V3338 Personal Positioning Tracker

Instruction Manual V3.0

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Chapter One Preface

I. Overview

V3338 is a perfect combination of GSM and GPS technologies. The advanced technologies of the product in GSM and GPS fields are verified by its accurate dimension and simple appearance. It represents a typical design integrating the communication product and GPS positioning.

We provide professional safety-guarding and car-positioning products and solutions.

Before you use the product, please take some time and go through this instruction manual to understand operational details and receive better services.

II. Notice

1. Please read the instruction manual carefully and operate the product properly to avoid any trouble.

2. It is recommended to install the product in a professional automobile workshop to ensure operating safety and concealment of installation.

3. The instruction manual is only for your reference. In case of any difference between the manual and the actual product, the latter shall prevail.

4. Product parameters and functions are subject to upgrade without notice. In case of any question, please contact V-SUN or your distributor.

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Chapter Two Device Description

I. Brief Introduction

V3338 portable GPS tracker is a mini remote positioning tracking device based on GPS technology and GSM/GPRS technology. It receives the latitude and longitude of the user's location through cell phone messages and then locates the tracker on Google Map or other digital map software; or positioning data is uploaded by the tracker to the specified server through GPRS, and the user may search the real-time position and historical track of the tracker on the internet.

This product is widely used in the aged and the children care, property safeguard, animal tracking, etc.

II. Product characteristics

1. Built-in high-performance GPS chipset enables the product to provide accurate positioning in the event of weak signal and to work normally in urban area, valleys or other sight-limited districts.

2. Built-in GSM/GPRS model supports GSM900/1800MHz (850/1900 MHz), thus it can work throughout the world.

3. It supports SMS communications or GPRS TCP connection, and receives position information through cell phone message or used to look into movement track on internet.

4. It provides SOS function.

5. It is equipped with highly reliable electric circuit design and complies with GSM cell phone international standards.

6. It is portable, mignon and low power consumption.

III. Usage

1. Specifications

Hardware	Parameter
GSM module	MTK GSM/GPRS chipset GSM 900/1800 double frequency , or GSM 900/1800/850/1900 four frequency (optional) Supports TCP protocol

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GPS chip	GPS chip set with high sensitivity
GPS sensitivity	-160dBm
GPS frequency	L1,1575.42MHz
Code	C/A Code
Channel	210-channel, omnibearing tracking
Position accuracy	10 meters, 2D RMS
Speed accuracy	0.1m/s
Time accuracy	1us and synchronous with GPS time
Coordinates	WGS-84
Reacquisition	0.1s on average
Hot start	1s on average
Warm start	38s on average
Cold start	42s on average
Altitude Limit	Maximum 18,000 meter (60,000 feet)
Velocity limit	Maximum 515m/s (1000 knot)
Acceleration Speed limit	Less than 4g
Working temperature	-25℃to 70℃
Humidity	5%~95% non-concretion
Dimension	95mm×46mm×18mm
Voltage	1300mAh, rechargeable battery(3.7V)
Charger	DC 5V

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2. Product appearance

1. Product general view

Figure 1

3. LED status description

3.1 Green LED ---- GPS status indicator

Status	Description
Off	GPS unavailable
Quick flash	GPS available

3.2 Blue LED ---- GSM status indicator

Status	Description
Quick flash(2s/time)	No SIM card or GSM network
Slow flash (8s/time)	GSM works normally
Quick flash	Video communication or GSM connection

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3.3 Red LED ---- charge indicator

Status	Description
Normal light	Under charging
Weak light	Charging completed

4. Description for button's function

Button	Description
Power switch	Long press 5seconds to shut on/off the device Short press to cut off video communication or calling-in
SOS key	Short press the key to accept calling-in Long press 3 seconds, V3338 will vibrate and send the position information to the prestored 3 user phone numbers (or upload it to the server via the internet), meanwhile, dial the first user phone number, if failure

5. SIM card installation

a. Select SIM card

- **You can use SIM card provided by local mobile operators.**
- **It supports SMS/GPRS function and has enough balance.**

b. Open the back shell, then insert SIM card into a special groove and lock it.

6. Switch on/off

Press long power button for 3-5 seconds to switch on or switch off the device.

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A hint: how to obtain better GPS signal:

1. Outdoors or open area.

2. Place V3338 face up.

7. Product accessories

1. One V3338 personal tracker

2. One USB charging line

3. One car charger or mobile charger

4. Instruction manual (CD)

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Chapter Three Initial Use and Model Description

After reading the brief introduction to the product, you must know how to install the product. Then it comes to product's use after SIM card is installed.

Firstly, as the user of such product, you need to pre-store telephone number before performing instruction operation on the device. Telephone number is pre-stored as follows:

Instruction format: *new number 4-20 digits*user password 4 digits*serial number (1-3)**

For example: *13900000000*0000*1**

Description: If V3338 receives the instruction and returns confirmation message "SET USER NUMBER (1-3) OK", then pre-stored number will be set successfully.

Note: 1. Initial password for the device is 0000.

2. The device can pre-store 3 telephone numbers at most.

3. The instruction also applies to new number which covers existing number. For example, A is the first pre-stored number. If B also sends instruction to set the first pre-stored number, number of B will substitute number of A and become the first pre-stored number.

4. Any number not prestored can not be used to dial or connect device end telephone but can send message instruction.

I. Working mode of device

The product has the following two working modes: SMS mode (message point to point) and GPRS online mode.

1. If the user only wants to inquire for vehicle position (longitude and latitude) with cell phone, corresponding address on Google map, please select SMS mode.

2. If the user wants to monitor vehicle real-time status and inquire for its historical track, please select GPRS real-time online mode.

II. Switchover between the two modes

The following instruction may be used to switch over between the two modes.

