

GSM/GPRS/GPS Vehicle Tracker

TK103A/TK103B 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.

1. Function Introduction

1.1 This tracker is a new released product based on the GSM / GPRS network and GPS satellite positioning system, which has multiple functions of anti-theft, positioning, surveillance, emergency alarms and tracking. It can track and monitor remote target by SMS or internet.

1.2 Features

1.2.1 Support GPS position.

1.2.2 Support SMS/GPRS/Internet Network data transmission.

1.2.3 Support GPRS auto on-line and GPRS re-connected automatically if GPRS drops.

1.2.4 Support SMS / GPRS dual-mode working.

1.2.5 Support configuration setting by remote terminal.

1.2.6 Support point-to-point, point to group, group-to-group monitoring.

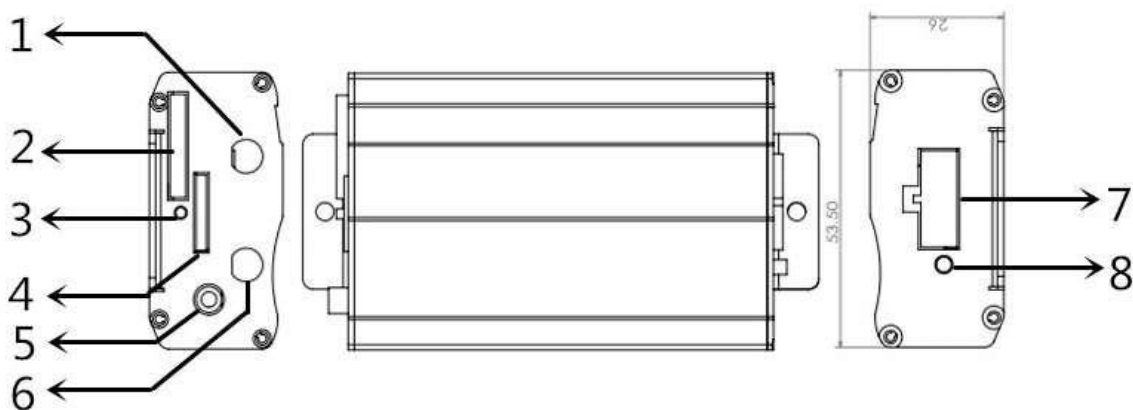
1.2.7 Multiple functions of security, positioning, surveillance, emergency alarms and tracking in its entirety.

1.2.8 Support missing points supplementary transmission.

2. Applications

Used widely for vehicle and other moving objects tracking.

3. Hardware Description



1. GSM antenna jack
2. SIM card slot
3. SIM card slot pop-up switch
4. Micro SD card slot
5. Microphone jack
6. GPS antenna jack
7. External wire connection jack
8. Power/GSM/GPS LED indicator

4. Accessories

| NO. | PHOTOES | NAME | NOTE |
|-----|---|----------------|---|
| 1 |  | GPS Antenna | 2 meters |
| 2 |  | GSM Antenna | 2 meters |
| 3 |  | Microphone | 1 meter |
| 4 |  | Harness wire | 10PIN |
| 5 |  | Relay | 12V/40A to 24V/40A according to vehicle model |
| 6 |  | Siren | for model B ONLY (Optional) |
| 7 |  | Remote control | for model B ONLY |

5. Specifications

| Content | Specification |
|---------------------------------------|---|
| DIM. | 83*54*26mm |
| Weight | 120g |
| Network | GSM/GPRS |
| Band | 850/900/1800/1900Mhz |
| GSM/GPS Module | DYEGOO MD08 |
| GPS Sensitivity | -159dBm |
| GPS Accuracy | 5m |
| GPS Start Time | Cold Start 45s Warm Start 35s Hot Start 1s |
| Voltage Power System | 9 V-40V |
| Backup Battery | Chargeable 3.7V 180MAH Li-ion Battery |
| Storage Temp. | -40°C to +85°C |
| Operation Temp. | -20°C to +65°C |
| Humidity | 5%--95% non-condensing |

