GPS Vehicle Tracker

USER MANUAL

(Model: GT08)

Version 4.0

(Date: Jan. 7, 2017)

CONTENT

Preface

GT08 GPS Vehicle tracker is the most advanced & cost-effective solution for vehicle security, real-time tracking & fleet management. It has the following unique functions:

- ✧ Support wireless immobilizer;
- ✧ Fuel leaking alarm, speed limiter & fatigue driving alarm;
- ✧ It is integration with GPS tracker +Car alarm

Read it Firstly:

Please read this manual thoroughly before you use the device; please keep it for future reference.

Attention:

(1) Please keep the device away from heavy water, high temperature, heavy dust or strong magnetism.

(2) Please prepare a valid GSM SIM card in advance.

(3) For safety, please keep the SIM number of your tracker in secret

Warning:

We strongly suggest user let the professional car electrician to install the system.

I. Features & Functions

1. Industrial design with high performance ARM7 process
2. Track on command or by time interval or by distance;
3. Arm/disarm by SMS, phone call;
4. Check the car's real physical address (such as city name, street name..);
5. Track by mobile SMS to get the latitude, longitude, speed, direction & odometer etc.
6. Check the location directly by the Google map's URL;
7. Over-speed alert, Geo-fence alert, movement alarm;
8. Snap photo and send out via MMS &Email when there is SOS alarm, ACC On alarm or door open alarm, snap the photo via platform (optional);
9. Speed limiter, when the speed is over limitation, the siren will sound to warn driver & relay will response to slow down the car automatically;
10. Crash alarm, when there is crash & it can detect it automatically;(optional)
11. Fatigue driving alarm, if continuous driving time is over the limitation, the alert will be triggered;
12. Check the coordinates via LBS, even there is no any GPS signal..
13. Support voice monitoring & 2-way talking;
14. Cut off engine to stop the car safely by SMS/GPRS;
15. Trace optimization when vehicles turns a corner;
16. Built-in shock sensor for power saving & triggering alarm
17. Power failure alarm, with built-in rechargeable backup battery;
18. SOS alarm(optional);
19. Support analog input for fuel/temperature monitoring, fuel loss alarm;
20. I/O: 4 digital inputs, 1 analog inputs & 1 digital outputs;
21. There are 3 types of working mode for power saving flexibly.
22. 8M-bit offline data logger, it can store up to 9,090 waypoints.
23. SMS content in multi-languages(English, Arabic, Spanish, Portuguese).

II. How to Operate it

The default user password is **111111**.

If the user password is changed, user should send the SMS command with the new user password instead of 111111.

XXX is the control code, all the letters must be **capital letters or in small letters**, command with mixed capital letter & small letter is not recognized by system

Authorize the Alarm-received Phone No.

SMS command: **111111*10 Mobile #1*20 Mobile #2***

In case of alarm, if user wants to get the alarm SMS from the tracker, he/she needs send the following SMS to program the tracker firstly, otherwise, the alert information can't be received correctly.

Example: User sends the SMS 111111*10 13922713571 *20 13711189059* to the tracker's SIM card number, if there is any alarm, system will send SMS to both of these two mobiles. In case of SOS alarm, the system will only send alarm to the mobile #2

Arm/Disarm by Phone Calling

User could also use the 1st alarm-received mobile phone to call the tracker's SIM card number, so as to arm/disarm the system.

Arm: After hearing several ring tones, if the systems hang up the call automatically, and call back you, it means that the system is armed.

Disarm: After hearing several ring tones, if the system hangs up the call automatically, and don't call back you, it means that the system is disarmed.

Note:

(1) There is no communication fee for this operation, it is a very convenient way to arm & disarm the system.

(2)The SIM card inside the device must have the function of Caller ID Display.

(3) Only the 1st **alarm-received mobile phone** can realize this function.

Check the Vehicle's Status

SMS command: **111111CHK** (or **111111chk**)

This instruction is used to inquiry the vehicle's location & system's status.

