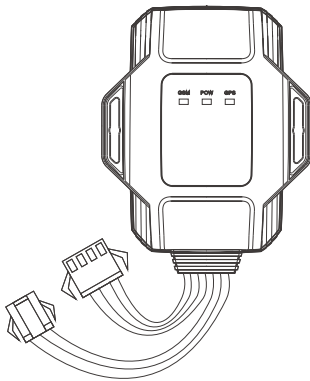


# Waterproof GPS Tracker

## User Manual



Please read this manual carefully before attempting installation and online activation. Pictures are for indication and illustration purposes only.

# 1.Product Functions

## 1.1 Functions



Geo-fence



Power-off alert



Vibration alert



Movement alert



GPS tracking



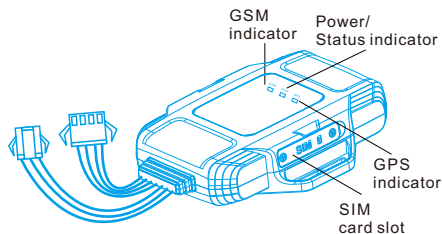
History playback

## 1.2 Specifications

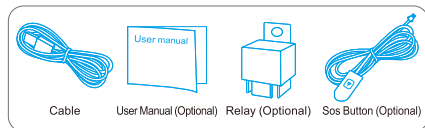
GSM	850/900/1800/1900 MHz
GPRS	Class 12, TCP/IP
Memory	32+32MB
GPS	MTK high sensitivity chip
Location accuracy	<10 meters
TTFF (open sky)	Hot start≤1sec
	Cold start≤35sec
Dust-waterproof level	Ip65
Battery	450mAh/3.7V Li-Polymer battery
Working voltage/current	9-90VDC/7mA (60VDC)
Standby time	80hr standby time; 7hr working time
Operating temperature	-20°C-70°C
Dimension	87.0(L)*74.0(W)*18.7(H)mm
Weight	93.5g

# 2.Interface descriptions

## 2.1 Functions



## 2.2 Accessories



Pictures are for indication and illustration purposes only.

**NOTE:** After opening the packing box, please check if the accessories are complete. If there is anything missing, please contact your distributor.

## 2.3 LED indicator

### 2.3.1 Red LED ( Power/status indicator )

Status	Definition
Quick flashing	Low battery
Slow flashing	Fully charged
Solid Red	Charging
Dark	No battery/troubleshoot

### 2.3.2 Blue LED ( GPS signal indicator )

Status	Definition
Quick flashing	Searching GPS signal
Slow flashing	GPS is fixed successfully
Dark	GPS stops working

### 2.3.3 Green LED ( GSM signal indicator )

Status	Definition
Quick flashing	GSM initializing
Slow flashing	GSM/GPRS online
Dark	No GSM signal or no SIM card installed

## 2.4 Arm status

When red/green/blue 3 LED lights are flashing in cycle, it means the terminal is in arm mode.

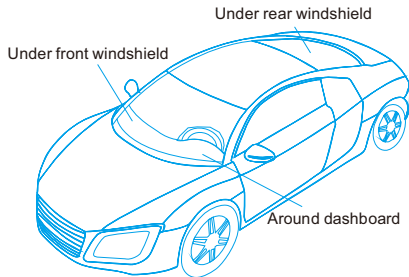
## 3. Installation

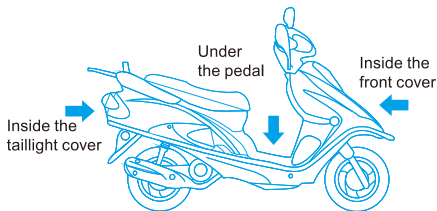
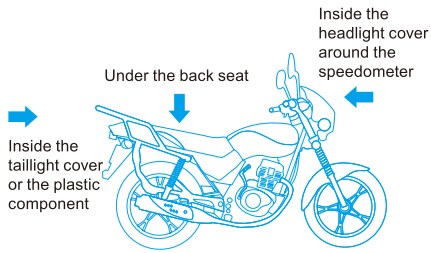
### 3.1 Placement

The terminal should be placed under cover. It is recommended to ask professionals to install the terminal for you.

#### ▲NOTE:

- (1) The terminal should be placed under cover;
- (2) protect it from water;
- (3) Use bandage or foam tape to keep the terminal stable;
- (4) Please make sure that the front side of the terminal should be facing up without any metal cover.

