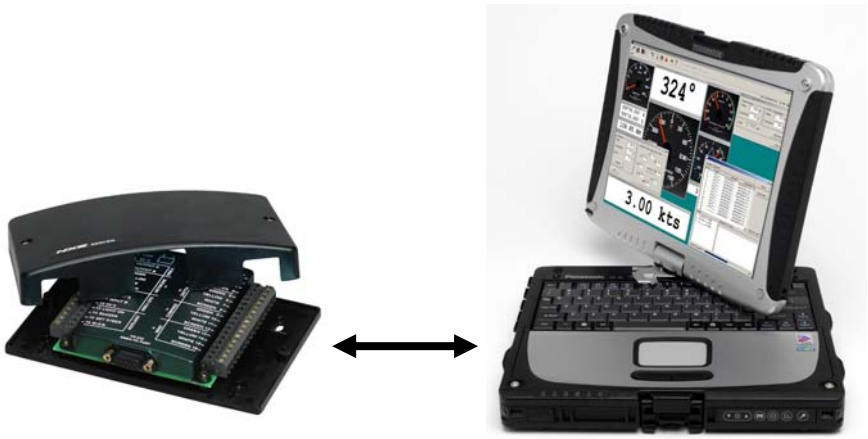
performance by NEXUS NETWORK

FDX kit



Installation and Operation Manual

English

This manual is written for the FDX kit
Edition: September 2004

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1 Part specification

Items delivered with the FDX kit

Qty.	Description
1	USB to RS-232 converter
4	3 m 9-pole serial cable
2	Installation CD
1	Installation manual

The FDX kit comes with all NX2 Servers and contains cables and software to connect your NX2 system to your PC. You may either use the Serial port (RS-232) or the USB port using the USB to Serial-port converter.

NOTE: The FDX Server will use the standard NMEA protocol for communication with all standard software's. If the NX2 Sail Performance Software is used, a command is send to change the protocol to FDX which enables you to control the whole NX2 system from your PC.

The NX2 Sail Performance Software will only work together with a FDX Server. An FDX Server has the following label on the cover:

Welcome aboard the Nexus Network!

Thank you for choosing NX2 and welcome to the world of the Nexus Network.

Through this manual we would like to help you install, operate and understand your new Nexus Network.

The Server is the ”heart” of your Nexus Network, to which transducers for speed, depth, heading, wind and navigation (GPS) are connected.

From the Server the single Nexus Network cable transmits power and data to the instruments, which repeat the information sent from the Server, or other NX2 transducers.

The Nexus Network is designed with the industry standard RS 485 databus, which allows you to connect up to 32 Nexus instrument units on the single Nexus Network cable, thereby allowing you the flexibility to easily develop your system. The Nexus Network is capable of carrying data 10 times faster than NMEA 0183.

The connection system, with a single 5 mm (1/5") cable and 4-pole jack plugs with cable protectors, makes the installation easy. No need to drill big holes and the cable can be cut to exact lengths. The connections at the Server are colour coded and marked with a number for easy reference.

NX2 Multi Control is a multi function instrument that displays a main and a sub-function together. You can easily ”customise” your favourite combination of functions, by using the unique method to move, copy and lock a sub-function.

The instruments large display gives you very good viewing possibilities from any angle, even in bright sunlight. The display and the five push-buttons have red back lighting which you can set to three different lighting levels.

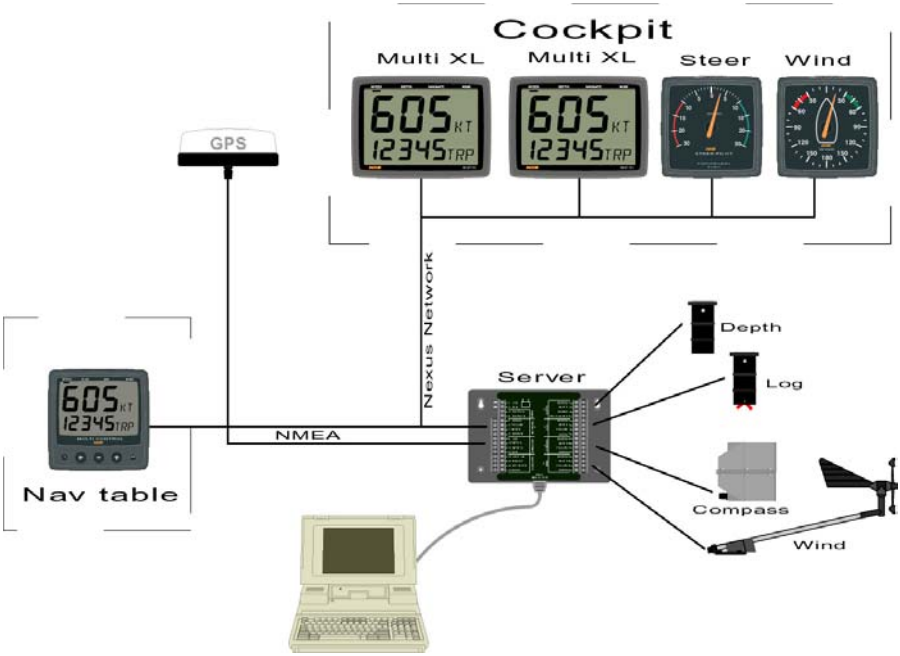
A large selection of optional analogue repeaters and accessories are available. The analogue steer pilot instrument particularly offers unique functions. When used together with the steer reference function (AWA), you can actually steer after the wind and ”expand” the tacking or down wind angle.
These Nexus instruments carry a two year warranty, which gives you as our customer, confidence to trust Nexus and our commitment to quality.

