

R.M.V. Mobile Tracking Devices



*Electronic technology providing
high quality fleet tracking and
security solutions, know you
now your fleet anytime and any-
where.*

**GPS VEHICLE
TRACKER**

MT01

USER MANUAL

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Technical Specification

GPS Vehicle tracker (MT01)

Working based on latest SIRF III GPS module and international IMEI authentication code GSM module, MT01 is high sensitivity and stable. It can locate and monitor any remote targets by SMS or tracking centre. With internal GPS and GSM antennas, MT01 is easy to hide and install. Built-in memory chip, MT01 can store the data when GPRS signal is not good and send them out to the tracking centre when the signal is recovered. Water proof design and built-in instant surge power adoption protect the inside components of MT01. Optional choice of voltage (6V/12V/24V) and relay (6V/12V/24V), MT01 can be widely used in motorcycles or cars. With outer regulator, it also can be used in truck.

Option:

1. Mileage calculation
2. ACC Detecting
3. Low battery alert
4. Engine cut
5. SOS panic button
6. Built in shaking sensor
7. Crashing alert, send alarm when crashing occurred in all directions



Features:

1. Tracking via SMS or GPRS (TCP/UDP)
2. Living location report
3. Tracking by time interval/distance/car moving veer
4. Geo-fencing control and alarm
5. Speeding alert
6. Get detail address via SMS directly
7. Built-in antennas
8. GOOGLE MAP link for location via SMS
9. Power voltage can be from 6v to 24v
10. Water-proof



Satellite



History Report



Waterproof



Immobilization



Panic Button



Geo-fencing



SMS Report



Detail location report



Easy To Use

Technical Specification

Specification:

Power supply	+9V - +35V / 1.5A
Backup Battery	850mAh
Dimension	79mm x 57mm x 21mm
Weight	145g
Operating temperature	-20° to 55° C
Humidity	5% to 95% Non-condensing
Frequency	GSM 900/1800/1900Mhz or GSM 850/900/1800/1900Mhz (optional)
GPS Chipset	latest GPS SIRF-Star III chipset
GPS Sensitivity	-158Db
GPS Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 channel all-in-view tracking
Position Accuracy	10 m, 2D RMS
Velocity Accuracy	0.1 m/s
Time Accuracy	1 us synchronized to GPS time
Default datum	WGS-84
Reacquisition	0.1 sec., average
Hot start	1 sec., average
Warm start	38 sec., average
Cold start	42 sec., average
Altitude Limit	18,000 m (60,000 feet) max.
Velocity Limit	515 m/second (1000 knots) max.
Interface	2 input and 1 output
LED	2 LED lights to show working status

Installation & Usage

Hardware and Accessories



Main Device

- ① Built in antenna
- ② Switch
- ③ Sim card holder
- ④ LED lights
- ⑤ Cables interface
- ⑥ USB port



Power wires

Installation Process

SIM Card Installation

Check that the SIM card does not run out of credit (test the SIM card in a phone to make sure it can send and receive SMS).

Check that the SIM card has opened GPRS function.

Check that the SIM card lock code is turned off.

If you require the function of sending a SMS location report to the authorized phone number when it makes a call to MT01, please make sure the SIM card installed supports displaying caller ID.



