

VEHICLE GPS TRACKER SOLUTION

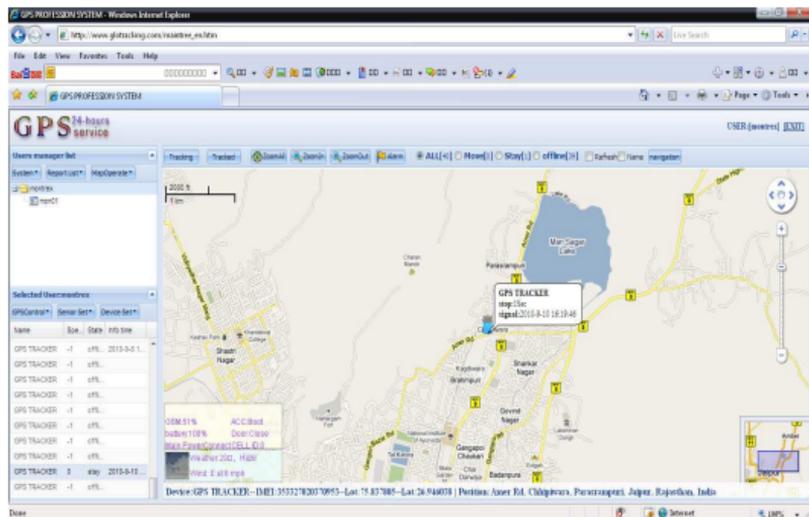


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1. Introduction

Working Based on existing GSM /GPRS network and GPS satellites, Vehicle tracking solution is a professional system that consists of high sensitive and reliable car GPS trackers and server tracking software. Not only transmit the longitude and latitude coordinate to your cell phone by SMS, but also transmit the coordinate, vehicle status and alarm information to the designated server by GPRS. By this you can know where the vehicle is, where had it been to, what the status it is. You can also stop the vehicle by cutting off the circuit and fuel. What's more, it supports hand-free phone call between the driver and call center. This solution can be widely used in the vehicle tracking, valuable assets monitoring, fleet management area.





GPS antenna



Device



GSM antenna



Cable and button



P1 and P2 Cable



Speaker and microphone

2. What's new?

- Support hand-free phone call between driver and call center. This function is very useful for taxi, rental vehicle, ambulance and police car.
- Fuel level detection.
- Easy to install. Designed with inner relays, we remove the most complex part of installation.
- The server software is especially designed for tracking a large quantity of trackers.

3. Main Features

Tracker	Software
Real-time locating Hand-free phone call Listen in function ACC detection Door detection Fuel detection SOS alarm Geo-fence alarm Speeding alarm Low power alarm Power-lost alarm Cut off the power Cut off the fuel Customizations are welcome	Server based Based on Google map Support multi-users Real-time tracking History replay Report download Cut off the power/fuel Set time zone SOS alarm Speeding alarm GEO fence alarm Power-lost alarm Storage data for one month Customizations are welcome