The system will send back the SMS, includes the similar information, such as "Armed……"

User could also use the 2nd alarm-received mobile phone to call the tracker's SIM card number, the tracker will hand up the calling & send back the location directly.

Arm/Disarm the System by SMS

SMS command: **111111ARM** (or **111111arm**)

This SMS instruction is used to arm the system

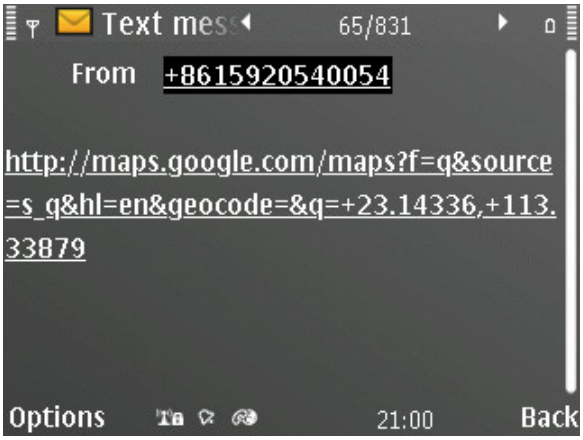
SMS command: **111111DSM** (or **111111dsm**)

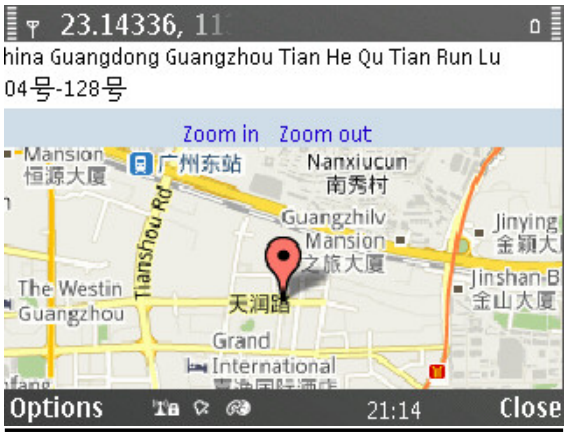
This command is used to disarm the system & stop sending alert SMS.

Check the location by Google Map's URL

SMS command: **111111MAP** (or **111111map**)

Upon receiving the SMS command, the tracker will automatically send back the SMS including the Google map's URL, user can use smart phone (GPRS data service is enabled) to open the URL link, the car's location will be showed on the Google map.





Check the Real Physical Address

SMS command: **111111ADD** (or **111111add**)

When user sends this SMS command to the tracker, the tracker will automatically send back the car's real physical address (such as city name, street name) to your mobile by SMS.(it need server's support for address translation)

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Check the Real Physical Address Directly without Server

SMS command: **111111DDD** (or **111111ddd**)

When user sends this SMS command to the tracker, the tracker will automatically send back the car's real physical address (such as city name, street name) to your mobile by SMS.

(Note: this function might not work with some operator's SIM card. it is just for test).

Check the Location by GSM Base Station Code

SMS command: **111111LOC** (or **111111loc**)

This instruction is used to check the location by GSM base station code. The tracker will send back the relative GPS coordinates which is translated by the GSM base station code.

Change User Password

SMS command: **111111PSWnnnnnn** (or **111111pswnnnnnn**)

This instruction is used to change the user password. The length of the user's password is 3~6 digits. Users are suggested to change to the new password in use.

Example: User sends the SMS "111111PSW12345" to the system SIM card number, and gets the confirmed SMS "111111PSW12345" in 3 seconds. It means that the user password has been changed to 12345.

Remark: Please keep the password deep in mind if it is changed.

Stop the Car by SMS

SMS command: **111111STP** (or **111111stp**)

This instruction is used to stop the car in safe condition. If the car's speed is higher than 30KM/h, the car is stopped gradually by impulse control, if the car's speed is lower than 30Km/h, the car is stopped immediately.

Attention: It is very dangerous to stop the car when the vehicle is running at high speed. We do not take any responsibility to the consequence caused by this action.

Restore Car from Being Stopped

SMS command: **111111RES** (or **111111res**)

It is used to restore the car to normal status after being stopped.

