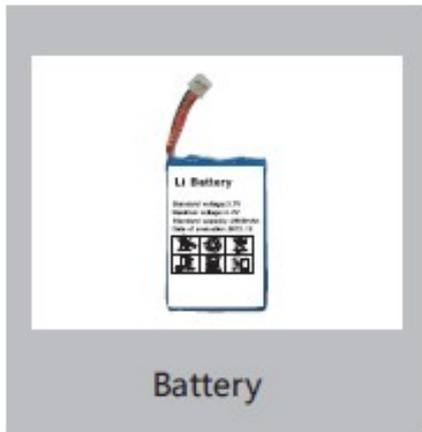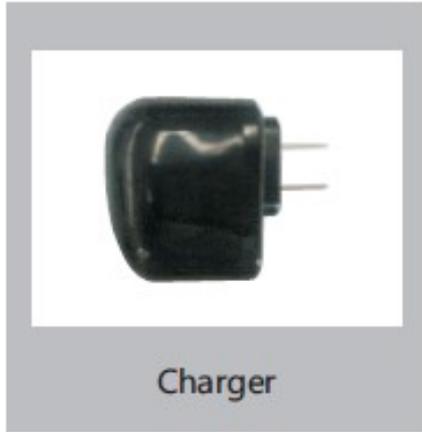# GPS Vehicle tracker
User manual

(Version V2.0)

Please read this manual carefully before attempting installation and online activation. Pictures are for indication and illustration purposes only.

1 Accessories

Charger

Charging

Battery

User manual

Please check whether these accessories are included. Pictures are for indication and illustration purposes only.

![Concox Track & Achieve logo]

2 Appearance

Mini USB Port

Power Indicator

GSM Indicator

GPS Indicator

2.1 LED status (non-sleep mode)

2.1.1Red LED (Power/working status)

LED Status	Indication
Flash quickly (interval 0.1S)	Low battery
Flash slowly (interval 2s)	Full charge/Working normally
Flash slowly (Flash 0.1s after every 2s)	Working normally
Bright	Charging
Dark	Out of battery / Troubleshot

2.1.2 Blue LED（GPS signal status）

LED Status	Indication
Flash quickly (interval 0.1s)	Searching GPS signal
Flash slowly (Flash 0.1s after every 2s)	GPS signal has been acquired successfully
Dark	GPS stops working

2.1.3 Green LED (GSM signal status)

LED Status	Indication
Flash quickly (interval 0.1s)	Receive GSM signal normally
Flash slowly (flash 0.1s after every 2s)	GPRS online

Bright	Incoming/outgoing calls
Dark	No GSM signal or no SIM card installed

2.1.4 Defense Status Indication

While the three LEDs (blue/red/green) flash cyclically, it means the device begins to enter defense status.

Note:

1. When it runs with battery, after GPS being located over 5s, all LEDs will be automatically turned off.

2. If there is no operation over 20s when the LEDs are lightening, all LEDs will be automatically turned off.

3. Short press SOS button could light LEDs and press again could close it.

3 Operation

3.1 Install/Remove the SIM card

(1) Power off the device, remove the battery and external power

(2) Put the SIM card in the SIM card slot

Note: 1. Please use a GSM SIM card

    2. SIM card in the device should be enabled for GPRS

    3. Caller ID of the SIM card in the device should be on

Warning: Please turn off the device before removing the SIM card. It is forbidden to install or remove the SIM card while the power is on, otherwise the SIM card may be damaged.

3.2 Power ON/OFF

Long press the Power ON/OFF button for 2 seconds to turn on/off the device.

3.3 Charge the battery

When the red LED on the device starts to flash quickly, the battery should be charged. Please remember to charge it before the first use.

(1) Connect the charger to power

(2) Connect the charger with the device

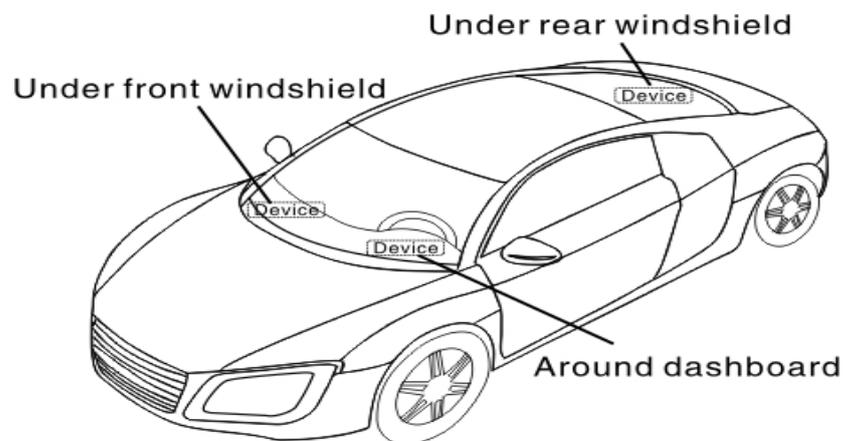(3) The charging process will take about 4-6 hours.

