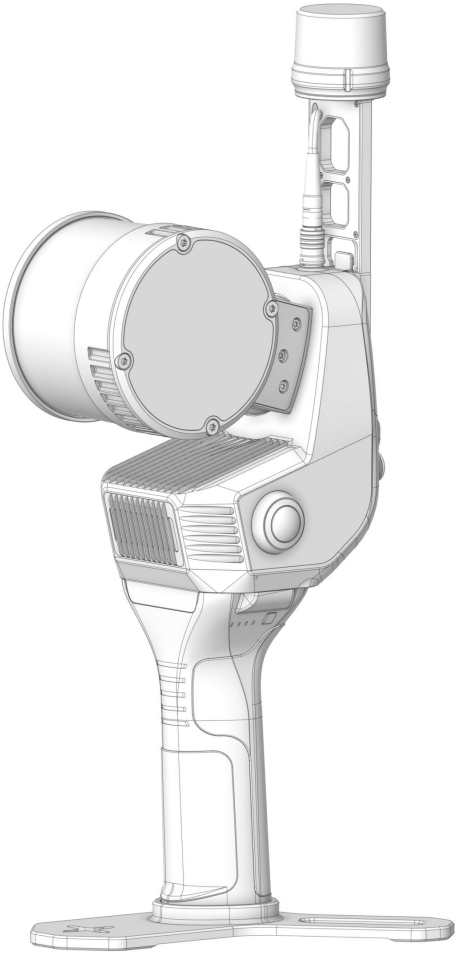
SLAM200E Quick Start Guide

Handheld LiDAR Scanner

202506



Shenzhen Feima Robotics Co., Ltd.

Notice

This document is the Quick Start Guide for SLAM200E. For more detailed information about this device, please refer to the SLAM200E Product Manual.

Tips — Important reminders for special attention.

Notice! — Highlights actions that, if done incorrectly, may result in device damage.

⚠ Warning — Indicates potential risks that may lead to device damage or even personal injury if not handled properly.

⚠ Warning

- Operators must always remain aware of their surroundings during data acquisition to prevent safety incidents caused by distraction.
- The SLAM200E is not explosion-proof. It is strictly prohibited to use the device near gas stations or in hazardous environments where flammable or explosive gases such as methane, natural gas, or gasoline vapors may be present (e.g., mines, tunnels, septic tanks).
- To avoid fire, property damage, or personal injury, always follow the instructions in this manual when using, charging, or storing the battery.

Notice!

- The SLAM200E is a high-precision control device. Dropping or subjecting it to external impact may cause damage and lead to abnormal operation.
- Ensure that no external force obstructs the gimbal's rotation after the SLAM200E is powered on.
- After transferring data by connecting the SLAM200E to a computer, always use “Safely Remove Hardware” before disconnecting the USB cable.
- To power off the SLAM200E, please use the power button. Do not remove the

battery handle or disconnect the power (e.g., USB-PD supply) while the device is powered on.

- Take precautions against dust and sand during use.
- Handle the protruding camera lenses on both sides of the SLAM200E with care to avoid scratches from hard objects.
- The splash-proof, water-resistant, and dustproof features are not permanent and may degrade due to normal wear. Damage caused by liquid immersion is not covered under warranty.
- To prevent liquid immersion damage, avoid the following:

①Placing the SLAM200E in high-pressure or high-velocity water, or deliberately submerging it in water;

② Dropping the SLAM200E or subjecting it to impact;

③ Disassembling the SLAM200E, including removing screws.

