GSM/GPRS/GPS TRACKER MANUAL

Preface

Thank you for purchasing the tracker. 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.

Content

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

l Vehicle rental / Fleet management etc

l Protect child / the old / the disabled / pet etc

l Provide peace-of-mind for businessmen

l Manage personnel

l Track criminals secretly

3 Hardware Description

3.1 Front face

3.2 Rear face

3.3 Side face

Indicator for signals.

You can update software, charge battery from here.
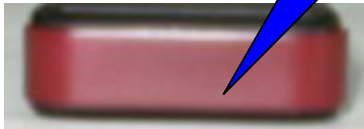
You can press the "SOS" buttons for 3s for emergent help.

Turn on / off the unit here.

3.4 Bottom face

GSM/GPRS antenna is inside

Microphone

3.5 Interior

Put SIM card here.

Install the battery like this.

4 Specs.

Content	Specs.
Dim.	64mm x 46mm x 17mm(1.8"*2.5"*0.65")
Weight	50g
Network	GSM/GPRS
Band	850/900/1800/1900Mhz or 900/1800/1900Mhz
GPS chip	SIRF3 chip
GSM/GPRS module	Simcom Sim340 or Simcom Sim300
GPS sensitivity	-159dBm
GPS accuracy	5m
Time To First Fix	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 800mAh Li-ion battery
Standby	80hours
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 Push the foil along and turn it left.

3 Put the SIM card into the holder, and turn 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 48 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 indicator is on.

❙ For first use, please initialize the unit and restore it to default setting.(please refer to **5.4** for instruction.)

❙ In 10 or 40seconds, the unit will begin to work and acquire the GSM signals as well as the GPS signals. The indicator will keep flashing every 4 seconds when the unit has received the signals, otherwise it will keep on.

❙ 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)

For example,send SMS " begin123456" to the tracker via a cell phone, If succeeded, "begin OK" is returned by the device in SMS. If there is something wrong when

SMS "begin fail" is received, check out the format of commands sent and password

as well.

Attention, begin+123456,the symbol "+" in the following,pls don't add "+" in

SMS,only begin123456 in SMS.this description is only for quick understand.

same argument,"space" not the word space,it means press the spacebar botton.

5.5 Change the password

Send SMS password+old password+space+new password to change the password.

Remark:

5.5.1 Be sure keep the new password in mind, you have to upload the software to restore the original setting in case of losing the new password.

5.5.2 Make sure the new password is in 6 digits, or else the tracker can not recognize the password.

5.6 Authorization

There are only 5 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.

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.

5.6.3 Send SMS noadmin+password+space+authorized number to delete the authorized number.

5.6.4 For roaming purpose, you have to add your country code ahead of the cell phone number, for example, please send admin123456 008613322221111 to tracker to set 13322221111 as an authorized number.

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:

＊Tracking location, the SMS information about the lat./long. Received is the place received the GPS singal when the GPS singal is weak.Pls check the time received the SMS if there are some errors of the location.

5.8 Auto Track

Report a Geo-info at 30s intervals to the authorized numbers for 5 times:

5.8.1 Set up: Send SMS t030s005n+password to the unit, it will report the Geo-info at 30s intervals for 5 times.(s: second, m: minute, h: hour). The setting must be in 3 digits and at maximum 255 in value.

5.8.2 Send SMS t030s***n+password to the unit, it will reply SMS heaps of times

5.8.3 Cancel: Send notn+password to delete the " auto track "

Remark: the interval must not be less than 20s.

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.

5.10.3. Send SMS tracker+password to the unit, it will reply "tracker ok!" and restore to "track" mode.

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.

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 （the unit default distance is 200M）, 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

Remark: It is recommended that the speed alarm is set at not less than 50km/h. For below that rate, it may cause the excursion of the GPS signal influenced by clounds etc.

5.14 IMEI checking:

Send SMS command "imei+password" to the unit.eg.: Send SMS command "imei123456" to the unit,a imei number in 15 digits will be returned to your cell phone.

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. It will stop sending such a SMS when any authorized number reply SMS "help me!" to the tracker.

5.16 Low battery alert

It begins to alert when it is 3.4V and sends you SMS in 30m interval.

SMS format: low battery+Geo-info.

5.17   Change time

5.17.1   Send SMS " time+space+zone123456+space+time zone to change time".

For example, Send SMS" time+space+zone123456+space+ 8 "(time zone of China).

