

*GPS
Personal
Tracker*

User Manual

V5.2

PT01

Important Attention

Dear Sir or Madam:

Thank you for choosing our company's tracker devices!

Due to the constantly updating and improvement in our products, please attention that after you setting by phone SMS, you still have to wait for more than 1 minute to cut off the power, or PT01 won't set up successful even responded to set up a successful confirmation text message.

2. PT01 only responds to the instructions send by the user's restored phone number. So the first step operation, the user must be stored telephone number.

Detailed Command can be found from Page 21 3.2.3 Change the telephone number in advance instructions

3. PT01 can operate in SMS and GPRS modes, in this two modes, respectively have their own instruction set, SMS mode, the terminal only to respond to SMS mode instruction set; GPRS mode, the terminal only to respond to GPS mode instruction set. During operation, please note that the current mode of the terminal to send instructions and pre-match.

In order to reduce errors, hereby tips!

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1. Introduction

1.1 What's in the box?

- PT01
- USB charged cable
- Charger or car charger
- Accessory CD

1.2 About PT01

PT01 Handheld Tracker is a personal remote positioning device with built-in GPS and GSM/GPRS technology in compact size. It can transmit the longitude and latitude coordinates to your cell phone by the SMS. By this, you can find its location on the Google maps© or other map software. The tracker uploads positioning data through GPRS to a designated server. The user can look for real-time location-tracking, historical trajectory through the Internet.

These features are for protecting and searching children and elders. Furthermore, it can be used for other security purposes such as asset protection and animal tracking.

Key Features

- Built-in SIRF StarIII Chipset, excellent for fixing the position even at a weak signal status. Work well even in areas with limited sky view like urban canyons.
- Built-in GSM/GPRS module, support 4-frequency GSM 850/900/1800/1900 MHz, working all over the world.
- Support voice call.
- Support SMS communication or GPRS TCP connection.
- Get the position information via mobile phone SMS, or examine the path on the Internet.
- The available SMS takes the control command change tracing function or switch GPS.
- Support establishes three telephone numbers. SOS button send out exact location for immediate rescue/action.
- One key for easily use.

- The major technological index of the device is in conformity with the international standard of GSM mobile phone.
- Portable, compact size, low power design.

Applications

- Handheld portable products.
- Monitor and protect child, elder, disabled and can be used for physical distribution and inspect official occasions.
- Based on GSM network and INTERNET, this series of products provide personalized services for companies, organizations and individuals.

Specification

| | |
|-------------------|--|
| Hardware | |
| GSM module | MTK program, GSM 850/900/1800/1900 dual-band or quad-band Support the TCP protocol |
| GPS Chipset | SIRF-Star III chipset |
| GPS Sensitivity | -159dBm |
| GPS Frequency | L1,1575.42MHz |
| C/A Code | 1.023MHz chip rate |
| Channels | 20 channel all-in-view tracking |
| Position Accuracy | 10 meters, 2D RMS |
| Velocity Accuracy | 0.1 m/s |
| Time Accuracy | 1 us synchronized to GPS time |
| Datum | WGS-84 |
| Reacquisition | 0.1 sec.,average |
| Hot start | 1 sec.,average |
| Warm start | 38sec.,average |
| Cold start | 42sec.,average |
| Altitude Limit | 18,000 meters (60,000feet) max. |
| Velocity Limit | 515 meters/second (1000knots) max. |

| | |
|-----------------------|-------------------------------------|
| Acceleration Limit | Less than 4g |
| Jerk Limit | 20m/sec |
| Operating temperature | -20° to 70° C |
| Humidity | 5% to 95% Non-condensing |
| Dimension | 95mm*46mm*18mm |
| Voltage | Rechargeable 1300 mAh battery(3.7V) |
| Charging connector | DC 5V |

2. Getting started

2.1 Hardware description

Blue LED--- indicate the GSM signal state

| State | Means |
|-----------------------------|------------------------------------|
| constant Lighting | no SIM card or not GSM net |
| flashlight once interval 8s | GSM receiver work well and standby |
| flash quickly | voice calls or in GSM connection |

Red LED---indicate charge sate

| State | Means |
|-------------------|------------------------|
| constant Lighting | charging |
| slow flashing | charging was completed |
| fast flashing | low power |

Note: If the battery is too low, it is possible that at the beginning of in charge the red light will not light up.

Green LED--- indicate the GPS signal state

| State | Means |
|-------|-------|
|-------|-------|

| | |
|-------------------|--------------------------|
| constant Lighting | Working, but no location |
| Flashing | Working and has located |



Button Function description

| Button | Means |
|------------|--|
| Power Key | Press and hold 3-5s to turn on / turn off Short press to hang up incoming calls |
| SOS Button | Short press the keys can answer the incoming call; press the key about 3 seconds, the PT01 will be vibration and send the location information to 3 user telephone numbers preserved in advance(Or upload the positional information through GPRS to the server), at the same time, call the first user telephone number. If it is unsuccessful (closed or unable to connect or no response), makes vibration and starts calling the second and the third in turn. |

2.2 Charge battery

Before using PT01, to lengthen the battery service life, suggest in closes down under the condition to charge completely at least for 12 hours.

Note: The DC port can only make the charge use. Please do not meet other equipment. If connects the initiation question arbitrarily, is generally irresponsible.

Charger states indicate:

Red light is on; it indicates that it is in charging.

Red light is slow flashing, it indicates that charge completed.



Buy A SIM card

Buy a SIM card from local service provider.

Please make sure that your SIM card support SMS function and have enough deposit.

Install SIM card

Insert SIM card to PT01 as the photo shows.



2.3 switch on / switch off

Switch on:

When the device is on, press the button to off side and wait for 3 seconds. The green LED and

blue LED are light.

When the device is off, press the power button to on side and wait for about 20 seconds. It will enter standby mode.

It is suggested that you stay an outer place where it can receive the better GPS signal when you turn on the device.

Switch off:

When the device is on, press the button to off side and wait for 3 seconds. When the LED goes out, it indicates that the device is turning off for sure.

Tips: How to get better GPS signal:

- 1、 working outdoor, PT01 can get better GPS signal;
- 2、 the front side of PT01 should be placed toward sky.

Reset: Under the shutdown state, press the SOS button and the power key, keep the two keys being held down to 6s, then release again.