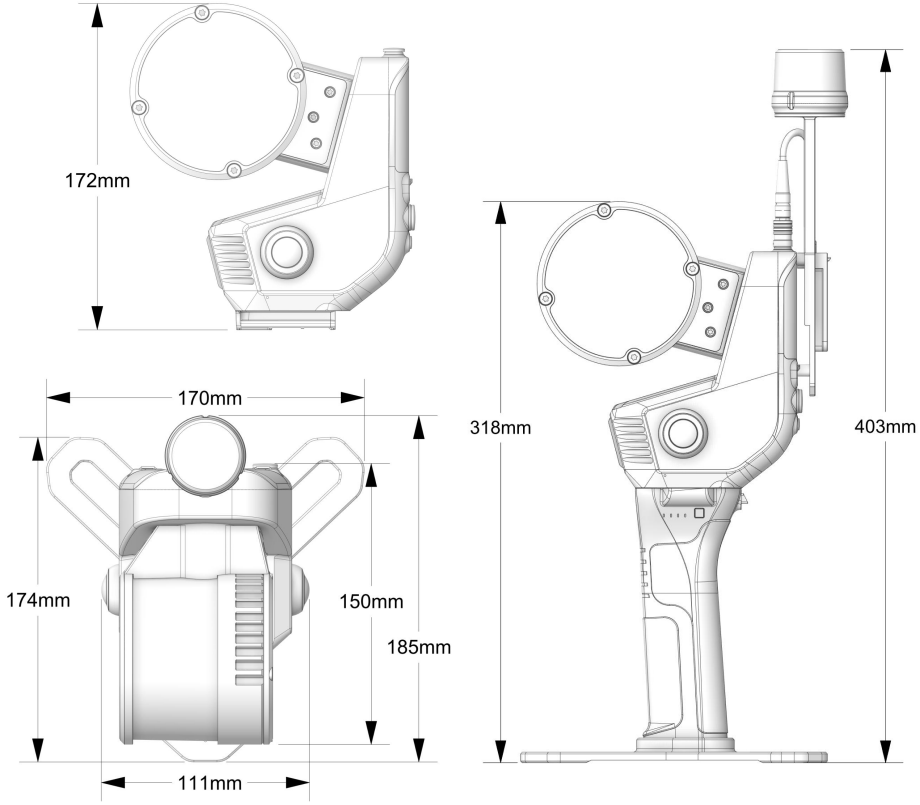
Product Overview

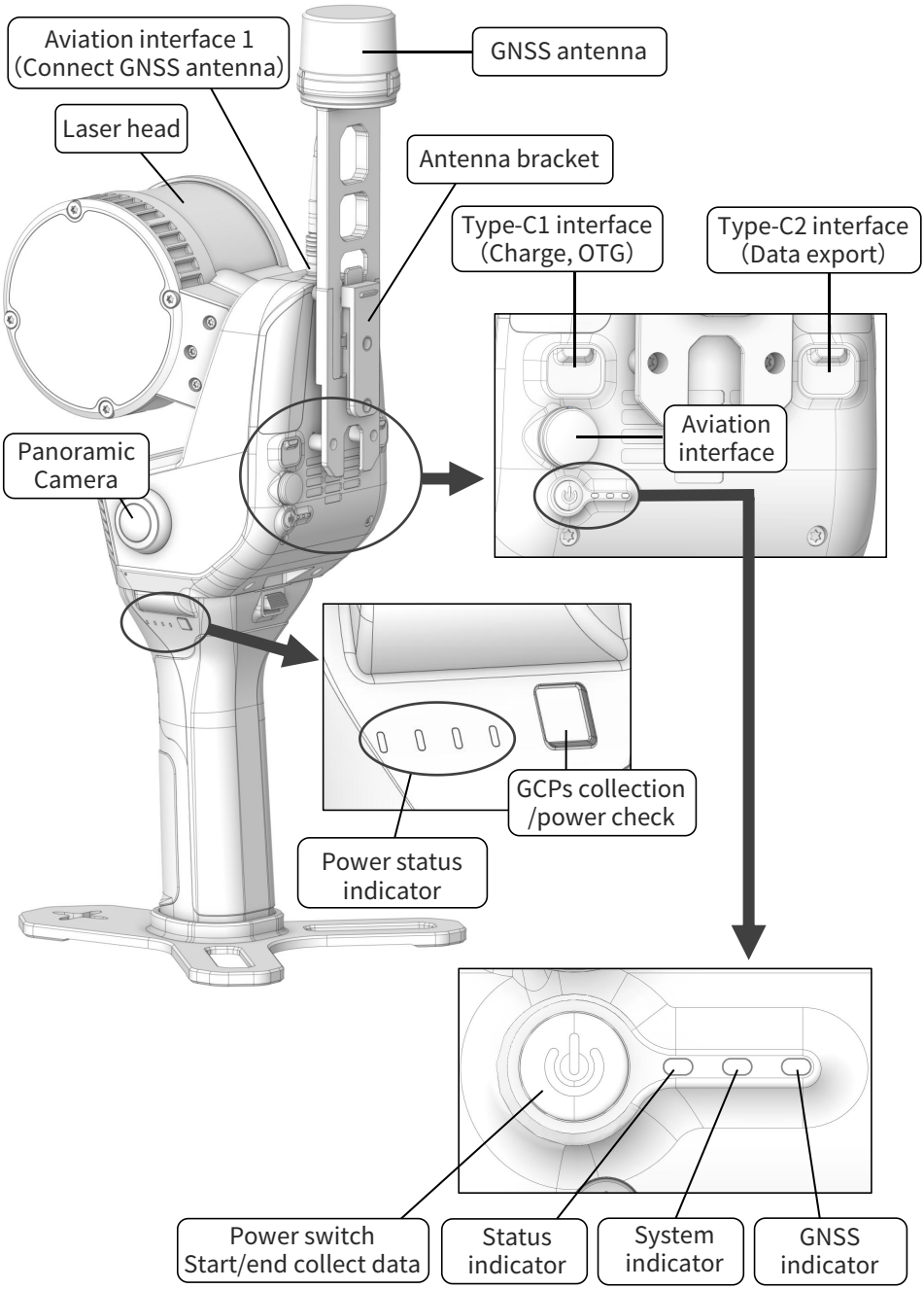
The SLAM200E is the third-generation high-precision handheld 3D LiDAR scanner meticulously developed by Feima Robotics. This advanced scanner integrates a 32-line high-performance LiDAR sensor, two built-in 12MP panoramic cameras, a high-precision GNSS module, and an upgraded processing unit—bringing users a completely new experience in spatial data acquisition.

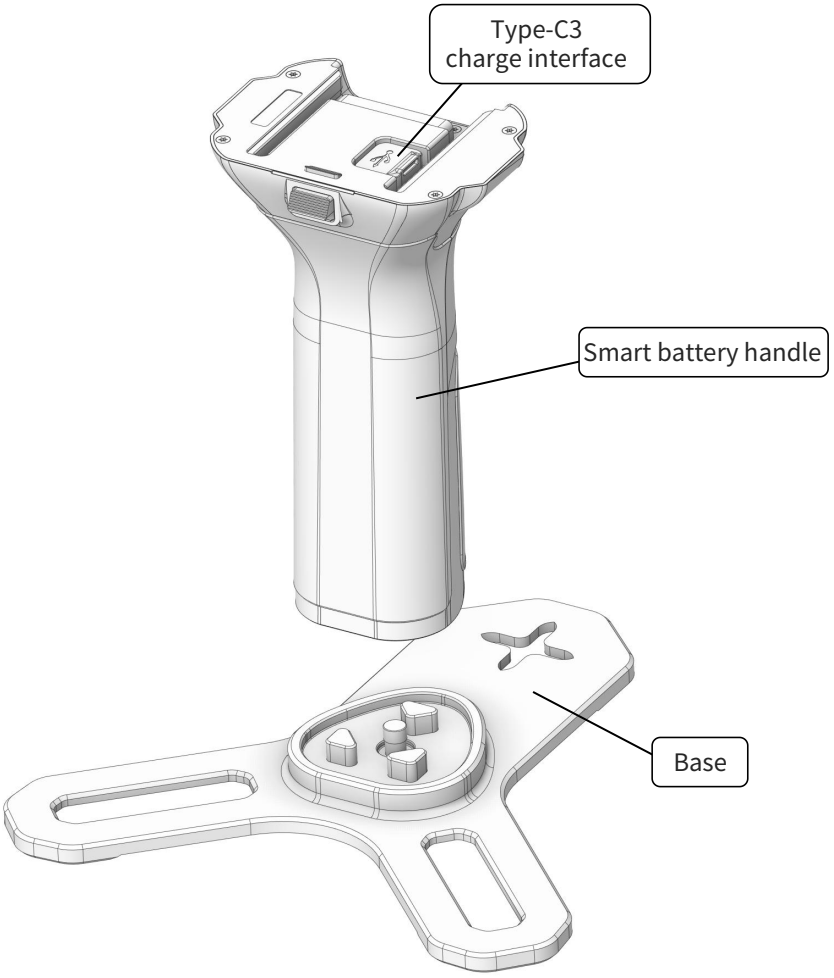
Paired with the SLAM GO App and the SLAM GO POST Pro post-processing software, the SLAM200E features significantly enhanced proprietary SLAM mapping and colorization algorithms. It enables real-time generation of colored point clouds, achieving substantial improvements in mapping accuracy and operational efficiency. Users can effortlessly obtain high-density, ultra-detailed, and richly colored 3D point cloud outputs.

