

Yacht Devices

sailors for sailors



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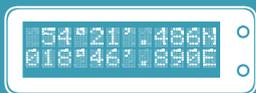


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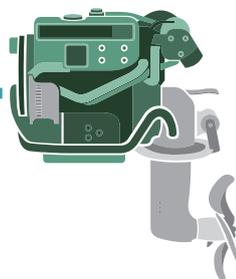
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NMEA 2000 USB GATEWAY YDNU-02

The gateway allows you to see data from a NMEA 2000 marine digital network on a PC, laptop or tablet PC with Microsoft Windows, Mac OS or Linux. With it, you get marine network data including vessel course, speed, position, wind speed and direction, water depth, AIS messages from vessels and aircrafts and other navigation data in PC applications.

The device works as a bi-directional gateway so it is also possible to send messages from PC applications to the NMEA 2000 network. That allows, for example, sending of AIS data from a PC USB receiver to a chart plotter, as well as control the autopilot.

Operation modes:

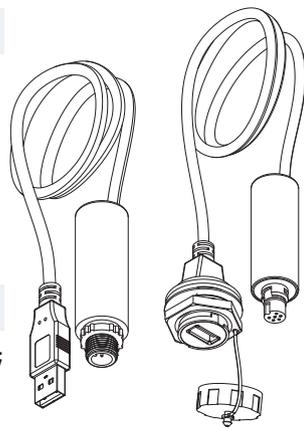
- ▶ **0183.** The Device performs conversion from NMEA 2000 to NMEA 0183 and vice versa. NMEA 0183 is supported by virtually all marine PC applications including **OpenCPN**. Conversion covers all significant data, including AIS, routes/waypoints, and autopilot.
- ▶ **N2K.** Device sends all messages from NMEA 2000 to a PC and vice versa in binary form and is compatible with **Coastal Explorer**, **Expedition**, **Polar View**, **OpenSkipper** and some other marine software.
- ▶ **RAW.** Device sends all messages from NMEA 2000 to a PC and vice versa in readable text format. You can record messages to a file and/or monitor in real time with free **CAN Log Viewer** software (Mac OS X, Windows, Linux).
- ▶ **AUTO.** In this mode, the Device analyzes the connection with the PC application and automatically chooses one of the three modes above for the session.

Features:

- ▶ no driver required in Windows 10, Linux and Mac OS X;
- ▶ allows control of Raymarine SeaTalk NG autopilots from NMEA 0183;
- ▶ is compatible with J1939 networks;
- ▶ high-voltage galvanic isolation between NMEA 2000 and USB.

Options:

- ▶ IP67 waterproof USB female or non-waterproof male connector;
- ▶ Raymarine SeaTalk NG or NMEA 2000 Micro Male connector.



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Average current consumption from USB: 35 mA
Current consumption from NMEA 2000: 13 mA
Cable length (between case and connector): 450 mm
Device case length: 54 mm

USD \$ 189



NMEA 2000 Wi-Fi GATEWAY YDWG-02

The gateway allows you to see data from an NMEA 2000 marine digital network on a laptop, tablet or smartphone. Colorful web gauges on the built-in website shows vessel data right from a browser. Save on apps, save on additional instrument displays and monitor your boat from your sofa with a smartphone!

The device works as a bi-directional gateway so it is also possible to send messages from PC. The Gateway supports TCP and UDP network protocols (both can be enabled at the same time). For UDP protocol, the number of clients (physical devices or software applications) is unlimited. Compatible with virtually all marine apps including Navionics, MaxSea, iNavx and OpenCPN.

Features:

- ▶ has a bi-directional converter between NMEA 2000 and NMEA 0183 protocols;
- ▶ can pass any message (including proprietary) between NMEA 2000 and a PC application by RAW protocol;
- ▶ can act as an NMEA 2000 wireless extender and allows joining of two or more physical networks;
- ▶ works as a Wi-Fi Access Point or can be connected to an existing Wi-Fi network;
- ▶ allows control of Raymarine SeaTalk NG autopilots from NMEA 0183;
- ▶ supports firmware updates over Wi-Fi and diagnostic data logging;
- ▶ free diagnostic software for Microsoft Windows, Mac OS X and Linux is supplied;
- ▶ contains an internal web server for configuration, diagnostics and web gauges hosting.