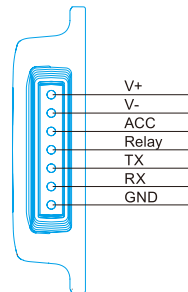




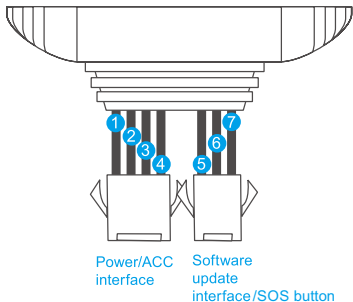
**NOTE:**

The GPS signal will be weakened if the device is installed under the driver seat.

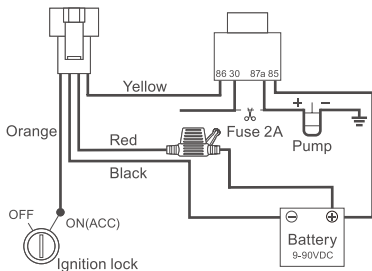
## 3.2 Wiring



No.	Function	Color	Function Illustration
1	V+	Red	Positive pole
2	V-	Black	Negative pole
3	ACC	Orange	ACC on
4	Relay	Yellow	Relay controlled wire
5	TX	Green	Send data / for backup
6	RX	Blue	Receive data / for backup
7	GND	Purple	Ground wire



- 1 Red    2 Black    3 Orange    4 Yellow  
 5 Green    6 Blue    7 Purple



- (1) Black wire(negative): Use multimeter to find out the battery negative.
- (2) Orange wire(ACC): Use multimeter red pen to connect with the ACC wire at ignition switch, while the black pen connects with the ground wire. In this condition, when the ignition switch is off, the voltage is 0V; when the ignition lock is ON, the current voltage will be shown.
- (3) Red wire (positive): connect to the positive pole of the battery.
- (4) When the terminal is connected to external power, insert the SIM and the red indicator (power indicator) should be normally on. When the ignition switch is off, the red indicator should be flashing slowly.
- (5) The yellow wire of the relay control line should be connected to 86 as the picture shows.

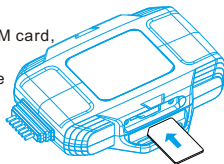
## 4.Power ON/OFF

### NOTE:

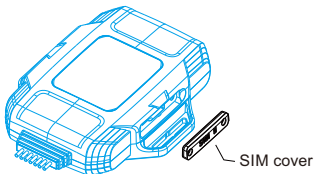
SIM should active GPRS, Caller ID and SMS service.

### 4.1 Power ON

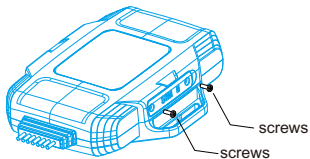
- 1.When you insert the SIM card, the device will be on automatically. (Mind the direction of the SIM).



2.Restore the SIM cover.



3.Lock the SIM cover with two screws, connect with external power.

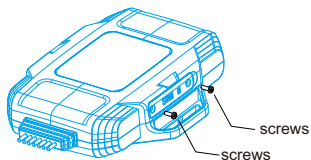


**Remark:**

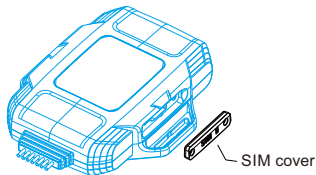
1. LED flashing when device is on.
2. Green LED quick flashing – searching GSM signal.
3. Blue LED quick flashing – searching GPS signal.
4. Green LED slow flashing – login server success.
5. Blue LED slow flashing - GPS is located.

## 4.2 Power OFF

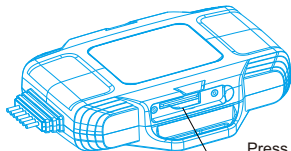
1.Disconnect external power, take out the screws on SIM cover.



2.Unlock the SIM cover.



- 3.Pull out the SIM card,  
the terminal will be off automatically.



Press the SIM down it  
will be pushed out

## 5.Main Functions

### 5.1 SOS(Optional)

In emergent case, press SOS for 3s to activate SOS alarm. Then the device will send SOS SMS to preset SOS numbers and then dial the numbers in 3 circles until the call is picked up. Alarm message will also send to platform.

