



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

Magnetic 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.

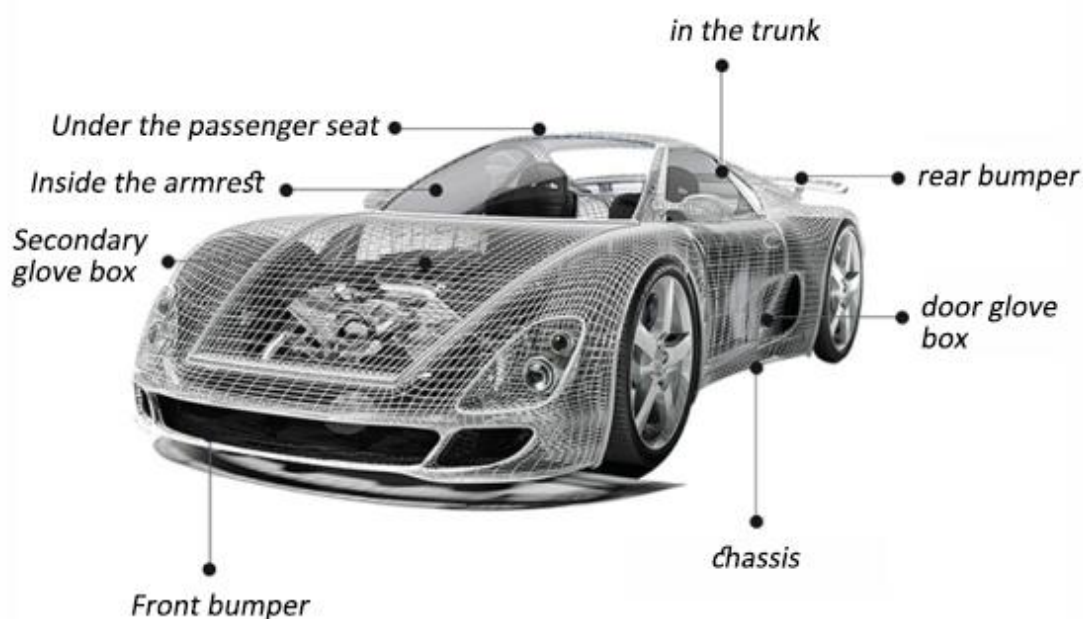
This table shows the toxic and hazardous substance when manufacture this device, hazardous substance information is based on information from supplier as well as internal inspection. In some part, hazardous substance cannot be replaced with current technologies, but Qianfeng is always doing its best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



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I. Product installation instructions



II. Product parameters



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Specification content	Specifications parameters
Dimension	25mm * 25mm * 4mm
Weight	120g
Built-in battery	4200 mAh (3.0V lithium manganese battery CR123A*2)
charging voltage	DC 2.5 - 3.6V
GSM module	A7670SA
Working temperature	-20℃ - 75℃
Storage temperature	-30℃ - 80℃
Frequency bands	LTE-FDD:B1/B2/B3/B4/B5/B7/B8/B28/B66 850/900/1800/1900MHz
Positioning method	Beidou+GPS+LBS
Cold start time	Average 32 seconds
Hot start time	Average 1 second
Tracking sensitivity	-162 dBm
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 altitude	18000m

III. Basic product functions

Content	Function	Explain
Locate function	Regular tracking	Positioning information such as latitude and longitude according to the set interval time.
	Street view map	360 ° No dead corner HD map
	Over-speed alarm	When speeding, the locator will send an alarm to your phone
	Shock alarm	Built-in vibration sensor, the vehicle has continuous vibration, the equipment immediately sends an alarm prompt
	Electronic fence	If the car travels beyond the prescribed area, an alarm information will be sent to the platform
	Historical trajectory	You can play back 365 driving days, replay the speed at that time, direction stay time and other content
	Displace alarm	When the vehicle encounters illegal operation or theft, it can be remotely cut off through the computer or mobile phone APP
	Fleet management	One phone can manage multiple devices, or one device for multiple phones



IV. Indicator Light Description

Red light - charging indicator

Light status	Meaning
Always on	Charging
Off	Charging/Power off

Green light-GSM indicator

Light status	Meaning
Flash once within 2 seconds	GSM initialization
Always on	GSM communication normal
Off	GSM sleep/shutdown

Blue light - GPS indicator

Light status	Meaning
Flash once within 2 seconds	Searching for satellite signals
Always on	GPS/BDS has been located
Off	GPS/BDS is in sleep mode

V. Working Logic

Normal mode:

In working state, the device transmits the position once every 30 seconds by default, and enters standby state after 2 minutes of inactivity. In standby state, the device transmits a heartbeat every 5 minutes to maintain server connection, and the device can be awakened to working state by vibration.

Power saving mode:

In working state, the device transmits the position once every 30 seconds by default, and enters sleep state after 2 minutes of inactivity. The device does not transmit data in sleep state, disconnects from the server to save power, and the device can be awakened to working state by vibration.

Smart mode:

Set the data upload interval, the device works according to the set interval time, works for 2



minutes each time, and is in sleep state during non-working hours. Vibration cannot wake up the device.

Remote power on and off:

In remote shutdown state, the device is in standby state, with a heartbeat every 5 minutes, the device is displayed as offline, and vibration cannot wake up the device. The background can operate remote power on to make the device work.

(When a remote shutdown is issued in the above three modes, the device will execute the remote shutdown process after receiving the command)

Timed power on/off:

The device will shut down after the shutdown time is reached, and will automatically turn on after power on. During the power on/off process, the device cannot be operated. If you need to wake up, you need to turn it on manually. The timed power on/off will shut down in all the above modes.

The above default status description:

Working status: The device working light is on, GPRS and GPS are both in working status.

Standby status: The device transmits heartbeat, GPRS works (heartbeat data is uploaded), and GPS does not work.

Sleeping status: The device is in sleep status, and GPRS and GPS do not work.

VI. SMS Commands

The user uses the mobile phone to send SMS command to the SIM card number of GPS device (note SIM card should be activated the text message function).

The comma in below SMS command format is in English input format, and the letters are upper and lower case according to the requirements of the instruction.

Common query functions	SMS command	Reply
Device status query	STATUS#	Version, ID,IP, etc...
Query parameter	PARAM#	id:868805060155804 ip:47.254.174.70 6006 apn:internet-yyyy- yyggggg,phone:13528**



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		34- 130**7119 ,time:10- 10 heart:180-300
Longitude and latitude link query	WHERE#	Google address link
APN query	APN#	Reply: APN:cmnet,,
APN settings	APN,cmnet,,# APN,cmnet,aaa,bbb#	Reply: APN:cmnet,aaa,bbb It is recommended to keep the comma placeholder when there is no username and password.
Server parameter query	SERVER#	Reply: SERVER:0,58.61.154.2 37,7018,0
Server parameter settings	1 、 Set domain name : SERVER,1,domain name, port,0# 2、 Setting IP: SERVER,0,IP, port,0# The last 0 represents: TCP	Send: SERVER,0,58.61.154.2 37,7018,0# Reply: SERVER:0,58.61.154.2 37,7018,0



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Model: QH416

Manufacturer: Shenzhen Qianfeng Communication Equipment Co., Limited

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Certification: CE

Country of Origin: Made in China