6. Operating Instructions

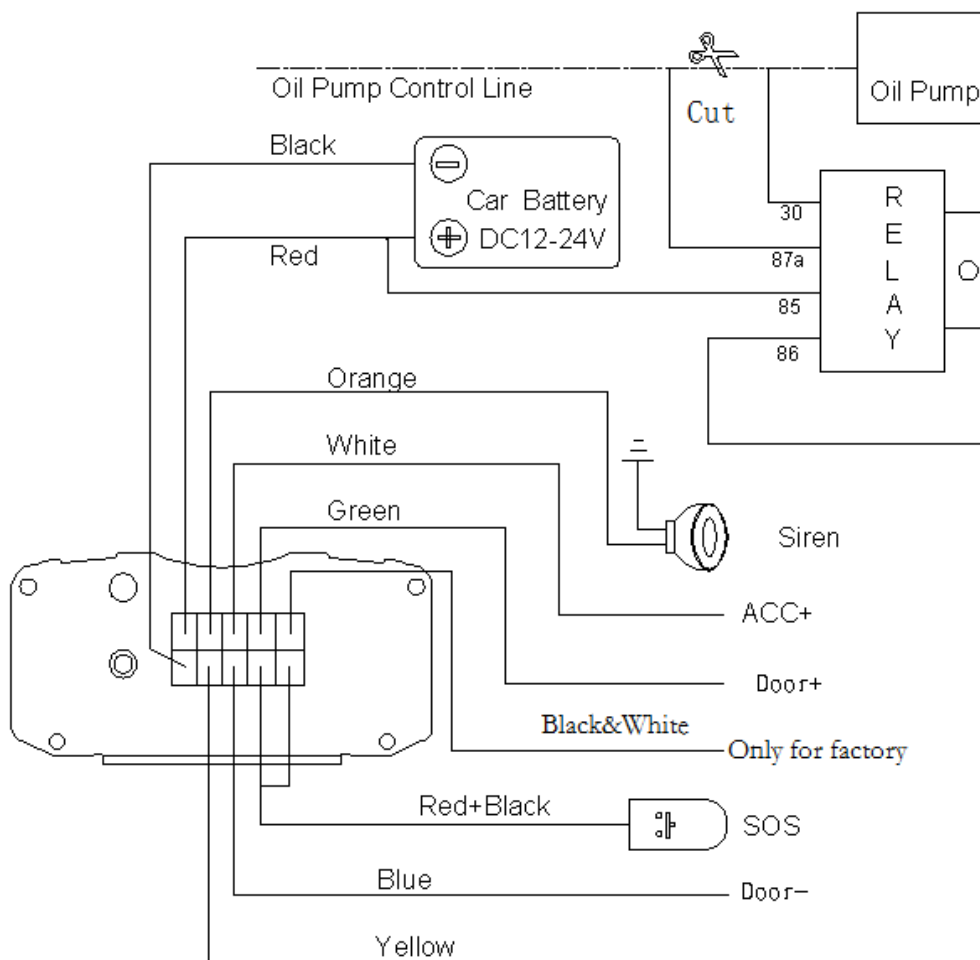
6.1 TERMINAL INSTALLATION

6.1.1 Please select a qualified engineer for installation.

6.1.2 Please use SIM card which support GSM 2G network, and please pay attention to fix the antennas in a exactly position with good signals.

6.1.3 Please install the tracker avoiding water and dust.

6.1.4 Find the 10 PIN harness, insert it into the corresponding hole of the product, and connect the wires with the original car circuit showed as below:



Wiring diagram

**6.1.5 Note: The orange wire can be connected to the original car alarm horn; it can also be connected to the siren you buy with the tracker.
(Siren is Option)**

6.1.6 Knowing about the type of the door trigger is positive or negative. Please connect the green wire for positive, and connect blue wire for negative.