Message (SMS) point-to-point mode:

Instruction format: 700+user password (4 digits)

For example: 7000000

Description: When V3338 receives the instruction, it will automatically switch to SMS mode. After success, it will return confirmation message "SET MODE OK, CURRENT MODE: SMS P2P".

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GPRS online working mode:

Instruction format: 710+user password (4 digits)

For example: 7100000

Description: When V3338 receives the instruction, it will automatically switch to GPRS mode. After success, it will return confirmation message “SET MODE OK, CURRENT MODE: GPRS”.

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Chapter Four Application and Operation in SMS Mode

Most instructions are operable under both SMS mode and GPRS mode unless otherwise specified.

1. Instruction to change user password

Instruction format: 777+new password (4 digits) + old password (4 digits)

For example: 77712340000

Description: The terminal receives the instruction and return confirmation message after success. The message is “SET USER PASSWORD OK”.

2. Instruction to request single positioning

Instruction format: 666+user password (4 digits)

For example: 6660000

Description: When V3338 receives the instruction, it will return current positioning message after success. Data message format is as follows:

Lat: latitude direction (+/-) latitude value (accurate to 5 digits after decimal point)

Long: longitude direction (+/-) longitude value (accurate to 5 digits after decimal point)

Speed: Speed KM/H (accurate to 2 digits after decimal point)

Direction: course direction (accurate to 2 digits after decimal point)

Date: YYYY-MM-DD

Time: HH:MM:SS (Greenwich Mean Time)

BS: Base station information

FIX: positioning status (A/V) (A stands for Available, V stands for Unavailable)

ID: IMEI (device IMEI number)

STATE: message status

Example of valid data message :

Lat: +22.50500

Long: +114.01000

Speed: 0.00KM/H

Direction: 315.00

Date: 2008-04-25

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Time: 16:39:45

BS: 25ee0dff

Fix: A

ID: 353686009002030

STATE: SMS

Note: 1. In case of cold start and GPS is not positioned, invalid message will be returned: GPS UNAVAILABLE, PLEASE TRY AGAIN LATER.

2. Inquire for position corresponding to latitude and longitude on Google map.

Search for obtained latitude and longitude on http://maps.google.com to view detailed position corresponding to latitude and longitude.

For example, when sending instruction "666+password" to terminal, the following message will be obtained.

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

Then, search for +22.50500 +114.01000 on http://maps.google.com to view detailed position (as shown in the following graph).

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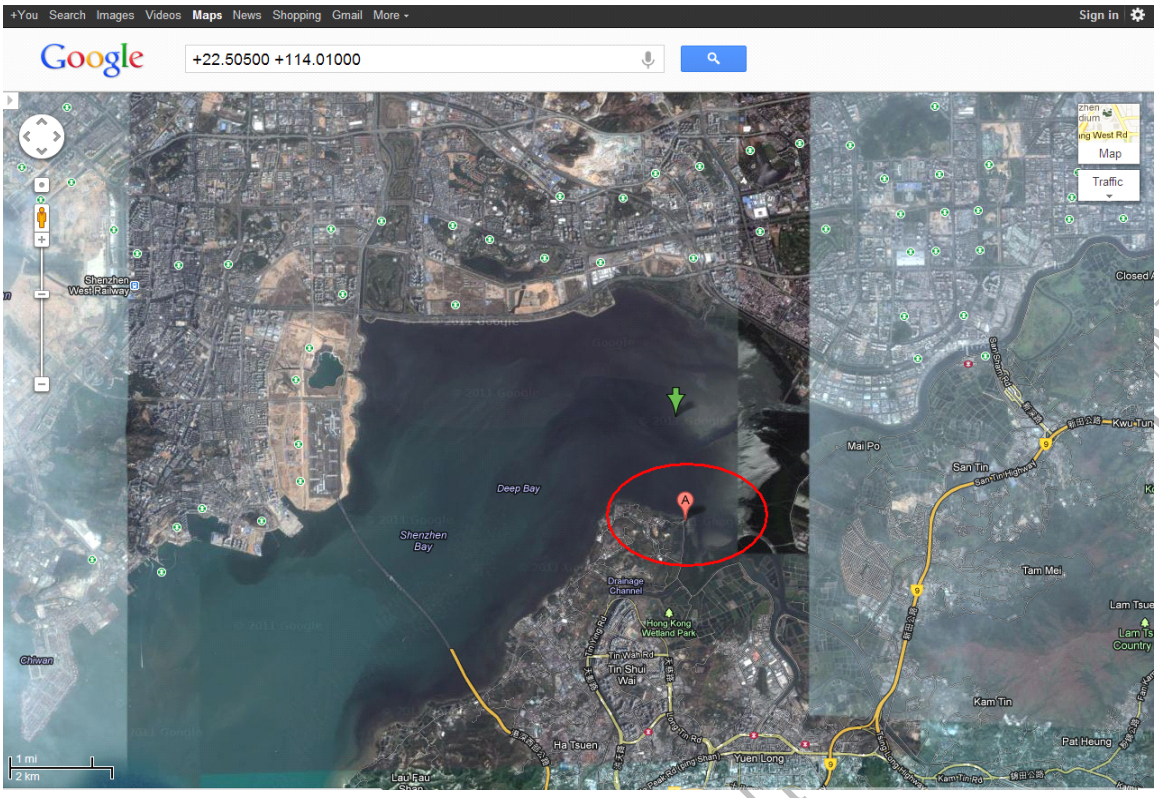

Figure 2

You can also input position data into local map software on PDA or navigation device to view the position (as shown in the following graph)