Monitor the Voice around the Car

SMS command: **111111MON**

This instruction is used to monitor the voice around the car. The SIM card inside the system pays for the communication fee.

SMS command: **111111MON!**

This instruction is used to monitor the voice around the car. The user's telephone pays for the communication fee.

Example: User uses the mobile 13780012345 to send 111111MON! to the system, then use the mobile 13780012345 to call the tracker, it will be connected automatically, and user can monitor the voice around.

Two-way Talking

SMS command: **111111MON:P1***

This instruction is used to program the phone number which is used for carrying out direct monitoring or talking always.

P1 is suggested as center phone number for easy communication with drivers.

Example: 111111MON:13922713571*

Over-speed Alert

111111SPD:X x is the speed in KM/H , maximum value is 255M/H

(For example: 111111SPD:120, if the car speed is over 120KM/H, it will send out warning alert by SMS/platform).

111111SPD:0 to disable the over-speed alert. It is the default setting.

111111SPD: to check the setting of over-speed alert.

Remark: this function is just for reference, because there might be some time delay or error in detecting the running car's real speed by GPS. Default speed limitation is 120KM/H.

Speed Limiter

After user sets the speed limitation by command 111111SPD:X, if car is over speed, the car will be slowed down gradually.

111111BUZ:3:X,

(X=1, activate siren; X=0: deactivate siren; default=1)

111111RLY:3:X,

(X=1, activate relay; X=0: deactivate relay; default=1)

Power Save Mode

SMS command: **111111PWR:X**

Value of X	Actions	Power consumption
0 (default)	Disable power save mode	60mA
1	Close GPRS connection	48mA
2	Close GPRS connection, GPS module	13mA

After setting 111111PWR:1(or 2), if there is no vibration & SOS alarm, integration line is not triggered, and ACC is OFF, the tracker will go into power save mode after 5 minutes.

Once there is vibration or SOS alarm, or integration line is triggered, or ACC is ON, the tracker will wake up from the power save mode immediately.

Fatigue Driving Alarm

When this function is activated, if the engine is turned on for a certain time, the siren will sound to warn the driver. The SMS command:

111111TIR:1:X, (with, at the end)

X: is time in minutes (default: X=180 minutes, maximum:65535 minutes)
Example: 111111TIR:1:120,

Show the SMS Content in Languages.

SMS command: **111111LNG:X**
it is used to define the SMS content in different languages.
X=0, English; X=1, Chinese; X=2, Arabic;
X=3, Portuguese; X=4, Spanish; (Default setting: X=0, English)

Define the SMS Content in other languages

Step 1: choose the language mode such as: 111111LNG:4 to change to Spanish language firstly.
Step 2: Define your own text by the following command:
111111TXT:nn:str!nn:str!nn:str!nn:str!nn:str!nn:str!
Remarks:

(1) 6 pieces of strings can be defined in one command.
(2) nn: 2bits, range:01~18
(3) the number of letters in each str. can't be more than 8
(4) the character (.) ,(.),(!) can't be showed in str.

Example: 111111TXT:09:vibración! is to define the alarm text in Spanish when the shock sensor is triggered

nn	Meaning of Str.
01	Arm
02	Disarm
03	Power failure alert
04	SOS alert(in1)
05	Engine ON alert (in4)
06	Vibration alert
07	Stop the car(out1)
08	Restore the car(out1)
09	Over-speed alert
10	Original alarm's triggering(in5)
11	Geo-fence alert
12	Movement alert
13	The vehicle can't be stopped

14	Crash alert
15	Car door open alert(in3)
16	Broken line alert (in2)
17	Fuel loss alert
18	Un-define

Other SMS Command List

Note: ****** is user's password and the default password is 111111. The tracker will only accept commands with the correct password.

