

# KC-2W (KC-2W\_MK2 new version) WIFI user manual

KC2W WIFI can use as a WIFI hotspot or a WIFI terminal.

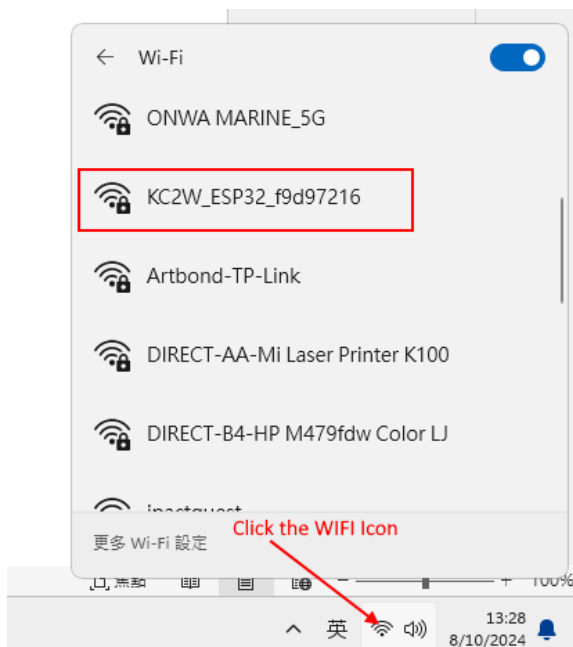
1. As a WIFI hotspot its IP is fixed 192.168.4.1, it is used if there are no WIFI router onboard your boat.
2. As a WIFI terminal, the IP is distributed by the WIFI router. You can check the IP as shown below. It is used if there are already WIFI router onboard your boat to share the data.

*Note :*

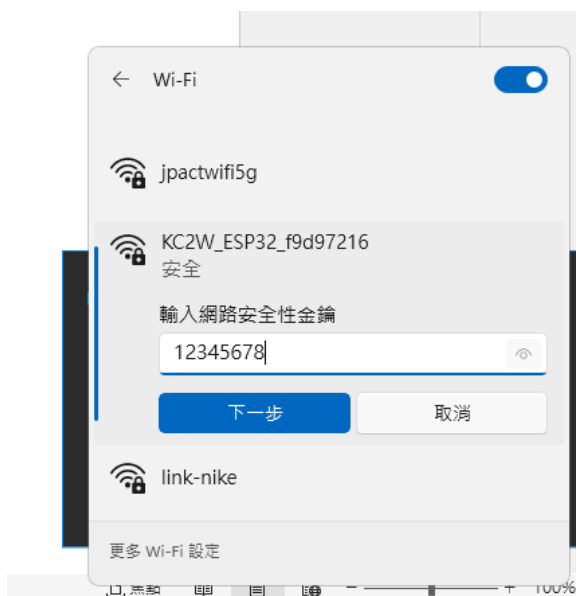
- In this manual N2K means NMEA2000
- PGN is the data in the N2K network

## Configure KC-2W WIFI module

1. Connect KC-2W to N2K network, it will power up automatically
2. Check the WIFI network on your mobile or PC
3. Select the WIFI link starting with "KC2W"



4. Enter the default password " 12345678"



5. Open the browser and enter "192.168.4.1"

6. You can change Spot name and Spot passwd if you want or keep it as default.

7. If you want to change Spot name and Spot passwd, click “Setting Wifi to save the change.

**Note : it is advised to switch off the KC-2W and power up again to make the change valid.**

### Use KC-2W WIFI module as a hotspot

**Note : In case it is not necessary to connect the KC-2W WIFI module to WIFI router onboard please leave Wifi name and Wifi passwd blank otherwise the WIFI module will keep trying to connect to external WIFI router.**

## Use WIFI module as a WIFI terminal

1. Enter the name and password of the WIFI router onboard your boat.

Wifi Setting

NMEA0183 Input monitor: 10110

N2K to NMEA0183 monitor: 10111

Spot name:

Spot passwd:

Spot IP 192.168.4.1

Wifi name:

Wifi passwd:

Wifi ip:

Setting Wifi

Example :

