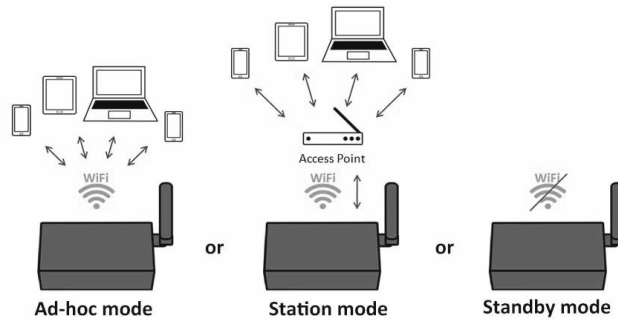


7. Standard WiFi Ad-hoc connection on your wireless device:

15 seconds after the A034-B has powered up, scan for a WiFi network with an SSID similar to 'QK-A034xxxx'.

Connect to 'QK-A034xxxx' with the 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'



For Station mode WiFi or to disable WiFi, use the Configuration software. (see below)

8. Follow your marine software/APP instructions for adding input/output data sources.

A general overview can be found in the A034-B manual.

USING THE CONFIGURATION SOFTWARE (WINDOWS):

Ad-hock WiFi passwords can be changed for security and memorability.

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 SeaTalk¹ data, block the corresponding NMEA message (see the manual for a full list of converted messages).

Routing your data.

As a default, all inputs' data (excluding any filtered data) is routed to all outputs. Data can be routed to limit the data flow to certain output/s by un-ticking the corresponding boxes in the Configuration software. This is critical if outputting to NMEA 0183 to avoid overflow as NMEA 0183 is considerably slower than NMEA 2000.

Monitor the data stream Via USB

Use the 'Display' tab on the Configuration tool to monitor all input data including the data received through NMEA 2000 backbone. (both PCDIN and NMEA 0183 format)

NMEA Default Baud rates can be adjusted as required. Default Baud rates settings are:

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

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.

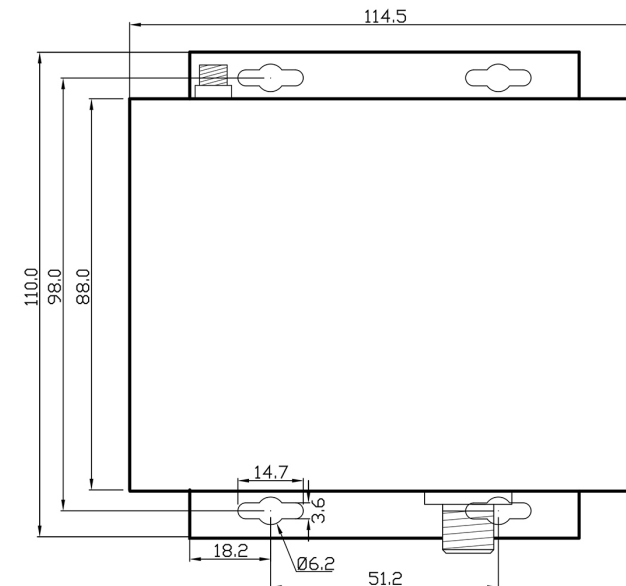
V1.0 (1220) Note: SeaTalk[™] is a registered trademark of Raymarine.


QK-A034-B

BI-DIRECTIONAL MULTIPLEXER

NMEA 2000 - NMEA 0183 - WIFI - USB

WITH FILTERING, ROUTING AND SEATALK¹ CONVERTER



Please recycle your packaging 

All products are CE, RoHS certified
More information at www.quark-elec.com



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:

NMEA 2000 power required

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
- Adjusting Baud rates from their default settings
- Filtering unwanted or excess data
- Routing Data away for certain output devices (important if using NMEA 0183 output)
- Full Diagnostics monitoring of the data streams

Configuration software (Windows) will be required to adjust these settings. (see back of this guide for more information). Driver may be required for older Windows PCs. This may install automatically to Windows 10 systems (if not, it is on the free CD and at quark-elec.com)

The Config Software, driver and full manual are on the included CD and on www.quark-elec.com. Consider whether there is a CD reader/internet access on site, if not, pre-configure your device or pre-install the Configuration software and driver if needed.

Installation

1. Mounting: Consider your location

- Dry, sturdy location 0.5m from other WiFi 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.



2. Disconnect power from NMEA 2000 Backbone and Disconnect power from all NMEA and SeaTalk¹ devices to be connected.

3. Connect any input/output devices.

NMEA 0183 input/output: Connect the '+' and '-' terminals of the NMEA input/output on the A034-B to the '+' and '-' terminals of the output/input on the instrument.

The A034-B 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 Protocol Bridge (QK-AS03).



NMEA 0183 output: Filtering and Routing are crucial if using the NMEA 0183 output.

NMEA 2000 runs at 250kbps, while standard NMEA 0183 ports runs at 4.8kbps or 38.4kbps. Data overflow (loss) cannot be avoided without careful filtering of unneeded data (Black-list function) and Routing of the dataflow away from unneeded outputs. (See full manual) You can also increase the baud rate (from default 4800bps) if necessary.



• **SeaTalk input:** Take care to connect the '+', 'Data' and '-' correctly. Swapping any of these wires can permanently damage the A034-B multiplexer.

4. Connect the A034-B to your un-powered NMEA 2000 backbone

5. Re-Connect power to your connected devices and NMEA 2000 backbone. The A034-B is powered by the NMEA 2000 backbone.

6. Check LED lights are working as expected

- **SeaTalk¹ and NMEA IN1/2/3 LEDs** will flash for each valid message received on the respective SeaTalk on NMEA 0183 output.
- **N2K:** LED will flash for each valid NMEA 2000 PGN sent out on 2000 port.
- **OUT:** LED will flash for each valid message send out on the NMEA 0183 output.
- **Overflow:** LED will flash if the NMEA 0183 output experiences overflow, due to an excessive queue, above the buffer allowance (data loss).
- **USB:** LED will flash for each valid NMEA message sent to USB output.
- **WiFi:** LED will flash for each valid NMEA message sent to WiFi output.
- **PWR (Power):** LED light is constantly lit in red when the device is powered.