Built-in web gauges (iPhone 6)



AIS data on SEAIq Open iPhone app

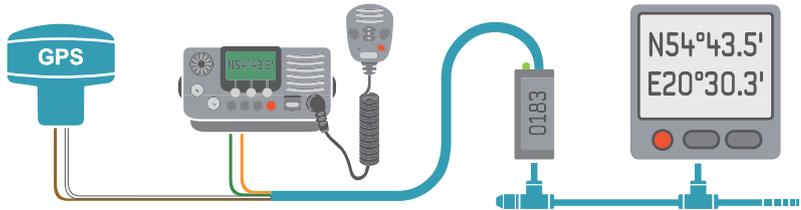


With SeaTalk NG or N2K Connectors

Wi-Fi module: 2.4 GHz 802.11b/g/n
 Wi-Fi internal antenna range (open space): 30 m / 100 feet
 Current consumption: 43 mA at 7.17 V
 Device case length: 54 mm

USD \$ 189

2



NMEA 0183 GATEWAY YDNG-02

The NMEA 0183 Gateway allows you to connect NMEA 0183 equipment to an NMEA 2000 network and vice versa. It has a bi-directional converter with wide support of message types including AIS, waypoints, routes, and autopilot.

The Gateway has one NMEA 2000 connection and one NMEA 0183 port with "transmit" and "receive" data lines. The baud rate is configurable from 300 to 115200 baud for the NMEA 0183 port and allows connection of AIS transceivers (38400 baud), fast NMEA 0183 multiplexers and PC adaptors, as well as standard NMEA 0183 equipment.

Features:

- ▶ allows control of Raymarine SeaTalk NG autopilots from NMEA 0183;
- ▶ flexible system of filters allows blocking of NMEA 0183 messages by sentence and NMEA 2000 messages by PGN, sender address, or 29-bit message identifier;
- ▶ powered from the NMEA 2000 with high voltage galvanic isolation between NMEA 2000 and NMEA 0183 ports;
- ▶ NMEA 2000 may act as a multiplexer for NMEA 0183 equipment;
- ▶ compatible with PC via COM (serial) ports and with USB-to-serial adaptors;
- ▶ both "single-ended" (RS-232) and "differential" (RS-422) NMEA 0183 connections are supported.



The Device is equipped with a Micro SD card slot used for configuration, firmware updates and logging of diagnostic data. No special software is required to update or configure the Gateway. You only need a device (laptop or smartphone) with a MicroSD card reader and simple text editor.

Models with NMEA 2000 Micro Male or Raymarine SeaTalk NG connector are available.

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Download the manual to see the list of supported NMEA messages
 Current consumption from NMEA 2000 network: 30 mA, 7.16 V
 Cable length: 400 mm
 Device case length (without connector): 54 mm

USD \$ 149



DIGITAL BAROMETER YDBC-05

The Barometer is intended for measuring atmospheric pressure within the range of **300 to 1100 hPa (mbar)**. The sensor is located inside the device case. Many chartplotters and digital navigation instruments are able to display data on pressure in the form of graphs or show a trend indicator; this allows tracking of trends in weather changes. Absolute measurement accuracy ± 1 hPa between 0 and 65 °C. Output data resolution 0.01 hPa.

Numbers		GPS Position
Device Voltage 11.9 (V)	Time of Day 07:56:04 (PM)	N 54°39.920' E020°23.274'
Air Temperature 30.0 (°C)	Bait Well 27.4 (°C)	Barometer 1005 → (mb)
Back	Home	Mark
		Menu

DIGITAL THERMOMETER YDTC-13

Performs measurements within the range from **-55 to +125°C (-67 to 257°F)**, the sensor is placed outside the case on a flexible, 95cm wire in a sealed stainless steel sleeve and can be used to measure the temperature of gases or liquids. If necessary, the wire can be elongated up to 100 meters. The Thermometer can be configured by the user to display data as "Air temperature", "Sea temperature", "Temperature in the refrigerator", "Temperature in the engine room", "Bait well temperature", etc.

