CONFIGURATION TOOL INFORMATION

Assign your ship's information to the transponder using the Configuration tool, to accurately broadcast your class B AIS signal. The configuration tool (Windows) is on the included CD and can be downloaded from https://www.quark-elec.com/downloads/configuration-tools/

⚠️ Some information is legally required if using the A051T on water, particularly MMSI and Ship type. Check your relevant authority/coastguard. Leave fields blank if not required.

1. Connect the A051T to 12V power.

2. Connect to the PC via USB.

3. Open the Configuration software (close other software using the A051T, eg chart software).

4. Open serial port (the connection between the transponder and the PC) Select the COM port and click 'Connect.' If unsure, of your COM port number, check your PC's device manager.

5. Input your information carefully and press 'Config' in each section.

6. Wait for 'Config successful' message before Configuring the next section.

7. Unplug the USB and **re-power the A051T** to activate the new Configuration.

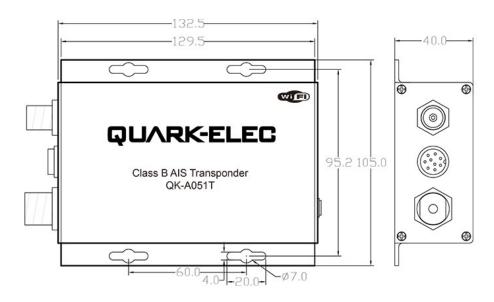| Config	Notes
MMSI	The Maritime Mobile Service Identity number is your unique 9 digit number that is assigned to a DSC (Digital Selective Calling) radio or a transponder unit. See chapter in manual on **Mobile Maritime Service Identity**.
Ship type	This field should contain a number referring to the type of vessel you are using this transponder on. For example '36' for vessels using sail propulsion. And '37' for pleasure craft (Yacht powered by engine).
GPS A B C D	**A**: Distance from bow to GPS antenna in metres **B**: Distance from stern to GPS antenna in metres **C**: Distance from port to GPS antenna in metres **D**: Distance from Starboard to GPS antenna in metre (The transponder must know where your GPS antenna is located to make accurate readings. Be as accurate as possible when writing this information as it will impact on the accuracy of your GPS data.)
IMO	**International Maritime Organization** number should be entered into this section, if relevant. This can be found on the hull and certificates for the ship.
CALL SIGN	Your vessel's call sign if relevant.
Draught	Draught is the vertical distance between the waterline and the bottom of the hull (keel), with the thickness of the hull included. Draft determines the minimum depth of water a ship or boat can safely navigate.
Name	Name of your vessel.
Destination	This is the destination your vessel is heading to. This should be entered before every journey.
ETA	Estimated time of arrival to destination entered above.
WiFi	See notes on previous page and WiFi section of the manual.

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(UK), 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.

QUARK-ELEC

SET-UP GUIDE

QK-A051T CLASS B

AIS TRANSPONDER WITH WIFI

- **What You Need**
- **Installation Overview**
- **Notes**

All products are CE and RoHS certified

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 YOU LEAVE YOUR HOME:

You will need to input the Configuration information using a Windows system and configuration tool before using A051T on water.

Ensure you can load the driver and configuration software through either CD or through internet access (we advise you download the software to your Windows system before travelling to your boat).

Drivers: May automatically install to your device if it is running Windows 10. If not, it is included on the FREE CD and as a download from www.quark-elec.com

INSTALLATION

1. Mounting: Consider your location...

- Dry, sturdy location.
- Ensure you have the correct length of cables Seal around any drill holes to prevent damage to your equipment.

2. Connect your VHF Antenna

- If you want to use one VHF antenna for both AIS and radio (or other purposes), then you will need an active splitter. An active splitter will protect the A051T and your other VHF equipment (VHF radio). If not, the two signals will significantly damage each device connected, as well as reducing the signal.

If using two VHF antennas place them a good distance from each other. (at least 3 metres).
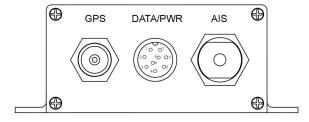
3. Connect your GPS antenna

- GPS antenna is connected via the TNC female bulkhead connector. The GPS antenna should be located outside where the sky is visible for best results.
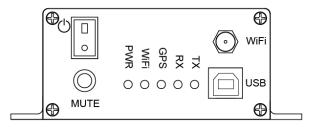
4. Connect Power

The A051T uses 12V –24Vpower. This is connected via the POWER/NMEA cable.

Beware, do not swap Power+ (Red wire– 12-24V) and Power- (Black wire- GND) , Swapping these wires would damage your unit. Check all connections carefully.

5. Once connected check the LED lights are Flashing green. lights indicate a valid AIS or GPS signal is being received by the A051T. (TX related to transmitted AIS, and RX to received AIS)

6. Disconnect power and connect NMEA output/s if desired.

The A051T contains two NMEA outputs:
1. NMEA 0183 RS422
2. NMEA 0183 RS232

Connect either or both outputs to a chart plotter or other device of your choice.

Pin name	Colour
Power+	Red
GND / Power-	Black
RS232 TX	White
GND for RS232 only	Gray
RS232 RX (reserved)	Purple
RS422 R+ (reserved)	Yellow
RS422 R- (reserved)	Orange
RS422 T+	Blue
RS422 T-	Green

7. Re-connect 12V power once all connections are correct. Check LEDs are still working.

8. Connect your A051T to a Windows system for Configuration, using the provided USB cable.
Install the Configuration software (and drivers if needed), now you are ready to enter your configuration information (see next page).

9. WiFi output: to connect wirelessly you have three options:

Ad-hock WiFi: The device is set to connect wirelessly in Ad-hoc mode (with no need for a router or access point or any configuration).

- **On your device (phone, laptop etc.):** 15 seconds after the A051T has powered up, you can scan for a WiFi network with an SSID similar to 'QK-A051xxxx'. Connect the device to '**QK-A051xxxx**' with the default password: '**88888888**'.
- **Chart software:** set the protocol as '**TCP**', IP address as '**192.168.1.100'** and the port number as '**2000**' in the chart software.

Station mode WiFi settings
To change to Station mode (connecting through a router) or adjust other settings, you will do this in the Configuration software. See the Configuration section of the manual.

WiFi on Standby: you can turn of the WiFi transmission in the Configuration software if de-