List of reset state:

| Configuration | State |
|---------------------------------------|-----------|
| Working Mode | Unchanged |
| Pre-set phone numbers | None |
| User passwords | 0000 |
| GPS | Open |
| Send regularly location information | Off |
| The number of return to base stations | 1 |
| Calling switch | Open |
| Monitoring function | off |
| Electronic fence | close |
| Service center number | XX |
| GPRS services password | 0000 |

| | |
|------------------|--------------|
| GPRS user name | V300Q |
| APN | CMNET |
| IP address | 0.0.0.0 0000 |
| GPRS data upload | close |

3. How to...

3.1 The operation based on the SMS application

In this mode, PT01 can be stored three preset telephone numbers (1, 2, and 3) and a 4-digit user password. The related configuration content that users set by SMS order is non-volatile. After the success, the state has not affect by switching power, until once again receives the relevant instructions or reset operation to change.

3.1.1 Switch the mode instruction

Format: 700+ user password (4 figures)

eg: 7000000

Explanation: When PT01 tracker receives the SMS and confirms the user password correctly, it switches to the SMS application mode. After the success, it will send the confirmation messages (SET MODE OK, CURRENT MODE: SMS P2P) to the sender.

3.1.2 Set up the user password instruction

Format: 777+new password (4 figures) +old password (4 figures)

eg: 77712340000

Explanation: Confirm the user password correctly; changes the new user password to the old password. After set successfully, it will send the confirmation messages (SET USER PASSWORD OK) to the sender.

Note: The user password can only be 4 figures. The default setting for 0000

3.1.3 Change the telephone number in advance instructions

Format: *new numbers with 4-20 figures * user password (4 figures) *location number (1-3) **

eg: *13900000000*0000*1**

Explanation: You can store 3 telephone numbers at most in advance. When PT01 tracker receives the instruction and confirms the user password correctly, substitutes the new number for the existing number. After success, it will send the confirmation messages (SET USER NUMBER (1-3) OK) to the sender.

Note: The preset numbers are empty after factory set or reset.

3.1.4 GPS state setting instruction

GPS will enable on the on / off / adaptive three work states by send text messages command. GPS state is open after factory settings or reset.

3.1.4.1 Open the GPS instruction

Format: 222+user password (4 figures)

eg: 2220000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, opens the GPS power. After the success, it will send the confirmation messages (GPS ON OK) to the sender.

3.1.4.2 Close GPS instruction

Format: 333+ user password (4 figures)

eg: 3330000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, close the GPS. After the success, it will send the confirmation messages (GPS OFF OK) to the sender.

3.1.4.3 Adaptive GPS instruction (Power-saving Function)

Format: 100+ user password (4 figures)

eg: 1000000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, it will close the GPS immediately, and send the confirmation messages (VIBRATION SENSOR ON OK) to the sender. The tracker built in vibration sensor, once monitors the track movement for change to open the GPS. If in 5 minutes, with not monitors the track changed in the

movement to close GPS.

Note: When using this function, as far as possible put the tracker in the vibration sensitive areas such as the car at the front or rear. If a long time on the highway or the flat road, the GPS may be in sleeping, and will not be awakened. Users can send 222 + user passwords to re-open the GPS.

3.1.5 Single localization request instruction

Format: 666+ user password (4 figures)

eg: 6660000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, reads the GPS information. No matter whether effective, the information with the replying base station which is the set of the original software will be sent to the sender.

Data format:

Lat: Latitude Direction (+/-) Latitude Value (Accuracy for 5 after the decimal point)

Long: Longitude Direction (+/-) Longitude Value (Accuracy for 5 after the decimal point)

Speed: Speed KM/H (Accuracy for 2 after the decimal point)

Direction: Direction (Accuracy for 2 after the decimal point)

Date: Date YYYY-MM-DD

Time: Time HH: MM: SS (GMT)

BS: Base Station information

Fix: Location state (A/V)

ID: IMEI

STATE: Message state

Effective data format:

Lat: +22.50500

Long: +114.01000

Speed: 0.00KM/H

Direction: 315.00

Date: 2008-04-25

Time: 16:39:45

BS: 25ee0dff

Fix: A

ID: 353686009002030

STATE: SMS

Invalid data format:

Lat: +22.50500

Long: +114.01000

Speed: 0.00KM/H

Direction: 315.00

Date: 2008-04-25

Time: 16:39:45

BS: 25ee0dff

Fix: V

ID: 353686009002030

STATE: SMS

Note: If in the cold start and GPS no position, it will return to the void of information: "ERROR GPS GPRMC FRAME DATA BS: 27971054".

3.1.6 Send the positional information in fixed time instruction

Format: 4 xx + user password (4 figures)

eg: 4010000

Explanation: x indicates one figure from 0 to 9, while "xx <60", its unit is minute. while "xx >60", its numerical value is "xx minus 60" and unit is hour, in other words, 61 is 1 hour, 62 is 2 hours, followed by analogy. When PT01 tracker receives the instruction and confirms the user password correctly, it establishes the current time for initial timing time, xx is the gap time, and sends the confirmation SMS to the sender's mobile phone (TIMER START, REPEAT INTERVAL :< X>MINUTES). Then start to time and send the format as 3.1.5 setting information when it arrives the gap time, the information state item automatically updates STATE: TIMER. When "xx=00", cancels the positional information in fixed time instruction, and sends the confirmation SMS to the sender's mobile phone "TIMER STOP".

Note: The state set by this directive in the next boot after the shutdown is still valid, once again

received the directive could be changed again changes, reset configuration reset. After factory set or reset, timing upload is stop.

3.1.7 Calling switch instruction

Calling OFF format: 150 + user password (4 figures)

eg: 1500000

Calling ON format: 151 + user password (4 figures)

eg: 1510000

Explanation: When TLT-1B tracker receives the instruction to close calling and confirms the user password correctly, close the calling function (including the SOS, alarm when across the fence), after successfully, sent the confirm information "SET VOICE CALL: OFF" to the sender. When TLT-1B receives instruction to open calling and confirm the user password correctly, open the calling function (including the SOS, alarm when across the fence), after successfully, sent the confirm information "SET VOICE CALL: ON" to the sender.

3.1.8 Telephone localization function

Explanation: One of 3 telephone numbers stored in advance calls in, and hangs up after ringing 2-5 times, then the PT01 will send the location information to this number such as 3.1.5 to this number, the information state item automatically updates STATE: CALL. But other incoming numbers will automatically hang up.

3.1.9 Answer or hang up function (initiative answer, automatic answer, and hang up)

Explanation: One of 3 telephone numbers stored in advance calls in, you can press shortly the SOS key or power key to answer or hung up, and automatically answers after rings 10 seconds. Users can terminate the call by press shortly power key to hanging up. After the call, the PT01 will send the location information format as 3.1.5 to this calling number, the information state item automatically updates STATE: ANSWER. But other incoming numbers will automatically hang up.

