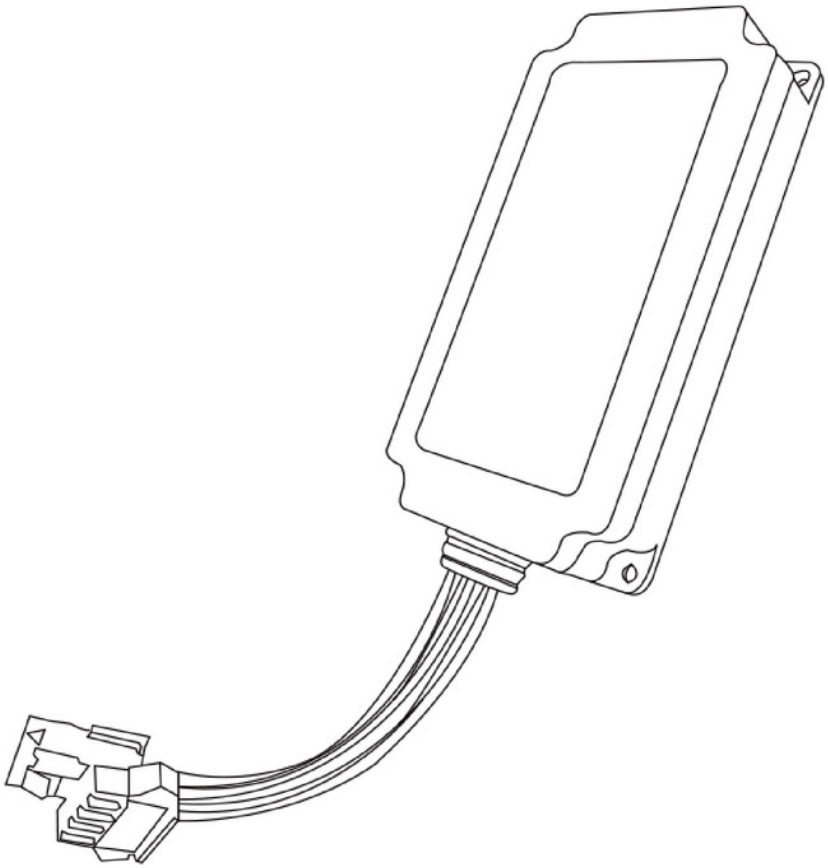
QH-G710

User's Guide



Please read the quick installation and use guide carefully before use, so as to get correct quick operation and use. Product appearance, color and accessories are subject to change without prior notice!

***Please use within the scope of local laws, and we will not be responsible for illegal use.**
All equipment must be installed in a de-energized state!

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PRODUCT INTRODUCTION

Product Features

Special feature:

- Recorder, power saving and throttling, monitoring driving behavior

Basic skills

- Real-time positioning, overspeed alarm, external low voltage alarm, external power failure alarm,
- Electronic fence, vibration alarm, car ACC detection, mileage statistics, blind spot supplementary transmission, abduction
- Point supplementary transmission, displacement alarm, GPS antenna failure alarm, remote upgrade, self-identification SIM
- Card and equipment removal alarm
- Enhanced functions: temperature detection, fuel consumption detection, LED advertisement release, data inheritance

Specifications

Communication standard: 4G Cat.1 (2G/NB/4G Cat.4 TDD-LTE/FDD-LTE_)

Antenna: Built-in GSM, GPS antenna Rated voltage: 9~90V

Rated current: 24mA/12VDC)

Battery capacity: 300mAh (lithium polymer battery)