4. Applications

Rental vehicle monitoring and management

Taxi/ ambulance/police car dispatch management

Fleet management

GPS tracking service

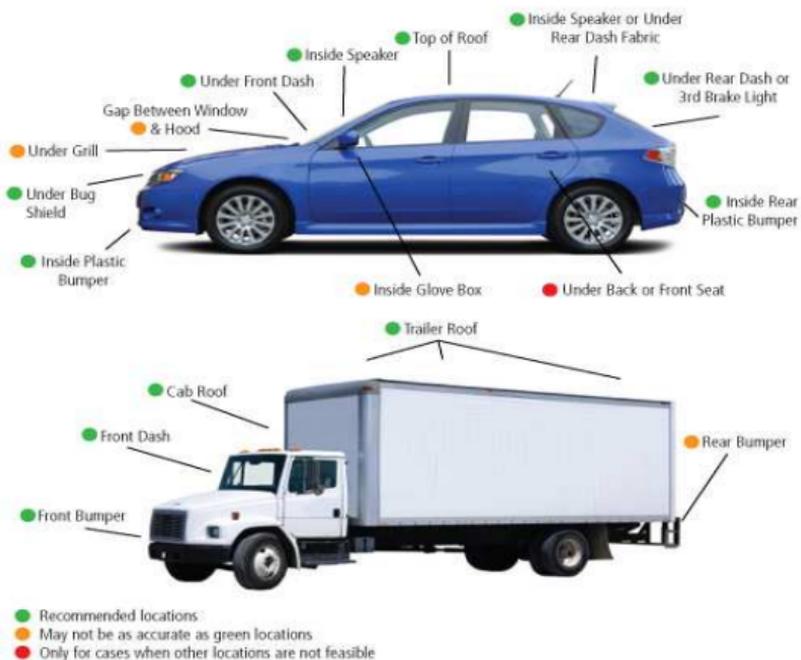
Guard against thief system

5. Specification

Content	Specs.
Dimension	96mm x 64mm x 25mm
Weight	180g
Network	GSM/GPRS
Band	900/1800Mhz 900/1800/1900Mhz 850/900/1800/1900Mhz
GPS chip	SIRF3 chip
GPS sensitivity	-159dBm
Digital input	9-36V DC
Cold start	42 sec.
Warm start	38 sec.
Hot start	1 sec.
Battery	Chargeable 3.7V 870mAh battery
Operation temperature	-40°C to +75°C
Humidity	5%--95% non-condensing

6. Installation

6.1 Recommend placement for GPS antenna



6.2. Connect the GSM antenna and GPS antenna

B1: USB Port;

B2: SIM Guide Switch;

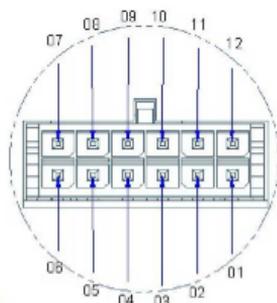
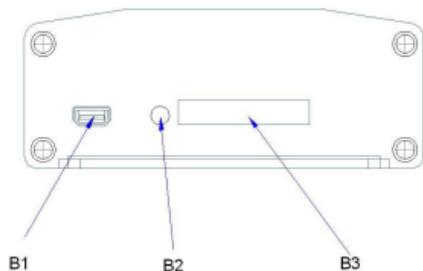
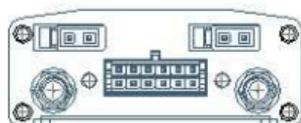
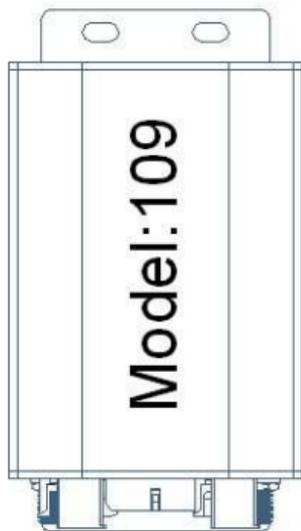
B3: Card guide;

A1: GSM antenna; A2: GSM indicate led

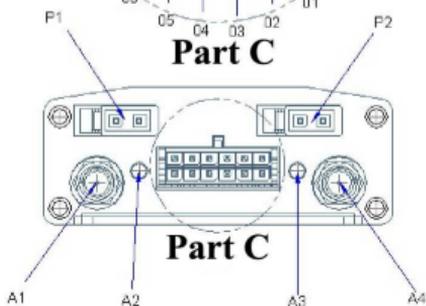
A4: GPS antenna; A3: GPS indicate led

P1: Fuel Detection Port

P2: Spare Port (One output signal, can connect external relay)



Part C



Part C

Part C:

7. 12V	8. SOS button	9. MIC-	10. SPK+	11. Door	12. ACC-A
6. 0V	5. Spare line	4. MIC+	3. SPK-	2. Call button	1. ACC-B

