RTK Box
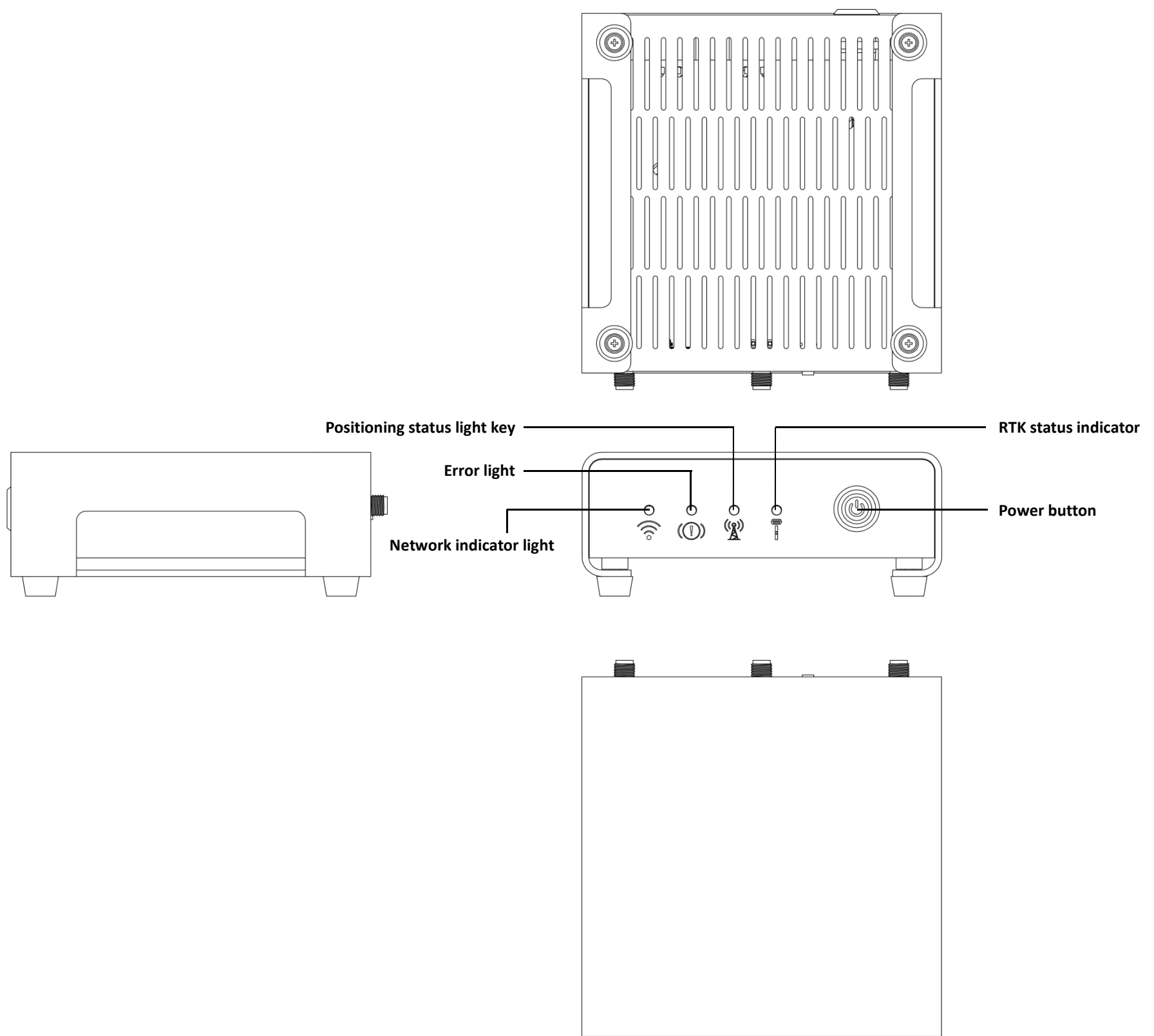## Quick Manual

User manual

Please read the help file first

Thank you for using our RTK base station. This base station is built base on multi-satellite and multi-frequency high-precision positioning.

- Please thoroughly read all safety precautions and the manual before using the device to ensure safe and correct operation.

- The descriptions in this manual are based on the device's default settings.

- The images used in this manual may differ from the appearance of the actual product.

- The content of this manual may be different from the product due to the difference from the service provider or software provided, subject to change without prior notice.

- Available features and additional services may vary depending on the device, software or service provider.

- Apps and their features may vary depending on country, region, or hardware specifications. We are not responsible for performance issues caused by third-party applications or incompatibility issues caused by customers editing registry settings.

- The sound sources, wallpapers and images provided on this device are licensed for limited use between us and their respective owners. Quoting and adapting these materials for commercial or other purposes is a violation of copyright law. We are not responsible for copyright infringement by users.

- To avoid additional charges, choose a suitable data plan for sending, receiving, uploading, downloading, automatic synchronization, or location services. For more information, contact your service provider.