As a next-generation upgrade from its predecessors, the SLAM200E not only inherits the outstanding performance of earlier models but also makes a qualitative leap in accuracy, detail capture, color rendering, and ease of use. With its superior performance and innovative design, the SLAM200E sets a new benchmark in the surveying industry and leads the way in the future of spatial data acquisition technology.

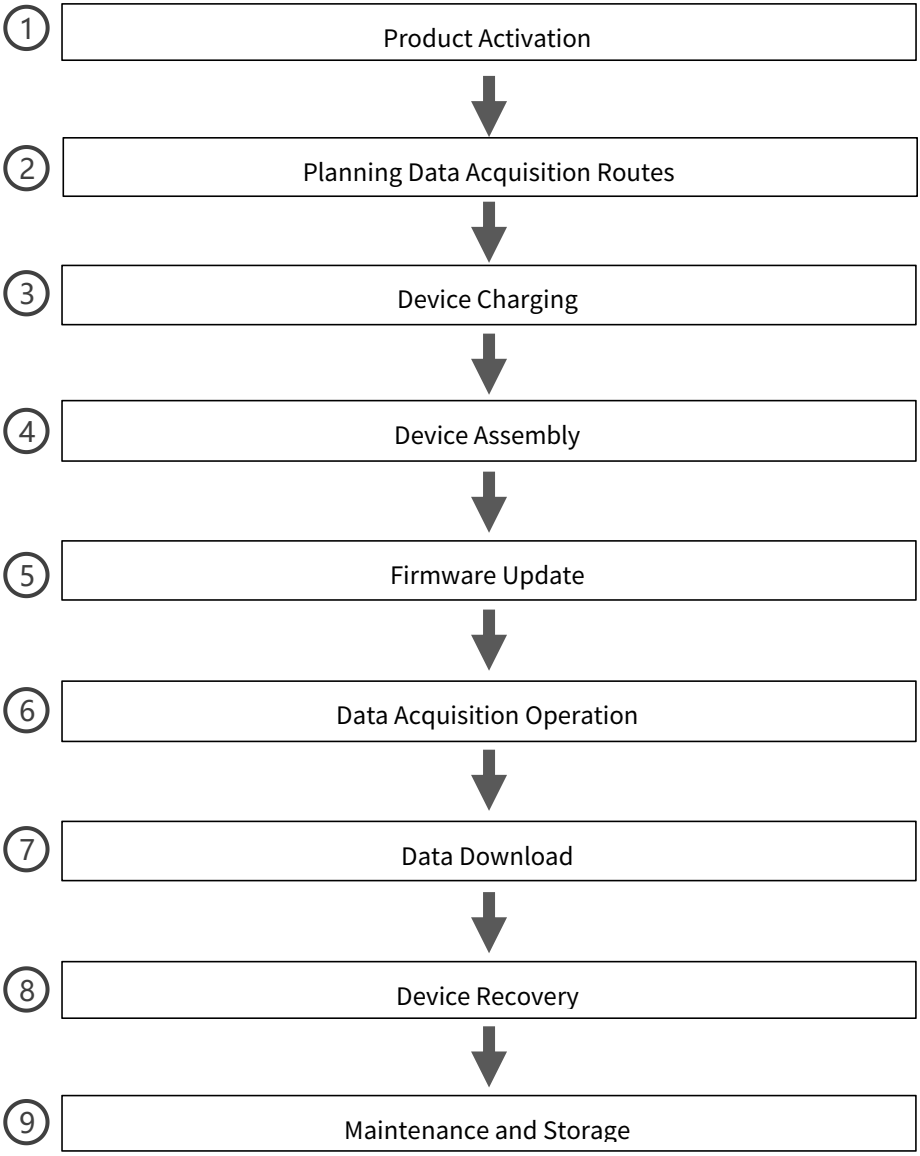
Component Description




Aviation interface 1
(Connect GNSS antenna)
GNSS antenna
Laser head
Antenna bracket
Type-C1 interface
(Charge, OTG)
Type-C2 interface
(Data export)
Aviation
interface
Panoramic
Camera
GCPs collection
/power check
Power status
indicator
Power switch
Start/end collect data
Status
indicator
System
indicator
GNSS
indicator

