# Product User Manual
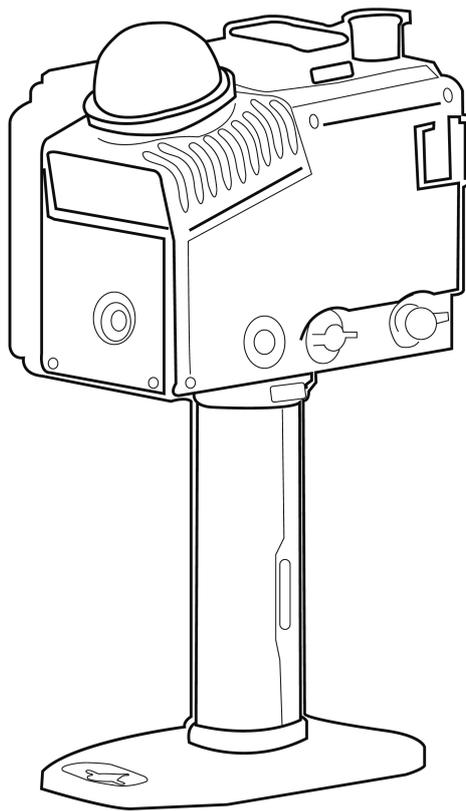
M40&M40 RTK

GOSLAM®

The pictures in this manual are for reference only. Please refer to the actual product in the package. Before using the product, please read this manual carefully and keep it properly.

# CONTENT

## Reading Tips

### Symbol Description

| | |
|---|---|
| ⚠ | Important notes |
| 📖 | Operation and using tips |
| 💡 | Vocabulary explanation and reference information |

## Install GoSLAM LidarWorks

◆ To view the point cloud data,you need to install the official provision of designated GoSLAM LidarWorks.

◆ GoSLAM LidarWorks requires Windows 7 or Windows 10 or Windows 11 system.

## Install GoSLAM Manager APP

◆ To collect the data,you need to install the official GoSLAM Manager APP on your Android phone.

◆ Connect the device via WIFI to observe the data-collection status in real time.

# Precautions For Use

## Working Environment

| ⚠️ **Dangerous** | To avoid the risk of fire/electric shock and ensure long-term stable operation of the product.Please store the product in dry and cool place,avoid direct sunlight and storage in high temperature and humidity environments. |
|---|---|
| ⚠️ **Warning** | As the laser head and sensor are sensitive devices,dry the device after operation under rainy or humid environment to avoid electronic components and laser head get mildewed. |

## Equipment Cleaning And Maintenance

◆ In order to ensure the quality of point cloud acquisition,please keep the laser head clean and use the laser head with extra care.

◆ Use the device at normal ambient temperature and avoid exposing it to extreme temperatures.Otherwise,it is likely to shorten battery life or cause unpredictable risks.

◆ The internal wiring connection is complicated,please do not disassemble and re-assemble the scanner system without authorization,so as to avoid problems such as failure and short circuit,which will affect the use.

◆ Please avoid rough use,disassembly,modification,physical impact on this product,or to avoid impact on this product due to pounding, falling, or trampling.

◆ Keep the device out of the reach of children.

# Product Introduction

## Product Overview

The operation of M40&M40 RTK is based on the principle of laser SLAM.It relies on its own posture data and laser point cloud to restore three-dimensional data through algorithm.It can present complete and accurate data without the need using external positioning devices such as GPS, and the operation is very simple.

## Features

1. High precision

2. Real-time display of point cloud

3. Indoor and outdoor scanning

4. Performance gurantee in large-scale scenario

5. Real-time processing

6.All-in-one design

7.Dual-platform processing

## Working Principle

1. The M40&M40 RTK products consist of multi-lines LiDAR and Inertial Measurement Unit (IMU).

2. Using SLAM algorithm, M40&M40 RTK products integrate data from LiDAR and IMU to generate accurate 3D point clouds without relying on GNSS receivers.

# Technical Specifications

| M40 Parameter | |
| --- | --- |
| Laser Class | Class I(Eye-Safe) |
| Visual Slam | 5 Million Pixels (Front) |
| Point Cloud Colorizing | Internal Front Camera, Color Module（Optional） |
| Scanning Range | 40m(10% Reflectivity) 70m(80% Reflectivity) |
| FOV | 360°X59° |
| Scanning Speed | 200,000 Points/Second |
| Internal Hard Disk | 500G Hard Disk |
| External Third-Party RTK | Support |
| Processing Method | Real Time, Device End Desktop End |
| Scan Positioning | SLAM, Fusion Of Multi-Sensors |
| Accuracy | 1cm(Highest) |
| Resolution | 2mm(Highest) |
| Working Time | 2.5h（Without panoramic color module） |
| Working Temperature | -35℃～55℃ |
| IP Level | 66 |
| Material | Aviation Grade Aluminum |
| Weight | 840g (Excluding Battery) |
| Size | 146×103×269mm |

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| Scanning Range | 40m(10% Reflectivity) 70m(80% Reflectivity) |
| FOV | 360°X59° |
| Scanning Speed | 200,000 Points/Second |
| Satellite System | 1408 channel Beidou BDS, GPS, GLONASS, Galileo, and single Beidou (optional) |
| Built In RTK (RMS) | H: 8mm+1 ppm V:15mm+1 ppm |
| Internal Hard Disk | 500G Hard Disk |
| External Third-Party RTK | Support |
| Processing Method | Real Time, Device End Desktop End |
| Scan Positioning | SLAM, Fusion Of Multi-Sensors |
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| Size | 146×103×269mm |

| Battery Specifications | |
|---|---|
| Rated voltage | 10. 8V |
| capacity | 3300mAh |

| Specification of battery charging dock | |
|---|---|
| Charging voltage | 12. 6V 2A |
| Input power | DC 15. 0V～ 24. 0V/47. 5W |
| Battery slot | 0ne |
| Charging voltage | 12. 6V 2A |

| Host Power Adapter Specifications | |
|---|---|
| input | 100−240VAC, 50/60Hz, 1. 5−0. 8A |
| output | 15V⎓4. 34A, 65. 1W MAX |

## Safety Instructions

| | Tips | Please read and follow the instructions carefully before using the product and refer to any relevant national and international safety regulations in the meantime. |
|---|---|---|
| | Warning | To reduce the risk of electric shock and avoid violating warranty regulations, do not disassemble or modify the radar without permission.This product does not include user-repairable parts,please consult the maintenance personnel of GoSLAM about the warranty and maintenance matters. |

## Attention

Use of controls, adjustment methods  or working pro-cedures other than those specified in this product may result in harmful radiation leakage
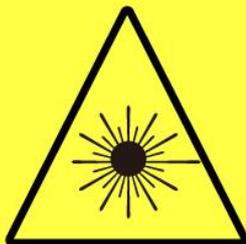
## CLASS 1 laser products

The laser safety level of this product meets the following standards:
• IEC 60825-1:14
• 21 CFR 1040.10 and 1040.11 standards, with the excep tion of deviations as described in Laser Notice No.56 dated 8 May 2019 (IEC 60825-1 Third edition)

## Equipment Safety Instructions

### ◆ Laser safety class

The laser safety class of this product meets the following standards:
IEC 60825-1:2014
21 CFR 1040.10 and 1040.11 standards,in any case,other than the deviation matters (IEC 60825-1 third edition) as described in Laser Notice No.56 issued on 8th May 2019,do not look directly at the laser in transit via amplifying devices such as a microscope or head mounted magnifying glass or any kind of magnifiers.