HUMIDITY SENSOR YDHS-01

This sensor provides chart plotters and instrumental displays with humidity and air temperature measurements and a calculated dew point temperature. This product can be used for weather monitoring and fog prediction; mold prevention by monitoring of water intake or moisture condensation in lockers. Equipped with a high-quality sensor that provides $\pm 2\%$ RH and ± 0.3 °C accuracy in most of the operating range. Operating range is 0 - 100% RH and -40..120 °C (-40..248 °F).



All sensors are:

- ▶ plug and play; you only need to plug the sensor into a NMEA 2000 backbone to get readings on all chart plotters and instruments on board;
- ▶ high-quality digital sensors;
- ▶ equipped with NMEA 2000 Micro Male or Raymarine SeaTalk NG connectors.



Digital Thermometer and Humidity Sensor are certified by the NMEA
 Current consumption: 24 mA, 7.16 V
 Cable length, mm: - / 950 / 1000
 Device case length (without connector): 40 mm

USD **99/99**
149

4



J1708 ENGINE GATEWAY YDES-04

A gateway for engines with a J1708 serial interface to an NMEA 2000 marine digital network. With it, you can see engine revolutions, temperature, working hours, fuel rate and other information on the screen of a chart plotter and other display devices on your NMEA 2000 network.

The Gateway supports the two protocols that work over J1708: the standard J1587 used by many manufacturers (Detroit Diesel, etc.) and the proprietary Volvo Penta protocol used in engines with EDC I (KAD 44, KAD 300, TAMD73..75); also compatible with EDC II (e.g. D12C-A MP).

Features:

- ▶ first (and only!) device with support of proprietary Volvo Penta KAD protocol;
- ▶ low-cost installation, no extra cables required in most cases;
- ▶ easy configuration with a simple text file on a MicroSD card;
- ▶ high-voltage galvanic isolation between J1708 and NMEA 2000 interfaces;
- ▶ J1708 data recording for diagnostics and configuration;
- ▶ one engine and transmission, 2 batteries and 2 fuel tanks may be reported by one Device.

Connection:

The Device is equipped with a female connector compatible with Volvo Penta EDC diagnostics connectors used on EDC I and EDC II engines. For owners of other engines, use the disassembled male connector supplied with the Gateway to make an adaptor cable for your engine yourself. Models with NMEA 2000 Micro Male or Raymarine SeaTalk NG connector are available.

Reasons to buy:

- ▶ duplicate or replace broken instruments;
- ▶ monitor your engine from any cabin with a wifi-enabled chart plotter;
- ▶ monitor your engines from PC or smartphone using a web browser with our Wi-Fi Gateway;
- ▶ log engine and fuel usage by crew or renters with our Voyage Recorder;
- ▶ record your engine data to apply for service remotely.

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Download the manual to see J1587 and KAD PIDs supported
Current consumption from NMEA 2000 network: 30 mA, 7.16 V
J1708 cable length: 800 mm
Device case length (without connector): 54 mm

USD \$ 249



ENGINE GATEWAY YDEG-04



Gateway for Volvo Penta, BRP Rotax and J1939 engines to NMEA 2000 marine electronics networks. It will provide you with engine revolutions, motor hours, coolant temperature, battery voltage, warning and alarms, fuel rate and other data on the screen of your chart plotter.

This gateway is compatible with BRP Rotax (tested with Rotax 1503 4-tec engines), J1939 engines (Caterpillar, etc.) and most Volvo Penta engines manufactured since 2004, and even with some engines manufactured before 2000.

Compatible Volvo Penta engines:

- ▶ all versions of EVC-B, EVC-C, EVC-D, EVC-E (most modern engines since 2006);
- ▶ EVC-A MC (e.g. D3-160A-A) and EVC-A EC (also known as EVCmc and EVCec);
- ▶ D1 and D2 series with MDI (Mechanical Diesel Interface), for example D2-40F;
- ▶ EDC III and EDC IV diesel engines (EMS 2.0, EMS 2.2);
- ▶ EFI engines with MEFI4B ECU or later (gasoline, 2004-2005), with or without EVC;
- ▶ all EGC engines (gasoline, 2005 and later), with or without an EVC system installed.

