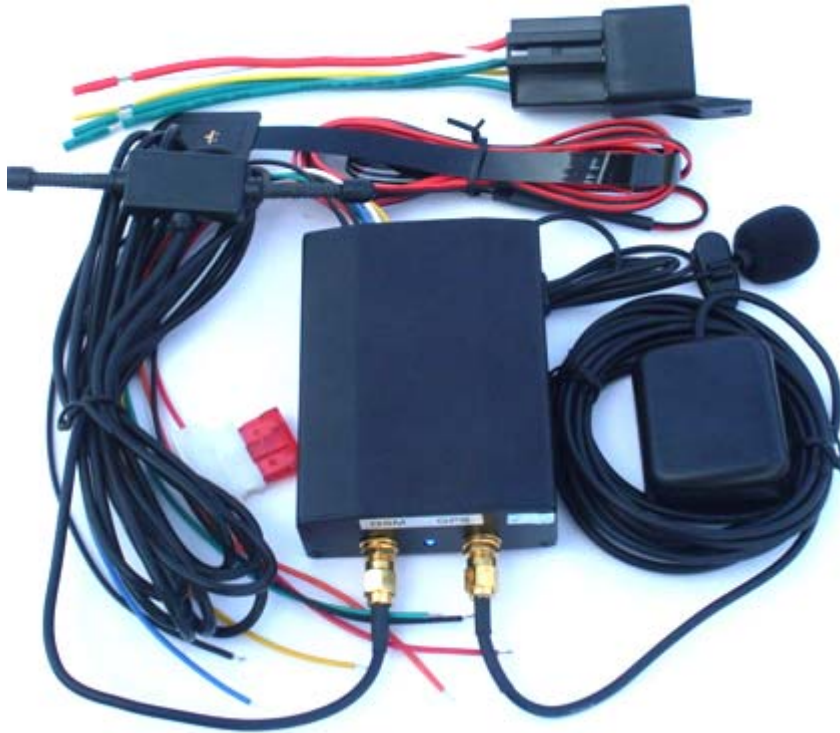


GPS VEHICLE TRACKER USER MANUAL



Preface

Thank you for purchasing the GPS vehicle tracker TK103, 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 Summary

Working Based on existing GSM/GPRS network and GPS satellites, this product can locate and monitor any remote targets by SMS or GPRS.

2 Applications

- Vehicle rental / Fleet management etc
- Provide peace-of-mind for businessmen
- Track every target secretly
- Protect wealth etc

3 Hardware Description

3.1 Front face

3.2 Rear face



3.3 Side face



3.4 Bottom

GSM/GPRS ANTENNA



INDICATOR
FOR SIGNALS

GPS ANTENNA



PRESS BUTTON TO
TAKE OUT SIM CARD.