To get the most out of your new Nexus product, please read through this manual carefully before you start your installation.

Again, thank you for choosing Nexus. If you see us at a show, stop by and say hello.

Good luck and happy boating!

Typical NX2 system:



2 Installation

2.1 Installation of the USB to RS-232 converter

2.1.1 General

Universal Serial Bus (USB) port technology has emerged in response to the proliferation of external peripheral devices (scanner, digital camera, removable drives, etc.) that are increasingly being connected to the latest generation of PCs. The USB behaves in a similar fashion to conventional bus ports (i.e., serial, parallel, PS/2), but since it does not require any IRQs, more devices can be attached to the system without conflicts.

The USB Serial converter provides an external plug-and-play RS-232 device connection for PCs, notebooks, laptops, and handheld computerizing devices that support the USB specification. The converter comes with a standard DB-25 Male or DB-9 Male connector to be plugged into the RS232 port, and has a 0.4M - 1.8M, respectively, USB cable with a type A plug for connection to the PC's USB port or to a USB hub.

Note: Since the most computers have only one or two USB ports, USB hubs are often used to provide additional ports so that numerous USB peripheral devices can be connected up at the same time.

For further convenience, especially to users of notebooks, laptops and handholds, the USB to RS-232 converter device can be operated by the power from the Universal Serial Bus, no external power supply needed. As it is a USB specification compliant device, energy-saving suspend and resume are provided.

2.1.2 System Requirements

- Windows 98/SE/ME/2000/XP,Mac8.6 and higher, Linux.
- The system must be equipped with USB Host Controller

2.1.3 Features

- Supports automatic handshake mode.
- Works with cellular phones, PDA, digital cameras,
- modems, and ISDN terminal adapters.
- Supports remote wake-up and power management.
- Frees your RS-232 ports for other uses.

2.1.4 Converter Installation

1. Connect the peripheral device with the converter first, then plug the other end into the computer's USB port; the **NEW Hardware Wizard** appears; click on **Next** to continue.
2. In the dialog box that comes up, leave the default choice (**Search for the best drives for your device**)
3. Click on **Next** to continue.
4. In the dialog box that comes up, select the proper drive for your media; insert the driver CD in the drive; Click on **Next** to continue.
5. In the **Ready to install** dialog box that comes up; click on **Next** to continue.
6. If the driver files have been copied to the hard disk, a dialog box will appear to confirm the completion of the installation; click on **Finish**. Windows now finishes up the installation.

TO check if the converter was correctly installed:

1. Open the **My Computer** folder.
2. Open the **Control Panel** folder.
3. Open the **System** folder.
4. Click on the **Device Manager** tab at the top of the dialog box.
5. Click on the **plus** sign in front of the **Universal Serial Bus Controller** heading.
6. **If the installation has been done successfully, you will see an entry of** USB Serial Port **listed.**

2.2 Installation of the NX2 Sail Performance Software

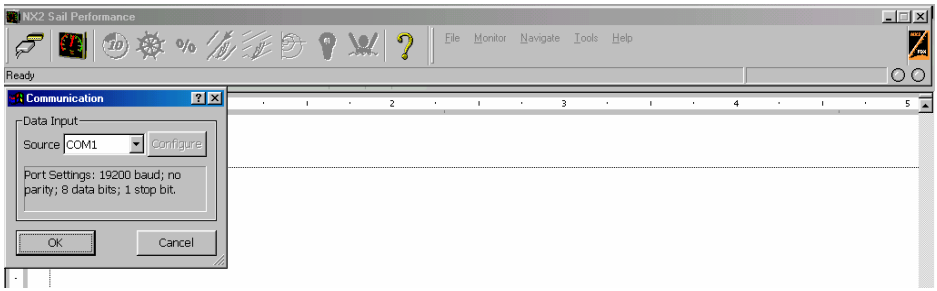
2.2.1 General

The NX2 Sail Performance Software is a shareware that only works together with a FDX Server.

