GPS Tracker for Motorcycle/Vehicle

USER MANUAL

(Model: MT09)

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CONTENT

Preface

MT09 GPS Motorcycle/vehicle tracker is the cost-effective solution for security & real-time tracking. It is specially used for motorcycle/car tracking because of its tiny size & low power consumption.

There are 2 ways for the users to track the vehicle: (1) by any mobile phone via SMS commands; (2) by tracking platform.

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 reason, do not tell other people the mobile phone number of your MT09.

Warning:

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

I. Features & Functions

1. Track on command or by time interval or by distance.
2. Arm/disarm by SMS or phone call.
3. Check the car's real physical address, such as city name & street name;
4. Track by mobile SMS to get the latitude, longitude, speed, direction & odometer etc.
5. Check the location directly by the Google map's URL;
6. Online website tracking by GPRS data network;
7. Over-speed alert, Geo-fence alert;
8. Cut off engine to stop the car safely by SMS/GPRS(optional);
9. Built-in shock sensor for power saving & triggering alarm
10. Wide working voltage range, from 6V-30VDC, suitable for motorcycle or car.

II. How to Operate it

Register the Device.

SMS command **000000REG**

User need insert a valid GSM SIM card into the tracker, then use his/her own mobile (master mobile no.) to send this SMS command to register the mobile firstly, otherwise, the tracker will not response to the SMS commands.

The default user password is **000000**.

After registration is success, the tracker will send back the account (username + password) for access the tracking platform.

If the SIM card is not activated with GPRS function, or APN is wrong, it will hints that registration is failed.

Change User Password

SMS command: **PSW+old pasword + new password**

Example: If the user wants to change the present password 000000 to the new password123456, the SMS command is: PSW000000123456

(Important: the password must be 6 numbers.)

Define SMS Content in Different Languages.

SMS command:

EN (set to English), **CN** (set to Chinese)

ID (set to Indonesian), **TH** (set to Thai)

These commands are used to set the SMS contents into different languages

Authorize the Assistant Phone No.

The device can only response to the SMS commands which is sent by master mobile phone & assistant mobile phone, user can set maximum 3 mobile no. as assistant phone no.

SMS command: **NUM Mobile #1# Mobile #2# Mobile #3**

The mobile no. should include the country code. Example:

NUM+8613922713571#+8618902267400# (+86 is china country code)

Clear the assistant mobile no: **CLRNUM**

Check the assistant mobile no: **CHKNUM**

Check the Vehicle's Status

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

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 "Tracker Armed……"

Check the Real Physical Address

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

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.

Remark: The GPRS data service of the tracker's SIM card must be activated, and the

correct GPRS setting is needed.

Check the location by Google Map's URL

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

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 GSM Base Station Code

SMS command: **LBS** (or **lbs**)

When there is no GPS signal, user can still track the car's location with this information.

Stop the Car

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

This instruction is used to stop the car.

If the car speed >40Km/h, the car will stop gradually, if the car speed<40Km/h, it will stop immediately.

Restore the Stopped Car

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

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

Arm the System

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

This SMS instruction is used to arm the system. When the system is armed, if the car speed >20Km/h, or there is vibration, the alarm will be triggered.

Or user can use the master mobile no. to call the tracker, if tracker hands up

the phone after 12 seconds. it means system is armed.

Disarm the System

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

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

Or user can use the master mobile no. to call the tracker, if tracker hands up the phone after 5 seconds. it means system is disarmed.

Over-speed Alert

SMS command: **SPDn** (**spdn**)

After setup, if the car speed is higher than the limitation, it will send alert SMS to the use mobile.

n is the speed in KM/H , range:0-1000.

SPD0 to disable the over-speed alert. It is the default setting.

SPD120 to set the speed limitation at 120Km/h.

Set up the Shock Sensor

SMS command: **SHKx** (**shkx**)

The range of x value:0-10, default is 2.

x=0: disable the shock sensor

x=1: the most sensitive level; x=10: least sensitive level

X: is the time in seconds, range:1-20 seconds

Y: is the vibration times. (Default setting: X=3 seconds, Y=3 times.)

Example:111111SHK:S=5,N=2, : if tracker is vibrated twice in 5 seconds, it will trigger vibration alarm.

Power Save Mode

SMS command: **PWRX**

X=1, activate the power save mode

X=0, disable the power save mode

Power save mode is used to save the power & GPRS flow.

After the power save mode is activated, if the engine is OFF(the green line is connected to ACC position), and there is no vibration, the system will enter into power save mode after 5 minutes. Once the engine is ON or there is vibration, the system will restore to normal mode immediately.

SMS command: **SLEEPn**

While the device is in power save sleep mode. user can set the device to wake up at a certain period.

The value of **n** is time in minutes, the range is: 0~65530 minutes.

(default setting: device will wake up every 3 hours.)

Reboot the device

SMS command: **REBOOT** (**reboot**)

The device will reboot automatically.

Reset the Parameters

SMS command: **CLR** (**clr**)

It will clear the present settings and restore to initiated factory status.

(Note: Only the master register mobile can carry out this operation.)

Set the Time Zone

SMS command: **TZEn or TZWn**

n is the time zone number. TZE is for the Eastern Hemisphere, TZW is for the western Hemisphere, for example:

China: TZE8:, Brazil: TZW3:, Nigeria:TZE1

Get back the password of platform

SMS command: **PIN**

This instruction is used to get back the password for login the platform.