6.3. Connected diagram of cable (Part C)

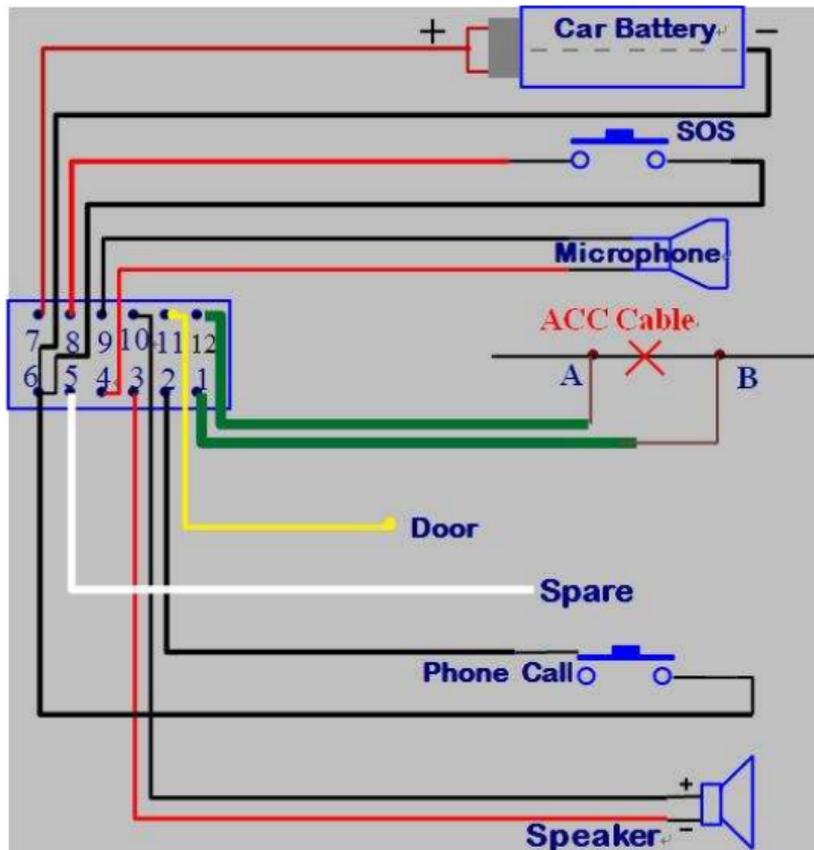
For now, what you need to connect with the car