### ◆ Safety warning

In any case, if you suspect that the Product is faulty or damaged, please stop using the product immediately to prevent injuries to the user or further damage to the product.Please contact GoSLAM or its authorized agencies to deal with the damaged product.

### ◆ Operation

This product is made of metal, glass and plastic, and contains sensitive electronic components.Improper operations such as falling,burning, puncturing,or squeezing may cause damage to product.Once the product drops,please stop using it immediately and contact GoSLAM for technical support.

### ◆ The appearance

The product contains high-speed rotating components.Do not operate the scanner without fastening it.Do not use products with damaged appearance to avoid injury.
To avoid performance degradation,do not touch the light cover with your hands. If the hood is stained,clean it as described in the "Equipment Storage" section of the manual.

### ◆ Eye Protection class

Although the product is designed to meet Class 1 eye safety standards,do not look directly at the laser in transit via amplifying devices,such as a microscope head mounted magnmifier or any kind of magnifiers.Besides,to maximize self-protection,users should still avoid looking directly at the product in running.

### ◆ Maintenance

Do not open or repair the product yourself without official guidance. Dismantling the product may result in product damage,waterproof performance failure or personal injury.

## ◆ Power supply

Please use the batteries provided by GoSLAM to supply power.Otherwise,if cables or adapters that do not meet the power supply requirements or have been damaged,or if power is supplied in a humid environment,fire,electric shock,personal injury,product damage or other property losses may occur.

## ◆ Vibration

Strong vibration should be avoided to cause any damage to device.If you need the mechanical shock and vibration performance parameters of the product, please contact GoSLAM for technical support.

## ◆ Radio frequency interference

Although the product is being designed,tested and manufactured under the relevant regulations of RF energy radiation,radiation from the product may still cause malfunction to other electronic equipment.

## ◆ Interference of medical equipment

Some components and radio devices contained in the product can emit electromagnetic fields which may interfere with medical devices,such as cochlear implants,pacemakers,and defibrillators.Please consult your physician and medical device manufacturer for specific information about your medical device,such as keeping a safe distance from the product.If you suspect the product is interfering with your medical device,stop using it immediately.

## ◆ Deflagrability and other air environments

Do not use the product in any area where there is a potentially explosive atmosphere,such as the air containing high concentrations of flammable chemicals,vapors,or particulates (such as particles,dust,or metal powder).Do not expose the product to high concentrations of industrial chemicals,including liquefied gases such as helium to avoid damaging or weakening the product's functionality.Please follow all tips and instructions.

## ◆ Light interference

Certain precise optical instruments might be interfered by laser light emitted from the product.Please be careful when using it.

## Battery-Powered Safety Instructions

1. Do not submerge the battery in water.Store the battery in a cool and dry environment when not in use.

2. Please isolate the heat source when using and storing the battery.

3. Do not connect the positive and negative poles of the battery with metal objects to avoid short circuits.

4. Do not hit, drop,or step on the battery.

5. Do not solder the battery or puncture the battery with a sharp object.

## Handheld End Security Instructions

1. The top of the handheld device handle is equipped with a quick-release lock buckle, which can be pressed to remove the handheld handle and connect to other device ports.

2. The handheld device is equipped with a handheld handle through a quick disconnect connector at the bottom of the device.

3. The target holder of the handheld device is installed at the bottom of the handle and connected through the slot at the bottom of the handle.

4. Do not press the quick-release lock on the top of the handle when using the device to prevent the handheld device from falling off.

# Packing List
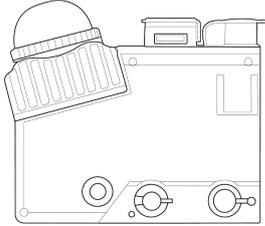
Scanner Host
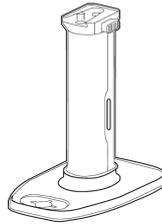
Handle
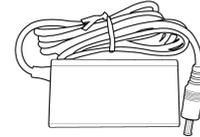
Host Power Adapter
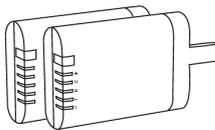
Batteries
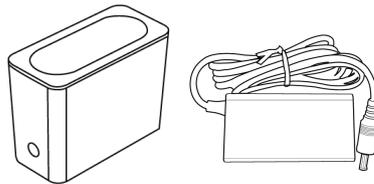
Battery charger and power adapter
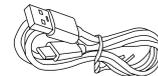
Type-C cable
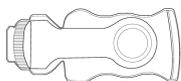
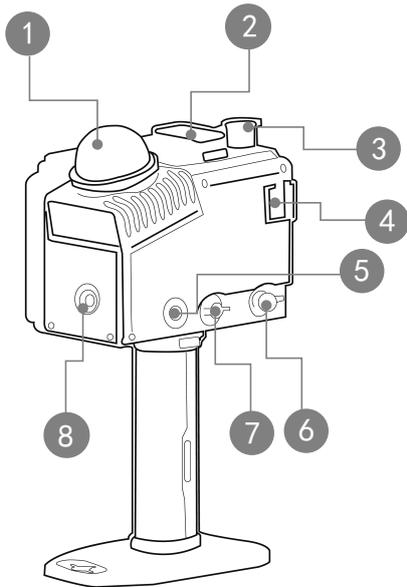Phone Holder

Software Dongle
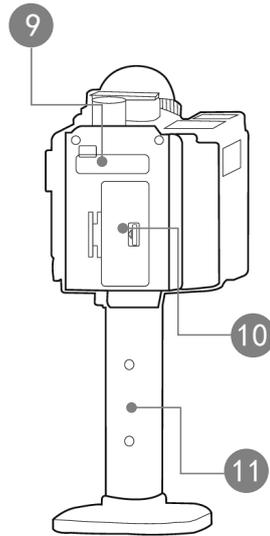(Mapping Master)
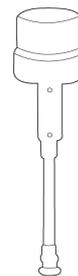
RTK antenna (RTK version)