### 5.2 Power cut-off alarm

When the electricity supply of device is cut off, it will activate cut-off alarm.

### 5.3 Low battery alarm

When battery is low, the device will activate low battery alarm.

### 5.4 Movement alarm (Default OFF)

Device will send movement alarm when vehicle moves out the pre-set distance (when ACC is off and GPS is fixed).

### 5.5 Vibration alarm (Default ON)

When vehicle vibrates several times, the vibration alarm will be triggered. If no ignition after 3 minutes (ACC OFF), the device will send vibration alarm message immediately.

### 5.7 Oil/Electricity cut-off

When vehicle is stolen, oil/electricity cut-off command can be sent by platform, APP or SMS.

#### **⚠Notice:**

- 1.Make sure ACC is correctly connected.
- 2.When ACC is OFF, command will be executed immediately.
- 3.When ACC is ON, but GPS is not fixed, command will be postponed.
- 4.When ACC is ON, GPS is fixed, command will be executed when vehicle speed is less than 20km/h.

### 5.8 Restore oil/electricity

When alarm is cancelled, user can send restore oil/electricity command by platform, APP or SMS and restore vehicle power.

## 5.9 Restart device

If GPRS is abnormal (device is offline), user can send SMS command (RESET#) to restart the device. Device will reboot after 20 seconds after receive the command.

## 6.Platform Operation

Get registered on the designated service platform by authorized dealer, then you can start the tracking service and settings.

### 6.1 Login service platform

Please login the designated service platform to set and operate the device.

### 6.2 Download APP

Please download and install the APP in designated website, APP store or Google Play store.



iOS



Android

## 7.Frequently Used Command List

Check device status	STATUS#
Get device GPS latitude/longitude	WHERE#
Check device location in Google Map link	1, URL# 2, POSITION
SOS number setting	1, Add SOS number: SOS,A,number 1,number 2,number 3# Example: SOS,A,12342***, 134533***,135432***# 2, Delete subjected sequence of SOS number: SOS,D,number sequence 1,number sequence 2, number sequence 3# Example: SOS,D,1,2# 3, Delete the SOS number: SOS,D,phone number# 4, Query SOS number: SOS#
GPS data upload time interval	TIMER,T1,T2# T1=5~18000 seconds ; ACC ON upload interval ; default value : 10 T2=5~18000 seconds ; ACC OFF upload interval ; default value : 20 (when GPS is on) Example: TIMER,20,20#
GPS data upload distance interval	DISTANCE,D# D=0、50~10000 meter ; Distance interval ; default value : 300, unit : meter ;



Delayed defense setting	DEFENSE,A# A:1~60 minutes, set delayed defense, default value : 10 minutes
Vibration alarm (Default ON)	1, SENALM,ON# 2, SENALM,OFF#
Movement alarm (Default OFF)	1, MOVING,ON,R,# R=100~1000; Movement radius, unit: meter Example: MOVING,ON,200,# 2, MOVING,OFF#
Petrol/electricity control	RELAY,A# A=0/1 ; 0: Restore petrol, 1: cut off petrol ; default value : 0 Example: RELAY,1# means: Cut off petrol
Restart	RESET# Device restart 20 seconds after receiving this command

## 8.Trouble shooting

If you are having trouble with your device, try these troubleshooting procedures before contacting a service professional.

Problems	Causes	Solutions
Poor signal	The signal waves unable to transmit when use the GPS tracker in the places that have poor signal reception, such as: tall building around or basement.	Using the GPS tracker in the places that have good signal condition.
Unable to boot	Low battery	Charge the device battery
Unable to connect to the network	Poor signal	Using the GPS tracker in the places that have good signal condition.
Unable to locate	Signal shielded or Poor signal	Change the installation place
No power off alarm	Built-in battery is off	Turn it on
Fail to start the car	Power cutoff /ACC abnormal	Restore power/ Check ACC
Car stops driving	Abnormal power supply	Connect the device negative electrode to constant power
Offline/ Indicators off	Abnormal power supply/Indicators sleep	Check power supply /Press side key to activate indicators
No update of vehicle's location	No GPS positioning	Change installation place and run the device again in open air.

## Maintenance Record

Date		Serviced by	
Product Model			
IMEI Number			
Fault Descriptions			
Comments			