Connection:

The Gateway is supplied with an NMEA 2000 Micro Male or Raymarine SeaTalk NG connector. On most vessels with Volvo Penta engines, all that you need is to plug the device into an empty socket of the NMEA 2000 network backbone and connect the engine cable to a Multilink hub or, using the built-in Y-connector on the engine cable of the Gateway, to connect it in series with any of the EVC tachometers. Inexpensive adaptor cables for other engines are available.

Features:

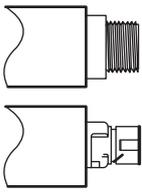
- ▶ low-cost installation, no extra cables required in most cases;
- ▶ high-voltage galvanic isolation between engine and NMEA 2000 interfaces;
- ▶ only listens to engine network;
- ▶ easy configuration with a simple text file on MicroSD card;
- ▶ engine data recording for diagnostics and configuration;
- ▶ free diagnostic software for Microsoft Windows, Mac OS X and Linux is supplied;
- ▶ up to 8 engines and transmissions, 8 batteries and 10 fuel tanks are supported by one device;
- ▶ fuel tank capacity settings and 12-point sensor calibration for all tanks.



Certified by the National Marine Electronics Association
Average current consumption from NMEA 2000 network: 38 mA, 10..16 V
Engine cable length (to Deutsch male connector): 500 mm
Device case length (without connector): 54 mm

USD \$ 189

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VOYAGE RECORDER YDVR-03



Voyage Recorder keeps GPS tracks, wind, depth, temperature, AIS, heeling and all other data which flow through the NMEA 2000 network on an SD card. Never forget exciting moments of your voyages, have proof of strong winds and great storms, accumulate data for future voyages, analyze your races, generate logbooks and diagnose problems.

The Recorder writes all NMEA 2000 data into the memory card and supports all message types broadcasted through the network by any other equipment present on the vessel's network. Estimated recording capacity for 16 GB card is 100..200 days of sailing.

How to view the data

The software that comes with the Recorder is available for Microsoft Windows, Mac OS X and Linux. It allows export of data into the following formats:



GPX files with the vessel's track and extensive information about sailing conditions, including weather, depth, engine, and even tracks of nearby vessels with

AIS. GPX files can be viewed in Google Earth, Garmin MapSource and other cartographic applications. They can also be loaded into a modern MFD from Garmin or Raymarine.



XML, CAN, OpenSkipper, CanBoat and Signal K formats. Load the data to open source OpenSkipper or CAN Log Viewer applications to decode NMEA

2000 messages and "replay" recording. With Voyage Recorder, you may also "replay" your recordings to a physical network to emulate the specific equipment or onboard network in a lab.



CSV files to open data in spreadsheet applications like Microsoft Excel or LibreOffice Calc to visualize data using charts and build the graphic reports.



Printable logbook file (ODF). With Voyage Recorder software you can get a real multi-page, editable and printable logbook of your voyage with just a few mouse clicks.

UPCOMING MODEL IN 2018

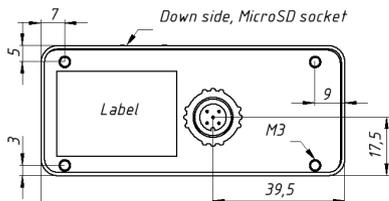


The new model will have a 3.5mm audio jack socket near the card reader. You will be able to record VHF conversations and weather forecasts from a line out or talking on the bridge via microphone. It will allow you to reproduce your sailing with all the details! Just imagine: you will see other vessels' positions using AIS data recorded and hear the conversations!

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Equipped with Raymarine SeaTalk NG or NMEA 2000 Micro Male connector
Average current consumption: 23 mA, 10..16 V
Recommended MicroSD card (not included): Class 10, 16 – 32 GB
Device case length (without connector): 54 mm

USD \$ 189



TEXT DISPLAY YDTD-20

Text Display is a small and useful instrument display for NMEA 2000 networks, a reasonable choice as an additional instrument display that can be mounted in a cabin, engine room or near a chart table.