*Note

Before use, please check whether the package is in good condition and whether the accessories are missing.
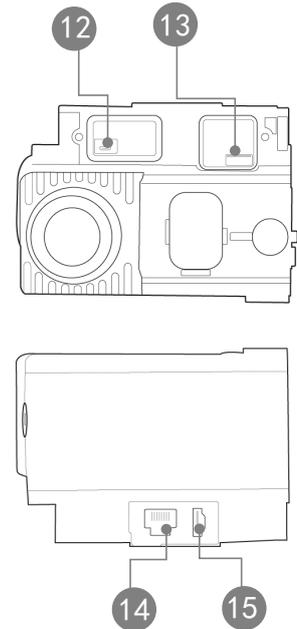
# Structural Description

·Left side parts          ·Rear parts          ·Top and bottom parts

| 1 | Laser Sensor | 2 | Color Module Base | 3 | RTK Antenna Socket | 4 | Mobile Phone Holder Socket |
|---|---|---|---|---|---|---|---|
| 5 | Power Button | 6 | GCM Socket | 7 | DC Socket | 8 | Visual Compensation Lens |
| 9 | SIM Card Socket (RTK version) | 10 | Battery Compartment | 11 | Handle | 12 | USB Socket |
| 13 | TF Card Socket | 14 | Network Interface | 15 | HDMI Socket | | |

# Installation And Connection

## Battery Installation Method
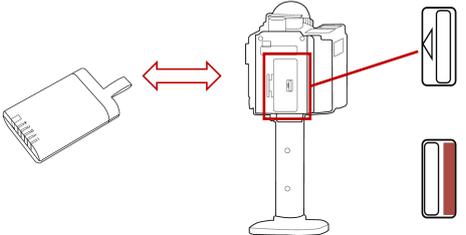
The battery compartment must be tightly covered

The battery compartment is not tightly covered

Install the battery and close the battery compartment cover tightly.
Red Part indicates that the battery compartment is not tightly covered.
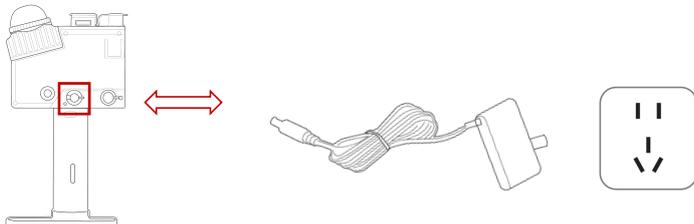
## Device Installation Method
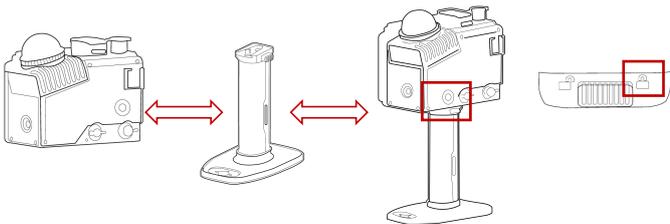
Install the handheld handle through the quick disassembly connectors at the bottom. Lock the handheld end tightly by device identification.

## Battery Charger Connection Method
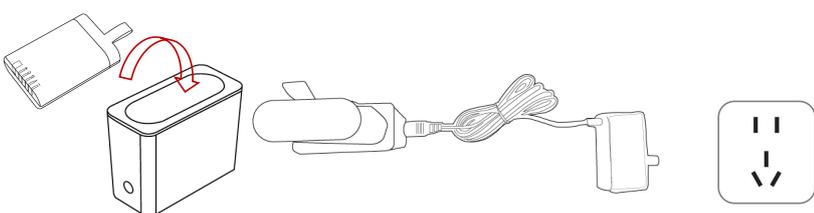
Insert the battery into the battery charging dock and use the battery charger to charge it.

## Power Adapter Installation Method

The scanner can be charged using a power adapter or other external power supply device that meets the requirements.

## Control The Light Settings

The power indicator can be used to display the status during the operation process as indicated below.

🟡    Indicates that the power indicator is solid during the process

☀️    Indicates that the power indicator is flashing during the process

⚪    Indicates that the power indicator is off

| Light | Light feedback mode | State |
|---|---|---|
| ☀️ ☀️ 🟡 ... | Double flashes at 1 second intervals | Waiting for connection, initializing |
| ☀️ ☀️ 🟡 ... | Double flash at 1 second interval | Shut down and wait |
| 🟡 ...... | Long light | Device ready |
| 🟡 ⚪ 🟡 ⚪ ... | Flashes alternately at 1 second intervals | Scan status |
| ☀️ ☀️ ☀️ ☀️ ... | The flash mob lasts for 3 seconds at 0.2 second intervals | control point record |
| ☀️ ☀️ 🟡 ... | Double flashes at 1 second intervals | Data is being saved |
| ☀️ ☀️ ⚪ ... | 2 second interval flashes | Low battery |

| Vibration feedback mode | Key mode | Function |
|---|---|---|
| Single shock | Press and hold for 3 seconds | Turn the machine on and off |
| Single shock | Double-click (within 1 second interval) | Start scanning |
| Two shocks | Double tap (within 1 second interval) | End the scan |
| Single shock | Press and hold for 3 seconds (in scanning state) | Record control points |
| Single shock | / | After the record control point is successful |

## Battery Charging Instructions

Charge using the battery charging dock
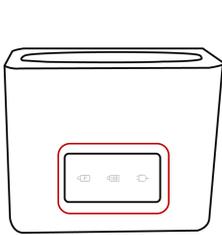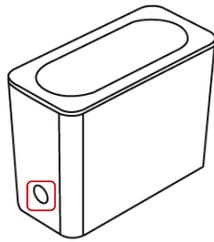


01 Indicator light

02 Power port

⚠

・The battery charger is only suitable for charging this battery. Do not use this charger to charge batteries of other models.

・When in use, place the battery charger on a stable surface and pay attention to insulation and fire safety.

The battery indicator light display as the following during charging.

| Light | Light feedback mode | Status |
|-------|---------------------|--------|
|  | Left light always on | Charging normally |
|  | The middle light is always on | Fully Charged |
|  | Right light is on | Power Indicator |

## Operation Process

# 01 / Equipment installation and startup process

① The handheld handle can be installed through the quick release connector at the bottom. After installing the handle, install the battery and tightly cover the back cover of the battery compartment.

② The handheld end is equipped with a power button ⏻ ,Press and hold the power button for three seconds to turn on the device.

