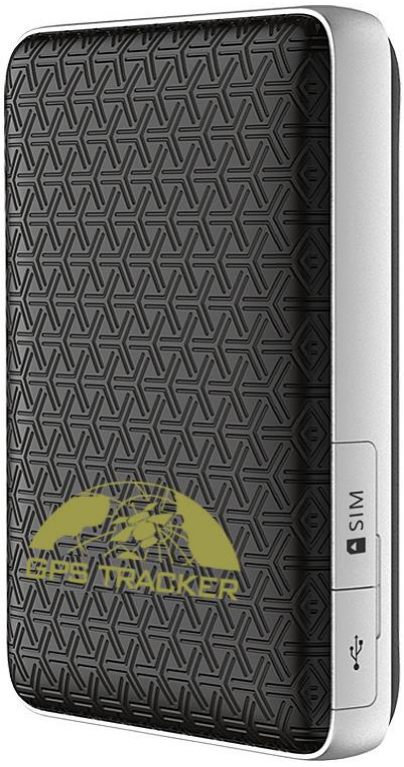
GSM/GPRS/GPS TRACKER MANUAL



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.

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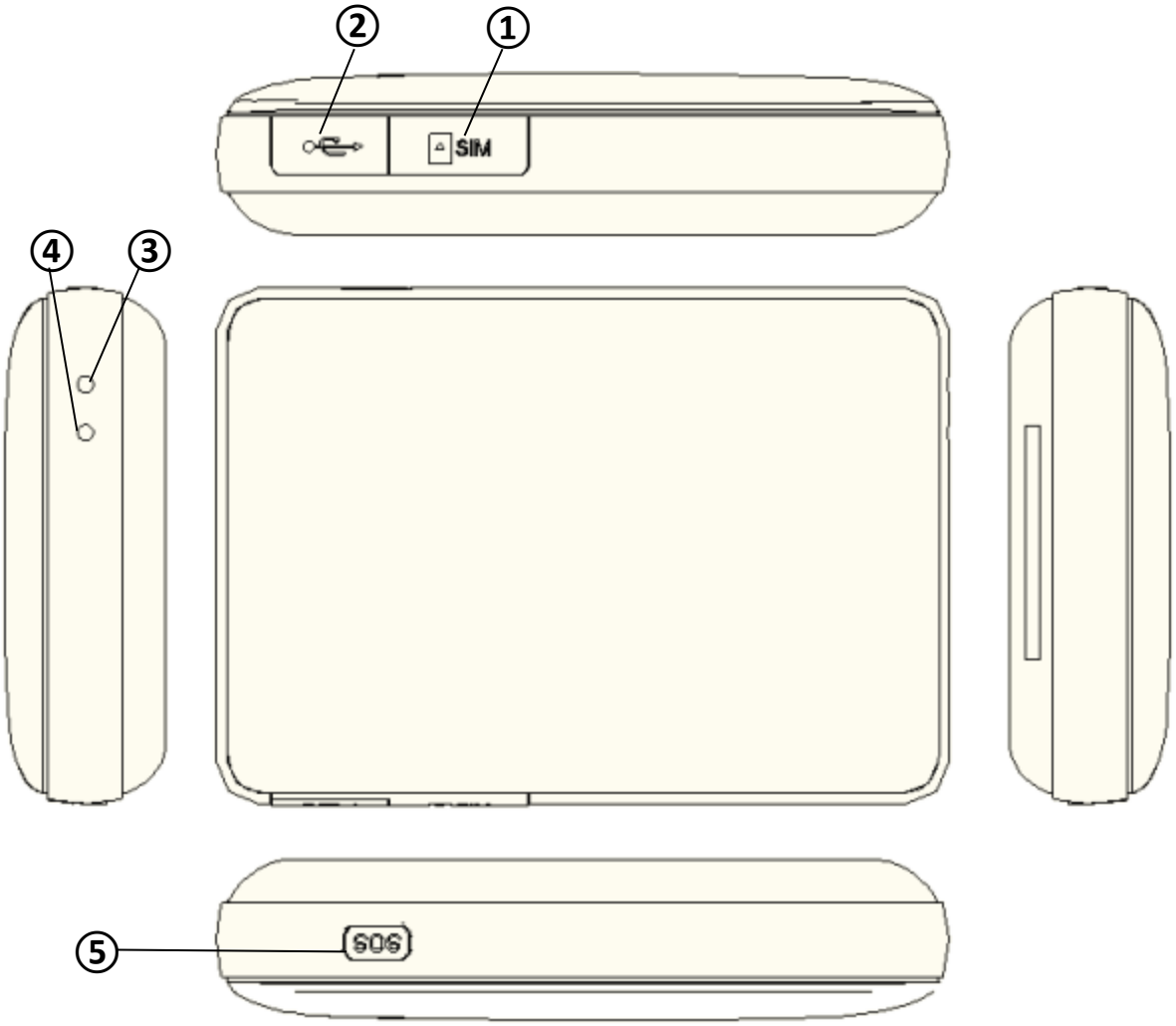
1. Hardware description



