

GSM/GPRS/GPS Portable Tracker

User 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.

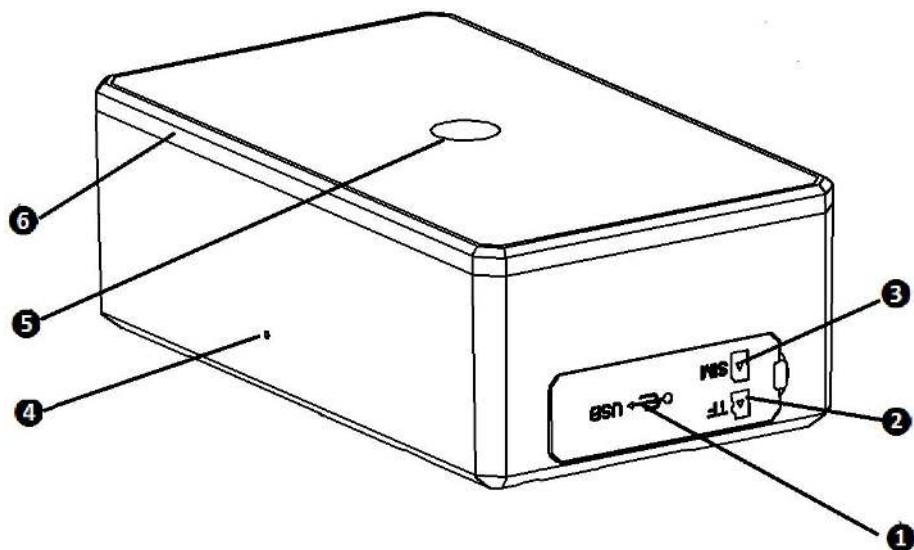
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1. Introduction

- 1.1. This tracker is based on the GSM / GPRS network and GPS satellite positioning system to track and monitor remote target by SMS or internet.
- 1.2. Features
 - 1.2.1. Waterproof Grade IP66.
 - 1.2.2. Strong magnet to absorb to vehicle firmly.
 - 1.2.3. Built-in large capacity 10000MA battery.
 - 1.2.4. Super long time standby, 6 months if it works under “sleep by time” mode and 6.9 years if it works under “schedule” mode.
 - 1.2.5. Real-time tracking, movement alarm, Geo-fence alarm, shock alarm, remove anti-tamper alarm.
 - 1.2.6. Support real-time tracking by mobile applications and web platform, and you can check the exact street address by cell phone as well.
 - 1.2.7. Built-in high sensitivity GSM and GPS antenna, no installation, convenient and fast.

2. Hardware Description



- ① USB Port ② TF card slot ③ SIM card slot
④ Microphone ⑤ Infrared window ⑥ Rear cover of magnet

3. Specifications

Content	Specifications
DIM.	106mm x 63mm x 37.5mm
Weight	343g
Network	2G GSM/GPRS
Band	850/900/1800/1900Mhz
GPS sensitivity	-165dBm
GPS Accuracy	5m
Time To First Fix	Cold starts: 30s Aided starts: 5s Reacquisition: 1s
Charger voltage	110–220V input 5V output
Battery	Chargeable 3.7V 10000mAh Li-ion battery
Storage Temp.	-40° C to +85° C
Operation Temp.	-20° C to +55° C
Waterproof Grade	IP66
Schedule mode	10000*0.85 (battery self-lost) /0.14mA/24h/365d=6.9 years

4. Instructions for web platform and mobile App

Users need to register an account on www.gpstrackerxy.com before use web platform or mobile App, account name and password is the same on web platform and mobile App.

4.1. Register an account

TrackerHome V3.0

Dear Customers,
Any IMEI can be switched among server 1.

English

SERVER 1

IP: 202.104.150.75 PORT: 9000

SERVER 2

IP: 202.104.149.227 PORT: 9000

SERVER 3

IP: 104.250.138.146 PORT: 9000

Please input IMEI to verify.