③ After connecting the device via WIFI,open the GoSLAM Manager app on the mobile device. Open the official website's service and support page to download

https://www.goslam.com/support。

## Connection Method

### WIFI Name

goslam+S/N number of the device
（For example, goslam_7262995）

### WIFI Password

goslam123

# 02 / Equipment scanning and control point collection

## Device scanning

After waiting for the device to be ready, place the device on the ground or platform to ensure that the laser is not severely obstructed. Enter the mobile APP and click start scanning. Wait for the page prompt to start scanning and then pick up the device for mobile scanning. If installing a color module, please wait until the color module beeps and the blue light at the bottom turns red and flashes slowly before picking up the device for mobile scanning.
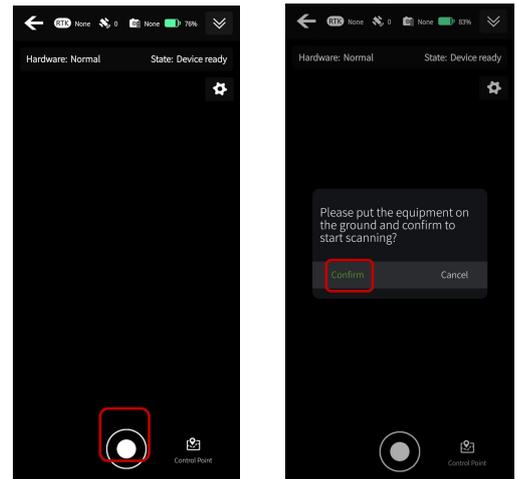


## Control point   collection

① If control points need to be recorded during the scanning process, align the cross mark at the bottom of the handheld handle with the control points.
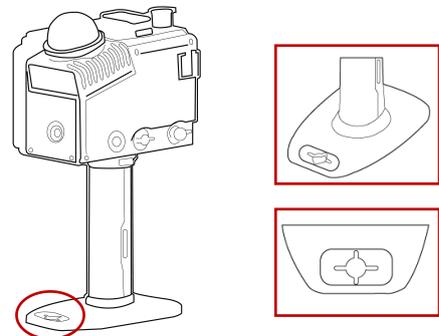


② After placing the equipment successfully, click the control point recording button to start recording the control point. Wait for the APP interface to display the successful addition of the control point, which means the control point recording is successful.
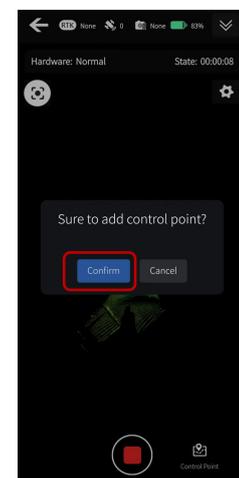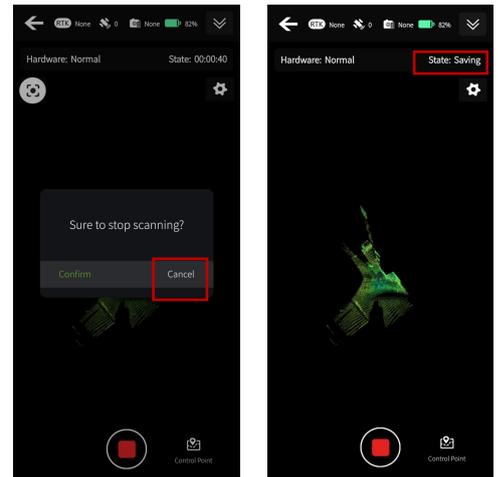
# 03 / File saving

**File saving**

① After the device scan is completed,click the stop button on the APP interface,and a pop-up window will appear confirming the end of the scan.Select OK to stop the scan.
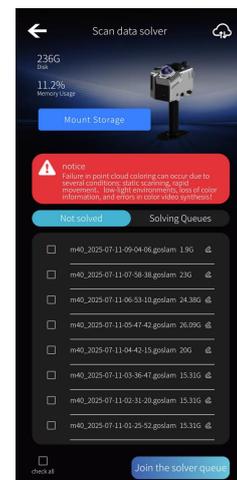
② After the device finishes scanning,the APP interface displays that the file is automatically saved.



# 04 / Data processing

**Local processing**

① Select Data Process on the main interface of the APP, enter the Data Processing menu, and select Scan Data Solver.

② Select the required data on the left and click【Join The Solver Queue】, the solution queue on the right will display the solution progress, and it will be automatically saved when it is 100%. In the data browsing menu, you can view the data that has already been processed in the result point cloud list.
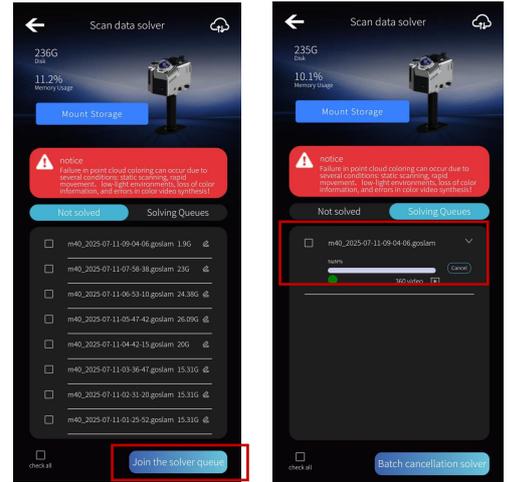


③ Plug one end of Type-C into the top socket of the device and one end into the computer port, and the folder will automatically pop up on the desktop. (Illustrations are for reference only)
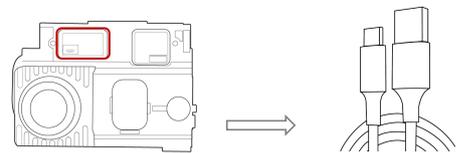


④ Open the Downloads folder, where the bag folder is used to store raw data and the GOSLAM folder is dedicated to storing point cloud data.
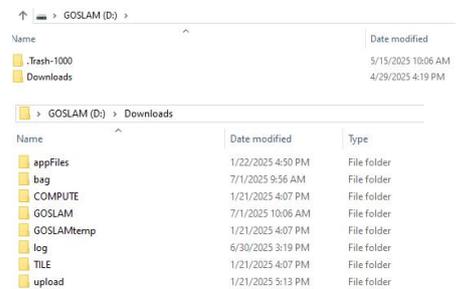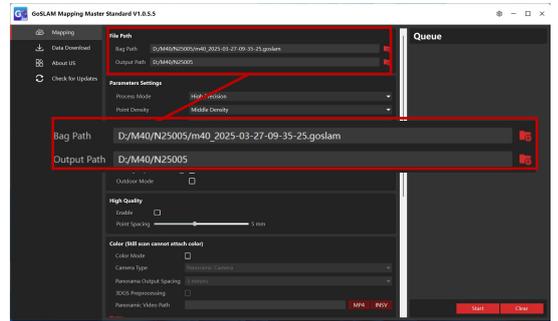


⑤ .goslam is the raw data used for calculation, and insv is the panoramic video raw file used for video synthesis;

The folder starting with RT is the real-time point cloud result, and the suffix RE folder is the post calculated point cloud result.
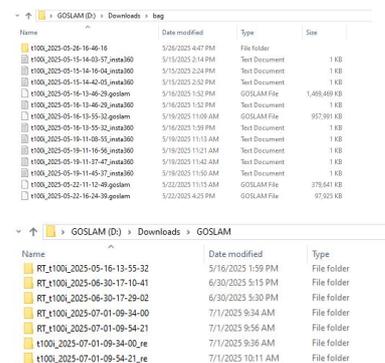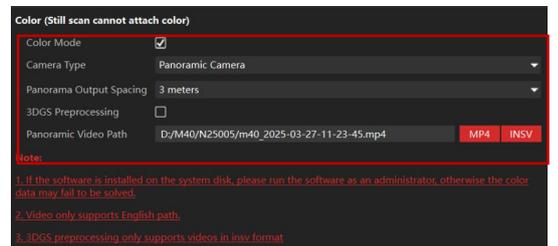
**PC end Processing**

① Select the data calculation page, click【Bag Path】, and select the data file to be processed.



