S8

GPS Locator

User Manual

Simple·Accurate·Efficient

V 2.0

Receive satellite signal

The process of receiving the satellite signal maybe take 30 to 60 seconds.
1.Please go to the outdoor open area
2.Press the power button to turn on the equipment
3.Keep the screen horizontally up while waiting for the equipment search satellite signals
4.The HDOP (accuracy factor) indicates the strength of the satellite signal. The value is less than 1.0 and the value is once stable, measurements can begin

The first signal search will be slowly, the second will be faster. HDOP value below 1.0 will faster process. The HDOP is a quality indicator of GNSS location. The smaller the value, the better the accuracy.

The location of the signal search should be in outdoor open area without shielded things; bad weather; low battery ; tall buildings or strong signal destroyer, such as cell towers, substation and so on will affect the signal search effect.

Failure to comply with the following may result in personal or property damage, or adversely affect the equipment.

This product is high precision equipment.Please don't open it privately, otherwise it will be deemed a waiver of our after-sales service.

⚠Battery Alarm

1.This product powered by lithium batteries, don't immerse the equipment and battery in water and don't expose the equipment to heat sources or hot areas, such as the sun or empty car.

2.Don't use sharp objects to remove or disassemble the battery. Don't leave the battery in places accessible to children.

3.If this product is not used for a long time, please take out the battery.

4.Please use the original charger to charge the equipment.

5.When the equipment is equipped with a non-rechargeable battery, don't connect the equipment to an external power source for charging.To avoid equipment damage or accidental danger.

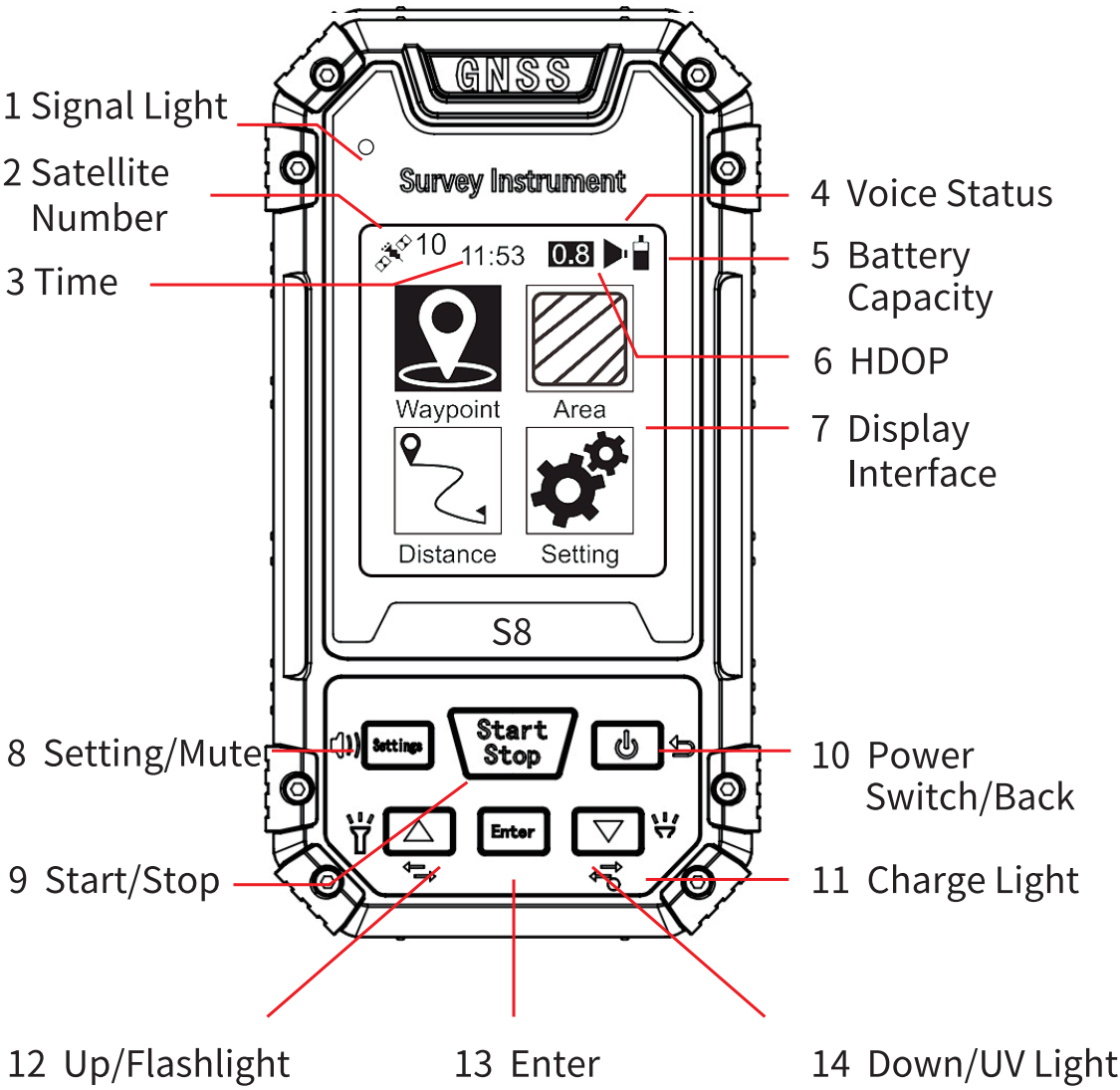
6.When using dry battery installation, identify the positive and negative terminals of the battery, so as not to install the reverse, resulting in setting standby short circuit, battery heating, etc.