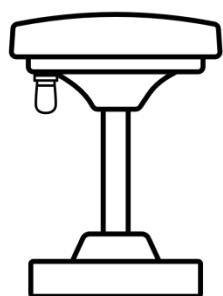- Please keep this manual for future reference.

Positioning status light key

Error light

Network indicator light

RTK status indicator

Power button

Notice :

• Due to different configurations selected by users, the results may not match the renderings.

• There are slight differences in the appearance of specific models.
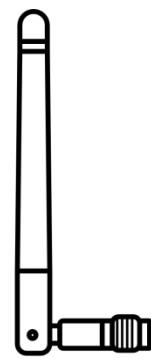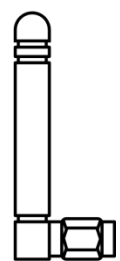
Accessories

USB data cable

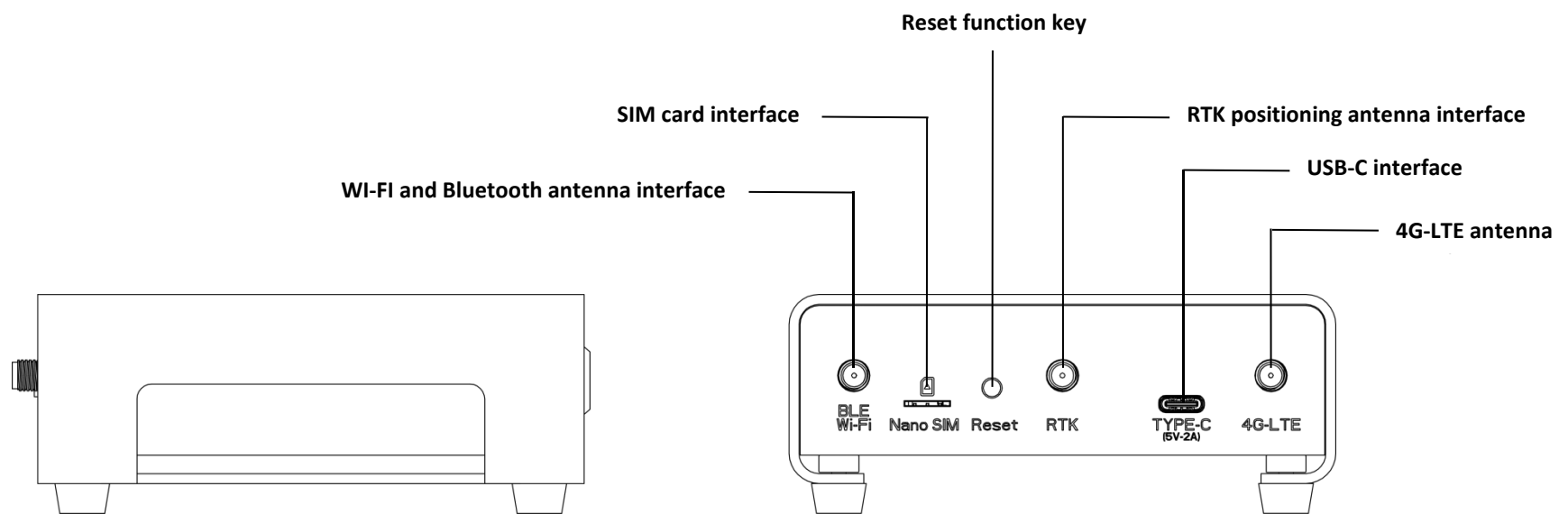**Multi-band high-precision external measurement antenna**

10m antenna adapter cable

4G-LTE antenna (4G version)

