

NJORDLINK+ NMEA 2000 Cloud Connect

Installation and instruction Manual



1. Introduction

Congratulations on the purchase of your NJORDLINK+ NMEA 2000 Cloud Connect. It is recommended that this unit is installed by a professional installer.

- i** This User Manual will provide basic information on the NJORDLINK+ to allow you to install and get the NJORDLINK+ working. We recommend reading and familiarising yourself with the manuals of the equipment you wish to connect to NJORDLINK+.

2. Before you start

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

- NJORDLINK+
- An NMEA 2000 cable (not supplied)
- A spare connection to the boat's NMEA 2000 network
- Access to 12V or 24v DC power supply where the unit is to be installed
- Space on an existing DIN rail or space to fit the supplied DIN rail mount
- Two or more M4 screws or other appropriate fixings

To test and register the unit you will need:

- A mobile wireless device with a modern web browser to configure the NJORDLINK+
- A Viam Cloud account – just register for free at <https://app.viam.com/robots>

3. Installation

Before starting installation select a suitable location for the NJORDLINK+. The unit should be installed below deck in a dry location. When locating the unit, you should consider:

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

Installation Step 1 – Connection to 12/24V Power

- NJORDLINK+ features an integral power cable (0.75m) which should be connected to the vessel's 12v or 24v DC system.
- Any additional power cabling used to connect the NJORDLINK+ should be of suitable gauge to comfortably handle a maximum of 5A current with a voltage drop of <3%. A 5A fuse/circuit breaker should be fitted in-line with the positive supply lead.

Installation Step 2 - Connection to the NMEA2000 Network

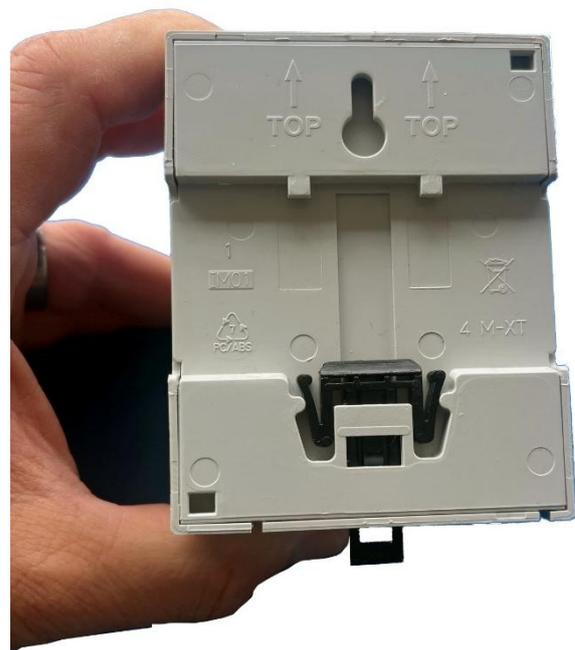
- NJORDLINK+ does not take its power from the NMEA2000 network, but does take a few milli-amps to power its NMEA 2000 isolated transceiver chip (LEN = 1).
- NJORDLINK+ has a male NMEA2000 connector which must be connected to a standard micro NMEA2000 cable (not supplied). This drop cable, which must be <6m in length, should connect to a spare female "T Piece" on the NMEA2000 network.
- If you need to create 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.



- On some “proprietary” NMEA2000 networks, a special adaptor cable will be required from the manufacturer.
 - Raymarine SeaTalkNG to NMEA2000 Adaptor Cable Part No A06045
 - Simrad Simnet to NMEA2000 Adaptor Cable Part No 24006199
- On many NMEA2000 Multi-Function Displays, you have the facility to view NMEA2000 devices on the network and if your MFD has this feature, use it to check that the NJORDLINK+ is being seen on the network.