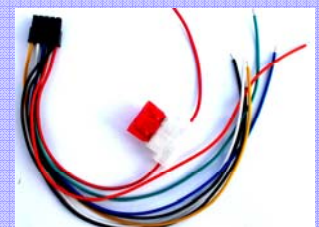
SIM CARD



MICROPHONE



WIRE BOX



4 Specs.

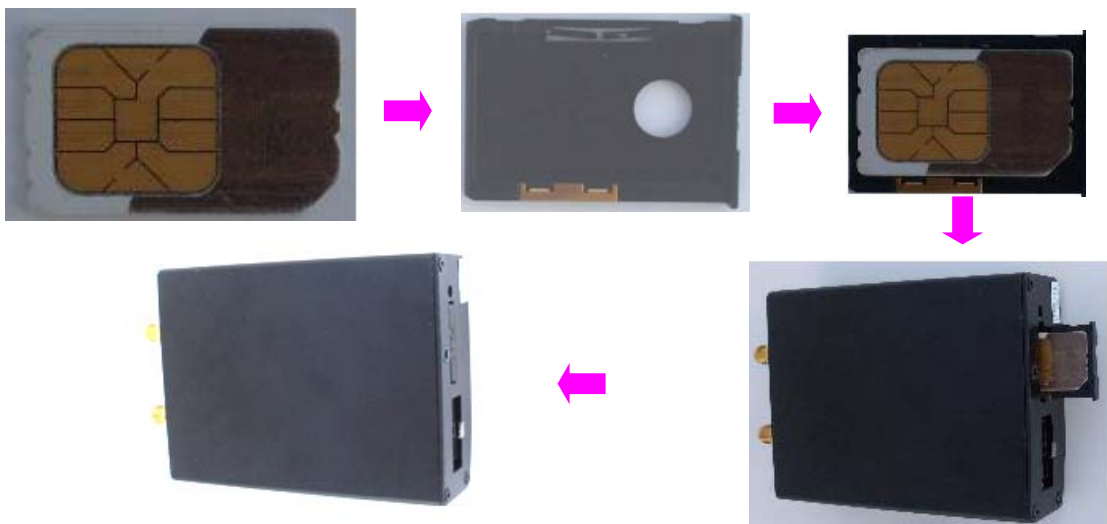
Content	Specs.		
Dim.	85mm x 63mm x 25mm(3.3”*2.5”*0.98”)		
Weight	50g		
Network	GSM/GPRS		
Band	850/900/1800/1900		
GPS chip	SIRF3 chip		
GSM/GPRS module	Simcom900		
GPS sensitivity	-159dBm		
GPS accuracy	5m		
Time To First Fix	Cold status 45s	Warm status 35s	Hot status 1s
Car charger	12—24V input	5V output	
Wall charger	110—220V input	5V output	
Battery	3.7V 800mAh Li-ion battery		
Standby	8hours		
Storage Temp.	-40℃ to +85℃		
Operation Temp.	-20℃ to +55℃		
Humidity	5%--95% non-condensing		

5 Usage**5.1 SIM card installation**

Make sure that there is no **call transfer** and **call display is on**, and **PIN code** off. The SMS message must in Text format, can't be identified for PDU format.

5.1.1 Put SIM card into card box.

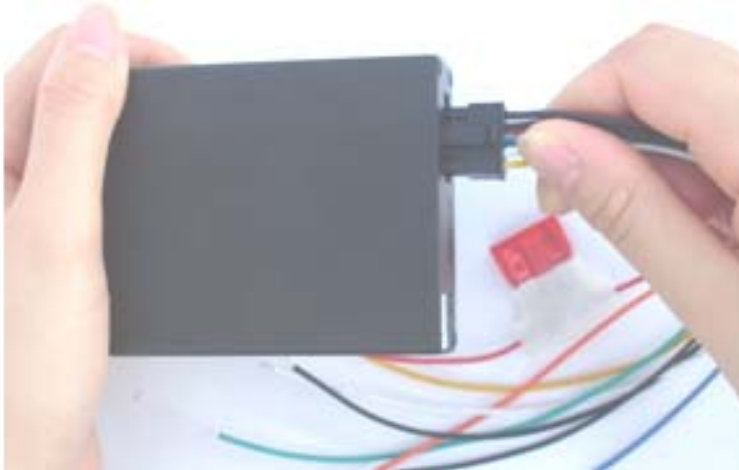
5.1.2 Put the card box into host as picture.