WI-FI/Bluetooth antenna

Reset function key

SIM card interface

RTK positioning antenna interface

WI-FI and Bluetooth antenna interface

USB-C interface

4G-LTE antenna

BLE
Wi-Fi   Nano SIM   Reset   RTK   TYPE-C
(5V-2A)   4G-LTE

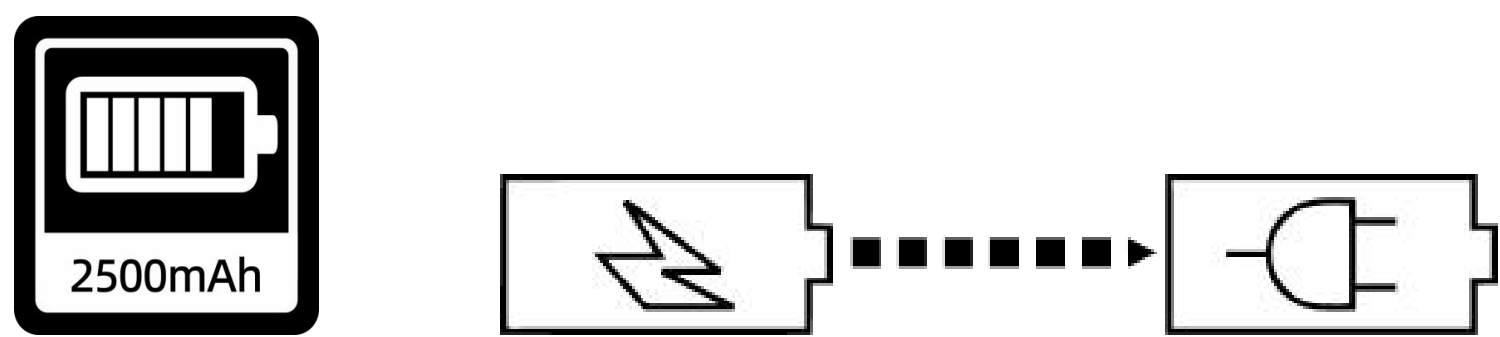# MIL-STD-810 Military Standard

GB-10XX products have passed MIL-STD 810H rigorous vibration testing.

Battery

The device has a built-in battery.

2500mAh

Lithium polymer battery

Caution

• Only use safety-certified batteries specifically designed for your device.

• Incompatible batteries may cause damage to the device.

• Never place batteries or devices on heating devices such as microwave ovens, stoves, or radiators. Batteries may

explode when overheated.

❶ How to insert SIM card

This product features a Push-push SIM card slot design. To avoid damaging the SIM card, always ensure the power is turned off before inserting or removing the card.

This machine uses a Nano SIM card. Please make sure the card is facing the correct direction before insertion to prevent system issues or damage to the card slot.
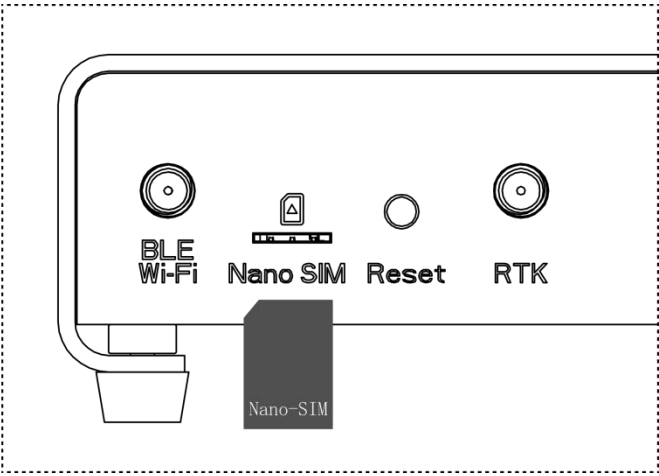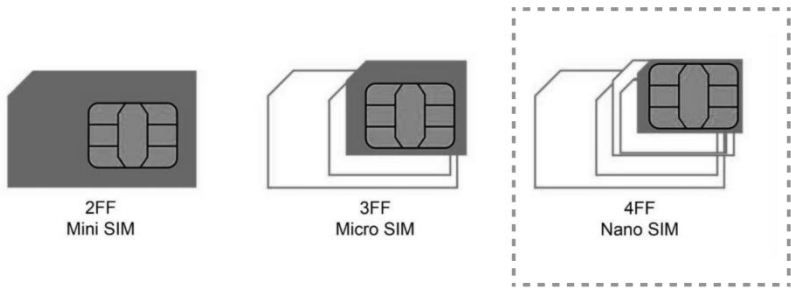
❷ How to start

Plug in the power supply, press the power button to the locked state, the device will turn on, press the power button again to release the locked state and shut down.

❸ How to use

	Silk screen (rear of fuselage)	Icon icon (front of fuselage)	Color	Interface	Detailed description of functions
Power button		⏻	BLUE	With self-locking button	After the system is turned on, the blue indicator light is always on
Network indicator light		📶	BLUE		Flashing slowly: Waiting to connect to the network; Flashing quickly: The network has been registered successfully; Flashing quickly: The server has been connected and data has been reported.
Error light		(①)	RED		When the positioning module system fails the self-test, the red light is always on.
Positioning status light		(⦙)	YELLOW		The positioning module always lights up after effective positioning (base station application)
RTK status light			GREEN		Positioning module RTK fixed solution always lights green, Other statuses are not lit (rover application)
WI-FI and Bluetooth antenna interface	BLE/Wi-Fi			SMA	WIFI and Bluetooth antenna interface (4G version only has Bluetooth)
SIM card interface	Nano SIM			Nano SIM	Insert the SIM card (this interface is closed in the WIFI version)
Reset function key	Reset			Physical buttons	Press to reset the system
RTK positioning antenna interface	RTK			SMA	Connect to multi-satellite and multi-frequency positioning antenna
USB-C interface	TYPE-C (5V-2A)			Standard TYPEC	Standard charging interface; 5V=2A
4G-LTE antenna interface	4G-LTE			SMA	4G-LTE antenna interface (this interface is closed in the WIFI version)

❹ How to use the APP

Support Android Versions : 10、11、12、13、14

Wi-Fi version

1. Install Android APP : GB-10WB

Copy GB_10WB.apk to your Android phone, use file manager (such as: 🖼️) to open the folder where the GB_10WB.apk file is located, click on the GB_10WB.apk file to install (Figure 1-1).

