

GSM/GPRS/GPS TRACKER MANUAL



Preface

Thank you for purchasing this product. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

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1 Summary

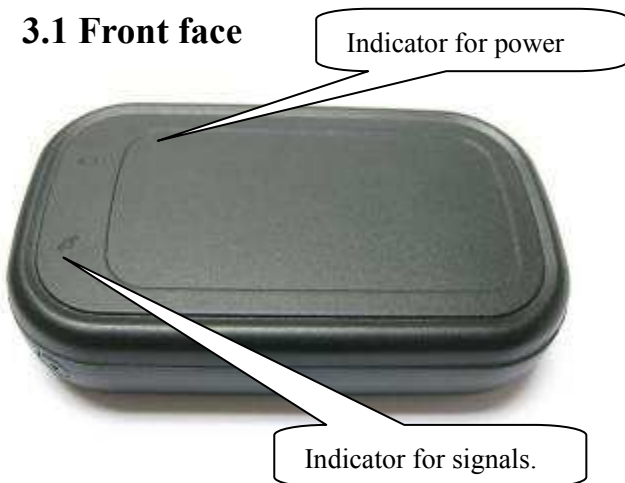
Working Based on existing GSM/GPRS network and GPS satellites, this product can locate and monitor any remote targets by SMS or internet.

2 Applications

- Vehicle rental / Fleet management etc
- Protect child / the old / the disabled / pet etc
- Provide peace-of-mind for businessmen
- Manage personnel
- Track criminals secretly

3 Hardware Description

3.1 Front face



3.2 Rear face



3.3 Side face



Turn on / off the unit



SOS Button

3.4 Bottom face



GSM/GPRS antenna is inside



3.5 Interior



Put SIM card here.



Install the battery like this.

4 Specs.

Content	Specs.	
Dim.	78.4mm x 45.4 mm x 16.5mm	
Weight	40g	
Network	GSM/GPRS	
Band	850/1800/1900Mhz or 900/1800/1900Mhz	
GPS chip	U-BLOX-5 chip	
GSM/GPRS module	Siemens MC55 or Siemens MC56	
GPS sensitivity	-159dBm	
GPS accuracy	5m	
Time To First Fix	Reacquisition	0.1s
	Cold status	45s
	Warm status	35s
	Hot status	1s

Car charger	12—24V input 5V output
Wall charger	110—220V input 5V output
Battery	Chargeable changeable 3.7V 1100mAh Li-ion battery
Standby	72hours
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +55°C
Humidity	5%--95% non-condensing

5 Usage

5.1 SIM card installation

Make sure that there is no **call transfer** and **call display is on**, and **PIN code** off. The SMS message must in Text format, can't be identified for PDU format.

Steps:

1 Open the rear cover, and pick out the battery.

2 Pick up the foil



3 Put the SIM card into the holder, and put down the foil right and fasten it in place.



5.2 Battery and Charger

Do charge the battery to capacity in 8 -12 hours for first use. Please use the battery and charger provided by the manufacturer. This unit adopts built-in Li-ion battery, and full battery will support around 60 hours use on end. After first use, the battery

can be charged fully in 3-5hours.

Cautions:

a: For it's Li-ion battery, which contains harmful chemicals and may burst, please don't bump, puncture it violently and keep it off fire.

b: Please charge the battery in time to keep it working normally.

5.3 Startup

- Put the SIM card and battery in place.
- Turn on the unit **outdoors** by pressing the “on/off” button until the red indicator is on.
- For first use, please initialize the unit and restore it to default setting.(please refer to **5.4** for instruction.)
- There are three indicators on the unit.

In 10 or 40seconds, the unit will begin to work and acquire the GSM signals as well as the GPS signals. The first blue indicator(on the left) will keep flashing every 2 seconds when the unit has received the signals;The red indicator(in the minddle) will light when the unit is working.. The last blue indicator will light when it is charging.

- When this unit receives GPS signals normally, you can use it and do all the following settings.

5.4 Initialization

Send “begin+password” in SMS to the unit, it will reply “begin ok” and initialize all the settings. (default password: 123456)

5.5 Change the password

Send SMS ‘**password+old password+space+new password**’ to change the password.Password only have **SIX** digits in all.

For example password is 123456:Send SMS:’**Password123456 168168**’

Remark: Be sure keep the new password in mind,if you forget your password,you can send SMS ‘**resumepassword**’ to resume the default password.

5.6 Authorization

There are only 4 numbers able to be authorized.

