



NAVLINK2 WIRELESS NMEA2000 SERVER

Installation and instruction Manual



1. Introduction

Congratulations on the purchase of your Wireless NMEA 2000 Server.

This product replaces our original NavLink product and features a smart web interface that can be displayed and configured using the web browser on your mobile device.

It is recommended that your product is installed by a professional installer, particularly when it comes to interfacing with other equipment.



Before installing and operating this unit you should consult the user manual of the navigation equipment that you are connecting this unit to.

2. Before you start

You will need the following items and tools to complete the installation:

- The Wireless NMEA 2000 Server (supplied)
- Spare/suitable connection to the NMEA2000 network
- M3 or M4 screws or other fixings appropriate to the mounting location (not supplied).

To receive/display wireless data from the NavLink2 you will need:

- Suitable navigation software running on a PC, iPhone/iPad, Mac or other wireless device.
- A fully working and powered NMEA 2000 network.

3. Installation

The NavLink2 is IP54 rated (water resistant) and should be installed below deck in a dry location. When locating the unit you should consider:

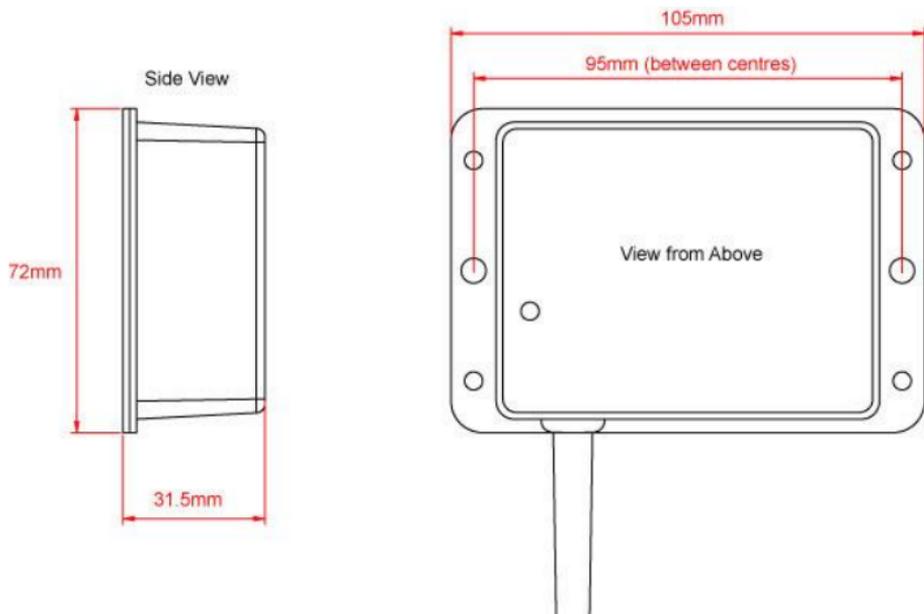
- Routing of the NMEA 2000 cable to the network.
- Sufficient space around the unit for cable connections.
- Maintaining the compass safe distance of 0.5m.
- Best location for Wi-Fi reception i.e. not inside a metal enclosure

Installation Step 1 – Connecting to NMEA 2000 Network

- Connect the NavLink2 NMEA 2000 cable, to a spare connector on the NMEA 2000 network.
- NavLink2 takes its power (LEN=2) from the NMEA 2000 network so no additional connections are necessary.
- If you are creating a new NMEA2000 network, then you may wish to consider [Digital Yacht's NMEA2000 Starter Kit](#), that provides all of the cables, connectors and terminators required for a basic NMEA2000 network.
- If you are connecting NavLink2 to a non-standard NMEA2000 network, then a suitable adaptor cable will need to be sourced from the relevant manufacturer;
 - > SeaTalkNG (Raymarine P/No A06045)
 - > Simnet (Simrad P/No 24006199)

Installation Step 2 – Mounting

- Using suitable fixings, attach the NavLink2 unit to a flat surface.
- Unit may be installed in any orientation.
- The dimensions of the NavLink2 are provided on the next page.



Installation Step 3 – Powering NavLink2

- Apply power to the NMEA 2000 network and the NavLink2 the LEDs should start to illuminate or flash, as per the following table...