2.Open the APP : GB-10WB

2.1. Click the GB-10WB icon to open the APP (Figure 2-1-1). The main window of the APP provides 4 functional

icon buttons (Figure 2-1-2), click the respective icon button to open the respective function window.

　　※） ：Bluetooth connection and disconnection function 　　※ ：Set base station data function

　　🛜 ：Set up WI-FI data function 　　ⓘ ：Version information function

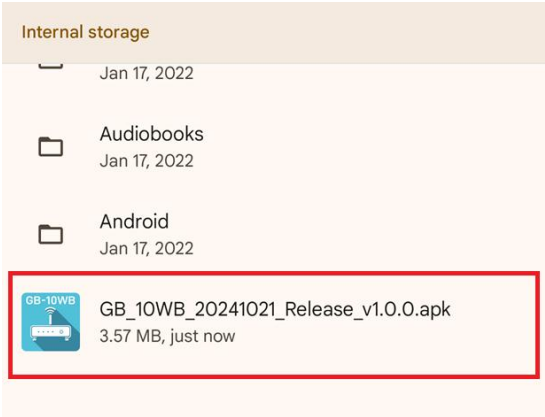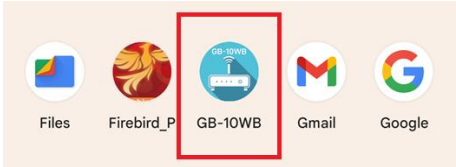　　🔵 ：Bluetooth connected icon 　　※） ：Bluetooth not connected icon
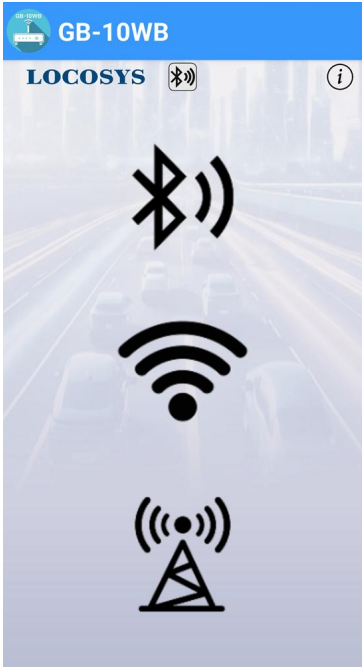

| Figure 1-1 | Figure 2-1-1 | Figure 2-1-2 |

2.2. Click the Bluetooth icon button (※）) to open the Bluetooth function window and click "GB-10WB" Device

(Figure 2-2) to perform Bluetooth connection, it will automatically return to the main window after the

Bluetooth connection is successful.

SEARCH ：Search for Bluetooth devices again 　✅ **Use keywords** ：On/Off to search keyword for BLE device

Figure 2-2

2.3. Click the WI-FI wireless Internet icon button (⌖) to open the WI-FI setting window (Figure 2-3-1) and

manually enter the SSID to be used name, or click on the SSID in the list. After clicking on the SSID in   the list,

the SSID will be automatically filled in the field. Then, manually enter the password for the SSID. After the

SSID and password are entered, the "Send button" (Update GB10 configuration), you can set the data to the GB-10WB

device via Bluetooth.

↖ : Refresh for wireless Internet WI-FI devices   ▤ : Check connection status (figure 2-3-2)

👁 : Hide/Show password button - Hide   👁 : Hide/Show password button - Show

2.3.1 Press "Get GB10 Status" (Get GB10 status) to acquire GB-10WB current connection status of SSID Name from

WI-FI (Figure 2-3-2)

Note : GB-10WB only support WI-FI frequency of 2.4G
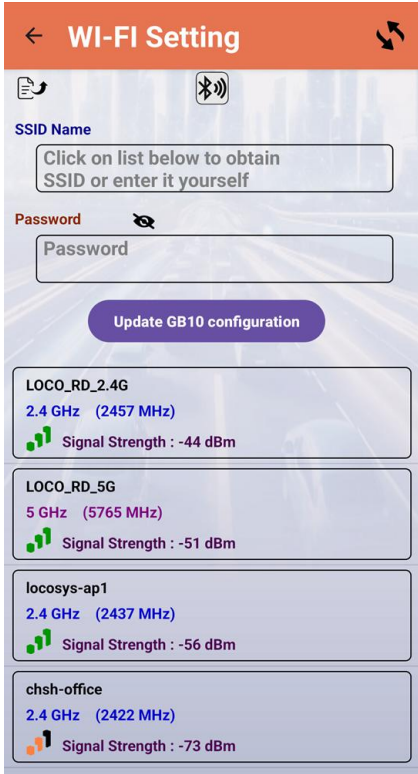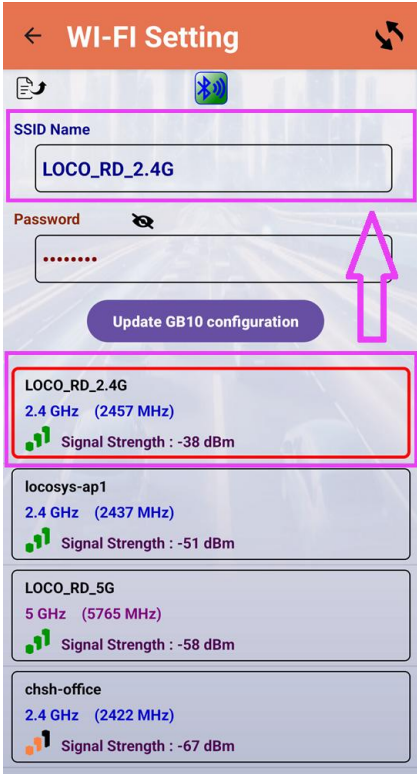