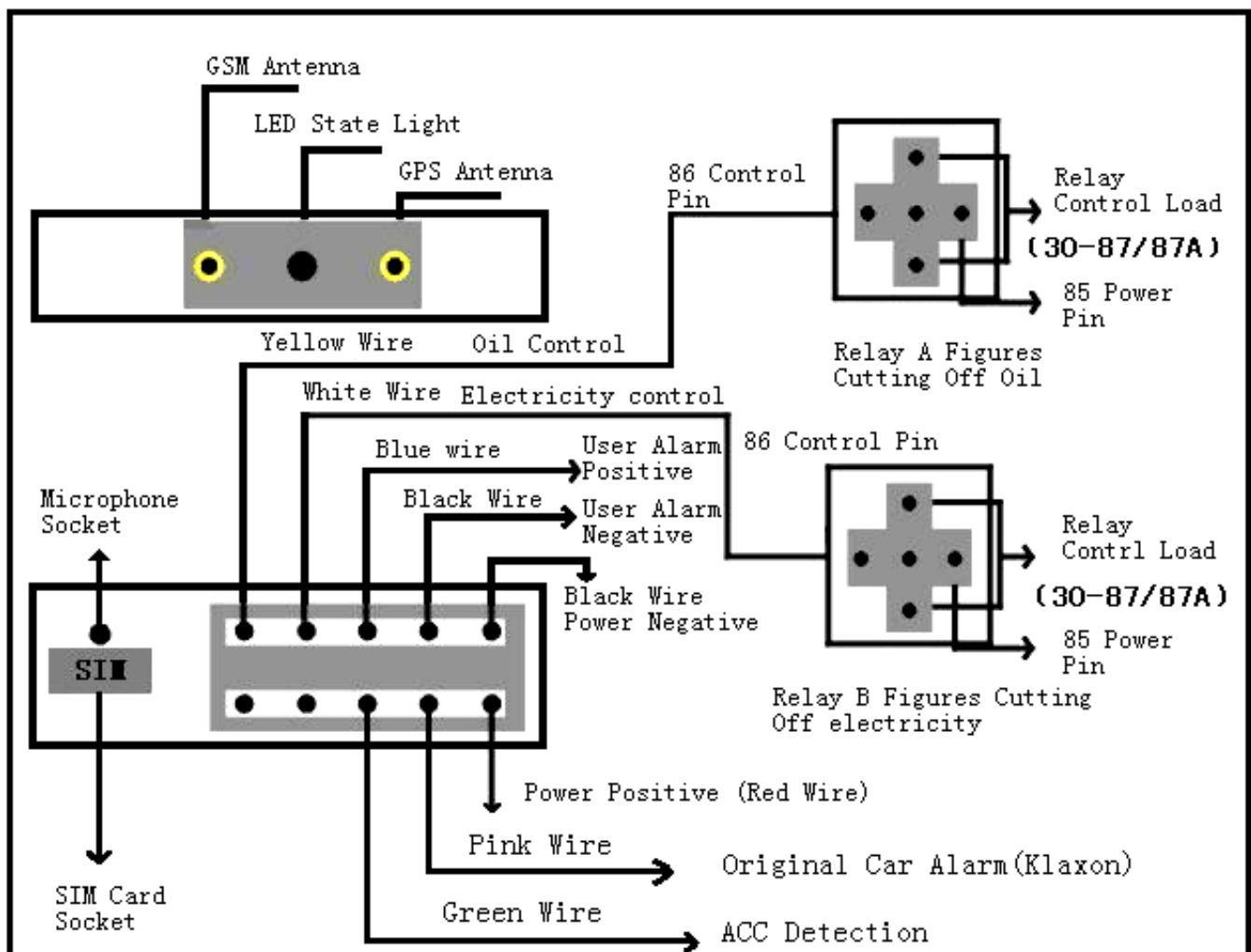
5.2 GPS Vehicle Tracker Installation

GPS/GSM/GPRS tracker should be installed by technical professional of local service centre. Without permission, the user can't repair and move the tracker randomly. If users do, any unfortunate damage should be compensated by himself.

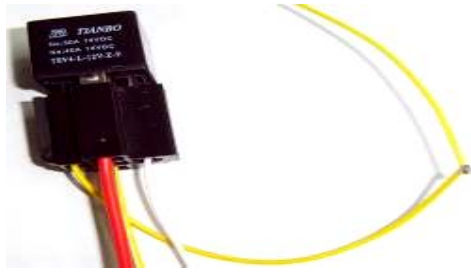
5.2.1 Install Wire Box



5.2.2 GPS Vehicle Tracker Installation

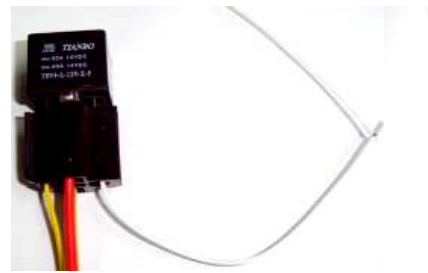


GPS Vehicle Tracker Installation Diagram



Wire for cutting off oil of the tracker

Yellow wire connects the relay feet 86; 85 feet to 12 V DC anode, 87 feet and 30 feet in series in the supply oil circuits.



