

W12

GPS ASSET TRACKER

Product Specifications

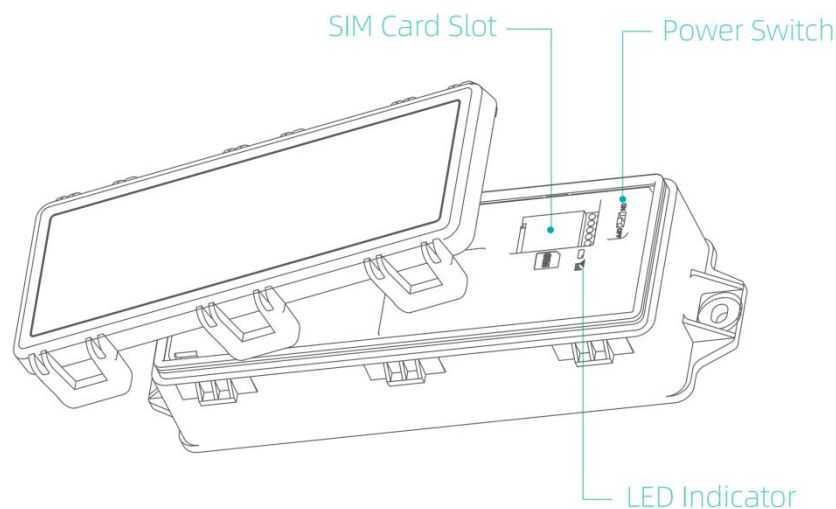
Ver:1.0



1、Introduction

1.1 Summary

The W12 is an ultra-long standby positioning terminal based on 4G CAT1 communication. It features a built-in 4800mAh and 9600mAh lithium-manganese battery that can work continuously for 3 years and 5 year with one positioning per day. The device includes built-in magnetic design and IPX7-level waterproofing for the whole machine, making it suitable for multiple application scenarios. It supports multiple positioning methods including BeiDou + GPS + WIFI + LBS, and comes with a light-sensing anti-tampering design to protect vehicles and other assets. It is suitable for automotive financial risk control, fixed asset management, valuable item management, and logistics transportation management.



Note:

The device's SIM card cannot be installed incorrectly (backwards); the SIM card needs to have network data service activated; please ensure the device's SIM card has sufficient balance/credit. Before installing or removing the SIM card, make sure to switch the battery switch to the OFF position first!

1.2 Packing List

Device	*1
Pry Opening Tool	*1
Screw	*3
Velcro	*1

2、Hardware Specifications

#	Functions		Description
Electricity	Work Voltage		3.0V
	Standby Current		≤10uA (With Built-in Battery)

Character	Internal Battery		W12LITE: 4800mAh/3.0V W12: 9600mAh/3.0V	
Environment Character	Work Temp		-20℃ - 70℃	
	Storage Temp		-30℃ - 80℃	
	Work Humidity		10%-85% RH non-condensing	
	Frequency Bands	SA	LTE/4G	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28/B66
			GSM/2G	850/900/1800/1900MHz
		EU	LTE/4G	LTE-FDD:B1/B3/B5/B7/B8/B20
			GSM/2G	GSM:900/1800MHz
		CN	LTE/4G	LTE-FDD:B1/B3/B5//B8 LTE-FDD:B34/B38/B39/B40/B41
	SIM card		Nano SIM 卡	
	Antenna		Built-in antenna	
	Antenna spec		fpc antenna	
GPS/BD Location Character	Chip Model		AT6558R	
	Location mode		BDS+GPS	
	Cold Start		32S(open sky)	
	Hot Start		1S(open sky)	
	Sensitivity (tracking)		-162 dBm	
	Locate the antenna		Built-in ceramic dielectric antenna	
	Antenna spec		18mm * 18mm * 2mm	
	GPS frequency bands		L1: 1575.42±1.023MHz	
	BDS frequency bands		B1: 1561.098±2.046MHz	
	Satellite channel		66	
	Location accuracy		<10m	
	Timing accuracy		<30ns	
	Speed measurement accuracy		<0.1m/s	
Shape	Device Dimension		113.8 (L) x 50.6 (W) x 30.6 (H) mm	
	Housing Material		ABS+PC plastic	
	Unit weight		219g	

