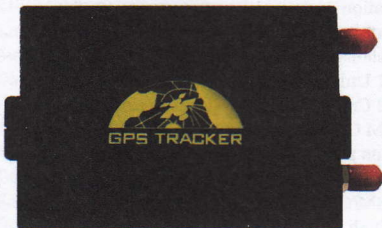


GSM/GPRS/GPS Vehicle Tracker User Manual



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. Function Introduction

1.1 This tracker is a new product based on the GSM / GPRS network and GPS satellite positioning system, which set multiple functions of security, positioning, monitoring surveillance, emergency alarms and tracking in its entirety. It can track and monitor remote target by SMS or internet.

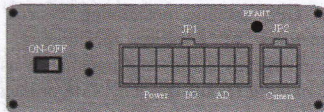
1.2 Features

- GPS/LBS (location based service) double way tracking solution.
- SMS/GPRS/Internet Network data transmission.
- Configure by remote terminal, remote control vehicle.
- Snapshot photo automatically when alarm triggered
- RFID.
- Fuel level measurement, Oil leakage or theft alarm.
- Temperature detection
- Vehicle Speed Detection.
- Kilometrage report.
- Tracking and monitoring by SMS, web server and mobile app.

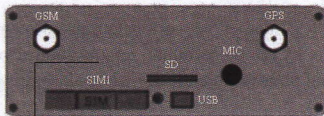
2. Applications

Used widely for vehicle and other moving objects tracking and management.

3. Hardware Description






(JP1) 16PIN harness port
(JP2) Camera port / RFID Port



Built-in SIM 2

4. Accessory

NO.	PHOTOES	NAME	NOTE
1		GPS Antenna	2 meters
2		GSM Antenna	2 meters
3		Micro phone	1.5 meters

4		Harness	16PIN
5		Relay	12V/40A
6		Shock sensor	option
7		siren	option
8		Remote controller	B model option
9		Camera	Option, choose one only from these 2 accessories for each tracker
10		RFID	
11		Central locking relay	option
12		Fuel sensor	option
13		Temperature sensor	option

5. Specifications

Content	Specifications
Size	92*71*26mm
Weight	120g
Band	850/900/1800/1900Mhz
GPS sensitivity	-159dBm
GPS accuracy	5m
GPS start time	Cold status 45s Warm status 35s Hot status 1s
Voltage of car power system	12 V/24V
Backup battery	Chargeable changeable 3.7V 500mAh Li-ion battery
Storage Temp	-40°C to +85°C
Operation temp	-20°C to +65°C
humidity	5%--95% non-condensing

6. Installation

6.1 Terminal Installation

6.1.1 Please ask the qualified engineers to install.

6.1.2 Do not install it in an environment which is over GSM & GPS performance and fix the antennas in a position with good signals.

6.1.3 Pay attention to make installation location preventing water and dust.

6.1.4 Knowing about the type of the door trigger is positive or negative. Please connect the green wire to the door control circuit if it is positive, and connect blue wire if it is negative.

6.1.5 Electric lock is set default central lock. If vehicle central lock is vapor lock, refer to the following instruction to Switch between Electric and Vapor lock.

6.1.6 Please put SOS button at the place driver can touch.

6.1.7 Connect the GPS and GSM antenna to the right connector, and find an appropriate place to fix the antennas to make sure good reception.

6.1.8 Find the accompanied harness and insert it into the corresponding holes of the products, and connect the wires with the original car circuit showing below.

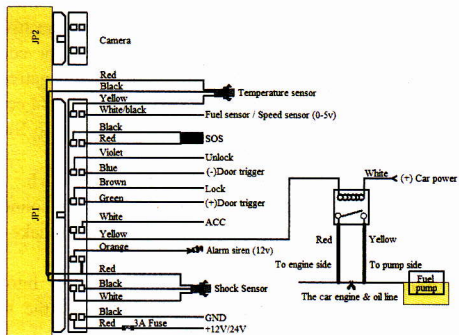
6.2 Installation wiring diagram

6.2.1 Unit installation wiring diagram

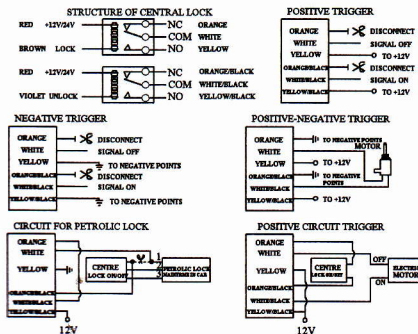
6.2.1.1 Choose only one from vehicle Speed detection and fuel measurement.

6.2.1.2 For vehicle Speed detection, white with black wire directly connect to speed sensor signal wire of car gearbox., black connect to Ground;

6.2.1 For fuel measurement, white with black wire connect to fuel sensor signal wire.



6.2.2 Central locking system wiring diagram:



6.3 SIM Card Installation

6.3.1 Use a tweezers or a sharp thing to touch the SIM CARD popup switch, the SIM CARD slot will pop up, take out the SIM card slot to load the SIM card, and then put the SIM card slot back to its original position after confirm the SIM card in the right place.