①SIM card slot ②USB port ③GPS indicator ④GSM indicator ⑤SOS button

Model	Difference
A	Tracker
B	Add Gyro function on the basis of model A
C	Add blue tooth 4.0 anti-loss device on the basis of model B
Micro USB cable is the standard accessory for all of the models.	

2. Specifications

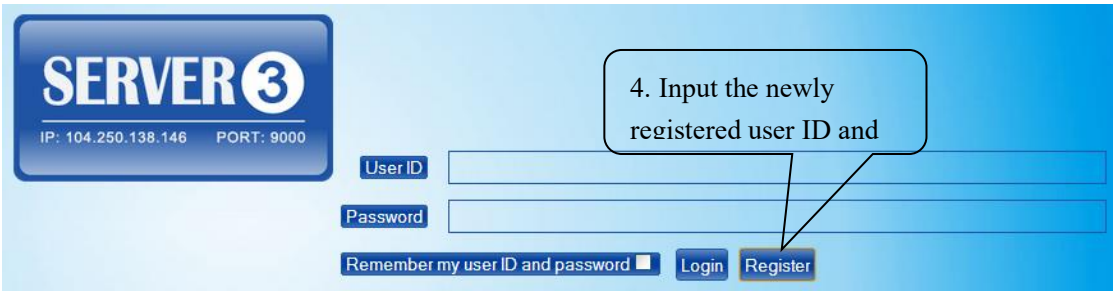
Content	Specs
DIM.	68×48×15MM
Weight	70g
Network	GSM/GPRS
Band	850/900/1800/1900Mhz
GPS sensitivity	-165dBm
GPS accuracy	5m
Time To First Fix	Cold status 45s Warm status 35s Hot status 1s
Backup battery	Chargeable 3.7V 1000mAh Li-ion battery
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +65°C