3.1.10 Seeking help initiatively

When press the key more than 3 seconds, it will make vibration and send the location

information such as 3.1.5 to 3 telephone numbers stored in advance, the information state item automatically updates STATE: SOS. At the same time, call the first user telephone number. If it is unsuccessful (closed or unable to connect or no response), makes vibration and starts calling the second and the third in turn.

Note: If the calling state is off, it will not call the user telephone number, and only send messages to the present number.

3.1.11 Monitor function (Handset silent switch)

Format: 00X+ user password (4 figures)

eg: 0000000

Explanation: When the tracker receives this instruction and confirms the user password correctly, according to X's value set state of the handset switch. X=1, handset closed for the monitoring mode. After set successfully, it will send the confirmation messages (SET PROFILE OK, CURRENT PROFILE: SILENT) to the sender. After handset closes, if the user phone number stored in advance calls in, the tracker will not have any prompt. After the approximately 10 seconds later automatic answering, the user may hear the tracker end the sound, but the tracker end will not hear the user. X=0, open the handset. After set successfully, it will send the confirmation messages (SET PROFILE OK, CURRENT PROFILE: NORMAL) to the sender. After handset opens, if the user phone number stored in advance calls in, the tracker will prompt. After the approximately 10 seconds later, the two sides can make calls. After the call, the PT01 will send the location information format as 3.1.5 to this calling number, the information state item automatically updates STATE: ANSWER. But other incoming numbers will automatically hang up.

Note: After factory set or reset, the state is open (Non-monitoring state)

3.1.12 Electronic fence function

Electronic fence takes the set coordinates as the center, the set radius parameters to determine the scope of the fence. When open this feature, once the PT01 beyond the scope of the set fence, it will send location information as to 3.1.5 to the 3 preset numbers. The information state item automatically updates STATE: OS. At the same time, call the first user telephone number. If it is unsuccessful (closed or unable to connect or no response), makes vibration and starts calling the

second and the third in turn.

When the PT01 re-enters the fenced area, it will immediately send location information format 3.1.5 to the three preset numbers. The information state item prompts STATE: RS. At the same time, call the first user telephone number. If it is unsuccessful (closed or unable to connect or no response), makes vibration and starts calling the second and the third in turn.

1) Set the scope of the fence

According to the input formats different of coordinates, user can choose the format as follows instructions to operate.

Format1: 003+ user password E/Wdddmm.mmmmN/Sdd.mmmmRzzz.z

eg: 003xxxxE11406.0024N2233.4230R1

Explanation: E-- east longitude; W-- west longitude; N-- north latitude; S-- south latitude. In this example, uses E and N, please according to the actual geographical position choose corresponding coordinate form to set. In the demonstration, meanings of various parts are as follows:

Edddmm.mmmm is longitude information with units of degrees and minutes, and the ddd expresses degree, mm.mmmm expresses minute (Accuracy for 4 after the decimal point, the following zero cannot bypass)

Ndd.mmmm is latitude information with units of degrees and minutes and the dd expresses degree, mm.mmmm expresses minute (Accuracy for 4 after the decimal point, the following zero cannot bypass)

Rzzz.z is radius for the domain (999.9 - 0.1), unit for KM.

When the tracker receives this instruction, judges to be authorized users and confirms the user password correctly, it will send the confirmation messages "SET GEO-FENCE OK" to the sender.

Format2: 004+ user password E/Wddd.dddddN/Sdd.dddddRzzz.z

eg: 0040000E114.10004N22.55705R999.9

Explanation: E-- east longitude; W-- west longitude; N-- north latitude; S-- south latitude. In this example, uses E and N, please according to the actual geographical position choose corresponding coordinate form to set. In the demonstration, meanings of various parts are as follows:

Eddd.ddddd is longitude information with units of degrees, and the ddd.ddddd expresses degree (Accuracy for 5 after the decimal point, the following zero cannot bypass)

Ndd.ddddd is latitude information with units of degrees, and the ddd.ddddd expresses degree (Accuracy for 5 after the decimal point, the following zero cannot bypass)

Rzzz.z is radius for the domain (999.9 - 0.1), unit for KM.

When the tracker receives this instruction, judges to be authorized users and confirms the user password correctly, it will send the confirmation messages "SET GEO-FENCE OK" to the sender.

Note: 1. Radius of the fence can not exceed the definition of its domain; the value of the decimal part for zero must input zero fill. For example: R=1, it is important to enter into 1.0.

2. If the calling state is off, it will not call the user telephone number, and only send messages to the present number.

3. Degree and minute is divided into sexagesimal system converter, that is, 1d = 60m

2) open the electronic fence: 211 + user password

After set successfully, it will send the confirmation messages "GEO-FENCE ON" to the sender.

3) close the electronic fence: 210 + user password

After set successfully, it will send the confirmation messages "GEO-FENCE OFF" to the sender.

3.1.13 Low voltage warning

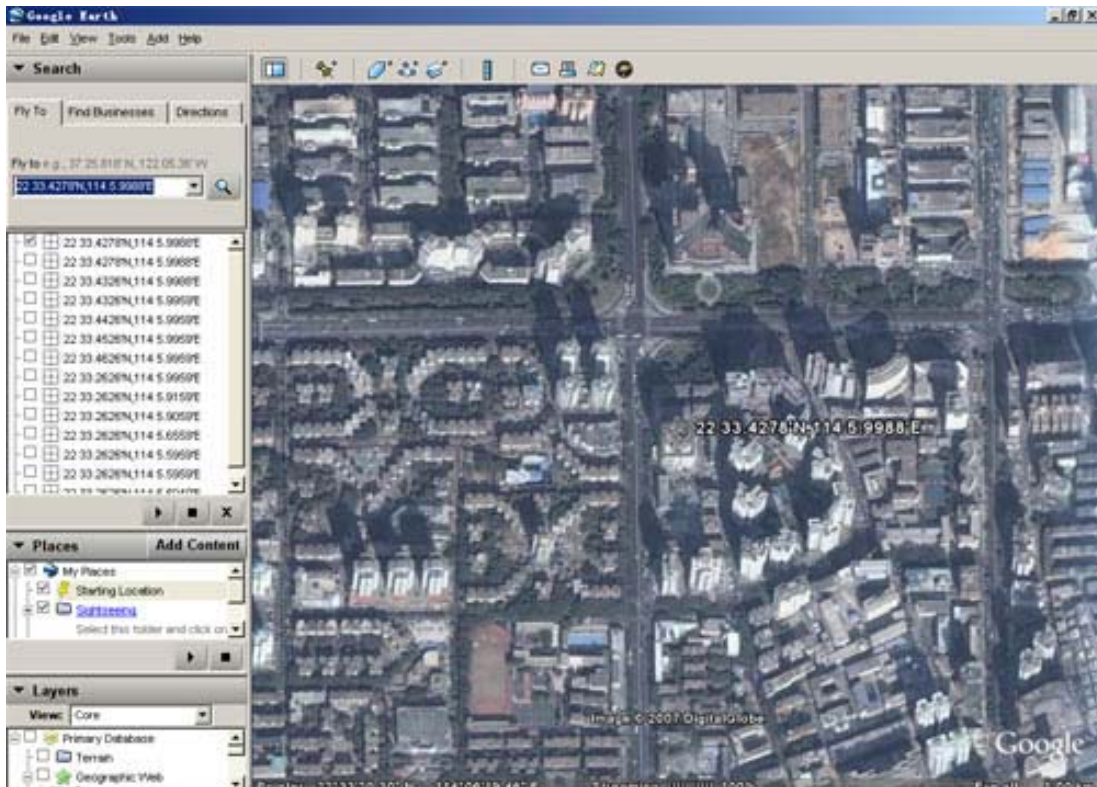
When the PT01's working voltage lower than the set, to read the GPS information, whether or not effective, immediately send the format as 3.1.5 location information to the three stored numbers, the information state item automatically updates STATE: LP. Send a total of three times, each time one minute interval.

