



Vehicle GPS Tracker

Instruction Manual

Product model: QS109R

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 appearance and accessories

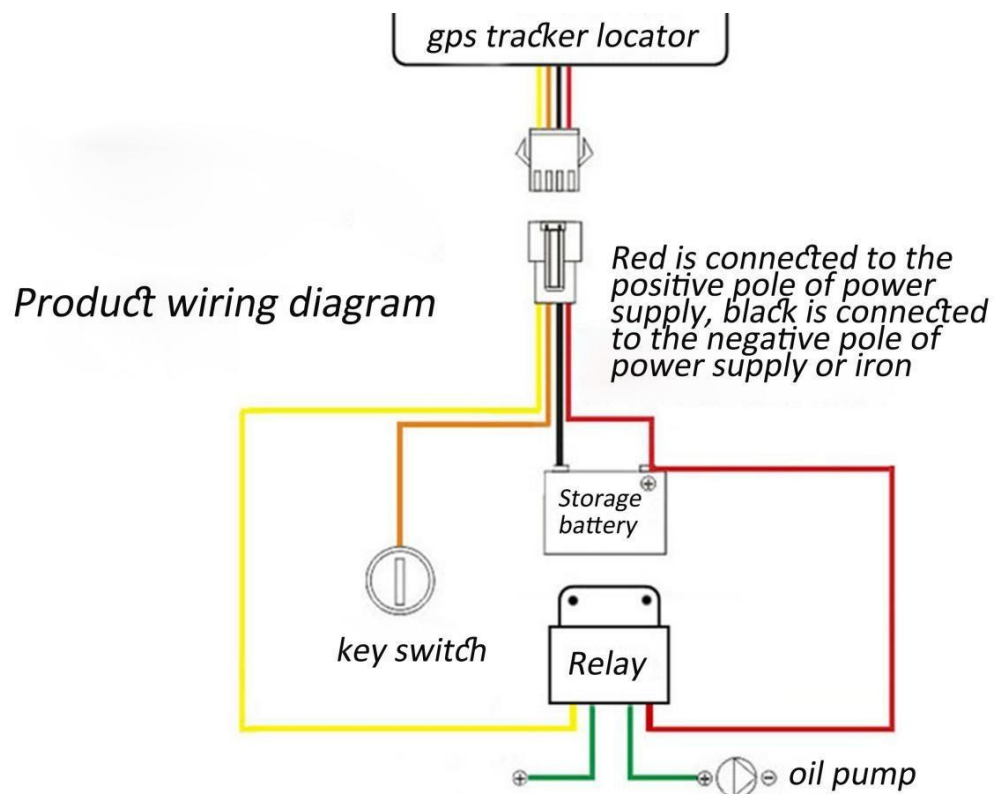


QS109R



power cord

II. Product structure description





III. Product parameters

Specification content	Specifications parameters
Size	(Device 74.5+Thread 57)*26*14.7mm
Weight	25.9g (including battery)
Operating Voltage	9 - 90V
Internal battery	150mAH (3.7V)
Working temperature	-20°C to+60°C
Storage temperature	-20°C to+70°C
Sensor	Precision vibration sensor
Frequency bands	B1/B3/B5/B8/B34/B38/B39/B40/B41
Communication module brand / chip model	SIMCOM/A7680C-MNNV
Chipset	ASR1602/ASR5311
Root mean square error	S degree
Maximum output power	LTE-FDD B1/B3/B5/B8: 23dBm±2dB/<-39dBm LTE-TDD B34/B38/B39/B40/B41: 23dBm±2dB/<-39dBm
Dynamic output range	-15~-108dbm
Receiving sensitivity	-107dbm
Maximum frequency error	±0.1ppm
sensitivity	Cold start: -147 dBm Hot start: -155 dBm Recapture start: -158 dBm Tracking: -160 dBm
First positioning time	Cold start: average 32 seconds



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LTE 4G antenna	built-in
GPS antenna	built-in
LED indicator	Power supply, indicating status
transport protocol	TCP
Power detection	Uploading alarm information when main power is disconnected
Data reporting	Update GPS data in real time and support customer customization
Electronic fence	TBD
Driving behavior detection	Upload over-speed alarm when the vehicle speed exceeds the set speed
GPS data	Real time location update
Vibration alarm	Report of vehicle vibration in fortification status

IV. Basic product functions

Content	Function	Explain
Locate function	4G all Netcom	Support 4G network, efficient transmission in 1 second, faster and more accurate.
	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

V. 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

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	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,,



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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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Product Name: Vehicle GPS Tracker

Model: QS109R

Manufacturer: Shenzhen Qianfeng Communication Equipment Co., Limited

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Certification: CE

Country of Origin: Made in China