Wire for cutting off circuit of the tracker

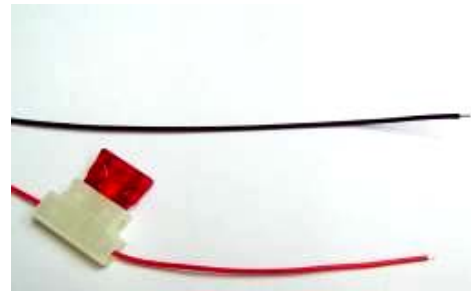
White wire connects relay feet 86; 85 feet to 12 V DC anode, 87 feet and 30 feet are in series in the supply power circuits.



Emergency triggering alarm

The blue wire connects the anode of the alarm button, and the black wire connects the cathode of the alarm button.

Steps: 1 Open the rear cover, and pick out the battery.
2 Push the foil along and turn it left.



Power supply line

The red wire connects 12V “+”; Black wire connects to 12V “-”

5.3 Startup

- Put the SIM card and battery in place.
- Turn on the unit outdoors by pressing the “on/off” button until the indicator is on.
- For first use, please initialize the unit and restore it to default setting.
- In 10 to 40seconds, the unit will begin to work and acquire the GSM signals as well as the GPS signals. The indicator will keep flashing every 4 seconds when the unit has received the signals, otherwise it will keep on.
- When this unit receives GPS signals normally, you can use it and do all the following settings.

5.4 Restart the tracker.

Send SMS "**reboot123456**" to the tracker. If success, it will reply "sestern will reboot...",The tracker will be restarted.

5.5 Initialization

Send “**begin123456**” in SMS to the unit, it will reply “**begin ok**” and initialize all the settings. (123456 is default password)

5.6 Change the password

5.6.1 Send SMS "**password123456 666888**"to change the password. it will reply "change password

ok".666888 is new password.Make sure the new password is in 6 digits. Please remember the new password, because most of the instruction need the password to set.

5.6.2 you can Send "**resume password**" to the tracker, to restore the original setting in case of losing the new password,and it will reply "resume password,password is123456".

5.7 Authorization

There are only 5 numbers able to be authorized.

5.7.1 Send SMS "**admin123456 13511113333**" to set up a authorized number 13511113333. The other authorized numbers should be set by the first authorized number. If the number is successfully authorized, the unit will reply "admin ok".

5.7.2 Send SMS "**nadmin123456 13511113333**" ,if successfully delete the authorized number,it will reply "no admin ok".

5.7.3 For format purpose, you have to add your country code ahead of the cell phone number, for example, please send "admin123456 008613511113333" to tracker to set 13511113333 as an authorized number.

5.8 Set Time zone

In order to make the time as the same with the user country,please send SMS command"**zone123456 8**". 8 is GMT+8. if user'country zone time is GMT-6,send SMS "**zone123456 -6**" to device. The device will reply SMS"set time zone ok".

5.9 monitor and tracking modes

5.9.1. Send SMS "**monitor123456**" to the unit", and it will reply "monitor ok" and switch to "monitor"mode.

In this mode, the user can dial up the unit to monitor the voice.

5.9.2. Send SMS "**tracker123456**" to the unit, it will reply "tracker ok" and restore to "track" mode.

Remark:The default mode is "tracking"

5.10 SOS button

5.10.1 Press the SOS button for 1 second, it will send "**help me !+ Geo-info**" to all the authorized numbers every 3 minutes.

