User manual of
GPS GPRS GSM vehicle tracking system

(Model No.: GT-110ES)

I. Welcome to use our product

- ✧ We keep the final explanation right on this User Guide.
- ✧ Please don't unfold or maintain it, for fear damaging it, if you don’t operate it according to the user’s manual, it may damage the product or cause hurt to you, our company would not take responsibility for the loss in this situation.
- ✧ Our tracking devices may not be used to violate the privacy rights of others, or in violation of local, county, state or federal statutes, and our company will not be responsible for inappropriate use of these products.
- ✧ 110ES is a device that uses the Global Positioning System to determine the precise location of a vehicle, moving house, trailer or other asset which 110ESis installed on and to record the position of the 110ESat regular intervals. With Sirf Star III GPS systems, it records not only position, but also velocity, Date time, direction, status of digital output ports, etc.
- ✧ The main purpose of using 110ESis not only to locate the vehicles, but also to obtain information about the status of doors, windows and ignition, etc. Or remotely monitor cutting off gas and power supply, etc.
- ✧ Sometimes, if users want to upgrade the 110ESversion, then we will give users new software firmware to update it. In this situation, please contact our service center.
- ✧ In order to acquire more important details, you should pay much attention to some signs and supplementary information, such as:

Note: Means you must pay much attention, it includes many important details which you may overlook.

Caution: Warning information on relative topic, you should read it carefully, to avoid unexpected loss.

More information: More relative information about a certain topic, sometimes it is another easy way for the same purpose.

And if some words are marked in **red** color, that indicates the words should be paid much more attention.

1.1 Introduction

Software Function	
Single location	√
Tracking	√
Over-speed alarm	√
Geo-fence alarm	√
SOS alarm	√
GPRS Function	√
Power cut off alarm	√
Inner Lithium battery	√
Charged by exterior DC	√
Anti-theft Alarm	√
SOS button or Button A	√1B
Switch input	√(1 ports)

1.1.1 Key Feature

In the Basic Version, by using the 110ES, user can track the vehicle via SMS or GPRS supervise the status of the door, window, and ignition of the car through I/O sockets. The more detailed function as below:

- Tracking via SMS or GPRS (TCP/UDP)
- Protocol: GpsGate protocol (optional)
- Current location report
- Tracking by time interval
- Built-in motion sensor for power saving
- SOS panic button
- Geo-fencing control
- Low battery alert
- Speeding alert
- Shake sensor alert
- Engine cut
- Wiretapping (optional)
- Alert when 110ES enters/exits GPS blind area
- Alert when 110ES is turned on

Main feature:

Tracking via SMS or GPRS (TCP/UDP), multi-channels

1) The monitor stuff real-time tracking.
   Please call the local monitor center for location of vehicle. Tell them your password, they will tell where it is.
2) Send the commands to the device; the device will reply the location. And different commands for different request.
   Please read the commands list before you use.
3) Reply the current position when the second owner calls.

4) Real-time tracking via website. http://www.gpsinn.com
   Username and password is necessary.
5) Control platform is supported. It can control at least 10000 vehicles. (optional)

Arm or disarm by the first owner

Call the device via the first owner.

Arm status: Call the device and it will hang up automatically. After few seconds, the device will call the first owner back and hang up automatic as well.

Disarm status: Call the device and it will hang up automatically. The device will not call the first owner back any more. This function won't create the cost of the phone calls. The device hand up automatically means the first owner called. The device call back automatic means it is in arm status.

Monitor function

1) The device calls the phone

Use any of the cell phone send the command" 111111MON" to device. The device will call back the cell phone.

2) The device calls the appointed phone number.

Send the command" 111111MON phone number" to the device and the device will call the phone number. The phone owner can listen to what the driver said.

3) Use the cell phone to call the device

Send the command" 111111MON phone number1, phone number2" to device, it will reply the same SMS, use the appointed phone number to call the device.

Remarks:

The first two ways can be used for one time, please send the command to the device before monitoring. The third way can be memorized in the device, can use the appointed phone number to call the device at any time.

Alarm for starting the engine illegal

If the engine starts under ARM status, the device will send SMS to car owner and the monitoring center send SMS as "Engine ignited!", then tracking device will stop the engine automatically. In this case, you need to DISARM before starting the car again.

Alarm for opening the door illegally

If the door is opened in ARM status, the device will send SMS to the owner of the car and the monitoring center send SMS as "Door opened". Disarm the car after alarm, cancel the alarm.

Shake alarm

Engine cut

Alert alarms

SOS panic button

Low battery alert

Over- Speeding alert

Move alert

Working with vehicle original alarm

Protocol: GpsGate protocol (optional)

Internal Polymer Lithium Ion Battery in the 110ES

1.2 Accessories

Accessories	Yes or No
GSM Antenna	✓
GPS Antenna	✓
Cables	✓
User Manual CD (certification)	✓
Options:	
Internal microphone	(Optional)
Working with vehicle original alarm wire	(Optional)
SOS	(Optional)
Relay	(Optional)
Engine on testing wire	(Optional)
Shake sensor	(Optional)
Door signal wire	(Optional)

1.3 Specification

Feature	Characteristics
Dimension	75*54*25(mm)
Exterior Power Supply	DC 12V~ 24V
Inner lithium battery	DC 3.8V ~ 4.2V
Exterior GSM antenna	Receive GSM signal better
Exterior GPS antenna	Receive GPS signal better
Power Consumption when exterior voltage is 12V	Active mode(avg.) < 100mA Sleep mode < 5mA
Operating Temperature Range	-20℃ to +60℃
Air pressure	860Kpa --1060Kpa
Humidity	Up to 75% non-condensing