Wifi name : myboat

Wifi passwd : 1234abcd

2. Click “Setting Wifi” to save the settings

**Note : it is advised to switch off the KC-2W and power up again to make the change valid.**

3. There are a valid IP address appear when KC-2W WIFI module successfully connected to WIFI router onboard.

Wifi Setting

NMEA0183 Input monitor: 10110	N2K to NMEA0183 monitor: 10111
Spot name: KC2W_ESP32_f9d97216	Spot passwd: 12345678
Spot IP 192.168.4.1	
Wifi name: myboat	Wifi passwd: 1234abcd
Wifi ip: 192.168.3.55	

Setting Wifi

4. Then you can configure the IP and port in the application software, please study the below chapter “Example of using NMEA data of KC2W through WIFI network”

### Example of using NMEA data of KC2W through WIFI network

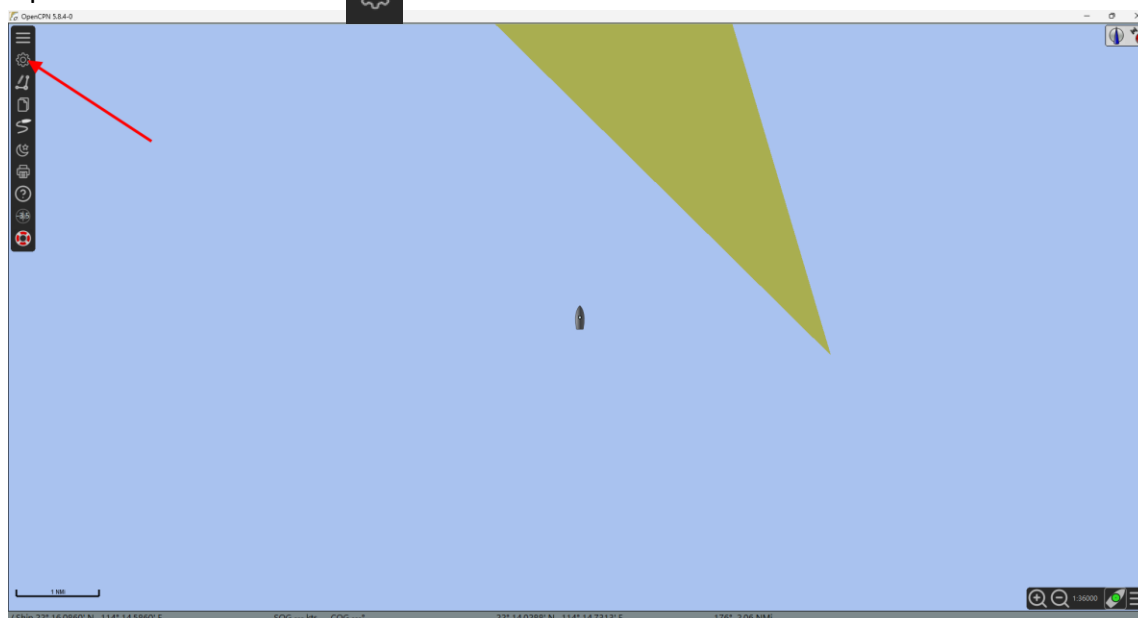
There are two ways to access KC-2W : Hot Spot or WIFI Terminal

**1) If there is no WIFI router onboard, KC-2W is used as a hot spot**

1.1) Connect PC WIFI network to KC-2W hot spot

1.2) We use OPENCNP PC version as an example:

Open OPENCNP and click



### 1.3) Select “Add Connection”

The screenshot shows the 'Options' dialog box with the 'Connection' tab selected. The 'Add Connection' button is circled in red. The 'Data Connections' table is empty. The 'Properties' section shows 'Input filtering' and 'Output filtering' fields.

Options

Display Charts **Connections** Ships User Interface Plugins

General

- ☐ Filter NMEA Course and Speed data Filter period (sec) 1
- ☐ Show NMEA Debug Window
- ☐ Format uploads for Furuno GP3X
- ☐ Use Garmin GRMN (Host) mode for uploads
- ☐ Use magnetic bearings in output sentence ECAPB

Data Connections

Enable	Type	D..	Priority	Parameters	Connection	F...
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**Add Connection** Remove Connection

Properties

Input filtering

Output filtering

OK Cancel Apply

### 1.4) Select “Network”

The screenshot shows the 'Options' dialog box with the 'Connection' tab selected. The 'Add Connection' button is circled in red. The 'Data Connections' table is empty. The 'Properties' section shows 'Network' selected under 'Serial' and 'Network'. The 'Protocol' section shows 'TCP', 'UDP', and 'GPSD' options, with 'GPSD' selected. The 'Address' field is '0.0.0.0' and the 'DataPort' field is '2947'. The 'Priority' dropdown is set to '1'. The 'Control checksum' checkbox is checked. The 'Receive Input on this Port' checkbox is checked, and the 'Output on this port (as autopilot or NMEA repeater)' checkbox is unchecked. The 'Talker ID (blank = default ID)' field is 'EC'. The 'APB bearing precision' dropdown is set to 'X.XXX'.