Technology Parameters

Chip	High Sensitivity Measurement Level GNSS Chip		
Antenna	Passive Large-Size Flat Panel Antenna		
Positioning time	Hot start 1 seconds Cold start 30 seconds		
Positioning Accuracy	±2.0 m (when HDOP lower than 1.0) ±1 m (SBAS insert)		
Area Accuracy	±0.003 acre(0.16-0.5 acre) ±1%(more than 0.5 acre)(when HDOP below 1.0)		
Distance Accuracy	±1 m (when HDOP lower than 1.0, 100 m range)		
Application	Coordinate survey, route editing, track recording, navigation, altitude measurement, area measurement, distance measurement, lofting		
Statistic	Area Distance		
Area Record	99 pieces	Waypoint	2000 point
Distance Record	99 pieces	Track	100 pieces
Route	The maximum number of edits is 200, and a single route has a maximum of 400 waypoint		
Track View	The trajectory is displayed in real time during the measurement, and past measurement graphs can also be viewed in the statistical record.		
Height Measure-ment	±1 m (barometer measurement, altitude needs to be calibrated) ±5 m (GNSS measurement)		
HDOP	Custom setting	Work Temp	-20°C~70°C
Screen	3.1 inch	Storage Temp	-30°C~80°C

Size	117mm X 61mm X 22mm	Weight	120g(exclude battery)
Data Interface	Micro-USB		
Standard configura-tiont	Equipment*1, Lithium battery*1, Power cable *1, Charger *1, Sling*1, Specification*1, Certificate *1, Packing box *1		

Product Introduction



1 Switch/Back	Positioning is successful and blue signal light is blinking
2 Satellite Number	Displays searched the number of satellites currently
3 Time	
4 Voice Status	Display the number of searched satellites currently
5 Battery Capacity	Battery status display
6 HDOP	The smaller the value, the higher the accuracy
7 Display Interface	Equipment function selection and working status display
8 Setting/Mute	Settings: Equipment data management and parameter setting Mute: You can quickly turn on or off the ringtone
9 Start/Stop	Start and stop measure function
10 Power Switch/Back	Power on: Press the power switch 2 sec, success power on when the screen lights up Power off: Press the power switch 2 sec, success power off when the screen lights up (Except measuring state) Back： Back to last interface
11 Charge Light	When charging through the rear USB port, the red light is long on.Turn to green light when full charge
12 Up/Flashlight	Move up option
13 Enter	Confirm the option
14 Down/UV Light	Move down option

Quick Actions

(Long press these button 2 sec can operate specificaction)

Button 8	Button 12	Button 13	Button 14
Tone on and off	Lighter on and off	Screen backlight turn on and off	The bill light turns on and off

How to choose mode

Choose a function

Select	Press ▲ or ▼ to move option to function you want
Confirm	Press Enter
Back	Press ⏻ when you want to back last interface

