



Shenzhen Qianfeng Communication Equipment Co., Limited

ADD.:Room 615, Spring Valley - Wonderful Life Wisdom Valley, No.83 Dabao Rd., Baoan District, Shenzhen, 518100

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OBD CAN GPS Tracker

Instruction Manual

Product model: QH308

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.



CATALOG

I. Product installation instructions	4
II. Product parameters	4
III. Product functions	6
IV. Indicator Light Description	7
V. SMS Commands	7



I. Product installation instructions

To find the OBD port on the car to insert the device.



Most of the OBD port located under the steel wheel of A and B area.

II. Product parameters

Hardware Specifications

Project	Function Name	Functional Description
Electrical Characteristics	Power supply mode	Battery powered
	Operating voltage range	DC 9V - 48V
	Working current	12 V/ average 70 mA
	Sleep current	12 V/ average 17 mA
	Built-in battery capacity	140 mAh (3.7V polymer battery) optional
Environmental characteristics	Operating temperature range	-20 °C -75 °C
	Storage temperature range	-30°C - 80°C
	Operating humidity range	10 % -85 % RH No condensation
OBD Processor	Chip Model	ARM STM32
OBD Protocol	Protocol Type	ISO15765-4
Communication characteristics	Communication module brand/chip model	SIMCOM7670SA



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	Communication frequency band	LTE/4G	LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B28/B66
		GSM/2G	850/900/1800/1900MHz
	SIM card	Micro SIM card	
	Communication Antenna	Internal antenna	
	Antenna Specifications	FPC Antenna	
GPS/BD positioning features	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	
	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	
External Interface	A C C detection input	1st Road	
	CAN Line	1st Road	
	K-line	1st Road	
Form Factor	Host size (length, width and height)	58mm * 45mm * 22mm	
	Shell material	ABS plastic	
	Host weight	54 g	



III. Product functions

- Adopting ST's advanced 32-bit MCU processor, it can easily handle the functions of automobile data collection, analysis and data reporting;
- Stable OBD data acquisition algorithm, accurately acquires vehicle operation data stream, performs analysis and processing, extracts vehicle operation information, and extracts up to 24 items of data;
- The terminal adopts industrial-grade high-stability GPRS module, built-in GSM high-sensitivity antenna, supports TCP/IP data transmission, and supports domain name/IP address connection to the server;
- Accurate fuel consumption, mileage and speed are calculated through the data stream obtained from the vehicle bus, which can achieve a fuel consumption accuracy of more than 95%, a mileage accuracy of more than 99%, and a speed accuracy of 100%.
- The remote vehicle fault diagnosis and reminder cloud platform can monitor the vehicle's operating information and promptly feedback abnormal faults caused by vehicle operation to the owner;
- 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 ;
- Built-in 3-axis acceleration sensor, integrated with precise acceleration algorithm, obtains the current posture of the vehicle in real time, and supports vehicle condition judgment such as sudden acceleration, sudden deceleration, sharp turn, collision, etc.
- High-sensitivity GPS module and anti-interference active GPS ceramic antenna make GPS satellite search signal more stable and support AGPS fast positioning tracking and synchronous timing;
- In sleep mode, it supports automatic reporting of vehicle startup, shutdown, and sleep messages such as low battery voltage monitoring alarm and abnormal vibration alarm;
- Support online remote upgrade and remote configuration of product parameters;
- Reasonable vehicle bus data collection frequency ensures that the data on the vehicle bus is collected more intensively without interfering with the normal communication of the bus, and monitors the operation status of the vehicle more safely and reliably;
- Low power consumption energy-saving mode, accurate judgment of the vehicle ignition and shutdown status, intelligent sleep and wake-up mechanism, can reduce the average power consumption of the entire system;
- Dual battery voltage measurement and low voltage alarm in CAN and AD modes can read the vehicle battery voltage through CAN data stream as well as the vehicle AD port, which enhances reliability.



IV. Indicator Light Description

Red light - charging indicator

Light status	meaning
Always on	Charging
Not bright	Charging / Power off

Yellow light-GSM indicator

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

Blue light - GPS indicator

Light status	meaning
Flash once within 2 seconds	Searching for GPS signal
Always on	GPS Positioned
Not bright	GPS Sleep

V. 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	CXZT	Version, ID,IP, etc...
Reply to Google link	G1234	Google address link
Restore factory settings	FORMAT	Reply: OK
APN query	APN#	Reply: APN:cmnet,,
Set APN command format	apn,123456,cmnet	Reply: apn ok
Set server IP and port	IP+space+IP address+space+port number	Reply: set IP OK
Switch English	109#	Reply: OK
Set location data upload interval	FREQ,123456,30(30 means 30 seconds)	Reply: OK



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Manufacturer: Shenzhen Qianfeng Communication Equipment Co., Limited

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Certification: CE

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