6.3.2 Please make sure that the SIM card is GSM network and able to execute the function of incoming calls display, no calls can be diverted and the PIN code is locked. The SMS format must be TXT format, and can't recognize the PDU format.

6.3.3 If need to save historical positions or positions when GSM not available, please insert SD card to its slot.

6.3.4 User need open the case to install the second internal SIM card

7. Function and Operation

7.1 Turn on device

Connect the positive (red) and negative (black) wire to 12V or 24V car power, wait for 1 minute after connecting power to wait tracker works normal, and then turn on the backup battery switch

7.2 GSM/GPS LED Indicator

LED color	Behavior	Descriptions
Red	On (not Flash)	No GSM signal
Red	Flash one time per second (fast)	GSM signal normal and work under GSM mode

Red	Flash one time per 3 seconds (slow)	GPRS mode
Green	Quick flash	GPS signal normal
Green	OFF	No GPS signal
Red & Green	Flash three times alternately	Detect microSD card

7.3 Initialization

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

For example: Send SMS “begin123456”, it will reply “begin ok”. (No quotation marks “” when sending all the SMS)

7.4 Change Password

7.4.1 Send SMS “password+old password+space+new password” to the unit to change the password.
For example: send SMS “password123456 888888” to the unit. If succeeded, “Password ok” will reply to your cell phone.

7.4.2 Keep the new password in mind; the machine will not work properly if lost the password.

7.4.3 Note: The new password must be 6 digits of the Arabic numerals, or the device will not recognize.

7.4.4 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.

7.5 Authorization

7.5.1 You have to save your phone number as authorized user to be able to use certain functions as movement alerts, sos alerts and reports. You can authorize up to 5 numbers. Authorization can be done in two different ways

7.5.2 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”

7.5.3 Send SMS “admin+password+space+cell phone number” to set up an authorized number. All the other authorized numbers must be set by the first authorized number. “admin OK” will be returned after command was executed.

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

7.5.5 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:

7.5.6 “admin123456 +8613322221111” to tracker to set 13322221111 as an authorized number.

7.6 Dual SIM Card

7.6.1 Device supports dual SIM card, but only one of them work with tracker, and switch to the other one automatically when it is broken or no GSM reception.

7.6.2 The external SIM card configured as 1st SIM card and priority to use by default, and you can also configured to use any SIM card of the two by SMS command if both are valid, but it will still automatically change to use the other SIM card if the one broken or no GSM network.

SMS Command: Send " SIM ONE+password", priority to use external SIM Card

SMS Command: Send " SIM TWO+password", priority to use internal SIM Card

7.7 Modes switch "track", "monitor"

7.7.1 The default mode is "track" (Track mode).

7.7.2 Send SMS command "monitor+password" to tracker device, it will reply " monitor ok!" and switch to monitor mode, and then call the number in device to monitor the voice..

7.7.3 Send SMS command "tracker+password" to tracker device, It will reply "tracker ok" and restore to track mode.

7.8 Single Locating

7.8.1 If there aren't any authorized numbers set-up, Tracker will reply to all calls with a location report. If there are authorized numbers set-up, only authorized numbers will be able to receive location report from the tracker.

7.8.2 Dialing the tracker device from the authorized number, it will hang up your calling and respond to a real-time latitude and longitude information as following:



GPS TRACKER DEMO
GPS TRACKER DEMO (15:04):
lat:22.553341 long:113.903418 speed:000.00
T:24/05/11 11:16
http://maps.google.com/maps?
f=gbq=22.553341,113.903418&z=16

7.8.3 *When lost fix to satellites (no GPS signals), it will track by LBS / CELL-ID.

And the SMS will include two positions:

- GPS coordinates of the last known position.

-LAC code. Open www.gpstrackerxy.com find " manual track", and put the received code in LAC and Cell-ID fields to location by LBS technology.

7.9 Auto track continuously

7.9.1 Track with limited times upon time interval:

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

7.9.2 Track with unlimited times upon time interval

Send SMS "fix030s030m***n+password" to the tracker. Tracker will report a real-time location every 30 seconds when ACC is ON, and report location every 30 minutes when ACC is OFF.

Note: The interval must not less than 10s.

7.9.3 Smart track upon time and distance interval:

7.9.3.1 Please set "track with unlimited times upon time interval" before this function, and send "distance+password+space+distance", tracker will reply "Distance ok", and then tracker will locate upon both the pre-set time and distance.

E.G: Send "distance123456 0050", it means distance is 50 meters; the number must be 4 digits Arabic numbers.

7.9.3.2 Set this function on web server: Set time interval first and then distance interval, tracker will locate upon the time and distance.

7.9.3.3 Cancel: Send SMS "nofix+password" to the tracker device

7.10 Turning points update automatically

7.10.1 The tracker will update the positions automatically to web server once the vehicle changing driving direction over pre-set angle value to form a smooth trajectory consistent with the actual road, this function works only in GPRS mode.