Working voltage: 3.7V

Body size: 96mm*43mm*20mm

Weight: 110g Working temperature: -20~+70°C

Working humidity: 5~95%RH

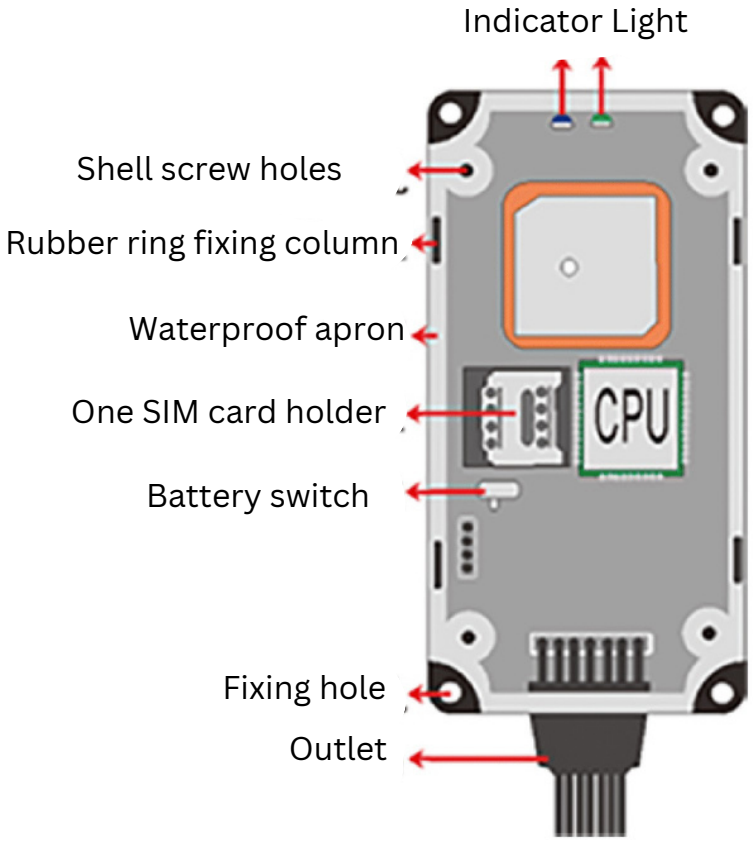
PARTS LIST

Parts name	quantity	Standard/Optional
Power cord	1	Standard
4PIN serial cable	1	Optional
manual	1	Optional
speed alarm	1	Optional

Parts name	quantity	Standard/Optional
LED advertising screen	1	Optional
temperature box	1	Optional
tire pressure box	4	Optional
Ultrasonic fuel consumption test	1	Optional

Note: Please confirm whether the packaging accessories are complete. The product accessories are subject to the actual product, because the product is constantly updated and optimized. The interior is constantly updated without prior notice!

Schematic



LED LIGHTS INDICATOR

1. Network status indication

LED light color	working status	meaning
green	flash	network initialization
green	slow flash	Normal online
green	turn off	Hibernation or no card installed

2. Positioning status indication

LED light color	working status	meaning
蓝	flash	Searching for location
blue	always on	located
blue	turn off	dormant or not working

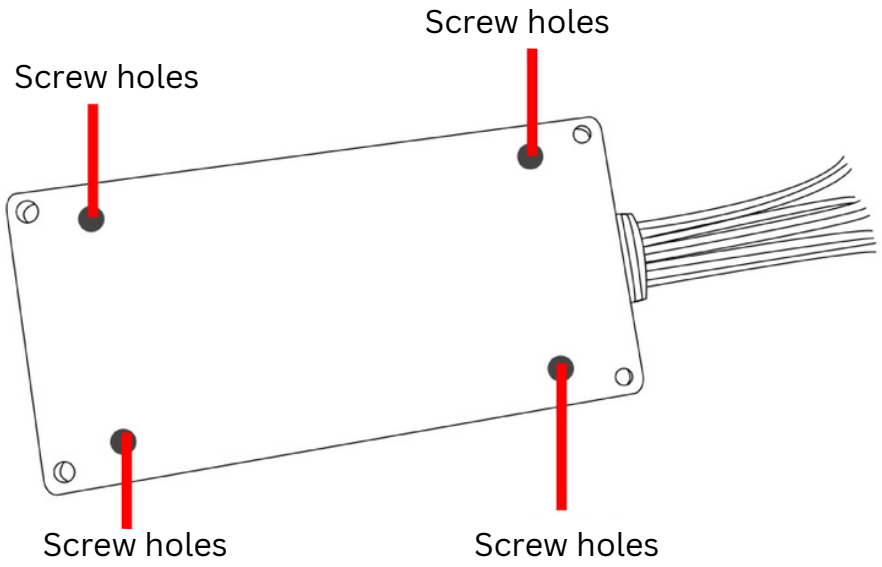
3. LED light combination status indication