3.1.14 Display the location on map

1) Download Google earth software from <http://earth.google.com>

2) Start the Google earth software. (For more information about Google earth software, please refer to <http://earth.google.com>)

As following picture shows:



(Note: pay attention to change the position date format)

Or you can start the internet explorer and copy <http://maps.google.com> to connect to Google map website for displaying the location map.

3) You can get the latitude & longitude date by sending “666+password” SMS command code to the GPS tracker PT01. Input the latitude and longitude that you receive from SMS and click on search button, the Google earth will display the location map for you.

eg: You receive the information from the tracker. As follows:

Lat: +22.50500

Long: +114.01000

Speed: 0.00KM/H

Direction: 315.00

Date: 2008-04-25

Time: 16:39:45

BS: 25ee0dff

Fix: A

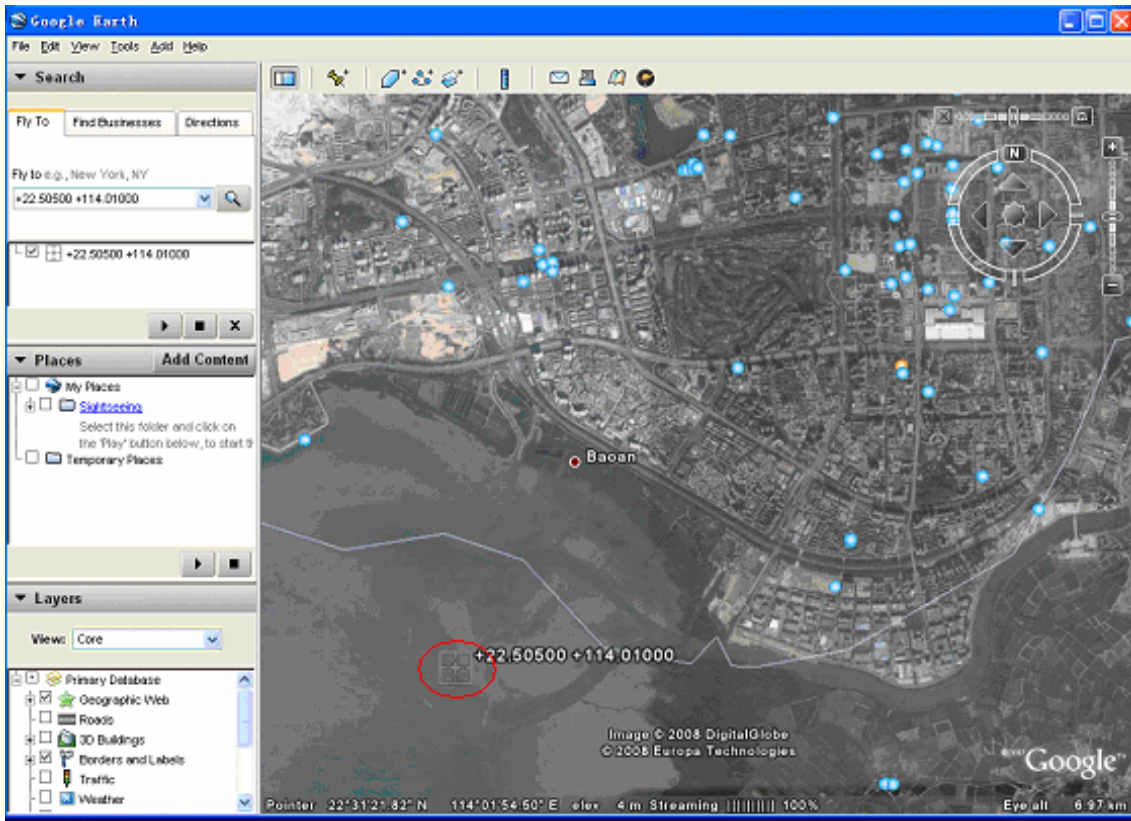
ID: 353686009002030

STATE: SMS

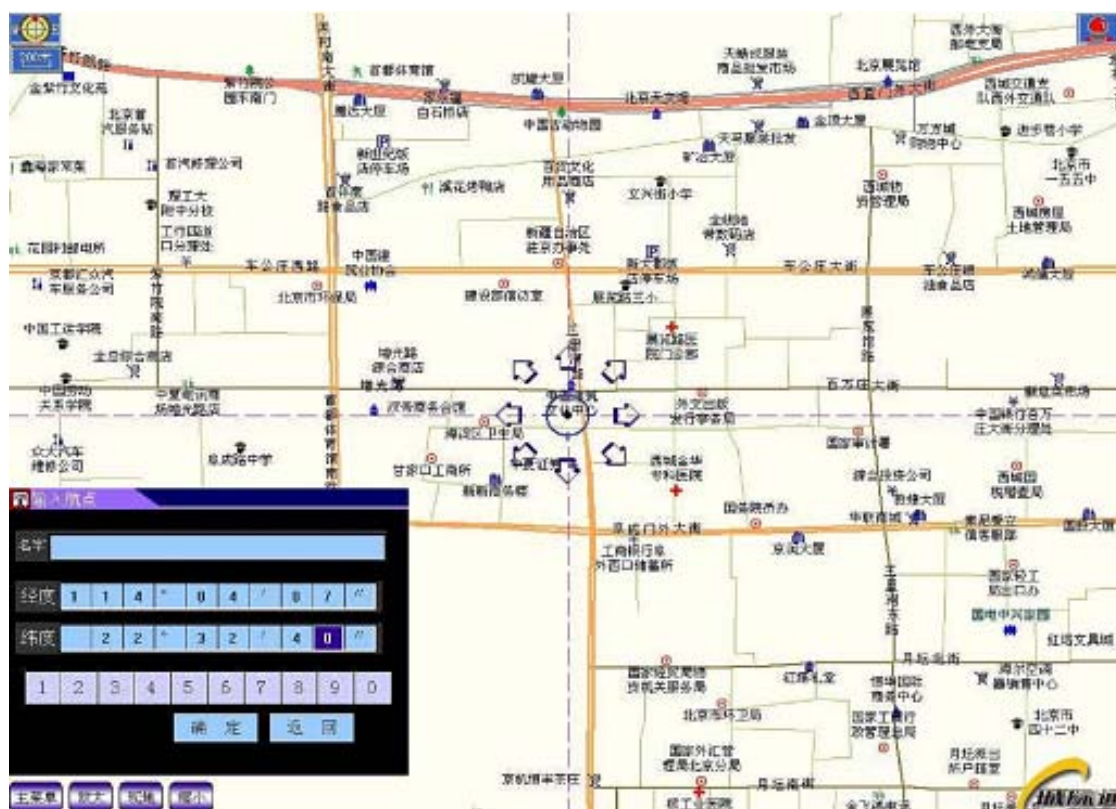
Search the position on the Google map, in relevant position input:

+22.50500 +114.01000

Obtain the following picture:



Or you can use local map software on PDA or car navigation device, input the position date. (Note: pay attention to change the position date format)



3.2 The operation based on the GPRS application

In this mode, PT01 can be stored three preset telephone numbers (1, 2, and 3), a 4-digit user password, a group of TCP / IP server IP address and port number, 4-digit GPS password and access point name of GPRS. The related configuration content that users set by SMS order is non-volatile. After the success, the state has not affect by switching power, until once again receives the relevant instructions or reset operation to change.

Add PT01 to 800D web based tracking software:

1. Change the telephone number in advance instructions

Format: *new numbers with 4-20 figures * user password (4 figures) *location number (1-3) **
 eg: *13900000000*0000*1**

Explanation: You can store 3 telephone numbers at most in advance。 When PT01 tracker receives the instruction and confirms the user password correctly, substitutes the new number for the existing number. After success, it will send the confirmation messages (SET USER NUMBER (1-3) OK) to the sender.

2. Switch the mode instruction

Format: 710+ user password (4 figures)
 eg: 7100000

Explanation: When PT01 tracker receives the SMS and confirms the user password correctly, it switches to the GPRS application mode. After the success, it will send the confirmation messages

(SET MODE OK, CURRENT MODE: GPRS) to the sender.

3. Set up the access point name of GPRS

Format1: #803#user password#APN##

eg: #803#0000#CMNET##

Format2: #803#user password#APN#APN user name#APN password ##

Explanation1: Different GSM / GPRS service associations provide different APN, please according to local service providers to provide the APN to choose format 1 or 2 to use set.

