VEHICLE GPS TRACKER USER MANUAL

VT-108

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1. Introduction

Working Based on existing GSM /GPRS network and GPS satellites, VT-108 vehicle tracking solution is a professional system that consists of high sensitive and reliable car GPS trackers. 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 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 support 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

Cables and buttons   Microphone   Speaker

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.

➢ Easy to install. Designed with inner relays, we remove the most complex part of installation.

3. Main Features

◆ Real-time locating and tracking on web
◆ History replay
◆ Hand-free phone call with call center
◆ Listen in function
◆ Door sensor
◆ ACC sensor
◆ SOS alarm
◆ In or out Geo-fence alarm
◆ Speeding alarm
◆ Power-lost alarm
◆ Cut off the circuit or fuel

4. Applications

◆ Rental vehicle monitoring and management
◆ Taxi/ ambulance/police car dispatch management
◆ Fleet management
◆ GPS tracking service

5. Specification

| Content	Specs.
Dimension	96mm x 64mm x 25mm
Weight	150g
Network	GSM/GPRS
Band	900/1800Mhz
	900/1800/1900Mhz
	850/900/1800/1900Mhz
GPS chip	SIRF3 chip
GPS sensitivity	-159dBm
Input Voltage	9-36V DC
Cold start	42 sec.
Warm starts	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

6.1Recommend placement for GPS antenna
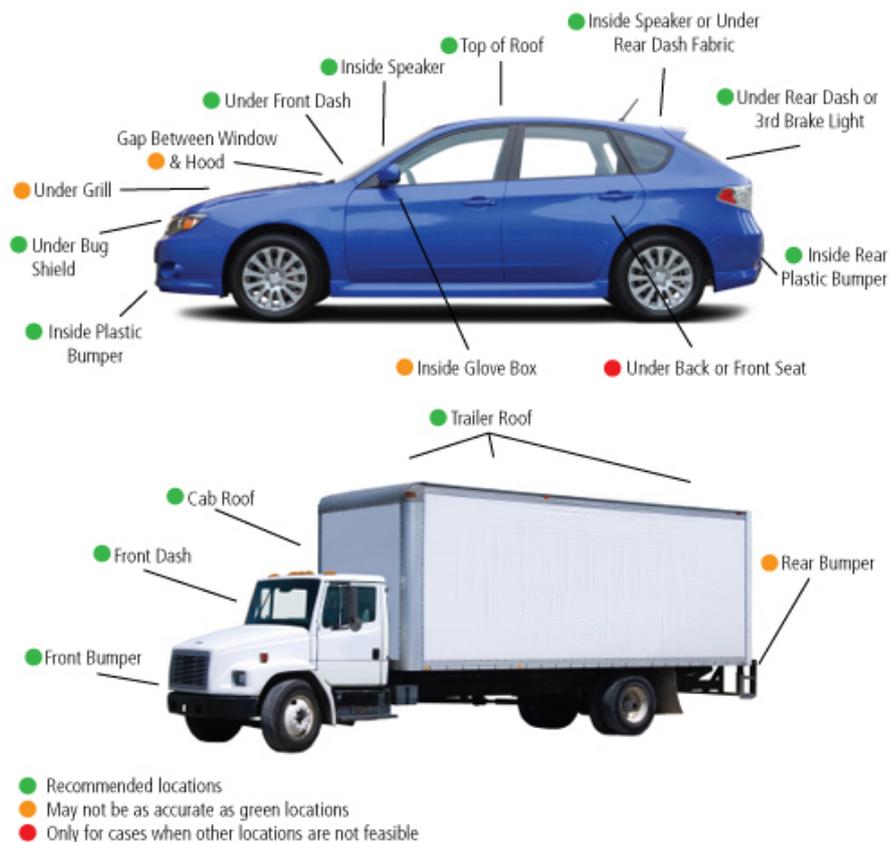
6.2. Connect the GSM antenna and GPS antenna