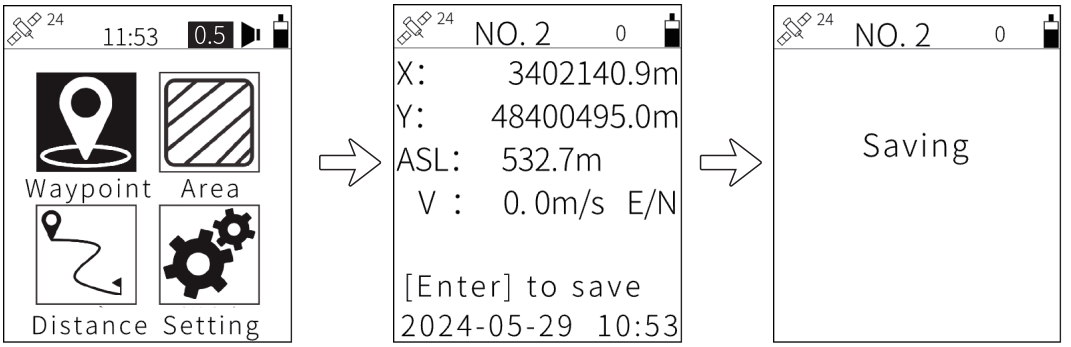
Battery install/uninstall

The equipment uses a removable battery. To install either a dry or lithium battery, simply open the back cover and insert the battery in the correct positive and negative direction.

• Waypoint

The waypoint is a record of an important location that is geographically discontinuous.

Waypoint collect(Current location)



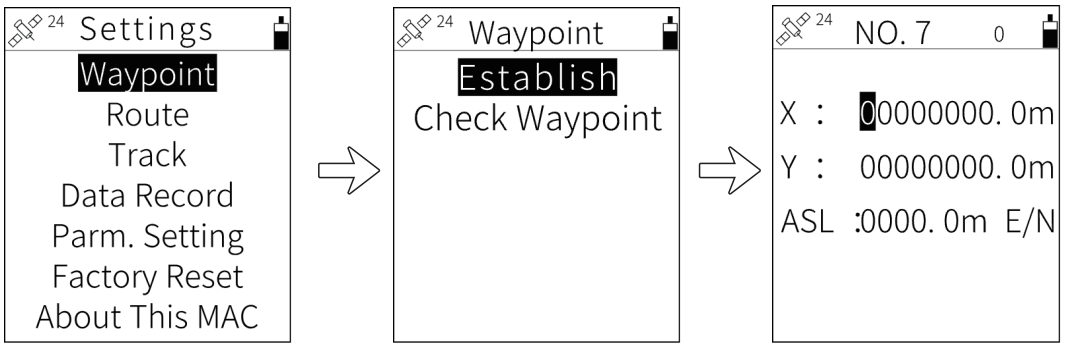
Home screen | Waypoint collect menu | Save Waypoint

Press Start Stop to collect waypoint

Press Enter to save

Save successfully

Waypoint input
(Enter the waypoint of known latitude and longitude)