1. choose the right
server to login in

For IOS

Search "TrackerHome" in App Store.

Download

For Android

Please click "Download" to download,
need install Google play Services and
Google ServicesFramework.

Download

Search

2. Validate your
IMEI is valid or not

Recommended Resolution 1280 X 800 Pixel Internet Explorer 7.0

SERVER 3

IP: 104.250.138.146 PORT: 9000

User Management - Add - 360安全浏览器 7.1

User ID:	<input type="text"/>
Password:	<input type="password"/>
Terminal IMEI:	<input type="text"/>
Save Clear	

User ID Password
Remember my user ID and password Login Register

3. Click "register".
Pop-up a dialog box,
register an account

4.2. Login

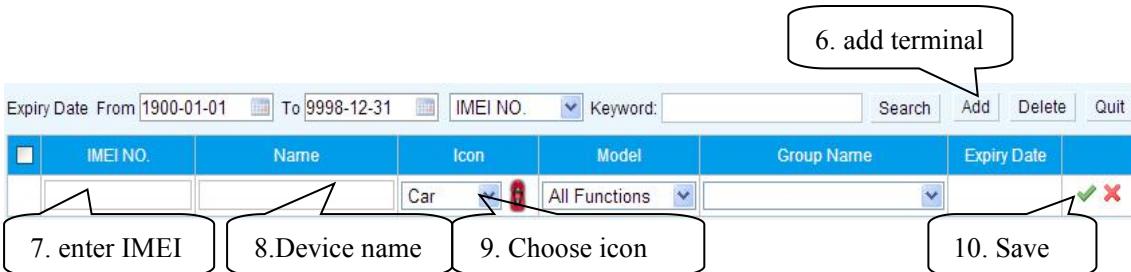
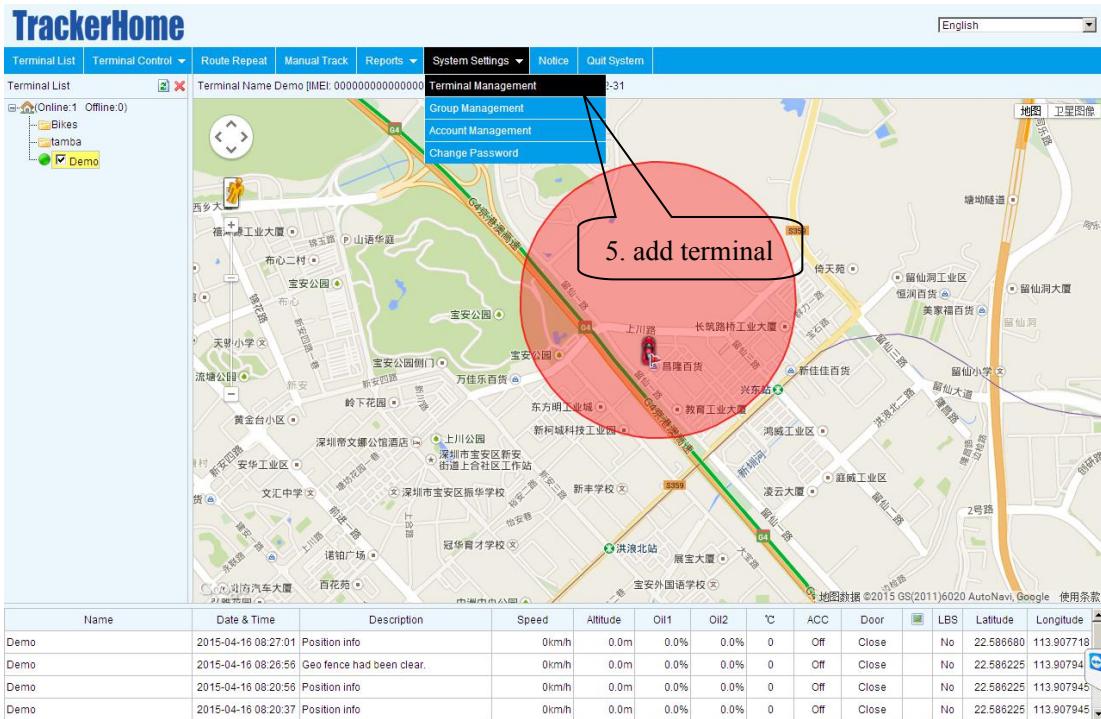
SERVER 3