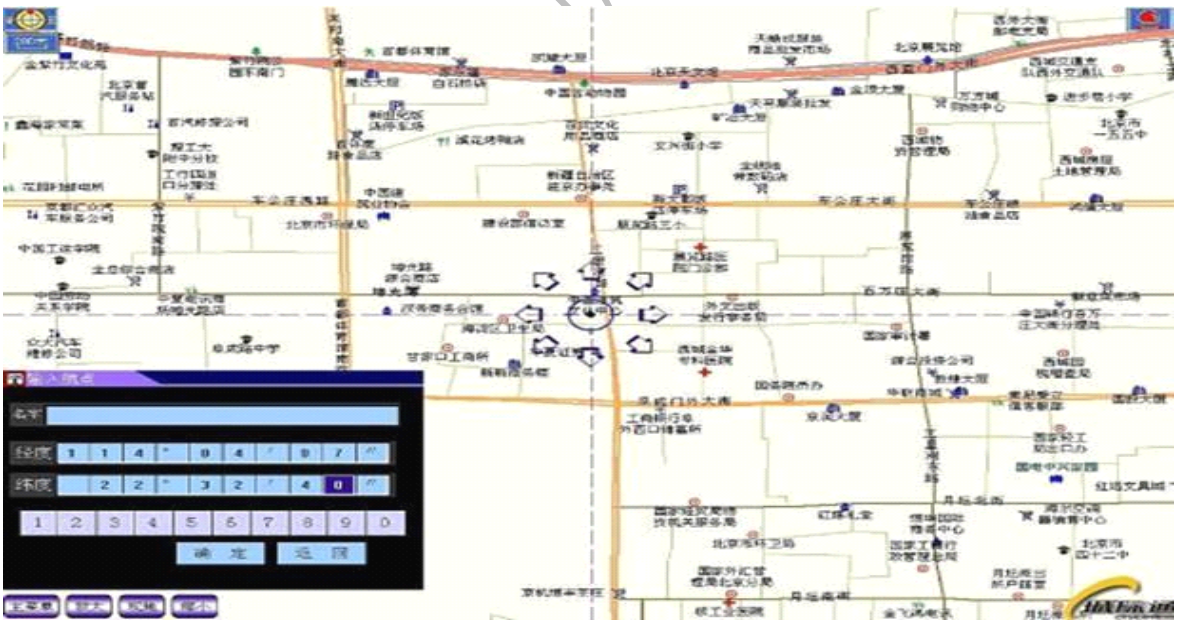

Figure 3

3. Instruction to return Chinese address for single positioning

Instruction format 1: 667+user password

For example: 6670000

Instruction format 2: 667+user password+MAP

For example: 6670000MAP

Instruction format: 667+user password+MAP,WWW,HHH,ZZ

For example: 6670000MAP,640,480，15

Description:

1. When the device receives instruction 1, it will immediately read GPS information and return Chinese address information to the sending number.

For example: Within 31 meters southwest of Shangjuhaoyuan east gate on Jingtian East Road in Shenzhen, Guangdong.

2. Send instruction 2 and a website will be returned. Open it to view current position and screenshot:

For example: http://www.gps068.com/cngps/mapaddr.asp?lng=114.09998&lat=22.55709&z=15&w=240&h=320

3. Send instruction 3 to user-defining size and zoom of screen shot. WWW is picture width, HHH is picture height and ZZ is zoom level. (Note: WWW value and HHH value are less than 1000. It is recommended that ZZ value is 1-20. Adjusting ZZ is to adjust zoom level of screenshot). For example, http://www.gps068.com/cngps/mapaddr.asp?lng=114.09998&lat=22.55709&z=15&w=240&h=480

4. Default size of screenshot is 240*320.

5. The instruction is only valid in China mainland.

4. Instruction to return Google map screenshot link for single positioning

Instruction format 1: 668+user password

For example: 6680000

Instruction format 2: 668+user password, WWW, HHH, ZZ

For example: 6680000,999,999,15

Description: 1. After the device receives instruction 1, it will read GPS information immediately and return Google map screenshot address of local position. Open the website to view position information.

Example of screenshot website is as follows:

http://maps.google.com/maps/api/staticmap?center=22.557118,114.100010&zoom=15&size=240x320&markers=22.557118,114.100010&sensor=true

2. Send instruction 2 to user-defining picture size. WWW stands for picture width, HHH stands for picture height and ZZ stands for zoom level (Note: WWW value and HHH value shall not exceed 1000 and ZZ value is recommended to be 1-20).

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3. Default size of screenshot is 240*320.

5. Instruction to return map link for single positioning

Instruction format: 669+user password

For example: 6690000

Description: When the device receives the instruction, it will read GPS information immediately and return Google map link of local position to the number. User can use PDA or smart phone to view local position on Google map.

Website example:

http://maps.google.com/maps?f=q&hl=en&q=22.554765,114.104716&ie=UTF8&z=16&iwloc=addr&om=1

Note: If the server cannot be connected after the above stated 3 instructions (667/668/669) are sent or due to other cause, the following messages will be returned.

1) If the server cannot be connected, it will return: SERVER BUSY, PLEASE TRY AGAIN LATER.

2) If GPS is not available, it will return GPS UNAVAILABLE, PLEASE TRY AGAIN LATER.

3) When you use Google map in China mainland, there may be deviation between the positioned position and the actual position in special cases.

6. Instruction to report on time everyday

Instruction format: 665+user password+HHMM

For example: 66500001022

Close timing report: 665+user password+OFF

For example: 6650000OFF

Description: After receiving the instruction, the device will immediately return confirmation information: SET DAILY REPORT OK.

Note: 1. Using this instruction, the user may receive a piece of positioning information at a stated time, with its format as shown in “Single positioning request”.