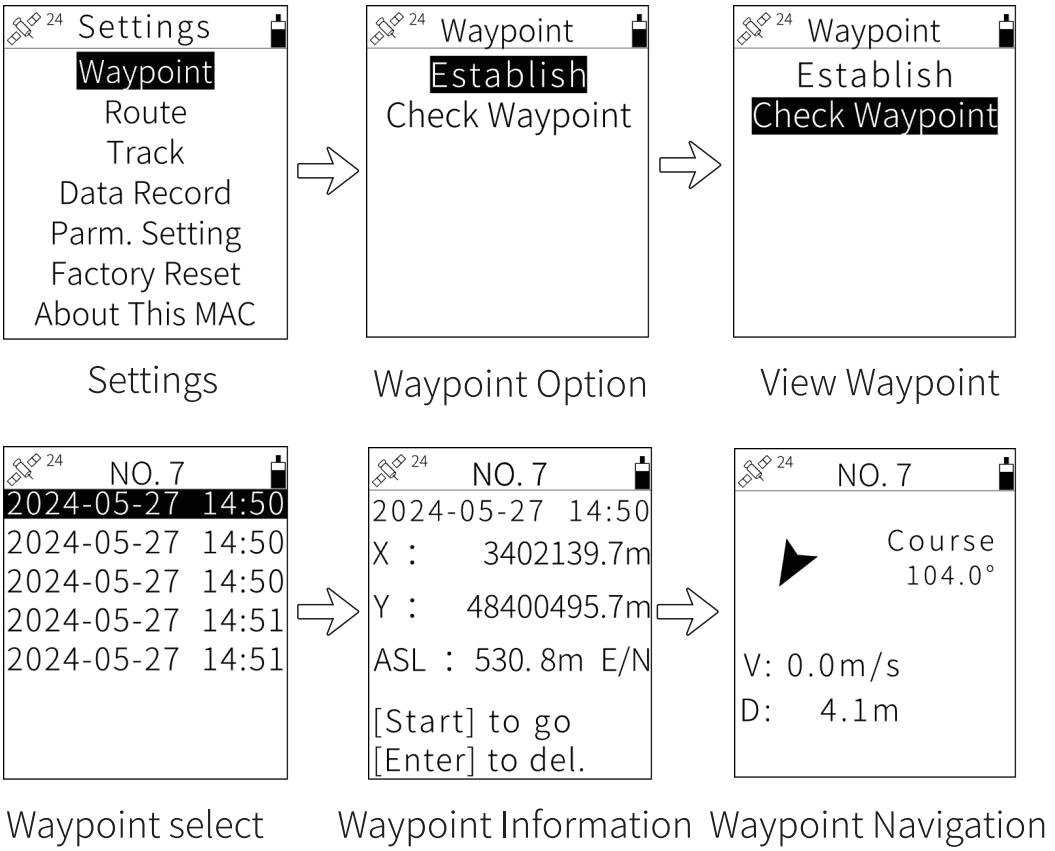


Setting Menu | Waypoint Option | New Waypoint

Press ▲ or ▼ to change the value,

Continuous press Enter to execute the selected option in the menu, when input box move out the last option, the inter information will save.

The view and navigation of Waypoint

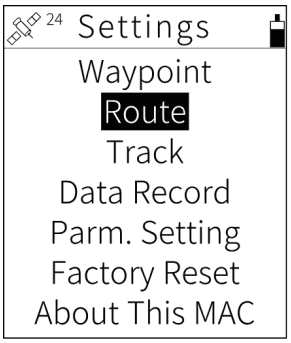


- **Route**

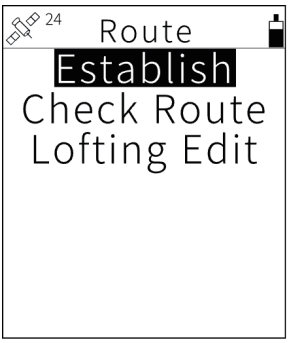
The route is a path made up of multiple waypoints, set in a specific order for navigation, to assist you in reaching your destination smoothly.

- **New route and navigation**

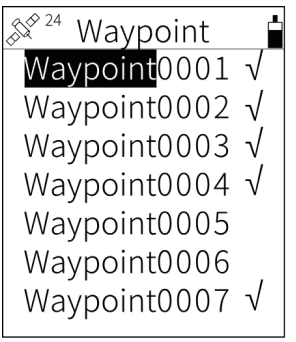
This Equipment allows you to use saved waypoint, in sequential order (the first waypoint is the starting point, the last waypoint is the end point)Choose to create a route and do route navigation to guide you to your destination.



Route option

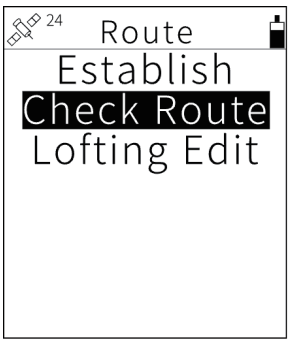


New route

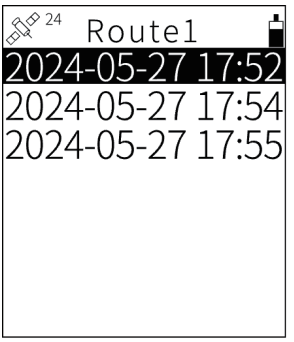


Waypoint Tick

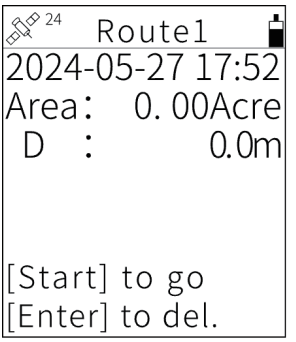
Press Start Stop to save



View route

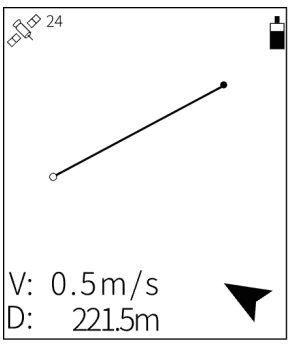


Route select



Navigate began

Press ▲ or ▼ to view route pattern



Graphic:graphic for navigation to the route, the route has a solid point and hollow point at both ends, hollow point for the start of the navigation route, solid point for the end point of the route.