IP: 104.250.138.146 PORT: 9000

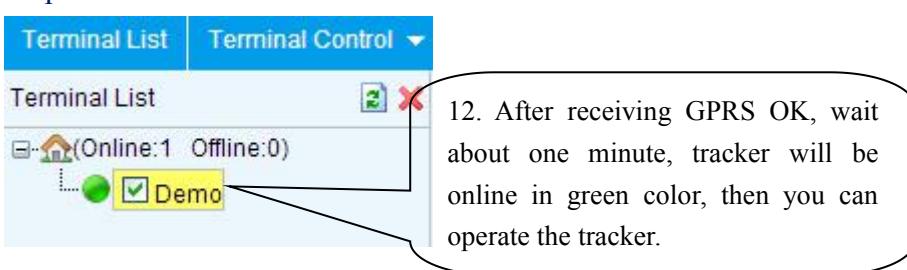
4. Input the newly
registered user ID and
password, click "login"

User ID
Password
Remember my user ID and password Login Register

4.3. Add a terminal



- 4.4. Configure your tracker to web platform to track it online**
- Step 1: Set APN, refer to 6.13.1
 Step 2: Set GPRS user name and password, refer to 6.13.2
 Step 3: Set IP and port, please use the corresponding IP and port of the server you choose, Refer to 6.13.3
 Step 4: Switch to GPRS mode, refer to 6.13.4



4.5. If the tracker is always offline (grey color), make sure the SIM card subscribe the GPRS service, and the credit is enough to surf the Internet, you can use phone to test if the SIM card can surf the Internet.

Besides, please check the APN, user name, password, IP, port settings are correct, refer to 6.11.

