



# QUARK-ELEC QK-A033 Bi-Directional NMEA 0183 Multiplexer with SeaTalk Converter User Guide

[Home](#) » [QUARK-ELEC](#) » QUARK-ELEC QK-A033 Bi-Directional NMEA 0183 Multiplexer with SeaTalk Converter User Guide 

QUARK-ELEC QK-A033 Bi-Directional NMEA 0183 Multiplexer with SeaTalk Converter User Guide



## Contents

- [1 INSTALLATION](#)
- [2 BEFORE LEAVING HOME](#)
- [3 USING THE CONFIGURATION SOFTWARE \(WINDOWS\)](#)
- [4 Documents / Resources](#)
  - [4.1 References](#)
- [5 Related Posts](#)

## INSTALLATION

## Mounting: Consider your location...

- Dry, sturdy location 0.5m from other WiFi/VHF equipment.
- Ensure you have the correct length of cables needed. If drilling holes for your cabling, seal around any holes to prevent damage to your vessel or equipment.

## Connect Power

The A033 uses 10-30V power from the battery or other suitable power source.



Check power supply is connected: '+' to 10-30V, and '-' to GND.

## Disconnect power from all devices and connect all input and output devices.

- **NMEA 0183:** Connect the '+' and '-' terminals of the NMEA input/output on the A033 to the '+' and '-' terminals of the output/input on the instrument. The A033 uses NMEA 0183-RS422. If your connecting device uses the older NMEA 0183-RS232 and you are having issues with your NMEA connection, you may find swapping these terminals works for your device. Alternatively, connect it using a Quark elec Protocol Bridge (QK-AS03).

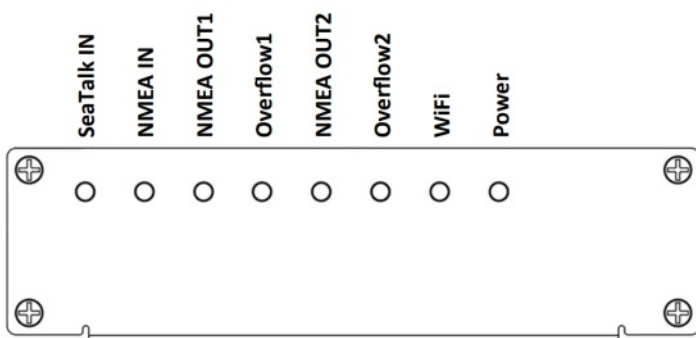


- **SeaTalk:** Take care to connect the '+', 'Data' and '-' correctly. Swapping any of these wires could permanently damage the A033 multiplexer.

## Re-Connect power

### Check LED lights are working as expected

- IN /OUT an WiFi LEDs flash blue for every valid message received or sent.
- Overflow LEDs flash blue for any internal buffer overflow, this would indicate there was an excess of data set to a output and some sentence were lost. The A033 filtering and routing options can minimise this by removing any un-needed or duplicate data.
- Power LED is lit red while power is connected.



**This is an overview only.** Familiarize yourself with the manual and the manuals of any connecting devices before installation. It is always recommended that electronic equipment be installed by an experienced installer.

## BEFORE LEAVING HOME

### 10-30V power required

**Drivers** are not required for Mac or Linux.

Driver is required for Windows but may install automatically to Windows 10 systems (if not, it is on the free CD and at [quark-elec.com](http://quark-elec.com))

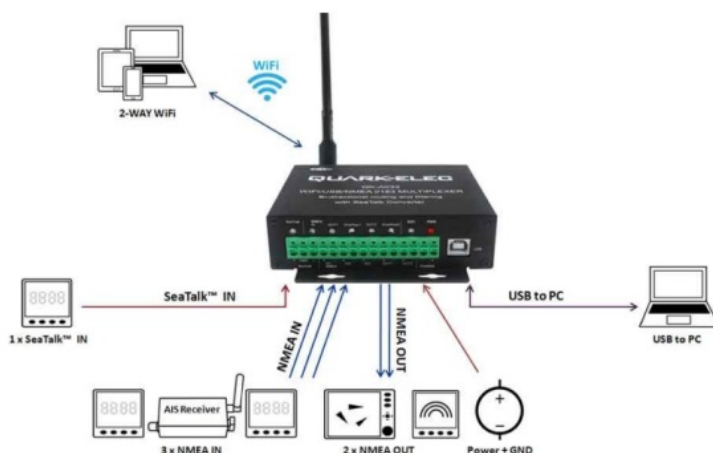
**Configuration software is optional and only needed for specific features.**

To use any of the following features, you will require the Configuration Software:

- Changing WiFi mode from Ad-hoc to Station mode or Standby
- Changing Baud rates from their default settings
- Filtering and Routing
- Manual NMEA 0183 input via USB

Configuration software (Windows) will be required to adjust these settings. (see back of Setup Guide for more information) Driver may be required for older Windows PCs.