6.3. Connect the cables and buttons
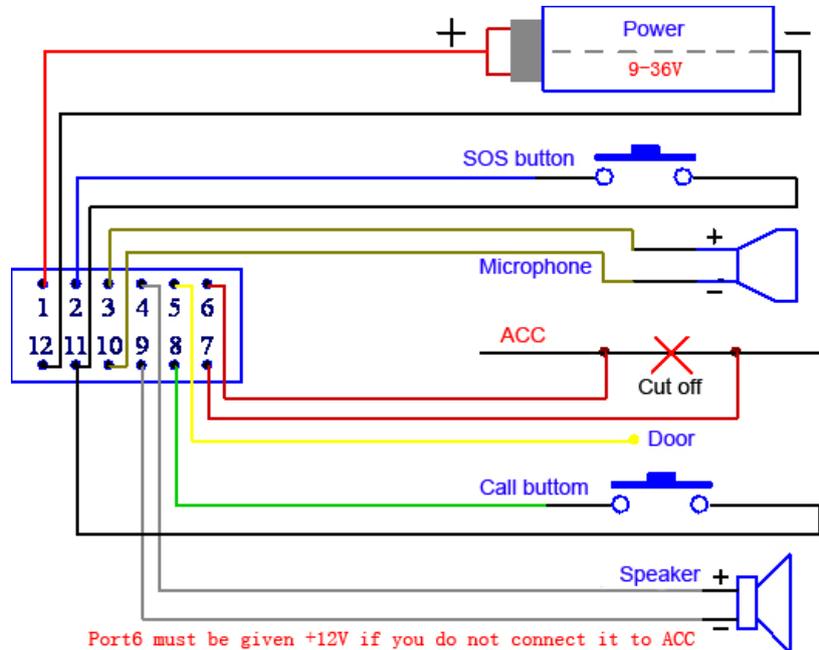
6.4. Insert the SIM card

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 is starting. After starting the GSM LED is going to blink if the tracker has got GSM signal. The GSP LED is going to blink 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 means 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 before you send other commands.123456 is the default password of the tracker 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 +8613812345678 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 by 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. Configure input ports.
11.1. Send SMS "123456DxByFz" to configure Port 5 and port 8.
X=0 means the triggered voltage of port 5 is low. X=1means the triggered voltage of port 5 is high. X=2 means do not change the setting, keep it as last setting. The default triggered voltage of port 5 is low.
y=0 means the triggered voltage of port 8 is low. y=1 means the triggered voltage of port 8 is high. y=2 means do not change the setting, keep it as last setting. The default triggered

voltage of port 8 is low.

Z=0 mans port 8 is using as an alarm input. For example it can be used as trunk alarm.   z=1 means port 8 is using as call button. The default function of port 8 is call button.

e.g. "123456D0B1F0" means the triggered voltage of port 5 is low, the triggered voltage of port 8 is high and port 8 is using as alarm input.

11.2. Switch to arm or disarm mode.

Send SMS"123456W1" to switch to the arm mode.

In the arm mode, it will send a SMS alarm to A1,A2,A3 authorized number as below:

Port 5 is triggered: ALM-DOOR!

Port 8 is triggered: ALM-TRUNK

External power lost: External power lost!

ACC is triggered: ALM-ACC!

Send SMS"123456W0" to switch to the disarm mode.

In the disarm mode, it will not send SMS alarms that mention above.

12. 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 setting 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 the listen in mode	123456U1	The tracker will pick up the incoming call then the call center can talk to the driver.
Switch to the talk mode	123456U0	The tracker will pick up the incoming call then the call center can hear the sound around the car.
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	x=1 means on, x=0 means off 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 Z means time unit，z=S means second, z=M means minute, z=H means hour
Sample of Setting	123456M1,030S	The tracker will reply the position according to the time interval you

continuous tracking		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	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 setting speeding alarm	123456J1,080	The tracker will send a speeding alarm to server if it is over the 80km/h
Set GEO fence	123456Ix,y,z, aabbccddefffgghhiijkkllmmnneppp qqrrssj Lat. aa°bb'cc.dd" Long. fff°gg'ff.ii" Top left corner Bottom right corner Lat. kk°ll'mm.nn" Long. ppp°qq'rr.ss"	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,qq,rr,ss must be 2 numbers.03 means 3. fff,ppp must be 3 numbers.011 means 11
Example of setting GEO fence	123456I1,1,1,51113525N009125670E50241115N011011173E Lat. 51°11'35.25"N Long. 9°12'56.70"E Top left corner Bottom right corner Lat. 50°24'11.15"N Long. 11°01'11.73"E	The tracker will send an alarm data if it is in/out the district.
Set the time zone	123456Lxyy	x=+ means east x=- means west yy means the time zone，must be 2 numbers
Sample of setting the time zone	123456L+08	Set the +08 time zone
Set the low battery alarm	123456Nx,yy	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.
Sample of setting the low battery alarm	123456N1,40	The tracker will send a low battery alarm if the battery is lower then 40%
Modify the password	123456H456789	456789 is the new password, new password must be 6 numbers
cut off the ACC or fuel	123456T1	The car can not be started
recover ACC or	123456T0	The car can be started
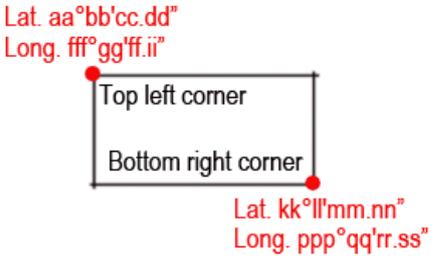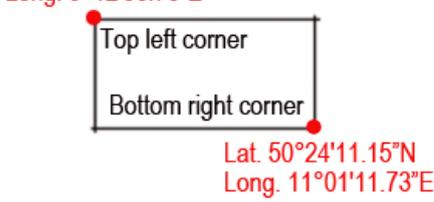
fuel		
Set the APN,IP and port	123456C$$$$,IP:Port	$$$$ is the APN, you can get the APN from your local GSM provider.
Sample of setting the APN	123456CCMNET, 119.122.101.91:7289	CMNET is the APN of China mobile.
Set the username and password for APN	123456O&&&&, @@@@	&&&& is the username and @@@@ is the password. If the SIM card doesn't need username and password for the APN, you do not need to set it.
Sample of setting the username and password for APN	123456Ointernet,internet123	The user name is internet and the password is internet123.
Open GPRS	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.
Get the IMEI number	123456B	It will reply the IMEI number of the tracker.