open the tracker



Get out the sim card holder



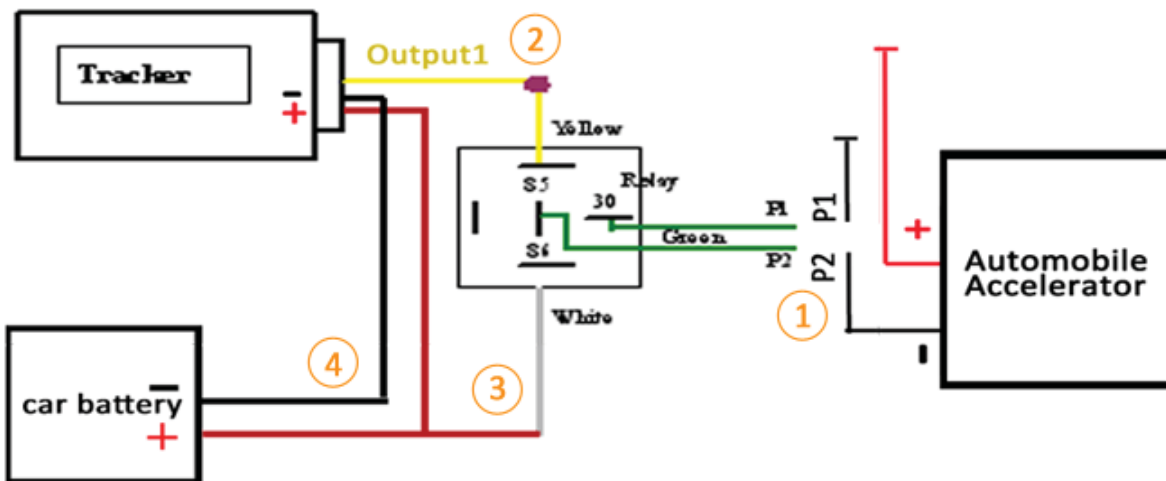
Insert the SIM card and make sure its chips face down

Installation & Usage

Installation Process

Relay Connection

Before connection, please identify the automobile accelerator power line (negative) in the car, cut the line in two parts (P1 & P2)



- ① Connect 2 Green cables of relay P1 & P2 to the cutted parts (P1 & P2) of negative line from Accelerator
- ② Connect yellow cable of relay to the Output 1 (yellow cable) in the tracker.
- ③ Connect white cable of relay and red cable from tracker to the positive cable of car battery
- ④ connect GND cable (black) of tracker to the negative line of car battery

Installation

Find a suitable place inside the car to install MT01. You can install the tracker to below places.



Installation & Usage

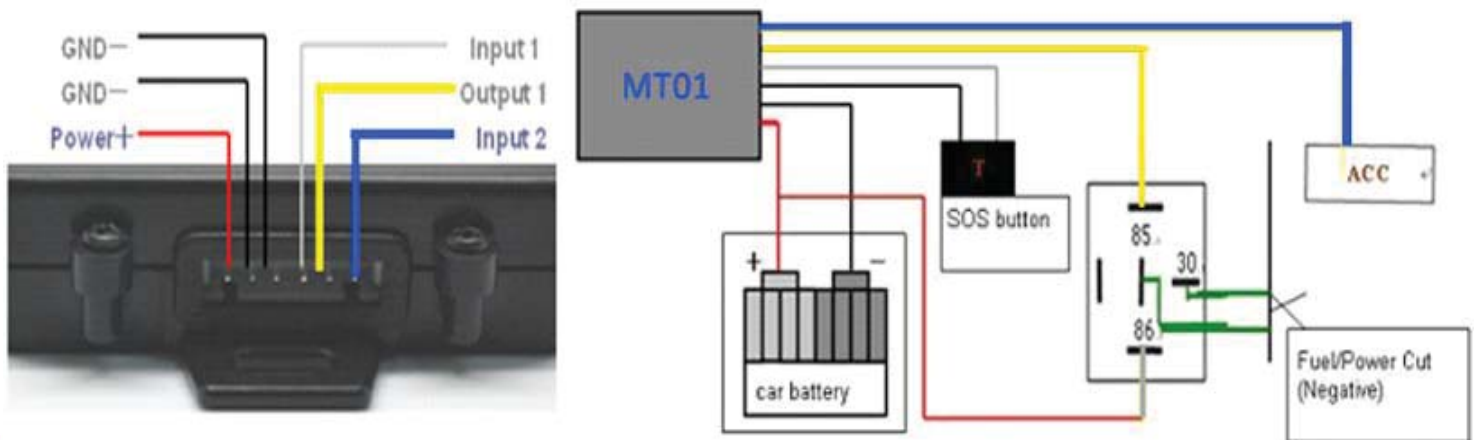
Installation Process

Installation

Wiring connections must be firm and reliable and the joints should be wrapped with insulating tape tightly. The unused electrical wire should be properly insulated.

Check if all wires have been connected correctly and then connect MT01 to the power supply.

Note: If the crash sensor is added into MT01, please make sure the tracker clings to car body during installation. Normally, it can be installed in A pole or bridge of the car.