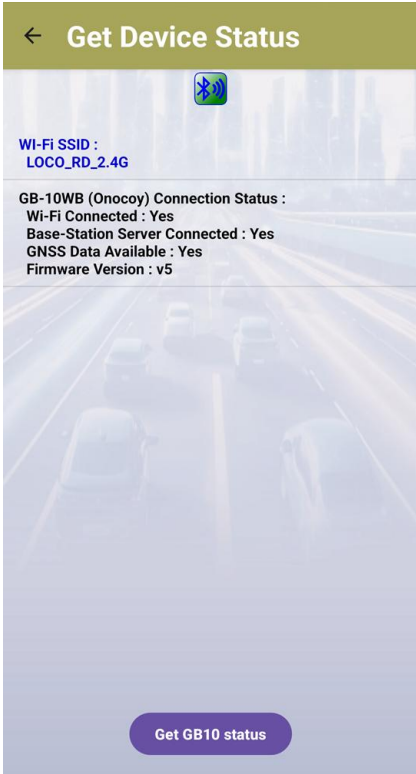Figure 2-3-1-1   Figure 2-3-1-2   Figure 2-3-2

2.4. Click the base station icon button (⌖) to open the base station setting window (Figure 2-4-1), manuallyenter

the mount point and password, or choose Whether to enable settings (Figure 2-4-2) base station number,

longitude (unit: degrees), latitude (unit: degrees) and altitude (unit: meters), click the "Send button" after

input is completed (Update GB10 configuration), you can set data to GB-10WB via Bluetooth equipment.

▤ : Check connection status (figure 2-3-2)

👁 : Hide/Show Password Button - Hide   👁 : Hide/Show Password Button - Show

2.4.1 Press "Get Device Status"(Get GB10 status) to acquire GB-10WB current connection statusof SSID Name from

WI-FI (Figure 2-3-2)

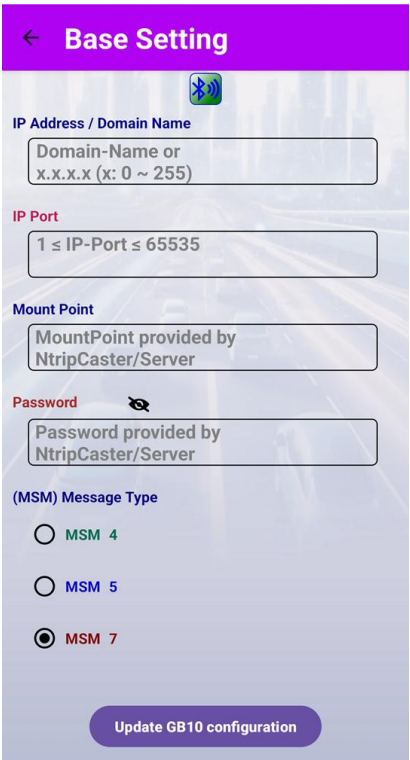Note 1 : Please reboot the GB-10WB device when done setting the base station information
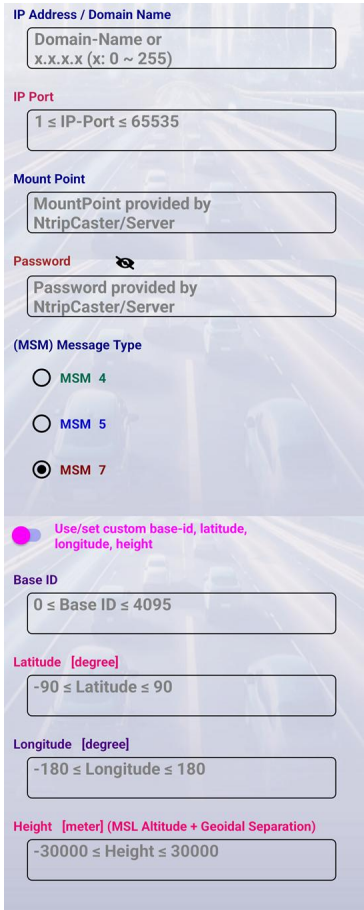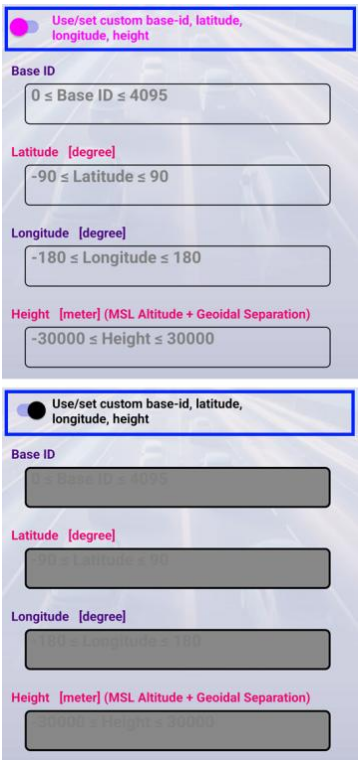
Figure 2-4-1-1   Figure 2-4-1-2   Figure 2-4-2