2. HH stands for hour with defined range of [00, 23]. MM stands for minute with defined range of [00, 59].

7. GPS special power saving mode / / currently not available for end user

1>Special power saving setup

Instruction format: 199+user password+Sxx+Lyy+Hzz

For example: 1990000S030L01H03

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Description: S030 means to turn off GPS for 30 minutes and its setup range is [1, 255]. L01 means to turn on GPS for 1 minute and its setup range is [1, 98]. If GPS is available in the first phase, the device will not enter the second phase and turn off GPS. If GPS is not available in the first phase, it will enter the second phase. H03 indicates total time to turn on GPS, i.e., the second phase is 2 minutes (Hzz-Lyy) with setup range of [3, 99].

If S is 0, the device will exit from power saving mode and switch to GPS normally-on mode, namely 188 instruction is invalid. When success to receiving the instruction, the device will send confirmation information: GPS AUTO MODE: (yy-zz)/xxx Minutes.

Note: 1. When setting parameters such as S/L/H, if high status is 0, the user must add a zero.

For example, in order to turn off GPS for 30 minutes, the user should set S030 instead of S30.

2. Hzz is the total time over which GPS is on, and shall not be less than Lyy.

3. The parameters set by instruction 199 won't be lost due to restart, not be changed by restoration until they are set again.

4. Only in special power saving mode will the device turn on/off GPS on time in accordance with parameters set by instruction 199.

2>Special power saving turn-on// currently not available for end user

Instruction format: 188+user password

For example: 1880000

Description: After the device successfully sets instruction 199, instruction 188 will come into effect. When success to receive instruction 188, the device will return confirmation information: GPS AUTO MODE ON OK. After entering power saving mode, the device will switch on/off GPS on time in accordance with parameters set by instruction 199 to save power.

For example: Set 1990000S030L01H03 and send 188 to enter the mode, then the device will firstly turn off GPS for 30 minutes (S030) and then turn on for 1 minute (L01) in accordance with instruction 199. If GPS is available in within the 1 minute (L01), the device will turn off GPS for 30 minutes (S030). If GPS is not available within 1 minute (L01), it will keep GPS on for 2 minutes (H03-L01). After 2 minutes, whether GPS is available, it will be turned off for 30 minutes. The process will be repeated again and again.

Note:

1. Before switching GPS to power saving mode, please set 199 instruction parameters.

2. After turning on power saving mode, GPRS timing upload and historical data sampling will be suspended while GPS is turned off. If GPS is available while it is turned on, GPRS timing upload and historical data sampling will resume normal.

3. After turning on power saving mode and while GPS is turned off, whether under message mode or GPRS mode, if there is request for position information , for example: 666, 806, cell phone positioning, SOS or 4XX, GPS will be turned on immediately. The device will read the latest data of GPS and turn off GPS when the next power saving cycle comes.

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4. If you need real-time tracking, please select GPS normal mode (instruction 222).

8. Set the number of returned base stations

Instruction format: 55X+user password (4 digits)

For example: 5510000

Description: when success to receive the instruction, the device will immediately return confirmation information: SET BASESTATION OK.

Note: 1. X is base station number with value range of [0, 6].

2. If X is 0, position information contains no base station information.

3. Default number of base station is 1.

9. Read base station information

Instruction format: 111+user password (4 digits)

For example: 1111234

Description: After success to receive the instruction, the device will return the following message to the sender.

Data format: BS: base station information 1, base station information 2, base station information …n

10. Instruction for calling switch

1>Instruction format of calling off: 150+user password

For example: 1500000

2>Instruction format of calling on: 150+user password

For example: 1510000

Description: 1. After receiving instruction of calling off, V3338 will turn off calling function (including SOS, power failure warning calling, fence warning calling, overspeed warning) and return confirmation message "SET VOICE CALL: OFF".

2. After receiving instruction of calling on, V3338 will turn on calling function (including SOS, power failure warning calling, fence warning calling, Overspeed warning) and return confirmation message "SET VOICE CALL: ON".

Note: 1. In case of calling off, when SOS, power failure warning, fence warning or overspeed warning occurs, message will be returned instead of call.

2. Default setting is calling function on.

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11. Monitoring function (mute switch of earphone)

Instruction format: 00X+user password

For example: 001000 or 0000000

Description: When receiving the instruction, the device will set status of earphone switch in accordance with X value.

X=1, earphone is switched off and the device is in monitoring mode. After setup is successful, the device will send confirmation information to the sender: SET PROFILE OK, CURRENT PROFILE: SILENT. After earphone is turned off, if prestored phone calls in, the terminal will not give prompt sound. About 10 seconds later, the phone will be answered automatically. The user can hear sound from the device side but the device side cannot hear the user.

When X=0, the earphone is turned on. After setup is successful, the device will send confirmation information to the sender: SET PROFILE OK, CURRENT PROFILE: NORMAL. After earphone is turned on, if prestored phone calls in, there will be prompt sound. About 10 seconds later, the phone will be answered automatically. Both parties can converse with each other. After conversation the device will return position information with the same format as "request for single positioning". Information status is STATUS: ANSWER. If non-prestored phone number calls in, it will be hung up without other response.

Note: Default setting is earphone on (non-monitoring status).

12. Instruction for incoming call restriction switch

Instruction for incoming call restriction on: 170+user password

For example: 1700000

Instruction for incoming call restriction off: 171+user password

For example: 1710000

Description: After success to receive the instruction for incoming call restriction on (170), V3338 will return confirmation message: SET UNLIMITED MODE OFF OK. At this time, the device can only receive incoming call from 3 prestored numbers. Incoming call from non-prestored number will be hung up without other response.

After success to receive the instruction for incoming call restriction off (171), V3338 will return confirmation message: SET UNLIMITED MODE ON OK. The device can answer incoming call from any cell phone.