Pointer:the pointer points to the direction of the nearest point of the route from the current position.

V: Equipment displacement velocity.

D: Next sample point distance.

• Lofting

Lofting is a prevalent method for determining geographic locations and marking location points. It's applicable in various fields, including geographical surveys, map-making, navigation systems, and more.

• New and manage lofting function

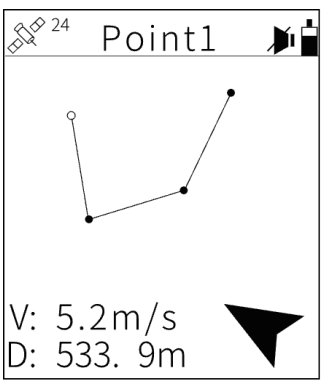
Lofting and routing functions are closely related, they are actually a whole. In this system, creating a new route means creating a new lofting, and deleting a route mea ns deleting the corresponding lofting. Therefore, if you need to lofting, just follow the steps of "New route".

Lofting navigation function (Lofting one by one navigation)

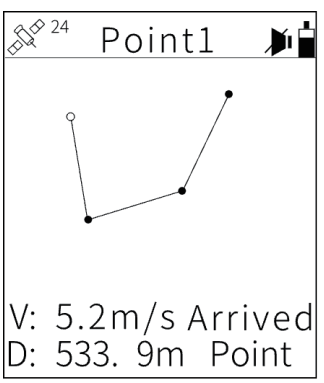
After choosing the needed Navigation lofting route informati -on, press Start Stop to navigation.

During the navigation, the pointer points to the navigation direction, when navigating to the lofting point, press Enter, when navigation point next lofting point, press ⏻ to exit navigation when navigation end.

When arrive at each point，locator will display “Arrive start point”，“Arrive sample point”，“Arrive end point” one by one.



Lofting navigation



Reach the lofting point

Lofting point: The hollow point is the point heading towards.

Pointer: The pointer direction is the direction of travel of the next sample point.

V: Equipment displacement velocity.

D: Next sample point distance.

• Equidistant and bisection lofting

Set the number of lofting points or lofting point spacing to achieve bisection or equidistant.

Prerequisite:The new lofting consists of two waypoint, not more than, otherwise it will be prompted"Too many points to edit".

Bisection lofting

The two waypoint are divided according to the number of input bisection points, respectively lofting at equal points.

Setting——Route——Lofting edit——Choose a route——Press enter to edit——Select “bisection Point” to change the value

Equidistant lofting

The two waypoint are divided according to the number of input equidistant points, respectively lofting at equal points.

Setting——Route——Lofting edit——Choose a route——Press enter to edit——Select “equidistant Point” to change the value