② For the color part, you can select 【Panoramic Camera】to colorize the point cloud, if you don't need the color point cloud, you can turn off the color mode.
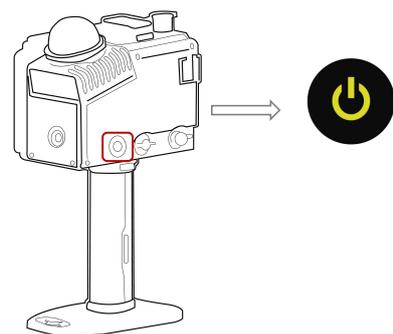


③ Click【Add to Queue】 to view the queue on the right, display the solution data file, click the start button to start the processing progress, and when the progress is completed,it will show that the solution is successful.
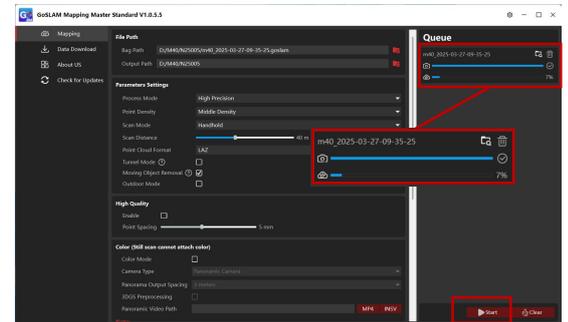


# 05 / Power off the device

**Shutdown**

Press and hold the power button for three seconds to shut down.

# Supporting Post Processing Software

**1**

## GoSLAM Manager APP

The GoSLAM Manager APP allows us to browse point cloud data in real time during scanning,support multiple browsing interaction methods and more human-machine interaction content.

Please use the Android system mobile device to scan the QR code

To download and install the GoSLAM Manager APP

If using the IOS version, enter 192.168.0.123 directly through the webpage to access it, and then connect the device.

**2**

## GoSLAM LidarWorks

GoSLAM LidarWorks is a corresponding software designed for GoSLAM series scanners.It can process point cloud data from third-party devices with high compatibility and flexibility.
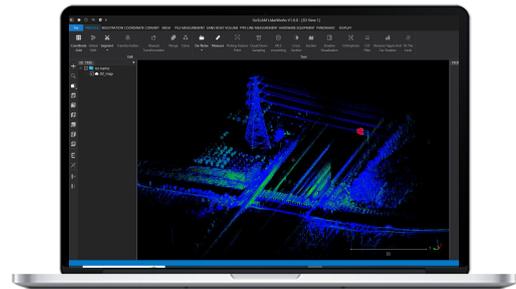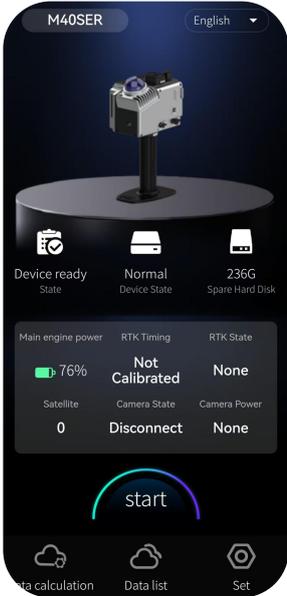
**3**

## GoSLAM Mapping Master

It is a desktop processing software.Users can choose to process data either in the device end or desktop software.It can significantly improve the overall work efficiency and meet various demands.
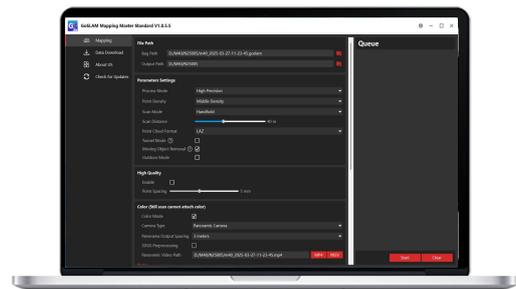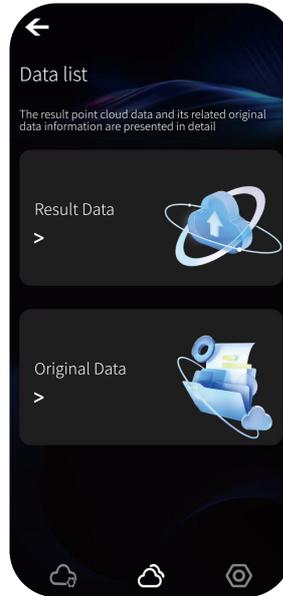
# Introduction to APP Functions

## Operation Display Section
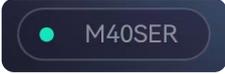

Home page


Data processing page


Data browsing page


Settings page

### Operation button instructions

 M40SER — Device connection status

 English / 中文 / English — Switching between Chinese and English

 Data Process

 Data Browse

 Set

 Result Data,View and export the calculated point cloud.

 Original Data,View, export, and import unresolved data packages.

 GNSS Status,You can configure an RTK account.

 Other,The color scanning mode can be modified.

 Version Information,Check the firmware version as well as the application version.

## Processing Interface

### Scan Data Solver Page

View the data to be processed, the data in the process of solving, and the data processing records, and modify the processing parameters.



### Modify The Processing Parameters

Downsampling (unit: meters), scanning distance (unit: meters) , solution mode, point cloud output density, point cloud format, narrow low feature mode, large loop mode, scanning mode, moving object removal, forced level (expert mode), RTK positioning assist, large coordinate output, RTK antenna height (unit: meters), band type, source ellipsoid, professional mode, color setting, picture output interval 0.1-5 (unit: meters), high quality (long time consuming), point spacing (unit: mm) 2-9.
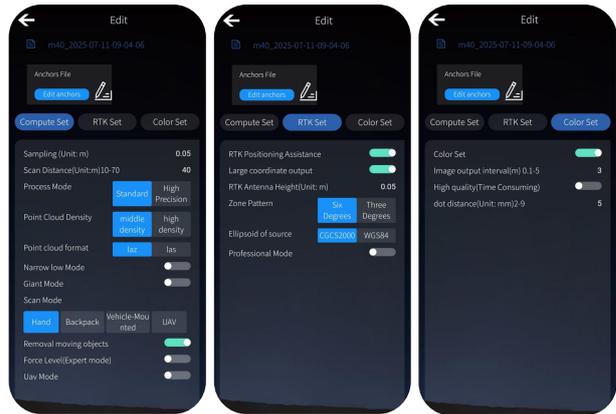