Note: Default setting is incoming call restriction on.

13. Phone positioning function

Description: If incoming call is from one of the three prestored phone numbers and it is hung up after ringing for 2-5 times, the device will send position information with the same format as “request for single positioning” to the incoming call number. The information status is STATE: CALL. If non-prestored phone number calls in, it will be hung up without other response.

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14. Emergency alarm (SOS)

Description: Press SOS key for over 3 seconds to send positioning information with information format returned from "request for single positioning" to the three prestored phone numbers. Information status is STATE: SOS. At the same time, the first prestored phone number will be called. If it fails (the phone is turned off or cannot be connected), the second and the third phone number will be called in sequence.

Note: If calling status is off, message will be sent to prestored user instead of calling him.

15. Geo-fence function

Geo-fence of the device has the following two modes: round geo-fence and square geo-fence.

Round geo-fence takes the set coordinates as center of circle and uses the set semi-diameter to determine fence scope. Square geo-fence uses 4 known latitude and longitude points to determine a square fence.

When the function is activated, once V3338 steps beyond fence scope, it will send positioning information with the information format returned by above stated "request for single positioning" to the three prestored numbers. Information status is STATE: OS. At the same time, the first prestored phone number will be called. If it fails (the phone is turned off or cannot be connected), the second and the third phone number will be called in sequence.

When V3338 enters fence scope again, it will send positioning information with information format returned from "request for single positioning" to the three prestored number immediately. Information status is STATE: RS. At the same time, the first prestored phone number will be called. If it fails (the phone is turned off or cannot be connected), the second and the third phone number will be called in sequence.

15.1 Setting of round geo-fence scope

The user may at his discretion select the following formats to operate according to the input different formats of coordinates.

Instruction format 1: 003 + user pass word E/Wdddmm.mmmmN/Sddmm.mmRzzz.z

For example: 0030000E11406.0024N2233.4230R0.1

When receiving the instruction, V3338 will return confirmation message to the sender: SET GEO-FENCE OK and turn on geo-fence function.

Description: E: east longitude; W: west longitude; N: north latitude; S: south latitude. The example here uses E and N. Please select corresponding coordinates format in accordance with actual geographic position. Each section's meaning of the example is as follows:

Edddmm.mmmm is longitude information with degree and minute as unit, among which ddd stands for degree and mm.mmmm stands for minute (4 digits after decimal point is maintained and zero cannot be omitted).

Nddmm.mmmm is latitude information with degree and minute as unit, among which dd stands for degree and

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mm.mmmm stands for minute (4 digits after decimal point is maintained and zero cannot be omitted).

zzz.z is radius with definition domain of [0.1, 999.9] and unit of KM.

Instruction format 2: 004 + user password E/Wddd.dddddN/Sdd.ddddRzzz.z

For example: 0040000E114.10004N22.55705R999.9

When receiving the instruction, V3338 will return confirmation message to the sender: SET GEO-FENCE OK and turn on geo-fence function.

Description: E: east longitude; W: west longitude; N: north latitude; S: south latitude. Here E and N are used to explain as an example. Please select corresponding coordinate formats in accordance with actual geographic position. Each section’s meaning of the example is as follows:

Eddd.ddddd is longitude information with degree as unit, among which ddd.ddddd stands for degree (5 digits after decimal point is maintained and zero cannot be omitted).

Ndd.ddddd is latitude information with degree as unit, among which dd.ddddd stands for degree (5 digits after decimal point is maintained and zero cannot be omitted.

zzz.z is radius with definition domain of [0.1, 999.9] and unit of KM.

Instruction format 3: 005 + user password Rzzz.z

For example: 0050000R0.1

Description: After success to receive the instruction, V3338 will extract current longitude and latitude information as fence coordinate from the latest GPS data and takes R value as radius. It also turns on geo-fence and send confirmation message to the sender: GE0-FENCE ON.

Note: zzz.z is radius with definition domain of [0.1, 999.9].

1>Instruction to turn on round geo-fence

1. Turn on geo-fence: 211 + user password

After receiving the instruction, V3338 will return confirmation message: GEO-FENCE ON.

2>Turn off round geo-fence instruction: 210 + user password

After receiving the instruction, V3338 will return confirmation message: GEO-FENCE OFF.

Note: 1. Fence radius shall not exceed its defined domain. When decimal digit is 0, please add 0. For example, when R is 1, please enter 1.0.

2. If calling status is off, message will be sent to prestored user instead of calling him.

3. Degree and minutes is of sexagesimal system, i.e., 1d=60m.

15.2 Setting of square geo-fence scope

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Instruction format: 006 + user password + GX, IO/I/O, E/W longitude upper limit + N/S latitude upper limit, E/W longitude lower limit + N/S latitude lower limit.

For example: 0060000G1,IO,E114.10004N22.55705,E115.10006N23.55706

After receiving the instruction, V3338 will return confirmation message: SET SQUARE GEO-FENCE GX (IO/I/O) OK.

Description: GX is geo-fence X, whose value range is [1, 16]. IO means warning for both outgoing and incoming fence; I means warning for incoming fence; O means outgoing fence. Longitude and latitude value take degree as unit. 5 digits after decimal point shall be reserved and 0 shall not be omitted.

IO means warning for both outgoing and incoming fence; I means warning for incoming fence; O means outgoing fence.

Note: (1) After setting is completed, fence is turned on automatically. Now, default fence type is IO, i.e., warning for both outgoing and incoming fence.

(2) If calling status is off, message will be sent to prestored user in SMS mode instead of calling him.

(3) Value set by the instruction is not subject to power off or switch on/off until change instruction or restoration operation is received again.

(4) After restoration, longitude value is indicated by 0. Fence is in shutoff status.