3. Instructions for web platform and mobile App

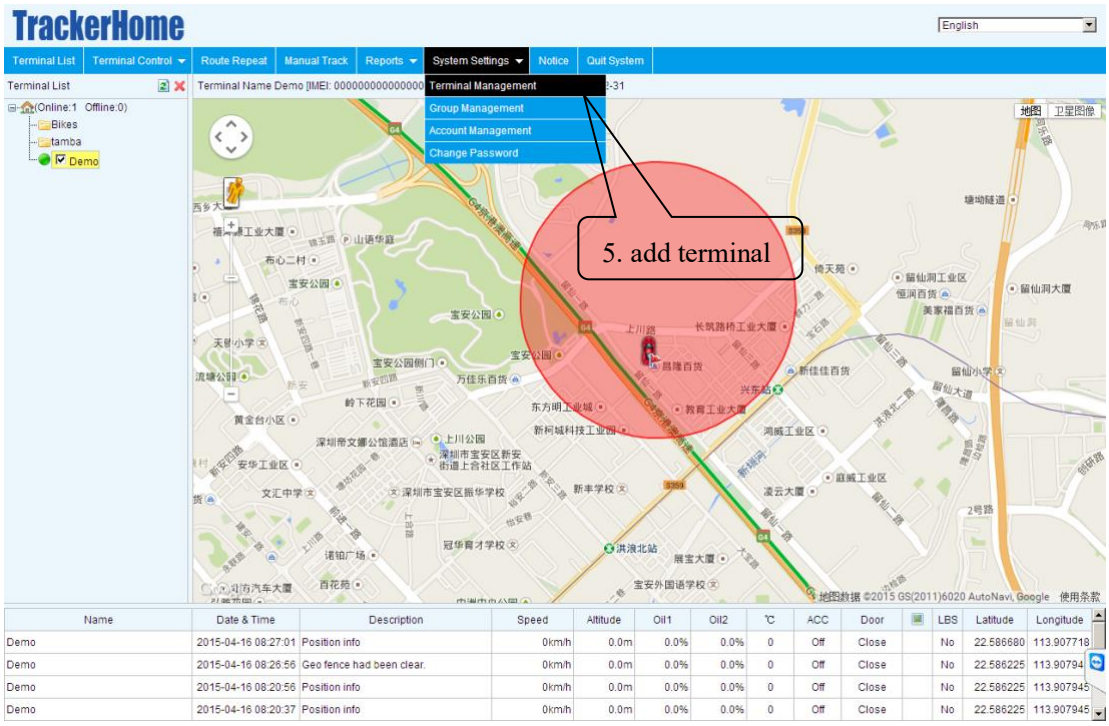
Users need to register an account on www.gpstrackerxy.com before use web platform or mobile App, account name and password is the same on web platform and mobile App.

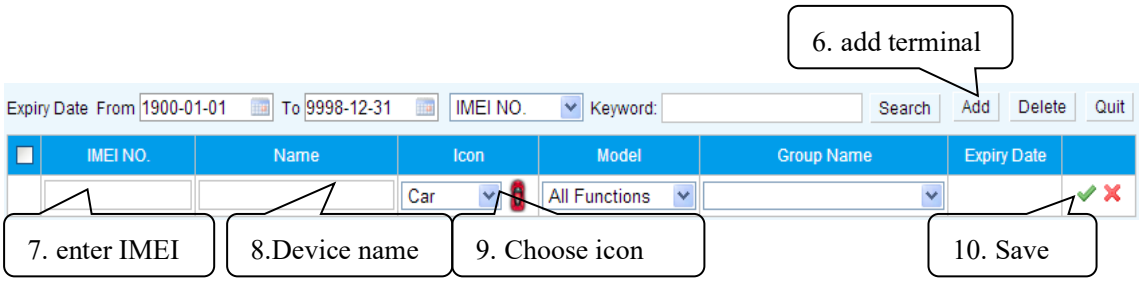
3.1. Register an account

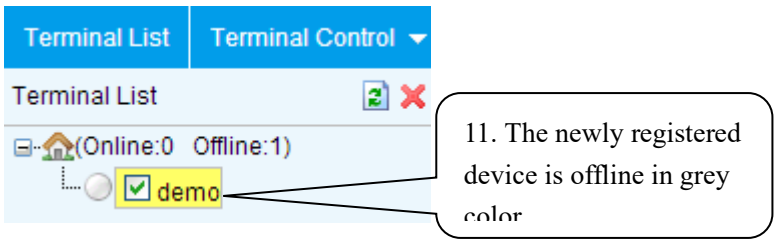
3.2. Login



3.3. Add a terminal







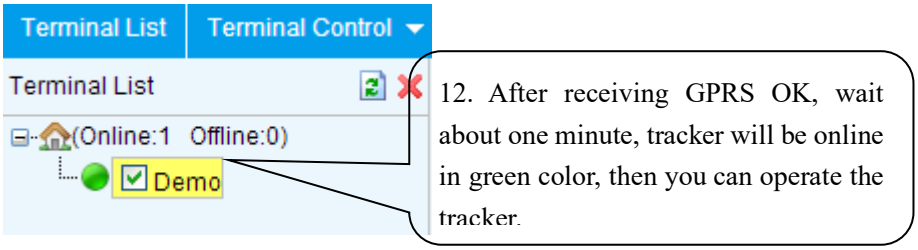
3.4. Configure your tracker to web platform to track it online

Step 1：Set APN，refer to 5.18.1

Step 2：Set GPRS user name and password，refer to 5.18.2

Step 3：Set IP and port, please use the corresponding IP and port of the server you choose, Refer to 5.18.3

Step 4：Switch to GPRS mode，refer to 5.18.4



3.5. 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.