7.10.2 Send "angle+password+space+angle" to tracker, it will reply "angle ok". e.g. angle123456 030

7.10.3 The angle must be 3 digits Arabic numbers, default angle value is 30 degree.

7.11 GPS drift suppression

7.11.1 This function is deactivated as default, send

"suppress+password" to tracker, it will reply "suppress drift ok". The GPS data stop updating if vehicle is not driving (ACC is OFF) and latitude and longitude always keep the same, and GPS data updates automatically when vehicle is moving (ACC is ON).

Cancel: send "nosuppress+password" to tracker, it will reply "nosuppress ok".

7.12 Exact street address

7.12.1 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 section 7.39 to configure the APN, user name and password for GPRS login.

7.12.2 After configure the APN, send "address+password" to device, it will reply SMS including exact street address. For example: No.8, Guankou 2nd Rd, Nantou, Nanshan district, Shenzhen, Guangdong, china.

7.13 Location based service (LBS) / Cell-ID Locating

7.13.1 If the tracker cannot establish a solid GPS Fix, it will calculate its location using Cell-ID GSM locating, Location reports will include the GPS coordinates of the last known positions as well as a LAC code, Entering the LAC code to the "Manual Track" menu of web tracking platform www.gpstrackerxy.com will enable you to see the tracker's current location. You can also send command

“address+password” to the tracker to request exact address, track will automatically switch to tracking by LBS in GPRS mode. Accuracy of LBS depends on the distance to the nearest GSM Network Cell Tower or Base Station.

Note: This feature can be used normally in most areas according to the signal of GSM network. It may not be available in some areas

7.14 Speed detector (option)

7.14.1 Speed calibration

7.14.1.1 Due to the different signal of speed sensor and size of tire, so calibration is needed before using this function.

7.14.1.2 Send command “setspeed+password xxx”, tracker will record the speed and always calculate speed accordingly.

7.14.2 Speed recording

7.14.2.1 Tracker will record speed every 5 seconds;

7.14.2.2 Tracker will always record the latest 48 hours data in memory (memory card) including the speed of speed sensor and GPS.

7.14.3 Kilometrage Report.

7.14.3.1 Please calibrate the speed according to the chapter 7.14.1 before use kilometrage report.

7.14.3.2 Set travelled kilometrage: Send command “ODO+password+space+100000”, tracker will reply “Set ODO ok!”, the unit is kilometer, the accumulating kilometrage will add the

travelled kilometrage automatically.

7.14.4 Governor mode

7.14.4.1 Send command “governor+password” to tracker, it will reply “governor ok” and switch to governor mode.

7.14.4.2 Set governor: send command “max+password 080”. E.g max123456 080, 123456 is the password, 080 is the speed.

7.14.4.3 When speed approach max speed, siren beeps 5 times to warn the driver; when speed reaches or exceeds the max speed, relay will be activated to limit the speed.

7.14.4.4 Cut off the Oil and Power System function deactivated in governor mode.

7.14.4.5 Cancel: send command “nogovernor+password” to tracker, it will reply “nogovernor ok”.

7.15 Vehicle maintenance notification

Send SMS "service123456 365d 10000", tracker replies "service ok!" after succeed, when the travelled mileage over 10,000 kilometers, or when the device accumulated 350 days of work, it will give send maintenance notice to the authorized numbers 15 days in advance.

If in GPRS mode, Device will also report to GPRS central.

If in GPRS mode, Device will report to server center every time when vehicle starts, and only one notification in SMS mode.

7.16 RFID (option)

RFID module is supported. RFID data can be uploaded to service center (web platform) via GPRS, and saved and displayed on the web platform.

7.17 View photo on cell phone (option)

7.17.1 You must set up the APN of your local GSM network for the SIM card in tracker first before using this function, Please setup the user name and password for GPRS if there is user name and password for GPRS (APN, user name and password configurations, Please refer to the following chapters)

7.17.2 After APN configuration, send “photo+password” to device, it will take photos and send a SMS including http link to cell phone. Click the link to get the photo from internet.

7.18 Automatic Data logging

7.18.1 Auto logging: When the tracker device lost GSM signals or fall offline from GPRS, tracker will log the tracking position and alerts automatically in the SD card on the basis of the pre-set condition, when GSM signals get back, all the event alerts will be auto-sent to the authorized numbers or web platform (server), but the logged tracking data should be loaded to the web platform via SMS command.

7.18.2 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).

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

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

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

7.18.6 Logging Volume: It depends on the capacity of the SD card inserted in the tracker device.

7.18.7 The logged data in SD card can be copied to computers through card reader, and then the data route can be checked by importing data in the menu “Data Import” of web platform www.gpstrackerxy.com

7.19 Data Load

7.19.1 Current date Load: Send SMS: “load+ password” to tracker device, it will reply: “load ok” if the device is working well under GPRS mode; if not, it will reply “load fail! Please check gprs” that means device does not work under GPRS mode.