1>Turn on square geo-fence

Instruction format to turn on all square geo-fence: 311 + user password

For example: 3110000

Instruction format to turn on single square geo-fence: 311 + user password +GX

For example: 3110000G5

Description: The instruction is used to turn on all square geo-fence and turn on single square geo-fence. GX stands for geo-fence X, whose value range is [1, 16]. After receiving the instruction, V3338 returns confirmation message: SET ALL SQUARE GEO FENCE: ON. When turning on single square geo-fence, it returns confirmation message: SET SQUARE GEO FENCE GX: ON.

2>Instruction to turn off square geo-fence

Instruction format to turn off all rectangular geo-fence: 310 + user password

For example: 3100000

Instruction format to turn off single rectangular geo-fence: 310 + user password +GX

For example: 3100000G5

Description: The instruction is used to turn on all rectangular geo-fence and turn on single rectangular geo-fence. GX stands for geo-fence X, whose value range is [1, 16]. After receiving the instruction, V3338 returns confirmation message: SET ALL SQUARE GEO FENCE: OFF. When turning on single square geo-fence, it

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returns confirmation message: SET SQUARE GEO FENCE GX: OFF.

Note: If multiple set square fences give warning at the same time. G1 will call and G2, G3, G4… will send position message instead of calling. As for the ex-factory configuration or in case of restoration, the status is RS by default.

Notice: Above stated geo-fences are optional. When the device receives geo-fence setting instruction, geo-fence function will be activated automatically. When geo-fence function is activated again after turned off, previous setting remains valid.

16. Overspeed alarm

Instruction format: #122#user password#X##

For example: #122#0000#250##

After receiving the instruction, V3338 will return confirmation message: SET RATE LIMIT:250.

Description: 1. X is speed benchmark value, which is an integral number. Its unit is KM/H with defined domain of [0, 999]. When X=0, overspeed warning function is turned off.

2. After the function is activated, when travel speed exceeds set speed, the device will send position information with information format returned from “request for single positioning" to the three prestored numbers immediately. Information status is STATE: OVERSPEED. It will also call the first prestored number immediately. If it fails (the phone is turned off or cannot be connected), the second and the third phone number will be called in sequence. Then, if travel speed is less than set speed, the device will send position information with information format returned from “request for single positioning" to the three prestored numbers immediately. Information status is STATE: SAFE SPEED. It will also call the first prestored number immediately. If it fails (the phone is turned off or cannot be connected), the second and the third phone number will be called in sequence.

17. Mileage statistics function

17.1 Instruction to turn off mileage statistics

Instruction format: 140+user password

For example: 1400000

Description: After receiving the instruction, V3338 will return confirmation message: SET MILEAGE STATISTICS OFF OK. Mileage statistics function will remain in turnoff status.

17.2 Instruction to turn on mileage statistics

The instruction can be used to set the interval of timing report on total mileage.

Instruction format: 141+PW

Description: After receiving the instruction, V3338 will return confirmation message: SET MILEAGE

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STATISTICS ON OK. Mileage statistics function will be turn on.

17.3 Instruction to set initial mileage value (zero clearing)

Instruction format: 142+PW

Description: After receiving the instruction, V3338 will return confirmation message: MILEAGE STATISTICS RESET OK.

17.4 Instruction to read current mileage

Instruction format: 143 + user password.

For example: 1430000

Description: After receiving the instruction and confirming that user password is correct, the device will read current total mileage value and return the following message to the number which sends the instruction: MILEAGE STATISTICS:ON，CURRENT TOTAL MILEAGE:XX (XX means current mileage value with unit of M).

Note: 1. If zero clearing is not performed, the mileage read is accumulated value;

2. Default mileage statistics is of turnoff status.

18. Low battery alarm

In case of too low working voltage (electricity quantity), V3338 will send position information with information format of returned “request for single positioning” to the prestored three numbers. Information status will be updated to STATE: LP. The information will be sent for 3 times with an interval of 1 minute.

19. Instruction to set GPS status

Message instruction may make GPS in three statuses: on/off/self adapting. GPS is switched on when delivered from the factory or reset.

1>Instruction to turn on GPS

Instruction format: 222 + user password (4 digits)

For example: 2220000

Description: After receiving the instruction, V3338 will return confirmation message: GPS ON OK.

2>Instruction to turn off GPS

Instruction format: 333 + user password (4 digits)

For example: 3330000

Description: After receiving the instruction, V3338 will return confirmation message: GPS OFF OK.

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3>Instruction for self adapting GPS

Instruction format: 100 + user password

For example: 1000000

Description: After receiving the instruction, V3338 will return confirmation message: VIBRATION SENSOR ON OK.

Note: 1. If built-in vibration sensor detects device vibration, it will turn on GPS. If it does not detect vibration within 5 minutes, GPS will be turned off automatically.

2. If the car travels on the highway or the flat road for a long time, GPS may remain in sleep status rather than awake for a long time. If the user want to position and track the real-time position at that time, please send "222 + user password" to restart GPS.

20. Instruction to change time zone setting

Instruction format: 896 + user password 4 digits + D + NN

For example: 8960000E08

Description: After receiving the instruction, V3338 will return confirmation message: TIME ZONE SET OK,CURRENT：E8.

1. D takes E or W to indicate east or west time zone respectively. N takes a 2-digit number (1-12) to indicate time zone number.

2. After success to set 896000E08, all time-related data will be GPS time plus 8. After success to set 896000W07, all time-related data will be GPS time minus 7.

3. Default value is Greenwich time (UTC).

Note: When the instruction is set, data upload time in GPRS mode will not change. If the user wants to change data upload time, please refer to instruction 897 in GPRS mode in the next chapter.