6.1.7 Please install the SOS button where driver can touch.

6.1.8 Vibration sensor is built in, no need to buy and connect an extra vibration sensor.

6.1.9 Insert the external monitor Microphone into the monitor jack.

6.1.10 Connected the GPS and GSM antenna to the right jack, and find a appropriate place and fix the antennas to make sure they can receive signals well.

6.2 SIM CARD INSTALLATIONS

6.2.1 Please use a tweezers or a sharp thing to touch the SIM CARD pop-up switch, the SIM CARD slot will pop up, take out the SIM card slot and put SIM card in it. And then put the SIM card slot back to its original position after confirm the SIM card in the right place.

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

6.2.3 Please make sure that the SIM card support GSM 2G network.

6.3 TURN ON THE DEVICE.

6.3.1 Connect wires with car power, wait for 2 minutes after connecting power, the power LED will be on. When work normally for 5 minutes, the LED will be off for hidden installation.

NOTE: SIM card holder is tracker power switch. When inserted to the right position, the tracker will be power on. When taken out, the tracker will be power off.

6.4 GSM/GPS LED INDICATOR

6.4.1 Red LED indicator on: No GSM network signal.

6.4.2 Red LED indicator flash fast (one time each second): GSM Network signal is normally, and tracker works under GSM mode.

6.4.3 Red LED indicator flash slowly (one time each three seconds): Tracker works under GPRS mode.

6.4.4 Green LED indicator on: GPS signal is normal.

6.4.5 Green LED indicator off: No GPS signal.

6.5 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)

6.6 CHANGE PASSWORD

6.6.1 Send SMS “ password+old password+space+new password” to the unit to change the password.

For example: send SMS “password123456 888888” to the unit. “password OK” will reply to your cell phone from the device and password changed to 888888.

6.6.2 Be sure to keep the new password in mind, it is need to upload the software to restore the original setting in case of losing the new password.

6.6.3 Attention: Make sure the new password is in 6 digits, or the tracker cannot recognize the password.

6.6.4 Please miss the “+” in the command, and don’t type “+”, space means press the space keyboard on your cell phone.

6.7 AUTHORIZATION

6.7.1 There are 5 numbers to be allowed to authorize in the tracker at most.

6.7.2 Authorization: Send SMS “admin+password+space+cell phone number” to set up an authorized number, the other authorized numbers should be set by the first authorized number, if the number is successfully authorized, the unit will reply” admin OK” by SMS.

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

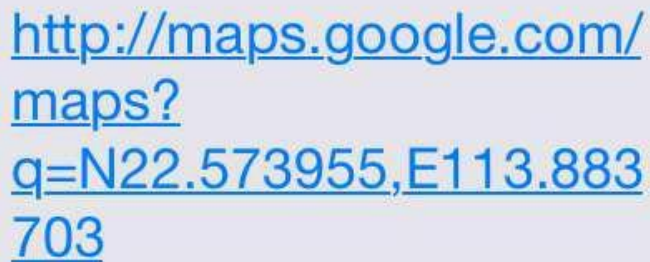
6.7.4 If you want to track the target when it enters into another country, you must add the country code before the cell phone number, for example, send SMS” admin123456 008613322221111” to the device. Note:

13322221111 will be set up as the authorized number.

6.8 SINGLE LOCATING

6.8.1 Any number call the device, it will reply a SMS including the position of latitude and longitude before authorized number set. After authorized number set successfully, the device does not reply SMS when unauthorized number dials up it.

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



[http://maps.google.com/
maps?
q=N22.573955,E113.883
703](http://maps.google.com/maps?q=N22.573955,E113.883703)

6.8.3 When GPS signal lost, the SMS including the position of latitude and longitude is the position that the tracker received GPS signal at last. It is different with its exact current location, so you should pay attention to the time included in the SMS you got.

6.9 SUCCESSIVE LOCATING AUTOMATICALLY

6.9.1 The device send data to server automatically, the default upload interval time is 15seconds when the device is in motion, it can be changed by SMS command.