2.5. After the base station setting or WI-FI wireless Internet setting is completed, you can go to main window to open the Bluetooth link window and click Connected GB-10WB in the APP performs Bluetooth disconnection (Figure 2-5).

2.6. Click the version information icon button (ⓘ) to open the version function window (Figure 2-6).

▷ ： Open the Youtube instructional video (link URL)

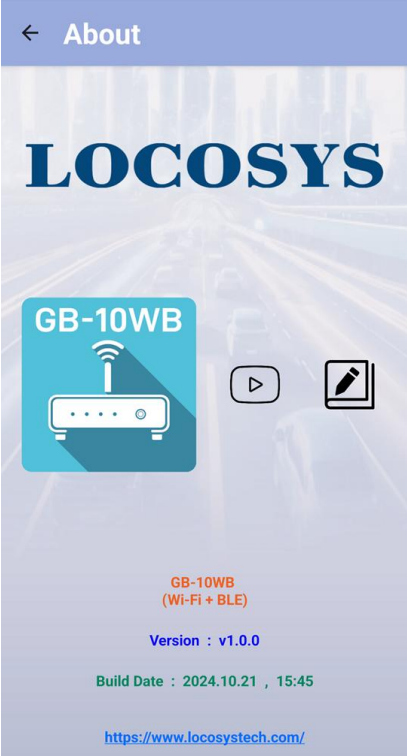✎ ： Open the user manual (link URL)

Figure 2-5   Figure 2-6

4G-LTE version

1. Install Android APP : GB-104B

Copy GB_104B.apk to your Android phone, use file manager (such as:) to open the folder where the GB_104B.apk file is located, click on the GB_104B.apk file to install (Figure 1-1).

2. Open APP : GB-104B

2.1 Click the GB-104B icon to open the APP(Figure 2-1-1). The main window of the APP provides 3 functional icon buttons (Figure 2-1-), click the respective icon button to open the respective function window.

   ⚡ : Bluetooth connection and disconnection function   ⚠ : Set base station data function

   ⓘ : Version information function   ⚡ : Bluetooth connected icon
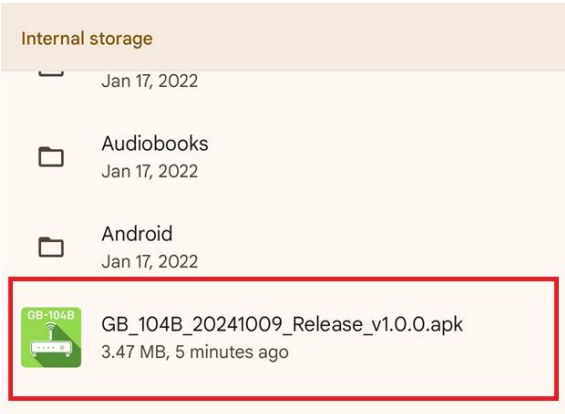
   ⚡ : Bluetooth not connected icon

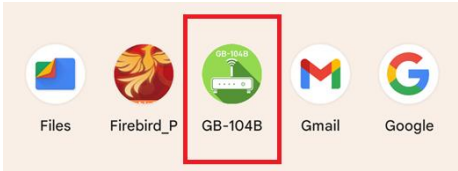| Figure 1 -1 | Figure 2-1 -1 | Figure 2-1-2 |

2.2. Click the Bluetooth icon button (⚡) to open the Bluetooth function window and click "GB-104B Device" (Figure 2-2) to perform Bluetooth, Bluetooth connection, it will automatically return to the main window after the Bluetooth connection is successful.