### Process Mode

·Standard mode: It is suitable for most scenarios with strong features, with fast solving speed, and can be used for quick mapping.
· High-precision mode: mainly used for production, the output data accuracy is high, the solution speed is slightly slower than the standard mode, and the accuracy of indoor, closed environment and relatively low characteristics of environmental data is significantly improved.
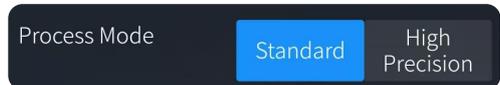


### Scan Mode

Hand、Hand RTK、Backpack、Vehicle-Mounted、UAV
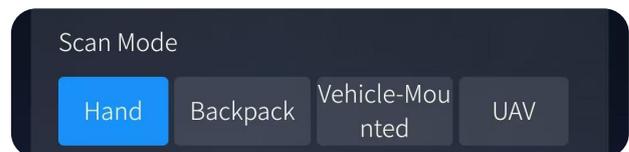
# Introduction To The Functions Of The Calculation Interface

## 💡 Function Introduction

| | | | |
|---|---|---|---|
| **Anchors File** | Input control point coordinates to perform anchor point calculation and improve data accuracy | **RTK Positioning Assistance** | After activation, RTK data will participate in point cloud data calculation, further improving the accuracy of the resulting point cloud and outputting point cloud data with accompanying geographic coordinates. |
| **Down Sampling** | Modifying the down sampling value will cause a change in the density of the sparse point cloud | | |
| **RTK Antenna Height** | Modify the RTK used for scanning | **Zone Pattern** | Only effective when the source ellipsoid is set to CGCS2000, used to modify the degree band type used in Gaussian projection conversion |
| **Scan Distance** | The scanning distance can be adjusted in the range of 50-300 meters according to different models | | |
| **High Quality** | After enabling the high-quality mode, the color point cloud can be encrypted according to the set point spacing to improve the color resolution of the point cloud | **Ellipsoid Of Source** | According to the type of source ellipsoid output by RTK, CGCS2000 ellipsoid corresponds to Gaussian projection mode by default, and WGS84 corresponds to UTM projection mode by default |
| **Process Mode** | Modify according to the scanning environment | **Image output interval** | Output intervals can be selected within the interval range according to the demand |
| **Color Settings** | If you need to use the panoramic image of the color module for colorization, you can upload the synthesized panoramic MP4 video through Lidar Works or put it into the bag folder in the removable storage media, and connect the removable storage media to the scanner. | **Tunnel Mode** | Suitable for closed scenes with very narrow and low features |
| | | **Scan Mode** | Choose based on the method of data collection |
| | | **Force Level(Expert mode)** | If necessary, the system will perform forced horizontal fitting based on the ground in the scanning scene. If the ground in the scene is not horizontal, please do not enable it |
| **Point Cloud Density** | Adjust the original point cloud density generated | **Removal Moving Objects** | Removing objects encountered during scanning |

## Original Data File Description

| | |
|---|---|
| video 00 m40 2025-06-30-16-49-25 17.0.insv | Panorama video original file |
| m40_2025-04-21-11-11-14 .goslam | Laser point cloud raw packet |
| m40_2025-06-30-16-41-43 insta360.txt | The download path of the original file of the panoramic video |
| m40_2025-06-30-16-49-25 .txt | Original anchor file |

## Real time solution result file description

| | |
|---|---|
| AllMap.laz AlllMap.pcd | Point cloud of the original result in laz pcd format |
| DownFilterMap.laz | Raw downsampling point cloud in PCD format |
| Transformations.pcd | Trajectory files |

# Explanation Of Calculation Results Data

| | |
|---|---|
| 📁 Photo | Photo output folder (generated only when solving color data) |
| 📄 ControlPoint.txt | Control point information file |
| 📄 gpspath.txt | GPS trajectory txt file (only generated when paired with RTK module) |
| 📄 path.txt | Scan trajectory file |
| m40_2024-10-11-11-12-01 _CGCS.laz | Original point cloud with geodetic coordinates (only generated when using RTK module or anchor mode for calculation) |
| m40_2024-10-11-11-13-01 _filter_map.laz | Raw down sampling point cloud in LAZ/LAS format |
| m40_2024-10-11-11-14-01 _map.laz | Original point cloud of local coordinates |
| m40_2024-10-12-11-15-01 _colormap 1.laz | Split the output color point cloud data (importing all of it will result in a complete point cloud) |
| m40_2024-10-12-11-16-01 filtermap2.pcd | Raw down sampling point cloud in PCD format |
| m40_2024-10-12-11-17-01 gps.pcd | GPS trajectory file in PCD format |

# GNSS Settings

## ① Turn on the hotspot on your phone

Turn on the hotspot on your mobile phone, and the hotspot name is GOSLAMAP SN, password goslam123 （set the frequency to the 2.4GHZ）
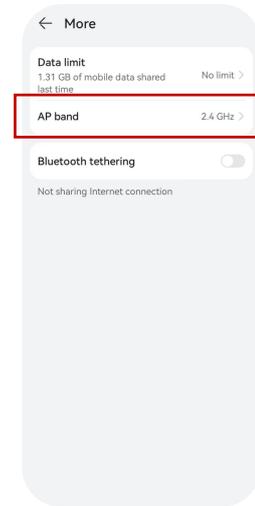
## ② Configure the scanner device WIFI