LED light color	working status	meaning
blue, green	flashing at the same time	software upgrade

INSTALLATION NOTES

Shell disassembly

Remove the 4 screws of the device with a Phillips screw pen, as shown in the figure below:



SIM card installation

1. Please use the standard SIM card of China Mobile or China Unicom. The SIM card style refers to the following picture:

2. Before installing or taking out the SIM card, the power must be turned off first, the battery switch should be turned to the OFF position, and the metal cover of the SIM card holder should be opened. The operation method is shown in the figure below:

Switch machine

- boot:

When the SIM slot is installed on the device, the battery switch is turned to the ON position, the indicator light is on, and the terminal automatically turns on.

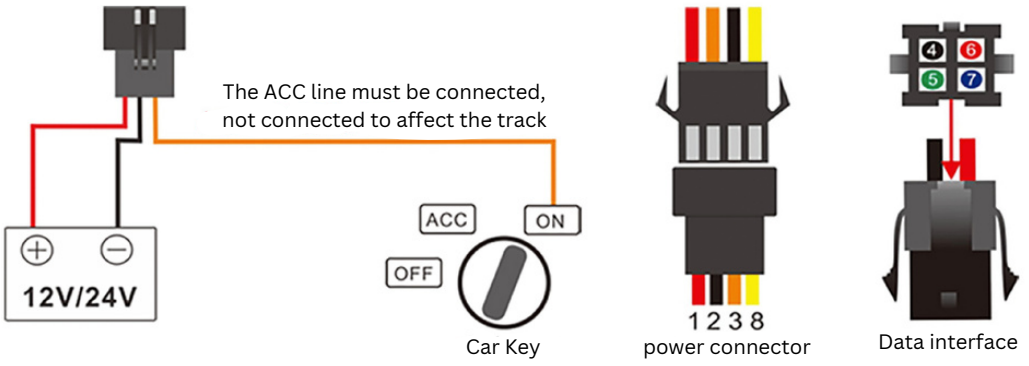
- shutdown:

Disconnect the external power supply, and turn the battery switch to the OFF position.

Wiring diagram

The 4PIN data interface is the data interface of external equipment, which can be connected with temperature box, tire pressure box,

For the installation and use instructions of the fuel consumption box or the peripheral functions of the advertising screen, please refer to the enhanced functions in the function description in the next chapter.



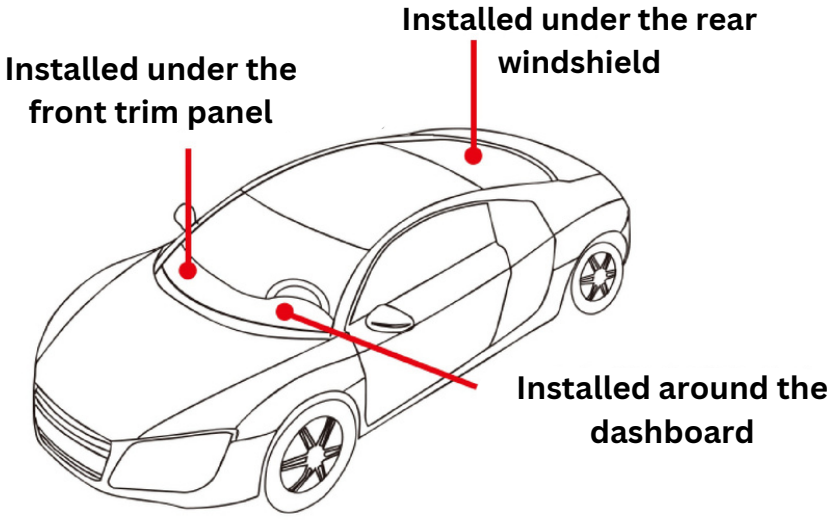
Terminal Connection Definition

serial number	Function	Wiring Instructions
1	Positive power supply	Connect to the positive pole of the car power supply (9~100V)
2	Negative pole of power supply	Connect to the negative pole of the car battery
3	Detect ACC	Connect the car ignition signal line
4	Output 5V	For 5V output signal/connect to overspeed alarm horn, connect
5	GND	to peripheral ground signal
6	RS232-TX	Peripheral RX
7	RS232-RX	Peripheral TX
8	relay	Oil cut-off wire

Note: The 4PIN data interface is the data interface of external devices, which can be connected to temperature discs, tire pressure boxes, and fuel consumption monitors.or advertising screen.