Functions	SMS Command	Example
Trace Optimization	******TIR:2:X,	111111TIR:2:30,
When the vehicle turns around a certain angle: X degree, it will report one location.(default:30 degree)		
Auto Report by SMS	******TIR:3:X, ******SMS:1:Y,2:Z,	111111TIR:3:5, 111111SMS:1:1,2:0,
X: the time interval for continuous automatic report via SMS.(X=0:no report) Y=1: report to user 1, Y=0: No report to user1; Z=1: report to user 2, Z=0: No report to user 2; (Example, the tracker will send location data back to user1 every 5 minutes.)		
Set Movement Alarm's Radius	******NUM:6:X,	111111NUM:6:150,
Example: it is set the radius of movement alarm as 150meters.(Default setting:100meters)		
Set the Shock Sensor	******NUM:3:X,	111111NUM:3:1,
It is to set the sensitivity of the shock sensor. X=1~10, sensor will be more sensitive if X value is smaller.		
Set the Crash Sensor (optional function)	******BMP:1=X,2=Y,	111111BMP:1=200,2=10,
It is to set the sensitivity of the crash sensor. X=0~255 (Acceleration value of the offset), Y=0~9(last time), sensor will be more sensitive if X value is smaller & Y value is smaller.(default x,y=224)		
Odometer Setting	******ODO:X	111111ODO:5000

It is to set the initial odometer reading. (X: meters) 111111ODO: is to read the present odometer reading (with : at the end)		
Set multiple parameters	******SET:1:x,2:y,3:z,4:u,5:v,6:w,	111111SET:1:888888,2:120,3:8,4:1000,5:50,6:2,
Example: in above example: x=888888 is operation password, y=2 is over-speed, z=8 is time zone, u=1000 is the initial odometer, v=50 is radius of movement alert, w is power save mode(=pwr:1,2,3) Check the settings: 111111SET: (with : at the end)		
Lock/unlock the door (optional function)	******LCKx	111111LCK0
Example: x=0 or x=1 111111LCK0: lock the car door (the output4 has pulse output) 111111LCK1: unlock the car door (the output5 has the pulse output)		
Track by distance	******LOG:5:X,	111111LOG:5:1,
111111LOG:5:X, X=0: Track by time interval (default settings) ; X=1: Track by distance 111111EQU:Y Y is the distance interval for automatic tracking		
Clear the Parameters	******CLR	111111CLR
Remarks: it will reset the GPRS settings & shock sensor to default settings, it will clear the alarm-received phone number and direct monitoring phone no.		
Clear the Data logger	******NUL	111111NUL
Remarks: it will format the cache of the memory and delete all the stored offline GPS data		
Set Fuel-loss alarm (optional function)	******OIL:X	111111OIL:10
Remarks: it will set the reduction offset X of fuel level in 10 seconds. it is used to adjust the sensitivity of triggering fuel-loss alarm.		
Reboot the tracker	******DOG:!	111111DOG:!
The device will reboot 1 minute later.		
Set Heart-beat time	******HBX:X	111111HBX:3

<table>
<tr><td colspan="3">It is to set the heart-beat time interval. (in minutes)</td></tr>
<tr><td>Pair the wireless immobilizer (optional)</td><td>******STD</td><td>111111STD</td></tr>
<tr><td colspan="3">It is to pair the wireless immobilizer (optional functions)</td></tr>
<tr><td>Check &set parameter together</td><td>******SET:</td><td>111111SET:</td></tr>
<tr><td colspan="3">The above command is used to check the parameters together. To set the parameter, please use 1111111SET:1:(password),2:(over-speed),3:(time zone),4:(odometer in meters),5:(movement radius),6:(power save mode), example: 111111SET:1:111111,2:120,3:0,4:8660,5:100,6:0,</td></tr>
<tr><td>Geo-fence Alarm</td><td>W******,017,X
W******,117,X</td><td>W111111,017,
11404.0000,E,2232.0010,N,
11505.1234,E,2333.5678,N</td></tr>
<tr><td colspan="3">Remarks: 017 is for alarm when tracker moves out the preset scope; 117 is for alarm when tracker moves in.
When the tracker moves in/out, it will send a SMS alarm to the authorized phone number.
X is the coordinates which include:
Lower-left X,Lower-left Y,Upper-right X,Upper-right Y
For example, 11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N
Note:
1. Lower-left X should be less than Upper-right X;
2. All longitudes and latitudes should be in ASCII format as follows:-
Longitude: DDDMM.MMMM,E/W. 4 places of decimal. ‘0’ is needed to be stuffed if no value available.
Latitude: DDMM.MMMM,N/S. 4 places of decimal. ‘0’ is needed to be stuffed if no value available;
3. Only one alarm can be set in either Movement Alarm or Geo-fence Alarm;
4. Send W******,006,00 to turn off Geo-fence function.</td></tr>
<tr><td>Get IMEI number</td><td>******CMD:AT+GSN</td><td>111111CMD:AT+GSN</td></tr>
<tr><td colspan="3">Remarks: to get the IMEI number of tracker’s GSM module</td></tr>
</table>

