

User Guide

GPS/GSM Tracker AVT-2000S

Version 2.0 (beta)



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Chapter 1 Prelude

1 Brief Introduction

The GPS Tracker combines GSM & GPS technology perfectly, owns compact size and elegant appearance, and carries top technology style. It is the typical model of the combination of communication products and GPS Tracker.

This product shows advanced technology strength in GSM & GPS field. As an professional security and locating company, we will provide you more and better products and service.

Before you use it, please spend some time to read this guide to know the operation details, so as to get better service.

2 Caution

2.1 Please read this handbook carefully and operate in right way, to avoid anything wrong;

2.2 You need to choose a safe place to install your product, some dangerous places such as car airbag, and somewhere easy to hit driver or passengers when there is an accident, are all unsuitable to place products.

Besides, please don't operate it when driving, to avoid unnecessary accidents.

2.3 The introduction in this book is just for your reference, if some of the content or operating procedures are different from the real products, please follow the products.

Chapter Two Introduction

The AVT-2000 GPS/GSM Tracker is a vehicle remote position device with build-in GPS and GSM/GPRS modules. It is a small size, high accuracy remote location tracking device. Based on GPS satellite, it provides accurate position information under dynamic conditions. Personal remote position device transmit the longitude and latitude coordinate to authorized cell phone.

Applications

- AVT-3000 GPS/GSM vehicle tracker mainly uses for motorcycle, electric golf cars, and ordinary car. The devices built in antenna, integrative machine and easy to assemble.
- You can use these features for a security purpose and other purpose which needs remote positioning such as asset protection and tracking.

1 Components

1.1 Build-in GPS modules

1.2 Build-in GSM module

2 Features

- Build-in GPS personal or Vehicles locator
- Works worldwide!
- GSM900/1800/1900 Mhz Support 4-frequency GSM 900/1800/1900 MHZ.(Optional)
- High sensitivity, New technology and latest GPS chipset!
- Excellent for fixing the position even at a weak signal status.
- Work well even in areas with limited sky view like urban canyons .
- Compact size, and smaller than one name card. Easy to hide
- Very Low power consumption
- Fast Signal Acquisition
- Support single location and continuous tracking
- Support alarm and remote monitor
- Support quick dialing buttons for 3 preset phone number
- Support check location by SMS and Internet
- Monitors can track the person without interfering him, LIVE! Real-Time tracking!
- Locate the locator holder by the mobile phone via SMS (short messaging system).
- SOS button send out exact location for immediate rescue/action.(optipon)

3 Specification

GSM module	Build-in GSM 900/1800/1900Mhz
GPS sensitivity	-159Db
GPS frequency	L1, 1575.42 MHz
GPS Position Accuracy	5m 25m
GSM Position Accuracy	100m 500m
Velocity Accuracy	0.1 m/s
Time Accuracy	Synchronized to GPS time
Default datum	WGS-84
Hot start	1 sec., average
Warm start	38 sec., average
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/second (1000 knots) max.
Acceleration Limit	Less than 4g

4 Others

Operating temperature	-20°C 65° C
Humidity	5% to 95% Non-condensing
Dimension	56 mm × 55 mm × 23 mm

Voltage	DC12~24V input.
LED	3 LEDs showing Power, GPS and GSM status, And other operation status.
KEY	One SOS emergency key: urgent call

5 LED State Description

Yellow LED — indicate power state:

State	Meaning
Dark	External power supply unconnected
Light	External power supply working well

Green LED — indicate the GPS signal state

State	Meaning
Light turn to dark	GPS power on
Flash or Light	GPS position located

Red LED — indicate the GSM signal state

State	Meaning
Flash 7.5 seconds once	GSM works well
Flash 0.1 second once	Calling

Chapter Three Get Started

1 Accessories

1.1 Main unit

1.2 Power cable



Select SIM card:

1. You can use GSM card from Local Mobile.
2. Make sure enough deposit in the SIM card, ready to pay the SMS /GPRS fee.

Chapter Four Functions & Operation

1. Position service based on SMS operation

1.1 SMS summarize

There are two SMS operation modes, one is based platform (short message service center, we calls P2S mode), the other is point to point (P2P) mode. The system initial mode (default) is P2P.

In P2P mode, the GPS location and base information is sent to the request mobile number. As to the reply content format, please change the center number

to special phone number, If use this tracker outside of China mainland please use it in P2P mode.

The password in all concerned SMS instruction is composed of 4 numbers **the initial**

password is “0000”. The password can be modified by the password modifying SMS instruction, and the result will be kept in the storage, it still keeps efficiency when next use.

(If the user use the Google map or other DIY maps, please select P2P mode , means that the user must set the first preset phone number as the service center number. The instructions about base station information is only valid in P2S mode, do not use it in P2P mode!!)