5.6.1 Call the tracker for 10 times, it will make the cell phone number as the authorized number automatically. You will receive SMS ‘**you are administrator**’

5.6.2 Send SMS ‘**admin+password+space+cell phone number**’ to set up a authorized number. The other authorized numbers should be set by the first authorized number. If the number is successfully authorized, the unit will reply “**admin ok!**” in SMS.

For example password is 123456:Send SMS:’**admin123456 13642345678**’

5.6.3 Send SMS ‘**noadmin+password+space+authorized**’ number to delete the authorized number. If the setting is successfully, the unit will reply “**no administrator state**” in SMS.

For example:’**noadmin123456 13612345678**’

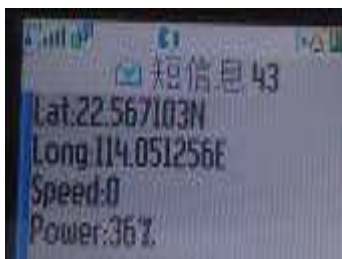
5.6.4 If you are in the foreign country to set up your device,you should add the country code which your SIM card belongs before the cell phone number.

For example password is 123456:Send SMS:’**admin123456 008613612345678**’

5.7 Real-time polling

5.7.1 If there is no authorized number, when any number dials up the unit, it will report a Geo-info; If there is already an authorized number, then it will not respond when an unauthorized number calls it up.

5.7.2 When an authorized number dials up the unit, it will hang up and report a real-time Geo-info as below:



5.8 Auto Track

Report a Geo-info at 30s (minute: m; hour: h) intervals to the authorized numbers for 5 times:

5.8.1 Set up: Send SMS ‘**at30sum15**’ to the unit, it will report the Geo-info at 30s intervals for 15 times.(s: second, m: minute, h: hour). The setting must be in 5 digits and at maximum **65535** in value.

5.8.2 Send SMS ‘**at60sum0**’ to the unit, it will reply SMS heaps of times

5.8.3 Cancel: Send SMS ‘**noat+password**’ to delete the auto track .For example For example password is **123456**:Send SMS ‘**noat123456**’

5.9 Voice Surveillance

In this mode, the user can dial up the unit to monitor the voice (please refer to **5.10** for instruction).

5.10 Modes switch between “track” and “monitor”

5.10.1. The default mode is “**track**”.

5.10.2. Send SMS ‘**monitor+password**’ to the unit, and it will reply “**monitor ok!**” and switch to “monitor” mode. For example password is **123456**Send SMS: ‘**monitor123456**’

5.10.3. Send SMS ‘**tracker+password**’ to the unit, it will reply “**tracker ok!**” and restore to “track” mode. For example password is **123456**:Send SMS ‘**tracker123456**’

5.11 Geo-fence

Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to the authorized numbers when it breaches the district.

5.11.1 Set up: When the unit stays immobile in a place for 3-10 minutes, the user can

Send SMS '**stockade+password+space+latitude,longitude; latitude,longitude**' to unit to set the restricted district. In case of breach, it will send SMS "**stockade!+geo-info**" to the authorized numbers.

For example password is 123456:Send SMS'**stockade123456 22.548123,114.081234; 22.549123,114.082234**'to the unit.

Remark : The first latitude&longitude is coordinate of the top left corner of the Geo-fence, while the second latitude&longitude is the coordinate of the bottom right corner. It will alarm one time in each setting.

5.11.2 Cancel: Send SMS '**nostockade+password**' to deactivate this function.

This function will be out of effect after the unit moves outside the district.

5.12 Movement alert

5.12.1 Set up: When the unit stays immobile in a place for 3-10 minutes, the user can send SMS' **move+password**' to the unit, then the unit will reply "**move ok!**". In case of such a movement, it will send SMS "**Move**" along with a Geo-info to the authorized numbers. It will alarm one time in each setting.

5.12.2 Cancel: Send SMS '**nomove+password**' to deactivate the movement alert.

Remark: This function will be out of effect after the unit moves outside the district.

5.13 Overspeed alert:

5.13.1 Set up: Send SMS '**speed+password+space+080**' to the unit (suppose the speed is 80km/h), and it will reply "**speed ok!**". When the target moves exceeding 80 km/h, the unit will send SMS **speed+080!+Geo-info** to the authorized numbers. It will alarm one time in each setting.

5.13.2 Cancel: Send SMS '**nospeed+password**' to deactivate the overspeed alert

5.14 IMEI checking:

Send SMS **imei+password** to the unit to check the IMEI number.

