# KS-200A+ WIFI user manual

KS-200A+ 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 KS-200A+ WIFI module

- 1. Connect KS-200A+ 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 "KS-200A+"



4. Enter the default password "12345678"



#### 5. Open the browser and enter "192.168.4.1"

← → C ▲ Not secure 192.168.4.1				९ 🕁	<mark>0</mark> D	1 🗶 🖷
KS200A+ version 133/370 2000017 Device instruction AVS Ta Struck * 132,000			57	oten Instance:	1	Reboot
AIS Infomation						
AIS Connecting Stat. OK						
MMSI Number: 412882100			SART 2	Number:	70841234	
IMO Number: 047654321			Call Siz	ngn:	ABCOEFO	
Ship Name: ONWASHENZHEN			Ship Ty	pe: f	\$7	
Distance A: 15			Distanc	ce B:	4	
Distance C: 0			Distanc	ie D:		
Tracking Group ID: 10			Ais Sef	R Version:	2.2.0-240806	
	Setting AIS					
Wifi Setting						
NMEA0183 Input monitor: 10110						
Note: Name and passed should consist of letters(s-r, A-Z), numbers(S-Ø) and special characters(-/@#0%etc.).			1.20			
Spot same: K52004+_ESP32_s13ecb70	Cotting M/ifi		Spot pa	isewd:	2345678	
Spot IP 192 168 4.1	Setting win					
Wifi name: ONWA MARINE	×	r	Wifi pa	9 bweer	.09d002m1967y	
Wifi ip: 192.168.3.60	Setting Wiffi		<u> </u>			
ï Setting						
		_	¥			
MEA0183 Input monitor: 10110		Spot passwd:	12345678			
to Manua and maximal should consist of latters/a. a A	7) sumber (0, 0) and spacial characters (1/2#286, etc.)	-11				
e. Name and passion should consist of reners(a-2,7	co, numoris(ovo) and special characters(~:@vo.ve.c.).					
KS200A+ ESP32 a13	db70					
oot IP 192.168.4.1		Wifi passwd:				
ifi name:		L				

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 KS-200A+ and power up again to make the change valid.

#### Use KS-200A+ WIFI module as a hotspot

Note : In case it is not necessary to connect the KS-200A+ 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							
Note: Name and passw	Note: Name and passwd should consist of letters(a-z,A-z), numbers(0-9) and special characters(-1@#\$9%etc.).						
Spot name:	KS200A+_ESP32_a13edb70		Spot passwd:	12345678			
Spot IP 192.168.4.	1						
Wifi name:	myboat		Wifi passwd:	1234abcd			
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 KS-200A+ and power up again to make the change valid.

3. There are a valid IP address appear when KS-200A+ WIFI module successfully connected to WIFI router onboard.

NMEA0183 Inpu Note: Name and pass	rt monitor: 10110 wd should consist of letters(a~z,A~Z), numbers(0~9	and special characters(~!@#\$%6etc.).		
Spot name:	KS200A+_ESP32_a13edb70	]	Spot passwd:	12345678
Spot IP 192.168.4	4.1			
Wifi name:	myboat	]	Wifi passwd:	1234abcd
Wifi ip: <b>192.16</b>	58.3.60			
		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 KS-200A+ through WIFI network"

## Example of using NMEA data of KS-200A+ through WIFI network

There are two ways to access KS-200A+ : Hot Spot or WIFI Terminal

## 1) If there is no WIFI router onboard, KS-200A+ is used as a hot spot

1.1) Connect PC WIFI network to KS-200A+ hot spot

## 1.2) We use OPENCPN PC version as an example:



1.3) Select "Add Connection"

Options X
Display Charts Connection Ships User Interface
General          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         Add Connection       Remove Connection
Properties Input filtering
Output filtering
OK Cancel Apply

## 1.4) Select "Network"



Options	×
Display Charts Connections Ships User Interface Plugins	
Add Connection Remove Connection	1st : Click [TCP]
Edit Selected Connection       Ist         Serial       Network         Protocol       TCP       UDP       GPSD       Stgnal K         Address       192.168.4.1       10111       10111         User Comment       1       10111       10111         User Control checksum       ©       Control checksum       ©         © Receive Input on this Port       Output on this port (as autopilot or NMEA repeater)       Talker ID (blank = default ID)         Talker ID (blank = default ID)       EC       APB bearing precision       x.xxx<          Input filtering       O Accept only sentences       O Ignore sentences	Enter "192.168.4.1" to Address field Enter "10110 to DataPort field or "10111" 2nd : Click [Apply] 3rd : Click [OK]
Output filtering  Transmit sentences  Drop sentences  3rd	2nd
OK Cancel Ap	ply

1.6) You can then see the data sending from KS-200A+ through hot spot.



# 2) Connect KS-200A+ 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 KS-200A+ 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.

## 2.2) Connect PC WIFI network to WIFI router onboard.

Г	-Wifi Setting			
	NMEA0183 Input mo	nitor: 10110		N2K to NMEA0183 monitor: 10111
	Spot name:	KC2W_ESP32_f9d97216	Spot passwd:	12345078
	Spot IP 192.168.4.1			
	Wifi name:	myboat	Wifi passwd:	1234abcd
	Wifi ip: <b>192.168</b> .	3.60		
		1	Setting Wifi	

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



# 2.4) Select "Add Connection"

Options X
Display Charts Connection Ships User 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
Add Connection Remove Connection
Properties
Input filtering
Output filtering
OK Cancel Apply

# 2.5) Select "Network"

Options	×
Display Charts Connect.	Plugins
Format uploads for Furuno GP3 Use Garmin GRMN (Host) mode Use magnetic bearings in outpu	^
Data Connections	
Add Connection Remove Co Properties O Serial Network Protocol	<ul> <li>▶ ● GPSD</li> </ul>
Address	
DataPort	
Priority 1 v	
Control checksum	
Receive Input on this Port	ilot or NMEA repeater)
Talker ID (blank = default ID) EC	
APB bearing precision	
Input filtering	~
	Cancel Apply

2.6) Fill the network information as shown below.

Options		×	
Display Charts Connections Ships	User Interface Plugins		
Add Connection Remove Connection			1st : Click [TCP]
Edit Selected Connection	1-+		Enter "192,168,3,60" to Address field
🔾 Serial 🗿 Network	Ist	-	Enter 1101101 to Date Dart Gold
Protocol	TCP UDP GPSD Signatic	-	Enter 10110 to DataPort field
Address	192.168.3.60		or "10111"
DataPort	10110		2nd : Click [Apply]
User Comment		-	3rd · Click [OK]
List position	2000 - 20		
Receive Input on this Port Output on this port (a	as autopilot or NMEA repeater)		
Talker ID (blank = default ID) EC			
APB bearing precision			
Input filtering			
• Accept only sentences			
Output filtering			
• Transmit sentences O Drop sentences			
	1 🛄		
	3rd	2	nd
	OK Cancel Apr	ply	)

2.7) You can then see the data sending from KS-200A+ through WIFI router