Explanation2: When PT01 tracker receives the instruction and confirms the user password correctly, updates the access point name to the new access point name. After the success, it will send the confirmation messages to the sender. If sent the format 1, the content is "SET GPRS APN OK"; if it is format 2, the content is "SET GPRS ACCOUNT OK".

Note: APN is CMNET after factory set or reset. APN is characters composed of 3 to 35 letters, numbers, dots (.) underscore () and connectors (-). APN user name and user password are respectively characters composed of from 3 to 20 the numbers and letters.

4. Set up the TCP/IP server and IP's address and port number

Format: #804#user password#fixed IP address # port ##

eg: #804#0000#119.146.223.203#8886##

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, updates the IP address and port number preserved in the module, After the success, it will send the confirmation messages to the sender. The content is "SET SERVER IP AND PORT OK"

5. upload data in certain time when driving

Format: #805#user password# sampling interval T # the number of upload data each time N ##

eg: #805#0000#60#1##

Explanation: The time T unit of the sampling is second, 5 seconds at least, 65535 seconds at most; The number of upload data each time is N, at least is 1, at most is 50. Sampling interval T and the number of upload data each time N product should meet greater-than-equal 60, that is $T * N \geq 60$.

When setting parameters $T * N < 60$, the device will automatically correct sampling interval T to meet the uploading constraints. When PT01 tracker receives the instruction and confirms the user password correctly, sends the confirmation messages to the sender. The content is "SET GPS SAMPLING TIME AND QUANTITY OK". At the same time as specified in the instructions to the sampling interval time T, continuous read the GPS data and preserve to the memory block. When the memory block reaches to the "number of upload each time N" setting, it starts connecting to the

GPRS servers to send out the format as 4.2.10 information, and the state item automatically updates STATE: AUTO. When “the number of upload each time N = 0” it will close the upload data setting and send the confirmation messages to the sender. The content is “GPRS TIMER STOP”。

6. Upload data in certain time when vehicle stopped

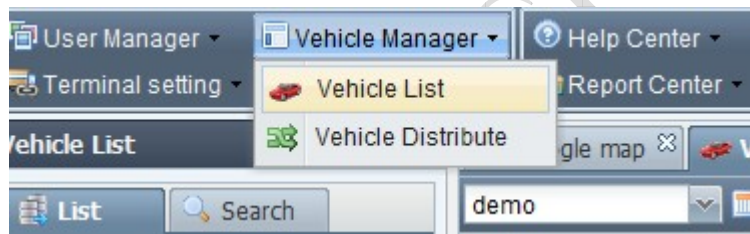
Format : #809#user password#X#Y##

eg: #809#0000#60#1##

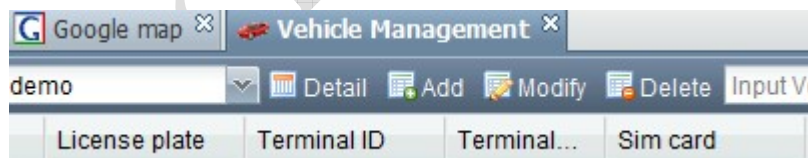
Note : the sampling time is X, and the unit is second, the area is (10,59999), the number of upload data is Y, the area is (1,50), when the unit receive this command and confirm the password is correct, the unit will send message to the sender which is "GPRS REPORT SAMPLING 2 OK ". And also the unit will read the GPRMC of the NEMA of the unit, and then save it in memory. When the data is ok, then will connect with the server and send it out. If the data can't send it because of the internet or other reasons, the data will save automatically, then send it out when the internet is ok. The format is like 4.2.10, the state is "AUTOLOW". When set "the number of upload Y" is 0, so it's will close this function then send message which is "GPRS REPORT SAMPLING 2 STOP"