5.10.2 Send the SMS"nosos123456" to the device,it will reply "nosos ok",then it will not send alarm info.

5.11 Geo-fence

5.11.1 out of the Geo-info: Send SMS

"**stockade123456 22.100000N,113.100000E;22.900000N,113.900000E1**"to unit to set the restricted district. if success,it will reply"stockade ok"

5.11.2 into the Geo-info: Send SMS

"**stockade123456 22.100000N,113.100000E;22.900000N,113.900000E2**"to unit,if success,it will reply "stockade ok"

Remark :The first longitude& latitude is coordinate of the top left corner of the Geo-fence, while the second longitude&latitude is the coordinate of the bottom right corner. It will alarm at 3 minutes intervals for 3 time

5.11.3 Cancel: Send SMS "**nostockade123456**" to cancel this function, " if success,it will reply "no stockade ok".

5.12 Movement alert

5.12.1 Set up: When the unit stays immobile in a place for 3minutes, the user can send SMS **"move123456"** to the unit, then the unit will reply "move ok". After 10s, if the unit move over 200m, it will send SMS "Move+Geo-info" to the authorized numbers or platform. It will alarm at 3minutes intervals for 3 time.

5.12.2 Cancel: Send SMS **"nomove123456"** to deactivate the movement alert, if success,it will reply "cancel move ok".

5.13 Overspeed alert:

5.13.1 Set up: Send SMS **"speed123456 080"** to the unit (suppose the limit speed is 80km/h), and it will reply "speed ok". When the target moves exceeding 80 km/h, the unit will send SMS "speed+080!+Geo-info" to the authorized numbers or platform at 3 minutes intervals for 3 time

5.13.2 Cancel: Send SMS **"nospeed123456"** to deactivate the overspeed alert, if set up success,it will reply "cancel speed ok".

Remark: It is recommended that the speeding alert is set at no less than 50km/h.

5.14 Low battery alert

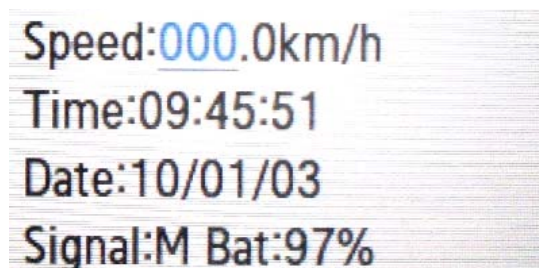
It begins to alert when it is 3.7V and sends you SMS in 30 minutes interval. SMS format: low battery+Geo-info.

5.15 Real-time positioning

5.15.1 If there is no authorized number, when any number dials up the unit, it will report a Geo-info; If there is already an authorized number, then it will not respond when an unauthorized number calls it up.

5.15.2 When an authorized number dials up the unit, it will hang up and report a real-time Geo-info as below:

<http://>



Speed:000.0km/h
Time:09:45:51
Date:10/01/03
Signal:M Bat:97%

5.16 Auto tracking by cellphone

5.16.1 Send **"begin123456"** in SMS to the unit, it will reply **"begin ok"** and initialize all the settings. (123456 is default password)

5.16.2 Set intervals and times:Send SMS **"at30sum15"** to the unit, it will report the Geo-info at 30s intervals for 15 times.Send **"noat123456"** to Cancel " auto track "

Remark: 1.the interval must between 20 and 999999, 2.sum0 is heaps of times.

5.16.3 Send SMS "**telephone123456**" to device.if set successfully, the device will reply "**set telephone ok**". And then, the device will send GPS data to your telephone by SMS.

Remark:The default is sending the GPS data to the telephone.

5.17 Auto tracking by platform

5.17.1 Initialization :

Send "**begin123456**" in SMS to the unit, it will reply "**begin ok**" and initialize all the settings. (default password is 123456).

5.17.2 Set intervals and times:Send SMS "**at30sum15**" to the unit,it will report the Geo-info at 30s intervals for 15 times. Send "noat+password" to Cancel " auto track "

Remark: 1.the interval must between 20 and 999999, 2.sum0 is heaps of times.