Installation Step 2 – Mechanical Fixings

Dimensioned Drawing



Integral DIN Rail mount

- NJORDLINK+ is designed for mounting below deck in a dry and protected area, under no circumstances should NJORDLINK+ be mounted outside.
- In locations with high humidity, consider mounting NJORDLINK+ in a moisture proof cabinet.
- The NJORDLINK+ is designed to be mounted on a DIN rail system. If your vessel does not have a suitable DIN rail system, use the supplied 100mm length of DIN rail. Secure the DIN rail to a flat surface in the selected location. Use two M4 wood screws or other fixings suited to the material the unit is being fixed to. The unit may be installed in any orientation
- To fit the NJORDLINK+ to the DIN rail, firmly pull down on the black tab that protrudes from the bottom of the enclosure. Angle the NJORDLINK+ slightly so that you can clip the enclosure on to the top edge of the DIN rail and then bring the NJORDLINK+ vertical and release the black tab, so that it clips in behind the bottom edge of the DIN rail.
- To remove the NJORDLINK+, firmly pull down on the black tab that protrudes from the bottom of the enclosure and gently pull the bottom of the enclosure away from the DIN rail and then lift the NJORDLINK+ up and away from the DIN rail.



Installation Step 3 – Ethernet Connection to the Internet

- In order for NJORDLINK+ to connect and send your data to the Viam Cloud, a permanent or semi-permanent connection to the internet is required. Suitable connection types include 4G/5G Mobile networks, Inmarsat, VSAT or Starlink. Iridium does not have enough bandwidth and long range WiFi to a marina, would be OK for monitoring whilst in the marina, but would not be suitable when cruising.
- NJORDLINK+ can be either wired directly to an Ethernet network (recommended) or via WiFi.
- To connect via a wired Ethernet connection, simply plug a CAT5 or better network cable into the NJORDLINK+ RJ45 Ethernet socket on the base of the product. Plug the other end of the network cable into a spare RJ45 connection on the vessel's Ethernet network that has Internet connectivity. The NJORDLINK+ expects to get an IP address automatically via DHCP.
- If you wish to connect the NJORDLINK+ to the vessel's Ethernet Network via WiFi, you will need to know the SSID and Wireless Password of the Vessel's wireless network. You will need to use the NjordLink Plus app to tell the NJORDLINK+ which wireless network to connect to and this is covered in Section 5 at the end of this manual.

4. Operation

Before you can start to send your data to the cloud, the NJORDLINK+ must be "Provisioned" (linked) to your Viam Cloud account. If you do not already have a Viam Cloud account, go to <https://viam.com/robots> and register for free.

"Provisioning" of the NJORDLINK+ to your Viam account is best carried out via the NjordLink Plus app that is available on the Apple App store and Google Play Store. Simply search either store for "NjordLink Plus", install and follow the instructions in Section 5 of this manual.

Once your NJORDLINK+ is linked to your Viam account, your NMEA 2000 data will be constantly uploaded to the cloud. If a break in the internet connection occurs, your NJORDLINK+ will automatically store the data in its internal memory and then forward the data to the cloud, when the internet connection is restored.

Although the NJORDLINK+ has 30GB of internal storage, it is recommended that if the vessel is going to be left with no internet connection for long periods of time, that the NJORDLINK+ is powered down to avoid filling its internal storage with unnecessary data.

4.1 Local Web App

Once NJORDLINK+ is connected to the vessel's Ethernet network, then any device on the network can access its local web interface at...

<http://njordlinkplus:8888>

The NJORDLINK+ Web App will evolve over time and it automatically updates whenever a new release is published, ensuring you always have the latest version installed.

The functionality shown in this manual may change over time, but primarily, the NJORDLINK+ web app is intended to provide onboard diagnostic and data viewing.

From the Home page (see Fig.1) you can access the available functionality. We have not currently documented this functionality, but it is fairly self explanatory and will be documented once it stabilises.