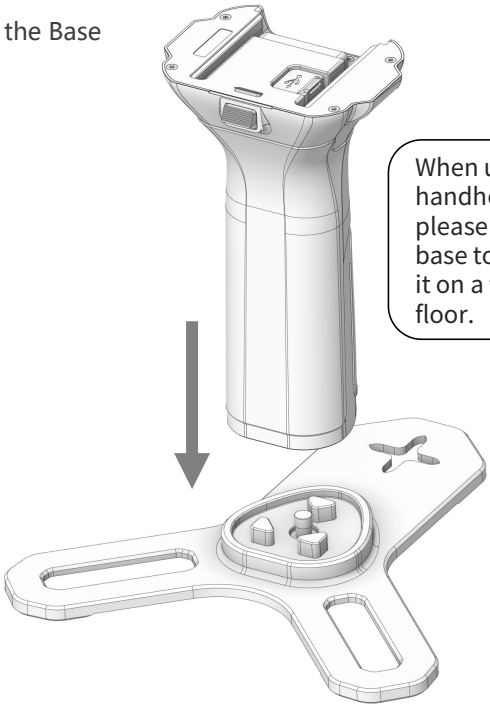

Type-C3
charge interface
Smart battery handle
Base

SLAM200E Operating Procedure



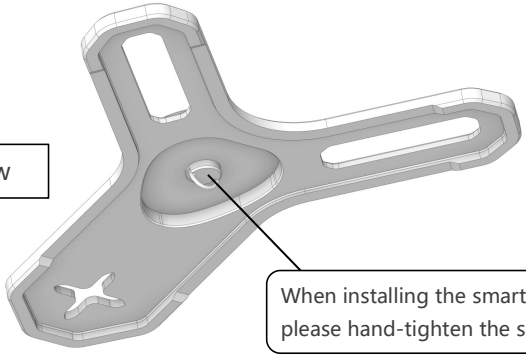
Device Assembly

1 Install the Base



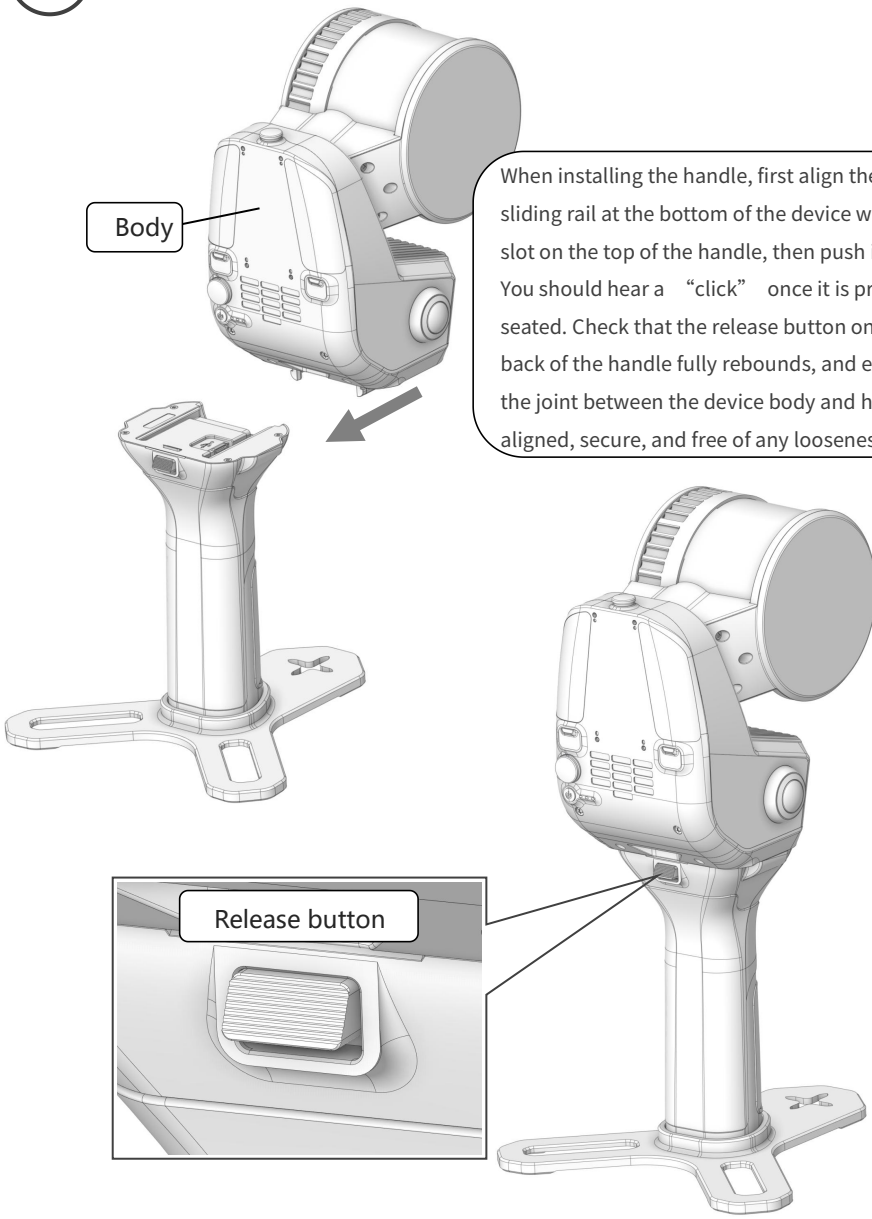
When using the handheld device, please first install the base to securely place it on a table or the floor.

Bottom View



When installing the smart battery handle, please hand-tighten the screws securely.

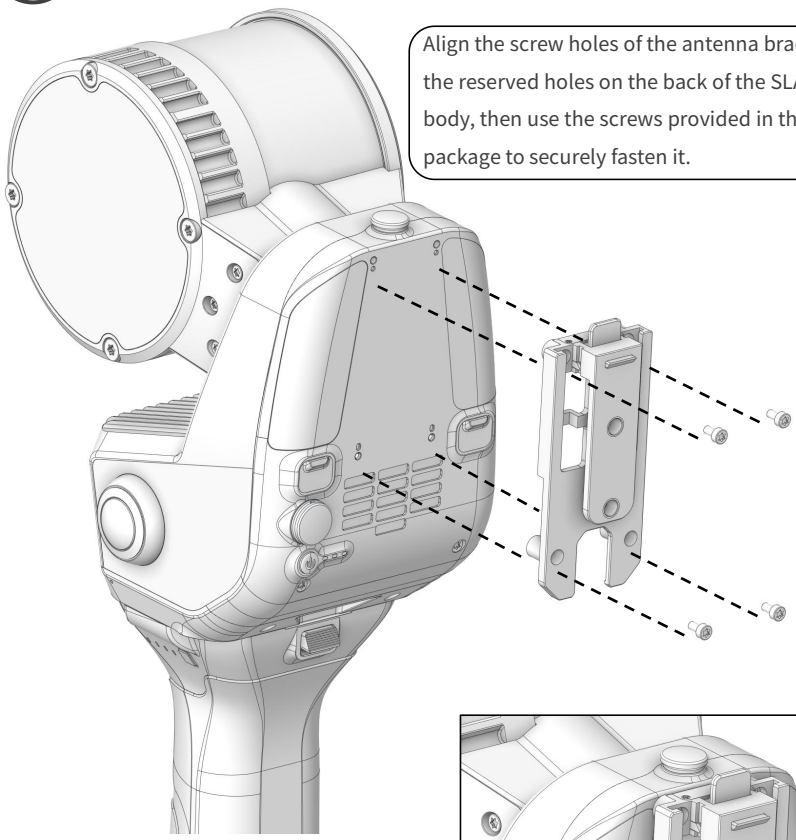
2 Assemble

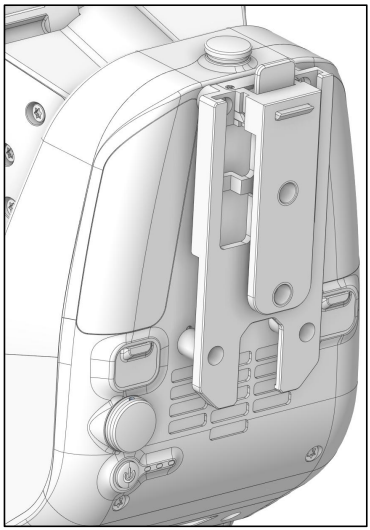


When installing the handle, first align the sliding rail at the bottom of the device with the slot on the top of the handle, then push it in. You should hear a “click” once it is properly seated. Check that the release button on the back of the handle fully rebounds, and ensure the joint between the device body and handle is aligned, secure, and free of any looseness.