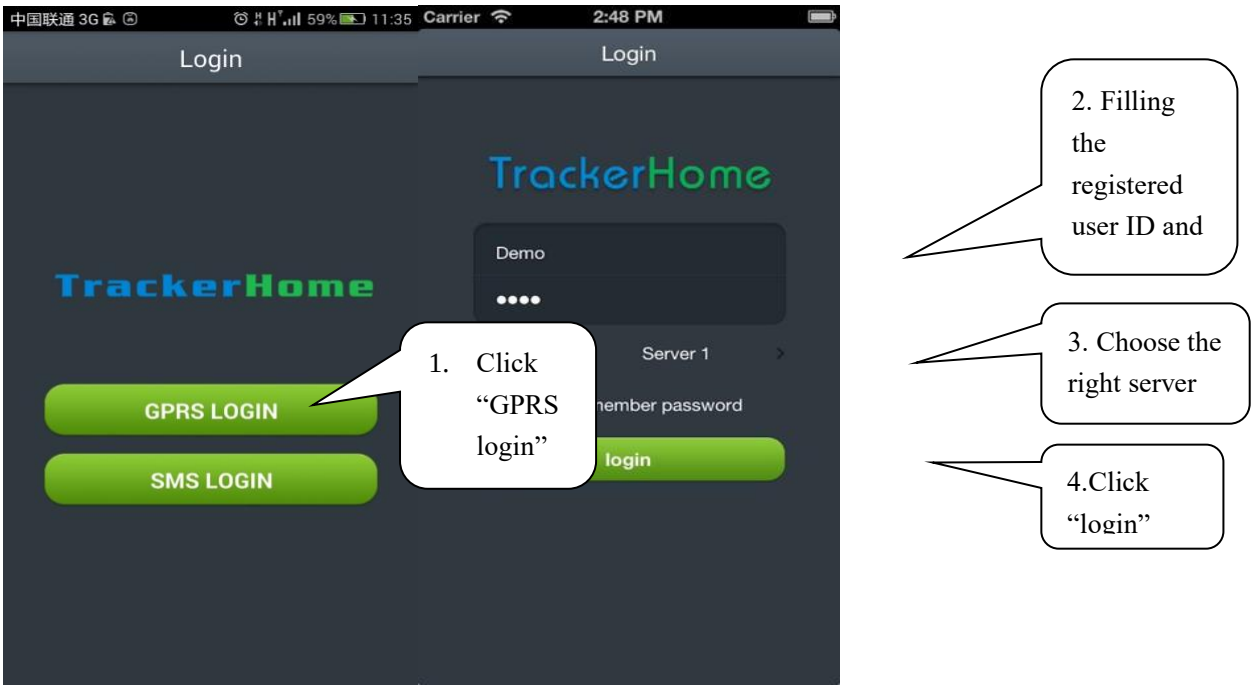
Besides, please check the APN, user name, password, IP, port settings are correct, refer to 5.15.

3.6. IOS &Android mobile APP

3.6.1. Download and install the mobile application.

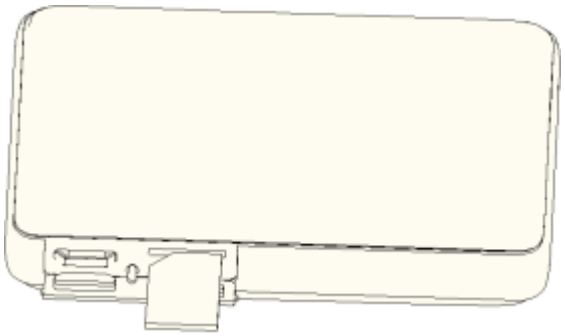
According to your phone type, download and install mobile app below the home page on web tracking platform.