7.19.2 Specified date Load: Send SMS: “load+ password+space+ year month date” to tracker device, it will reply: “load ok” and load the tracking data to the web platform upon the valid time you choose. For Example: send SMS: “load123456 20110425” to the tracker device, means to load the tracking data of 25th April 2011 to web platform.

7.20 Forward the third parties' message

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

7.20.2 For example, set the phone number of the service provider of the SIM card in the tracker, when charge remind message coming in, tracker will forward it to authorized phone number.

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

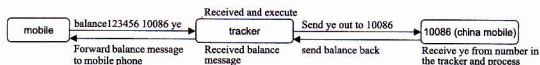
7.21 SIM card Balance Inquiry

7.21.1 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.

7.21.2 How it works: take China Mobile as example, After accept balance command, tracker will remember the "mobile phone number", carrier's phone number and the code;

7.21.3 And then send the code to carrier's phone number, and forward the message from carrier to mobile phone number.

Take china mobile for example, mobile users can send "ye" to china mobile number 10086, and 10086 will send user's balance message to tracker, and then tracker forward the balance message to mobile phone number, following is an illustration how this function works.



7.22 ACC working alarm

7.22.1 This function is deactivated by default. To activate this function, send "ACC+password" to tracker, it will reply "ACC ok". And tracker will send "ACC on+latitude & longitude" to authorized numbers when detect ignition on, that means the vehicle has been started; and tracker will send "ACC off+latitude & longitude" to authorized numbers when ignition off and ACC is off, that means vehicles has been stopped.

7.22.2 Send "noACC+password" to deactivate this function, tracker will reply "noACC ok".

7.22.3 This configuration can only activate and deactivate the alarm to authorized numbers; it will send to web platform automatically in GPRS mode and can't be deactivated.

7.23 Cut off the Oil and Power System

7.23.1 Send command "stop+password" to tracker, tracker will execute it and reply "Stop engine Succeed". And it will remain immobile state until next command to resume.

7.23.2 Stop mode

Execute immediately: Send command "quickstop+password" to tracker, it will reply "quickstop OK". Then tracker will stop the car immediately after "stop" command.

Execute depends on speed(Default mode): Send command "noquickstop+password" to tracker, It will reply "noquickstop OK", Then the tracker won't stop the car

immediately after “stop” command, instead, it will reply “it will be executed after speed less than 20KM/H”, and stop the car when the speed is less than 20KM/H.

7.23.3 Resume the Oil and Power System

Send “resume+password” to tracker, it will reply “Resume engine succeed”, it means the oil supply is resumed.

7.24 Function of Remote Controller (Option, for model B ONLY)

(All the functions of Lock and Unlock must work with the optional relay of central locking system)

Button	Function	Descriptions
Ⓐ	ARM/Lock	Press for 0.5 second, the siren will beep one time.
Ⓑ	DISARM/Unlock	Press for 0.5 second, the siren will beep two times.
Ⓒ	ARM & Silent mode	Press for 0.5 second when it is in disarm state, the siren will beep one time. No voice from siren when alarm triggered and quit from silent mode automatically when disarm.
Ⓓ	SOS	Press for 3 seconds, Tracker will send SOS alert to authorized phone numbers without voice.
Ⓔ	Deterrence/car search	Press for 0.5 second when it is in arm state, siren will beep 10 seconds, press disarm buttonⒷ to quit.

7.25 Remote controller programming

7.25.1 Supply power to tracker to turn it on and then short press the SOS buttons for 7 times, programming mode is ready after siren beeps 2 times.

7.25.2 Short press ①Ⓐ on the first remote controller, programming for the first remote controller is successful after siren beeps 1 time.

7.25.3 Short press ②Ⓑ button on the second remote controller, programming for the second remote controller is successful after siren beeps 1 time.

7.26 Electric lock and Vapor lock switch

7.26.1 Send command “locktype+password+space+1”, tracker will reply “locktype ok”, switch to vapor lock in 5 seconds.

7.26.2 Send command “locktype+password+space+0”, tracker will reply “locktype ok”, switch to electric lock in 0.5 seconds, electric lock is the default one.

7.27 Arm/lock

7.27.1 arm/lock door by SMS

Send SMS command “arm+password” to the tracker, the terminal of vehicles will change to arm state, Meanwhile, car door is locked, and it will reply SMS “Tracker is activated”. If the vehicle are in ignition state (ACC is ON), car door will be locked, but ARM will fail, Meanwhile, it will reply SMS “set up fail! pls turn off ACC”.

If engine is off, but door is open, then the car can't enter ARM

state and reply "setup fail, pls close the door."

7.27.2 Arm / lock door by remote controller

In disarm mode, short-press remote control button ④, the door of the vehicle will lock, and tracker changes to arm states, siren beep 1 time, no SMS message.

If the vehicles are in ignition state (ACC is ON), fail to change to arm state, but door will be locked, siren will not beep.