7. Please go to <http://119.146.223.203>

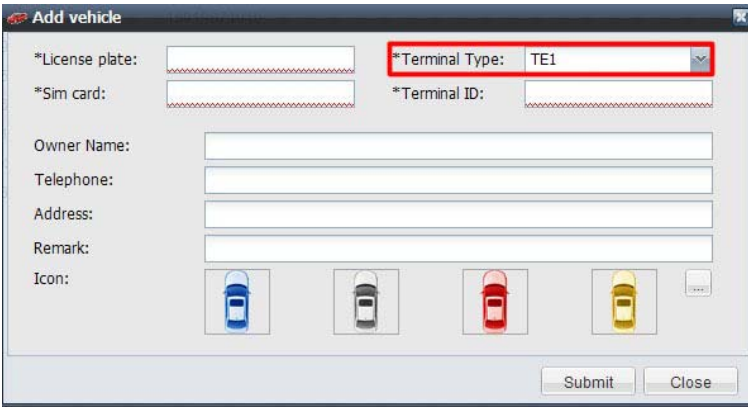
Enter the user name and password we provided.
After log in, please go to “Vehicle Manager-Vehicle List”



You will see the below window



Please click “Add” button, you will see the below window:

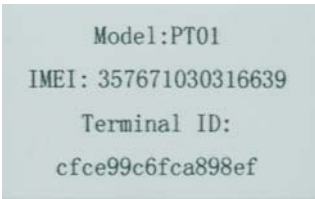


License Plate: Define by yourself; you can enter A-Z number or Numeric

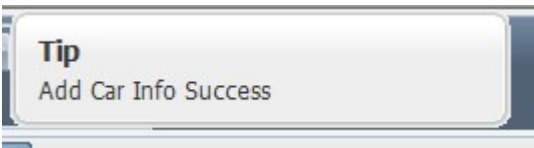
Terminal Type: Choose "Any one"

SIM card: the SIM card phone number you put in PT01.

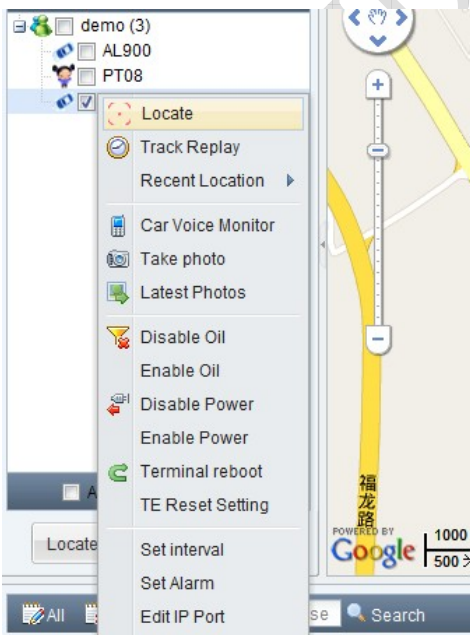
Terminal ID: On the packing box of PT01, you can find the a white label writes "IMEI, Terminal ID". Terminal ID is cfce99c6fca898ef here.



Click "Submit", and then you add the car successfully on the software 800d.



Put a check mark on the device, and right click, you will see the menu as below picture. Now you can track online.



3.2.1 Switch the mode instruction

Format: 710+ user password (4 figures)

eg: 7100000

Explanation: When PT01 tracker receives the SMS and confirms the user password correctly, it switches to the GPRS application mode. After the success, it will send the confirmation messages (SET MODE OK, CURRENT MODE: GPRS) to the sender.

3.2.2 Set up the user password instruction

Format: 777+new password (4 figures) +old password (4 figures)

eg: 77712340000

Explanation: Confirm the user password correctly; changes the new user password to the old password. After set successfully, it will send the confirmation messages (SET USER PASSWORD OK) to the sender.

Note: The user password is 0000 after factory set or reset.

3.2.3 Change the telephone number in advance instructions

Format: *new numbers with 4-20 figures * user password (4 figures) *location number (1-3) **

eg: *13900000000*0000*1**

Explanation: You can store 3 telephone numbers at most in advance. When PT01 tracker receives the instruction and confirms the user password correctly, substitutes the new number for the existing number. After success, it will send the confirmation messages (SET USER NUMBER (1-3) OK) to the sender.

Note: Preset number is none after factory set or reset.

3.2.4 GPS state setting instruction

GPS will enable on the on / off / adaptive three work states by send text messages command. GPS state is open after factory settings or reset.

3.2.4.1 Open the GPS instruction

Format: 222+user password (4 figures)

eg: 2220000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, opens the GPS power. After the success, it will send the confirmation messages (GPS ON OK) to the sender.

3.2.4.2 Close GPS instruction

Format: 333+ user password (4 figures)

eg: 3330000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, close the GPS. After the success, it will send the confirmation messages (GPS OFF OK) to the sender.

3.2.4.3 Adaptive GPS instruction (Power-saving Function)

Format: 100+ user password (4 figures)

eg: 1000000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, it will close the GPS immediately, and send the confirmation messages (VIBRATION SENSOR ON OK) to the sender. The tracker built in vibration sensor, once monitors the track movement for change to open the GPS. If in 5 minutes, with not monitors the track changed in the movement to close GPS.

Note: When using this function, as far as possible put the tracker in the vibration sensitive areas such as the car at the front or rear. If a long time on the highway or the flat road, the GPS may be in sleeping, and will not be awakened. Users can send 222 + user passwords to re-open the GPS.

3.2.5 Single localization request instruction

Format: 666+ user password (4 figures)

eg: 6660000

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, reads the GPS information. No matter whether effective, the information with the replying base station which is the set of the original software will be sent to the sender.