3.6.1.1. Login “GPRS login” to use the mobile App.



4. Insert SIM card, turn on the device

Attention: Please be sure the SIM card is GSM network when you buy SIM card for the tracker, to open caller display function and PIN code is off, no call forwarding function. The SMS message must in Text format, it can't be identified for PDU format. The recommended data flow package is not less than 30MB per month.



❶ Open the soft glue plug.
❷ Insert SIM Card as the picture shows, and tracker will be turned on automatically.
❸ Cover the soft glue plug

Please use the usb cable from manufacturer to charge, the charge time of the battery is about 3 hours.

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

In the first use, if it fix to satellites slowly, then please bring the device outdoors, tracker will start to work properly after fix to satellites and receive GSM signals.

Indicator

Green LED: 1 time each second if GSM signal is normally, 1 time each 3 seconds in GPRS mode, and remain ON if no GSM signals.

Blue LED: 1 time each second if fix to satellites, and OFF if lost fix to satellites.

5. Function introduction

5.1. 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".

5.2. Change Password

5.2.1. 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

5.2.2. Note: The new password must be 6 digits Arabic numbers, or the tracker can't recognize.

5.2.3. 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.

5.3. Add and Delete Authorized phone number

5.3.1. You must setup the authorized phone numbers to receive alarm messages before using geo-fence alarm, etc. Up to 5 numbers can be authorized.

5.3.2. 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”.

5.3.3. 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.

5.3.4. Delete authorization: Send SMS “noadmin+password+space+authorized number” to delete the authorized number.

5.3.5. 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.

5.4. Single tracking

5.4.1. If there aren’t any authorized numbers 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.

5.4.2. If you call it from authorized phone number, it will hang up and report a real-time location as below:

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

5.5. Auto track continuously

5.5.1. 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.

5.5.2. 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 be less than 10s.

5.5.3. Track with unlimited times upon distance

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 meters, the value must be 4 digits Arabic numbers.

5.5.4. Smart track upon time and distance interval

5.5.4.1. 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.

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

5.6. Data logging and upload

5.6.1. Auto logging：When the tracker device lost GSM signals or fall offline from GPRS, tracker will log the tracking position and alerts automatically on the basis of the pre-set condition, when GPRS connection recover, all the positions and event alarms will be sent to web platform (server) automatically.

5.6.2. Logging upon times: Send SMS: “save030s005n+password” to the tracker unit, it will reply “save ok”, and will log the Latitude and longitude locations every 30 seconds for 5 times. (S: second, m: minute; h: hour).

5.6.3. Multi-logging：Send SMS:”save030s***n+password” to tracker device, it will reply “save ok”.

5.6.4. Cancel logging: Send SMS “nosave+password”, e.g. nosave123456

5.6.5. Logging Clearance: send SMS: “clear+password” to tracker device, it will reply “clear ok”.

5.7. Three-dimensional movement of suitcase (BC model)

5.7.1. When you carry a suitcase on the plane, the tracker will automatically enter flight mode after plane take-off and records the rolling state if the suitcase is dumped, rolled, or hit. When GPS speed is less than 20km/h, the tracker will exit flight mode, the records will be uploaded to web platform and mobile APP when GPRS connected, and you can check the three-dimensional movements of your suitcase on our web platform and mobile APP.

5.7.2. This function is activated by default, send SMS command “gyro+password+space+off” to deactivate and send “gyro+password+space+on” to activate again.

5.7.3. Set tilt angle: Send SMS command “inclination+password+space+tilt angle” to tracker,

it will reply “inclination ok”, that means the setting takes effect. E.g inclination123456 90. The default degree is 90 degree.

5.7.4. Set impact strength: Send “collision+password+space+impact strength” to tracker, e.g collision123456 1, it will reply “collision ok”, that means the setting takes effect. The impact strength are 3 levels from 1-3. 1 is the most sensitivity level, and 2 is the default level.