Create custom distance lofting

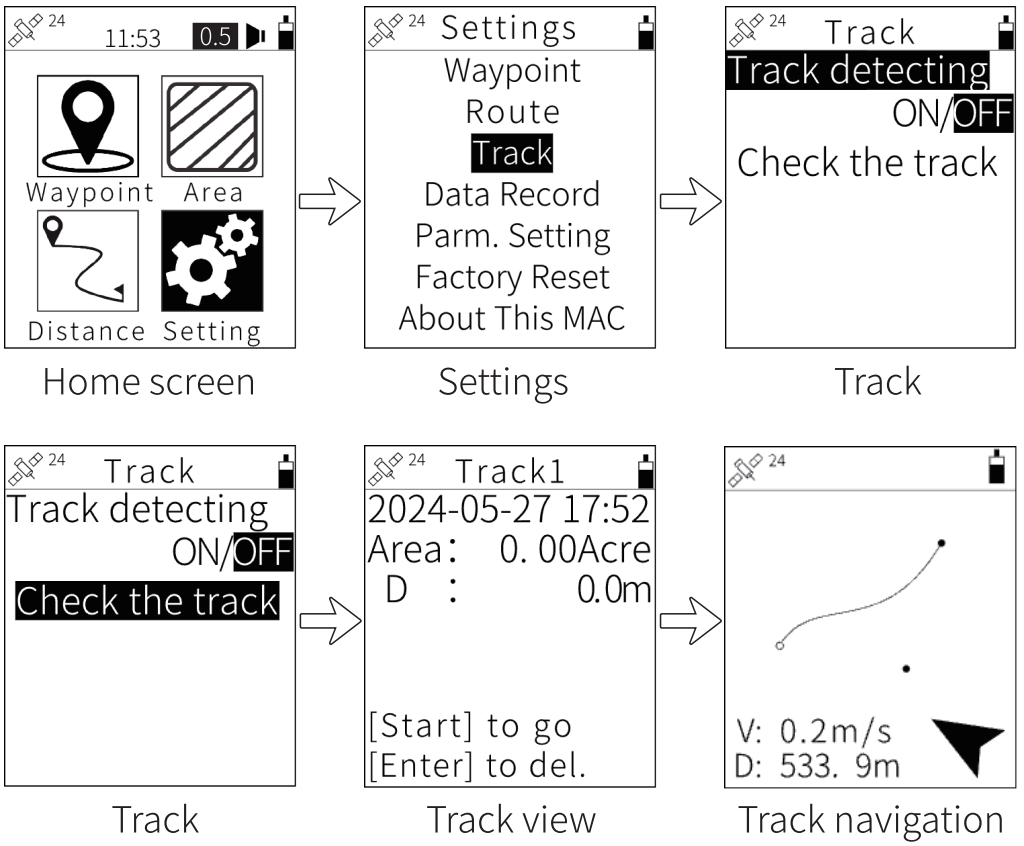
The lofting point distance between two waypoint can be customized, and the points and points are automatically recorded when created remaining distance. Press  to save.

• Track

The machine updates its coordinate information every second, allowing you to record your movement trajectory. This feature is especially useful in the field. If you get lost, you can retrace your steps using the original trajectory.

Attention: The display of the track graph needs to be implemented with the "area" or "distance" function, otherwise track is not displayed in View Track.

Track view and navigation



Track point:

The hollow point is the beginning of the track, and filled is the ending of the track. The filled point which out of line is the current position point.

Pointer:

The pointer direction is to the target point direction of travel.

V: Equipment displacement velocity.

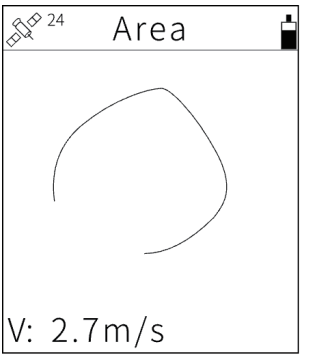
D: Next sample point distance.

• Area measuring function

Attention: When you need to export measurement data, open track function before measuring.

Area measurement

Home screen



Area measurement

Press Start Stop to measure, press Start Stop to end the measurement and gain the measure result when accomplishment.

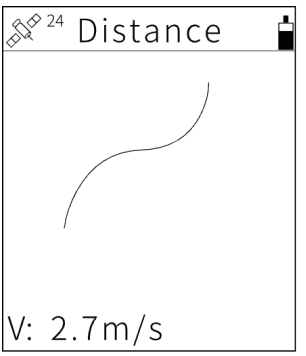
Press ⏻ to save the measurement data.

• Distance measuring function

Attention: When you need to export measurement data, open track function before measuring.

Distance measurement

Home screen



Distance measurement

Press Start Stop to measure,press Start Stop to end the measurement and gain the measure result when accomplishment.

Press ⏻ to save the measurement data.

