

DATAHUB PRO
By PredictWind

User Manual

Welcome

Welcome to the **DATAHUB PRO** by PredictWind, the gateway to sharing your voyage with friends and family using PredictWind GPS Tracking and blogs. The **DATAHUB PRO** is full of powerful additional features that will make your offshore tracking, data and communications easier than ever.

The **DATAHUB PRO** can track, blog, save and broadcast all your onboard data sources, including GPS and your NMEA 2000 instrumentation network. Additional features allow you to broadcast Gigabit Wi-Fi, GPS, NMEA2000 and AIS data via Wi-Fi; create custom Boat AI Polars, upload AIS to the Internet and download Over the Horizon AIS. The Anchor Alert app enables remote monitoring of the boat location and instruments while ashore.

The **DATAHUB PRO** includes a built-in LTE modem with the option to activate the included SIM card for worldwide 4G internet, enabling essential PredictWind services such as GPS Tracking and AI Polars. The **DATAHUB PRO** can connect to and share additional Internet sources, such as Starlink, Peplink, and Iridium GO!/GO exec, via Ethernet WAN or Wi-Fi tethering, and Android or iOS hotspots via USB.

To get started, go to the PredictWind Help Centre at <https://help.predictwind.com> and open the **DATAHUB PRO** collection to view our Quick-Start YouTube videos and online setup guides.

Starlink™/T-Mobile SIM: High-speed coastal coverage (up to 100Mbps) with automatic global roaming

Smart safety tools: Man Overboard App, Anchor Alert, Whale Watch

Advanced navigation: GPS Tracking, AI Polars, Over the Horizon 300nm AIS

Modern connectivity: Wi-Fi 6 (up to 1.7Gbs), LTE/4G, USB-C and USB-A tethering & phone charging

Versatile networking: Share internet, NMEA 2000, GPS & AIS data over Wi-Fi

Reliable onboard internet: Firewall, internet sharing, optimized email, backup comms switching

Remote access & control: NMEA streaming, autopilot integration, remote diagnostics, data logging



GPS



N2K



WAN X2



LAN X2



USB-C



LTE/CELL

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Technical Specifications

Hardware

Processor: Dual-core MIPS 1004Kc CPU, clocked up to 880 MHz

Memory: 512 MB DDR3 RAM, 128 MB Flash

Ports:

- 1 × Gigabit WAN port
- 4 × Gigabit LAN ports
- 1 × USB C 3.0 port
- 1 × USB A 2.0 port

Wireless

Standards: IEEE 802.11 a/b/g/n/ac/ax (Wi-Fi 6)

Frequency Bands:

- 2.4 GHz: up to ~1.1 Gbps
- 5 GHz: up to ~4.8 Gbps

MU-MIMO: Supported 4x4

Beamforming: Supported

Security: WPA3/WPA2-PSK, WPS

Wired Networking

WAN/LAN Speed: 10/100/1000 Mbps auto-sensing

NAT Throughput: up to ~2 Gbps

VPN Support: PPTP, L2TP, OpenVPN, IPSec passthrough

Modem

LTE Category 4 modem

Downlink: up to 150 Mbps

Uplink: up to 50 Mbps

Network Technology Support: LTE (FDD & TDD), UMTS / HSPA(+), GSM / GPRS / EDGE

Frequency Bands:

- LTE-FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28, (66)
- LTE-TDD: B34, B38, B39, B40, B41
- WCDMA: B1, B2, B4, B5, B6, B8, B19
- GSM/EDGE: B2, B3, B5, B8:

NMEA2000 CAN bus

M12 5-pin micro-C connector

Software Features

DHCP server & client

NAT, Port Forwarding, DMZ

Firewall: SPI, DoS protection

Firmware update via web

Cloud backup

Management

Web-based GUI

Remote management via HTTPS

Physical & Environmental

Power Supply: 12V DC, 3A - supports DC 9-60V Power

Consumption: <48W max 3 amps

Operating Temperature: 10°C to 40°C (50°F to 104°F)

Storage Temperature: -20°C to 70°C (-4°F to 158°F)