The Configuration Software, driver and full manual are included on the FREE CD and on [quark-elec.com](http://quark-elec.com). Consider whether there is a CD reader/internet access on site, if not, preconfigure your device or pre-install the Configuration software and driver if needed.)



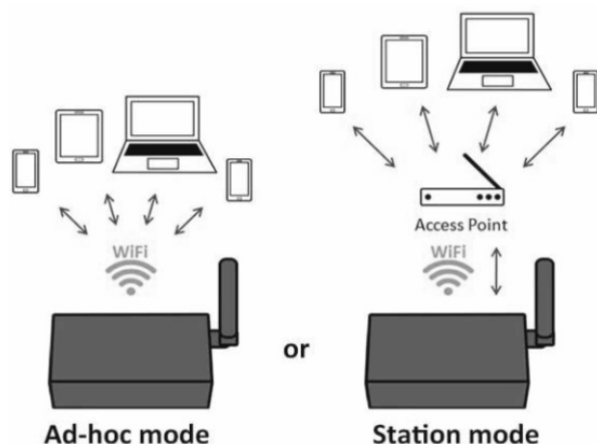
### Two WiFi Options:

#### Ad-hoc WiFi

##### On your device (phone, laptop etc.):

15 seconds after powering up, scan for WiFi networks, find SSID similar to 'QK-A033xxxx'. Connect to 'QK-A033xxxx' with default password: '88888888'.

**Chart software:** in your chart software, set the protocol to 'TCP', IP address to '192.168.1.100' and port number to '2000'



**Station mode WiFi, is set through Configuration software. (see below)**

## USING THE CONFIGURATION SOFTWARE (WINDOWS)

**WiFi can be changed from Ad-hoc (default) to Station mode or Standby.**

Station mode is configured by inputting your router/access point's details into the Configuration software. (once configured, the correct settings must be entered into your chart software.)

### Filtering: using the black list function

If desired, selected NMEA sentences can be blocked from chosen input/s, using the 'black list' field. Remove the '\$' or '!' from the 5 digit NMEA talker and sentence identifier and insert separated by commas. For example to block 'AIVDM' and '\$GPAAM' enter 'AIVDM,GPAAM'. Up to 8 sentences types can be filtered from each input port. If blacklisting Seatalk data, block the corresponding NMEA message (see the manual for a full list of converted messages).

### Routing the Seatalk and NMEA sentences.

As a default, all inputs' data (excluding any filtered data) is routed to all outputs (NMEA x2, WiFi and USB). Data can be routed to limit the data flow to only certain output/s by un-ticking the corresponding boxes in the Configuration software.

**NMEA Baud rates:** Default Baud rates are set to:

- NMEA IN 1 and 2: 4800bps
- NMEA IN 3: 38400bps
- NMEA OUT 1: 4800bps
- NMEA OUT 2: 38400bps

These can be changed as required.

**USB input:** The USB connection is 2 way as standard, no additional configuration required. Manual NMEA input via USB is also possible through the configuration software. A good understanding of NMEA sentence structure is required for this additional function.


Disclaimer: This product is designed to aid navigation and should be used to augment normal navigational procedures and practices. It is the user's responsibility to use this product prudently. Neither Quark-elec, nor their distributors or dealers accept responsibility or liability either to the product user or their estate for any accident, loss, injury or damage whatsoever arising out of the use or of liability to use this product.

Email: [info@quark-elec.com](mailto:info@quark-elec.com)



V1.1(03/21)

**Note:** SeaTalk™ is a registered trademark of Raymarine.

## Documents / Resources

	<a href="#">QUARK-ELEC QK-A033 Bi-Directional NMEA 0183 Multiplexer with SeaTalk Converter</a> [pdf] ] User Guide QK-A033, Bi-Directional NMEA 0183 Multiplexer with SeaTalk Converter
-----------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## References

-  [Quark-elec - Quark-elec - smart marine solutions](#)
-  [Quark-elec - Quark-elec - NMEA 2000 & Marine electronics](#)

Manuals+.