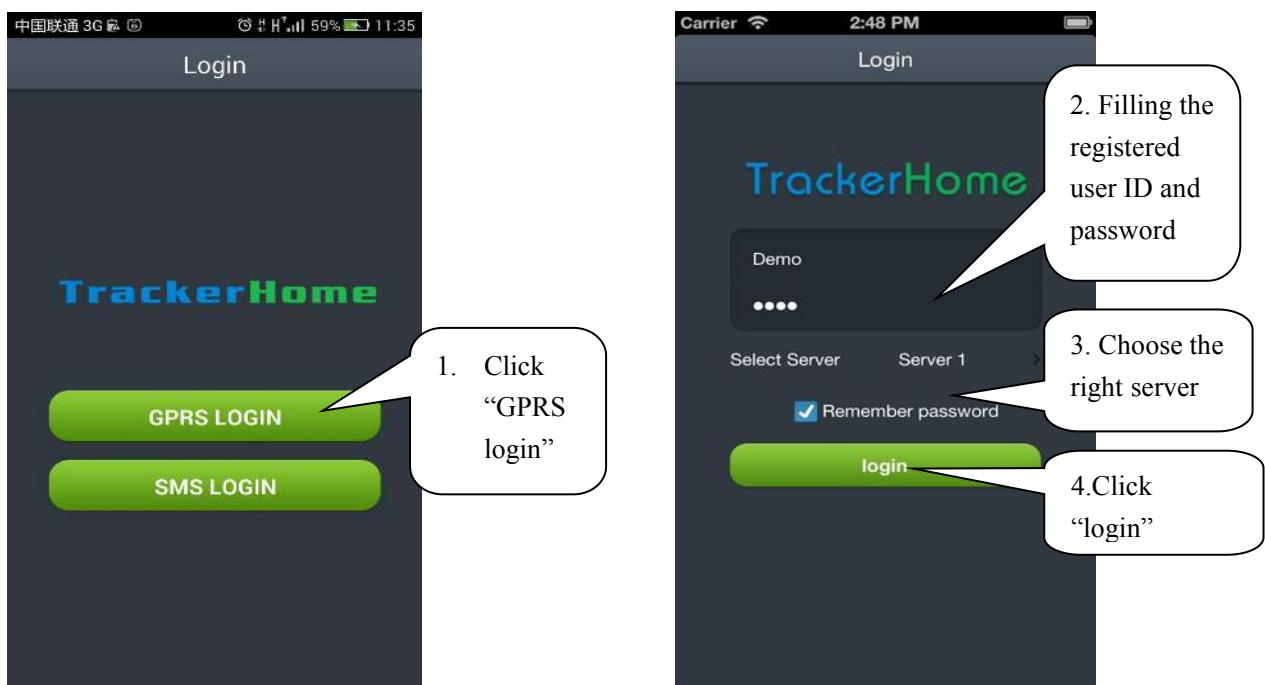
4.6. IOS &Android mobile APP

4.6.1. Download and install the mobile application.

According to your phone type, download and install mobile app below the home page on web tracking platform.



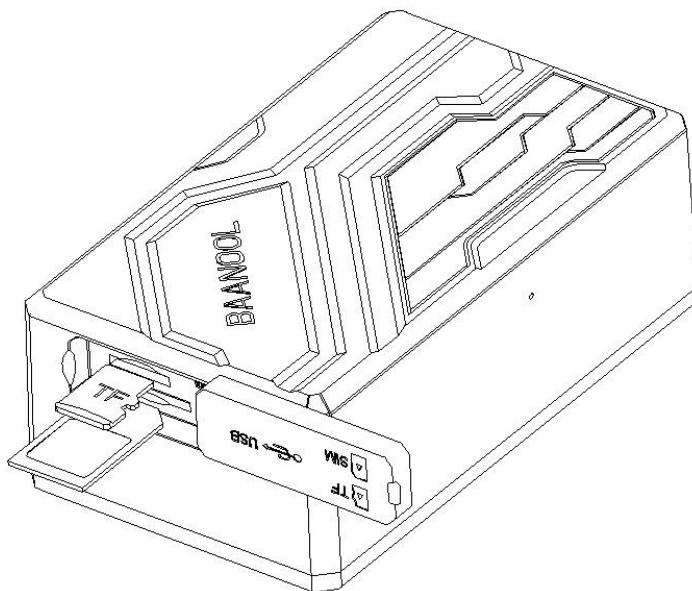
4.6.1.1. Login and use the GPRS version



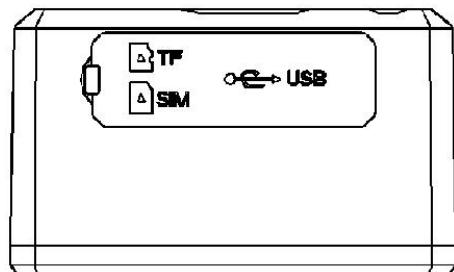


5. Insert SIM card, turn on the device

Attention: Please be sure to open the voice call function, caller display function and data flow function, and PIN code is off, no call forwarding function. The recommended data flow package is not less than 30MB per month.



- ① Open the soft glue plug.
- ② Insert MicroSD as the picture shows.
- ③ Insert SIM Card as the picture shows, and tracker will be turned on automatically.



- ④ Cover the soft glue plug

Please use the manufacturer's original charger and battery, the charge time of the

battery is about 7-9 hours.

Warning: Lithium batteries contain harmful chemical constituents and may explode, please do not slam, stab or put into the fire.

When you first use, bring the device outdoors, wait for the device to search for GSM and GPS signals, and in normal conditions the lights of the device will flash once every 3 seconds.