Data format:

Lat: Latitude Direction (+/-) Latitude Value (Accuracy for 5 after the decimal point)

Long: Longitude Direction (+/-) Longitude Value (Accuracy for 5 after the decimal point)

Speed: Speed KM/H (Accuracy for 2 after the decimal point)

Direction: Direction (Accuracy for 2 after the decimal point)

Date: Date YYYY-MM-DD

Time: Time HH: MM: SS (GMT)

BS: Base Station information

Fix: Location state (A/V)

ID: IMEI

STATE: Message state

Effective data format:

Lat: +22.50500

Long: +114.01000

Speed: 0.00KM/H

Direction: 315.00

Date: 2008-04-25

Time: 16:39:45

BS: 25ee0dff

Fix: A

ID: 353686009002030

STATE: SMS

Invalid data format:

Lat: +22.50500

Long: +114.01000

Speed: 0.00KM/H

Direction: 315.00

Date: 2008-04-25

Time: 16:39:45

BS: 25ee0dff

Fix: V

ID: 353686009002030

STATE: SMS

If in the cold start and GPS no position, it will return to the void of information: “ERROR GPS GPRMC FRAME DATA BS: 27971054”.

3.2.6 Change the user name

Format: #801#user password#new user name##

eg: #801#0000# username##

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, changes the user name to the new user name. After the success, it will send the confirmation messages to the sender. The content is “CHANGE USERNAME OK”.

Note: The user name is V300Q after factory set or reset.

3.2.7 Change the service password

Format: #802#user password#new service password#old service password ##

eg: #802#0000#1111#0000##

Explanation: When PT01 tracker receives the instruction, confirms the user password and old service password correctly, changes the service password to the new service password. After the success, it will send the confirmation messages to the sender. The content is “CHANGE PASSWORD OK”

Note: The user service password is 0000 after factory set or reset.

3.2.8 Set up the access point name of GPRS

Format1: #803#user password#APN##

eg: #803#0000#CMNET##

Format2: #803#user password#APN#APN user name#APN password ##

Explanation1: Different GSM / GPRS service associations provide different APN, please according to local service providers to provide the APN to choose format 1 or 2 to use set.

Explanation2: When PT01 tracker receives the instruction and confirms the user password correctly, updates the access point name to the new access point name. After the success, it will send

the confirmation messages to the sender. If sent the format 1, the content is “SET GPRS APN OK”; if it is format 2, the content is “SET GPRS ACCOUNT OK”.

Note: APN is CMNET after factory set or reset. APN is characters composed of 3 to 35 letters, numbers, dots (.) underscore () and connectors (-). APN user name and user password are respectively characters composed of from 3 to 20 the numbers and letters.

3.2.9 Set up the TCP/IP server and IP’s address and port number

Format: #804#user password#fixed IP address # port ##

eg: #804#0000#222.125.12.32#80##

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, updates the IP address and port number preserved in the module, After the success, it will send the confirmation messages to the sender. The content is “SET SERVER IP AND PORT OK”

Note: The IP’s address and port number are 0.0.0.0 0000 after factory set or reset.

3.2.10 Upload the location instruction at once

Format: #806#user password##

eg: #806#0000##

Explanation: When PT01 tracker receives the instruction and confirms the user password correctly, sends the confirmation messages to the sender. The content is “START GPRS UPLOAD”. At the same time, send the data from the memory block to server and the state item automatically updates STATE: SMS.

Upload format:

#IMEI # user name #service password #condition

data quantity #the base station’s information \$ GPRMC..... # the base station’s information

\$ GPRMC..... ##

eg:

#123456789000001#PT01#0000#SMS#3

#25ee0dff\$GPRMC,083945.180,A,2233.4249,N,11406.0046,E,0.00,315.00,251207,,A*6E

#25ee0dff\$GPRMC,083950.180,A,2233.4249,N,11406.0046,E,0.00,315.00,251207,,A*6E

#25ee0dff\$GPRMC,083955.180,A,2233.4249,N,11406.0046,E,0.00,315.00,251207,,A*6E ##

Note: Immediately upload data format for the state: SMS.

3.2.11 Upload data settings

Format: #805#user password# sampling interval T # the number of upload data each time N ##

eg: #805#0000#60#1##

Explanation: The time T unit of the sampling is second, 5 seconds at least, 65535 seconds at most; The number of upload data each time is N, at least is 1, at most is 50. sampling interval T and the number of upload data each time N product should meet greater-than-equal 60, that is $T \cdot N \geq 60$.

When setting parameters $T * N < 60$, the device will automatically correct sampling interval T to meet the uploading constraints. When PT01 tracker receives the instruction and confirms the user password correctly, sends the confirmation messages to the sender. The content is "SET GPS SAMPLING TIME AND QUANTITY OK". At the same time as specified in the instructions to the sampling interval time T, continuous read the GPS data and preserve to the memory block. When the memory block reaches to the "number of upload each time N" setting, it starts connecting to the GPRS servers to send out the format as 3.2.10 information, and the state item automatically updates STATE: AUTO. When "the number of upload each time N = 0" it will close the upload data setting and send the confirmation messages to the sender. The content is "GPRS TIMER STOP".

Note: The upload data setting is 0 0 after factory set or reset.

3.2.12 Calling switch instruction

Calling OFF format: 150 + user password (4 figures)

eg: 1500000

Calling ON format: 151 + user password (4 figures)

eg: 1510000

Explanation: When TLT-1B tracker receives the instruction to close calling and confirms the user password correctly, close the calling function (including the SOS, alarm when across the fence), after successfully, sent the confirm information "SET VOICE CALL: OFF" to the sender. When TLT-1B receives instruction to open calling and confirm the user password correctly, open the calling function (including the SOS, alarm when across the fence), after successfully, sent the confirm information "SET VOICE CALL: ON" to the sender.

3.2.13 Upload the call

Explanation: One of 3 telephone numbers stored in advance calls in, hangs up after ringing 2-5 times. Dispose as 3.2.10, the state item automatically updates STATE: CALL.

3.2.14 Answer or hang up function (initiative answer, automatic answer, and hang up)

Explanation: One of 3 telephone numbers stored in advance calls in, you can press shortly the SOS key or power key to answer or hung up, and automatically answers after rings 10 seconds. Users can terminate the call by press shortly power key to hanging up. After the call, the PT01 will send the location information format as 3.2.10 to the server; the information state item automatically updates STATE: ANSWER. But other incoming numbers will automatically hang up.

3.2.15 Upload the emergency case

Explanation: When press the SOS key more than 3 seconds, it will do like 3.2.10 instruction, the information state item automatically updates STATE: SOS. At the same time, it will make vibration and call the first preset user telephone number. If it is unsuccessful (closed or unable to connect or no response), makes vibration again and starts calling the second and the third in turn.

Note: If the calling state is off, it will not call the user telephone number, and only send messages to the server.

