

MOTORCYCLE GPS TRACKER SOLUTION



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1. Introduction

Working Based on existing GSM /GPRS network and GPS satellites, this motorcycle tracking solution is a professional system that consists of high sensitive and reliable motorcycle 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 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.

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2. What's new?

- ① One output and one input cable
- ① It is waterproof with internal antenna.
- ① Easy to install. Designed with inner relays, we remove the most complex part of installation.
- ① The server software is especially designed for tracking a large quantity of trackers.

3. Applications

- Rental motorcycle monitoring and management
- Traffic police dispatch management
- GPS tracking service
- Guard against thief system

4. Main Features

Tracker	Software
Waterproof Real-time locating One output One input Geo-fence alarm Speeding alarm Low power alarm Power-lost alarm Cut off the power/fuel Customizations are welcome	Server based Based on Google map Support multi-users Real-time tracking History replay Report download Set time zone Speeding alarm GEO fence alarm Power-lost alarm Storage data for one month Customizations are welcome

5. Specification

Content	Specs.
Dimension	78mm x 54mm x 27mm
Weight	135g
Network	GSM/GPRS
Band	900/1800Mhz 900/1800/1900Mhz 850/900/1800/1900Mhz
GPS chip	SIRF3 chip
GPS sensitivity	-159dBm

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Digital input	9-36V DC
Analog Input	0-15V
Cold start	42 sec.
Warm starts	38 sec.
Hot start	1 sec.
Battery	Chargeable 3.7V 1000mAh battery
Operation temperature	-40°C to +75°C
Humidity	5%--95% non-condensing

6. Installation

6.1 Recommend placement for GPS antenna

There are many places in the car you can install the device, you can select one which is convenient.

If you are use it as a guard against thief system

6.2. Connect the GSM antenna and GPS antenna

1: The place for double faced adhesive tape;

2: Tracker Nut;

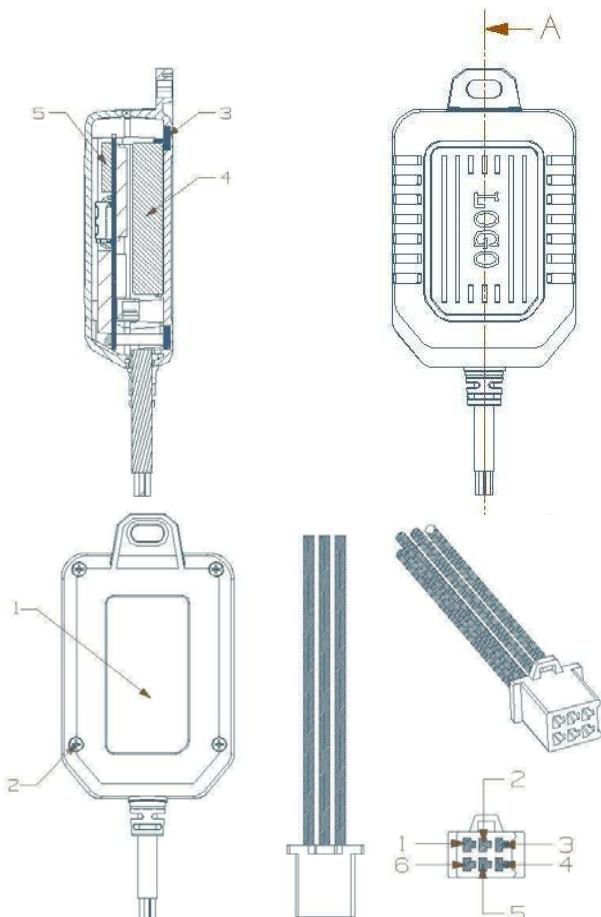
3: The place for Magnet;

4: Battery

5: SIM card slot

1. ACC/Fuel-A (green)	2. Power (red)	3. GND (black)
6. ACC/Fuel-B (green)	5. Output (grey)	4. Input (white)

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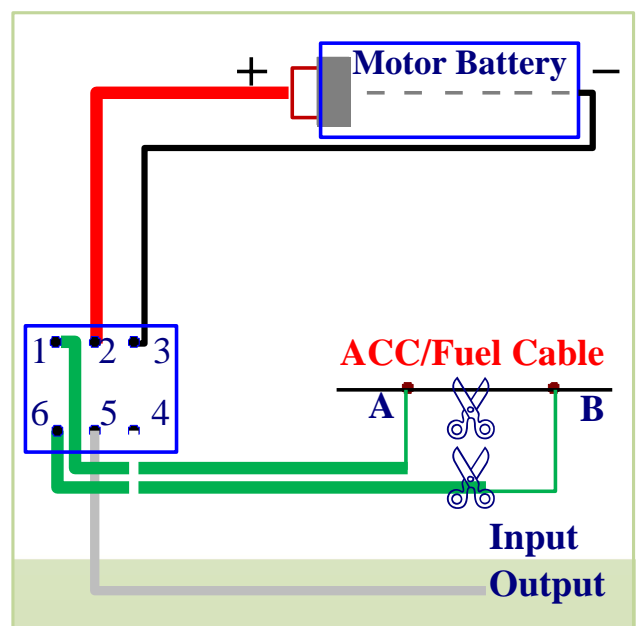
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6.3. Connected diagram of cable

Two Power cables Red is Power '+', Black is Power '-'

ACC/Fuel cables; Cut off Motorcycle ACC/Fuel cable and connect with tracker ACC/Fuel cable.