Options

Display Charts **Connect...** Ships User Interface Plugins

☐ Format uploads for Furuno GP3X

☐ Use Garmin GRMN (Host) mode for uploads

☐ Use magnetic bearings in output sentence ECAPB

Data Connections

Enable	Type	D..	Priority	Parameters	Connection	F...
--------	------	-----	----------	------------	------------	------

**Add Connection** Remove Connection

Properties

☐ Serial **☒ Network**

Protocol ☐ TCP ☐ UDP **☒ GPSD**

Address 0.0.0.0

DataPort 2947

Priority 1

☒ Control checksum

☒ Receive Input on this Port ☐ Output on this port (as autopilot or NMEA repeater)

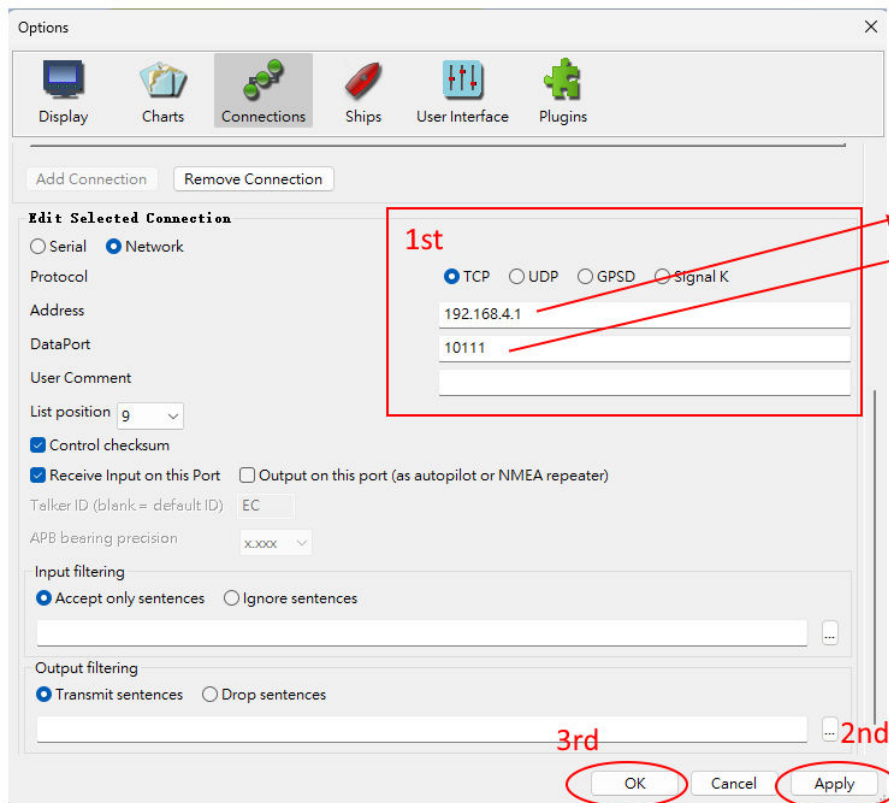
Talker ID (blank = default ID) EC

APB bearing precision X.XXX

Input filtering

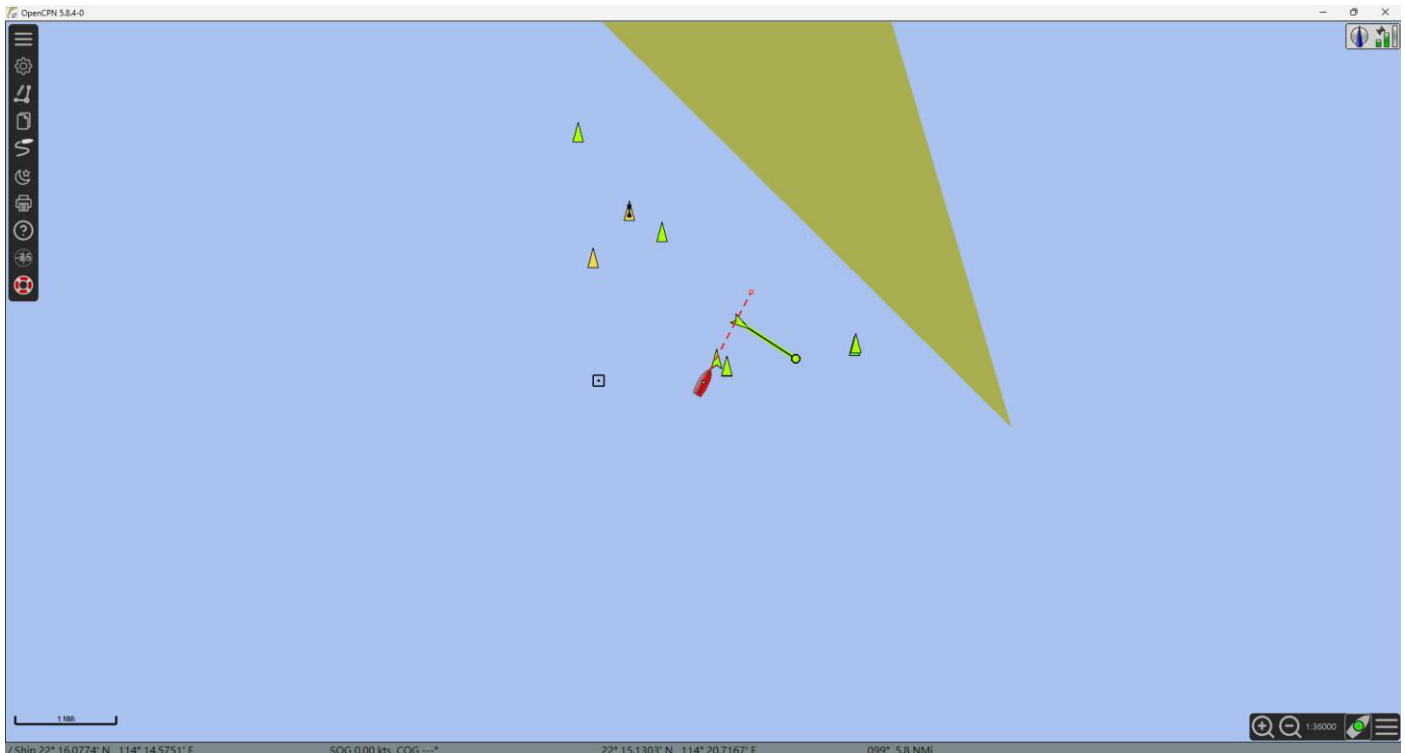
OK Cancel Apply

1.5) Fill the network information as shown below.



1st : Click [TCP]  
Enter "192.168.4.1" to Address field  
Enter "10110 to DataPort field  
or "10111"  
2nd : Click [Apply]  
3rd : Click [OK]

1.6) You can then see the data sending from KC-2W through hot spot.



## 2) Connect KC-2W to WIFI router onboard

2.1) Enter the Wifi name and Wifi passwd as mentioned above.

**Note :** In case it is not necessary to connect the KC-2W WIFI module to WIFI router onboard please leave Wifi name and Wifi passwd blank otherwise the WIFI module will keep trying to connect to external WIFI router.

**Wifi Setting**

NMEA0183 Input monitor: 10110      N2K to NMEA0183 monitor: 10111

Spot name:       Spot passwd:


Spot IP 192.168.4.1

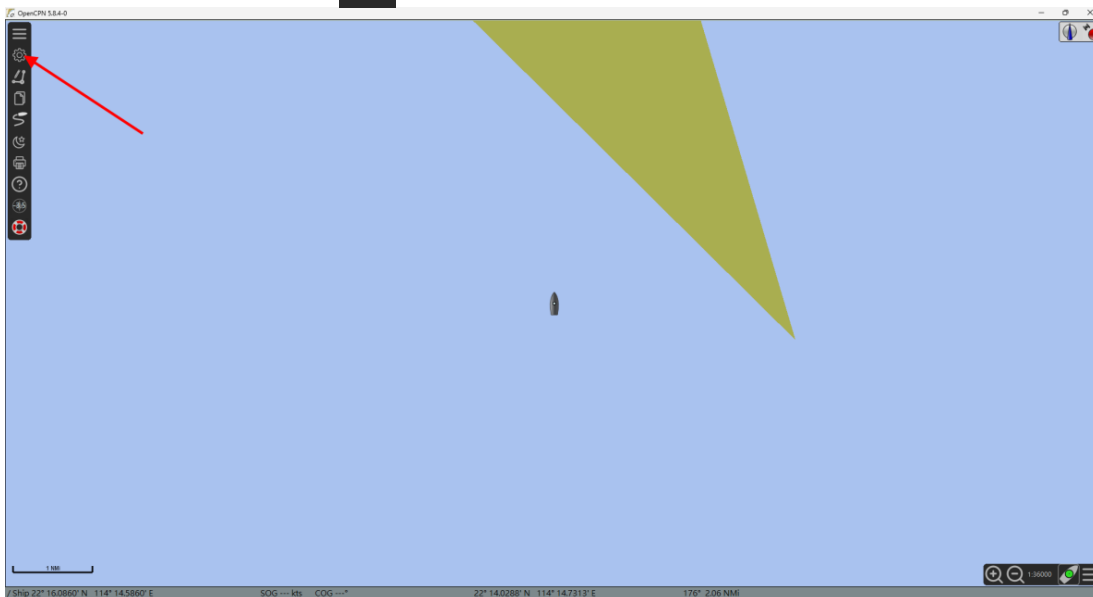
Wifi name:       Wifi passwd:

Wifi ip:

2.2) Connect PC WIFI network to WIFI router onboard.

2.3) We also use OPENCNP PC version as an example:

Open OPENCNP and click 



2.4) Select “Add Connection”

**Options**

Display   Charts   **Connections**   Ships   User Interface   Plugins

**General**

☐ Filter NMEA Course and Speed data   Filter period (sec)

☐ Show NMEA Debug Window

☐ Format uploads for Furuno GP3X

☐ Use Garmin GRMN (Host) mode for uploads

☐ Use magnetic bearings in output sentence ECAPB

**Data Connections**

Enable	Type	D..	Priority	Parameters	Connection	F...

**Properties**

Input filtering

Output filtering

## 2.5) Select "Network"

The screenshot shows the 'Options' dialog box with the 'Connect...' tab selected. Under 'Data Connections', there is a table with columns: Enable, Type, D., Priority, Parameters, Connection, F... Below the table are 'Add Connection' and 'Remove Connection' buttons. In the 'Properties' section, the 'Network' radio button is selected and circled in red. Other options include 'Serial', 'Protocol' (TCP, UDP, GPSD), 'Address' (0.0.0.0), 'DataPort' (2947), 'Priority' (1), 'Control checksum' (checked), 'Receive Input on this Port' (checked), 'Output on this port (as autopilot or NMEA repeater)' (unchecked), 'Talker ID (blank = default ID)' (EC), 'APB bearing precision' (x.xxx), and 'Input filtering'. At the bottom are 'OK', 'Cancel', and 'Apply' buttons.

## 2.6) Fill the network information as shown below.

The screenshot shows the 'Options' dialog box with the 'Connections' tab selected. The 'Edit Selected Connection' section shows the 'Network' radio button selected. The 'Protocol' section has 'TCP' selected and circled in red, with a red arrow pointing to it from the text '1st : Click [TCP]'. The 'Address' field contains '192.168.3.55' and the 'DataPort' field contains '10110', both circled in red with red arrows pointing to them from the text 'Enter "192.168.3.55" to Address field' and 'Enter "10110" to DataPort field or "10111"'. The 'List position' is set to 1. The 'Control checksum' is checked. The 'Receive Input on this Port' is checked, and 'Output on this port (as autopilot or NMEA repeater)' is unchecked. The 'Talker ID (blank = default ID)' is 'EC'. The 'APB bearing precision' is 'x.xxx'. The 'Input filtering' section has 'Accept only sentences' selected. The 'Output filtering' section has 'Transmit sentences' selected. At the bottom, the 'OK' button is circled in red with a red arrow pointing to it from the text '3rd : Click [OK]', and the 'Apply' button is circled in red with a red arrow pointing to it from the text '2nd : Click [Apply]'.

- 1st : Click [TCP]
- Enter "192.168.3.55" to Address field
- Enter "10110" to DataPort field or "10111"
- 2nd : Click [Apply]
- 3rd : Click [OK]

2.7) You can then see the data sending from KC-2W through WIFI router