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Chapter Five Application and Operation in GPRS Mode

Send "710 + user password" to switch to GPRS mode. In the mode, V3338 can also prestore three phone numbers (No.1, No.2 and No.3), a set of TCP/IP server IP address and port number, 4-digit GPRS password and an APN number at GPRS access point. Instructions in SMS mode can also be used in GPRS mode.

1. Change GPRS user name

Instruction format: #801#user password# new user name##

For example: #801#0000# username##

Description: After receiving the instruction, V3338 will return confirmation message: CHANGE USERNAME OK.

2. Change GPRS service password

Instruction format: #802#user password# new service password# old service password##

For example: #802#0000#1111#0000##

Description: After receiving the instruction, V3338 will return confirmation message: CHANGE PASSWORD OK.

3. Set GPRS access point (Access Point Name)

Instruction format 1: #803#user password#APN##

For example: #803#0000#CMNET##

Instruction format 2: #803#user password #APN#APN user name# APN password##

Description: After receiving the instruction, V3338 will return confirmation message: SET GPRS APN OK.

Note: 1. As different GSM/GPRS service providers provide different APN, please select instruction format 1 or 2 in accordance with the APN provided by your local service provider.

2. APN is CMNET at the factory or after reset. APN is constituted by 3~35 characters which may be alpha, number, dot (.), underscore (_) or hyphen (-). APN user name and APN password are respectively constituted by 3~30 characters which may be numbers or alphas.

4. Set IP address and port

Instruction format: #804#user password # fixed IP address/ domain name #port##

For example: #804#0000#210.83.225.181#6998##，

Or #804#0000#www.gps068.com#6998##

Description: After receiving the instruction, V3338 will return confirmation message: SET SERVER IP AND PORT OK.

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5. Set timing data upload

Instruction format: #805# user password# sampling interval T# uploaded data quantity each time N##

For example: #805#0000#10#6##

Description: After receiving the instruction and confirming that user password is correct, V3338 will send confirmation message to the sender "SET GPS SAMPLING TIME AND QUANTITY OK".

Note: 1. Sampling time T takes second as unit, whose defined domain is [10, 59999]. Uploaded data number N for each time has a defined domain of [1, 50].

2. If data is not sent to the server due to network problem or other cause, the data will be backed up automatically and sent to the server again after network resumes to normal. Uploaded data format is as shown in "upload immediately to current position" and data status is AUTO.

3. If "uploaded data quantity N for each time" is 0, the device will turn off timing upload and send confirmation message to the sender: GPRS TIMER STOP.

4. as for the two modes above, max. 300 data can be backed up for the purpose of dead zone; if more than 300, new data will cover the originally backup data.

5. when a lot of stored data needs to be resent, 50 pieces of data will be resent each time; if less than 50, they will be resent once. New data will be sent only after resenting data is completed.

Depending on the three-step basic setting, you can watch and monitor your car movement on the monitoring platform of such device provided by your operator.

6. Instruction to upload current position immediately

Instruction format: #806# user password##

For example: #806#0000##

Description: After receiving the instruction, V3338 will send confirmation message to the first prestored number: "START GPRS UPLOAD" and send data in current storage to the server. Uploaded data status is SMS.

Upload format:

#IMEI number # user name # service password # status # data quantity[CR][LF]

#base station information $ GPRMC……#base station information $ GPRMC……##[CR][LF]

For example:

#123456789000001#SR-6869BE#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 ##

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Note: Status of immediately uploaded data format is SMS.

7. Phone upload

Description: When one of the three prestored phone numbers calls in and is hung up after ringing for 2-5 times, it will operate as “immediately upload current position” . Status prompt is CALL.

8. Emergency upload

Description: Press SOS key for more than 3 seconds, and the device will operate as “instruction to immediately upload current position”; the status indicates SOS. At the same time, it will call the first prestored number. If it fails (the phone is turned off or cannot be connected), the second and the third phone number will be called in sequence.

Note: If calling status is off, it will send position message to the server instead of calling the phone.

9. Low voltage upload

If working voltage of V3338 is lower than set value, and the device will operate as “instruction to immediately upload current position” and add “LP” auxiliary attribute into data status to show current status. The information will be sent for 3 times with an interval of 1 minute.

10. Historical data upload function

In order to use the function in SMS mode, please switch to GPRS to set IP and APN.

1. Set historical data rewire

Instruction format: #807# user password #X##

For example: #807#0000#30##

Description: After receiving the instruction and confirming that user password is correct, V3338 will set historical rewire sampling frequency as X. If X=0, the device will close historical data rewire. If X!=0, the device will take X seconds as interval to store received GPS data. After success, it will return confirmation message to the sender: SET SAMPLING OK.

Note: 1. X is historical rewire sampling frequency, whose defined domain is [0, 999] with second as unit.

2. Size of each data quantity is around 100B (BYTE).

3. Memory space distributed to historical data rewire is 864KB (BYTE) and stack override method is used to update data storage. If X=30, data for about 3 days will be rewireed. If X=300, data for about 30 days will be rewired. When stored data reach 864KB, newly received data will override earlier data.

4. If power saving function is activated and V3338 remains static for a long time, historical rewire will be automatically closed until V3338 is wakened up and GPS is turned on.

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2. Instruction to set historical data upload

1>Upload 24-hour historical rewire:

Instruction format: #808# user password #24##

For example: #808#0000#24##

Description: After receiving the instruction, V3338 will return confirmation message: START UPLOAD 24H HISTORICAL REWIRE. It will send historical data rewired in the past 24 hours to the server with the same format as position information mentioned in "instruction to immediately upload current position" and information status is SOTRAGE.

2>Read all data rewires:

Instruction format: #808#0000##

Description: After receiving the instruction, V3338 will return confirmation message: START UPLOAD ALL HISTORICAL REWIRE. It will send all historical data rewired in storage area to the server with the same format as position information mentioned in "instruction to immediately upload current position" and information status is SOTRAGE.