III. The Setting for GPRS Connection

The GPRS setting is necessary for using the following 2 functions:
(1) Check the car's real physical address by send 111111ADD
(2) Online tracking service by web-based tracking platform

SMS format:

111111WWW:IPN:X;COM:X;APN:apn,user,password;RPT:X;SLP:X;RUN:X;

- IDN: The tracker's ID, it is the last 14 digits of IMEI which can't be changed.
- IPN: The IP address or domain name of the GPRS server
- COM: The communication port for the GPRS server
- APN: The Access Point Name for the GSM SIM card.
- RPT: The interval for the uploading GPRS packet (Unit: sec.)
- SLP: The interval for uploading GPRS packet when car is parked (Engine is OFF and no vibration). (unit: sec.);
- RUN: GPRS connection setting. 0=close, 1=TCP, 2=UDP.
- IDN: The tracker's ID, it is the last 14 digits of IMEI which can't be changed.

Example, if server is: www.51track.com, TCP port is 8500, APN is web.gprs,mtnnigeria.net, apn user:web, apn password: web, time interval is 60 seconds, Then the command is:

111111WWW:IPN:www.51track.com;COM:8500;APN:web.gprs.mtnnigeria.net, web,web;RPT:60;RUN:1;

User can send one or more options at the same SMS commands, such as:

✧ **111111WWW:IPN:X;COM:X;**

This is to set the server's address and port separately.

Example: 111111WWW:IPN:www.51track.com;COM:8500;

✧ **111111WWW:APN:X;**

This is to set the APN (access point name). Please use "," to separate the APN, APN username & APN password.

Example: 111111WWW：APN：web.gprs.mtnnigeria.net,web,web；

✧ **111111WWW:RPT:X;**

This is to set the upload time interval. The unit is second, the minimum value is 10 seconds. The default setting is 60

Example: 111111WWW：RPT：60； (Upload time interval is every 60s)

✧ **111111WWW:RUN:X;**

X=0; is to close down the GPRS;

X=1; is to open the GPRS via TCP

X=2; is to open the GPRS via UDP

Eg: 111111WWW：RUN：1； (Open the TCP connection)

✧ **111111WWW:**

You can send 111111WWW: to check the GPRS settings.

Default GPRS Setting

The default GPRS setting is:

✧ IPN: www.topten-track.com , COM:8500

✧ APN: cmnet RPT: 30 seconds

✧ SLP:0 RUN:1

IV. Snap Photo & Monitor via MMS/Email/Platform

It is the optional function for 3G version, the extra serial camera is needed.

✧ **Snap the Photo via MMS**

111111MMS: to get the Photo via MMS

To realize this function, user must do the correct MMS settings firstly.