Go to the settings page and click on the device WiFi configuration interface, search for and connect to the SLAM device SN number", click on the one-click configuration to return to view the GNSS status after completion.
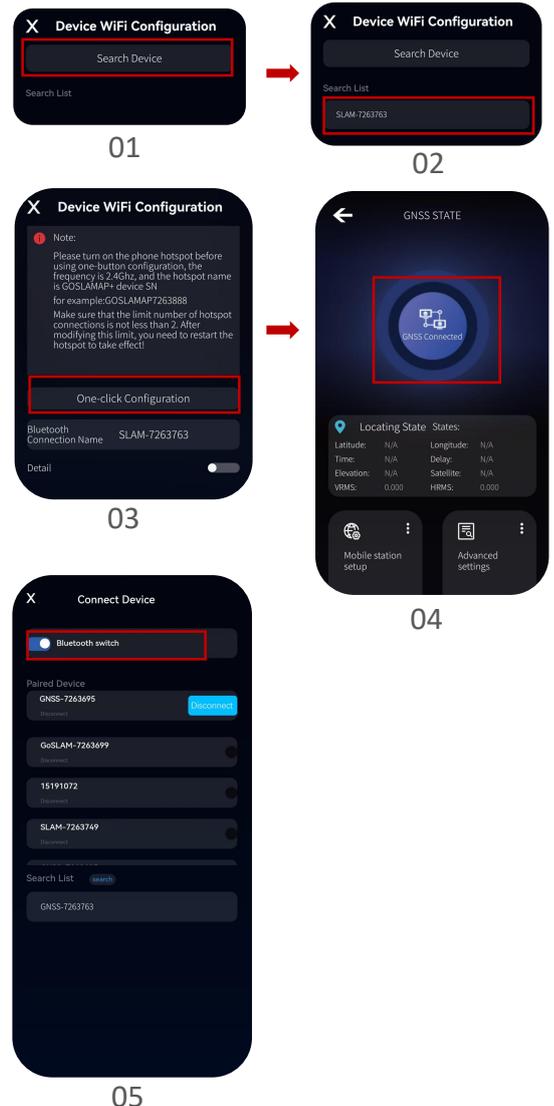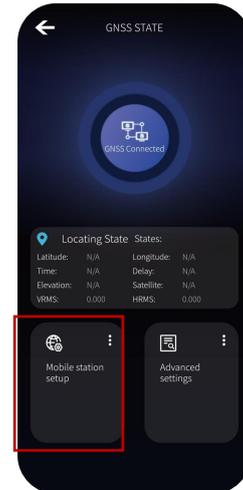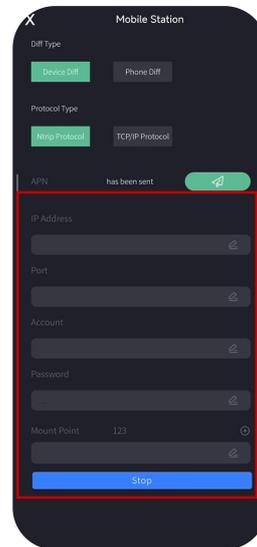
## ③ Connect to RTK Bluetooth

Go to the GNSS status page in the APP settings,click the Connect Device button,search for GNSS module Bluetooth,and match with the GNSS module Bluetooth (the Bluetooth name is usually OEM/GN+number).

## ④ Mobile Station Configuration

・ Go to the mobile station settings interface to configure the account.During the process, it is necessary to keep the mobile device connected normally,Connect to Ethernet to ensure normal access to mounting,After completing the configuration, you can connect the device.Go to the scanning interface to check the RTK status and wait for fixation.Once confirmed, scanning can be started.
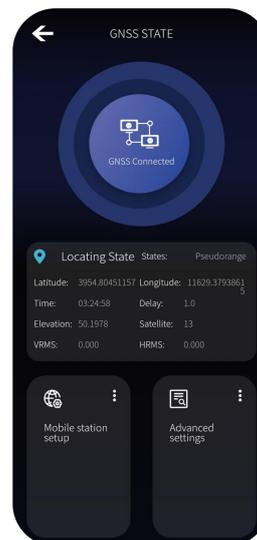
・Fill in the corresponding IP address and data port according to the CORS system service provider used;

・ Log in to the account with the account password;Select the appropriate mount point, and click Configure after selecting.
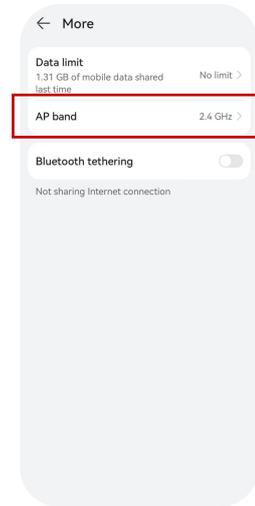
## ⑤ Connection status

Returning to the GNSS configuration main interface,you can see the status displayed as connected.
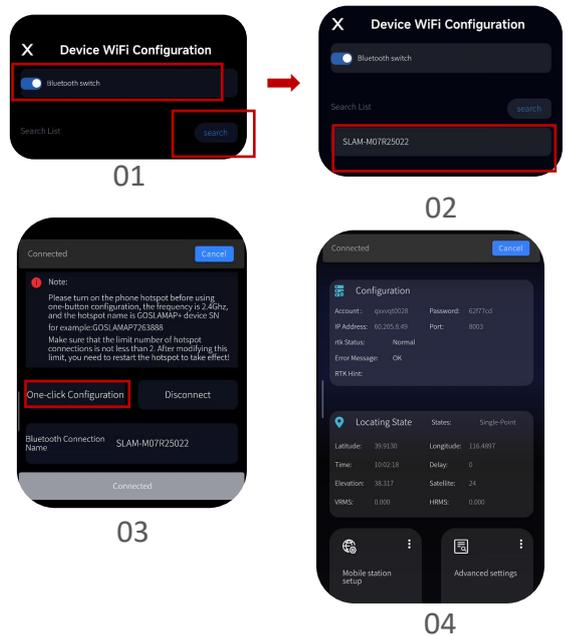
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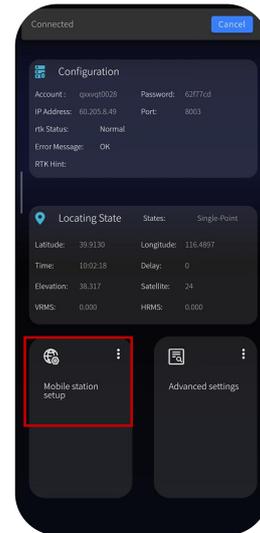
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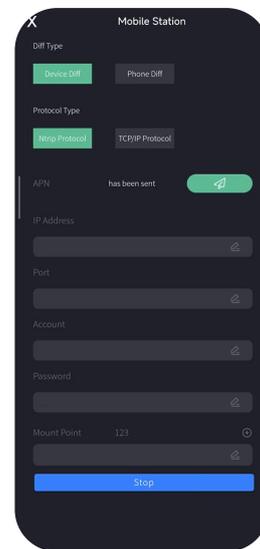
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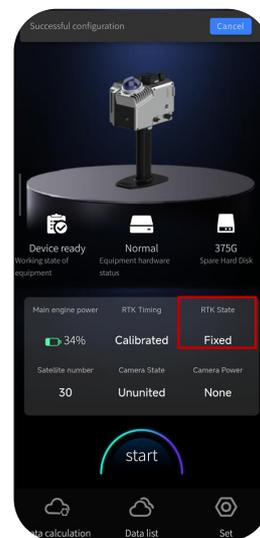
・ Fill in the corresponding IP address and data port according to the CORS system service provider used;
・ Log in to the account with the account password;Select the appropriate mount point, and click Configure after selecting.
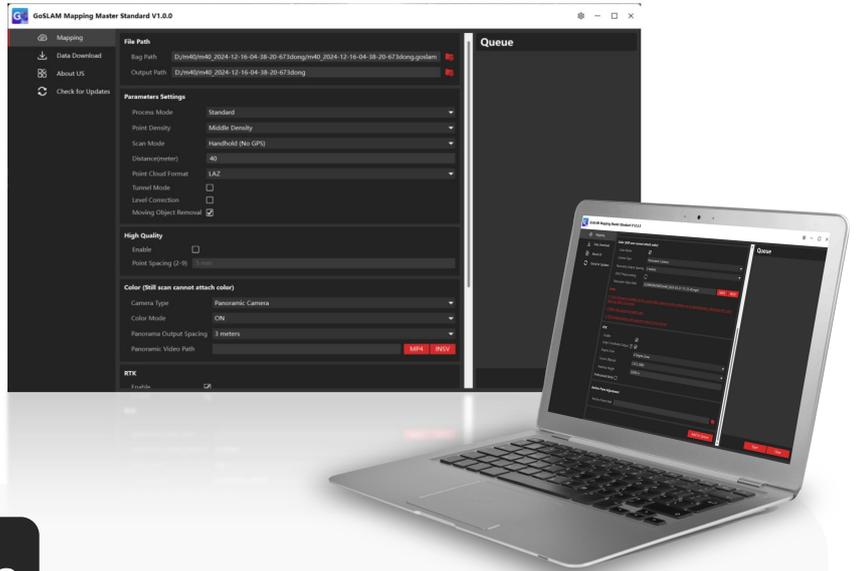
## ⑤ **Connection status**