Installation location

This terminal is a satellite positioning product. It is recommended that you choose professional units and personnel for installation and try adjustment.
The recommended installation location for the car is as follows:



Notice:

1. The product should be installed facing up to the sky;
2. If the windshield is pasted with a metal heat insulation layer or a heating layer, it will reduce the strength of the satellite signal reception, which may make it difficult to locate the satellite. Please change the terminal installation location.

Function Discription

Basic functions

REAL-TIME POSITIONING

The terminal regularly uploads vehicle location information, which is convenient for customers to query vehicle location and vehicle status; the upload interval can be set remotely. The default upload interval of location information when driving is 30 seconds, and the interval of uploading location information when stationary is 5 minutes.

ACC STATUS

When the car is ignited or turned off, the terminal reports the vehicle ACC status information. ACC line search method: clamp the clip of the car battery tester to the metal frame, and the metal tip of the tester tester will detect the lines to be confirmed one by one. When the vehicle is started, the indicator light will be on, and when the vehicle is turned off, the light will go off.

AUTOMATICALLY IDENTIFY SIM)

The terminal intelligently identifies the country and operator where the SIM is located, automatically configures the local network access APN and time zone, and uploads the SIM unique identification code to the monitoring platform. If the SIM card cannot be recognized by individual countries, it can be manually configured remotely.

SAVE ELECTRICITY AND SAVE MONEY

The terminal intelligently recognizes the vehicle's driving state, idle state, parking state, and flameout state, and controls the operating frequency of the device according to the frequency of the vehicle, reducing the operating frequency of the device and reducing the power consumption of the device.

VIBRATION ALARM

Built-in vibration sensor, if the vibration occurs 10 minutes after the vehicle is turned off, the terminal will upload
Vibration alarm to the platform. This function requires the ACC line to be connected to the car ignition signal; this function is defaulted
Closed, can be opened remotely when needed; vibration alarm delay time can be configured.

DISPLACEMENT ALARM

The vehicle is turned off, the terminal detects that the position of the vehicle has moved, and the terminal reports a displacement alarm to the platform. The distance to judge displacement is 300 meters, which can be configured.

BATTERY UNDER-VOLTAGE ALARM

When the voltage of the 12V or 24V car battery is too low, the terminal will generate a battery undervoltage alarm to the platform. The voltage to trigger the undervoltage alarm can be configured.

POWER DOWN ALARM

When the terminal is normally powered on, after the external power supply is disconnected for 3 seconds, the terminal will generate a power-down alarm to the platform. The time for judging power failure can be configured; to realize this function, the battery switch must be turned on.

DEMOLITION ALARM

Distinguishing power-off alarms caused by installation problems, the terminal can intelligently recognize that the power of the device is disconnected manually, and the device leaves the original installation location, and the terminal will report a dismantling alarm.
Note: After installing the device, the device will automatically recognize the installation location after 3 minutes of inactivity. By default, this function is off, and it can be turned on remotely when needed.

LOW BATTERY ALARM

When the voltage of the built-in battery of the terminal is too low, it will be closed, and it can be opened remotely when needed.
Report low battery alarm to the platform. By default this function is off

BLIND SPOT POSITION SUPPLEMENTARY PASS

When the vehicle travels to an area without network signal, the terminal saves the location information at this time, and uploads the historical location information to the platform when the device comes back online.

INFLECTION POINT SUPPLEMENTARY PASS

When the vehicle is driving, the terminal will automatically upload the position points with relatively large turning angles to the monitoring platform, so that the platform track route looks smoother.

