

NMEA CONNECT PLUS (NCP) Configuration Manual

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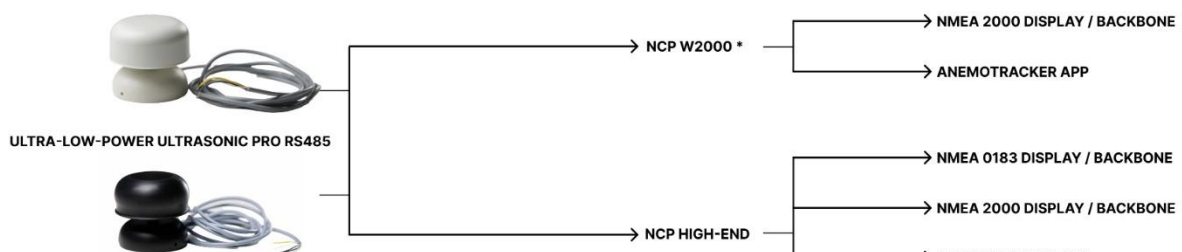
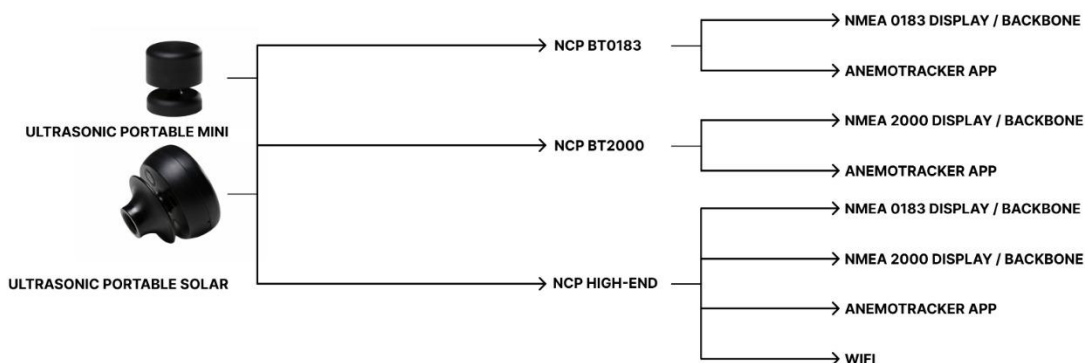
1. Brief description of product and terminology

The **NCP_BT0183** can be connected to our **Portable Mini & Solar** wind sensors via Bluetooth and to **NMEA0183** backbone or display.

The **NCP_BT2000** can be connected to our **Portable Mini & Solar** wind sensors via Bluetooth and to **NMEA2000** backbone or display.

The **NCP_W2000** can be connected to our **Ultra-Low-Power (ULP)** wind sensor via cable and to **NMEA 2000** backbone or display.

The **NCP_High End** can be connected to our **Portable Mini & Solar** wind sensors via Bluetooth and to our **Ultra-Low-Power** wind sensor (ULP) via cable. The NCP_High End can also be connected to both **NMEA0183** and **NMEA2000** displays or backbones.



MAIN Terminal Pins

1.GND = Ground for port 1

1.485+ = terminal 485+ port 1

1.485- = terminal 485- port 1

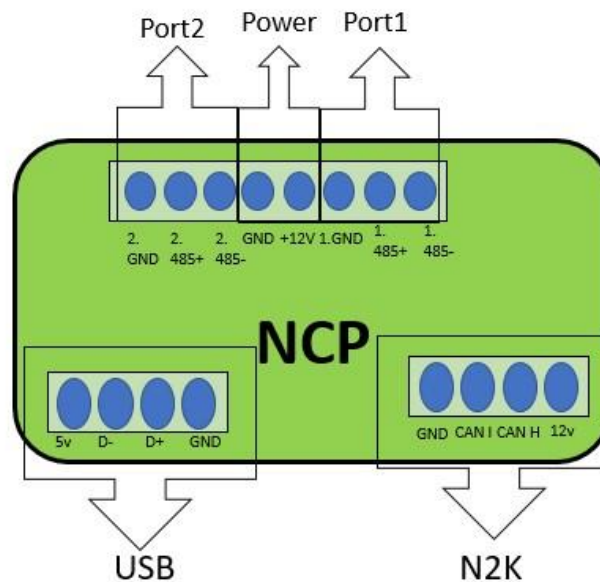
+12V = positive 12 Volts

GND = Ground

2.485- = terminal 485- for port 2

2.485+ =terminal 485+ for port 2

2.GND = Ground for port 2



Terminology:

NCP = NMEA Connect Plus Gateway

ULP RS485 = Ultra-Low-Power wind sensor RS485

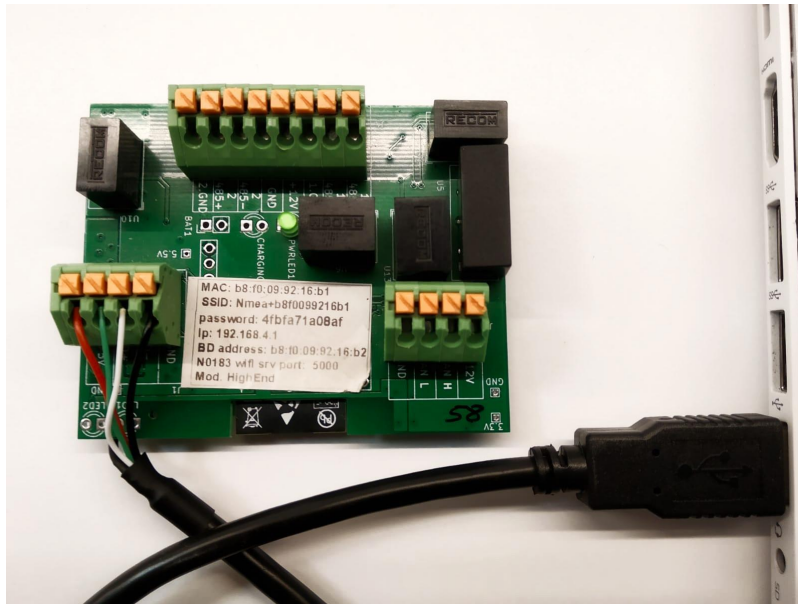
A bridge is a connection between two ports as shown in some of the graphs below.

2. Bluetooth wind sensor to NMEA0183 Display/Backbone

- **NMEA Connect Plus BT0183 - NCP_BT0183 (Bluetooth to Nmea_0183):**

Configuration:

1. Connect the NCP to your computer via the USB cord. Make sure that the **green light** inside the unit is on. Search for the **NCP's wifi** in your computer's wifi connections and connect to it. The wifi password can be found on the unit. Once connected, go to your Internet navigator and enter the following IP address: **192.168.4**
2. Enter the **Configuration Page** and input the MAC of the Portable wind sensor in the section **BLE Configuration**. The MAC of the Portable unit can be found on the box above the barcode.
3. Hit **Save** and disconnect the USB.

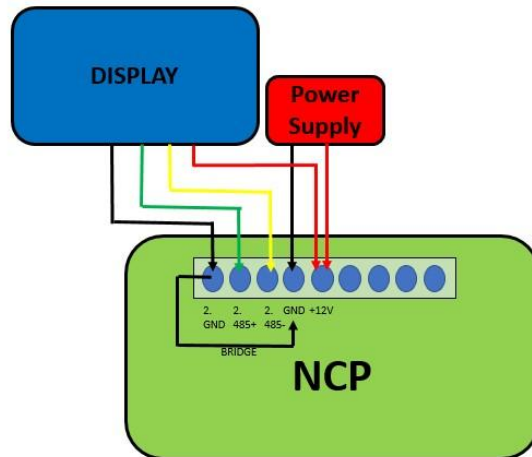


Connection:

NCP Terminals	POWER SUPPLY	DISPLAY
+12V	Power Source's positive wire +12V	Positive Terminal Wire from Display +12V
GND	Power Source's ground wire (*bridge to 2. GND)	
2.485 -	_____	0183 Terminal 485 -
2.485+	_____	0183 Terminal 485 +
2.GND	_____	Display's ground cable (*bridge to GND)

Note: The colors of the wires of your display may be different than shown in the diagrams and photos. Always refer to the Display's manual before connecting the display to the NCP.

* A bridge is a connection between two ports as shown in the graph below.