6.9.2 Send SMS “fix030s***n+password” to the device, it will set motion upload interval time to 30seconds.

6.9.3 Cancellation: Send SMS “nofix+password” to the device to cancel the “auto track”.

Note: the motion interval time must not be less than 10s.

6.10 MONITOR

In this mode, the user can dial up the device to monitor the sound around the device.

6.11 MODES SWITCH BETWEEN “TRACK” & “MONITOR”

6.11.1 The default mode is “track” (track mode).

6.11.2 Send SMS command "monitor+password" to the device of vehicle terminal, it will reply "monitor ok!" and switch to “monitor” mode.

6.11.3 Send SMS command "tracker+password" to the device of vehicle terminal, it will return "tracker ok!" and restore to “track” mode.

6.12. ALARMS

6.12.1 Low battery alarm

When the voltage of the device is near 3.6V, it will send SMS “low battery+lat./long information to the authorized number every 3 minutes.

6.12.2 Power off alarm

When the power is cut off or the voltage is 0V, the device will send SMS “power alarm+lat./long. to the authorized number in 3 minutes interval.

6.12.3 SOS

Long Press the SOS button for 3 seconds, the device will send SMS “help me!+lat./long. to all the authorized numbers in 3 minutes interval. It will stop sending such a SMS when any authorized number reply SMS “help me” to the tracker.

6.12.4 Geo-fence

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

Set up: When the unit stays immobile in a place for 3-10 minutes, the user can send SMS “stockade+password+,+radius#” to unit to set the restricted district.

In case of breach, it will send SMS “stockade!+geo-info” to the authorized numbers. The unit of radius is 100 meter.

For example:

SMS command as below:

Stockade123456,10#

It means the car is circle center, the radius of the circle is 1000 meter, the circle is Geo-fence.

it will alarm in 3 minutes interval when the car is out of the Geo-fence.

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

6.12.5 Movement alarm

Set up: when the unit stays immobile in a place for 3-10 minutes, the user can send SMS “move+password” to the device. It will reply “move OK”. In case of such a movement (the default distance is 200M), it will send SMS “Move” along with a Geo-info to the authorized numbers, it will alarm in 3 minute interval.

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

6.12.6 Overspeed alarm

Set up: Send SMS “speed+password+space+080” to the unit(suppose the speed is 80km/h),and it will reply “speed OK!”.When the target moves exceeding 80km/h.The unit will send SMS “speed+080!+Geo-info” to the authorized numbers. It will alarm one time in 5minutes interval.

Cancel: Send SMS “nospeed+password” to deactivate the overspeed alarm.

Remark: It is recommended that the speed alarm is set not less than 30km/h.

Because below that rate, it may cause the excursion of the GPS signal influenced by clouds etc.

6.13 CUT OFF THE OIL AND POWER SYSTEM

Send SMS command “stop+password” to the device, it will reply “Stop engine Succeed” to your cell phone, and stop your car engine.

6.14 RESUME THE OIL AND POWER SYSTEM

Send SMS command “resume+password” to the unit, It will reply “Resume engine Succeed” and resume your car engine as well at the same time.

6.15 ARM


6.15.1 Set up arm by SMS

Send SMS command “arm+password” to the device in the vehicle. It will reply “Tracker is activated” in both armed and disarmed status, and the SMS command will make the device enter into armed status if the unit disarmed currently.

User must stop the engine, (that is ACC is in lower voltage).Sending SMS “arm+password” when close the door and leave. You will set up arm status fail if the engine is turned on (the ACC is in high voltage), it will reply “set up fail! pls turn off ACC”

6.15.2 Set up arm by remote control (Option, for model B ONLY)



Press “” button on the remote control, the car enters into armed status and the siren will alarm one time.

6.16 DISARM

6.16.1 Disarm by SMS

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

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


6.16.2 Disarm by remote control (Option, for model B ONLY)




Press " " button on the remote control, the car enters into disarm status, and the siren will alarm two times.

