

USING THE CONFIGURATION SOFTWARE (WINDOWS):

Ad-hoc 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.)

Users who use Quark-cloud service must setup their A036 in station mode and get Internet access.

Cloud settings

Users can turn the communication with Quark-cloud on or off. The saved NMEA data (in .txt file) will be automatically uploaded to the cloud once the device has been registered and connected to the Internet. This upload function can be disabled if desired.

SD card settings

NMEA 2000 bus data can be saved as NMEA 0183 or PCDIN (raw NMEA 2000 messages) format on SD card.

USB - Monitoring NMEA Messages

Connect A036 and then click 'Open port', all the sentences will be displayed in the application.

Once settings are complete the user must click 'Config' and then click 'Disconnect'. Please re-start A036 by un-plugging the NMEA 2000 connector. The unit is now ready for use.

UPGRADING FIRMWARE:

The current firmware version can be verified through the configuration tool (When connected, the firmware version will show in the bottom of the Configuration software window).

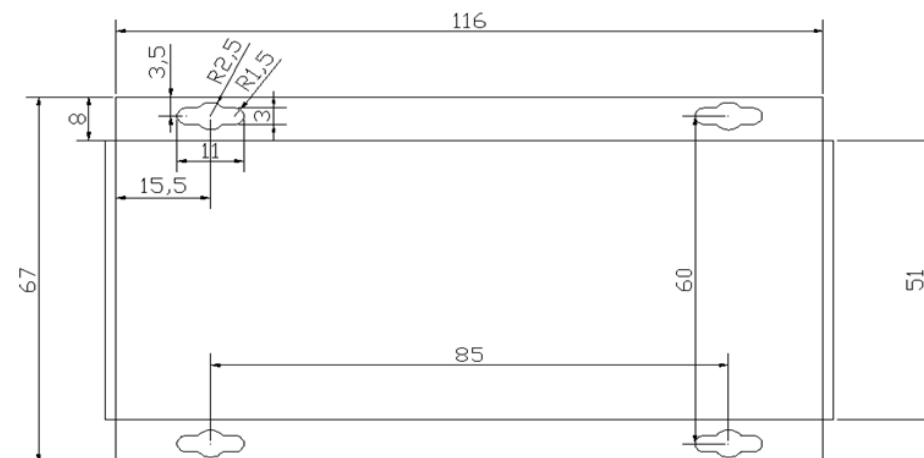
To upgrade the firmware,

- Power up A036 and then connect it to Windows computer via USB.
- Run the Configuration software.
- Ensure the configuration tool is connected to the A036, and then click Ctrl+F7. Some laptop maybe need click Ctrl+F7+Fn.
- A new window will pop up with a drive named 'STM32' or similar. Copy the firmware into this drive and wait around 10 seconds to make sure the full file has been copied.
- Close the window and the Configuration software.
- Re-power the A036, and then the new firmware will be active.

The upgrading process is complete.

QK-A036

NMEA 2000 <----> WIFI/USB BI-DIRECTIONAL CONVERTER WITH INTEGRATED VOYAGE DATA LOGGER



Tolerance: ± 0.25

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 (0321)



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.

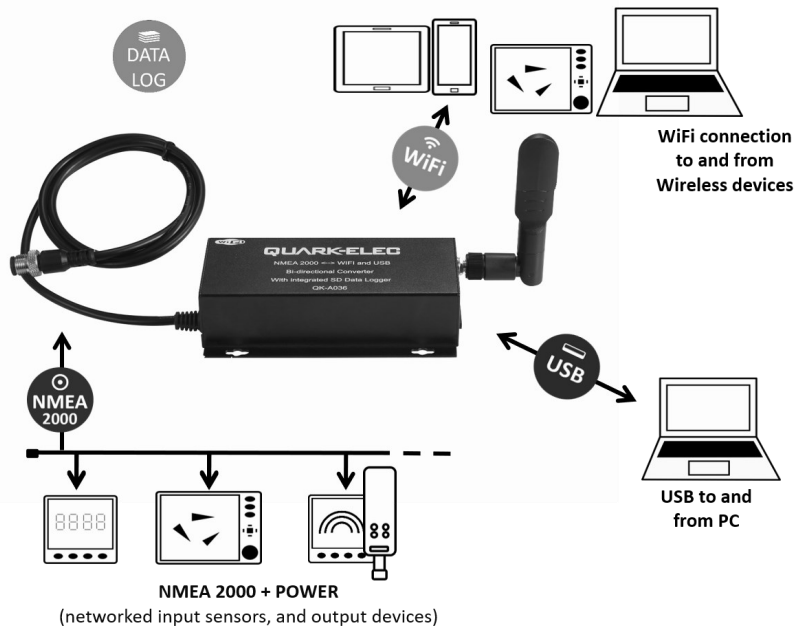
Configuration software is optional and only needed for specific features.

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

- Changing WiFi mode from Ad-hoc to Station mode or Standby
- Connect to Internet
- Enable uploading the log files to Quark-cloud
- Changing the log data format from NMEA 0183 to PCDIN (raw NMEA 2000 format)
- Full Diagnostics monitoring of the data streams
- Check the log files (need a SD card reader, which is not provided)

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.**



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 then connect A036 to the backbone

The A036 draws 12.0V power from the NMEA 2000 backbone.

3. Check LED lights are working on the A036

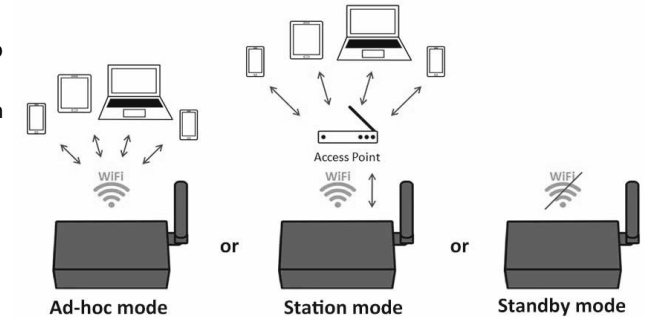
- Power: Top LED (red) flashes at 3 second intervals.
- NMEA 2000: Middle LED flashes for each valid NMEA 2000 PGNs sent out on NMEA 2000 port.
- WiFi: Bottom LED flashes for each valid message activated on WiFi and USB port.

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

15 seconds after the A036 has powered up, scan for a WiFi network with an SSID similar to 'QK-A036xxxx'.

Connect to 'QK-A036xxxx' 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 next page)

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

Quark-cloud

- Quark-cloud (www.quark-cloud.com) allows you to back up the voyage data online. The sailing data can be uploaded to the cloud if an Internet connection is accessible.
- NMEA messages active on the NMEA 2000 backbone will be recorded on the SD card and then uploaded to the cloud when the boat's network is connected to the Internet. The data includes position, vessel course, wind speed/angle, depth, heading, AIS, state of digital switching equipment, tanks, battery status, voltage, current, and engine information.
- Cloud service allows you to download the tracks and data from home, share the position with friends and family or monitor environmental conditions remotely. Cloud also allows the technician to be able to directly access the boat's N2K network and perform any diagnostic or analytical work accordingly. All these can be performed from a safe and remote place.
- Accessing the cloud server is a new service that Quark-elec began providing in 2021. We are keen to keep developing it to provide more features. Please check out our website to get the latest news. One QK-A036 can have up to 8GB cloud memory for free in the first 24 months.