

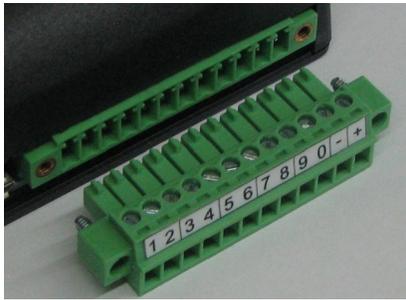
# Encoded Solutions, LLC NMEA-to-WIFI Multiplexer Quick Start Guide

Thanks for choosing the Encoded Solutions NMEA-to-WIFI multiplexer! Let's get started.

## Make the wired connections

To facilitate making physical connections, the connector can be unplugged from the multiplexer. If you want to disconnect it, unscrew the two screws on either end of the connector that hold it together and pull the connector. The connectors can have a snug fit, so it might take a bit of effort to unplug the connector.

If you are connecting an AIS, connect your AIS data output port to the multiplexer's "AIS In" port on pins 1 & 2 (AIS will ONLY work on pins 1 & 2). Connect the NMEA output of your NMEA instrument(s) to any of the three "NMEA In" ports on the multiplexer. If you are not connecting an AIS then the "AIS In" pin pair can be used to support a fourth NMEA instrument. By default the port speed for the AIS port is 38,400 baud to support AIS. In order to use this port for a NMEA input you must change it's speed to 4800 baud in the software setup before it will work with NMEA data.



The wired connections are as follows:

1	2	3	4	5	6	7	8	9	0	-	+
AIS In		NMEA 3 In		NMEA 2 In		NMEA In		NMEA Out		DC Ground	DC+ 12 to 30 V
-	+	-	+	-	+	-	+	-	+	-	+

If desired, connect the multiplexer's "NMEA out" pins (9 & 0) to the "NMEA in" connection on the instrument that will receive NMEA data that is forwarded by the multiplexer.

**NOTE:** For the AIS and NMEA data connections, if you connect the + and – backwards it won't break anything, it just won't pass the data. If you find that the multiplexer isn't passing data from a particular device, you can safely try swapping + for – on that data connection to see if that's the problem.

Connect your ships DC power and ground to the + and – pins on the multiplexer connector through a breaker or fuse and switch.

Make sure the connector is properly seated in the multiplexer. When you're all done and everything is working, make sure that you have snugged up the two screws that hold the connector to the multiplexer so it doesn't inadvertently come apart.

## Pick a great spot and mount your multiplexer

Use the two provided screws; they're sized to go in the open slots on each side of the multiplexer, not the oval holes.

## Power up the multiplexer

Now you can power up the multiplexer. The LED will be steady red. Whenever the LED is steady red it indicates that software setup is required. The multiplexer will not process NMEA data until you run setup and assign it a password.

## Set up the multiplexer parameters

Connect your computer to the multiplexer via WIFI. When the LED is steady red the network name for the multiplexer is **nmea2wifi** and no password is required to connect to it. Once the WIFI connection is made, open your browser and type **10.11.12.1** in the address field. You should now see the setup page. Make any desired parameter changes and enter a "New Password" of at least 8 characters. Press the "Save" button. The multiplexer will now apply your parameters.

The LED on the multiplexer should now be steady green. If it is, the multiplexer is operational and ready to do its job.

If the multiplexer is beeping and blinking **red**, you have a data or wiring problem on one of the "NMEA In" ports. Power down all your attached NMEA instruments and power them up one at a time to help diagnose which one is causing the problem.

If the multiplexer is beeping and blinking **purple**, the problem is on the "AIS In" port. If you've connected an AIS, make sure it's on pins 1 & 2, and that you left the AIS Port Speed at 38,400 baud in setup. If you've connected a NMEA instrument on pins 1 & 2, make sure you've set the AIS Port Speed to 4,800.

Refer to the users guide for further information.

## Reconnect your computer to the multiplexer via WIFI

Whenever you change the network name or password of the multiplexer and press the "Save" button, your computer's WIFI connection to the multiplexer will be disconnected because the WIFI parameters no longer match. In order to re-connect your computer to the multiplexer, you must use the new network name (if you changed it) and password.

## Set up the software you will use on your computer

On your computer, start the software you will use to receive the NMEA data from the multiplexer and set its connection parameters (IP address, protocol, and ports) to work with those that are specified in the multiplexer.