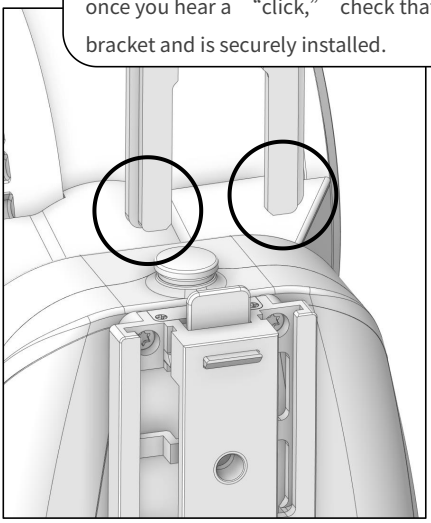
3 GNSS

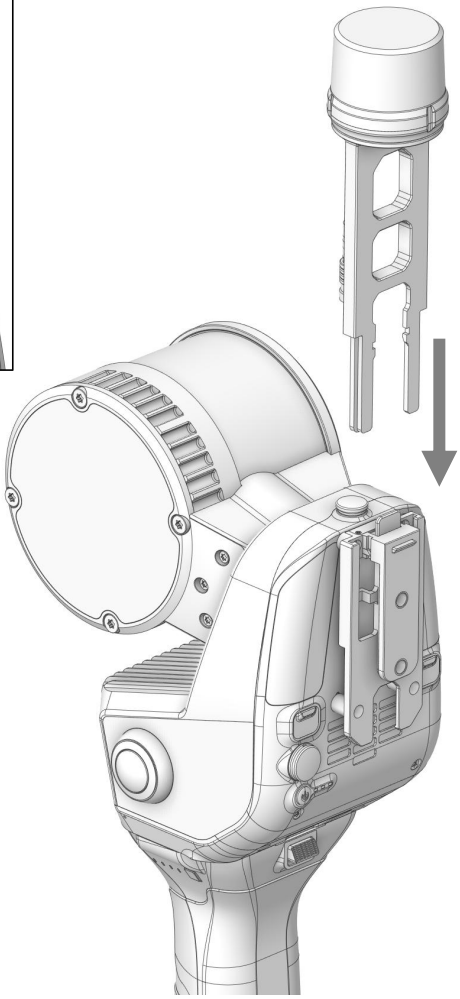
Align the screw holes of the antenna bracket with the reserved holes on the back of the SLAM200E body, then use the screws provided in the package to securely fasten it.





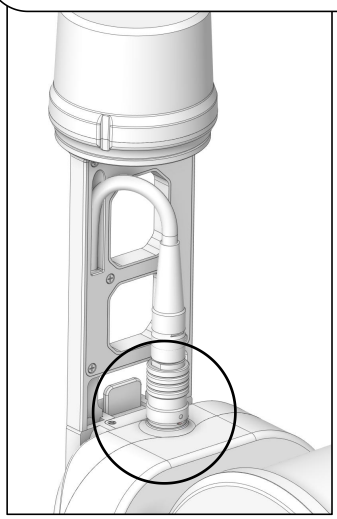
The antenna assembly features an anti-reverse design, preventing incorrect insertion. Before installation, please confirm that the antenna direction matches the bracket slot position. Insert the antenna from top to bottom, and once you hear a “click,” check that the antenna assembly fits tightly with the bracket and is securely installed.

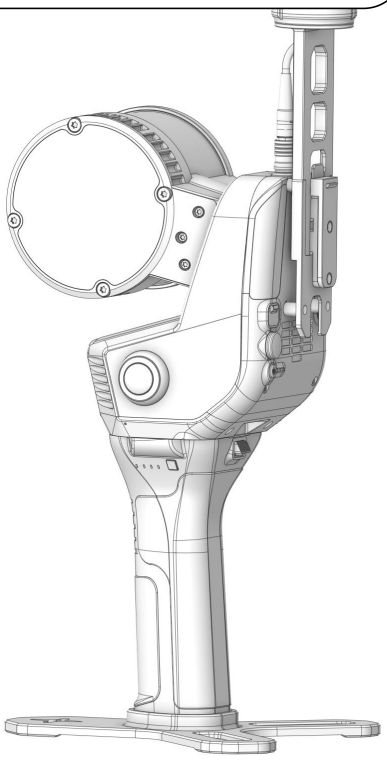


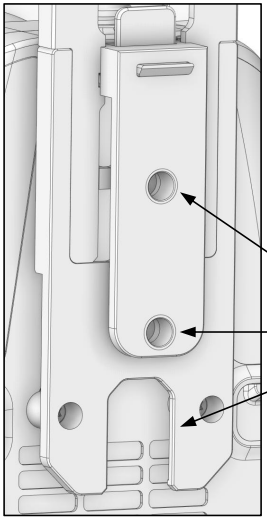


Connect the antenna feeder cable (This component can be omitted if the RTK function is not used.)

Remove the dust cap from the aviation connector port on the top of the SLAM200E body. Note that the aviation connector has an anti-reverse design and a red marking; it cannot be inserted in reverse. When connecting, align the red dot on the aviation cable connector with the red dot on the device’ s aviation connector port before insertion.







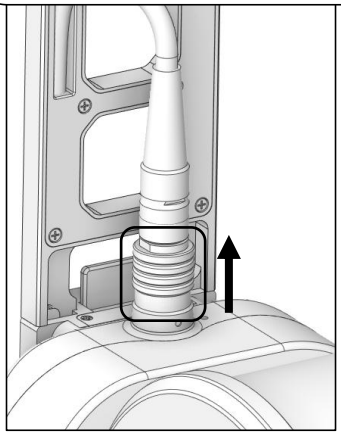
The back of the antenna bracket features two reserved 1/4-inch mounting holes (Imperial UNC threads) and a multi-functional expansion slot, supporting most external smartphone holders.