If car door is not closed, siren will beep for 3 times.

7.28 Disarm / Unlock

7.28.1 Disarm / unlock door by SMS

Send SMS command "disarm+password" to the tracker device in the vehicle, It will reply "Tracker is deactivated" in both armed and disarmed state, and the SMS command will make the tracker device enter into disarmed state if the unit currently armed.

It won't alarm if the door is open and sensor is vibrated and the engine is started when deactivated this arm function.

7.28.2 Disarm / unlock door by remote controller (For B model)

Short press ④ button for 0.5 second to disarm, siren beeps 2 times. tracker doesn't send messages.

7.29 Silent arm

7.29.1 Silent arm / lock door by SMS

Send SMS "silent+password" to tracker, it will reply "silent ok!". It means tracker enters into silent mode and door will be

locked as well; siren won't be sound after alarm is triggered, but tracker will send SMS to authorized numbers.
Send "disarm+password" to quit silent mode.

7.29.2 Silent arm / lock door by remote controller (optional, for B model)

Press ④ in disarm state for 0.5 second, the siren will beep one time, the car will enter ARM & Silent mode and lock door at the same time. Siren won't be sound after alarm is triggered, but tracker will send alarm SMS to authorized numbers.

Press ④ to quit.

7.30 Decide how many times of alarm message

You can decide how many times of the alarm message to be sent, For those alarm message sent in cycle, you can limit the times the alarm message 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.

7.31 Alarms

7.31.1 SOS Emergency Alarm

7.31.1.1 SOS via remote controller

Press ④ button for 3 seconds; siren will not beep, the tracker device will send SMS "help me+lat./long." to all the authorized numbers at interval of 3 minutes. It will stop sending such a SMS when any authorized number reply SMS "help me" to the tracker.

7.31.1.2 SOS via SOS Button

Long-press SOS button on the cables for 2 seconds, the device will send sms: "help me + lat/long" to every authorized number at interval of 3 minutes. No beeps from siren. Alerts will be stopped after received "help me" from any authorized phone number.

7.31.2 Low battery alarm

7.31.2.1 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 3.55V.

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

7.31.3 Power off alarm

7.31.3.1 Send "extpower+password+space+on" to activate, it will send SMS "power alarm+latitude/longitude" to authorized numbers every 3 minutes when external power is cut off.

7.31.3.2 This function activates by default.

Cancel: Send SMS "extpower+password+space+off" to deactivate it.

7.31.4 GPS Blind Spot Alert

7.31.4.1 This function deactivates as default, send SMS "gpssignal+password+space+on" to activate, it will send

alert SMS "no gps+last valid latitude/longitude before lost GPS signal".

7.31.4.2 Send SMS "gpssignal+password+space+off" to deactivate.

7.31.5 Geo-fence

7.31.5.1 Set up a geo-fence for the tracker device to restrict its movements within a district. The unit will send SMS to the authorized numbers when it goes out of this district.

7.31.5.2 Set up: When the tracker stays immobile in a place for 3-10 minutes, the user can send SMS "stockade+password+space+latitude,longitude;latitude,longitude" to tracker to set the restricted district. In case of breach, it will send SMS "stockade!+latitude/longitude." to the authorized numbers.

Note: 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 SMS at 3 minutes interval once goes out of the fence.

7.31.5.3 Cancel: Send SMS "nostockade+password" to deactivate this function.

7.31.6 Multi-area management

7.31.6.1 Set Area

Send SMS command

"area+password+space+latitude,longitude+space+areaname,distanceM" to tracker(distance unit: M for meter, K for kilometer), it will reply "area01 ok".

Example: Send "area123456 22.353648,113.543678 school, 800M".

Note: 5 areas at most and the distance between two points can't be less than the total distance in the 2 commands, and different areas can't cover each other.

7.31.6.2 Delete areas

Send SMS command:"noarea+password+space+area name", tracker will reply:"noarea ok".

7.31.6.3 Rename and set distance

Send SMS command "rename+password+space+old name;new name,distanceM" to tracker, if name is not repeated and area doesn't cover others, it will reply "rename ok!" for successful configuration.

Example: Send"rename123456 area01;school,800M", it means the new area name is "school", and covers area of a radius of 800 meters.

7.31.6.4 Activate multi-area management

Send SMS command "area+password+space+on" to tracker, it will reply "Area on ok!", when tracker enter the pre set area, it will send SMS "area name+latitude & longitude" to all the authorized phone number, and send same SMS when goes out of the area.

Deactivate Multi-area management

Send SMS command "area+password+space+off" to tracker, it will reply"area off ok!"

7.31.7 Movement Alarm

7.31.7.1 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.

7.31.7.2 Cancel: Send SMS " nomove+password " to deactivate the movement alarm.

7.31.8 Over Speed Alarm

7.31.8.1 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 when overspeed, the siren will beep 1 time when overspeed 1 time.