How it works



satellite



fleet management



GPS Tracker



GSM/GPRS network

1. Get location info of fleet from satellite by tracker.
2. tracker transfer location info to data centre by GSM/GPRS network.
3. Data center show all info in the platform, and you can track all your fleet in smart phone, laptop, PC anytime anywhere.



Data Center

Parameter Setting

Parameter Setting

SMS commands setting

please send SMS commands as followed

Set Tracker ID	W*****,010,ID	ID is better to be tracker SIM card number, no need local or international code
Set APN	W*****,011,APN,APN Name, APN Password	APN can be got from SIM car supplier. If no APN name or APN password, just put APN
Set IP	W*****,012,IP, Port	IP:115.126.3.15 Port: 10094
Set TCP	W*****,013,X	X=0, Close GPRS (default); X=1, Open TCP
Set Time	W*****,014,XXXXX	XXXXX=5 digits XXXXX=00000, close time setting XXXXX=00001~65535, time intervar (Unit:10S)
Set Degree	W*****,036,degree	X=0 Close degree setting X=1...360 angle scope (Unit: degree)
Set Distance	W*****,045,X	X=0 Close distance setting X=1—65535, distance interval (Unit: m)

Note: 1. command format: W*****,013,X “*****”=000000 (default), “W” must be in CAPS format, there is no space between letter and number

2. commands must be sent one by one, after get reply from previous one, can send the next commands

3. Setting distance to send out data can save the GPRS cost. Setting Angle to send out data can record some blind spot and show complete line. The normal setting is 35°.

4. Track by interval. you can choose Time interval/degree interval/distance interval accordingly

Parameter Editor setting

You can do the setting in your PC, Please install the driver (CP210x_VCP_Win_7_Vista/W2K_XP.exe) according to your PC. Insert dedicated USB cable, find the correct com port in device management in PC. Connect tracker to PC by USB CABLE open setting software, do the operation as followed steps and picture:

Parameter Setting

Parameter Setting

Parameter Editor setting

1. choose com port, click : start, choose: TCP, click: GPRS.
2. enter parameter: Tracker ID: SIM Card number
APN, APN name, APN Password: check with your sim card supplier
IP: 115.126.3.15 port: 10094
Time: according to your demand, minimum: 10 sec
3. Turn on the tracker, when 2 led lights are on without flashing, click: write, parameter setting will be done automatically.

GPS Tracker Parameter Editor (2010) V2.65

COM5 Start Read Write **step 5** Auto Tracker Disconnect

GPRS **step 1**
GPRS TCP Tracker ID 2012041001 **step 2** APN cmnet
APN Account APN Password
IP 115.126.3.15 Port 10094 Interval 30 sec Apply

SMS Tracking
SMS Tracking No. Interval 0 min Apply

Password 000000 Apply Over Speed 0 km/h Apply
Prefix(area code) Apply Time Zone 0 min Apply
Wiretapping Apply Distance 0 m Apply
Power Saving 0 min Apply Course 0 Apply

Authorized Phone No.
SMS Call SOS Button/IN1
SMS Call Button B/IN2
SMS Call Button C/IN3

SMS Initials
SOS Button / IN1 SOS Alarm Apply
Button B / IN2 Cry For Help! Apply
Button C / IN3 Call The Police! Apply

Extended Settings
 Call For SMS Cut Off Power Apply

COM Error!

For more details, please check the user manual of how to set up the tracker.

Note: USB cables is dedicated, must use ours and programe and then you can do the setting by it .

Commands List

How to get realtime location

Live location report W*****,000

send command: W000000,000 to tracker, it replies text message as followed format:
you can enter the coordinate in Google map to get the current location.



Latitude= 06 27 35.04N Longitude= 003 18 53.83E,Speed=0.00Km/h,Odometer=0.000Km,
2011-12-28, 08:05

Get GOOGLE link for location by SMS W*****,100

send command: W000000,100 to tracker, it replies link as followed format
[http://maps.google.com/maps?f=q&hl=en&q=6.46022,3.314953&ie=UTF8&z=16&iwloc=ac](http://maps.google.com/maps?f=q&hl=en&q=6.46022,3.314953&ie=UTF8&z=16&iwloc=ac&om=1)
&om=1

you can click the link to visit google map to get the location by your
cellphone.