6. Function introduction

6.1. Initialization

Send SMS "begin+password" to tracker, it will reply "begin ok" and return to the default factory settings. (Default password: 123456). For example: Send SMS "begin123456", it will reply "begin ok".

6.2. Change Password

- 6.2.1. Send SMS "password+old password+space+new password" to the tracker to change the password. For example: Send SMS "password123456 888888" to tracker, it will reply "password OK", it means the password has changed successfully. And please keep the new password in mind
- 6.2.2. Note: The new password must be 6 digits Arabic numbers, or the tracker can't recognize.
- 6.2.3. When reading this user manual, you will notice that we have used "+" and "space" between some words; "+" between two words means they should be written together as one word and "space" between two words means you should leave one character space between two words.

6.3. Add and Delete Authorized phone number

- 6.3.1. You must setup the authorized phone number before using SOS, geo-fence alarm, etc. Up to 5 numbers can be authorized.
- 6.3.2. Call the tracker for 10 times continuously and get its position, then it will save the cell phone number as the authorized number automatically. and reply "add master ok".
- 6.3.3. Authorization: Send SMS "admin+password+space+cell phone number" to set up an 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" by SMS.
- 6.3.4. Delete authorization: Send SMS "noadmin+password+space+authorized

number” to delete the authorized number.

- 6.3.5. If you want to track the target when it enters into another country, you must add the country code before the cell phone number. You should authorize your number in international format as follows: “admin123456 008613322221111” to tracker to set 13322221111 as an authorized number.

6.4. Single tracking

- 6.4.1. If there aren't any authorized number set-up, it will reply all calls with a location report; if there are authorized numbers set-up, then it will not respond when an unauthorized number calls it.
- 6.4.2. If you call it from authorized phone number, it will hang up and report a real-time location as below:



- 6.4.3. When lost fix to satellites, the message will includes the GPS coordinates of last known position and LAC code of current position as well.

6.5. Auto track continuously

6.5.1. Track with limited times upon time interval

Send SMS command “fix030s005n +password” to the tracker device, it will report the latitude & longitude at intervals of 30 seconds for 5 times. (s:second, m:minute, h:hour). This command set must be in 3 digits Arabic numbers and the maximum value is 255.
e.g. fix030s005n123456.

6.5.2. Track with unlimited times upon time interval

Send SMS “fix030s***n+password” to the tracker device, it will reply the latitude & longitude continuously at 30 seconds intervals.

Note: the interval must not less than 10s.

6.5.3. Track with unlimited times upon distance

6.5.3.1. Send SMS command “Distance+password+space+distance value”, tracker will reply “Distance ok”, and then tracker will track according to this distance value interval.

E.g Send “Distance123456 0050”, that means the distance interval is 50 meter, the value must be 4 digits Arabic numbers.

Cancel: Send SMS “nofix+password” to the tracker.

6.5.4. Smart track upon time and distance interval

6.5.4.1. Send SMS command “fix030s600s***n+password+space+distance value” to tracker. The unit of distance value is meter. E.g. Send SMS command “fix030s600s***n123456 0200”, that means track interval is 600 seconds when tracker is motionless, and tracker interval is 30 seconds when tracker is moving, or track each 200 meters movement.

6.5.4.2. Cancel: Send SMS “nofix+password” to the tracker.

6.6. Exact street address

6.6.1. You must set up the APN of your local GSM network for the SIM card in tracker first before using this function, if there is user name and password for GPRS login, Please refer to 6.12 section of this manual to configure the APN, user name and password for GPRS login.