Two Power cables

Door cable

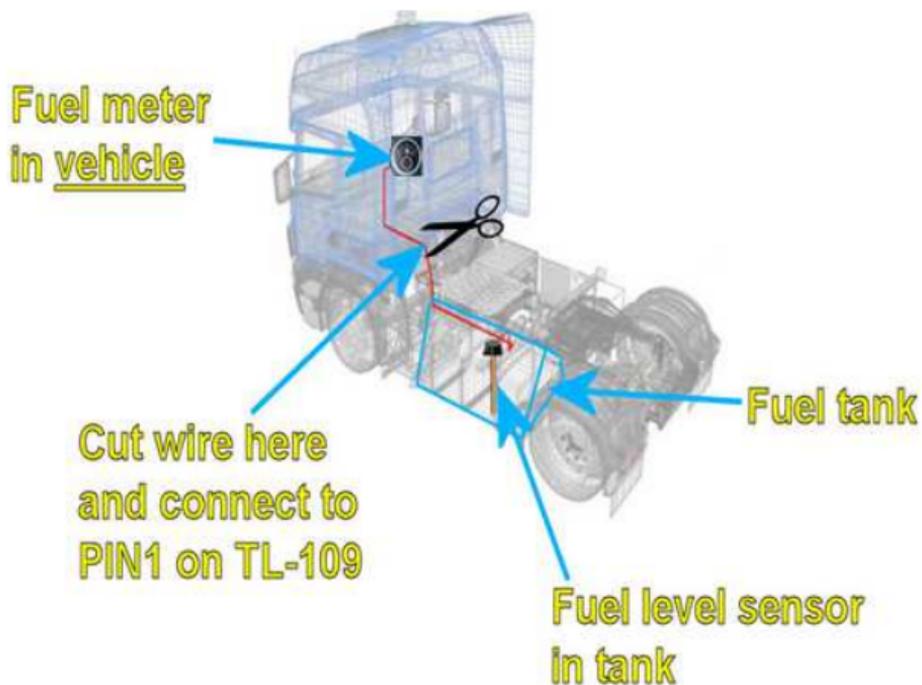
Spare cable

Two ACC cables



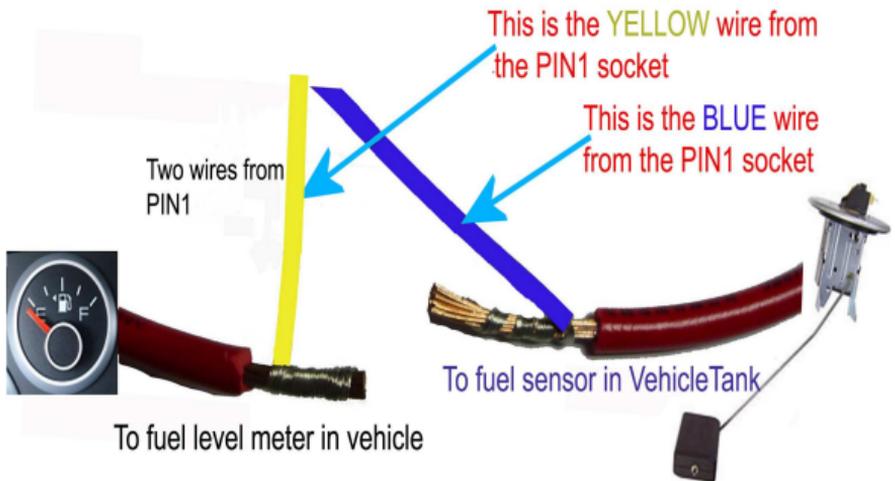
Fuel Detection

1. Find the correct Vehicle Fuel sensor cable, the fuel meter will display singularly after cutting this cable off.



2. Cut the Vehicle Fuel sensor cable off and connect with the according cables on P1

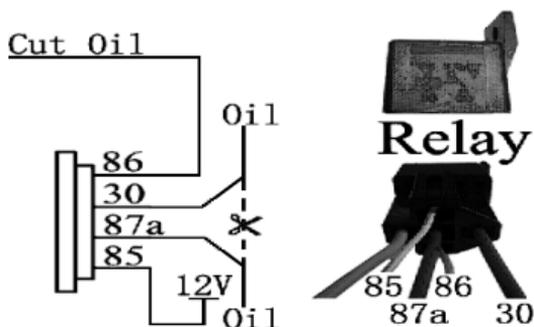
How to measure the fuel level in the tank of the vehicle



1. Connect the according cables with the vehicle fuel level sensor cable .
2. Send command (123456V1) to read input voltage of the fuel level sensor v1 and record the according fuel percentage y1% on the car meter.
3. Send command (123456V1) again to read input voltage of the fuel level sensor v2 and record the according fuel percentage y2% on the car meter.

4. Then you can set the fuel level relative value by sending this command 123456SOy1,v1,y2,v2

External relay (not standard accessories)



6.4. Insert the SIM card



6.5. After inserting the SIM card into the tracker, it will be switched on automatically. GSM LED and GPS LED will be bright at the same time. That means tracker gets started. In working mode, the GSM LED will be blinking once every four seconds if the tracker has got GSM signal. The GPS LED will be blinking once every four seconds if the tracker has got GPS signal.

7. Set the authorized numbers

There are 3 SOS numbers and 1 call center number can be set. If SOS button is pressed for 3 seconds, The SOS alarm will be sent to 3 SOS numbers by SMS and sent to server by GPRS. If call button was pressed for 3 seconds, it will make a call to the call center. The tracker will pick up the incoming call automatically then the call center can talk with the driver.

It doesn't mean all of the authorized numbers should be set, but set one of them at least. The tracker will accept the SMS commands from the authorized numbers only. So please set the authorized number before you send other commands. 123456 is the default password and we will take 123456 as the password to explain all the commands in this document.

Send SMS“123456A1,phone number” to set the first SOS number.

Send SMS“123456A2,phone number” to set the second SOS number.

