



# OBD GPS Tracker

## Instruction Manual

Product model: QH302R

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

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

| Specification content | Specifications parameters |
|-----------------------|---------------------------|
| Size                  | 49mm*38.6mm*33.4mm        |
| Weight                | 42g (including battery)   |
| Built-in battery      | 100mAH (3.7V)             |
| Working voltage       | 12V-24VDC                 |
| GSM module            | SIMCOM-A7670SA            |
| GPS satellite chip    | AT6558                    |
| Working temperature   | -20°C to+60°C             |
| Storage temperature   | -20°C to+70°C             |

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|                            |                                                                                                                                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Sensor                     | Precision vibration sensor                                                                                                          |
| Frequency range            | LTE-FDD:B1/B2/B3/B4/B5/B7/B8/B28/B66<br>GSM/GPRS/EDGE:850/900/1800/1900MHz                                                          |
| GPRS                       | Class2,TCP/IP build in GSM Module                                                                                                   |
| Root-mean-square error     | S linear measure                                                                                                                    |
| Dynamic output range       | -15~-108dbm                                                                                                                         |
| Receiving sensitivity      | -107dbm                                                                                                                             |
| Maximum frequency error    | ±0.1ppm                                                                                                                             |
| Sensitivity                | Cold start-up: -145dbm<br>Hot start-up: -156 dbm<br>Temperature start-up: -145 dbm<br>Navigation: -160 dbm<br>Tracking up: -162 dbm |
| Positioning accuracy       | <5m                                                                                                                                 |
| The first location time    | Cold start: an average of 32 seconds                                                                                                |
| GSM antenna                | built-in                                                                                                                            |
| GPS antenna                | built-in                                                                                                                            |
| LED pilot lamp             | Power supply, indicating the status                                                                                                 |
| Transport protocol         | TCP                                                                                                                                 |
| Power detection            | Upload the alarm information when the main power is disconnected                                                                    |
| Data report                | Update the GPS data in real-time and support customer customization                                                                 |
| Electronic fence           | TBD                                                                                                                                 |
| Driving behavior detection | The vehicle driving speed exceeds the set speed to upload the over-speed alarm                                                      |
| GPS data                   | Real-time positioning update                                                                                                        |
| Vibration alarm            | Vibration report of vehicles in fortified state                                                                                     |



## 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. Common problem analysis and exclusion

This product shows that the yellow and blue lights always on without flash as normal online positioning. If flashing, please analyze the fault according to the following steps.



| Fault phenomenon                | Fault analysis                                                                                                             | Processing method                                                                                                                                                           |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blue lights flash slowly        | Determine whether devices are used in areas with poor GPS signals, such as near tall buildings or underground parking lots | Drive the vehicle to a good signal position using the terminal                                                                                                              |
|                                 | Determine whether the vehicle front windshield has a metal insulation film affecting the signal reception                  | If there is a film, change the equipment to other vehicles to test whether the blue lights are often on. If it is fine on other membrane vehicles, it is caused by the film |
|                                 | Determine whether there is a shield or a signal distractor on or around the car                                            | If there is a shield or interference source, remove the shield or interference source and attempt to reinstall it                                                           |
| Blue lights flash               | Chip failure                                                                                                               | Return to the factory for maintenance                                                                                                                                       |
| The yellow lights flash         | Determine whether the SIM card is well installed                                                                           | Check for the SIM card in place                                                                                                                                             |
|                                 | Determine whether the SIM card metal surface has dirt or poor contact                                                      | Wipe the metal chip surface with a clean cloth or plug the card several times                                                                                               |
| The yellow light flashed slowly | Determine whether the vehicle is in a mobile network such as an underground parking lot                                    | Please drive the vehicle to places where the network signal is good and try to reinstall it                                                                                 |
|                                 | Determine whether the server background is normal                                                                          | Ask if the background management platform server is normal                                                                                                                  |
|                                 | Determine whether the SIM card status is normal                                                                            | Check whether the status of the card is normal through the SIM card query platform                                                                                          |



|  |                                                                                 |                                                                                       |
|--|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|  | Determine whether there is a shield or a signal distractor on or around the car | If there is a shield or interference source, remove the shield or interference source |
|--|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|

## 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...                                                                                                 |
| Longitude and latitude link query | WHERE#                                                                                                                         | Google address link                                                                                                    |
| restart command                   | RESET#                                                                                                                         | Reply: RESET OK                                                                                                        |
| APN query                         | APN#                                                                                                                           | Reply: APN:cmnet,,                                                                                                     |
| APN settings                      | APN,cmnet,,#<br>APN,cmnet,aaa,bbb#                                                                                             | Reply:<br>APN:cmnet,aaa,bbb<br>It is recommended to keep the comma placeholder when there is no username and password. |
| Server parameter query            | SERVER#                                                                                                                        | Reply:<br>SERVER:0,58.61.154.2<br>37,7018,0                                                                            |
| Server parameter settings         | 1、Set domain name :<br>SERVER,1,domain name,<br>port,0#<br>2、Setting IP:<br>SERVER,0,IP, port,0#<br>The last 0 represents: TCP | Send:<br>SERVER,0,58.61.154.2<br>37,7018,0#<br>Reply:<br>SERVER:0,58.61.154.2<br>37,7018,0                             |





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Manufacturer: Shenzhen Qianfeng Communication Equipment Co., Limited

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Certification: CE

Country of Origin: Made in China