   SEARCH : Search for Bluetooth devices again   ✓ **Use keywords** : On/Off to search keyword for BLE device
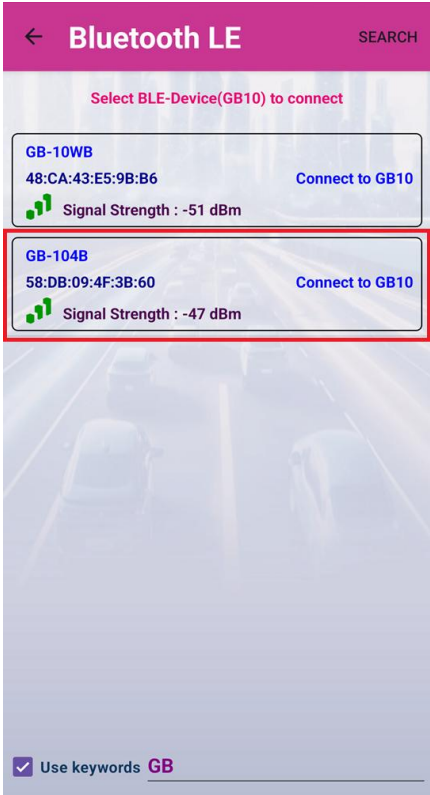

Figure 2-2

2.3. Click the base station icon button (📡)Open the base station setting window (Figure 2-3-1), manually enter

the mount point and password, and also choose whether to enable the settings (Figure 2-3-2) base station

number, longitude (unit: degrees), latitude (unit: degrees)) and height (unit: meters), click the "Send

button" after completing the input (**Update GB10 configuration**), you can set data to the GB-104B devicevia Bluetooth.

👁 ： Hide/Show Password Button - Hide   👁 ： Hide/Show Password Button - Show

Note 1 : Please reboot the GB-104B device when done setting the base station information
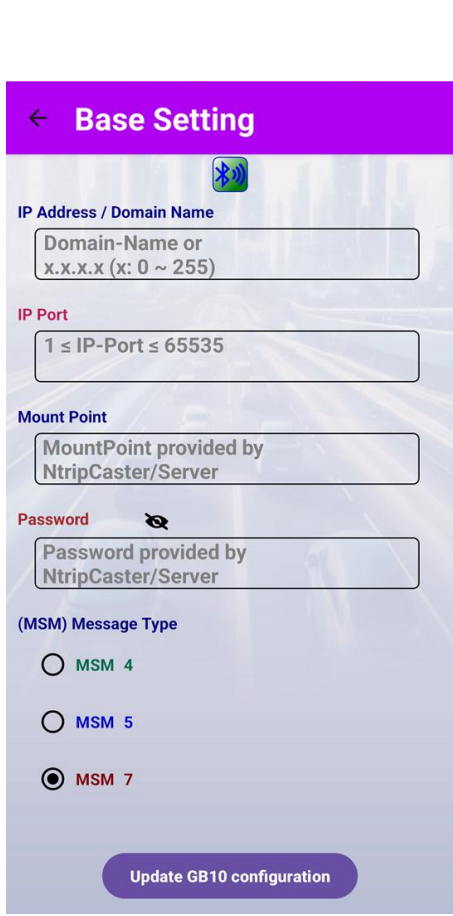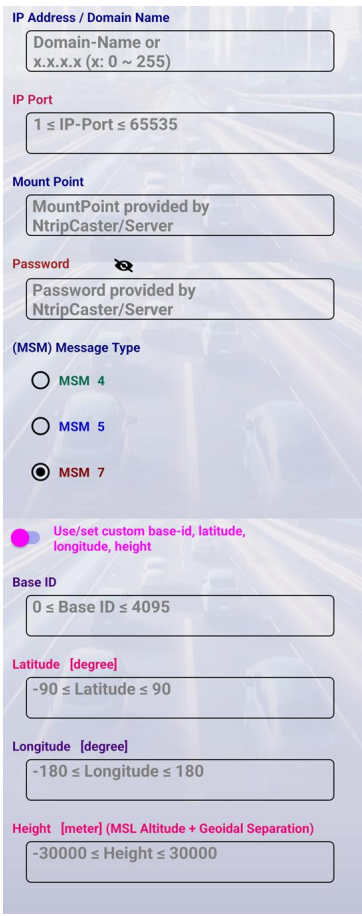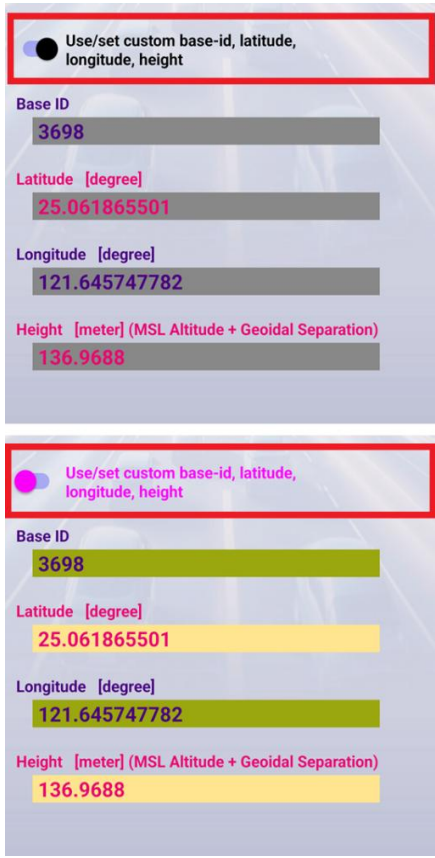

Figure 2-3-1-1   Figure 2-3-1-2   Figure 2-3-2

2.4. After the base station setting is completed, you can go to the main window to open the Bluetooth

connection window, and click on the connected GB-104B to disconnect the Bluetooth connection (Figure

2-4).