Position accuracy	<=15 meters
GSM chip	Simcom, support 4 frequency GSM 850/ 900/1800 /1900MHZ
GPS chip	Sirf-Star III (super-sensitivity and high accuracy)

1.4.1 Socket and Switch

Hardware	Function
A. Switch	Open/Close the unit
B. I/O Sockets	Expanding function, as below
C. GSM Antenna socket	Connect Exterior GSM Antenna
D. GPS Antenna socket	Connect Exterior GPS Antenna
E. SIM Card Holder	Hold a SIM card
F. Yellow plastic Pin	Press it to pop up the SIM Card Holder

II. Get started, please follow me!

2.1 Installation Guide

♣ **Step1: Inset a SIM card.**

(1) Use a needle to press the yellow plastic (in the hole), then the cover of SIM card will pop-up, take the slipcover of SIM card out to put the SIM card in it, with the chip module up, as the below pictures shows:

(2) Put back the front cover, and move the sliding cover to the unit.

Note: Please make sure the SIM card can communicate with other cards via SMS and call, and before installing the SIM card to the holder, please use a mobile phone to empty the SMS storage of the card.

♣ **Step2: Connect GSM Antenna and GPS Antenna to 110ES unit.**

(1) Fasten the connection by turning the metal end of the antenna, until the connection is very firm.

Note: You'd better put GPS antenna top to the open sky, out of the car to get GPS signal, or make sure that it will not be covered or shielded by any electromagnetic object.

More information:110ES relies on GSM and GPS system for location and communication, so we must make sure that GSM signal and GPS signal are in good state.

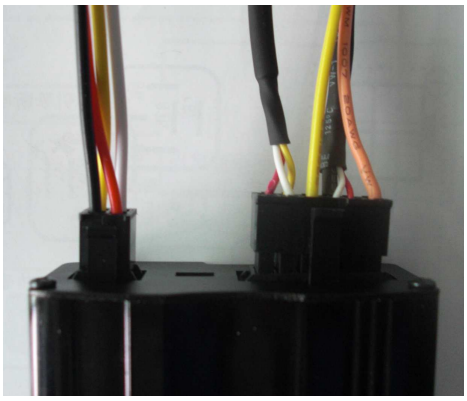
● GSM is the abbreviation of Global System for Mobile Communication. At first, you should insert a phone (SIM)card into the 110ES, In virtue of GSM system, 110ES and your mobile phone in hand can communicate with each other.

● GPRS is General Packet Radio Service, is a service technique based on GSM, by virtue of the service, the 110ES can communicate with a Server.

● GPS is the abbreviation of Global Positioning System. There are 24 positioning satellites around the earth sending GPS signal to the 110ES straightly. In order to receive signal, the top of GPS antenna cannot be shielded or covered by any electromagnetic object. The use can bring the top of GPS antenna to the open air for better GPS signal. If 110ES is in a shielding environment temporary, please don't worry, because once the 110ES leaves the shielding environment, it will regain GPS signal. Further, the product can provide accurate position information under dynamic condition; the precision will be kept within 10 to 15 meters.

♣ **Step 3: Fix the 110ES in your car and connect the 110ES to the power of your car.**

(1) Connect the wires to the I/O socket, please make sure the wires are inserted to the I/O socket firmly. As below:



More information: 110ESunit have lithium battery in it, and if 110ESis cut off from the power of the car, lithium battery will supply power to the 110ES. Once 110ESis connected to the car power, lithium battery will be charged until it reaches full.

Caution: After you have completed all the process, we must check that the wiring connections are firm and reliable, and the joints are wrapped with insulating tape tightly.

2.2 The commands of 110ES.

No.	Commands	Explanation	Reply	Remarks
1	111111*10phone number*20phone number*	To set the owner of the car, the phone number is cell phone number or telephone number.	111111*10phone number *20phone number	The first phone number is the first owner, it can check the position, receive Alarm, and arm/disarm when the first owner call the device. The second phone number is the second owner; it can receive alarm from the device.
2	111111PSW&&&&&&	Setting the new password.	111111PSW new password	The default password is: 111111, we strongly recommend you to change the password when you start to use the device. Please remember you new password.
3	111111ARM	ARM	ARM successfully and the latitude and longitude	
4	111111STP	Stop the car by the owner	Car stopped, and the latitude and longitude	
5	111111DSM	Disarm	DISARM successfully and the latitude and longitude	
6	111111CHK	Ask for the position	the current status and the latitude and longitude	
7	W111111,100	Ask for the position and reply with a Google link	A Google link SMS	Click on the link, it will show the right position on Google map.
8	111111RES	Relieve after stop the car	Cancel successfully	The owner can cancel the alarm and relieve after stop the car (it can relieve the SOS alarm. If the car was stopped by the center software, the command can not be used.)
9	111111MON phone number	Monitoring the driver		This instruction is to ask the system to call you back on the call back phone number eg if the PIN No. is 111111, the sending 111111MON**13800138000** cause the system to call you back on **13800138000**and activate the secret microphone so that you can listen to conversation of people inside the vehicle
10	111111MOV:3:X,	Open the Speed Alarm	111111MOV:3:X,	X=1, open; X=0, close
11	111111OVF:X,	Set the over speed alarm	111111OVF:X,	Default X: 200Km/h (X >=30)
12	111111MOV:6:X,	Open the moving alarm	111111MOV:1:1,2:0,3:0,4:0,5:0,6:X,7:0,8:0,	X=1, open; X=0, close
13	111111RAD:XR:a,YR:b,	Set the moving radius	111111RAD:X,XR:a,YR:b,	X=1,mean open moving radius X=0,close. “a” is latitude radius,”b” is longitude radius.The unit is meter. For example:111111RAD:1,XR:50,YR:60, X=1,mean the status is open,and the scope is 100*120.

III. Attachment