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 ADD
(2) Online tracking service by web-based tracking platform

SMS format:

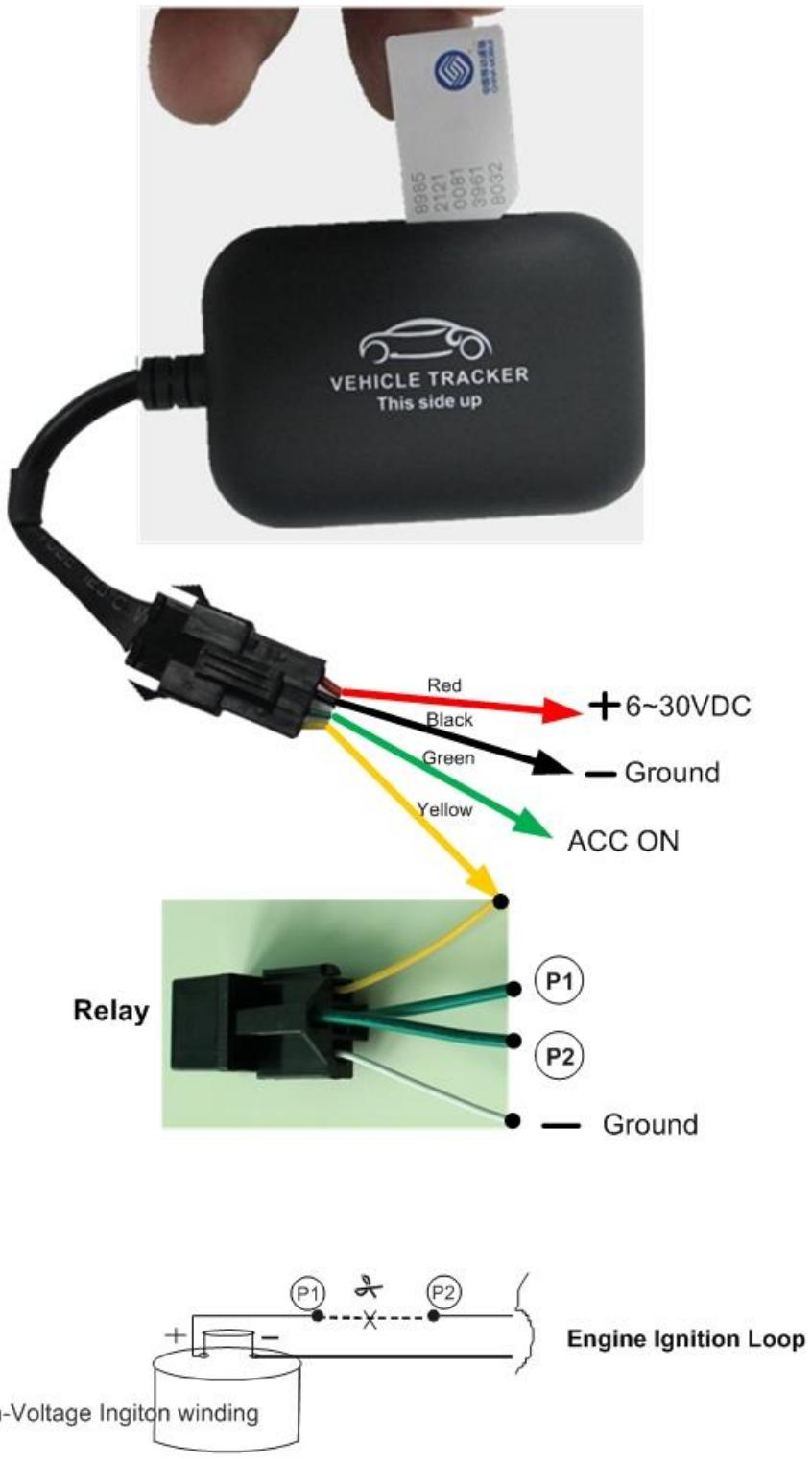
000000WWW:IPN:X;COM:X;APN:apn,user,password;RPT:X;OFF:X;RUN:X;

- 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.)
- OFF: The interval for uploading GPRS packet in sleeping mode (unit: sec.);
- RUN: GPRS connection setting. 0=close, 1=TCP, 2=UDP.

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:

000000WWW:IPN:www.51track.com;COM:8500;APN:web.gprs.mtnnigeria.net ,web,web;RPT:60;RUN:1;

IV. 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 up to the sky, so that it can get good GPS signal.

(3). The blue 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.

(4). Please pay attention to the SIM card direction. There are 2 LED in the SIM card hole, Blue LED flash means it has valid GPS signal.

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 use the screw driver to open the cover;
(3) Insert the valid GSM SIM card, then turn on the power 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.

V . Specifications

Working voltage:	+6.0 ~+30VDC
Power Consumption:	Normal mode: 30mA; Power save mode: 4mA;
Size of the main unit:	40*58*14.5 (mm)
Weight of the main unit:	30g
Working temperature:	-25 ~ 80℃
Humidity:	0 ~ 95%
GSM frequencies:	Quad-band: 850MHz/900MHz/1800MHz/1900MHz
GPS chip:	U-blox chipset
Working frequencies	1575.42Mhz C/A（GPS）
Receiving sensibility	-159dBm
Positioning accuracy	≤10m (wide-open area)

VI. 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 password is correct or not? mobile no. is authorized no.or not?; (2) Low power, please use outside power supply to power on the unit to test
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 wide place; (3) Please check if the blue LED flash; 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) The setting for GPRS connection is wrong.