

INDUSTRIAL-GRADE

Wireless Smart Multi-Sensor Device GS1

This manual book is a general guidance for all types of our Industrial-grade GS1 devices. Some features which are marked with asterisk are available for specific versions. Please refer to related instructions according to the version you purchased.

PACKAGE LIST



① Device



② External antenna^①



③ Type-C USB cable^②



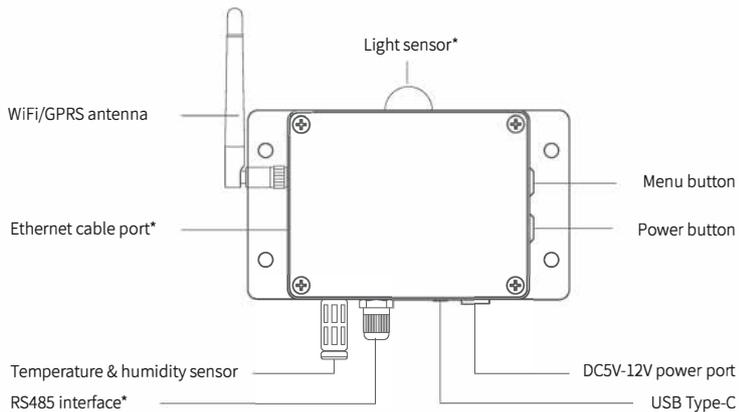
④ User manual

① Note: Please tighten the antenna before use.

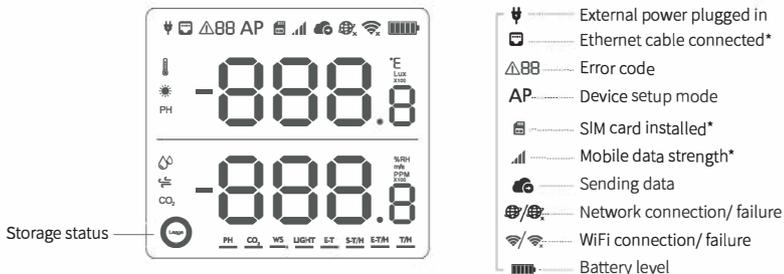
② Please note, only **4-wire** cable as we provided can support data transmission. Some other cables may not work when connecting the PC Tools.

INTRODUCTION

1. Appearance Introduction



2. Screen Icons Introduction



<u>PH</u>	PH sensor*	<u>ET</u>	External temperature sensor *
<u>CO₂</u>	CO2 sensor*	<u>S+TH</u>	Soil temperature and humidity sensor*
<u>WS</u>	Wind speed sensor*	<u>ET+H</u>	External temperature and humidity sensor*
<u>LIGHT</u>	Light sensor *	<u>TH</u>	Internal temperature and humidity sensor

3. Device Operations

Switch On

Press and hold the power button for 3 seconds until the screen lights up. Release the button and the device is now on.



IMPORTANT

The battery power will drain during the shipment and storage. You may fail to switch the device on for the first time. Please charge the device for 6-12 hours before you get started. This can also ensure a better battery performance.

Switch Off

Press and hold the power button for 3 seconds until the screen is off. The device is now off.

Device Setup Mode

With the device switched on, press and hold the menu button for 3 seconds. Release the button until the AP icon flashes on the screen.

Manual Data Synchronisation

With the device switched on, press the power button once to trigger a manual data sync. The 📶 icon will flash while the data is being transferred. You can also hear the voice guidance.

Toggle Screen Readings

Press the menu button once to toggle between the internal sensor readings and external probe readings and sensing data simultaneously.

Switch On/Off Voice Guide

Double press the menu button to enable or disable the voice guide. This will also refresh the last sensing data.

Toggle Celsius or Fahrenheit

Double press the power button to toggle between displaying Celsius or Fahrenheit. This will also refresh the last sensing data.

Display Backlight

Pressing either of the buttons will switch on the display backlight for a short time. Pressing both of the two buttons at the same time will keep the backlight alight constantly. Pressing another time will switch off the backlight.

Reset to Default Settings

Switch the device off, then press and hold the menu button and power buttons together for at least 8 seconds. Release the buttons when you hear the voice guidance "The device will now reset".