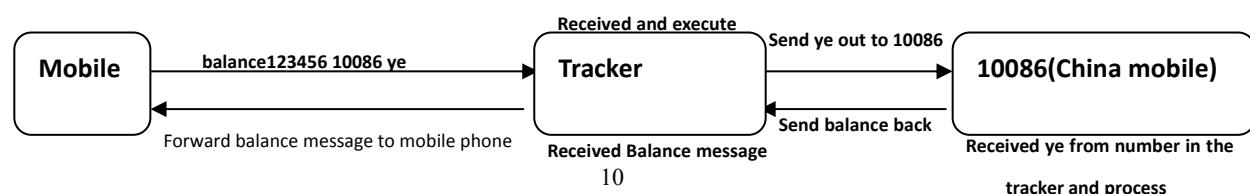
6.6.2. After configure the APN, send "address+password" to device, it will reply SMS including exact street/address name. For example: No.113, Guankou 2nd Rd, Nantou, Nanshan district, Shenzhen, Guangdong, china.

6.7. SIM card Balance Inquiry

6.7.1. Send SMS command "balance+password+space+carrier's phone number+space+code" to tracker, it will forward the code to carrier's phone number and return the balance message received from carrier's phone number.

6.7.2. How it works: Take the carrier “China Mobile” for example, after accept balance command, tracker will remember the “mobile phone number”, carrier’s number and the code;

6.7.3. And then send the code to carrier’s number, and forward the message from carrier to mobile phone number which send the balance command.



6.8. Decide how many times of alarm message

For those alarm messages sent in cycle, you can decide how many SMS messages of alarm to be sent. Send SMS “ xtime+password+005 ” to tracker, alarm message will be sent 5 times once alarms are triggered .

Alarm SMS will be sent 5 times by default.

6.9. Alarm functions

6.9.1. Low battery alarm

- 6.9.1.1. Send SMS “lowbattery+password+space+on”, it will send SMS “low battery+latitude/longitude” to authorized numbers 2 times in total at 15 minutes interval when voltage of battery is going to be about 3.5V.
- 6.9.1.2. This function activates by default, send SMS “lowbattery+password+space+off” to deactivate.

6.9.2. Geo-fence

- 6.9.2.1. Set up a geo-fence for the tracker to restrict its movements within a district. The unit will send SMS to the authorized numbers when it goes out of this district.
- 6.9.2.2. 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!+ latitude & longitude” to the authorized numbers.

Attention: 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 send alarm SMS at interval of 3 minutes once beyond the restricted district.

- 6.9.2.3. Cancel: Send SMS “nostockade+password” to deactivate this function.

6.9.3. Movement alarm

- 6.9.3.1. Set up: when the unit stays immobile in a place for 3-10 minutes with GPS signal reception, the user can send SMS“move+password+space+0200” to the tracker (Suppose area of a radius of 200 meters, it supports 4 digits at most. Unit: Meter). It will reply “move OK”. In case of such a movement (the default

distance is 200m), it will send SMS “Move+ latitude & longitude” to the authorized numbers.

- 6.9.3.2. Cancel: Send SMS “nomove+password” to deactivate the movement alarm.

6.9.4. Over speed alarm

- 6.9.4.1. 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 80km/h, the unit will send SMS “speed+080!+ latitude & longitude” to the authorized numbers ,it will send only one SMS in 3 minutes in SMS mode.

- 6.9.4.2. Cancel: Send SMS “nospeed+password” to deactivate the overspeed alarm.

Attention: The recommended speed should be not less than 30km/h. For below that rate, it will be effected the accuracy by GPS signals drift etc.

6.9.5. Shock sensor Alarm

The built-in 3-axis acceleration sensor can detect it when the vehicle move, tilt or vibrate.

- 6.9.5.1. Activate Shock alarm: Send “shock+password” to tracker, it will reply “Shock is activated!”, “Sensor alarm+latitude&longitude will be sent to authorized phone number when detecting vibration.

- 6.9.5.2. Cancel: Send “noshock+password” to tracker to deactivate Shock alarm.