6.17 FUNCTION OF REMOTE CONTROL (OPTION, FOR MODEL B ONLY)


ARM
time.

Press "  " button for 0.5 second, the siren will alarm one


DISARM
times.

Press "  " button for 0.5 second, the siren will alarm two

Silent mode

Press "  " for 0.5 second when it is in disarm status, the siren will alarm three times.

Quit silent mode

Press "  " together for 0.5 second again when it is in disarm status, the siren will alarm four times.

6.18 ALARMS UNDER ARM STATUS

6.18.1 door alarm

The unit will send SMS “Door alarm+lat/long” to the authorized number in 3 minutes interval when the door of the car opens in arm status; Siren will alarm for 30 seconds in every 1 minute interval, send “disarm+password” to stop it.

6.18.2 Sensor alarm

The unit will send SMS “Sensor alarm+lat/long” to the authorized number in 3 minutes interval when vibration sensor is triggered in arm status; Siren will alarm for 30 seconds in every 1 minute interval, send “disarm+password” to stop it.

SMS command to close sensor alarm:

VIBRATION,0#

SMS command to open sensor alarm:

VIBRATION,number#

Number from 1 to 5,1 is the most sensitive class.

6.18.3 ACC alarm

The unit will send SMS “ACC alarm+lat/long” to the authorized number in 3 minute interval when the car’s engine is turned on, that is the key is rotated to ACC.ON position to start the car in arm state; Siren will alarm for 30 seconds in every 1 minute interval, send “disarm+password” to stop it.

6.19 SILENT MODE

6.19.1 Set up silent mode by SMS

Send SMS “silent+password” to the device, it will reply “silent ok!”.It means device enters into **silent mode**, siren won’t alarm after alarm is triggered, but tracker will send alarm SMS to authorized number.

6.19.2 Quit silent mode

send SMS “loud+password” to device, it will reply “loud ok!”. It means tracker quit from silent mode, siren will alarm after alarm is triggered, and it will also send SMS alarm to authorized number.

6.20 NO GSM NETWORK ALARM

When the car is in the place without GSM network service, siren will alarm under non-silent mode if alarm is triggered (door, sensor, ACC), but no SMS alarm will send to authorized number.

6.21 CHECK THE VEHICLE STATUS

Send SMS command “check+password” to the device in the vehicle, It will reply the status of the power, battery, GPS, ACC, door, GSM signal to the authorized number. For example: Send SMS “check123456” to the device in the vehicle, It will reply following SMS.

Power: ON

Battery: HIGH

GPS: OK

ACC: Off

Door: Off

GSM Signal: 1-32(performance). Note: The higher digit it shows; the stronger of GSM signals it receives.

6.22 RESET

Send SMS “reset+password” to the device to reset the GSM module and GPS module of the device, it will reply “reset ok”.

6.23 IMEI CHECKING

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

6.24 TIME ZONE SETTING

6.24.1 Send SMS command "time+space+zone123456+space+time" to the tracker unit, If succeed, It will reply "time zone OK"

6.24.2 For example: Send SMS "time zone123456 8", 8 is Chinese time zone, If your country time zone is minus, send SMS "time zone123456 -8".

6.25 GPRS SETTING

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

6.26 SETTING UP APN

6.26.1 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.

6.26.2 Text the tracker a SMS "APN123456 + Space + your local APN" via a cell phone and if succeeded, the tracker will return the message "APN OK".

E.g. Send SMS command "APN123456 CMNET". If succeeded, "APN OK" is returned by the tracker in SMS.

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

6.27 GPRS USER NAME AND PASSWORD SETUP

6.27.1 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:

6.27.2 Send SMS “up+123456+space+user+space+password” If succeeded, “user, password ok!” is returned by the tracker in SMS.