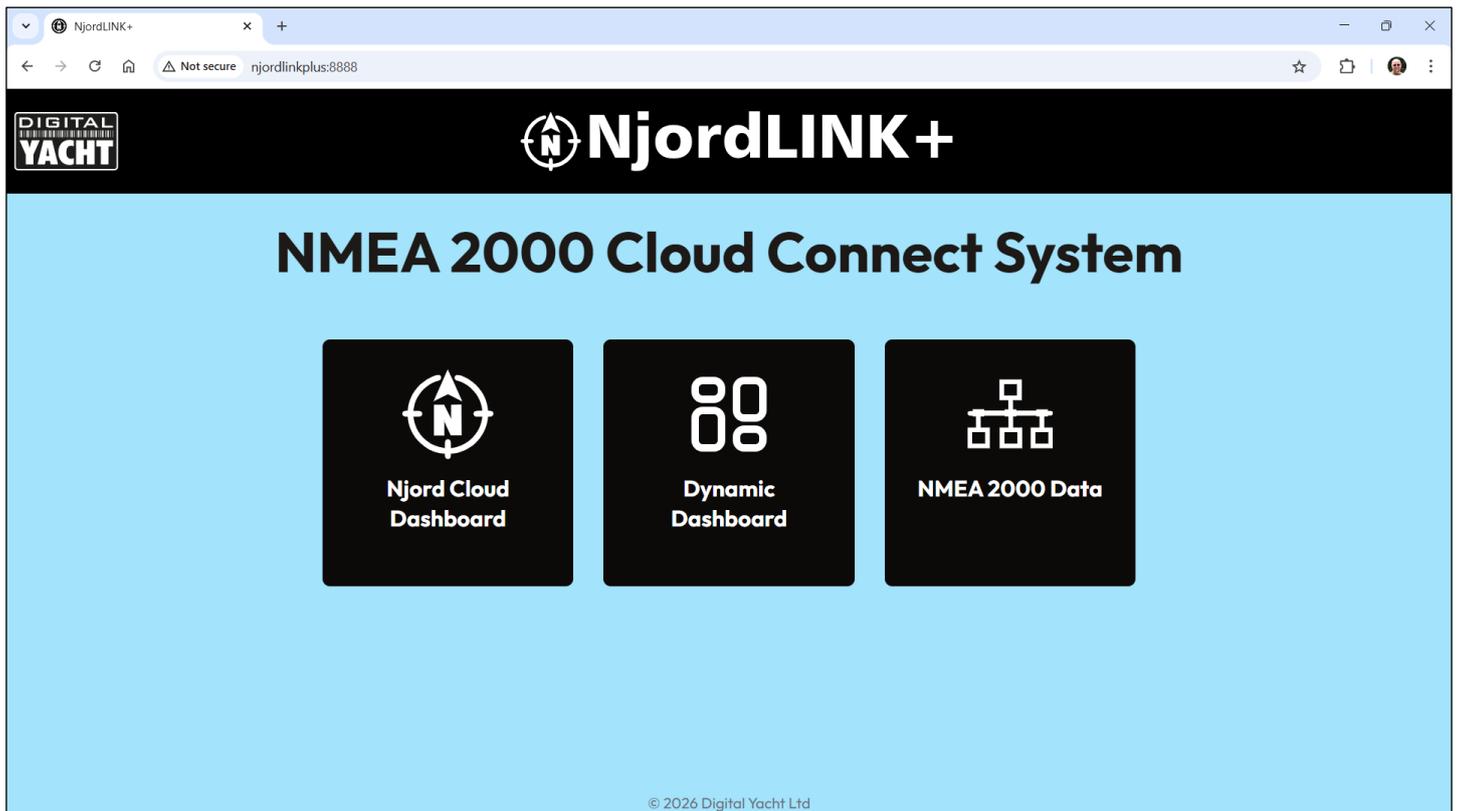


Figure 1

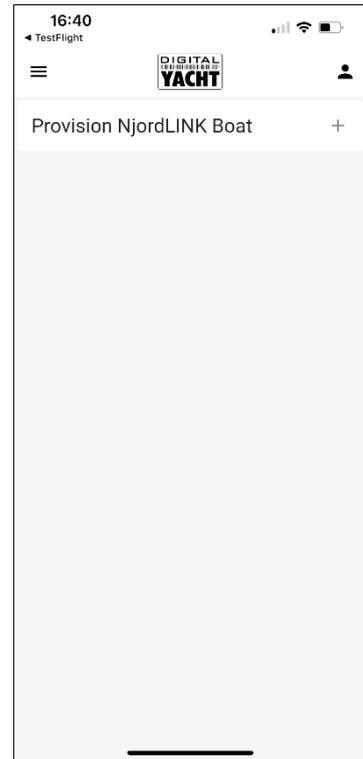
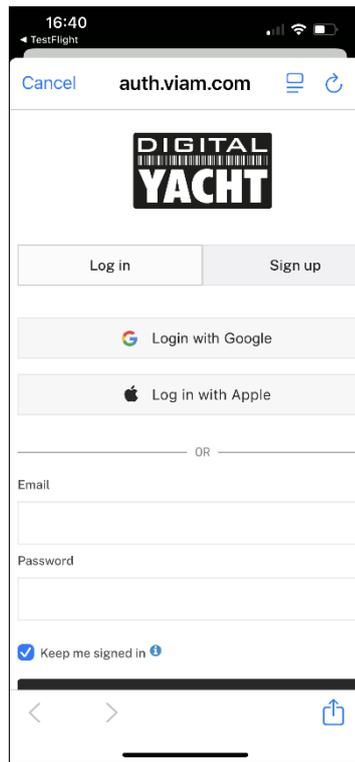
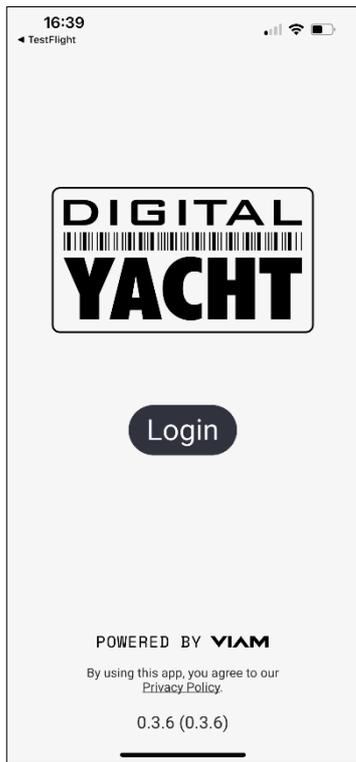
5. Using the NjordLink Plus Mobile App