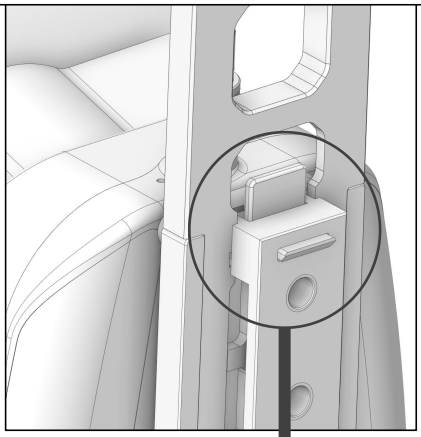
※ Smartphone holders need to be purchased separately by the user.

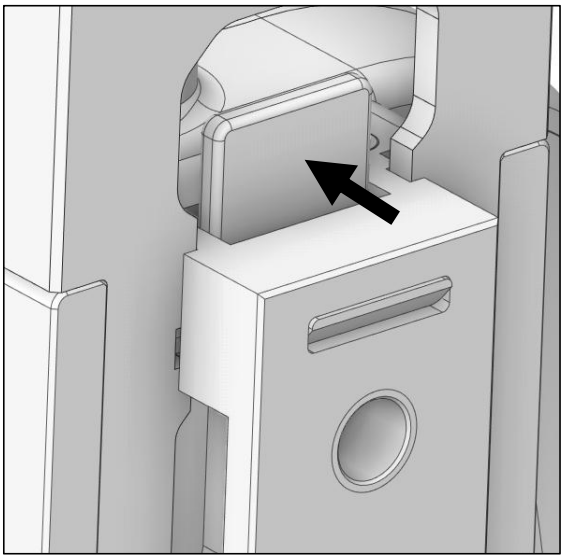
Device Recovery

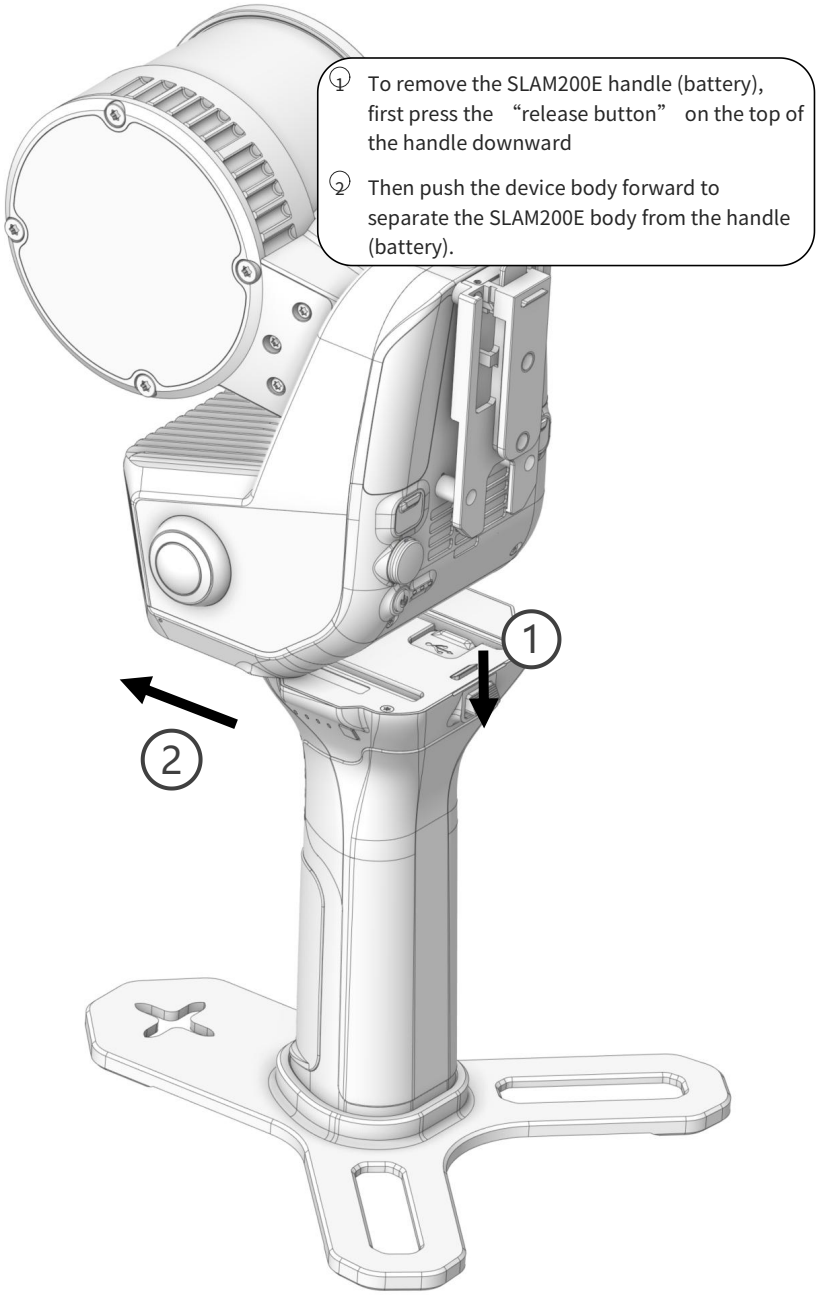
① Before removing the antenna, first disconnect the aviation connector cable from the device. To do this, pinch the metal connector on the aviation cable and pull it upward to detach smoothly. Note that this connector features an anti-pull design—pulling on the cable itself will not successfully remove the connector.

② When removing the antenna, press and hold the “release button” on the antenna bracket, then lift the antenna assembly upward to detach it.