For example:Send **imei123456** to the device

5.15 SOS button

Press the SOS for 3 second, it will send “ **help me !+ Geo-info** “to all the authorized numbers every 3 minutes for 3 times. It will stop sending such a SMS when one of the authorized number reply SMS ”**help me!**” to the tracker.

5.16 Low battery alert

It begins to alert when it is 3.7V and send you SMS in 30m interval.

SMS format: **low battery+Geo-info.**

5.17 Hidden number tracking

When a hidden authorized number calls the tracker, the tracker will reply SMS with the hidden number&Geo-info to all the authorized numbers.

5.17.1 Send SMS “**hide number**” to set up the hidden number.

5.17.2 Send SMS “**nohide number**” to delete the hidden number.

5.18 SMS center

5.18.1 Send SMS **adminsms+password+space+cell phone number** to set the SMS center.

If the SMS center is set up, when an authorized number sends SMS to the tracker, the tracker will reply a SMS with **Geo-info & authorized number** to SMS center.

5.18.2 Send SMS **noadminsms+password** to cancel the SMS center.

Response SMS format: **authorized number+Geo-info**

5.19 Set up GPRS

The user needs to set IP address and Port by SMS to start the function of GPRS.

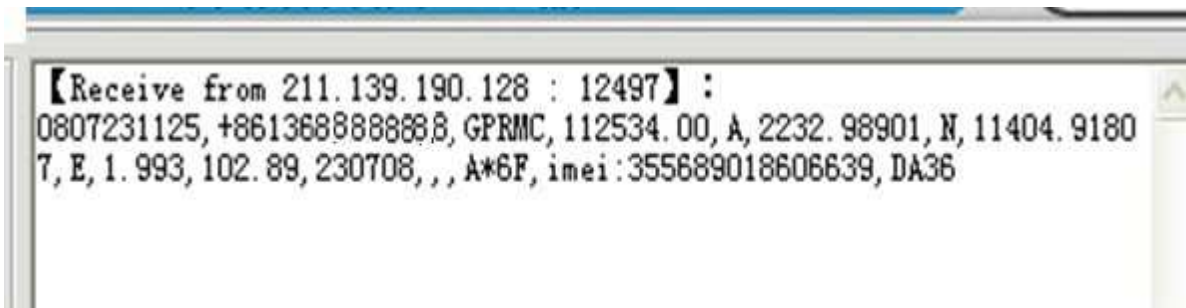
Set up:Send SMS **ip+space+IP address+space+port**,and it will reply SMS ”set **IP address and Port OK**”

For example:Send SMS”**ip 123.98.43.254 port2456**”to the device

5.20 Set up Sending data mode for GPS.

Set up Sending data mode for GPS, then it can send GPS data to IP address. (Refer to 5.21).

After this setting, you can call or send SMS to the tracker. The tracker will hang up the call and reply SMS **Serial number+authorized number+GPRMC+command+IMEI number+CRC16** to IP address. For example:



5.21 Modes switch between “telephone” and “web”

For sending GPS data to IP address, you should set up the sending mode for GPS data.

Set up: Send SMS **web+password** to device. For example, the password is 123456. Send SMS “**web123456**” to the device, if you set successfully, the device will reply SMS “**set web ok**”. After this, you can call or send SMS to the tracker. The tracker will hang up the phone and report the GPS data to IP address.

If you want to send GPS data to telephone, you can send SMS **telephone+password** to device, if set successfully, the device will reply ‘**set telephone ok**’. And then, the device will send GPS data to your telephone by SMS. (The default is sending the GPS data to the telephone by SMS)

5.22 Set APN

In order to send GPS data to IP address, you still must set mobile network Access Point Name (APN). If you don't know the APN, you can consult local network service supplier. The format of set APN is **apn + password +space + APN**. For example you send SMS “**apn123456 cmnet**” to the device. The device will reply SMS

“Set APN ok.”.

6 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 the battery and charger provided by manufacturer. Using other batteries and chargers will cause unwanted situation.
9. Don't dismount the antenna randomly, or use other antennas. This may interfere the transmission, and increase the radiation as well.

7 Faults & The solutions

Faults	Solution
Startup Fail	Check the battery and see if it is fully charged or correctly installed.
Hangup Fail	In existence of an authorized number, an unauthorized number dials up the unit. Please initialize the unit and re-set up the authorized numbers.
Monitor Fail	Check if the authorized number is setup or in the coverage of signals.
Location report in digits of zeros.	Don't use it in the place beyond reach of signals. Place the unit outdoors, especially when starting it up.