7.31.8.2 Cancel: Send SMS " nospeed+password " to deactivate the over speed alarm.

Remark: 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.

7.31.9 Fuel Checking Alerts (Optional)

7.31.9.1 During driving process, when the Tracker Device

detects the fuel decrease by 20% in 3 minutes, then it will send oil leak or theft alert "oil:XX%+Lat, Long" to authorized number in 3 minutes interval. Siren beeps 20 seconds continuously.

7.31.9.2 When Acc off and Car stop, the tracker device detects the fuel decrease 2% comparing with previous fuel when car stop, It will send oil leak or theft alert "oil: XX%+ Lat, Long" to authorized number in 3 minutes interval. Siren beeps 20 seconds continuously.

7.31.9.3 Cancel fuel alarm: Send SMS command "nooil+password" to tracker.

7.31.10 Temperature alert (Option)

The available temperature range is from -050°C to $+125^{\circ}\text{C}$, the number should be 3 digits and temperature unit must be in upper case in SMS command

7.31.10.1 Activate temperature Alert

Send SMS command "temperature+password+space+***C, ***C" to the tracker, it will reply "temperature ok". When the temperature is beyond the limited range, the tracker will send SMS alarm to the authorized numbers at 3 minutes interval.

For example: Send SMS "temperature123456 -020C, 060C", when the temperature is below -20°C or above 60°C , the tracker will send SMS alarm to the authorized numbers at 3 minutes interval and siren beeps 30 seconds.

7.31.10.2 Deactivate temperature alerts

Send SMS command "notemperature+password" to tracker, it will reply "notemperature OK".

7.31.10.3 Celsius and Fahrenheit Switch

Switch between Celsius and Fahrenheit .The default temperature unit is Celsius, in the sms commend C = $^{\circ}\text{C}$ F = $^{\circ}\text{F}$

7.32 Alarms under Arm State

7.32.1 Door Open Alarm

When the door open in arm state, the device will send sms " door alarm +lat/long" to Authorized no. at 3 minutes interval; Siren will be sound for 20 seconds, if door keep opening in ARM state, the siren will beep at 20 seconds interval, stop for 20 seconds, and then continue in this way, disarm to stop it.

7.32.2 Acc Alarm

The tracker will send SMS "ACC alarm+lat/long" to the authorized numbers at 3 minutes interval when the engine of the car is turned on, that is the key is rotated to ACC.ON position to start the car in arm state; Siren will be sound for 20 seconds, if ACC remain on in arm states, the siren will beep at 20 seconds interval, stop for 20 seconds, and then continue in this way, disarm to stop it.

7.32.3 Auto Photograph (Option)

When the tracker terminal device detects DOOR/ ACC / SOS / alarm, the tracker device will be automatically ready for photo during sending the alarm and then shoot camera to upload the photo to the monitoring platform (web server).Meanwhile, the device will send SMS including http link to all authorized cell phone numbers, photo can be also requested from web server

by sending command. All photos will be automatically saved in the SD card, and viewed after copied to computers through card reader.

7.32.4 Alerts Resend

When vehicle enters GSM blind areas, the siren beep in Non-quiet mode if DOOR/SHOCK SENSOR/ACC, OIL alarms are triggered, and all these alarms will be stored and send to authorized numbers or web server after GSM signal recover.

7.32.5 External Shock Sensor alarm (Optional)

The unit will send only one alarm SMS " Sensor alarm+lat/long " to the authorized number at 3 minutes when the sensor is triggered in arm status. Within 3 minutes, the alarm siren sound for 5 seconds when the vibration is detected in the first time and second time. The alarm siren sound for 10 seconds when vibration again. If you disarm the tracker, the times will reset.

Disarm to stop this alarm.

7.32.6 Built in Acceleration Sensor Alarm

7.32.6.1 The tracker is built in three axis acceleration sensor, the tracker can detect it in arm state when the vehicle move, tilt or shock. The alarm way is same as the external shock sensor alarm.

Disarm to stop this alarm.

7.32.6.2 Built in Shock sensor sensitivity configuration(the first level is the default level)

The sensitivity of the built-in shock sensor has three different level:

First level: Alarm will be triggered after detect weak vibration, send command" sensitivity+password+space+1".

Second level: Alarm will be triggered after detect slight vibration, send command" sensitivity+password+space+2".

Third level: Alarm will be triggered after detect medium vibration, send command" sensitivity+password+space+3".

7.32.7 No GSM Alarm

When Vehicle enters GSM Blind area, the siren beeps in Non-quiet mode without sms sending if DOOR, SHOCK SENSOR/ACC alarms are triggered.

7.33 Sleep Mode

Sleep Mode	Sleep in SMS Mode	Sleep in GPRS Mode	Sleep in GPRS and Set Less GPRS Traffic
No Sleep	Always working	Always online	ACC OFF and no any other triggered alarm, GPRS disconnect and switch to sleep mode in SMS mode, GPRS will back to online when ACC ON or any triggered alarm.