3.2.16 Monitor function (Handset silent switch)

Format: 00X+ user password (4 figures)

eg: 0000000

Explanation: When the tracker receives this instruction and confirms the user password correctly, according to X's value set state of the handset switch. X=1, handset closed for the monitoring mode. After set successfully, it will send the confirmation messages (SET PROFILE OK, CURRENT PROFILE: SILENT) to the sender. After handset closes, if the user phone number stored in advance calls in, the tracker will not have any prompt. After the approximately 10 seconds later automatic answering, the user may hear the tracker end the sound, but the tracker end will not hear the user. X=0, open the handset. After set successfully, it will send the confirmation messages (SET PROFILE OK, CURRENT PROFILE: NORMAL) to the sender. After handset opens, if the

user phone number stored in advance calls in, the tracker will prompt. After the approximately 10 seconds later, the two sides can make calls. After the call, the PT01 will send the location information format as 3.2.10 to the server, the information state item automatically updates STATE: CALL. But other incoming numbers will automatically hang up.

Note: After factory set or reset, the state is open (Non-monitoring state)

3.2.17 Electronic fence function

Electronic fence takes the set coordinates as the center, the set radius parameters to determine the scope of the fence. When open this feature, once the PT01 beyond the scope of the set fence, it will send location information as to 3.2.10 to the server. The information state item automatically updates STATE: OS. At the same time, call the first user telephone number. If it is unsuccessful (closed or unable to connect or no response), makes vibration and starts calling the second and the third in turn.

When the PT01 re-enters the fenced area, it will immediately send location information format 3.2.10 to the server. The information state item prompts STATE: RS. At the same time, call the first user telephone number. If it is unsuccessful (closed or unable to connect or no response), makes vibration and starts calling the second and the third in turn.

2) Set the scope of the fence

According to the input formats different of coordinates, user can choose the format as follows instructions to operate.

Format1: 003+ user password E/Wdddmm.mmmmN/Sdd.mmmmRzzz.z

eg: 003xxxxE11406.0024N2233.4230R1

Explanation: E-- east longitude; W-- west longitude; N-- north latitude; S-- south latitude. In this example, uses E and N, please according to the actual geographical position choose corresponding coordinate form to set. In the demonstration, meanings of various parts are as follows:

Edddmm.mmmm is longitude information with units of degrees and minutes, and the ddd expresses degree, mm.mmmm expresses minute (Accuracy for 4 after the decimal point, the following zero cannot bypass)

Ndd.mmmm is latitude information with units of degrees and minutes and the dd expresses degree, mm.mmmm expresses minute (Accuracy for 4 after the decimal point, the following zero cannot bypass)

Rzzz.z is radius for the domain (999.9 - 0.1), unit for KM.

When the tracker receives this instruction, judges to be authorized users and confirms the user password correctly, it will send the confirmation messages "SET GEO-FENCE OK" to the sender.

Format2: 004+ user password E/Wddd.dddddN/Sdd.dddddRzzz.z

eg: 0040000E114.10004N22.55705R999.9

Explanation: E-- east longitude; W-- west longitude; N-- north latitude; S-- south latitude. In this example, uses E and N, please according to the actual geographical position choose corresponding coordinate form to set. In the demonstration, meanings of various parts are as follows:

Eddd.ddddd is longitude information with units of degrees, and the ddd.ddddd expresses degree (Accuracy for 5 after the decimal point, the following zero cannot bypass)

Ndd.ddddd is latitude information with units of degrees, and the ddd.ddddd expresses degree (Accuracy for 5 after the decimal point, the following zero cannot bypass)

Rzzz.z is radius for the domain (999.9 - 0.1), unit for KM.

When the tracker receives this instruction, judges to be authorized users and confirms the user password correctly, it will send the confirmation messages "SET GEO-FENCE OK" to the sender.

Note: 1. Radius of the fence can not exceed the definition of its domain; the value of the decimal part for zero must input zero fill. For example: R=1, it is important to enter into 1.0.

2. If the calling state is off, it will not call the user telephone number, and only send messages to the present number.

3. Degree and minute is divided into sexagesimal system converter, that is, 1d = 60m

2) open the electronic fence: 211 + user password

After set successfully, it will send the confirmation messages "GEO-FENCE ON" to the sender.

3) close the electronic fence: 210 + user password

After set successfully, it will send the confirmation messages "GEO-FENCE OFF" to the sender.

3.2.18 Low voltage upload

Explanation: When the PT01's working voltage lower than the set, it will do like 3.2.10 instruction, the data state item automatically add "LP" to aid current status. Send a total of three times, each time one minute interval.

Note: When low voltage, different situation for below condition expression:

upload the call: "LPCALL"

Automatically answered: "LPANSWER"

Automatically upload: "LPAUTO"

Upload the emergency situation: "LPSOS"

4. Instruction Set

| Instruction | Explanation |
|--|--|
| 700+ user password | SMS Mode |
| 710+ user password | GPRS Mode |
| 000+ user password | Close handset in two modes |
| 001+ user password | Open handset in two modes |
| 003+ user password E/Wdddmm.mmmm N/Sddmm.mmmmRzzz.z | Set the scope of the fence (units of degrees and minutes) in two modes |
| 004+ user password E/Wddd.ddddN/Sdd.ddddRzzz.z | Set the scope of the fence (units of degrees) in two modes |
| 100+ user password | Open power-saving function in two modes |
| 150+ user password | Close calling instruction in two modes |
| 151+ user password | Open calling instruction in two modes |
| 211 + user password | Open the electronic fence in two modes |
| 210 + user password | Close the electronic fence in two modes |
| 222+ user password | Open GPS In two modes |

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| | |
|---|--|
| 333+ user password | Close GPS In two modes |
| 4xx+ user password | Regularly upload in SMS mode |
| 666+ user password | Return single localization to user number in two modes |
| 777+new password + old password | Change user password in two modes |
| *new numbers* user password *location number** | Change the telephone number in advance in two modes |
| #801#user password # new user name## | Change the user name in GPRS mode |
| #802#user password # new service password # old service password ## | Change service password in GPRS mode |
| #803# user password #APN## | Set up access GPRS points in GPRS mode |
| #803# user password #APN#APN user name# APN password## | Set up access GPRS points in GPRS mode |
| #804#user password # fixed IP address # port ## | Set up TCP / IP server's IP address and port number in GPRS mode |
| #805#user password# sampling interval T # the number of upload data each time N## | Upload data set in GPRS mode |
| #806# user password ## | Upload the current position immediately in GPRS mode |
| *GTAN# user password## | Read all the current numbers, passwords |
| *GTAS# user password## | Read current settings |