The NjordLink Plus app is designed to make setting up and provisioning your NJORDLINK+ as simple as possible. The end goal is for your NjordLink+ to have the best possible internet connection and this can be done over WiFi or via a network cable.

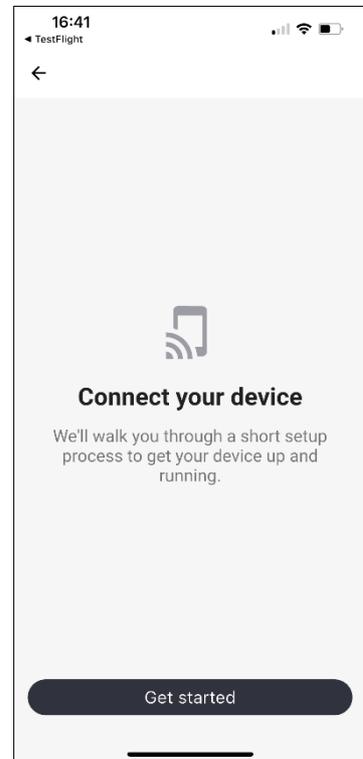
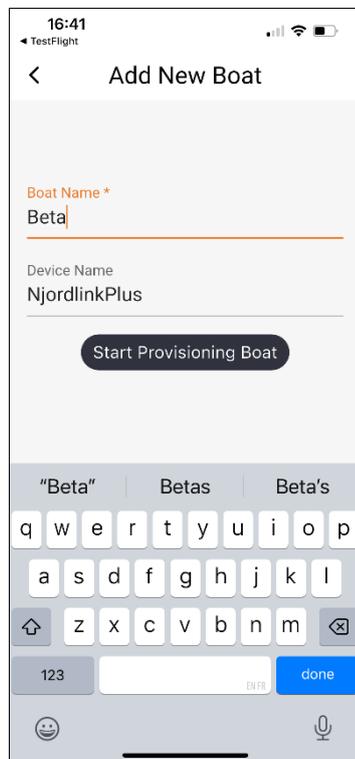
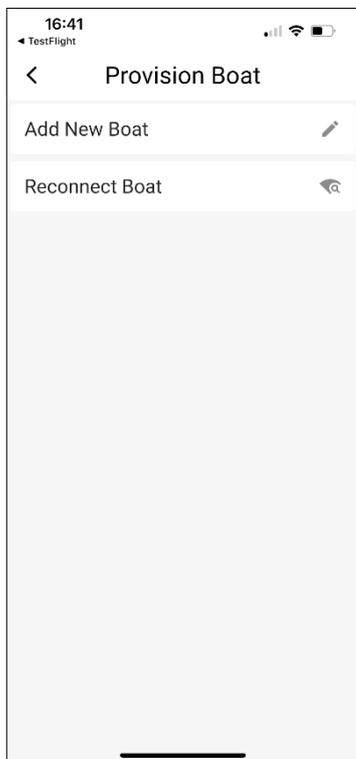
If your NJORDLINK+ is connected to the vessel's Ethernet network via a wired connection, which for reliability is the recommended setup, then you still need to follow the procedure below to provision your NJORDLINK+ i.e. link it to your Viam cloud account.