Humidity: 10%–90% non-condensing Dimensions: 220 ×
150 × 35 mm

Weight: 450 g

Certifications

FCC

CE

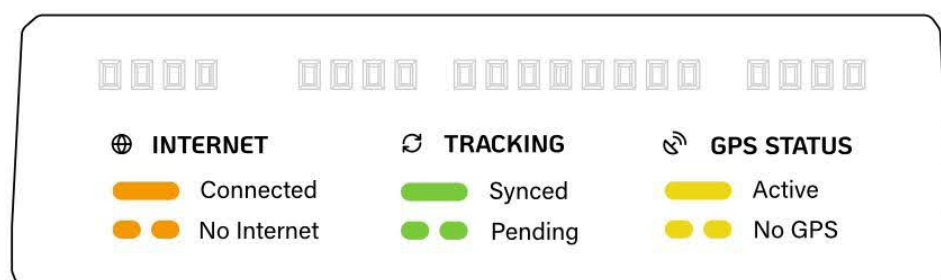
RoHS

Top View



Side View - LED Light description

Orange - Internet
Green - GPS Tracking
Yellow - GPS Status
Blue - Power



Rear View



Powering up the DATAHUB PRO

DataHub Pro can be powered with either the supplied AC/DC power supply or directly from the vessel's house battery bank. The unit requires 9-60 VDC and is reverse polarity protected. The centre pin of the power connector is positive.

To wire the **DATAHUB PRO** directly to the vessel's house battery, either plug in the supplied AC/DC adapter or connect the 12v power cable with a 3-amp fuse to the positive power lead (The red wire is positive, the black wire is negative) and wire to the vessel's switch panel. Before powering the **DATAHUB PRO** use a voltmeter to ascertain that the centre pin in the connector has a positive voltage. Reversing the polarity on the connector will not damage the **DATAHUB PRO**, but it will prevent it from powering on.

You will notice a blue status LED on the top of the unit illuminates when the unit is correctly powered on.

Accessing the Web User Interface

Once powered on, the **DATAHUB PRO** needs to be configured to select the GPS data source, establish an internet connection, enable and set the tracking interval, and secure its Wi-Fi with a password.

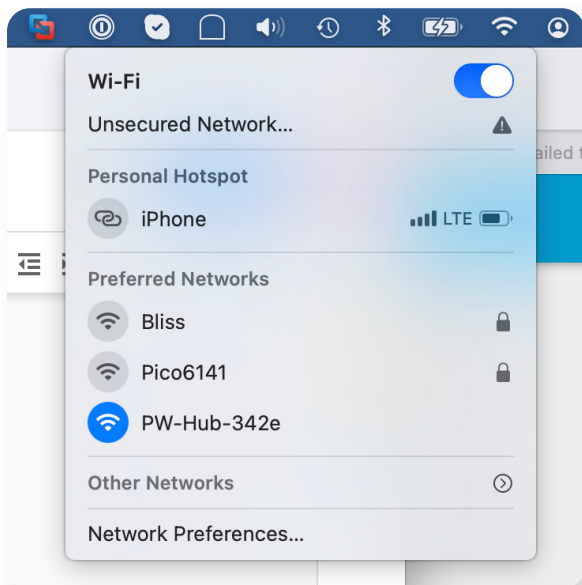
Before you can start the configuration process, you must first establish a connection either via Ethernet or Wi-Fi to log in to the web administrative interface.

The **DATAHUB PRO** web interface is mobile friendly and supports all popular web browsers.

Access via WiFi

The **DATAHUB PRO** advertises itself via Wi-Fi with an SSID **PW-Hub-XXXX** where XXXX is an alphanumeric sequence specific to the device. By default, the **DATAHUB PRO** Wi-Fi is unprotected. Please see the **Quick Start video** for how to add a password to the DataHub, change the SSID of the unit and encrypt the Wi-Fi.

To Wi-Fi connect to the **DATAHUB PRO** scan for available access point SSIDs and select the one that corresponds to your unit. The following image depicts the process for Mac OS X. Other OS's use a similar process.



Access via Ethernet

To access the unit via a wired connection, run an Ethernet cable between the RJ45 port on your laptop computer and the LAN port on the DATAHUB PRO. The LAN port is the RJ45 port closest to the power connector.