✧ **MMS Setting for Snapping**

The MMS setting is different from GPRS setting, the SMS command is as following:

111111MMS:SVR:X;PRX:Y;APN:Z;COM:N

- ✧ X: MMSC server URL;
- ✧ Y: The IP of MMS proxy
- ✧ Z: MMS_APN, user, Password.
- ✧ N: The Port of MMS proxy

For more information about the MMS setting parameters of worldwide GSM operators, please search by Google or refer to this link:

http://www.nowsms.com/mobile-operator.mmsc-settings

Example: (for Nigeria MTN SIM card)

The correct setting SMS command is:

111111MMS:SVR:http://10.199.212.8/servlets/mms;PRX:10.199.212.2;APN:web.gprs.mtnnigeria.net,web,web;COM:8080;

APN	MMS Proxy	MMSC Server URL	Username	Password
web.gprs.mtnnigeria.net	10.199.212.2:8080	http://10.199.212.8/servlets/mms	web	web

✧ Set the Way of Sending Photo

SMS command: **111111PIC:1:X,2:X,3:X,4:X,5:X,6:X,7:X,8:X,9:X,** (with, at the end)

X=0, means Disable; X=1, means Enable

1:X, engine on (input4); 2:X, car door open (input3); 3:X, over-speed; 4:X, vibration; 5:X,movement alarm; 6:X, fatigue driving alarm; 7:X, broken line alarm (Input2); 8:X; original alarm's triggering (input5); 9:X; SOS

(Example: 111111pic:1:1,2:1,9:1,) default setting as 1.

SMS command: **111111SEE:6:X,7:Y,8:Z,** (with, at the end)

6:X, X=1, send photo via MMS to 1st alarm-received no.; X=0,disable.

7:Y, Y=1, send photo via MMS to 2nd alarm-received no; Y=0, disable.

8:Z, Z=1, send photo to email box; Z=0, disable.

(Example: 111111SEE:6:1,7:1:8:1,)

✧ Set the Email to Receive the Photo

SMS command: **111111BOX:Email**

(Example: 111111BOX:topten800@gmail.com)

V. Alarm Types

Vibration Alarm

In arming status, if the car is vibrated, it will send out alarm SMS.

Power Failure Alarm

In arming status, if the battery is cut off, it will send out alarm SMS.

Engine ON Alarm

In arming status, if the car's engine is ON, it will send out alarm SMS and call the preset phone.

Movement Alarm

In arming status, the movement alert is enabled automatically. Once the car moves away from the parking point for 100 meters, it will it will send out alarm SMS and call the preset phone.

Geo-Fence Alarm

Once the Geo-fence is activated, if the car oversteps the boundary, it will send out alarm SMS.

Over-speed Alarm

If the car runs over the speed limitation continuously for 3 minutes, it will send out alarm SMS.

SOS Alarm

In any condition, if the SOS button is pressed, it will trigger the SOS alarm.
(NOTE: the SOS alarm will only be sent to the 2nd phone, the 3rd phone number & the GPRS tracking center, the other alarms will send to all the preset phones & GPRS tracking center.)

Crash Alarm(optional)

If there is crash, the crash sensor will detect it and send out alarm.