Send SMS“123456A3,phone number” to set the third SOS number.

Send SMS“123456A4,phone number” to set the call center number.

Note: 123456 is the default password. A must be English in capital and make sure there is no space in the command. Phone number must include the country code

E.g. send SMS “123456A1,+8613812345678” to set 13812345678 as the first SOS number. +86 is the country code

of China. Please do not use 00 instead of +.

8. Delete authorized numbers

Send SMS“123456A1,D” to delete the first SOS number.

Send SMS“123456A2,D” to delete the second SOS number.

Send SMS“123456A3,D” to delete the third SOS number.

Send SMS“123456A4,D” to delete the call center number.

E.g. send “123456A1,D” to delete the first SOS number.

9. Get position SMS

9.1. You can use the cell phone to call the SIM number that in the tracker for 3 seconds, then hang up the call before the tracker hangs up or receives it. The tracker will reply a position SMS with latitude and longitude in it. You can put the coordinate into Google map and search for the position. The tracker will not reply the SMS If you do not hang up the call before the tracker hangs up or receives it.

The tracker will reply position SMS to any incoming call number if you haven't set the authorized numbers yet. Once you have set the authorized number, the tracker will reply SMS position to the authorized numbers only.

9.2. Send SMS “123456F” to the tracker via authorized number, it will reply a position SMS also.

10. Switch to listen in or talk mode

Send SMS “123456U1” to switch to the listen in mode

Send SMS “123456U0” to switch to the talk mode

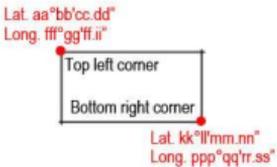
The default mode is talk mode, in this mode the tracker will pick up the incoming call then the call center can talk to the driver.

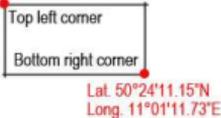
In the listen in mode, the tracker will pick up the incoming call then the call center can hear the sound around the car, but the driver can not hear form the call center.

11. All of the SMS commands list

➤ name	➤ Sentence content	➤ Description
➤ Set authorized numbers	➤ 123456A1,phone number ➤ 123456A2,phone number ➤ 123456A3,phone number ➤ 123456A4,phone number	➤ A1,A2,A3 is for setting the 3 SOS numbers. ➤ A4 is for the call center number Phone number must include the country code like +8613812345678. +86 is the country code of China. Please do not use 00 instead of +
➤ Sample of authorized numbers	➤ 123456A1,+8613812345678	➤ Set +8613812345678 as the first SOS number.
➤ Delete authorized numbers	➤ 123456A1,D ➤ 123456A2,D ➤ 123456A3,D ➤ 123456A4,D	➤ A1,A2,A3 is for setting the 3 SOS numbers. ➤ A4 is for the call center number
➤ Switch to	➤ 123456U1	➤ The tracker will pick up

the listen in mode		the incoming call then the call center can hear the sound around the car.
➤ Switch to the talk mode	➤ 123456U0	➤ The tracker will pick up the incoming call then the call center can talk to the driver.
➤ Get position by SMS	➤ 123456F	➤ It will reply the latitude and longitude to the cell phone, then you can go to the Google to search the position
➤ Set continuous Tracking	➤ 123456Mx,yyyz	<p>➤ x=1 means on, x=0 means off</p> <p>➤ yyy means time interval. If z=S/M it should be <=255.if z=H, it should be <=090. It must be three numbers,030Smeans 30S</p> <p>➤ Z means time unit, z=S means second, z=M means minute, z=H means hour</p>
➤ Sample of continuous tracking	➤ 123456M1,030S	The tracker will reply the position according to the time interval you set(30 seconds). If the tracker has connected to server it will send to the server by GPRS,or it will be sent to