6.9.5.3. Configure sensitivity of vibration (First level by default)

First level: alarm will be triggered after detect slight vibration; send SMS command “sensitivity+password+space+1”;

Second level: alarm will be triggered after detect medium vibration; send SMS command “sensitivity+password+space+2”;

Third level: alarm will be triggered after detect heavy vibration; send SMS command “sensitivity+password+space+3”;

6.9.6. Anti-tamper alarm

- 6.9.6.1. Setup: Send SMS command “tamper+password” to tracker, it will reply “tamper ok”. If the tracker is removed or detached from the vehicle, tracker will send SMS “Tamper alarm+latitude / longitude.

- 6.9.6.2. Cancel: Send SMS “notamper+password” to deactivate this function.

6.10. Sleep mode

Sleep Mode	Description	Application Occasions	Standby Time
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Always online	GPRS is always online, tracker will be intelligent to shutdown some components to save power during the period which doesn't need to track.	The target need to be tracked by real-time.	$10000*0.9$ (Battery self-loss) /4.5mA/24h=83 days
Sleep by shock	GPRS will be offline if it is motionless, vibration, calling can wake up the tracker, GPRS will be online if target is moving.	Sleep if the target is motionless, and track when the target start to move	$10000*0.9$ (Battery self-loss)/2.1mA/24h=178 days
Sleep by time	The GSM module of the tracker will run in low power mode no matter it is motionless or moving, vibration cannot awake the tracker, but calling can wake it up to works 3 minutes and then sleep again.	The target doesn't need to be tracked frequently and can track it any time when necessary.	$10000*0.9$ (Battery self-loss)/2mA/24h=187 days
Deep sleep by shock	GPRS and GPS module will shut down during sleep time, calling cannot reach, but vibration can wake up.	Sleep if the target is motionless, and track when the target start to move	$10000*0.85$ (Battery self-loss)/0.24mA/24h/365 d=4 years
Schedule	GPRS and GPS module will shut down during sleep time, calling cannot reach and vibration cannot wake it up, but it will wake by itself to report its position at the scheduled time	The target doesn't need to be tracked frequently and let it report positions according to the schedules.	$10000*0.85$ (Battery self-loss) /0.14mA/24h/365d=6.9 years
Deep sleep by shock + schedule	GPRS and GPS module will shut down during sleep time, the tracker will wake up at the scheduled time or when it detect vibrations.	The target need to be tracked when it start to move and let it report positions according to schedule when it is motionless.	$10000*0.85$ (Battery self-loss) /0.24mA/24h/365d=4years

6.10.1. Always online

Send SMS command "sleep+password+space+off", tracker will reply "sleep off ok", then the tracker will always stay online, GSM, and the LED will work all the time.

6.10.2. Sleep by shock

Send SMS command "sleep+password+space+shock", the tracker will reply "sleep shock ok", and will enter sleep mode if no vibration is detected, GPS module shuts down, LED will be off . Vibration or any operation can wake up the tracker. e.g. sleep123456

shock.

6.10.3. Sleep by time

Send "sleep+password+space+time", tracker will reply "sleep time ok", if no operations in 3 minutes, tracker will sleep, GPS module shuts down, and LED will be off too. Calling or SMS can wake up the tracker.

6.10.4. Deep Sleep by Shock

Send "sleep+password+space+deep", tracker will reply "sleep deep ok", it will sleep if didn't detect vibration, GPS & GSM module shuts down, and LED will be off too. Only vibration can wake it up, and tracker will send wake up message automatically after wake up.

6.10.5. Schedule report

Send "schedule+password+space+1h " to tracker, It will wake up every one hour, and automatically send location message after wake up. (m: minute; h: hour; d: day). The maximum time interval is set to three digits, and not more than 30 days. After sent this command, GPS & GSM module shut down, tracker runs in super lowest power consumption, calls or messages cannot wake it up. Triggered alarm can wake up the tracker to work normally, after alarm canceled, tracker come back to schedule report mode.

Cancel: After the tracker wake up, send “noschedule+password” to deactivate this function.