(4) The device can work normally during charging. Red LED being light indicates that it is charging. When charging is finished, red LED will flash slowly.

Warning: the ambient temperature shall be 0℃～40℃ while charging. Please use the charger provided by the manufacturer.

3.4 Device installation

The device has a strong magnet in rear cover which could attach to any mental surface.

The recommended installation position is as follows;

(1) Below the front windshield with the device front up and make sure there are no sunshade mask and other anti-GPRS reception material on it

(2) On the bottom of a car such as the side place below door. Do not put it too far inside, otherwise it can not receive GPS signal.

Note:

1. Device should be in the place with good GPS reception.

2. Do not put the device in some place where may get rusty easily.

3. Do not put the device in some place with extremely high temperature, such as around the radiator pipe or exhaust port, for that it may lower the magnetism greatly.

4. To place the device under the car, please make sure GPS is located first.

5. Do not use for portable

6. The location for installation of this device at more than 20cm away from passengers (front or rear) or bystanders.

4 Functions and Parameter Settings

4.1 APN Setting

Please send SMS command to the number of device so as to set up the APN parameter. The device will reply "OK" automatically after setting successfully. The SMS command is as follows:

APN,APN's name#

E.g **APN,internet#**

Note: The APN of some countries have user name and password, you may need to send SMS command as following:

APN,APN name,user name,password#

E.g **APN,internet,CLIENTE,AMENA#**

4.2 SOS Numbers Setting

4.2.1 Add SOS number by SMS

SMS command: **SOS,A,number 1,number 2,number 3,number 4#**(A means add number)

E.g. **SOS,A,13510682360,13511685136,13612687248,13612683621#**

4 SOS numbers can be set at one time. It will reply "OK" if succeeded.

SOS,A,13527852360# means setting the first specific number

SOS,A,,,13527852360,12510682360# means setting the third and fourth SOS number

4.2.2 Delete SOS numbers by SMS

SMS command: **SOS,D,1,2,3,4#** (D means to delete SOS number)

For example: **SOS,D,1#** means to delete the first number

To delete several numbers at one time, SMS command can be: SOS,D,1,2,4# means to delete the first, second and the fourth numbers

If you do not know the serial number, you can also delete number by SMS command like this: **SOS,D,number#**

E.g. **SOS,D,13527852360#** means to delete this SOS number directly.

It will reply "OK" if succeeded.

4.2.3 Add SOS number via platform

You can set SOS numbers via the platform when the device connects to the platform.

Note: Only the SOS number can make the operation as remote defense, monitoring and SMS checking position.

4.3 Arm/disarm

There are 3 methods to activate/deactivate defense status.

4.3.1 Via Power ON/OFF button

Short pressing Power button twice to activate defense status. The three LEDs will flash slowly one by one. After 3mins, the device will enter the defense status, and the LEDs will then flash quickly one by one.

Short press Power button twice again to deactivate defense status

4.3.2 Via Calls

Any SOS number calls the device and then ends up the call by the mobile side in 10s, the device will enter defense status and then reply SMS "Remote setting up defense Successful". If the SOS number does not end up the call in 10s, it will activate monitoring function.

Any SOS number calls the device and then ends up the call by the mobile side in 10s, it will disarm status from the arm status and then reply SMS "Remote disarm succeeded". If not ends up the call in 10s, the device will enter voice-monitoring status.

4.3.3 Via SMS command

Send SMS **"111"** to arm. And the device will reply SMS "Remote setting up defenses Successful" if it is set successfully. Only SMS from SOS numbers is valid.

Send SMS "**000**" to disarm. And the device will reply SMS "Successful remote disarm" if it is set successfully. Only SMS from SOS numbers is valid.

Note:

(1) If you put the device in the car, please do not set arm statue when you are driving as it will activate the vibration sensor.

(2) Only SOS numbers can set arm or disarm.

(3) Device SIM card should activate caller-ID function.

4.4 Anti-theft alarm

In defense status, once there is a vibration, the device will send alarm SMS to the SOS numbers in 10s.

If the device is located, it will send accurate GPS location to SOS numbers. Otherwise, it will send LBS location first. Once it is located successfully in 2 minutes, the device will send a GPS location.

E.g.

GPS location: "vibration ,Alarm: Date time："12-10-31 20:08:18 http://maps.\google.com/maps?q=N22.577169,E113.916790."

LBS location: "vibration ,Alarm: Date time：12-10-31 20:08:18 http://maps.\google.com/maps?q=N22.577169,E113.916754."

During vibration alarm time, if the device is located, but fail to connect to the platform, the device will send longitude and latitude information.

E.g.