		the cell phone by SMS
➤ Set the speeding alarm	➤ 123456Jx,yyy	<ul style="list-style-type: none"> ➤ x=1 means on, x=0 means off ➤ yyy means the alarm speed, it should be <250 and must three digital, e.g. 080=80km/h.
➤ Sample of speeding alarm	➤ 123456J1,080	➤ The tracker will send a speeding alarm to server if it is over the 80km/h
➤ Set GEO fence	<p>123456Ix,y,z, aabbccddefffgghh ijklklmnnnepppq qrrssj</p> 	<ul style="list-style-type: none"> ➤ x=NO. of the GEO-fence(1-5),5 GEO fence can be set ➤ y=1 means on, y=0 means off ➤ z=0 means go in, z=1 means go out ➤ e=N means the north latitude, e=S means the south latitude ➤ j=E means the east longitude, j=W means the west longitude ➤ aa,bb,cc,dd,kk,ll,mm,nn,q q,rr,ss must be 2 numbers.03 means 3. ➤ fff,ppp must be 3 numbers.011 means 11

<p>➤ Example of GEO fence</p>	<p>12345611,1,1,51113 5 25N009125670E 50241115N0110111 73E</p> <p>Lat. 51°11'35.25"N Long. 9°12'56.70"E</p> 	<p>➤ The tracker will send an alarm data if it is in/out the district.</p>
<p>➤ Set the time zone</p>	<p>➤ 123456Lxyy</p>	<p>➤ x=+ means east x=- means west ➤ yy means the time zone, must be 2 numbers</p>
<p>➤ Sample of the time zone</p>	<p>➤ 123456L+08</p>	<p>➤ Set the +08 time zone</p>
<p>➤ Set the low battery alarm</p>	<p>➤ 123456Nx,yy</p>	<p>➤ x=1 means on,x=0 means off yy means battery lower then yy% then send the alarm. It must be<45.it must be 2 numbers.</p>
<p>➤ Sample of the low battery alarm</p>	<p>➤ 123456N1,40</p>	<p>➤ The tracker will send a low battery alarm if the battery is lower then 40%</p>
<p>➤ Modify the password</p>	<p>➤ 123456H456789</p>	<p>➤ 456789 is the new password, new password must be 6 numbers</p>

➤ Cut off the fuel	➤ 123456T1Y	➤ Stop immediately (External relay)
➤ cut off the ACC	➤ 123456T1	➤ The car can not be started
➤ recover ACC or fuel	➤ 123456T0	➤ The car can be started
➤ Set the APN,IP and port	➤ 123456C\$\$\$\$,IP :Port	➤ \$\$\$\$ is the APN, you can get the APN from your local GSM provider.
➤ Sample of the APN	➤ 123456CCMNET, 119.122.101.91:7289	➤ CMNET is the APN of China mobile.
➤ Set the username and password for APN	➤ 123456O&&&&, @@@@	<p>➤ &&&& is the username and @@@@ is the password.</p> <p>➤ If the SIM card doesn't need username and password for the APN, you do not need to set it.</p>
➤ Sample	➤ 123456Ointernet, internet123	➤ The user name is internet and the password is internet123.
<p>➤ Open</p> <p>➤ GPRS</p>	➤ 123456D	➤ The tracker will start to connect the server by GPRS.it will send back an SMS to confirm after it have connected the server successfully.

➤ Close GPRS	➤ 123456E	➤ The tracker will close the connection with the server.
➤ Read voltage	➤ 123456V1	➤ Read the input Voltage
➤ Set fuel level relative value	➤ 123456SOy1,v1, y2,v2	Set fuel level relative value(y is fuel percentage on the car meter)
➤ Get the IMEI number	➤ 123456B	➤ It will reply the IMEI number of the tracker.
➤ Check setting	➤ 123456G	➤ It will reply you its configuration

Cautions

Please comply with the instructions to extend the unit life:

1. Keep the unit dry. Any liquid, i.e. rain, moisture, may destroy or damage the inside circuitry.
2. Don't use & store the unit in dusty places.
3. Don't put the unit in overheated or overcooled places.
4. Handle carefully. Don't vibrate or shake it violently.
5. Clear the unit with a piece of dry cloth. Don't clean in chemicals, detergent.
6. Don't paint the unit, this may cause some foreign materials left in between the parts.
7. Don't disassemble or refit the unit.
8. Please use and charger provided by manufacturer. Using other chargers will cause unwanted situation.