MONITOR DRIVING BEHAVIOR

When the vehicle has dangerous driving behaviors such as rapid acceleration, rapid deceleration, and sharp turns, the terminal records the dangerous

The occurrence time of dangerous driving is reported to the monitoring platform. By default, this function is turned off, and it can be turned off when needed.
program opens.

OVERSPEED ALARM

When the speed of the vehicle exceeds 120km/H during driving, the terminal will generate an overspeed alarm and upload it to the location server. The speed that triggers the overspeed alarm can be configured remotely. The overspeed threshold can be set remotely.

COLLISION ALARM

When the vehicle collides, the terminal uploads the alarm information to the platform. By default, this function is turned off, and it can be turned on remotely when needed.

ROLLOVER ALARM

When the vehicle has a driving accident and the vehicle rolls over on the ground, the terminal automatically reports the rollover status to platform. By default, this function is closed, and it can be opened by remote configuration.

FATIGUE DRIVING

When the vehicle continues to drive for more than 4 hours without stopping for a rest, or stops halfway for less than 20 minutes, the terminal will generate a fatigue driving alarm. Judging fatigue driving time and rest time can be set.

ELECTRIC FENCE

The terminal supports rectangle, circle and polygon, and the product alarm will be sent to the service platform. Electronic fence, when the vehicle enters and exits the set electronic fence,

MILEAGE STATISTICS

The terminal can accurately count the mileage of the vehicle, and the initial mileage of the terminal and the vehicle meter can be set. The dial mileage is synchronized.

LOGGER

When an important alarm occurs to the vehicle, the device records the vehicle information in the 5 seconds before the alarm, and the data can be retrieved remotely when needed, or set to be automatically uploaded to the monitoring platform when triggered. Recorder alarm types: overspeed alarm, rapid acceleration alarm, rapid deceleration alarm, sharp turn alarm, collision alarm, rollover alarm, power failure alarm, battery undervoltage alarm.

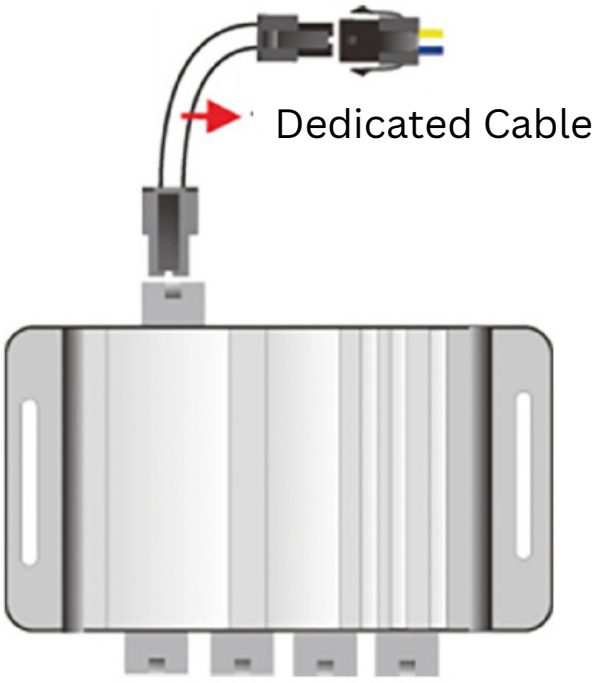
REMOTE UPGRADE

The terminal supports remote update of the terminal software. If you need to upgrade, please contact the dealer for assistance.