Condition	STATUS LED (Green)	DATA IN LED (Yellow)	ERROR LED (Red)	DATA OUT LED (Yellow)	LINK LED (Green)
ON (Solid)			System Error		TCP Connection
Fast Blink	No Wi-Fi connection	Data	Data Error	Data	
Slow Blink		Data	Network Error	Data	UDP Connection
OFF	Wireless device connected	No Data From N2K	All OK	No Data From App	No Power

Installation Step 4 – Wireless Interfacing

- By default, the NavLink2's 802.11 b/g/n wireless adaptor, creates a wireless Access Point (hotspot) on-board your boat. The Name (SSID) of the Access Point will be "**DY-WiFi-xxxx**" where xxxx is the unique four digit code of your device.
- To connect to the NavLink2 you will need scan for wireless networks, select it and then enter the default WPA2 password, which is "**PASS-xxxx**", where xxxx is the same, unique four digit code in the hotspot name.
- The NavLink2 can transmit wireless NMEA data using two different network modes; either TCP (single device connection) which is the default mode or UDP (multiple device connection).
- UDP mode can be selected in the smart web interface.
- Once your mobile device is wirelessly connected to the NavLink2, open the navigation application that accepts NMEA data over a TCP or UDP connection and setup the connection.
- Consult the help documentation for your App to see how wireless data connections should be configured.
- The IP address and port that the NavLink2 transmits data on are;
IP Address - **192.168.1.1**
Port - **2000**
- Note that some UDP connections do not ask you to enter the IP address just the port number.

4. Normal Operation

The NavLink2 consumes around 0.1 Amp and can be left on whenever the boat is sailing. Every time NMEA 2000 data is received, the yellow "DATA IN" LED will flash. In some systems with lots of NMEA data, it is not unusual for the yellow LED to be constantly flickering.

Should you have a problem connecting wirelessly to the NavLink2, press and hold the Reset button for 1-2 seconds and try connecting again. In busy marinas with high levels of wireless activity, getting a reliable connection to the NavLink2 may be difficult, but once underway (at sea) a strong and reliable connection will be achieved.

If you have other wireless devices on board that create their own wireless networks, use the Wi-Fi Channel selection option in the Smart Web Interface to use a different Wi-Fi Channel to the other devices.

Alternatively, if the boat already has a Wireless Router onboard, you can make the NavLink2 connect to that network, rather than create its own. Select “Station” mode in the Smart Web Interface.

Using the NavLink2’s Web Interface

Any device, wirelessly connected to the NavLink2, can access its web interface by typing <http://192.168.1.1> in to its browser’s address bar.

Current Settings x +

← → ↻ Ⓜ Not secure | 192.168.1.1

DIGITAL YACHT

NavLink 2 Configuration

Network Settings

Networking Mode

- Access Point
- Station

Local Wifi AP SSID

SSID:

Password:

Wif Channel:

Local Network

Local IP:

Local Port:

Communication Settings

Port 1

- 230400

Mode

- TCP
- UDP

Firmware update

No file chosen

Firmware Version 1.xx - Serial Number 603374 - Copyright Digital Yacht Limited 2016

From the Web Interface you can configure all of the NavLink2s features.

1. Networking Mode

- In **Access Point** mode, the NavLink2 creates its own wireless network with the name, password, IP address, Port and Wi-Fi channel you select. If you leave the Password box blank, it will create an “Open” unprotected network.
- In **Station** mode, the NavLink2 will try to join another wireless network whenever it powers up. The network can be selected from a drop down list and if it is password protected, enter the correct password in the password box.

2. Communication Settings

- The Baud rate on the NavLink2 is pre-set to **230400** and cannot be changed
- Set the communication protocol to **UDP** or **TCP**

3. Firmware Update

- The firmware of the NavLink2 can be updated using web interface, simply click the “Choose file” button to browse your device for the firmware update file and then once selected, click the “Upload Firmware” button

After changing any of the settings on the Web Interface, click the “Update Settings” button to save and apply your changes. If the changes affect the networking then the NavLink2 will reboot and you will need to reconnect wirelessly to it.

If you make a mistake with a setting or forget a password, reset the NavLink2 to factory defaults by pressing and holding the Reset button for 10 secs or more.

For diagnostic purposes, you can view the received NMEA0183 data by clicking the “View Data” button which opens a new browser tab displaying the raw NMEA0183 data received.