5.1 Connecting NJORDLINK+ to a Wireless Network

- Once you have installed the app on your mobile device, ensure your NJORDLINK+ device is powered up and has been on for 60 seconds.
- Ensure your Mobile Device has Bluetooth turned on.
- Open the NjordLink Plus app and click the **“LOGIN”** button.
- If you have not registered yet for a Viam account, click the **“SIGN UP”** option and complete the registration process. If you have already registered, login using your preferred method.
- You will now be taken to your Boat List, which if you are a new user, will be empty.
- Click on the **“Provision NjordLink Boat”** + icon.

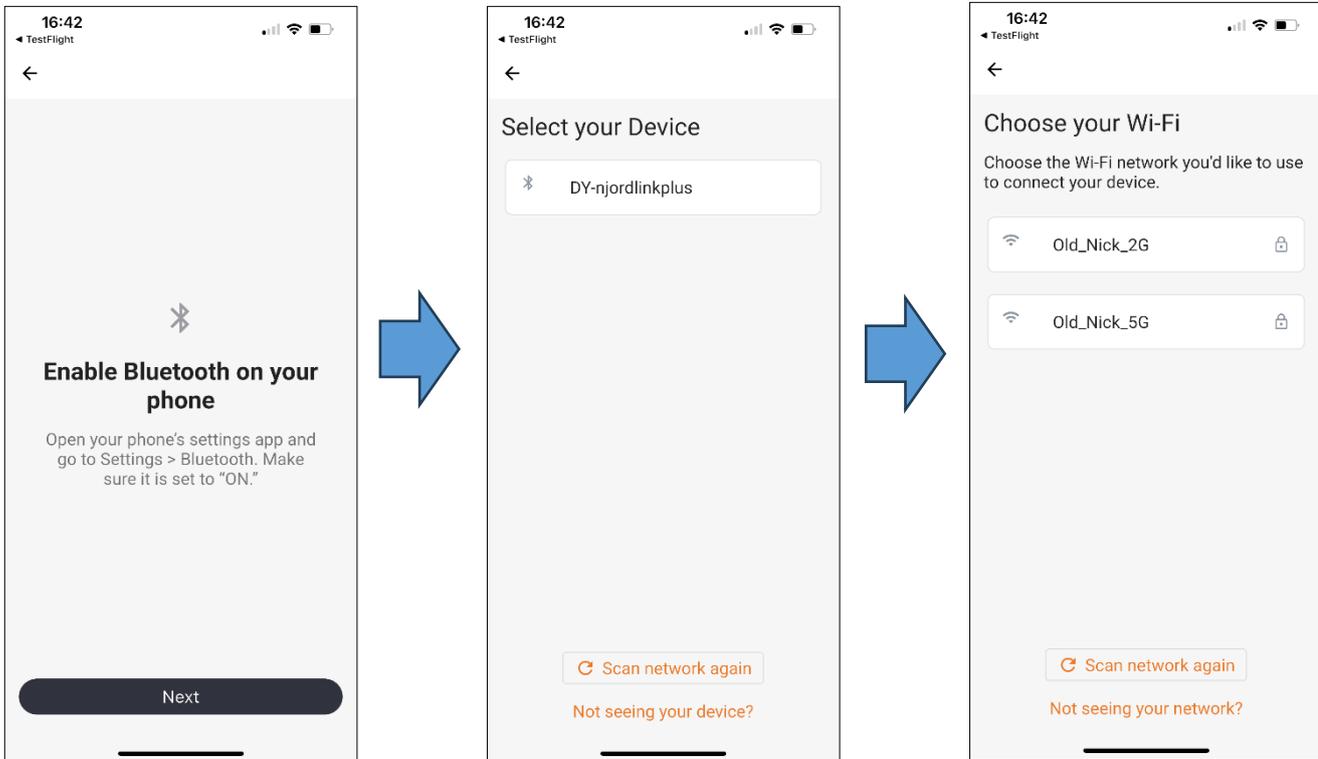


- Click the “**Add New Boat**” button, enter your boat’s name and click the “**Start Provisioning Boat**” button
- Assuming that your NJORDLINK+ has been powered up for 60 seconds or more and your mobile device’s Bluetooth is turned ON, click the “**Get Started**” button