5.18 **GPRS setting**

User must send SMS visa cell phone or software to set up IP,port and APN before starting GPRS.

5.18.1 Setting up APN

APN standards for Access Point Name and differs from country to country. For more information about the local APN, inquire with your local GPRS network operator. Or check from http://www.mdtu.com/bbs/dispbbs.asp?boardid=11&Id=31755&page=1&star=1 . Text the tracker a SMS "APN123456 + Space + your local APN" via a cell phone and if succeeded in setup, the tracker will return the message "APN OK".

eg. Send SMS command "APN123456 CMNET". If succeeded, "APN OK" is returned by

the tracker in SMS.

Notes: 123456 refers to password and CMNET APN's Network Operator of China.

5.18.2 IP Address and Port Setup

Send SMS as below via a cell phone: adminip + 123456 + Space + IP Address + Space + Port Number.   If succeeded, "adminip OK" is returned by the device in SMS.

Cancel: Send SMS command "noadminip+password" to cancel the setup.for example.send SMS command "noadminip+123456"

*As for GPRS Configuration and operation,pls follow the[Manual about map] in CD.

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

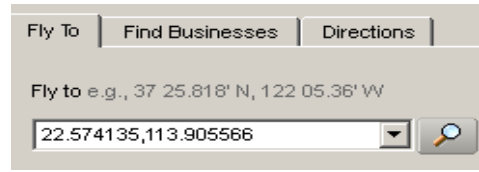| Faults	Solution
Startup Fail	Check the battery and see if it is fully charged or correctly installed.
Hangup Fail	In existence of an authorized number, an unauthorized number dials up the unit. Please initialize the unit and re-set up the authorized numbers.
Monitor Fail	Check if the authorized number 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.

GPS102 SMS Command Instructions （Default password:123456）

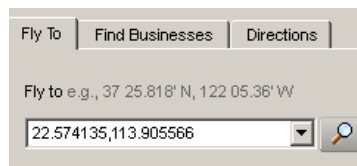| function	Command format	response	For example
Initialization	begin+password	begin ok	begin123456
Change the password	password+old password+space+new password	password ok	password123456 888888
Set up an authorized number	admin+password+space+cell phone number will be authorized	admin ok	admin123456 13800138000
Authorized automatically	**Dial up the tracker 10 times successive**	add master ok	
Cancel the authorized number	noadmin+password+space+cell phone number will be deleted	noadmin ok	noadmin123456 13800138000
Monitor mode	monitor+password	monitor ok	monitor123456
Track mode	tracker+password	tracker ok	tracker123456
Singal locating	**Dial up the tracker device one time**		
Successive locating 5 times	t030s005n+password		t030s005n123456
Heaps of times locating	t030s***n+password		t030s***n123456
cancel auto track	notn+password	notn ok	notn123456
Geo-fence	stockade+password+space+lat.,Long.;lat.long.	Stockade ok	stockade123456 22.11,113.11 ; 25.11,115.11
Cancel Geo-fence	nostockade+password	nostockade ok	nostockade123456
Movement alarm	move+password	move ok	move123456
Cancel movement alarm	nomove+password	nomove ok	nomove123456
Over speed alarm	speed+password+space+speed in 3 digits	speed ok!	speed123456 080
Cancel overspeed alarm	nospeed+password	nospeed ok	nospeed123456
Low battery alarm	low battery+lat./long.		
SOS	Press the SOS botton for 3s	help me!	
Cancel SOS	help me!		
Imei checking	imei+password	Imei number	imei123456
Time setting	time+space+zone password+space+time	time ok	time zone123456 8
Set up APN	Apn+password+space+your local APN	apn ok	apn123456 cmnet
IP address and port setup	adminip+password+space+IP adress+space+port	adminip ok	adminip123456 25.123.34.177 7070
IP address and port cancellation	Noadminip+password	noadminip ok	noadminip123456

GPS102-tracking ways for location

1. Type the lat./long. Information from SMS to google earth to track the location:

Please install Google_Earth_CZXV software in CD to your computer, and open google earth type the

lat/long.information from SMS to the blankof google earth ,then click

serch, you can check the position of the target tracker device free.

2. Track through GPRS software in your computer:

Track through GPRS software in your computer. Please read the file [Manual about map] in CD carefully to follow the detailed steps..