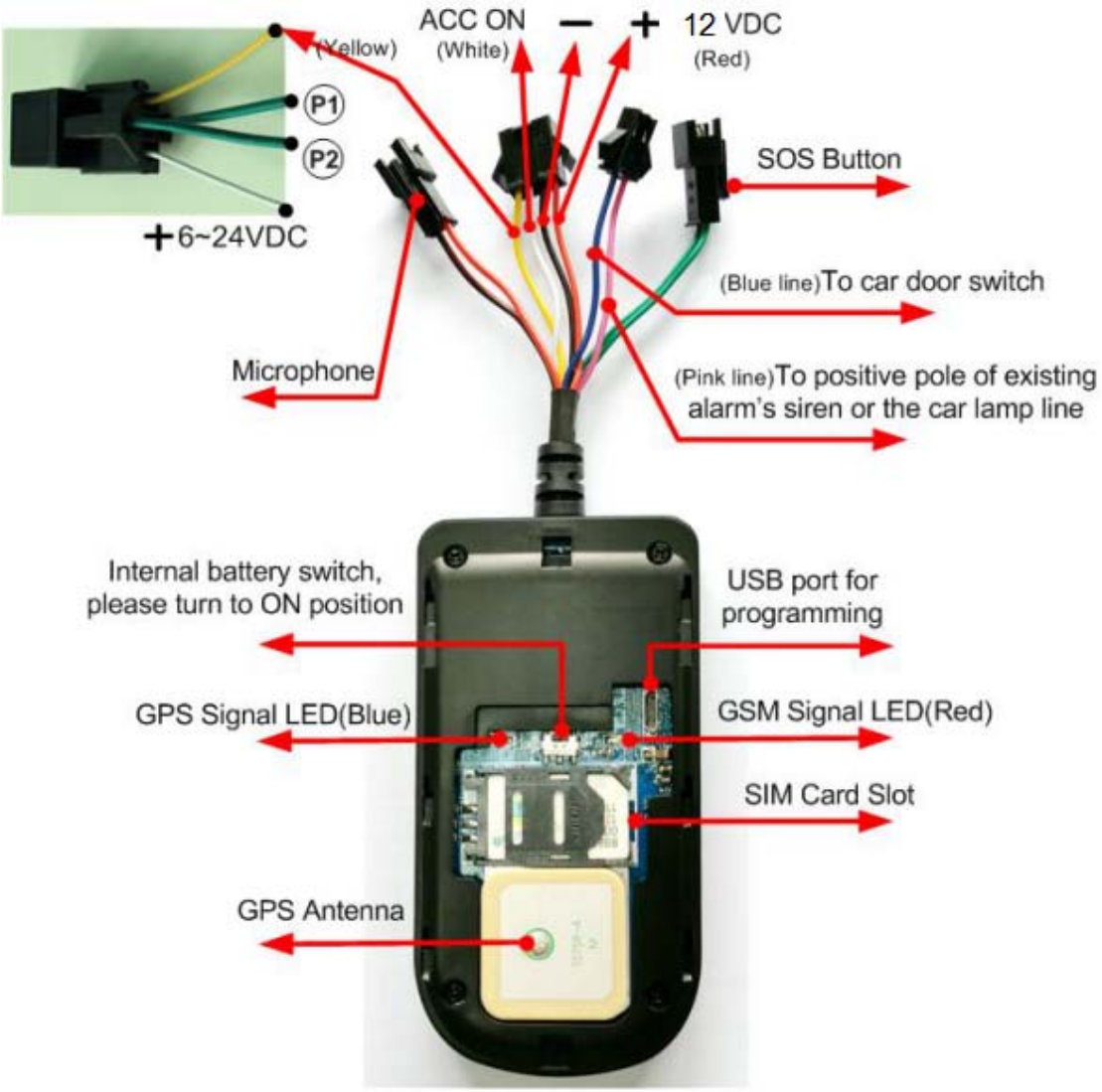
Fatigue Alarm

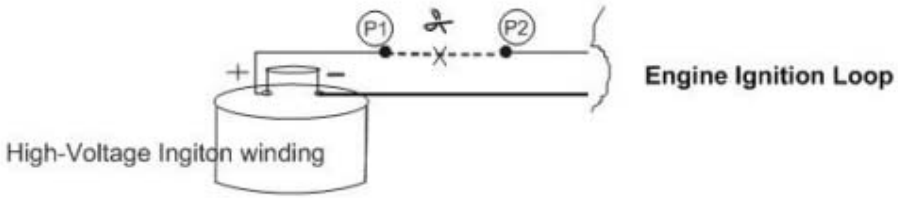
If the accumulated time of engine on is over the setting, the sire will sound to warn the driver.

Fuel loss Alarm(optional)

When the engine is OFF, if the fuel level is down, it will trigger the alarm.

VI. Installation





Notes:

(1). The relay's control output (P1 & P2, no polarity) has 2 kinds of connections. It can be used to cut off the engine ignition loop or the fuel pump's power supply loop.

(2). Please place the side with GPS antenna upside to the sky, so that it can receive good GPS signal.

(3). The pink line is used to upgrade the normal car alarm. Once it has continuous positive voltage for 5 seconds or pulse for 5 times, it will trigger the tracker to send out alarm.