Enhanced functions

TEMPERATURE MONITORING

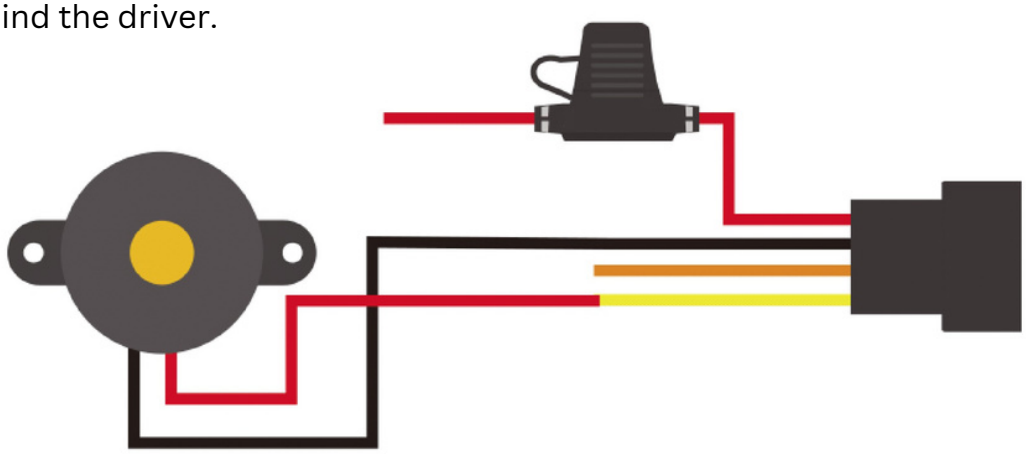
Connected to the temperature box, it can accurately collect 4-channel temperature, and the collection temperature range is -55°C~+125°C; the temperature data is attached to the location information, and the upload interval refers to the location upload interval. The installation method of the temperature box is as follows:



Please use the dedicated connection line provided by the dealer to connect to the data interface of the terminal, and the terminal will automatically recognize the temperature box when it is turned on.

SPEEDING REMINDER

External speeding alarm alarm, when there is a vehicle speeding, there will be a beep alarm sound to remind the driver.



Note: This function is turned off by default, due to the OIL in the MAIN line group used for installation wiring, and The oil and electricity cut-off function can only choose one of the two, and the external overspeed alarm can be switched by command.

DATA TRANSPARENT TRANSMISSION

When the 4PIN interface of the terminal is connected to some kind of device (such as an advertisement release screen or other unknown devices), the terminal is responsible for the content transmission between the external device and the monitoring platform, and does not make any changes to the content. The external device needs to support RS232 serial port, and set the data interface of the device to transparent transmission mode.

Refer to the following instructions for wiring:

1	**green**	**RX**	**TX of external device**
2	**yellow**	**TX**	**RX of external device**
5	**black**	**GND**	**Connect to peripheral ground signal**

ULTRASONIC OIL LEVEL ACQUISITION

The terminal is connected to the ultrasonic fuel consumption sensor, which collects the fuel level of the vehicle fuel tank and reports it to the platform.
The platform monitors the fuel volume of vehicles in real time, so that managers can analyze economical transportation routes, and further analyze the fuel consumption that is quite different from the past to determine whether it is normal.
Regular consumption, abnormal consumption or active consumption reduction

Note: For installation and use, please refer to the sample sensor operation guide

Function Discription

Common malfunctions	cause of issue	Solution
No positioning or position offset large	When using the terminal in places with poor satellite reception, such as under tall buildings or basements, satellite radio waves cannot be received effectively.	Use the terminal where the satellite signal is good
	The terminal is placed facing down or above it is blocked by a metal material layer, and cannot receive satellite radio waves.	Please place it in the correct direction or change the installation location, and there are no metal obstacles above the location
Can not boot	Battery is low	External power supply to charge the battery
	fuse blown	Contact the dealer to replace the fuse of the same specification
	The SIM card holder is not properly installed	The SIM card holder is installed in place
	Main power wiring error, no voltage or low voltage	Be careful not to connect to the internal control line of the car, and ensure that the terminal power line has normal voltage input

Unable to connect to the network	The SIM card is not installed properly or loose	Detect SIM card, reinstall
	There is dirt on the metal surface of the SIM card	Please wipe with a clean cloth
	SIM card damaged or invalid	Please replace a valid SIM card
	Out of GSM service area	Please move the device into your network service provider's area
	Weak signal	Please move to a place with strong signal and try again
Can't find location information	The SIM card has not activated the GRPS service	Please contact the network service provider to activate the GPRS service
	SIM card arrears	recharge fee
	Send command without reply	Please ensure that the terminal can connect to the network normally and activate the SMS function of the terminal SIM card
Unable to go online	wrong terminal parameter	Please check whether the terminal IP, port and IMEI are correctly corresponding to the platform