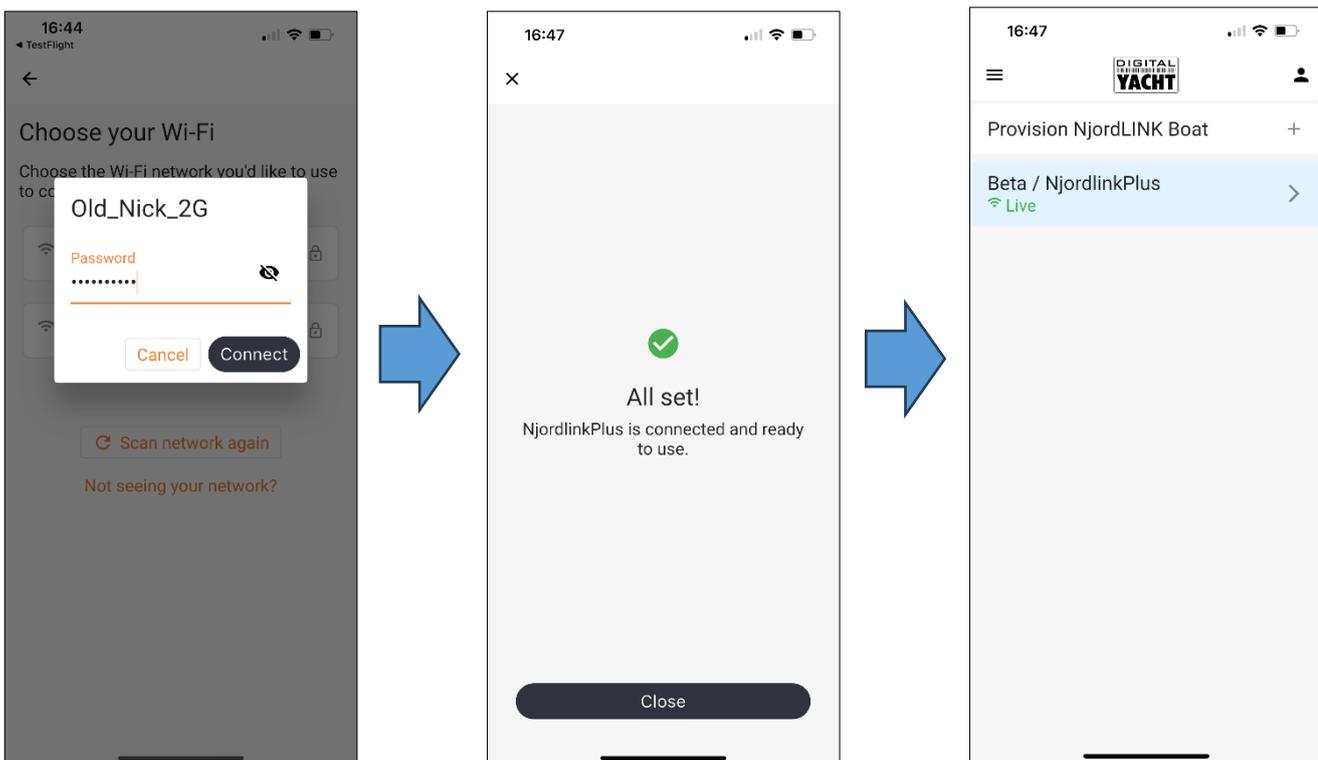




- Click the “**Next**” button and then select your NJORDLINK+ device. If your NJORDLINK+ is not already wired to a network, the app will now look for wireless networks in range.



- Select your vessel's wireless network and when prompted enter the wireless password. Click the “**Connect**” button and the NJORDLINK+ will now reboot. This takes around 60 seconds and then you should see the “**All Set**” green tick and you can click the “**Close**” button to see your newly provisioned NJORDLINK+.





Selecting your NJORDLINK+ will take you to the Map screen and assuming there is a valid GNSS position on your NMEA 2000 network, your boat will be shown in its correct position.

Clicking the “Data” button takes you to the NMEA 2000 data display page, where you can scroll down the page and see every piece of NMEA 2000 data on your network.

NOTE – the Map and Data pages are available even when you are not on the vessel, as the data is remotely accessed via your Viam Cloud account.