Data record view and management

Parameter setting

• Distance measuring function

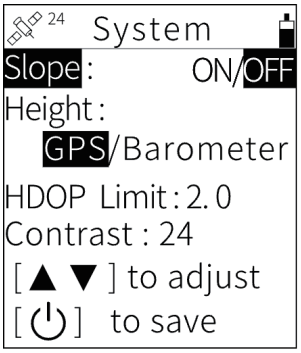
①In the first interface of power-on, press Settings to enter the setting interface;

②Press ▲ or ▼ to move to the "Parameter Setting"option, and then press Enter to enter;

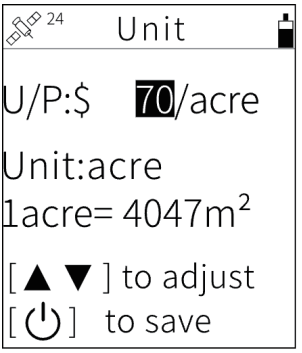
③Press ▲ or ▼ to move to the "System Parameters"option, and then press Enter to enter;

④Press Enter to select the category; press ▲ or ▼ to adjust the value.

⑤ Press ⏻ to exit after setting is completed.



System parameter setting interface



Unit parameter setting interface

• Unit Setting

①In the first interface of power-on, press Settings to enter the setting interface;

②Press ▲ or ▼ to move to the "Parameter Setting"option, and then press Enter to enter;

③After entering the parameter setting interface, select "Unit Setting" and enter;

④After entering the "Unit Setting", click Enter to switch the unit to be changed, and then click ▲ or ▼ to change the specific content;

⑤ Press ⏻ to exit after setting is completed.

• Display Format

①In the first interface of power-on, press Settings to enter the setting interface;

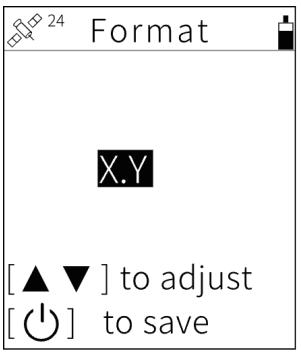
②Press ▲ or ▼ to move to the "Parameter Setting"option, and then press Enter to enter;

③After entering the parameter setting interface, select "Display Format" and enter;

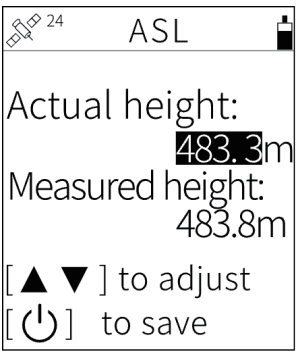
④After entering the "Display Format", and then click or to select the required display format.

⑤ Press to exit after setting is completed.

Attention: After selecting model parameters, only XY format is displayed.



Display Format Setting Screen



Altitude calibration setting interface

• Altitude Calibration

Attention: S series adopts air pressure altimetry technology, calibration is required for accurate measurement of absolute altitude.

①In the first interface of power-on, press Settings to enter the setting interface;

②Press or to move to the "Parameter Setting"option, and then press Enter to enter;

③After entering the parameter setting interface, select "Altitude Calibration" and enter;

④Enter "Altitude Calibration", refer to the known height, press or to adjust the actual height, after the adjustment is completed, press Enter to save and exit.

• Converting parameters

Attention: Changing the coordinate system requires specialized knowledge.

The coordinates provided by the GPS navigation system are based on the WGS84 coordinate system. Different users may use Beijing 54, Xi'an 80 and CGCS2000 coordinate system in their practical work. There are translations and rotations between different coordinate systems, and the coordinates of the same point may differ by tens of meters. Therefore, if you want to use Beijing 54, Xi'an 80, etc., you need to use the Beijing 54, Xi'an 80, etc. coordinate system.

Therefore, if you want to use Beijing 54 coordinates, Xi'an 80 coordinates, etc., you need to convert the coordinates and input the corresponding conversion parameters.

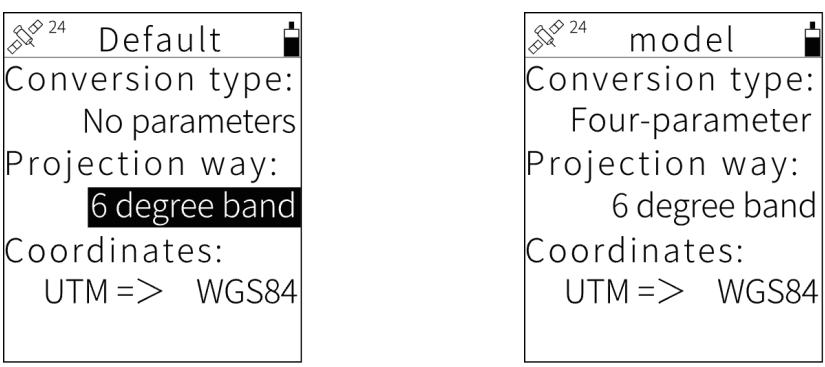
①In the first interface of power-on, press Settings to enter the setting interface;

②Press ▲ or ▼ to move to the "Parameter Setting"option, and then press Enter to enter;

③After entering the parameter setting interface, select "Converting parameters" and enter;

④Through the ▲ or ▼ to change parameter setting interface, and then press Enter to switch to the next option;

⑤ Press ⏻ to exit after setting is completed.