2.2.2 Installing the Software

- Insert the CD to your computer
- Open Run Software
- Brows to your CD (normally D:) and click on NX2 Sail Performance
- Click on Setup
- Follow the instructions on your screen

Now run the NX2 Sail Performance Software.



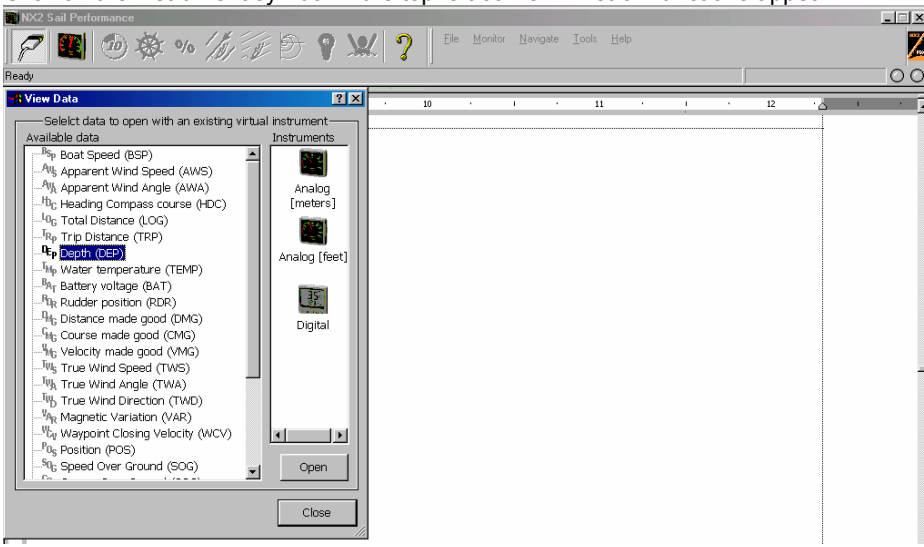
Click on the connector symbol in the top left corner
Select the Communication port where the cable to the Server is connected
Click OK
A green light will be turned on in the top right corner when communication is established.'

2.3 How to use the NX2 Sail Performance

When the Software is started and connected to the Server, you can start to use it:

2.3.1 Monitoring

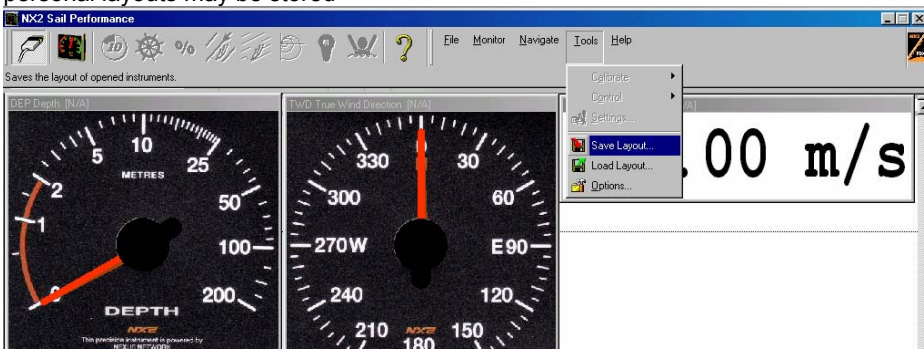
Click on the instrument symbol in the top left corner. A list of functions appear.



Select the function from the list. Some functions may be displayed digital or analog, some only digital. Select the type of display you want by double clicking on the corresponding icon.

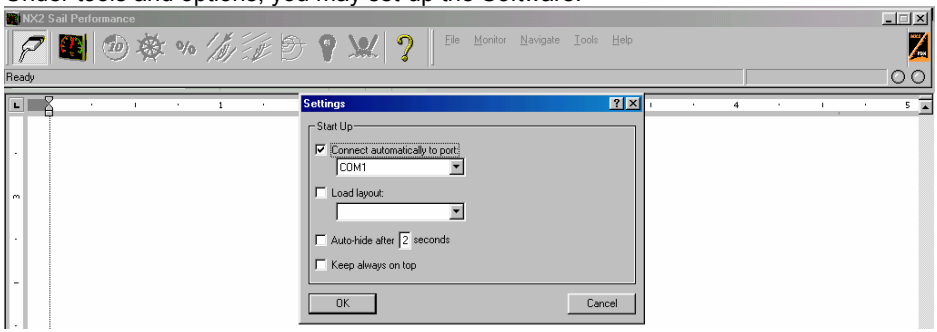
Now the display appears on the screen. You may now move or change the window with the mouse control.