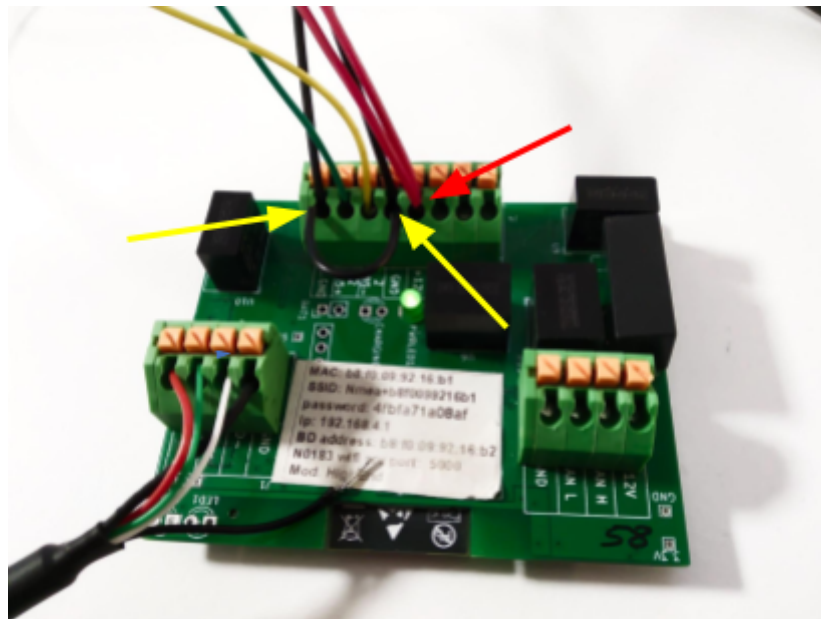


1. For the device to work, we will need to connect it to an external power supply of 12 Volts. The positive terminal of the energy source goes to the pin +12V of the ports of the top terminal as seen in the image. The negative terminal of the energy source connects to the GND. The green light should be lit. If it is not, check that the cables are properly connected. Before continuing any further, turn off the power to the energy source, do not disconnect the cables.



2. We connect the cables of our display or chart plotter to Port 2 of the top terminal. The **0183 input** cable goes to **2.485+**. The **0183 output** cable goes to **2.485-**. It is important to make a **bridge** that connects **2.GND** (where we have the ground wire of the display connected) to **GND** (where we have the ground wire connected from the energy source) as indicated with the yellow arrows. Connect the **display's power** to

the terminal where the **external power source** is connected (+12V) as shown with the red arrow.



3. With this, we turn on the power source and confirm the **green light** is on. Now our NCP is configured to our wind sensor and connected to our display.

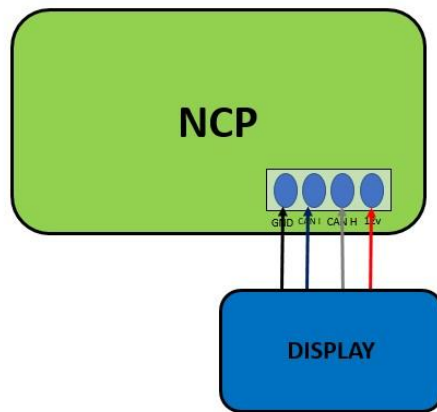
3. Bluetooth wind sensor to NMEA2000 Display/Backbone

- **NCP_BT2000 (Bluetooth to Nmea_BT2000):**

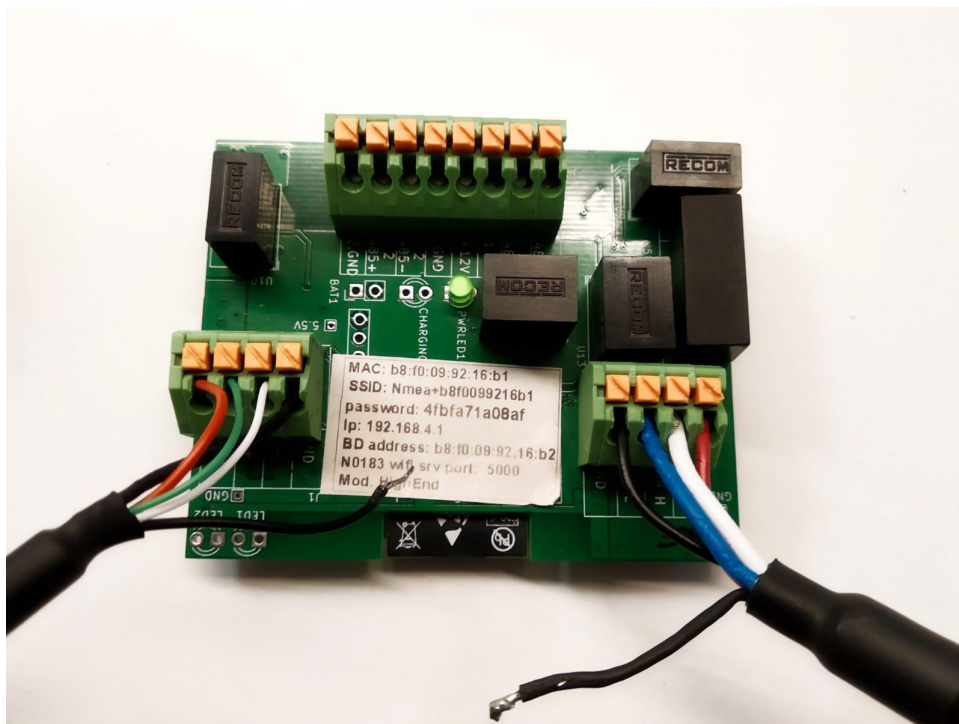
Configuration:

1. Connect the NCP to your computer via the USB cord. Make sure that the **green light** inside the unit is on. Search for the **NCP's wifi** in your computer's wifi connections and connect to it. The wifi password can be found on the unit. Once connected, go to your Internet navigator and enter the following IP address: **192.168.4**
2. Enter the **Configuration Page** and input the MAC of the Portable wind sensor in the section **BLE Configuration**. The MAC of the Portable unit can be found on the box above the barcode.
3. Hit **Save** and disconnect the USB.

Connection:



1. Connect to the terminals of the **N2K** on the bottom right corner as observed in the photo. In this case it is not necessary to have an external power supply as the N2K provides the power.



2. With this, we have our NCP configured to our wind sensor and connected correctly for functioning properly with the display.

Note: Our units for NMEA2000 come with a NMEA2000 cable already connected.

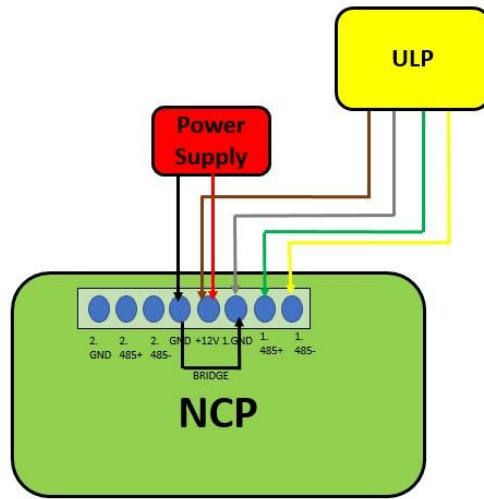
4. Wired Ultra-Low-Power RS485 wind sensor to NCP_W2000 or NCP_High-End

- **NCP_W2000 or NCP_HIGH END**

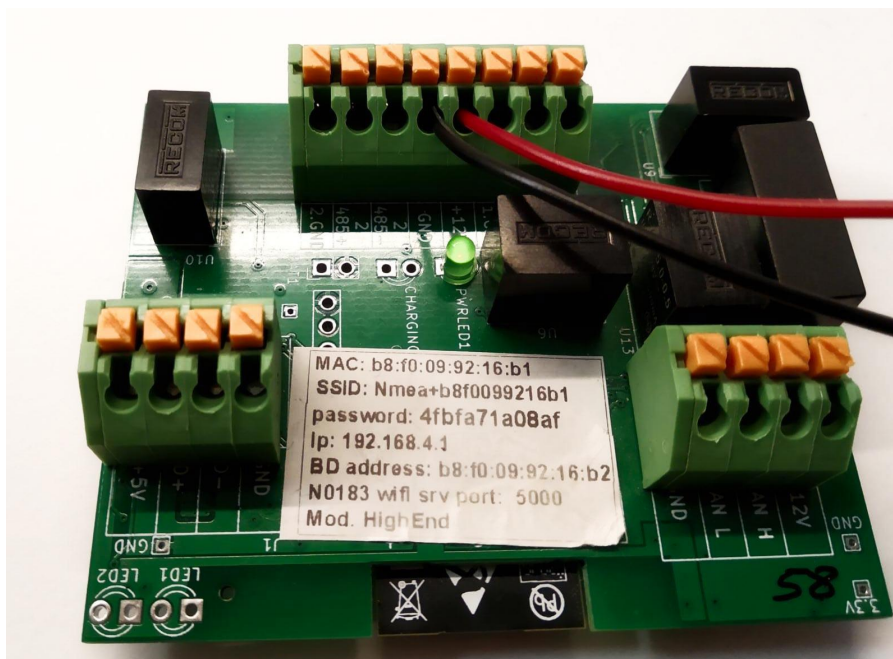
NCP Terminals	POWER SUPPLY	ULP RS485
+12V	Power Source's positive wire +12V	ULP Power wire - brown
GND	Power Source's ground wire (*bridge to 1. GND)	
1. GND	_____	ULP Ground wire - white (bridge to GND)
1.485+	_____	ULP RS485+ wire - green
1.485 -	_____	ULP RS485- wire - yellow

* A bridge is a connection between two ports as shown in the graph below.