5.7.5. Turn on the tilt alarm, rolling alarm function, tracker will send alarm message immediately if it is not in flight mode. Please refer to 5.13.7 and 5.13.8.

5.8. Bluetooth anti-loss (C model)

5.8.1. Activate the Bluetooth anti-loss function in the mobile APP, mobile App will automatically connect the low power consumption Bluetooth. If the distance between mobile and tracker is more than 10 meters, mobile APP will alerts you.

5.8.2. This function is deactivated by default, send SMS “bluetooth+password+space+on” to activate it, and send “bluetooth+password+space+off” to deactivate it.

5.9. Exact street address

5.9.1. 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 5.18 section of this manual to configure the APN, user name and password.)

5.9.2. 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.

5.10. Forward the third parties’ message

5.10.1. Send SMS "forward+password+space+third parties phone number" from authorized phone number, tracker will reply"forward ok", and supports 1 third parties phone numbers at most.

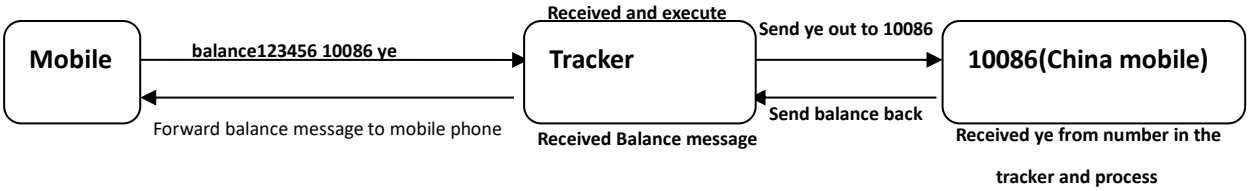
5.10.2. For example, set the service phone number of carrier of the SIM card in the tracker, when message comes to remind you to charge for the SIM card, tracker will forward it to authorized phone number.

5.10.3. Cancel: Send SMS command "noforward+password".

5.11. SIM card Balance Inquiry

5.11.1. 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.

5.11.2. 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; and then send the code to carrier's number, and forward the message from carrier to mobile phone number which send the balance command.



5.12. 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.

5.13. Alarm functions

5.13.1. Low battery alarm

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 3.55V.

This function activates by default, send SMS "lowbattery+password+space+off" to deactivate.

5.13.2. SOS

Press the SOS for 3 seconds, it will send "help me!+ latitude/longitude" 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.

5.13.3. Geo-fence

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.

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.

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

5.13.4. Movement alarm

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.

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

5.13.5. Over speed alarm

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.

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.

5.13.6. Shock sensor Alarm

The built-in 3-axis acceleration sensor can detect vibration when the tracker vibrates.

5.13.6.1. Activate Shock alarm: Send “shock+password” to tracker, it will reply “Shock is activated!”, the shock sensor alarm takes effect, “Sensor alarm+latitude&longitude will be sent to authorized phone numbers when tracker vibrates.

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

5.13.6.3. 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";

5.13.7. Tilt alarm (BC model)

The built-in gyroscope can detect it when the tracker is tilted.

5.13.7.1. Activate tilt alarm: Send SMS command " tilt+password+space+on" to tracker, and tracker will reply "tilt on ok", that means this setting takes effect, "tilt alarm+ latitude&longitude" will be sent to authorize numbers when tracker is tilted.

5.13.7.2. Cancel: Send SMS command "tilt+password+space+off" to tracker to deactivate the tilt alarm.

5.13.8. Rolling alarm (BC model)

The built-in gyroscope can detect it when the tracker is rolling.

5.13.8.1. Activate rolling alarm: Send SMS command "rolling+password+space+on" to tracker, it will reply "rolling on ok", that means this setting takes effect. "rolling alarm+ latitude&longitude" will be sent to authorized numbers when tracker is rolling.