5.17.3 Add the number on the online positioning platform for tracking. send SMS "**number13500001111**" to the tracker,and will reply "set number ok".13500001111 is the tracker number. need the platform have the fuction.

5.17.4 Set web mode:Send SMS "**web123456**" to device. if set successfully, the device will reply SMS "**set web ok**". The device will send GPS data to IP address.

5.17.5 Set up IP address and port:

Send SMS "**ip220.231.180.37port2332**".If setup successful, the tracker will reply SMS " set ip address and port ok "

Send SMS "**2p220.231.180.37port2332**".If setup successful, the tracker will reply SMS " set 2ip address and port ok "

Cancel: Send SMS "**noadminip+password**"

Remark:220.231.180.37 is ip address, 2332 is port number.Different platform have different IP adress and port number.

5.17.6 Set APN:

Send SMS "**apn123456 cmnet**",If setup successful, the tracker will reply SMS "set APN ok". **cmnet** is APN name.

5.17.7 Set up APN user name and password:

Send SMS "**user123456 cmnet cmnet**"to set the APN user name and password. If setup successful, the tracker will reply SMS "set GPRS user and password ok".First **cmnet** is APN user name,second **cmnet** is APN password.

As soon as the **IP & Port & APN name& APN user name and password** are set up, The tracker will report the Geo-info to IP address or telephone.

5.18 Set home

In order to see your website in each replying SMS ,For example you website is www.____ then send "**home123456 www_____**". Then it will reply"set home ok",when you want to cancel it, just send "nohome123456",it will reply SMS"cancel home ok".

5.19 IMEI Check:

Send SMS "**imei123456**"to the unit to check the IMEI number.

5.20 Count mileage

5.20.1 Dials up the unit, it will report a Geo-info, the Geo-info include mileage.

5.20.2 you can send "clearmile123456", if set successfully, it will reply SMS "clearmile ok", the mileage change zero.

5.21 Remote control oil and circuit

5.21.1 Control oil

Send SMS "stopoil123456" to control oil. For example send SMS: stopoil123456

To supply the oil again, send SMS "supplyoil123456" to the unit.

5.21.2 Control circuit

Send SMS "stopelec123456" to control circuit. For example send SMS: stopelec123456

To supply the circuit again, send SMS "supplyelec123456" to the unit.

If there is no authorized number, all number can control. If there is already an authorized number, only the authorized number can control.

5.22 Alarm time

The sms command is for controlling alarm time.

Example, send SMS "alarm3" to the unit, if success, the unit will return "Alarm time ok". The unit will alarm 3 times to handset (by SMS) or platform (by GPRS), then to stop when occur alarm. The value domain is 1-999, that is, "alarm1"~"alarm999" are all effective. Notice, the interval of alarm is 3 minutes.

5.23 Read password

The sms command is reading the password from unit when user forget the password in unit.

Example, send SMS "readpaw" to the unit, if success, the unit will return "Password is *****".

5.24 Get position message by SMS

The sms command is getting position message by SMS.

Example, send SMS "fix123456" to the unit, if successful, the unit will position message.

6 Cautions

Please comply with the instructions to extend the unit life:

1. Don't dismount the antenna randomly, or use other antennas. This may interfere the transmission, and increase the radiation as well.
2. Don't disassemble or refit the unit.
3. Handle carefully. Don't vibrate or shake it violently.
4. Don't use & store the unit in dusty places.
5. Clean the unit with a piece of dry cloth. Don't clean in chemicals, detergent.
6. Keep the unit dry. Any liquid, i.e. rain, moisture, may destroy or damage the inside circuitry.
7. Don't put the unit in over heated or over cooled places.

7 Faults & The solutions

Faults	Solution
Startup Fail	Check the battery and see if it is fully charged or correctly installed.
Hangup Fail	In existence of an authorized number, an unauthorized number dials up the unit. Please initialize the unit and re-set up the authorized numbers.
Monitor Fail	Check if the authorized number is setup or in the coverage of signals.
Location report in digits of zeros.	Don't use it in the place beyond reach of signals. Place the unit outdoors, especially when starting it up.