About I/O cable you can connect what you want.



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Power/Fuel cut off

These two functions have the same connect method:

1. Find the ACC/Fuel cable



2. Cut off the motorcycle ACC/Fuel cable and connect with the according cable of the device



I/O cable (1 output and 1 input)

1. Connect the according cable (Digital I/O) of the motorcycle. O port can output high level available and low level available I port can detect high level and low level volt It all can be set via command.

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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 1st number.
Send SMS"**123456A2,phone number**" to set the 2nd number.
Send SMS"**123456A3,phone number**" to set the 3rd 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 number. +86 is the country code of China. Please do not use 00 instead of +.

8. Delete authorized numbers

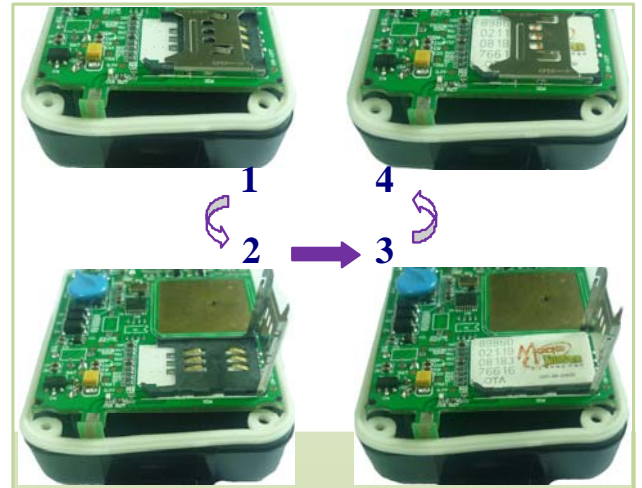
Send SMS"**123456A1,D**" to delete the first SOS number.
Send SMS"**123456A2,D**" to delete the second SOS number.
Send SMS"**123456A3,D**" to delete the third SOS number.
E.g. send "**123456A1,D**" to delete the first SOS number.

9. Get position SMS

9.1. You can use the cell phone to call the tracker sim number for 3 seconds, and then hang up it before the tracker answer 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.

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- 6.4. Open the tracker and insert the SIM card as follow:



- 6.5. Switch on the tracker after inserting the SIM card into the tracker, and then you can enjoy your tracking time.

7. Set the authorized numbers

There are 5 authorized numbers. 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 8

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. Speeding alert

Sent SMS "**123456J0/J1,speed**" to set the Speeding alert function.

Note: J must be English in capital.

J0 means turn off the over speed alert function; J1 means turn on the speeding alert function. speed should be <250 and must 3 numbers, e.g. 080= 80 km/h.

For example, send "**123456J1,080**" to tracker. When the object moves exceeds 80 km/h, the unit will send SMS as "Over speed! +GPS info" to the A1,A2,A3 number. Send "**123456J0,080**" to tracker means turn off the speeding alert function.

11. Geo-Fence

Send SMS "**123456Ixyz,aabbccddeffgghhijjkkllmmnnppppqqrrssj**" to set up the geo-fence for the device to restrict its movement within a district. The device will send the message to the A1, A2, A3 numbers as "Stockade +geo info" when it breaches the district.

There are 5 GEO-FENCES can be set for the tracker.

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Note: It must be English in capital.

x=NO. of the GENFENCE(1-5)

y=1 means turn on, y=0 means turn off

z=0 means go into, z=1 means go out

e=N means north latitude, e=S means south latitude

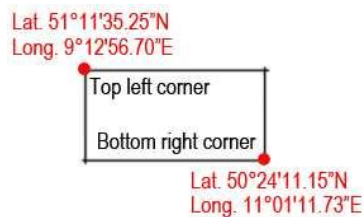
j=E means east longitude, j=W means west longitude

aa,bb,cc,dd,kk,l ,mm,nn,qq,rr,ss must be 2 numbers.03 means 3.

fff,ppp must be 3 numbers.011 means 11.

E.g. The first Lat.51°11'35.25"N, Long.9°12'56.70"E

The second Lat.50°24'11.15"N, Long.:11°01'11.73"E



So the SMS command should be

"12345611,1,1,51113525N009125670E50241115N011011173E"

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upper case of those letters.

E.g. send SMS

"123456CCMNET,119.122.101.91:7289".CMNET is the APN of China Mobile, please set the APN of your sim card's APN.