Accessing the Web UI

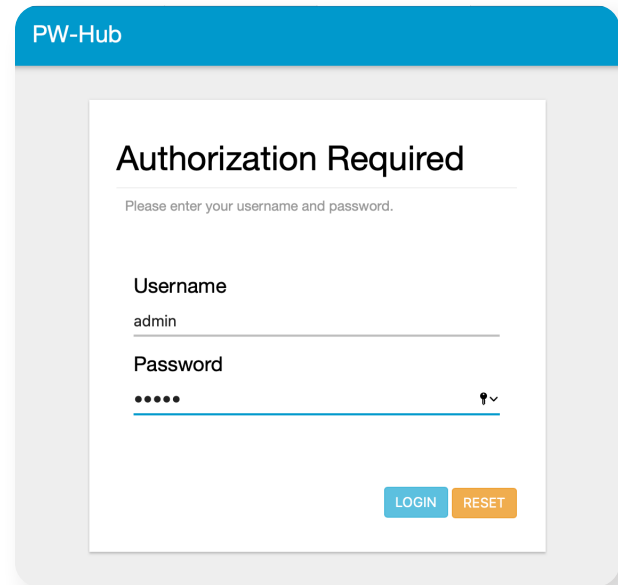
To login to the DataHub Pro's administrative web page, open a web browser and browse to <http://10.10.10.1>

You should see a login page pop up in your browser. Login with the default details below.

Username: admin

Password: admin

Then push the **Login** button to access the administration pages.



The image shows a web browser window displaying the 'PW-Hub' login interface. The page has a blue header with the text 'PW-Hub'. Below the header, the main content area is white and titled 'Authorization Required'. Under this title, it says 'Please enter your username and password.' There are two input fields: 'Username' with the text 'admin' entered, and 'Password' with five dots representing masked characters. To the right of the password field is a small icon of a person with a checkmark. At the bottom right of the form, there are two buttons: a blue 'LOGIN' button and an orange 'RESET' button.

Getting Started Quick Setup Guide

Scan to get Started



To get started, go to the PredictWind Help Centre at <https://help.predictwind.com> and open the DATAHUB PRO collection to view our Quick-Start YouTube videos and online setup guides.

Quick Setup Video and Help Topics

Quick Start Setup Video and Help Topics available in the PredictWind Help Centre at <https://help.predictwind.com> include:

- What's in the box
- How to connect to DATAHUB PRO Wi-Fi
- How to add a Wi-Fi password to DATAHUB PRO Wi-Fi
- How to connect the DATAHUB PRO to the Internet
- Log in to your PredictWind Account on the DATAHUB PRO
- How to update DATAHUB PRO Firmware
- How GPS Tracking works on the DATAHUB PRO
- How to connect the DATAHUB PRO to your boat's NMEA2000 (N2K) network
- DATAHUB PRO Quick Internet setup pages for Starlink, 4/5 cellular, USB tether, GO exec and Iridium
- GO!DataHub AI Polars
- AIS to Internet
- Over-the-Air VHF AIS (OTA)
- Over the Horizon AIS (OHA)
- Anchor Alert App
- DataHub Whale Watch
- Connect Navionics, Aquamaps, Expedition or OpenCPN to receive NMEA data
- List of NMEA2000 data broadcast as NMEA0183 over DATAHUB PRO Wi-Fi and LAN
- How to use NMEA2000 / N2K filters
- How to share NMEA data over the Internet
- How to use the Autopilot feature
- How to use the USB dAISy AIS receiver
- How to change the DATAHUB PRO Wi-Fi network name
- How to change the DATAHUB PRO IP address and set static IPs
- How to use Profiles
- How to enable Remote Access for Support
- How to perform a factory reset

Factory Reset

The DATAHUB PRO can be returned to its original factory defaults (i.e. the way you originally received it) by one of two methods.

Software

If you can Wi-Fi or Ethernet-connect to the unit and can log in to the web admin UI then browse to **Services > Settings** and select the **Maintenance** tab. Push the **PERFORM RESET** button to restore the factory default settings.

Note that it takes 5-10 minutes for the process to complete. Do not interrupt the DATAHUB PRO during the reset process.

Hardware Reset Switch

A hardware reset is in order if you have either lost the Wi-Fi password, admin password or are unable to otherwise access the web admin UI for the DATAHUB PRO.

To perform a hardware reset:

Locate the **RESET** button next to the power inlet for the unit. You will find it through a small pinhole through the enclosure.

Use a paper clip or other small object to depress the button for **15 seconds** while the unit is powered on.

After 15 seconds, release the button.

The unit will then perform a factory reset. Note that a quick push of the button will reboot the unit but not reset it to its defaults. The button must be held for more than 10 seconds and less than 30 seconds for the reset action to occur.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, according to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used as per the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to a computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimetres between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 centimetres from all persons. They must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC ID: TKZAP7621-RDS

Model: DATAHUB-PRO

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.