



Shenzhen Qianfeng Communication Equipment Co., Limited

ADD.:Room 412 Building #1 Youchuang Space Qunhui Rd. No.1 Baoan District Shenzhen 518101

WEB.: www.qianfengtek.com TEL.:+86 755 2330 0250

Wireless GPS Tracker

Instruction Manual

Product model: QH416

Version number: V1.0



Please read this instruction manual carefully before using the product and keep it in a safe place.



Warning

1. Please pay attention to be waterproof for electronic products. Do not contact the equipment with the liquid, or operate with wet hands.

2.  Correct Disposal of this product. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer or service operator where the product was purchased. They can take this product for environmental safe recycling.

3.

Part Name	Hazardous Substances or element					
	Pb	Hg	Cd	CR(VI)	PBB	PBDE
Cabinet assembly	○	○	○	○	○	○
Cable assembly	○	○	○	○	○	○
Lithium battery	×	○	○	○	○	○
Plastic and polymer	○	○	○	○	○	○
Metal part	○	○	○	○	○	○

O: It indicates that content of toxic and hazardous substance in all homogeneous material are less than specified limit by Directive2011/65/EU (RoHS).

×: It indicates that at least one content of toxic and hazardous substance in all homogeneous material is beyond specified.

This table shows the toxic and hazardous substance when manufacture this device, hazardous substance information is based on information from supplier as well as internal inspection. In some part, hazardous substance cannot be replaced with current technologies, but Qianfeng is always doing its best to improve the quality of the product.



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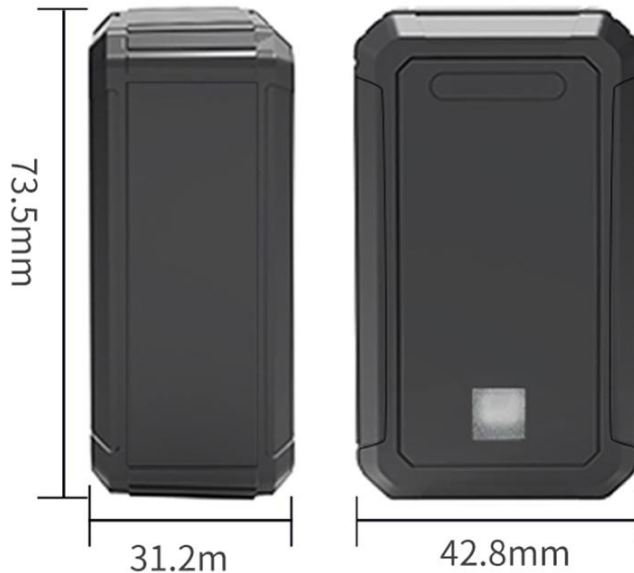
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I. Product appearance



II. Product parameters

Function Name	Functional Description		
Power supply	Internal battery power supply		
Operating voltage range	DC 2.5 - 3.6V		
Working current	3 V/ average 75 mA		
Sleep current	3 V/ less than 3uA		
Built-in battery capacity	4200 mAh (3.0V lithium manganese battery CR123 A*2)		
Operating temperature range	-20 °C -75 °C		
Storage temperature range	-30°C - 80°C		
Operating humidity range	10 % -85 % RH No condensation		
Communication module brand/chip model	SIMCOM 7670SA		
Communication frequency band	LTE/4G	LTE-FDD:B1/B2/B3/B4/B5/B7/B8/B28/B66	
	GSM/2G	850/ 900/1800 /1900 MHz	
SIM card	Micro SIM card		
Communication Antenna	Internal antenna		
Positioning module brand/chip model	Zhongkewei AT6558R		
Positioning method	Beidou +GPS		
Cold start time	Average 32 seconds		
Hot start time	Average 1 second		
Tracking sensitivity	-162 dBm		



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Positioning antenna	Internal antenna
Antenna Specifications	25mm * 25mm * 4mm
GPS frequency band	L1: 1575.42±1.023MHz
Beidou frequency band	B1: 1561.098±2.046MHz
Number of satellite channels	32
Positioning accuracy	<10m (1σ)
Timing accuracy	<30ns (1σ)
Speed measurement accuracy	<0.1m/s (1σ)
Maximum acceleration	4g
Maximum speed	515m/s
Maximum height	18000m
Light sensing (light sensing anti-tampering)	Photoresistor
Device size (length, width and height)	73.5mm (L)*42.8mm(W)*31.2mm(H)
Shell material	ABS plastic
Strong magnetism	4 NdFeB permanent magnets
Device weight	120g



III. Product Usage Introduction

1. Product Usage Introduction

2. 1 SIM card installation method

The device uses a Micro SIM card. The card slot is a flip-up type, with the chip facing down. Place the SIM card in the corresponding card slot and snap on the card cover.

3. Indicator Light Description

Yellow light-GSM indicator

Light status	meaning
Flash once within 2 seconds	GSM Initialization
Always on	GSM communication is normal
Not bright	GSM sleep /shutdown

Blue light - GPS indicator

Light status	meaning
Flash once within 2 seconds	Searching for satellite signals
often Bright	GPS/BDS has been positioned
Not bright	GPS / BDS Sleep

4. Working Logic

After the equipment is installed, flip the switch and the equipment will enter working state.

Working logic: By default, the device is powered on once every 24 hours to upload data (power on in timing mode to obtain GPS+LBS+WIFI upload).

IV. Features

- The terminal adopts industrial-grade high-stability 4G module, built-in LTE high-sensitivity antenna, supports TCP/IP data transmission, and supports domain name/IP address connection to the server;
- Built-in large-capacity storage chip supports offline data storage and blind area data retransmission ; when the vehicle is in a place with weak wireless signal or severe interference, the vehicle will temporarily store the vehicle operation data in FLASH, and when the wireless signal returns to normal, the data can be retransmitted to ensure that no data is missed;



- Anti-detection: In silent mode, the device radio is turned off and no data is transmitted, so it cannot be captured.
- High-sensitivity GPS/BDS dual-star positioning module, anti-interference ceramic antenna, more stable satellite search signal, support AGPS fast positioning tracking, synchronous timing;
- Super long standby time, up to three years.

V. SMS Commands

Common query functions	SMS command	Reply
Set a specific number	101#136*****#	101 SET OK
Set APN	APN,123456,CMNET	APN SET OK
Status query	CXZT	Device parameters
Set light alarm	LIGHTALARM,123456,1/0 When set to 0, the light sensor alarm is turned off and the device will not be woken up. When set to 1, the light sensor will be detected and the device will be woken up.	LIGHTALARM SET OK



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Manufacturer: Shenzhen Qianfeng Communication Equipment Co., Limited

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Certification: CE

Country of Origin: Made in China