"Vibration alarm: N23.111748, E114.409215, 11

While if the GPS is neither located nor connect to the platform, the device can not get the position information. Then it will send SMS "vibration alarm! Attention" to SOS numbers.

Note:

1. The device will only alarm once in 5mins.

2. If device can not send SMS normally, please check whether there is enough balance in the SIM card.

4.5 Geo-fence

You can set a special area as geo-fence field. When the car or person gets in/out of this area, the device will send alarm to SOS numbers when the geo-fence function is ON.

4.5.1 Activate geo-fence function

Geo-fence function is off as default. You can activate it by SMS command.

There are two kinds of Geo-fences, circular and rectangle.

(1) Circular fence

Set a coordinate as the centre of the circular fence, and then set a distance as radius.

● Go in/out fence SMS:

"**FENCE,ON,0,latitude,longitude,radius#**"

e.g. **FENCE,ON,0,N22.57139,E113.87710,5#**

It means the radius is 500 meters（radius 1=100M，2=200M⋯and so on）

The device will reply "OK" if set successfully. As long as the device goes in or out of this circular area, it will send alarm to the SOS numbers.

You can also set current location coordinates as the centre of the circular fence,

　"**FENCE,ON,0,0,0,radius#**" (This SMS command is only available when device get located)

● Go-in fence SMS:

Any number can send the following message"**FENCE,ON,0,latitude,longitude,radius,IN#**" to turn on circular fence function

e.g. **FENCE,ON,0,N22.57139,E113.87710,5,IN#**

It means the radius is 500 meters（radius 1=100M，2=200M⋯and so on）

The device will reply "OK" if set successfully. As long as the device goes in this circular area, it will send alarm to the SOS numbers.

● Go-out fence SMS:

　"**FENCE,ON,0,latitude,longitude,radius,OUT#**"

e.g. **FENCE,ON,0,N22.57139,E113.87710,5,OUT #**

It means the radius is 500 meters.（radius 1=100M，2=200M⋯and so on）

The device will reply "OK" if set successfully. As long as the device goes out of this circular area, it will send alarm to the SOS numbers.

(2) Rectangle fence

Specify two points in the map and use them as diagonal line, you can draw a rectangle area, which is the rectangle fence.

● Go in/out fence SMS:

Any number send the command "**FENCE,ON,1,the latitude of upper left corner, the longitude of upper left corner, the latitude of lower right corner, the longitude of lower right corner#**".

e.g. **FENCE,ON,1,N22.541183,E113.916,N22.557743,E113.892334#**

The terminal will reply "OK" if set successfully. Any time the terminal enter or leave this rectangle fence, it will send alarm message to the preset SOS numbers.

● Go in fence SMS:

Any number send the command "**FENCE,ON,1,the latitude of upper left corner, the longitude of**

upper left corner, the latitude of lower right corner, the longitude of lower right corner, IN#".

E.g. **FENCE,ON,1,N22.541183,E113.916,N22.557743,E113.892334,IN#**

The terminal will reply "OK" if set successfully. Any time the terminal enters this rectangle fence, it will send alarm message to the preset SOS numbers.

- Go out fence SMS:

Any number send the command "**FENCE,ON,1,the latitude of upper left corner, the longitude of upper left corner, the latitude of lower right corner, the longitude of lower right corner, OUT#".**

E.g. **FENCE,ON,1,N22.541183,E113.916,N22.557743,E113.892334,OUT#**

The terminal will reply "OK" if set successfully. Any time the terminal leaves this rectangle fence, it will send alarm message to the preset SOS numbers.

(3) Example of alarm message

While the Geo-fence function is activated, each time the terminal enters or leaves the fence area, there will be alarm message sent to the preset SOS numbers.

E.g.

GEO FenceOut[DateTime:12-06-01 14:58:03] http://maps.google.com/maps?q=N22.577137,E113.916785

GEO FenceIn[DateTime:12-06-01 14:58:03] http://maps.google.com/maps?q=N22.577137,E113.916785

4.5.2 Disable Geo fence

Send SMS to disable geo-fence function: **FENCE,OFF#**

After get reply "OK", geo fence function is off.

4.5.3 Check Geo fence status

Send the command **SEEFENCE#** to check whether geo fence function is on or off.

If geo fence is off, it will reply SMS "Switch:OFF".

If geo fence is on, it will reply SMS "Switch:ON;State:IN&OUT;Lat:N22.567000;Lon:E113.890000,Radius:100M;Fence Type:Circle."

4.6 Low battery alarm

When battery is low, device will send low battery alarm SMS to SOS numbers
Low battery alarm SMS: "Warning! Battery is low, please charge in time!"
When battery is too low, it will send SMS: "Warning! Battery is too low, power off automatically."