Sleep	ACC OFF and no any other triggered alarm, tracker enter sleep mode, GPS module shut off, GSM module work in low power consumption. ACC ON, SMS, Call or any triggered alarm can awake the tracker to work.	Always online	ACC OFF and no any other triggered alarm, GPRS disconnect and switch to sleep mode in SMS mode, GPRS will back to online when ACC ON or any triggered alarm.
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7.33.1 This function is deactivated as default, send “sleep+password+space+on”, tracker will reply “sleep on ok”. When vehicle is not driving (ACC is OFF), GSM module fall asleep; GPS module shut off; and tracker works in low power consumption. Calling, SMS command and any triggered alarm can awake it.

7.33.2 Cancel: Send “sleep+password+space+off”, tracker will reply “sleep off ok”, then tracker won't sleep, GSM and GPS works all the time.

7.34 Check the Vehicle State

Send SMS command “check+password” to the tracker in the vehicle, It will reply SMS including: external power、battery、

GPS signal、ACC、Door、GSM signal、GPRS status、APN、UP、IP、PORT etc.

For example: Send SMS “check123456” to the tracker device in the vehicle, It will reply following SMS:

Power: ON/OFF

Battery: 100%

Oil: 100%

Temperature: +32.0

GPRS: ON/OFF

GPS: OK/NO GPS

ACC: OFF/ON

Door: OFF/ON

GSM Signal: 1-32 Note: The higher; the better.

APN: cmnet

IP: 104.250.138.146

PORT: 9000

7.35 Check IMEI

Send SMS command "imei+password" to the unit. E.g. Send SMS command "imei123456" to the tracker device, an IMEI number in 15 digits will reply to your cell phone.

7.36 Terminal (local) Time Setting

7.36.1 Send SMS command “time+space+zone+password+space+time” to the tracker unit, If succeed, It will reply “time OK”


7.36.2 For example: Send SMS “time zone123456 8”, 8 is

Chinese time zone, If your country time zone is minus, send SMS "time zone123456 -8" .

7.37 Reset Hardware

Send SMS "reset+password" to tracker device to reset the GSM module and GPS module of the tracker device, it will reply "reset ok"

7.38 Configure parameters by USB

Connect tracker to computer with the optional USB cable, open the memory of the tracker, find and open the initial configuration file with notepad user_config.ini , operate according the instructions.

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

7.39 GPRS Setting

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

7.39.1 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.

7.39.1.1 APN settings of the first SIM card: (External SIM card is the first SIM card)

Send SMS "APNONE+password+Space+your local APN"

via a cell phone and if succeeded, the tracker will return the message "APN OK" .

7.39.1.2 APN settings of the second SIM card: (Internal SIM card is the second SIM card)

Send SMS "APNTWO+password+Space+your local APN" via a cell phone and if succeeded, the tracker will reply "APN OK"

E.g. Send SMS command "APNONE123456 CMNET" . If succeeded, tracker will reply "APN OK"

Notes: 123456 refer to password of tracker and CMNET is the APN of the china mobile.

7.39.2 Configure GPRS User Name and password

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:

7.39.2.1 User name and password settings of the first SIM card

Send SMS "upone+password+space+user+space+password"

If succeeded, tracker will reply "user,password ok! "

7.39.2.2 User name and password settings of the second SIM card

Send SMS "UPTWO+password+space+user+space+password" If succeeded, tracker will reply "user, password ok! "

For instance, send SMS "upone123456 jonnes 666666" to the tracker, and if succeeded, tracker will reply "user, password

OK”

Note: 123456 is tracker device password, jonne is the user name for GPRS login, 666666 is the password for GPRS login.

7.39.3 Configure IP and Port

Send SMS as below via a cell phone: adminip+password+Space+IPAddress+Space+Port Number. If succeeded, “adminip OK” is returned by the device in SMS.

E.g. Send SMS command “adminip123456 202.104.150.75 9000” to the tracker device, If succeeded, “adminip OK” is returned by the device in SMS.

(123456 is default password, 202.104.150.75 is IP, 9000 is port).

7.39.4 Switch to GPRS mode

The default mode is “SMS”.

7.39.4.1 Send SMS “GPRS+password” to the tracker, and it will reply “GPRS ok!” it means the tracker has switched to “GPRS” mode.

7.39.4.2 TCP and UDP switch

Command: “gprs+password,0,0” switch to TCP mode, this is the default mode.

Command: “gprs+password,1,1” switch to UDP mode.

7.39.4.3 Send SMS “SMS+password” to the tracker, and it will reply “SMS ok!” and restore to “SMS” mode.

7.40 Less GPRS traffic

7.40.1 Tracker will change to less GPRS traffic mode after parking 5 minutes (ACC is OFF), GPRS disconnect and connect again when alarm being triggered or vehicle starts driving.

7.410.2 Activate this function: Send “less gprs123456 on”, tracker will reply “less gprs on ok”.

7.40.3 Deactivate this function: Send “less gprs123456 off”, tracker will reply “less gprs off ok”.

Note: 123456 is the password of tracker, and replace it with the new if you have changed.