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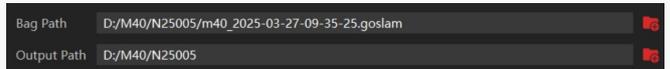
# GoSLAM Mapping Master Function introduction

## Operation Display Section



# Operation button instructions

## Data Bag

Open Mapping Master, click on the data bag, and select the data file you want to solve, the figure on the right is for reference only.



## Parameter Setting

（1）Scene mode: Set according to the scanning scene and accuracy requirements.

*Standard: Applicable to most scenarios (solving time is fast).

*High Precision: suitable for all closed scenes, as well as outdoor scenes that require extreme high accuracy.

*Distance (meter): Support to adjust the output distance of point cloud results, the range is 10-70 meters, and the default value is 40 meters.

*Point Cloud Format: The output format of the point cloud can be adjusted, LAZ is a general compression format, and the space occupied by this result data is small, if the application software does not support the LAZ format, it can be modified to LAS format, which is more compatible.

*Tunnel Mode: Suitable for closed scenes with narrow and low characteristics.

*Level Correction: This mode will use the scene ground as a reference to force horizontal fitting, if the ground in the scene is not level, please turn on this function prudently.
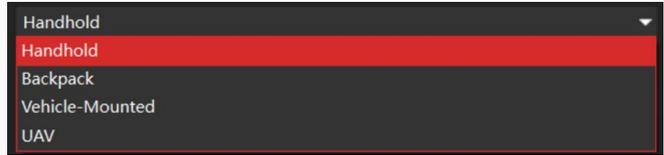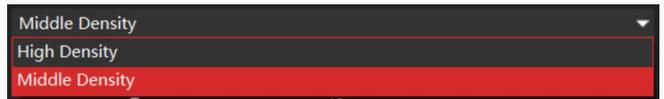
*Moving Object Removal: Filter moving objects encountered while scanning.
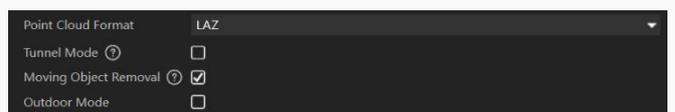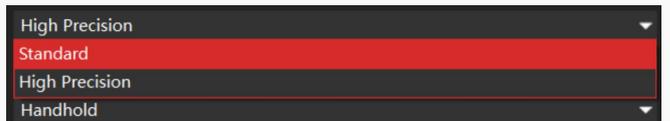
（2）Point Density: Adjusts the number of raw point cloud outputs.



（3）Scanning Mode: Select the scanning mode based on the data collection mode.
*Handhold (No GPS)
*UAV
*Vehicle-Mounted
*Backpack



## High Quality

After the high-quality mode is enabled, the color point cloud will be encrypted based on the set point spacing during the solution process to improve the resolution of the color point cloud.
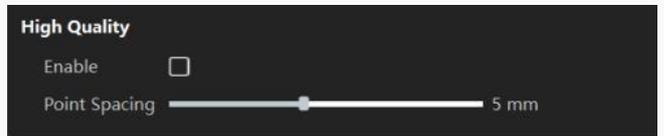


### Color settings

When point cloud colorization is enabled, the solution program will default to using the built-in camera information to colorize the point cloud when the panoramic video synthesized by the color module is not loaded. If you need to use a color module for colorizing panoramic images, you can upload the synthesized panoramic MP4 video through LidarWorks or place it in a bag folder on a mobile storage, and connect the mobile storage to the scanner.
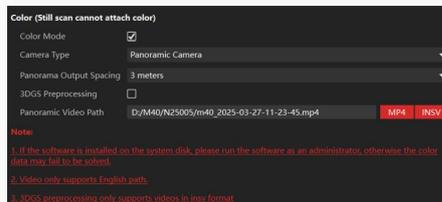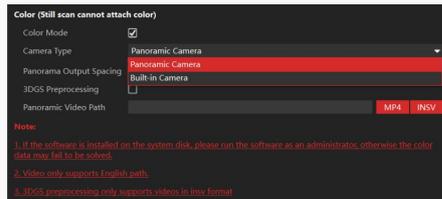


## RTK Settings

Enter the antenna height according to the model of the RTK.
*Degree Zone: 3 degree band/6 degree zone can be selected according to requirements.
*The reference ellipsoid is selected according to the RTK settings.
Source ellipsoids CGCS2000 use Gaussian projection to select the correct degree band;
The source ellipsoid WGS84 uses UTM projection without the need to select degree bands.
*The antenna height is adjusted according to the RTK built-in antenna height.

# Device Storage

1. Wipe the device with a clean cotton cloth and put it in the box.

2. Avoid impact,bumping and disassembly of the equipment.

3. Do not disassemble the device yourself.In case of malfunction, please contact your local dealer.

4. After a period of time,gently shake the lidar component to check whether there is any abnormal noise.If you hear any abnormal noises,check the screws of the lidar assembly.All equipment screws are protected from loosening to make them less likely to loosen.To ensure safety,contact your local dealer if any screws are loose.

# Common Faults And Solutions

| Problems | Solutions |
|---|---|
| The scanner host cannot be powered on. | Check the battery is properly installed.<br>Make sure the battery is fully charged. |
| The phone cannot detect the Wi-Fi signal of the device. | Check if the power indicator light on the device host is on. |
| Mobile APP cannot display real-time point cloud. | Check whether the phone is connected to the device's Wi-Fi. Please exit the scanning control page and re-enter, or close the app and reopen. Users who control through the web page can use the browser's refresh function to force a refresh. If this does not solve the problem, please check if the device is too narrow when starting the scanning, which may cause the laser to be severely blocked and unable to obtain structural data normally. |
| The device shuts down during operation. | Check the battery level.<br>Check whether the battery is fully inserted into the battery holder. |

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