3、Key Features

Functions	Description
Multiple Positioning	Supports various positioning technologies including BeiDou, GPS, LBS

Technologies	and Wi-Fi, achieving location accuracy within 10 meters in open outdoor environments.
Working Modes	<p>Tracking mode: The device reports its location in real-time while online.</p> <p>Timer mode: Can be set to wake up and locate multiple times per day or once every few days</p> <p>Alarm mode: Can be set with up to 4 alarm times for scheduled wake-up and positioning</p> <p>Weekly mode: Can be set to wake up at fixed times each week</p>
Tamper Alarm	The device reports a tampering alarm immediately if ambient light level changes from dark to bright, indicating potential removal. This dismantling detection takes effect three minutes after power on
Low Battery Alarm	Report low battery alarm with the internal battery level is less than 20%

4、Installation

4.1 Main device

Check if the appearance is in good condition and verify all relevant accessories are present.

4.2 Insert SIM Card

4.2.1 Choose appropriate SIM Card

Please choose a 4G LTE-FDD supported nano SIM card like below:



Normal ☐



Micro ☐

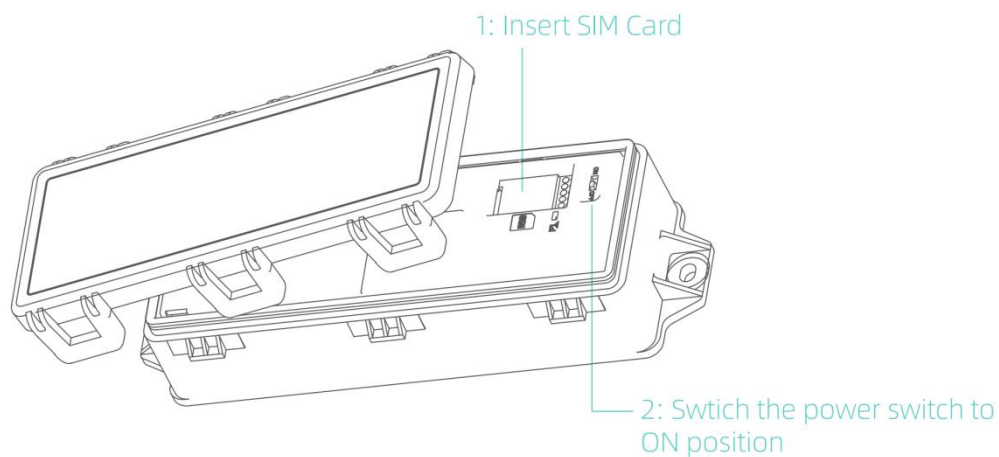


Nano ☒

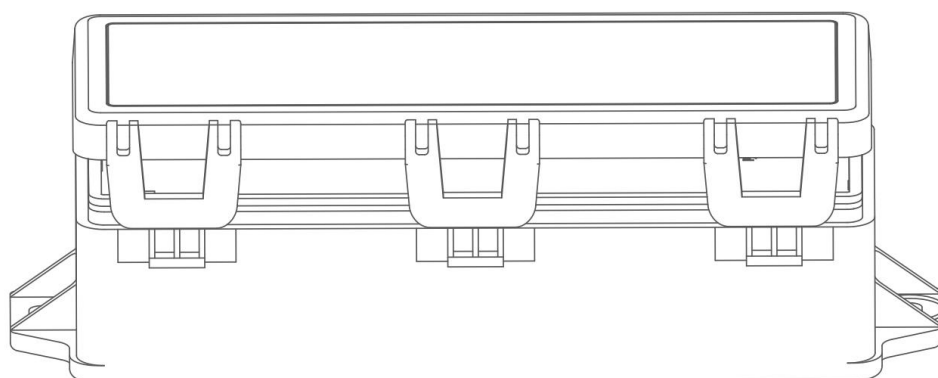
4.2.2 Power off device before installing or removing SIM card. Orient and insert SIM as depicted.