Connection:

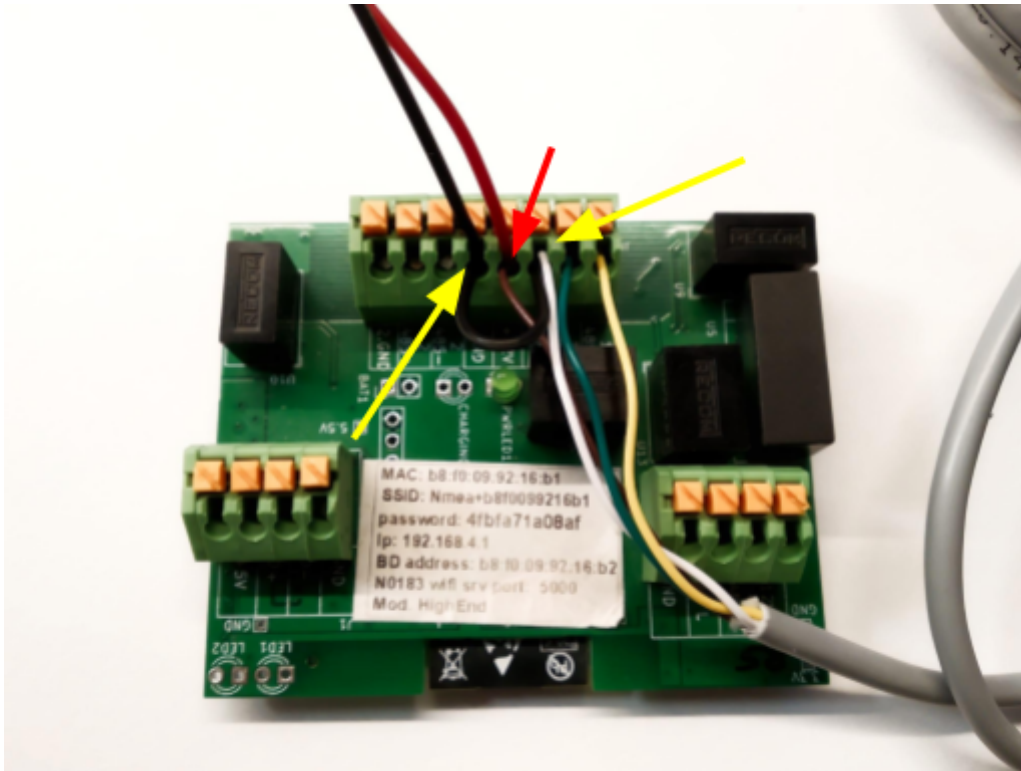


1. For the device to work, we will need to connect it to an **external power supply** of 12 Volts. The **positive terminal** of the energy source goes to the **pin +12V** of the ports of the top terminal as seen in the image. The **negative terminal** of the energy source connects to the **GND**. The **green light** should be lit. If it is not, check that the cables are properly connected. Before continuing any further, turn off the power to the energy source, **do not disconnect the cables**.

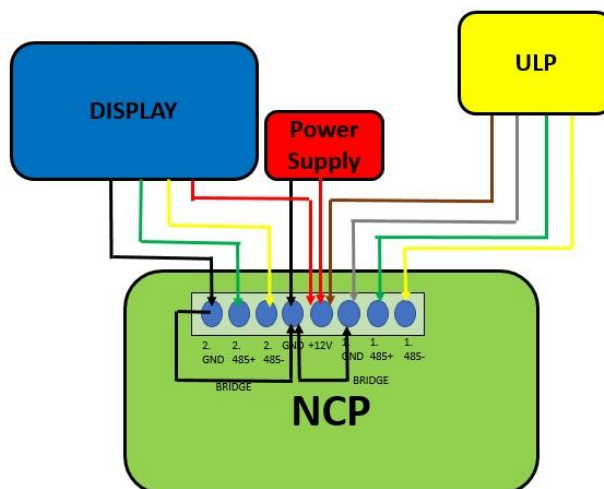


2. The ULP's cables will need to be connected to the top terminal of the plaque as seen in the picture. It is **IMPORTANT** to make a **bridge** between the **GND** of the ULP and the **GND** of the power source as is shown with the yellow arrows. We give power to

the ULP at the same amount of volts as the plaque by connecting the brown cable of the ULP to +12V, as can be seen with the **red arrow**.