IMPORTANT

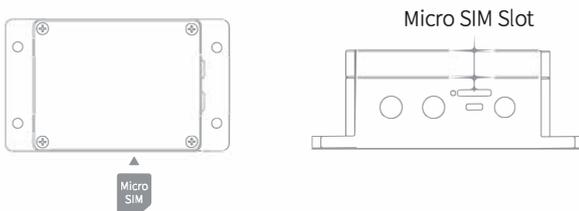
ALL STORED DATA WILL BE LOST IF YOU RESET YOUR DEVICE TO DEFAULT SETTINGS!
REMEMBER TO SYNCHRONISE THE SENSING DATA TO THE IOT PLATFORM OR EXPORT THE DATA TO YOUR COMPUTER
BEFORE RESETTING IT.

SETUP USING THE APP FOR MOBILE NETWORK *

Before you set up the device on mobile data, please check the APN information of the SIM card used for the device.

An APN (Access Point Name) provides the details your device needs to connect to mobile data through your network operator. APN details differ by network and you will need to get these from your network operator.

With the device off, insert the SIM card as indicated in the picture. Launch the app and log in. Tap the "+" to start setting up the device. Please follow the in-app instructions to complete the setup process. Please note, the setup will fail if you don't have data allowance.



SETUP USING THE APP FOR ETHERNET CABLE CONNECTION*

STEP1.

Connect the device with power supply and plug the Ethernet cable.

STEP2.

Launch the app and log in. On the home page, tap the "+" to start adding your device. Then please follow the in-app instructions to complete the setup.

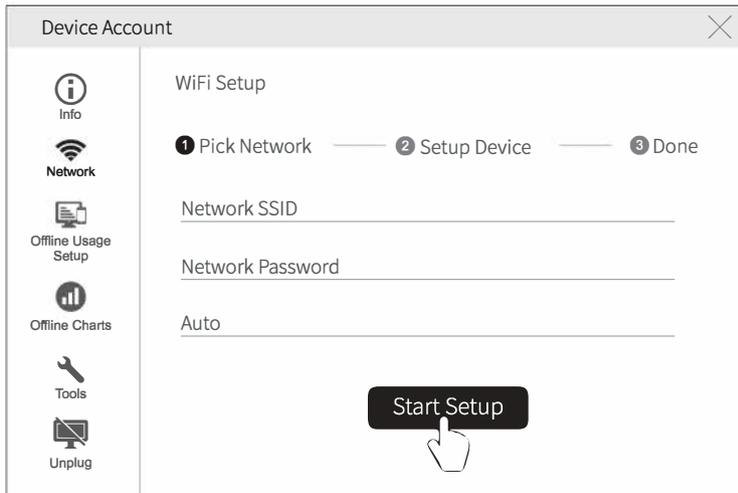
SETUP USING PC TOOLS

STEP1.

Launch the App and log in. With the device switched on, use the Type-C USB cable provided to connect your device to the computer. The Tools will automatically scan and recognize the product ID and enter device page.

STEP2.

Click "Network" on the left menu bar. There you are able to set up the device on WiFi for all of the models. For SIM or Ethernet cable setup, please click on the corresponding button to continue.



TECHNICAL SPECIFICATIONS

 WiFi, 2.4GHz, channels 1-13	 Flame resistant ABS + PC
 Built-in 2900mAh lithium battery	 Type-C, DC5V/2A or 12V/1A power supply
 Supports Micro SIM card* (15mm x 12mm x 0.8mm)	 Built-in Memory:300,000 sensing data
 Optimal working conditions: -20°C to 60°C, 10% to 90%RH	 115mm x 90mm x 55mm
 Supports RJ45 Ethernet cable, Ethernet switch 100 mbps or lower.*	

ERROR CODES

01 System Protection

Please follow the instructions to properly configure the device. Unconfigured devices will revert to system protection mode to save power.

02 WiFi Connection Failed

Please refer to the Troubleshooting section 3-

03 Failed to Connect to Server

Please refer to the Common Questions

04 Device Activation Failed

Please refer to the Troubleshooting section 1-

05 Data Save Failure

This can happen when the power is disrupted while data is being saved.

06 Incorrect Data Format

This can happen when there is a power disruption while saving data.

07 Data Sync Failed

Please refer to the Troubleshooting section 3.

08 No SIM Card Found

Please check the SIM card is correctly inserted.

09 Mobile Data Network Failure

Please check your SIM card is set up correctly and has been activated.