Installation Steps:

(1) Please read the manual carefully before installation. Please prepare a valid GSM SIM card with Caller ID Display & GPRS function;
(2) Please push the front cover according to the direction;
(3) Insert the valid GSM SIM card, then turn on the backup battery switch;
(4) Close the cover, and fix the main unit tightly with the wiring harness at the correct place, please make sure that the side with GPS antenna is placed upside to sky, please make sure to install the main unit at broad place so that it can receive GPS signal well. For motorcycle, it is better to install inside the head bulb light where there is power supply and water proof. For vehicle, it is better to install inside the upper rim of the driving room or inside the dashboard. The recommend installation place is showed in the following picture:

For motorcycle

For vehicle

(5) Do the wring connection according to the diagram;
(6) Call the SIM card, to check if rings, if not, then check the power supply and the change the place of installation;
(7) If it rings when calling the SIM card, then send SMS to the tracker to check the GPS coordinate, if the GPS location is not correct, then fix the main unit to other place so that it can receive better GPS signal.

(8) IMPORTANT: The side with GPS antenna must be placed upside to the sky and kept away from the metal materials, otherwise, it can't get GPS signal well.

VII . Specifications

Items	Specifications
Working voltage:	12VDC
Backup battery:	Rechargeable 3.7V 500mAh Li-ion battery
Dimension (main unit):	110*80*30 (mm)
Weight (main unit):	175g
GSM frequency:	**2G**: 850MHz/1900MHz (Quad-band) **3G**: 850Mhz/1900Mhz@UMTS
GPS chipset:	U-blox7 chipset
GPS sensibility	-162dBm
GPS receiving channel	56 channels
Working frequencies	1575.42Mhz C/A（GPS）
Positioning accuracy	≤10m (wide-open area)
Speed accuracy	≤0.1M/S (wide-open area)
Positioning mode	Auto 2D/3D
Hot start	1 sec., average
Warm start	2 sec., average
Cold start	40 sec., average
Working temperature:	-20 ~ 85℃
Humidity:	0 ~ 95%
Interface	5 inputs,5 outputs, 4 A/D ports, MIC & Speaker port, camera port, RS232 port.

VIII. FAQs & Troubleshooting

FAQ	Troubleshooting
I call the tracker, it does not ring	(1) The GSM SIM card has no credit; (2) The SIM card is protected by PIN code; (3) Check the power supply, if 2 LEDs flash; (4) The SIM card is placed correctly in the slot;
I call the tracker, it rings, but it doesn't response with SMS	(1)The user password is wrong, please use the correct password or reset the password to test;

	(2) Low power, please use outside power supply to power on the unit to test
I can not get the alarm message	(1) The SIM card inside the device has no credit; (2) The Alert-received mobile number is not programmed correctly, or the SMS command is not in correct format; (3) The mailbox of the user's mobile is full;
I can not get the correct GPS coordinates or the location is wrong	(1) Please make sure there is no metal obstacles above the tracker. Please place the side with GPS antenna upside to the sky; (2) Please check it at broad place; (3) Please check if the GPS LED flash once every 3 seconds; place the tracker to other place, so as to make sure that it can receive the GPS siganl well (4) In cloudy condition, it is a little hard to get the GPS signal, and the GPS coordinate might have some errors.
Tracker fails to connect to server by GPRS	(1) The SIM card must be activated with GPRS function; (2) Do the correct setting for GPRS connection

IX. Maintenance

- ✧ The installation must be done by the professionals. Illegal disassembly without permission might cause invalidity of warranty.
- ✧ Please keep the device in dry place
- ✧ When the car is inside buildings, cave, tunnel, or very close to tall buildings, the GPS/ GSM signal may not work well and the system may fail to work at that moment.
- ✧ Please check the balance of the tracker's SIM card periodically.
- ✧ The backup battery can only work for a certain time once power-off.

FCC Information and Copyright

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates,

uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference

to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does

cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is

encouraged to try to correct the interference by one or more of the following measures:

—Reorient or relocate the receiving antenna.

—Increase the separation between the equipment and receiver.

—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

—Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference

changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .This equipment should be installed and operated with minimum distance 20cm between the radiator& your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.