 12V or 24v DC power supply where the unit is to be installed
- Four M4 screws or other fixings appropriate to the mounting location

To configure the unit you will need:
- A PC running Microsoft Windows XP® / Windows Vista® / Windows 7 or Mac OSX with a free network port
- The Digital Yacht Software and Driver CD (Supplied)
- Information about the vessel's network configuration
- Information about the Navigation Software or mobile App that will use the networked NMEA0183 data

3. Installation

Before starting installation select a suitable location for the NTN10. The unit is water resistant; however it should be installed below deck in a dry location. When locating the unit you should consider:

- Routing of power and data cables to the unit.
- Provision of sufficient space below the unit for cable connections.
- Maintaining the compass safe distance of 0.5m.
- Routing of network cable to the unit.

Installation Step 1 - Cabling

- The NTN10 is designed to be connected directly to the vessel's 12v or 24v DC system. You will need to route a suitable power cable to the location where the NTN10 will be installed. The supply to the NTN10 should be fused with a 1A fuse/circuit breaker in the positive supply lead.

- The NTN10 is fitted with a standard RJ45 network socket. You should route a standard Cat5 (or better) network cable from the vessel's Ethernet network through to the location where the NTN10 will be installed.

- The NTN10 has an NMEA0183 Input and Output which both operate at the same default 38400 baud rate, which can be changed using the supplied Windows Configuration Tool.

- Decide the best NMEA0183 Output (and if necessary Input) to take data from, for the NTN10. You will need to route a multi-wire data cable (two wires for Output and two for Input) from the NMEA0183 connections in your navigation network to the location where the NTNT10 will be installed.

Installation Step 2 – Mechanical Fixings

- Secure the NTN10 to a flat surface in the selected location. Use four M4 wood screws or other fixings suited to the material the unit is being fixed to. The unit may be installed in any orientation

Dimensioned Drawing
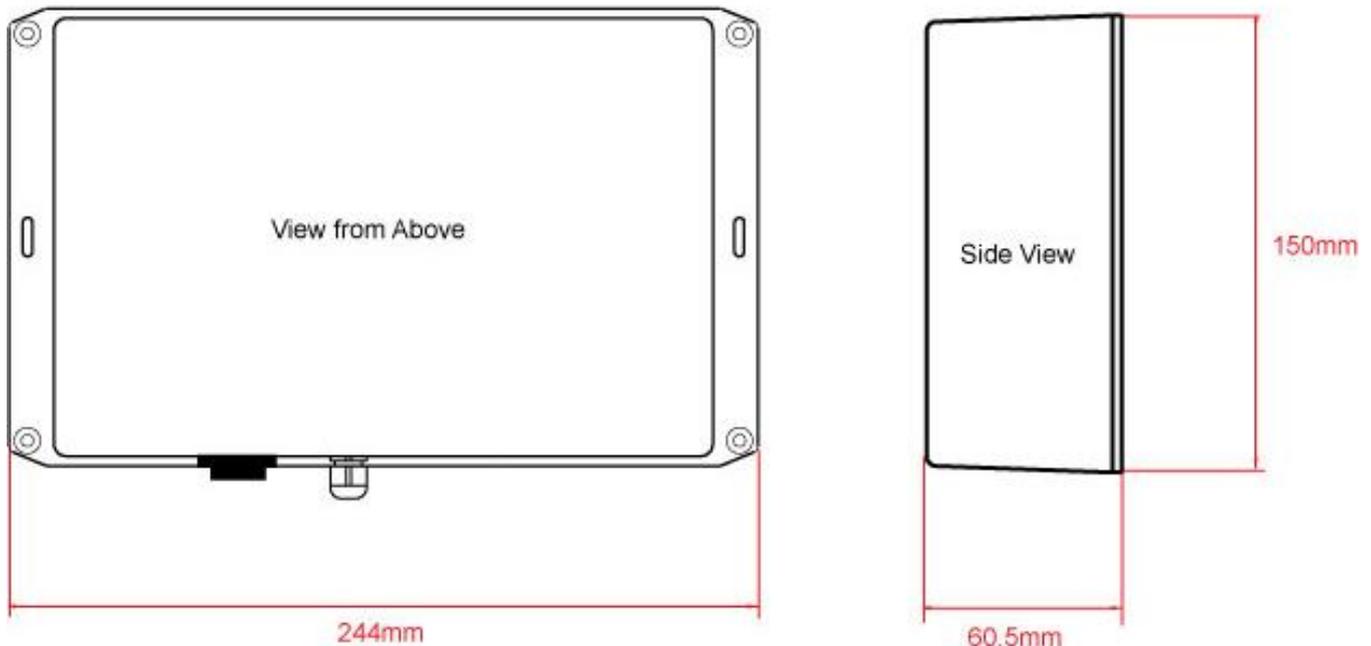
Installation Step 3 - Power

- Provide power connections to the unit from the boat's supply. Power is connected to the NTN10's six core Power/Data cable on the Red and Black wires. The Red wire is the positive (+) connection. The Black wire is the negative (-) connection.