TROUBLESHOOTING

1. WiFi or SIM setup failure

There are several factors that can affect the setup process. The followings are common issues:

- ①WiFi frequency: The Device can only connect to 2.4GHz networks, channels 1 – 13.
- ②WiFi password: Go through the device setup again and ensure that you have set the correct WiFi password for the network.
- ③WiFi security type: The Device supports OPEN, WEP, or WPA/WPA2 types.
- ④WiFi channel width: Make sure it is set to 20MHz or "Auto".
- ⑤Internet connection: Make sure your device's WiFi router has a working Internet connection
- ⑥Low battery power: WiFi uses a lot of power. Your device may be able to power on but may not have enough power for the WiFi. Please charge the device.
- ⑦Make sure the SIM card is installed correctly and have a good mobile signal.
- ⑧Please make sure the device has entered WiFi setup mode.

For direct problem diagnosis, please use the PC Offline Tools to go through the setup process and contact us with the response error code in Tools – Get Device Last Error. This can help us to remotely diagnose.

2. Failure to setup via Ethernet cable:

- ①Please check if the Ethernet cable is plugged correctly
- ②Please check if the Ethernet cable is in good condition.
- ③Please check if the Ethernet cable has access to the Internet.
- ④Please check if the batteries are too flat to setup.
- ⑤please check if the Ethernet switch is 100 mbps or lower.

If all the above conditions are excluded, but you still can not active the device, please check whether the network rejects DHCP(automatic IP allocation); Or, you can also try to re-plug the Ethernet cable and go through the setup process again

3. Failure to Sync Data.Please check the following:

- ①With the device switched on, press the power button once to trigger a manual data sync. You can hear "sync completed" after the data being transferred. If it says "sync failed", try the next steps.
- ②Check that the device has sufficient battery power for data sync. Data synchronisation consumes a lot of power – the device may be on, but unable to sync data. Please check the battery icon on the screen. Charge the device before it runs out of the power.

- ③ Make sure your device's WiFi router has a working Internet connection
- ④ If you are using mobile data, check that your SIM card is activated. Check if your mobile data allowance is used up. And, check if the Ethernet cable is firmly connected.

TECHNICAL SUPPORT

The team is glad to hear your voice of our products and services

For any questions or suggestions, please feel free to create a ticket in the app. Our customer service representatives respond within 24 hours and often in less than an hour. You can also contact the local distributors in your country for localized service. Please go to our website to view their contacts.

WARRANTY INFORMATION

1. This device is warranted to be free of defects in materials and workmanship for a period of up to one year from the original purchase date. This warranty does not cover damage caused by normal wear, misuse, abuse or incorrect repair. To claim under this limited warranty and to obtain warranty service, please contact customer service or local distributor to obtain instructions on how to pack and ship the product back to us.

2. The following situations will not be covered by the warranty:

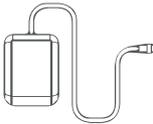
- ① Issues arising after the warranty period has ended. Natural wear and aging of materials
- ② Malfunction or damage caused by improper handling or not operating the device according to the instructions
- ③ Damage occurring from operating device outside the recommended temperature and humidity range, damage from contact with water, damage from applying excessive force to the device or any cables and connectors.
- ④ Failure or damage caused by unauthorized removal of the product
- ⑤ We are only liable for faults due to manufacturing or design. We are not responsible for damage caused by Force Majeure or acts of God.

PRODUCT CARE

- ✓ Please always follow the instructions contained in this manual.
- ⊕ Always mount the device on a stable surface
- ⚠ Keep away from acidic, oxidising, flammable or explosive substances
- ⊗ When handling the device, avoid using excessive force and never use sharp instruments to try and open it.

PRODUCT MODEL

	GS1-A	GS1-AL4G1RS	GS1-AETH1RS	GS1-PL4G1RS ^①
Transmission Mode	WiFi	WiFi/4G	WiFi/RJ45 Ethernet cable	WiFi/4G
Battery Life	4-6 months (WiFi only)	4-6 months (WiFi only) 3-6 weeks (sync via SIM)	3-5 days	1-2 weeks (GNSS)
Internal Temperature & Humidity Sensor	✓	✓	✓	✓
Internal Light Sensor	/	✓	✓	✓
Supports External Probes	/	✓	✓	✓
Waterproof & Dustproof	IP65	IP65	/	IP65
GNSS	/	/	/	✓



GPS antenna

- ① The antenna of GPS version GS1 is different from other versions. During the use, please try to place the antenna in the open air. The antenna is IP68 waterproof.

Making Sense of Your World