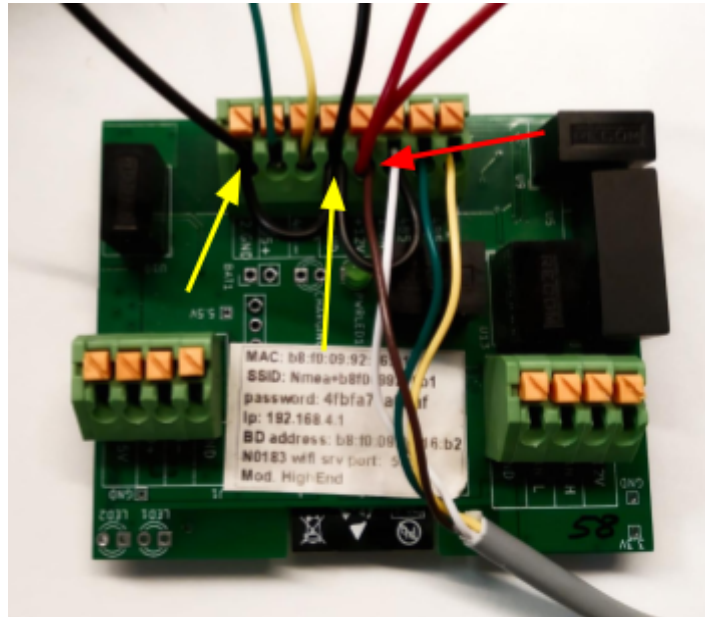


5. Wired Ultra-Low-Power RS485 wind sensor to NMEA1083 Display/Backbone



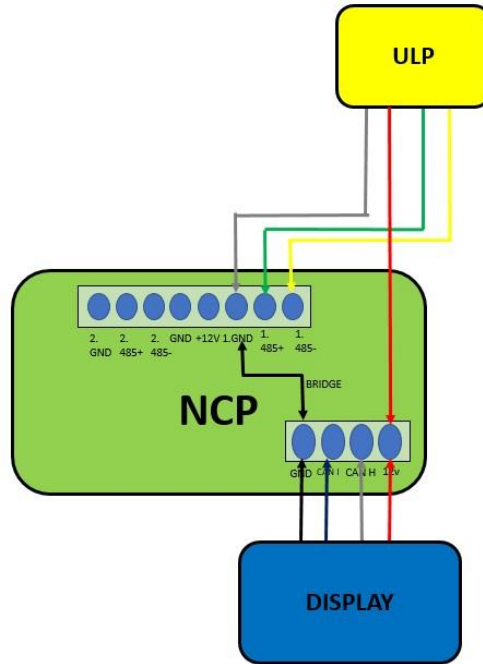
* A bridge is a connection between two ports as shown in the graph above.

1. To connect the terminals of the display, we connect them to port 2 of the terminals at the top of the plaque as shown in the photo. **It is IMPORTANT to make a bridge between the 2.GND pin of the display and GND pin of the power source.** We connect the display to the same GND as the plaque, as can be observed with the **red arrow**. The display, power source and ULP will all be connected to the same GND at 12 volts.
2. With this, we have our NCP configured to our wind sensor and connected correctly for functioning properly with the display.



6. Wired Ultra-Low-Power RS485 wind sensor to NMEA2000 Display/Backbone

Connection:



* A bridge is a connection between two ports as shown in the graph above.

1. Connect to the terminals of the **N2K** on the bottom right corner as observed in the photo. In this case it is not necessary to have an external power supply as the N2K provides the power.



Note: Our units for NMEA2000 come with a NMEA2000 cable already connected.

2. Connect the terminals of the ULP, we connect them to port 1 of the terminals at the top of the plaque as shown in the photo. **It is IMPORTANT to make a bridge between the GND pin of the N2K and the 2.GND pin of the ULP** as can be observed with the

yellow arrows. We give power to the ULP at the **N2K pin 12V**, as can be seen with the **red arrow**.

3. With this, we have our NCP configured to our wind sensor and connected correctly for functioning properly with the display.