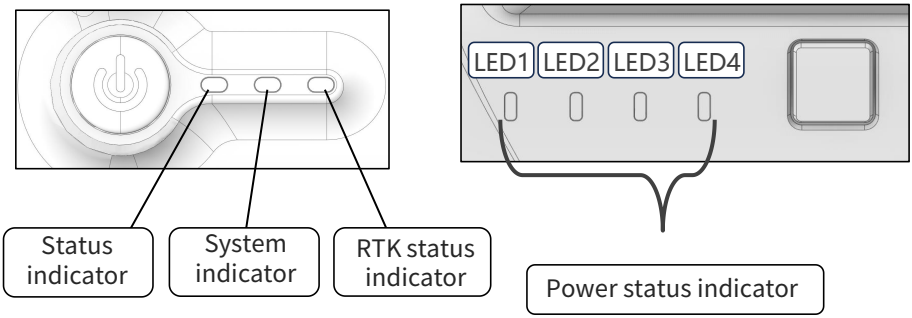







① To remove the SLAM200E handle (battery), first press the “release button” on the top of the handle downward
② Then push the device body forward to separate the SLAM200E body from the handle (battery).
1
2

指示灯说明



LED	Display	Introduction	
Status Indicator	White Light Fast Flashing	MCU Firmware Upgrading	
	Red Light On	Device Initializing and Not Ready	
	Green Light On	Device Ready	
	Green Light Flashing	Data Collecting	
	Green Light Fast Flashing	Stop Collection, Saving Data	
	Blue Light Flashing to End	Power Off	
System Indicator	White Light On	System Firmware Upgrade in Progress	
	Red Light Flashing	System Not Ready	
	Blue Light Always On	System Ready	
RTK Indicator Light	Red Light Fast Flashing	No Internet	
	Red Light Slow Flashing	Internet	No Location
	Red Light On		Single Point Solution
	Blue Light On		Pseudo-distance Solution
	Green Light Slow Flashing		Float Solution
	Green Light On		Fixed Solution

	Status	Prompt Tone
Buzzer	Power on	Beep
	Power Off	Beep
	Low Battery	Beep every 10 seconds
	Ultra-low Battery	Beep every second
	Mark Point Information Collection	Click Information Collection Success
	Start Collection	Beep
	Stop Collection	Beep
	Start Work 1 Minute to Start Mapping	Beep
	Data Storage Complete	Beep

SALM200E Battery LED Indicator Status List					
Status		LED1	LED2	LED3	LED4
Power Indicator	0%~12%	Slow Flash(1Hz)	Out	Out	Out
	13%~24%	Always On	Out	Out	Out
	25%~37%	Always On	Slow Flash(1Hz)	Out	Out
	38%~49%	Always On	Always On	Out	Out
	50%~62%	Always On	Always On	Slow Flash(1Hz)	Out
	63%~74%	Always On	Always On	Always On	Out
	75%~87%	Always On	Always On	Always On	Slow Flash(1Hz)
	88%~100%	Always On	Always On	Always On	Always On

Description:

The LED will light up for 6 seconds when you press the key to check the power level, the first 3 seconds will show the power level, the last 3 seconds will show the power level if the battery is normal, otherwise it will show the protection. For more detailed lamp instructions, please refer to the SLAM200E Product Manual.

Battery Charging

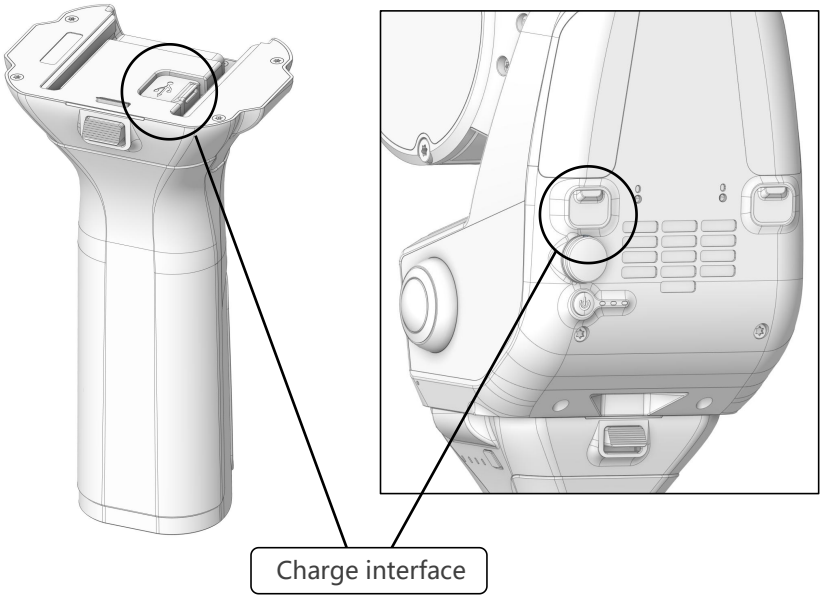
Charge the SLAM200E battery handle, about 2 hours to full (0% to 100%)

Input: AC 100 V to 240V to 50/60 Hz

Output: Support PD3.0 Protocol 20V 3A

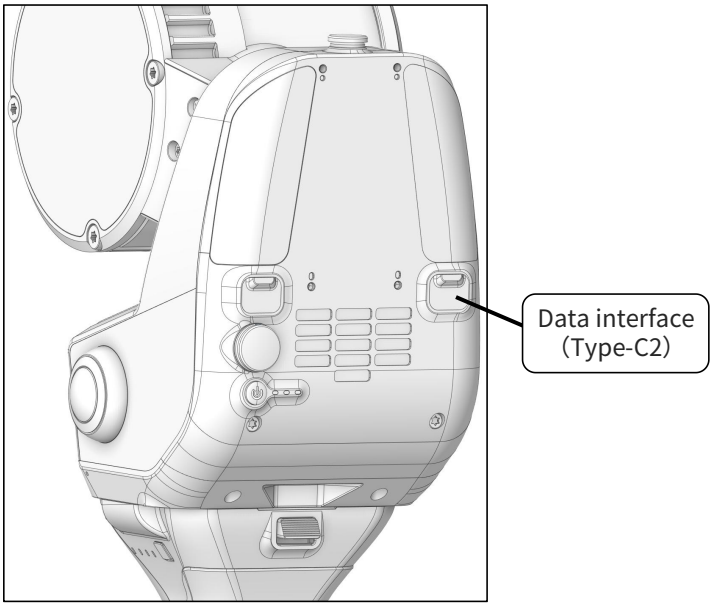
Method 1: Connect the charger to the Type-C2 port of the SLAM200E smart battery handle for charging.

Method 2: When the smart battery handle is installed on the SLAM200E body, connect the charger to the Type-C1 port on the body for charging.



Data Storage

- The SLAM200E uses an internal SSD with a capacity of 512GB, and data can be transferred via a data cable connected to a PC.
- The SLAM200E SSD interface (Type-C2) supports data reading in both powered-on and powered-off states.
- It is recommended to keep at least 5% of the SSD disk space free to avoid slow read/write speeds and insufficient capacity due to excessive data.
- When deleting data, it is recommended to use formatting (quick format is acceptable) to optimize the SSD disk's storage speed.