11. Switch to upload invalid data

Instruction format: 08X + user password 4 digits

Function description: After receiving the instruction, V3338 will be able to determine whether to upload invalid data in accordance with X value.

If X=1, the device will turn on the function of uploading invalid data. After success, the device will return confirmation message to the sender: INVALID DATA UPLOAD：ON. At this time, whether received GPS data are valid, they will be uploaded to the server.

If X=0, the device will turn off the function of uploading invalid data. After success, it will return confirmation message: INVALID DATA UPLOAD: OFF. At this time, invalid data upload will be turned off and only valid data will be uploaded.

Note: 1. Default setting is turning off invalid data upload.

2. The function is available for GPRS mode only.

12. Instruction to change time zone setting in GPRS mode

Instruction format: 897 + user password 4 digits + D + NN

For example: 8970000E08

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Description: After receiving the instruction, V3338 will return confirmation message: TIME ZONE SET OK,CURRENT：DN（For example: TIME ZONE SET OK,CURRENT：E8）.

Note 1. D takes E or W to indicate east or west time zone. NN takes a 2-digit number (1-12) to indicate time zone number.

2. If successes to set 8970000E08, GPRS data upload time will be GPS time plus 8. If successes to set 8970000W07, GPRS data upload time will be GPS time minus 7.

3. Default value is Greenwich time (UTC).

4. The instruction is available for data upload in GPRS mode only.

Instruction set

1. Status and corresponding signs

Status	Corresponding signs
666 single request	SMS
Phone positioning	CALL
Accept calling	ANSWER
Active seeking help	SOS
Electricity shutoff alarm	DEF
Quit from fence	OS
Enter fence	RS
Overspeed alarm	OVERSPEED
Safe speed	SAFESPEED
Historical data upload	STORAGE
Low power alarm	LP
806 single positioning	SMS
Moving vehicle tracking timing upload	AUTO
Timing upload for parking throttle	AUTOLOW
Trailer alarm	TOWED

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2. Instruction set

Instruction	Description
000+user password	monitor mode cutoff
001+user password	monitor mode open
003+user passwordE/Wxxxx.xxxxN/Syyyy.yyyyRzzz.z	Fence scope setting(unit: degree, minute)
004+user passwordE/Waaa.aaaaaN/Sbb.bbbbbRzzz.z	Fence scope setting(unit: degree,minute)
005+user passwordRzzz.z	Fence scope setting(current position coordinate)
006+user password,Gx,I/O,E/W+N/S,E/W+N/S	Fence scope setting(unit: degree)
080+user password	Close invalid data upload under GPRS mode
081+user password	Open invalid data upload under GPRS mode
100+user password	Open electricity saving function
111+user password	Single return base station information
#122#user password#X##	Overspeed alarm setting
140+user password	Closing distance statistics
141+user password	Start distance statistics
142+user password	zero clearing setting of distance statistics
143+user password	Read distance statistics
150+user password	Close calling
151+user password	Start calling
170+user password	Start calling limit
171+user password	Close calling limit
188+user password	Start electricity saving mode
199+user password+Xxx+Lyy+Hzz	Set electricity-saving mode
210+user password	Close round fence
211+user password	Start round fence
222+user password	Start GPS

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310+user password	Close all square fence
310+user password,Gx	Close single square fence
311+user password	Start all square fence
311+user password,Gx	Start single square fence
333+user password	Close GPS
4xx+user password	Timing return positioning information
55x+user password	Set returning base station quantity
665+user password+HHMM	Set daily timing report
665+user password+OFF	Close daily timing report
666+user password	Single positioning return user number
667+user password	Return Chinese position information
667+user password+MAP	Return Chinese address and screenshot
667+user password+MAP,WWW,HHH,ZZ	Return Chinese address and screenshot
668+user password	Return google map screenshot link
668+user password，WWW,HHH,ZZ	Return google map screenshot link
669+user password	Return map link
700+user password	SMS mode
710+user password	GPRS mode
777+new user password+old user password	Change user password
*prestored number*user password*sequence**	Change pre-stored number
#801#user password#new user name##	Change GPRS user name
#802#user password#new service password#old service password##	Change GPRS service password
#803#user password#APN##	Set GPRS access point
#803#user password#APN#APN user name#APN password##	Set GPRS access point
#804#user password# fixed IP address and port##	Set IP address and port number
#805#user password#sampling interval T# upload quantity each time##	Set timing upload mode for Moving vehicle tracking

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#806#user password##	Single request uploading current position
#807#user password#X##	Set historical rewire sampling rate
#808#user password#24##	Upload 24h historical data
#808#user password##	Upload all historical data
#809#user password#x#y##	Set timing upload mode for Parking throttle
896+user password+D+NN	Set time zone
897+user password+D+NN	Set GPRS time zone

Warranty

The following after services are provided in order to serve and satisfy the customers:

Ⅰ. Warranty scope:

1. The product may be replaced free of charge within 30 days since purchase in the event that it is ineligible when normal operation (man-made sabotage excluded) and without dismantlement.

2. The product will be maintained and repaired by V-SUN free of charge within one year after purchase if it meets with trouble in normal operation due to ineligible quality and without dismantlement.

3. The product shall be repaired upon payment beyond warranty period.

4. the product shall be repaired after the authorization of V-SUN.

Ⅱ. Exemption clauses

Any damage or malfunction of fittings incurred by user's improper operation, maintenance, or storage;
2. Any damage or malfunction caused due to majeure such as rain, natural disaster, etc.

The instruction manual subjects to successive update without prior notice. Please contact our sales manager or technicians if needed.

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