You may open as many windows as you want. The layout may be saved, up to five personal layouts may be stored



2.3.2 Setup

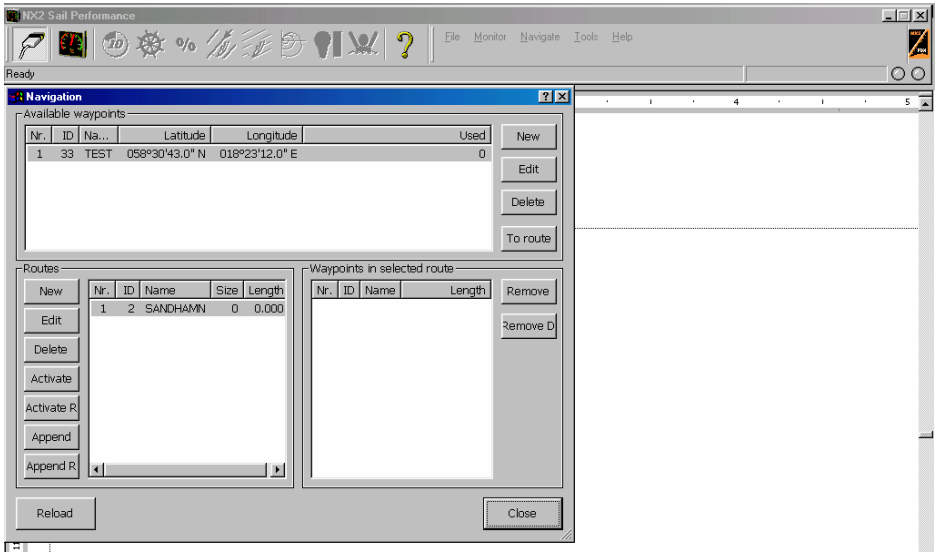
Under tools and options, you may set-up the Software.



You can select which port you want the NX2 Sail Performance to connect to automatically after start. You can also automatically load your favourite layout.
If you tick the box “always on top” the NX2 Sail Performance will always be on top on your screen, even if you are running an other software.

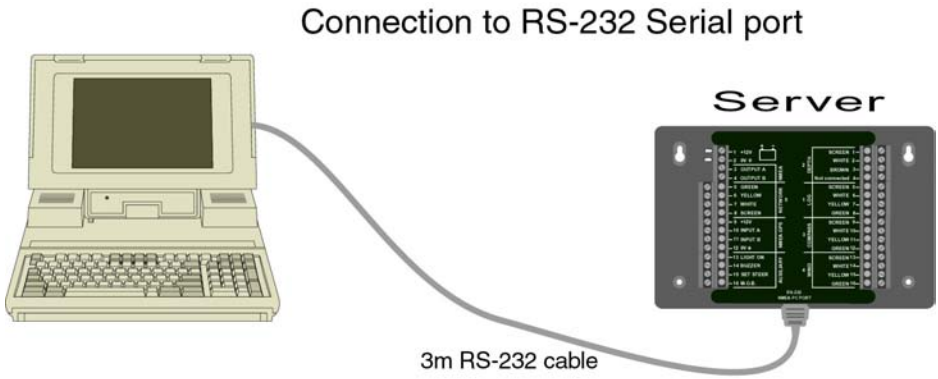
2.3.3 Navigation

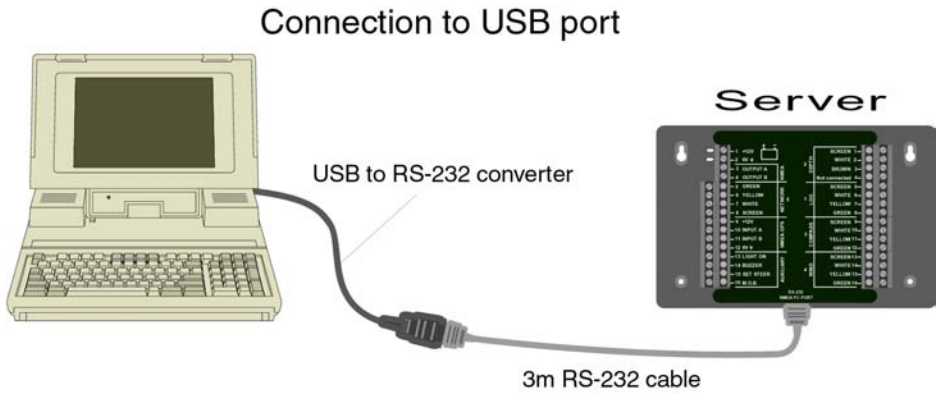
If you have a NX2 or Nexus navigator (GPS Navigator or Multi Center) you can create and edit waypoints and routes from your NX2 Sail Performance Software. All Waypoints and routes are stored directly in your instrument.



2.4 Connection of the cables

Connect the Server to your PC with the supplied 3m Serial Cable as showed in the picture. If you use the USB to RS-232 converter, the 3m cable is still needed!





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