Get location with street name by SMS W*****,111

Before using this function, please set the tracker to work in our
platform.

Send command: W000000,111 to tracker, it replies the current
location with detail address name, the details of location depends
on Google Map.



Commands List

Alerts Setting

Authorize Phone Number for alerts **W*****,003,F,1,T1,T2**

Remarks: To authorize phone number for alerts for receiving location reports and SMS alarms.

W*****,003,F,1,T1,T2 F=0 Close

F=1 sending sms to phone number (T1 only)

F=2 make a call to phone number (T2 only) when alert active

F=3 make a call and send sms at the same time

T1,T2=Phone number Max.16 digits

I.E: W000000,003,3,1,88888888,88888888

Over speed alarm **W*****,005,XX**

Remark: When the speed is over the preset speed value, tracker will send alert message to the preset phone number.

W*****,005,XX XX=00 Close (default)

XX=1-20 unit: 10KM/H

I.E.: W000000,005,12 (Speed limited: 120KM/H)

Geo-fencing alarm (Square area) **W*****,006,XX**

Remark: the current location of tracker as center point, setting geo fencing area, when it leaves that area, tracker will send message to the preset phone number.

W*****,006,XX

XX=00 Close;

XX=01 30M; XX=02 50M;

XX=03 100M; XX=04 200M;

XX=05 300M; XX=06 500M;

XX=07 1000M; XX=08 2000M;

I.E. W000000,006,02

Commands List

Other commands setting

Change Password W*****,001,#####

Remarks: To change user's password. ##### is the new password. Password should be 6 digits.

I.E.: W000000,001,555555

SMS track by Time interval W*****,002,XXX

Remarks: To set interval for automatic timed report

W*****,002,XXX XXX=000 Close (default) XXX=001-999 unit: mins

I.E.: W000000,002,001 (Time interval: 1 min)

Engine cut (Optional) W*****,020,1,F

W*****,020,1,F

F=1 stop car F=0 to enable car moving

I.E. W000000,020,1,1 Stop the car

Time zone setting W*****,032,T

Remarks: Default time of the tracker is GMT.

This function only works SMS tracking only, not for GPRS.

T=0, close T=[1, 65535] to set time difference in minute to GMT.

For those ahead of GMT, just input the time difference in minute directly.

'-' is required for those behind GMT. For example, W000000,032,-120.

I.E. W000000,032,480 (GMT+8) W000000,032,-120 (GMT-2)

Get Version No. and Serial No. W*****,600

Remarks: to get the version and serial number of tracker W000000,600

Get IMEI W*****,601

Remarks: to get the version and serial number of tracker W000000,601

Reboot GSM and GPS W*****,900###

Remarks: to reboot the GSM module and GPS module of the tracker W000000,900###

Troubles Shooting

Problem: Unit will not turn on

Possible Cause:

Wiring was not connected properly

No enough power

Resolution:

Check and make sure wiring connection is in order

Connect to outer power supply.

Problem: Unit will not respond to SMS

Possible Cause:

GSM antenna was not installed properly

GSM Network is busy

Wrong password in your SMS or SMS format

The SIM in MT01 has run out of credit

No SIM card

SIM card has expired

SIM has PIN code set

SIM is warped or damaged

Roaming not enabled

Error connecting of GSM antenna

Resolution:

Make MT01 connected to GSM network.

Wait for SMS. Some GSM networks slow down during peak time.

Write correct password or SMS format.

Replace or top up the SIM card.

Insert a working SIM card. Check in phone that the SIM can send SMS.

Check in phone that the SIM can send SMS message. Replace SIM card if needed.

Remove PIN code by inserting SIM in you phone and deleting the code.

Inspect SIM, clean the contacts. If re-inserting does not help try another to see if it will work.

If you are in a different country your SIM account must have roaming enabled.

Make sure the GSM antenna is connected to the GSM interface.

Problem: SMS received starts with 'Last...'

Possible Cause:

Unit does not have clear view of the sky

MT01 is in an inner place

Battery is low

Error connecting of GPS antenna

Resolution:

Move the antenna of the unit to a location where the sky is visible.

Wait for the target to come out

Connect the tracker with the outer power supply.

Make sure the GPS antenna is connected to the GPS interface.