6.10.6. Deep sleep by shock + Schedule report

Send SMS command “sleep+password+space+schedule+space+12h”, tracker will reply “sleep schedule ok”, then tracker will wake up and send “work notify” message every 12 hours, and the vibration can wake up the tracker too, after wake up, it will send “deep shock”message.

6.11. Check the status

Send SMS command “check+password” to tracker, it will reply a message includes battery percentage, GPS signal, GSM signal, GPRS status, APN, UP, IP and port, etc.

E.g send SMS command “check123456” to tracker, after execute the command, it will reply a message which includes following information:

Battery: 100%

GPRS: ON/OFF

GPS: OK/NO GPS

GSM Signal: 1-32 the higher, the better

APN: cmnet

IP: 104.250.138.146

PORT: 9000

6.12. Check IMEI

Send SMS "imei+password" to the tracker. For example, Send SMS "imei123456" to the tracker device, an IMEI number in 15 digits will be returned..

6.13. GPRS configuration

User must send SMS command via cell phone to set up APN, IP and port before starting track by GPRS.

6.13.1. Configure APN

APN standards for Access Point Name and differs from country to country. For more information about your local APN, please inquire with your local GPRS network operator.

Send SMS command to tracker “APN+password+Space+your local APN” via a cell phone and if executed, the tracker will reply “APN OK”.

For example: Send SMS command “APN123456 CMNET”. If executed, the tracker will reply “APN OK”.

Notes: 123456 refer to password of tracker and CMNET is the APN of Network Operator of china (China mobile).

6.13.2. Configure user, password for GPRS login

In most countries, the user name and password involving GPRS login are not compulsorily necessary, therefore, the entry can be skipped. For those countries requiring user name and password, please configure as following:

Send SMS “up+password+space+user+space+password”, If executed, tracker will reply “user, password ok!”, for example: send SMS “up123456 jannes 666666”

Note: 123456 is password of tracker, jannes is the user name for GPRS login, 666666 is the password for GPRS login.

6.13.3. Configure IP and port

Send SMS “adminip+password+space+IP+space+port”, tracker will reply “adminip ok” if executed.

For example: send SMS “adminip123456 104.250.138.146 9000”, tracker will reply “adminip ok” if executed. (123456 is the password of tracker, and 104.250.138.146 is the ip, 9000 is the port.)

6.13.4. Switch to GPRS mode

6.13.4.1. Send SMS command “GPRS+password” to tracker, it will reply “GPRS ok!”, that

means tracker have switched to work in GPRS mode.

6.13.4.2. TCP/UDP Switch

SMS command: “GPRS+password,0,0” is used to switch to TCP mode, TCP is the default mode.

SMS command: “GPRS+password,1,1” is used to switch to UDP mode.

6.13.4.3. Send SMS command: “SMS+password” to tracker, it will reply “SMS OK！”, and switch back to SMS mode

7. Cautions

1. Don't put the unit in overheated or overcooled places.
2. Handle carefully. Don't vibrate or shake it violently.
3. Please use a dry cloth to clear and don't use chemicals and cleaners.
4. Please don't paint the device, this may lead to internal circuit failure.
5. Please don't disassemble the device.
6. Please read the user manual carefully before installation and operation, learn something more about the voltage range. Otherwise, it won't work properly or destroy the product.

8. Faults & the Solutions

Faults	Possible reason	Solution
Can't turn it on	Battery is too low	Plug charger
No GSM signal	Check if SIM card load well, and confirm it is GSM network.	1. no calls can be diverted and the PIN code is locked 2. Change SIM card
Hang off fail / monitor fail	If users setup the authorized phone number, and it will be invalid to call from a non authorized phone number.	Please delete the authorized phone number or send command to initialize the settings to factory default settings.
GPRS fail to be online	1. Configure wrong APN, IP, port. 2. Check if there is GPRS subscription with carrier. 3. Balance is not enough	1. Configure again 2. Subscribe GPRS subscription 3. Charge for the SIM card.