Device Activation

The scanner must be registered with a Feima account and activated before use. For specific software download addresses and the registration and activation process, please refer to the "SLAM GO" section in the SLAM200E Product Manual.

Data Collection

Device Power-On

Press and hold the scan button for 3 seconds to power on the device. After powering on, the device will perform a self-test. Please wait…

- The system indicator light will show a **steady blue light.**
- The status indicator light will show a **steady green light.**
- Laser head stops rotating.

At this point, the device has successfully started and is in standby mode.

Notice!

- When powering on the device, hold the scanner steadily and keep the laser head upright.
- Do not manually rotate the laser after the device self-check is complete.
- Place the scanner on a safe, stable table or a flat surface if needed.

Start Data Collection

Before starting data collection, the scanner needs to perform a calibration. The placement requirements are: the distance from the object being measured should be greater than 0.4 meters, but not too far. The calibration phase must last at least 60 seconds before motion-based data collection begins. During calibration, do not hold the scanner in your hand;

it must be placed steadily on a safe surface like the floor or a table.

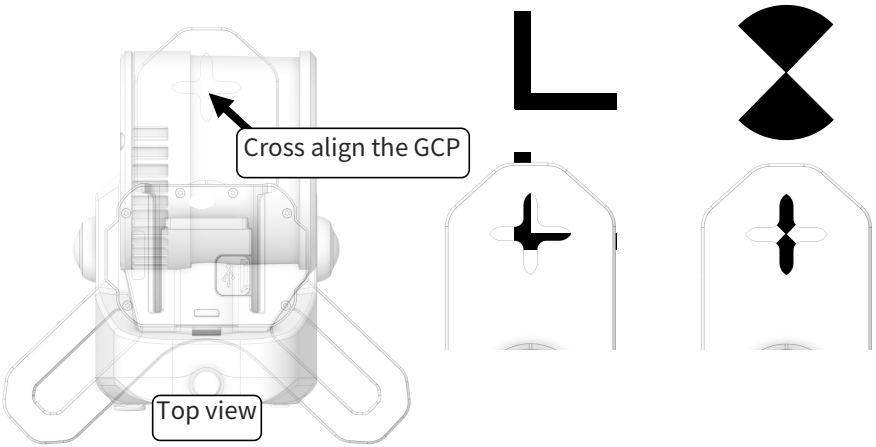
Press the scan button briefly, and the status indicator light will start flashing green rapidly. At this time, the device is performing calibration, which takes 60 seconds (the mobile app will show a countdown). After 60 seconds, the status indicator light will switch to flashing green slowly, and data collection will begin. If the scanner is placed at a slight angle but remains stationary, it still meets the calibration requirement.

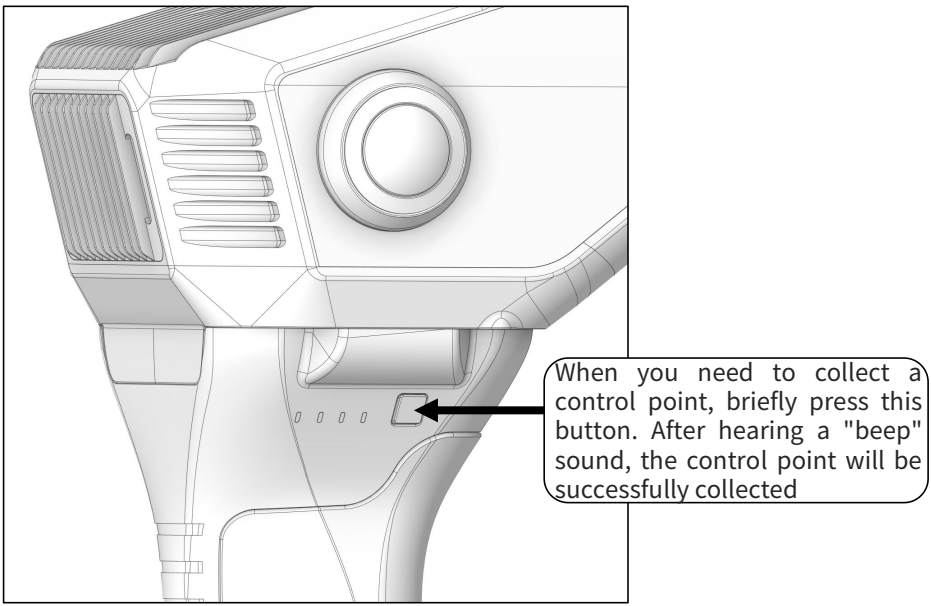
Tips:

- During data collection, keep the scanner in front of your body and aligned with your walking direction. Please keep the device upright.
- After powering on and during data collection, the device may heat up, and the sound of the cooling fan may be heard. This is a normal phenomenon.

Control Point Collection

When collecting control points(GCPs), first align the cross center on the device base with the control point. Then, briefly press the control point collection button. After hearing a “beep” sound, the control point will be successfully collected. There is no need to wait during control point collection; once the current GCP information is collected, you can continue with the subsequent data collection.





Stop Data Collection

Press the scanner power button briefly to end data collection; the status indicator will return to the standby state with a steady green light.

If you need to obtain the device’s “real-time mapping” results, wait for the device to complete the “real-time mapping” process before powering off or starting the next collection. The wait time is approximately 1/10 of the collection duration.

For example, if the collection time was 10 minutes, wait for 1 minute after stopping the collection.

Power Off the Device

Press and hold the scan button to power off the device. Wait until both the system indicator and status indicator lights are completely off, at which point the device will be powered off.

Notice!

- Please do not remove the smart battery handle before both the system and status indicator lights are completely off.

Data Check

After data collection is completed, you can turn off the scanner and connect the SLAM200E to a PC using a data cable. Locate the folder named “SN_XXXXX” and copy it to a backup directory. After each data collection session, the system will automatically generate this folder. The numerical suffix at the end of the folder name helps identify the order in which the data was collected.

Problem Analysis

If there are issues with the collected data, please compress the folder named “LOG” in the scanner’s storage card and submit it to the Feima after-sales department for analysis.

For more detailed product information, please visit the following website:

http://knowledge.cheesi.cn/

If you have any questions or suggestions regarding the manual, please feel free to contact us via email at:

aftersales@feimarobotics.com.