Unlike budget displays which usually perform one function (wind only, or speed only, etc.) Text Display shows all significant boat data. Thanks to the versatile firmware, the Display can be transformed to a specialized display to show data which is not displayed by other devices.

Instrument Display Firmware

Vessel's Position

Date & Time

Course and Speed Over Ground

Speed Through Water

Heading

True Wind Speed and Angle

Apparent Wind Speed and Angle

Water Temperature and Depth

Air Temperature and Atmospheric Pressure

Humidity, Inside and Outside

Log and Trip Distance

Voltage of Two Batteries

Port and Starboard Engines Revolutions

List of NMEA 2000 Devices

Engine and Tank Monitoring Firmware

Engine Speed, RPM (up to 4 engines)

Boost Pressure, Load, Torque

Engine & Transmission Alerts and Warnings

Engine Coolant Temperature and Pressure

Engine & Transmission Oil Temperatures

Fuel Delivery Pressure & Fuel Rate

Engine & Transmission Oil Pressures

Charging System Potential (Voltage)

Exhaust Gas Temperature

Engine Trim, Trim Tabs

Trip Data (Fuel Economy, Used)

Fuel Tank Level and Capacity (up to 4 tanks)

Levels in Fresh and Black Water Tanks

Battery Voltage, Current, Temp. (up to 4)

The Display allows sliding through data pages very quickly using the two buttons on the side. In the Display's settings, the user can turn off unused data pages and choose preferred units. The Display is equipped with a MicroSD slot for firmware upgrades and switching between different types of firmware. It is also possible to order custom firmware to monitor specific NMEA 2000 equipment.

The Display is not waterproof, it should be mounted in a dry place.

The Display is equipped with NMEA 2000 Micro Male connector
 Typical power consumption: 20 mA, 7.16 V
 Dimensions without connector, mm: 91 x 39 x 16