- Connect the stripped wires to the nearest source of primary 12V or 24V DC power. **Ensure that the supply is connected via the supplied 1A fuse or suitable circuit breaker.** Add the fuse in the positive power connection to the unit if necessary.

Installation Step 4 – NMEA 0183

- The NTN10 is pre-configured to handle data at 38400 baud which is the high speed NMEA 0183 format used by AIS units and NMEA Multiplexers. If you wish to use the NTN10 with standard 4800 baud NMEA equipment, you will need to install and run the Configuration tool which is in the "*AISNet + iNavHub Utility"* folder on the supplied Digital Yacht Software and Drivers CD.

- If you do not have a copy of the CD with you, you can download it from here….

http://www.digitalyachtamerica.com/index.php/en/support/support-manuals/utilities?download=270:utilities

- The configuration tool is designed to run on a Windows PC. Run the configuration program with the NTN10 connected directly to the Windows PC via the supplied network cable. Click on the "Search" button and then go to the Serial Tab to change the baud rate – do not change any other settings.

- Click on the "Setting" button to store the settings and then power cycle the NTN10 for the baud rate change to take effect.

- Connect the NTN10 to compatible NMEA0183 equipment as follows;

NTN10 NMEA Cable   **NMEA 0183 Equipment**

Yellow (Input+)   NMEA Output +
Green (Input-)   NMEA Output –
Orange (Output+)   NMEA Input +
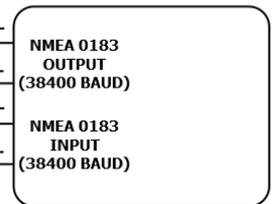Brown (Output-)   NMEA Input –

NOTE - Default Baud rate of the NTN10 is 38400 baud but this can be changed using the Config Tool. The NMEA Output of the NTN10 can transmit data from an App such as iNavX but if this data is at 38400 baud it will not be read by an AutoPilot or Instrument System.
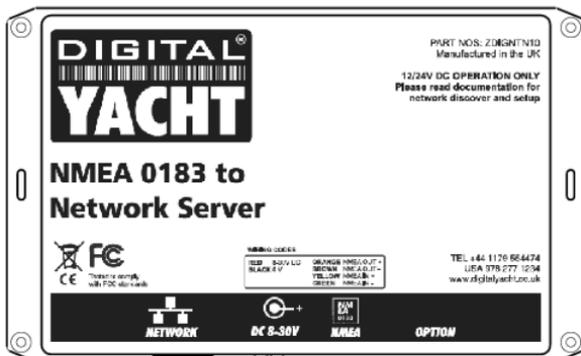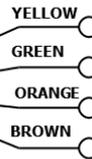
Installation Step 5 – Network

- The NTN10 NMEA0183 to Network Server is designed to automatically get its network address and other network settings from the network's DHCP server (router). If you are going to install the NTN10 on a network which uses static IP addresses, then you will need to configure this using the same Windows Configuration tool that was covered in Step 4 of this manual.

- Please contact Digital Yacht's support team for more information on changing network configurations on the NTN10 – see details below.

- By default, the NTN10 transmits the NMEA0183 data it receives as UDP data packets on Port 2000. Any device on the same network can receive this UDP data as long as the Navigation Software or App supports UDP data connections. Normally all you have to do on the Navigation Software or App is select UDP mode and set the Port Number to 2000.

- If the vessel's network includes a wireless access point or wireless router, the same UDP data on Port 2000 will be transmitted wirelessly around the boat to any wireless devices like iPhones, iPads, Android Tablets and Smart Phones.

- The NTN10 also supports TCP connections – only one TCP connection at a time is possible. A TCP connection requires the NTN10 to have a known IP address and we usually recommend configuring the NTN10 to have a Static IP address in TCP mode. For more information on configuring a TCP connection please contact Digital Yacht's support team.

- To contact Digital Yacht's Tech Support Team, use any one of the following methods;

  o E-Mail us at support@digitalyacht.co.uk

  o Visit www.digitalyachtamerica.com and use our Live Chat service

  o Go to the Support section of our website and "Raise a Ticket"

  o Call us on +44 (0) 1179 554474