8 Collection of Commands

No	FUNCTION	SMS	SMS REPLY	CHAP
1	Restart the tracker	reboot123456	System will reboot...	5.4
2	Intialization	begin123456	begin ok	5.5
3	Change password	password123456#666888	change password ok	5.6.1
4	Resume password	resumepassword	resume password, is password123456	5.6.2
5	Add in number	admin123456#13511113333	admin ok	5.7.1
6	Delete number	noadmin123456#13511113333	no admin ok	5.7.2
7	Set time zone	zone123456#-6	set time zone ok	5.8
8	Monitor mode	monitor123456	monitor ok	5.9.1
9	Tracking mode	tracker123456	tracker ok	5.9.2
10	SOS alert		help me!+geo-info	5.10.1
11	Cancel SOS	Nosos123456	nosos ok	5.10.2
12	Out of Geo-fence	stockade123456#22.100000N,113.100000E;22.900000N,113.900000E1	stockade ok	5.11.1
13	Into Geo-fence	stockade123456#22.100000N,113.100000E;22.900000N,113.900000E2	stockade ok	5.11.2
14	Cancel geo-fence	nostockade123456	no stockade ok	5.11.3
15	Movement alert	move123456	move ok	5.12.1
16	Cancel movement alert	nomove123456	cancel move ok	5.12.2
17	Overspeed alert	speed123456#080	speed ok	5.13.1
18	Cancel overspeed alert	nospeed123456	cancel speed ok	5.13.2
19	Telephone mode	telephone123456	set telephone ok	5.16.3
20	Auto tracking	at30sum0	auto track set ok	5.17.2
21	Cancel auto track	noat123456	cancel auto track ok	5.17.2
22	Add number to platform	number13500001111	set number ok	5.17.3
23	Web mode	web123456	set web ok	5.17.4

24	Set first ip	ip220.231.180.37port2332	set ip address and port ok	5.17.5
26	Set APN	apn123456 #cmnet	set APN ok	5.17.5
27	Set APN user name and password	user123456#cmnet#cmnet	Set GPRS user password ok	5.17.5
28	Imei checking	imei123456	IMEI:35771300558866	5.18
29	Count mileage		geo-info+distance	5.20.1
30	Clear mileage	clearmile123456	clearmile ok	5.20.2
31	Stop oil	stopoil123456	stopoil ok	5.21.1
32	Supply oil	supplyoil123456	supplyoil ok	5.21.1
33	Stop circuit	stopelec123456	stopelec ok	5.21.2
34	Supply circuit	supplyelec123456	supplyelec ok	5.21.2
35	Alarm number	Alarm999	Alarm number ok	5.22
36	Read password	readpaw	Password is *****	5.23
37	Get postion by SMS	Fix123456	Position message	5.24

Remark:1.# is space; 2. the device default password is 123456; 3.The authorized number is 13511113333, 4.the tracker number is 13500001111;

9 Use setting tool to set tracker

9.1 Put the CD into CD-ROM.



gps tracker Setting
Tool_EN

9.2 Open the file.



ParaList.exe

9.3 Double click

9.4 Enter into software interface

The screenshot shows the 'GPS Tracker Setting Tool' window. It contains various input fields and buttons for configuring a GPS tracker. Red circles with numbers 1 through 19 are placed over specific elements to indicate their functions as detailed in the table below.

1	5.17.3	11	5.5
2	5.17.6	12	5.17.4
3	5.17.5	13	5.16.3
4	5.11	14	5.20
5	5.6	15	5.20
6	5.7	16	Bands
7	ACC test	17	5.17.7
8	5.8	18	Set com port
9	5.13	19	Data of operate result
10	Read device version		

9.5 Connect the Locator device and computer by the USB wire, and put the battery into the device, then waiting for the indicator to flashing state.

9.6 Setup parameters: Find the computer port, and open it, then enter the equipment state.