4.7 Voice monitoring

Any SOS number calls the device and keep ringing for more than 10s, the device will enter voice monitoring status. In this case, caller can monitor the sound around the device.
Note: 1. Caller ID function is needed for voice monitoring.
2. Only SOS numbers can monitor the device.

4.8 Terminal position query

4.8.1 Address information query

SOS number can send the command **WHERE#** to query the address information.

If GPS is located successfully, the device will reply the accurate GPS address information.

Otherwise, it will send LBS location first. And then if GPS located within 2mins, device will send another SMS with accurate location.

E.g.

Lat:N22.571285,Lon:E113.877115,Course:42.20,Speed:0.0740,DateTime:10-11-23 22:28:51

If GPS is never located successfully, the terminal will reply the following message after 2 minutes: "GPS fail to locate, no data, please try again!"

4.8.2 Google link query

SOS number can send the command **URL#** to query the Google link.

If GPS is located, it will reply the Google link of the current position. If GPS is not located over 2 minutes, it will send the link of last position.

e.g.: <DateTime:10-11-2323:42:51>http://maps.google.com/maps?q=N22.571490,E113.877103

If GPS is never located, the device will reply "No Data!"

Note: 1. GPS can only be located at the open place outdoor. While at the place without no or little GPS signal, such as, indoor, under the tree or besides the tall building, it can not be located. Yet LBS can be located wherever there is GSM signal.

2. Only SOS numbers can query the position by SMS.

4.8.3 Position query via platform

The device will send position information to the platform server timely. The user can check the position on the platform.

The platform website: www.gpsyeah.com.

Please contact your dealer for the login methods and operations.

LBS are a rough locating way. For more accurate information, GPS locating function must be activated. Its positioning accuracy is around 10m.

Note: to realize this function, you need the support of the network operator. And GPRS function should be activated for the SIM card.

4.9 Restore Factory Setting

While the terminal can not work normally because of some incorrect parameter setting, you can try to reset the settings and see whether it works.

The command: **FACTORY #**

4.10   Reboot setting

If the terminal can not work normally while the parameter settings are right, you can send command to reboot the terminal.

The command: **RESET#**

After receiving this command, the terminal will reboot in 1 minute.

5 Working Mode

5.1 Model1: Locating in a regular time interval mode

After uploading the first GPS location, the terminal will activate GPS in 30mins. If located, it will send location to platform and turn off GPS automatically. If fail to locate, then GPS will turn off and send LBS location.
Send SMS command: **mode,1#**

5.2 Model2: Locating according to vibration mode (default)

In this mode, the terminal will turn on GPS as default.
If GPS locates, the terminal will send first GPS location to the platform. If GPS could not locate, it will upload

LBS location.

In this mode, if the terminal does not detect any vibration, GPS will be off. And after it detects vibration, it will start working again.

Send SMS command: **mode,2#**

5.3 Mode3: Locating according to command

In this mode, the terminal will be in Deep Sleep mode. It will not connect with the platform. You can send SMS command/call to activate checking location function. During this mode, arm/disarm will not be executed. It will reply: "The terminal is in Deep Sleep mode. Please wake up!"

Send SMS command: **mode,3#**

6 Appendix

6.1 Battery security

● Please use the original battery. The warranty will be invalid by using any other accessory. The manufacturer will not take any responsibility for any damage caused by not using the original battery.

● The new battery can realize the optimal performance after fully- charging for 2 or 3 times.

● The battery can be used for hundreds of times, yet it will wear out eventually. When its talking time and standby time shrinks sharply, you need a new one.

● Cut off power supply when not using the charger. Don't charge the battery for more than one week, since over charging will reduce its using time.

● Do not short-circuit the battery with metal stuff (such as the key in your pocket)

● Do not bend or open the battery.

● Do not put the battery into water or fire.

● The battery should never be charged at temperature below 0 degrees or above 45 degrees Celsius.

6.2 Trouble shooting

If there is any problem while operating the terminal, please refer to the following table, or contact your service provider.

Common problems	Causes	Solution

Bad reception	Near the tall building or in the basement	Change to a place with good signal
The terminal can not switch on	No battery power	Change a new battery
Can not make voice monitoring	No preset SOS numbers	Set SOS numbers
	SIM card is without Caller ID function	Activate the function
can not connect to the network	SIM card is not inserted correctly	Check the SIM card
	The sheet mental of SIM card is dusty	Wipe it clean
	Invalid SIM card	Contact your internet service provider
	Out of GSM service area	Move back to the GSM service covered area.
	weak signal	Try again in a strong signal area
can not charge	Voltage is out of charging range of the charger	Change to the proper voltage
	Non-standard charger	Use charger that come with the package
	Poor contact	Check if the plug is in
Can not check address information	GPRS function is not activated	Please contact the SIM card operator to activate GPRS
	Can not get the position data	①restart the device ②contact with your distributor
	It is not a SOS number	set SOS number

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.