Conversion parameter setting interface

• Electronic compass calibration

Attention: Calibration is required before using the measurement angle function and navigation function, which can make the measurement of more accurate.

①In the first interface of power-on, press Settings to enter the setting interface;

②Press ▲ or ▼ to move to the "Parameter Setting"option, and then press Enter to enter;

③Select "Compass Calibration" in the "Electronic Compass" interface;

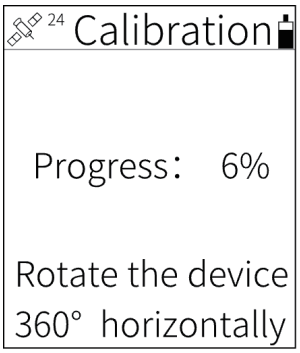
④After entering the "Compass Calibration" interface, place the measuring instrument on the horizontal plane, and then rotate the measuring instrument 360° horizontally and exit the calibration interface automatically after the calibration is completed.

• Measurement Angle Function

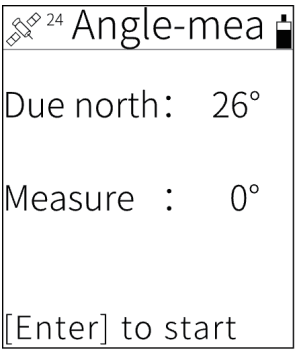
The Measure Angle function can be used to determine the direction and measure the angle of a specified horizontal angle.

"Due North Angle" is the angle between the direction in which the gauge is pointing and due north, and the angle degrees are calculated in clockwise direction (0° due north, 90° due east, 180° due south, 270° due west)

"Measure Angle" is used to measure the horizontal angle angle used. In the Angle Measurement screen, the press Enter , then rotate the meter horizontally to the angle to be measured, and finally tap Enter to view the measured angle.



Compass calibration
Setting Screen



Angle Measurement
Setting Screen

Factory Reset

Since restoring factory Settings will erase all data, it is important to back up important measurement data first

About This MAC

You can view the software version, hardware model and so on.

After-sales service

Thank you for purchasing the product, you will enjoy the following services：

1.Guarantee clause

Type	Guarantee	Serve
Handheld measuring product	One Year Warranty	Return to Depot Service

2.Details

The warranty is limited to the product host. If the equipment has performance issues within days of purchase and shows no signs of scratches, a replacement can be purchased. If you encounter problems during installation or use, you can first contact our after-sales team. An engineer will provide guidance over the phone to solve the issue.

Our company will repair the products that meet the warranty requirements free of charge. Products are guaranteed nationwide. No matter you purchase and use the product anywhere in the People's Republic of China (excluding Hong Kong, Macao and Taiwan) in case of hardware failure within the warranty scope, you can take the product to the after-sales service center or dealer to obtain warranty replacement and warranty service. The warranty period starts from the date of purchase.

3.Under any of the following circumstances, it does not belong to the scope of warranty

1.Beyond guarantee time
2.The customer disassembled or repaired it without permission
3.Man-made damage, shell or obvious scratches, damaged deformation
4.Failure caused by use in abnormal environments such as high temperature, high pressure and humidity
5.Damage caused by lightning, flood, earthquake or other natural disasters

4.Our company can provide paid repair service for products that are not covered by the warranty. After paid maintenance, the same performance problem will enjoy a free warranty period of three months from the date of maintenance

5.Other

The above service commitments apply only to our products sold overseas. For after-sales service terms separately agreed upon at the time of product sales, the confirmed contract shall prevail.

The Company reserves the right of interpretation and modification of this commitment

Product name: _____

Model: _____

Purchase time: _____

User name: _____

User address: _____

User telephone: _____

Agency address: _____

Agency telephone: _____

Profession cast accuracy
Simplicity made efficiency