6.27.3 For instance, send SMS “up123456 jonnes 666666” to the tracker, and if succeeded, the tracker returns “user, password OK”

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

For example:

The SIM card inserted in the tracker is from Brazil CLARO operator.

APN:Java.claro.com.br

User name: claro

Password: claro

So need send 2 SMS command to set APN.

apn123456 Java.claro.com.br

up123456 claro claro

6.28 IP AND PORT SETUP

6.28.1 Send SMS as below via a cell phone: adminip + 123456 + Space + IP Address(domain) + Port Number. If succeeded, “adminip OK” is returned by the device in SMS.

E.g. Send SMS command “adminip123456 47.90.39.27 6100” to the device, If succeeded, “adminip OK” is returned by the device in SMS.

Or: “adminip123456 gps.dyegoo.net 6100”

(123456 is default password, IP:47.90.39.27,port :6100,domain:gps.dyegoo.net).

7.Platform

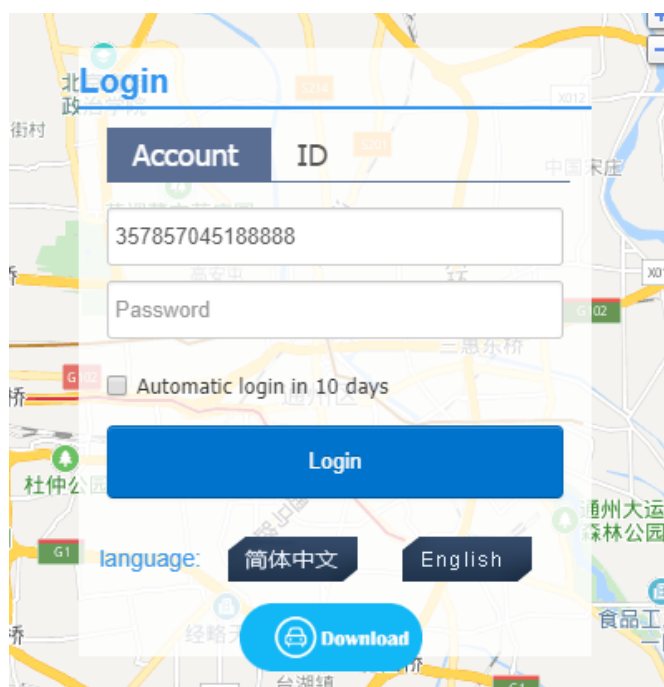
Website: <http://www.dyegoo.net>

Please click English to change to English language.

Login as Account or ID, Account is same as IMEI, ID is in the label on the tracker.

Enter ID(IMEI number)

Password:123456



APP: <http://www.dyegoo.net/app/>



When download, please click UK flag to change to English.

For some Android mobile phone,it is needed to install

GoogleServicesFramework.apk, if there no this APK,it cannot display google maps in APP.

Please search GoogleServicesFramework.apk by google and install it first,then install DYEGOO Google maps app.

In production, IP,port have been writed in, normally the tracker will be auto online if the tracker offline, Please set APN by SMS command.

Please get APN from sim card inserted mobile operator.

If you lost IP,port,please send below sms command to set them back:

Adminip123456 47.90.39.27 6100

Or

Adminip123456 gps.dyegoo.net 6100

8. Cautions

Please comply with the instructions to extend the unit life:

1. Keep the unit dry. Any liquid, i.e. rain, moisture, may destroy or damage the circuitry inside.
2. Don't use & store the unit in dusty places.
3. Don't put the unit in overheated or overcooled places.
4. Handle it 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 |
|-------------------------------------|---|
| Startup Fail | Please check out the power wiring in correct place. |
| Call Fail | Check the GSM antenna connected. |
| Hang up Fail | In existence of an authorized number is existed, It won't be hang up if an unauthorized number dials up the unit. Please initialize the unit to let it restore to factory status. |
| Monitor Fail | Check if the authorized number is setup. |
| Location report in digits of zeros. | Check if the external GPS antenna is connected rightly. |