7.41 Set up monitor center number

7.41.1 Setup: send command “centernum+password+space+number” to tracker, it will reply “center num ok”. After setup monitor center number, the messages of auto track by sms will be set to this center number, if all alarms need to be sent to this number too, then this center number must be setup as authorized number.

7.41.2 Cancel: Send “nocenternum+password” to tracker, it will reply “no center num ok”.

7.42 Instructions for web platform and mobile APP

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

7.42.1 register an account

TrackerHome V3.0

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

SERVER 1
IP: 202.104.130.75 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:

For iOS
Search "TrackerHome" on the App Store

For Android
Please click "Download" to download, read install Google play Services and Google Services framework.

Recommended Resolution 1280 X 800 Pixel Windows/Android 7.0

SERVER 3
IP: 104.250.138.146 PORT: 9000

User ID:
Password:
Password Confirmation:
Terminal IMEI:

☐ Remember my user ID and password

7.42.2 Login

SERVER 3
IP: 104.250.138.146 PORT: 9000

User ID:
Password:
☐ Remember my user ID and password

7.42.3 Add a terminal

TrackerHome

Terminal List

Terminal Name Demo IMEI: 9500000000000000

5. add terminal

Name	Date & Time	Description	Speed	Altitude	GNSS	ACC	Dir	IR	Light	Language
Demo	2016-04-16 18:27:01	Position info	0.0%	0.0%	0.0%	0	Off	Close	No	22.598226 113.907746
Demo	2016-04-16 18:28:02	Car fence had been close	0.0%	0.0%	0.0%	0	Off	Close	No	22.598226 113.907746
Demo	2016-04-16 18:30:03	Position info	0.0%	0.0%	0.0%	0	Off	Close	No	22.598226 113.907746
Demo	2016-04-16 18:30:37	Position info	0.0%	0.0%	0.0%	0	Off	Close	No	22.598226 113.907746

6. Add terminal

Expiry Date From 1900-01-01 To 9999-12-31 IMEI NO. Keyword:

IMEI NO.	Name	Icon	Model	Group Name	Expiry Date
		Car	All Functions		<input type="checkbox"/> <input type="checkbox"/>

7. enter IMEI 8. name 9. choose location icon 10. Save

Terminal List Terminal Control

Terminal List

(Online:0 Offline:1)

☒ demo

11. the newly registered device is offline in grey color

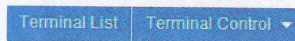
7.42.4 Configure your tracker to web platform to track it online

Step 1: set APN, refer to 7.39.1

Step 2: set GPRS user name and password, refer to 7.39.2

Step 3: set IP and port, please use the corresponding IP and port of the server you choose, refer to 7.39.3

Step 4: switch to GPRS mode, refer to 7.39.4



Terminal List

(Online:1 Offline:0)

✓ Demo

12. After receiving GPRS OK, wait about one minute, tracker will be online in green color, you can operate the tracker

7.42.5 If the tracker is always offline (grey color), make sure the SIM card subscribe the GPRS service, and have money to surf the Internet, you can use phone to test the SIM card can surf the Internet or not.

please check the APN, user name, password, IP, port settings are correct, refer to 7.34.

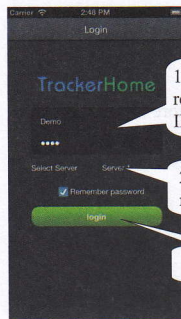
7.42.6 IOS & Android mobile APP

7.42.6.1 Download and install the mobile APP software

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



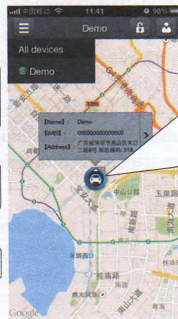
7.42.6.2 login in and use the mobile APP



1. filling the registered user ID and password

2. choose the right server

3. click "login"



4. click "the online device" to operate the device

8. Cautions

Please comply with the following instructions:

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 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.

9. Faults & the Solutions

Faults	Solution
Fail to turn it on	Please check if power wires connect correctly
No GSM signal	Please check GSM antenna connected well, and the location of the GSM antenna; please check SIM card load well, and is it GSM network; Please deactivate the PIN code; No calls can be diverted
No GPS	Please check if GPS antenna connected well, and recommend GPS antenna be installed near the window glass, no metal parts can cover it to make sure better GPS signal reception.
No reply to SMS command	Password wrong or the format is wrong.
No reply to calling	Authorized / admin phone number is incorrect; Authorized / admin phone number has not setup
No alarm message	
Fail to stop engine	Please check if wires of the relay for stop engine connect correctly.
Fail to lock /unlock	Please check the wiring diagram to see if wires connect correctly.
Remote control doesn't work	Turn off the device and turn it on to program again.
Siren doesn't work	Tracker outputs DC12V/24V/1A to drive the siren; it cannot drive the negative trigger siren.