5.13.8.2. Cancel: Send SMS command " rolling+password+space+off" to tracker to deactivate the rolling alarm.

5.14. Sleep mode

Sleep Mode	Description	Application Occasions	Standby Time
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 needs to be tracked by real-time.	1000*0.9 (Battery self-loss) /4.5mA/24h=8 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	1000*0.9(Battery self-loss)/2.1mA/24h=17 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	The target doesn't need to be tracked frequently and can track it any time when necessary.	1000*0.9(Battery self-loss)/2mA/24h=18 days

	then sleep again.		
Deep sleep by shock	GPRS / GSM 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	1000*0.9(Battery self-loss)/1.5mA/24h=25 days
Schedule	GPRS / GSM 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.	1000*0.9(Battery self-loss)/1.5mA/24h=25 days
Deep sleep by shock + schedule	GPRS / GSM module will shut down during sleep time, the tracker will wake up and send message at the scheduled time or when it detects vibrations.	The target need to be tracked when it start to move and let it report positions according to schedule when it is motionless.	1000*0.9(Battery self-loss)/1.5mA/24h=25 days

5.14.1. 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 works all the time.

5.14.2. Sleep by shock

Send SMS command "sleep+password+space+shock", the tracker will reply "sleep shock ok", and it 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.

5.14.3. 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.

5.14.4. Deep Sleep by Shock

Send SMS command "sleep+password+space+deepshock", tracker will reply "sleep deepshock 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.

5.14.5. 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 returns to schedule report mode.

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

5.14.6. 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.

5.15. 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%
GPS: OK/NO GPS
GSM Signal: 1-32 the higher, the better
GPRS: ON/OFF
APN: cmnet
IP: 104.250.138.146
PORT: 9000

5.16. 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.

5.17. Configure local time for the tracker

Send SMS command “time+space+zone+password+space+time” to the device, If the setting takes effect, it will reply “time OK”

For example: If you are in china, send SMS “time zone123456 8”, 8 is the time zone of china, If your country time zone is minus, send SMS “time zone123456 -8”.

5.18. GPRS configuration

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

5.18.1. 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 the setting takes effect, the tracker will reply “APN OK”.

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

5.18.2. 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 the setting takes effect, tracker will reply “user, password ok!”.

For example: send SMS “up123456 jonnes 666666” to tracker, If the setting takes effect, tracker will reply “user, password ok!”.

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

5.18.3. Configure IP and port

Send SMS command “adminip+password+space+IP+space+port”, tracker will reply “adminip ok” if the setting takes effect.

For example: send SMS command “adminip123456 104.250.138.146 9000”, tracker will

reply “adminip ok” if the setting takes effect. (123456 is the password of tracker, and 104.250.138.146 is the ip, 9000 is the port.)

5.18.4. Switch to GPRS mode

5.18.4.1. Send SMS command “GPRS+password” to tracker, it will reply “GPRS ok!”, that means tracker have switched to work in GPRS mode.

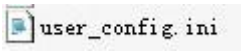
5.18.4.2. TCP/UDP Switch

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.

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

5.19. Configure parameters by USB

Connect tracker to computer with the USB cable, you will see a new disk, find 

and open it with notepad and operate according to the tips.

Note: Correct password is necessary every time when you configure the tracker.

6. Cautions

Please pay attention as following when you use this products:

1. Keep the equipment in a dry environment, the humid environment is easy to damage the internal circuit.

2. Please do not put in the dusty environment.

3. Don’t put the unit in overheated or overcooled places.

4. Handle carefully. Don’t vibrate or shake it violently.

5. Please use a dry cloth to clear and don’t use chemicals and cleaners.

6. Please don’t paint the device, this may lead to internal circuit failure.

7. Do not disassemble the equipment.

8. 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.

7. Faults & the Solutions

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. PIN code is locked No calls can be diverted.
Lost fix to satellites	To use the tracker in a place with open view of sky to make sure it can fix to satellites.
Fail to reply SMS command	Password is wrong or the format of the command is wrong.
Cannot receive alarm message / no reply to calling	Incorrect admin phone numbers / doesn’t set the admin phone numbers.