4.2.3 Power ON/OFF

- ❖ Power On: With SIM inserted, switch the power switch to ON position to turn on device. Red LED indicator will blink.
- ❖ Power Off: Switch the power switch to OFF position to power off.



4.2.4 Close the top cover and secure the buckle



Note:

- (1) The product must be installed facing upward toward the sky;
- (2) If there is a metallic heat-insulating layer or heating layer on top of the device, it will reduce satellite signal strength and may lead lower position precision. In this case, please change the device installation location.
- (3) It is strictly prohibited to install near the engine or in other high-temperature environments.

4.3 LED Indicators

Network Status (Red)

Status	Meaning
Blinking	Network initiating
Solid on	Connected to platform
Solid off	No network signal or no SIM card

Note:

When the device is in sleep mode, the indicator light will turn off. When the device wakes up, the indicator light will turn on.

5、APP

Please log in to the APP or the location services platform provided by your distributor to configure settings and operate device features.



iOS



Android

6、Appendix

6.1 Battery Security

(1) Use only original batteries. Non-original batteries invalidate warranties

and the manufacturer is not liable for any device damage caused.

(2) Prevent metal objects from shorting battery terminals.

(3) Do not bend or puncture the battery.

(4) Do not immerse or incinerate the battery.

(5) Charge battery near room temperature between 0°C and 45°C.

(6) Do not use damaged, leaking or deformed batteries.

(7) Do not disassemble or modify the battery

6.2 Troubleshooting

Refer to the solutions below if you encounter the following common faults. Contact your distributor or service provider if problems persist.

Fault	Cause	Solution
Poor GPS Signal	Using the device in areas with poor signal reception, such as inside tall buildings or basements	Use the device in an area with good signal reception
	The device is placed face down or obstructed by a metal layer, preventing it from receiving satellite signals	Place the device in the correct orientation or change the installation location

Unable to Power On	Battery is drained	Connect the external power supply to charge the battery
	Fuse blown	Contact the dealer for replacement with a fuse of the same specifications and model
Unable to Connect to Network	SIM card not installed properly	Check the SIM card and reinstall it
	The metal surface of the SIM card is dirty	Clean the metal surface of the SIM card with a clean cloth.
	SIM card is damaged or invalid	Replace the SIM card with a valid one
	Out of service area	Move to the service area of the network service provider.
	Weak signal	Move to a place with a strong signal and try again.
Unable to Charge	Poor contact	Check if the power cable of the device is properly connected
Location can't be fixed	SIM card data service is not activated	Contact the network service provider to activate data service
	SIM card is out of credit	Recharge the SIM card
	No reply to SMS commands	Ensure the device can connect to the network and the SIM card's SMS function is activated

6.3 Warranty

Note:

- (1) The product may be modified in the future without prior notice.
- (2) The actual appearance and color of the product may vary.
- (3) This warranty card is only valid for the presented IMEI number.
- (4) Please keep this warranty card in a safe place. Please present this card and the original receipt when you need warranty service.

Clauses:

- (1) The product is covered by a one-year warranty for non-human-made damage from the date of purchase.
- (2) The following are not covered by the warranty, but may be repaired for a fee:

- ❖ Beyond the warranty period;
- ❖ You do not have a valid warranty card or receipt;
- ❖ The equipment or accessories are out of warranty;
- ❖ Product quality problems caused by unauthorized repairs, collisions, liquid ingress, accidents, modifications, incorrect input voltage, or tearing, altering stickers, device IMEI numbers, or anti-counterfeiting marks;
- ❖ Damage caused by incorrect installation or use that does not comply with the product manual requirements;
- ❖ Damage caused by force majeure such as fire, flood, or lightning strike;
- ❖ Warranty certificate does not match the product model or warranty certificate is altered;
- ❖ Damage caused by force majeure.