2.5. Click the version information icon button (ⓘ)Open the version function window (Figure 2-5).

▷ ： Open the Youtube instructional video (link URL)
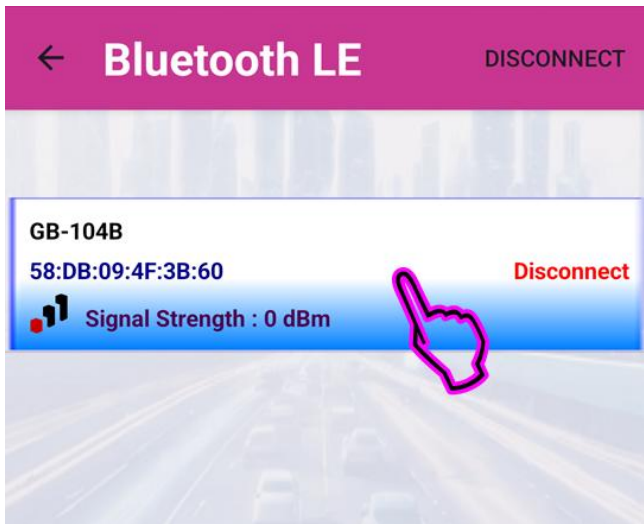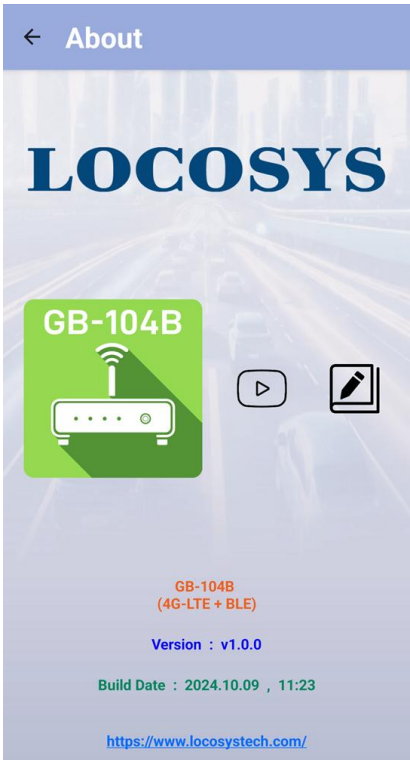
✏ ： Open the user manual (link URL)

Figure 2-4   Figure 2-5

❺ Safety

To ensure safe use of the product, you must strictly abide by the following rules

• This device should be at least 15cm away from any medical implants or regulators, and never carry the
  device in your coat pocket.

• Do not expose this device and other batteries to high temperatures or heat-generating appliances,
  such as sunlight, heaters, microwave ovens, ovens, or water heaters. Batteries can explode if
  overheated.

• This device is equipped with a non-removable battery, please do not replace the battery yourself to
  avoid damage to the battery or device.

• Using unapproved or incompatible power supplies, chargers or batteries may cause fire, explosion or
  other hazards. The company is not responsible for accidents caused by non-standard related charging
  equipment.

• Do not drop, crush, scratch or puncture the battery to avoid excessive external pressure on the
  battery, which may cause internal short circuit and overheating of the battery.

• Do not disassemble or reset the battery, insert it into other objects, or immerse it in water or other
  liquids.

❻ Other things to note

• Gain a comprehensive understanding of equipment maintenance to use equipment more safely and
  efficiently and to extend the life of the equipment as much as possible.

• Please follow the instructions in the manual to open the device and remove accessories, do not try
  other methods.

• Please avoid falling, knocking or shaking the device. Rough handling of the device can cause the screen
  to crack and damage internal circuit boards and delicate structures.

• Do not use chemical solvents or detergents to clean your device. Wipe the case with a soft cotton cloth
  dampened with water or mild soap.

• If you encounter a collision or other abnormal failure during use and cannot use it normally, the
  handling method is as follows: please press the reset button, the device will be forced to restart
  (unlocked during restart), which can solve general problems.

• The standard packaging of this machine (RTK sharing box, Type-C data cable, user manual, Multi-band
  high-precision external measurement antenna, 10-meter antenna adapter cable, 4G-LTE antenna (4G
  version only), WI-FI/Bluetooth antenna).

LOCOSYS Technology Co., Ltd.

Address : No. 79, Section 1, Xintai 5th Road, Xizhi District, New Taipei City 221

Tel : +886-2-86983698

Fax : +886-2-86983699

Website : www.locosystech.com

Technical support : info@locosystech.com

Sales service : info@locosystech.com