Send SMS "123456O&&&, @ @ @ @" to set the username and password for GPRS, skip this step if there isn't username and password

Note:&&&& is the username and @ @ @ @ is the password. O must be English in capital. If the APN doesn't need username and password for the GPRS, skip this command.

E.g. send SMS "123456Owap, wap". The username will be wap and the password will be wap.

Send SMS "123456D" to turn on GPRS; Send SMS "123456E" to turn off GPRS. Note: D and E must be English in capital.

15. Displaying location on Google map

Go to <http://maps.google.com> and type in the latitude and longitude like this: 22.7640801N,114.3975566E, search it



Download Google earth software from <http://earth.google.com/> and install it in to your computer. Start the Google Earth software and type the coordinate into the software like this: 22.7640801N, 114.3975566E. click search. Then you can see the position.

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12. Low battery alert

Send SMS "123456N(0/1),xx" to set the low-battery alert.

Note: N must be English in capital, N0 means turn off the

low-battery alert function; N1 means turn on the low-battery alert

function. xx should be <45 and must be 2 numbers.

E.g. send "123456N1,30" to the tracker means when the battery is lower than 30%,it will send a alert to the authorized number.

Send"123456N0,30" to the tracker means turn off the low battery alert function.

13. Set the local time

Send SMS "123456L+time zone" to set the local time

Note: L must be English in capital, "+" in the time zone means EAST, "-"in the time zone means WEST. Time zone must be 2 numbers. So Beijing's time zone should be like this: +08, Los Angeles' time zone should be: -08

E.g. Send "123456L+08" to set the time to Beijing time.

Send "123456L-08" to set the time to Los Angeles time

14. GPRS setting

In order to use GPRS function, the user needs to set IP, Port and APN (access point name) by sending SMS commands. Make sure that your SIM card in the tracker has GPRS function.

Send SMS "123456C\$\$\$\$,IP:Port" to set the APN, IP and port.

Note: C must be English in Capital. Please get APN from your local GSM operators and pay attention to the lower case or



Tracker replies a URL within the location SMS like:

<http://maps.google.com/maps?f=q&hl=en&q=22.7640266,114.3975833>

Click the RUL then you can see the location



16. Tracking in the software

The device can be tracked in tracking software.

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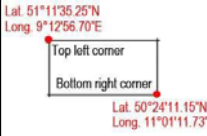
17. All of the SMS commands list

name	Sentence content	Description
Set authorized numbers	123456A1,phone number 123456A2,phone number 123456A3,phone number 123456A4,phone number	A1 is for setting the first numbers. A4 is for the forth 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 number.
Delete authorized numbers	123456A1,D 123456A2,D 123456A3,D 123456A4,D	
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	123456Mx,yyyz	x=1 means on, x=0

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continuous Tracking		means off y means time interval. If z=S/M it should be <=255.if z=H, it should be <=090. It must be three numbers,030S means 30S Z means time unit z=S means second, z=M means minute, z=H means hour
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	x=1 means on, x=0 means off y 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

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Set GEO fence	123456Ix,y,z, aabbccddeffgghh ijkkllmmnpppq rrrssj 	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,rr,ss must be 2 numbers.03 means 3. fff,ppp must be 3 numbers.011 means 11
Example of GEO fence	123456I1,1,1,51113525N009125670E50241115N011011173E 	The tracker will send an alarm data if it is in/out the district.

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Set the time zone	123456Lxyy	x=+ means east x=- means west yy means the time zone must be 2 numbers
Sample of 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 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	123456T1	The car can not be started
recover ACC or fuel	123456T0	The car can be started, only available for TL108
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.

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<ul style="list-style-type: none"> ① Set the username and password for APN 	<ul style="list-style-type: none"> ① 123456O&&&& @@@@ 	<ul style="list-style-type: none"> ① &&&& is the username and @@@@ is the password. ① If the SIM card doesn't need username and password for the APN, you do not need to set it.
<ul style="list-style-type: none"> ① Sample of the username and password for APN 	<ul style="list-style-type: none"> ① 123456Ointernet, internet123 	<ul style="list-style-type: none"> ① The user name is internet and the password is internet123.
<ul style="list-style-type: none"> ① Open GPRS 	<ul style="list-style-type: none"> ① 123456D 	<ul style="list-style-type: none"> ① 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.
<ul style="list-style-type: none"> ① Close GPRS 	<ul style="list-style-type: none"> ① 123456E 	<ul style="list-style-type: none"> ① The tracker will close the connection with the server.
<ul style="list-style-type: none"> ① Get the IMEI number 	<ul style="list-style-type: none"> ① 123456B 	<ul style="list-style-type: none"> ① It will reply the IMEI number of the tracker.
<ul style="list-style-type: none"> ① Check setting 	<ul style="list-style-type: none"> ① 123456G 	<ul style="list-style-type: none"> ① It will reply you its configuration

18. 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.