USD \$ 149

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```

match(CAN1, 0x1F50B00, 0x1ffff00)
{
  A = get(DATA+1, UINT32)
  if (A < 0xFFFFFFFF-20) {
    set(DATA+1, UINT32, A + 20)
  }
  send()
}

```



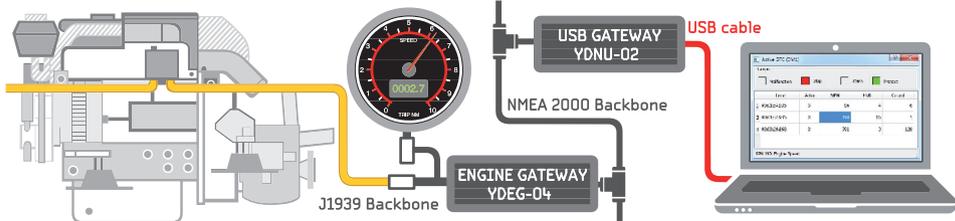
NMEA 2000 BRIDGE YDNB-07

Unifies two physical NMEA 2000 networks into a single logical network, smoothly exchanging messages between them. The Device also supports filtering and processing of transmitted messages.

The Bridge contains a built-in compiler of a simple programming language. You can create programs on any device with a MicroSD socket and a text editor, and upload these programs to the Bridge with a MicroSD card.

- ▶ **Bypass the physical limits of NMEA 2000 networks** concerning the length of networks (100 meters for regular cable and 250 meters for heavy or mid-type cable) and concerning the maximum number (50) of physical devices attached to the network. On a network with address capacity of 252, multiple bridges can be engaged to expand to around 250 physical devices.
- ▶ **Isolate devices from each other.** Using the simple filter, you can block transmission of all or of selected messages from a given device in a separate subnet.
- ▶ **Ensure proper functioning of equipment.** Correct the transducer offset of the depth sounder, or "delete" invalid data in messages from equipment that is only partially operational using a 2- or 3-line script.
- ▶ **Ensure compatibility of equipment** from different generations. You can create and send any type of NMEA 2000 message using data from other messages in the network.
- ▶ **Diagnose malfunctions** in the NMEA 2000 network. The Device can record network messages and debug data from custom programs on a MicroSD card in a text file. You can view the data in a standard text editor on a smartphone or tablet with a MicroSD slot, there is no need for a computer.
- ▶ **Safely connect devices** that do not meet NMEA 2000 standards. One of the CAN-interfaces on the device has high-voltage galvanic isolation and can operate at a higher supply voltage.
- ▶ **Create gateways** for networks based on CAN protocol operating at a speed of 250 or 500 kbps. The programming language of the device is not designed for full-fledged applications, but one can create, for example, a gateway from a J1939 to NMEA 2000.

Programming the device requires knowledge of NMEA 2000 standard, which can be obtained from the National Marine Electronics Association: <http://www.nmea.org>.



CAN LOG VIEWER SOFTWARE

A freeware viewer, player, recorder and converter of CAN (Controller Area Network) logs. It can play your CAN recordings or display live data from our USB and Wi-Fi gateways on a PC screen in real time and highlight changing data.

CAN logs contain network level data and compatible with any high-level protocol, including J1939 and NMEA 2000. The CAN Log Viewer runs on Microsoft Windows, Mac OS X and Linux.

Features:

- ▶ record files from serial, TCP and UDP ports of USB and Wi-Fi gateways;
- ▶ view Engine Gateway and NMEA 2000 Bridge log files;
- ▶ view SeaTalk NG log files of Raymarine chartplotters;
- ▶ built-in viewers for major J1939 and NMEA 2000 data types;
- ▶ convert data between different formats

J1939 DTC Viewer

NMEA 2000 Engine Data Viewers

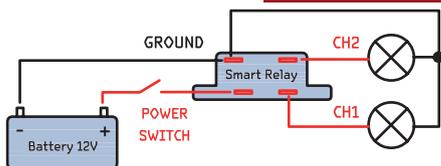
This product is designed for protocol analyzing and troubleshooting of NMEA 2000, SeaTalk NG and J1939 equipment. It has an internal database with thousands of J1939 diagnostic trouble codes, J1939 and NMEA 2000 PGNs.

Free for commercial and non-commercial use
Runs on Microsoft Windows, Mac OS X and Linux
Compatible with PC Software of Voyage Recorder

FREEWARE

10

UPCOMING PRODUCTS IN 2018



Smart Relay YDSR-01

This device helps you when you have two loads and only one power switch. For example, you have a combined deck/steaming light on the mast and only two wires (positive and negative) inside the mast. Smart Relay powers the first channel when you turn the power switch on, and it powers the second channel when you cycle the power switch twice within one second. Consumes less than 0.5 mA.

J1708/J1939 Adaptor

Translates data of Volvo Penta EDC I / EDC II and J1708/J1587 engines of other manufacturers to J1939. It is similar to our J1708 Engine Gateway (which translates data to NMEA 2000), but it supports more messages and is targeted to the industrial and heavy vehicles market and will be released during the winter. It has a robust waterproof case and can be installed in harsh environments.

NMEA 0183 Wi-Fi Gateway

This Device has two NMEA 0183 ports, three TCP or UDP network servers, and will be able to work as an access point or connecting to an existing Wi-Fi network. It will have a variety of functions. A pair will be able to work as an NMEA 0183 wireless extender. NMEA 0183 ports will have a configurable baud rate and will be able to connect NMEA 0183 devices that run at different speeds. Of course, it can work as a multiplexer, and you will be able to combine data from physical devices with data from network devices (navigation software) and send the output to other physical devices or other network ports.

NMEA 2000 Tank Level Sender

This product is designed to work with all types of resistive sensors (European 10 to 180 Ohm, American 240 to 33 Ohm) as a standalone device or in parallel with existing analog gauges. It is equipped with a MicroSD slot for firmware updates, configuration (tank number, capacity, shape, fuel or water tank type) and logging fuel usage. You only need a laptop or smartphone with a MicroSD card reader and simple text editor to configure the product. The device will be available with an NMEA 2000 Micro Male and Raymarine SeaTalk NG connectors. Expected in March 2018.

RESELLERS



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