1.2 Use SM to realize the function

1.2.1 Power on: Connect with the power.

1.2.2 Set the GSM mode

1.2.3 Set the service center number

1.2.2 change the preset phone number

Edit a message as following format, and then send to the GPS Tracker : Format: **phone number(4-20numbers)+*password(4 numbers, Initial:0000)+*serial number(1-3)+***

For example: Sending message **13801234567*0000*1*** to the GPS tracker: When the module in the device receives the order and confirms the password true, the new number will replace the old one which in the same serial number position The GPS tracker will reply one SM---- **“CONFIG OK”**

1.2.3 Set P2P/P2S mode

Edit a message as following format, and then send to the GPS Tracker: **Format:**

70X+user password

Note: X=(0,1), when X=0, the module is set to be P2P mode(SM mode), when X=1, it is set to be P2S Mode(service center mode).

For example: 7010000

When the module receives the instruction and confirms the password true, it will be set into the mode you need, and the GPS tracker will reply a message “set mode ok”.

1.2.4 Base station information request

Edit a message as following format, and then send to the GPS Tracker:

Format 111 Function password + password (4 numbers)

For example: Send message 1110000 to the GPS Tracker. The GPS Tracker will reply by one SM, the SM style as:*base station information **

1.2.5 Start GPS Location function:

Edit a message as following format, and then send to the GPS Tracker:

Format 222 Function Password + Password (4 numbers) For example

Sending message 2220000 to the GPS tracker.

The GPS Tracker will reply a message “RF ON OK”. It means the GPS position function begins to work.

1.2.6 Close GPS location function

Edit a message as following format, and then send to the GPS Tracker: Format

223Function Password + Password (4 numbers)

For example Sending message 2230000 to the GPS tracker.

The GPS Tracker will reply a message “GPS OFF OK”. It means the GPS position function is off.

1.2.7 Send GPS Location Request

Edit a message as following format, and then send to the GPS Tracker:

Format 666 Function password + password (4 numbers)

For example: Send message 6660000 to the GPS Tracker: The GPS Tracker will reply by one SM the position information, the message format as follows: *base

station information*longitude, latitude, speed, course*time**

(Note: about the value of longitude & latitude, the first and second digits decimal show respectively the degree and minutes, use the digits after decimal multiply 60 to get the value of second. According to the valid value of the longitude & latitude, the accurate location of the holder can be got via the Google earth or other map.)

1.2.8 Set refresh rate of GPS locator

(It is to say that the GPS Tracker will send one position message every time interval)

Edit a message as following format, and then send to the GPS Tracker:

Format: 4×× + Password (4 numbers)

(Note: ×× Range: 04-99; “XX” is less than 60, it means “XX” minutes; if “XX” Is more than 60, the time unit is hour , it means “XX-60” hour(s))

For example: 4100000

(It means the GPS Tracker will send Position Information each 10 minutes.)

The GPS Tracker will reply by one SM ---- “TIME OK”

1.2.9 Cancel send location information in fixed time

Edit a message as following format, and then send to the GPS Tracker: Format 333

Function password + password (4 numbers)

For example: Send message 3330000 to the GPS Tracker: The GPS

Tracker will reply by one SM ----“OFF OK”. Then all location &

time setting functions will be stopped.

1.2.10 Change user password

Edit a message as following format, and then send to the GPS Tracker: Format 777

Function password + password (4 numbers)

For example: Send message 7770000 to the GPS Tracker: The

GPS Tracker will reply by one SM ----“CHANGE OK”. Then the new

password will come into effect instead of the old one.

1.2.11 resume to the factory settings

Pressing the SOS button, restart the device, and all the above setup are resumed to the factory level.

2. Position service based on GPRS operation(P2S mode avalid)

2.1 Enter GPRS mode

Edit a message as following format, and then send to the GPS Tracker: Format:

710+user password(4 digital)

When the module receives the instruction and confirms the user password true, and the tracker will send one message “Set mode OK”, the device will be switched to GPRS mode.

2.2 Change the user name

Edit a message as following format, and then send to the GPS Tracker: **Format:**

#801+#user password+#new user name(4-20 english words)## For example:

send **#801#0000#username##** to GPS Tracker The

GPS tracker receives the instruction and confirms the password true, it will send a message “Change username OK”.

2.3 Setup GPRS Access Point Name(APN)

Edit a message as following format, and then send to the GPS Tracker: **Format:**

#803#user password#APN##

For example: send **#803#0000#CMNET##** The GPS

Tracker receives the instruction and confirms the password true, it will reply one message “Change APN OK”.

Note: different GSM/GPRS provider may have different APN, if you don't know that surely, please consult the local GSM/GPRS business operator.

2.4 Setup TCP/IP server and IP address and Port number

Edit a message as following format, and then send to the GPS Tracker:

Format: #804#user password#fixed IP Address#Port number## For

example: send **#804#0000#222.125.12.32#80##**

The GPS Tracker receives the instruction and confirms the password true, it will send a message “Change IP OK”.

2.5 Setup time and items of data uploading

That is to say, the device will upload X pieces data every XX seconds. Edit a message as following format, and then send to the GPS Tracker:

Format: #805#user password#time(5-65535seconds)#item numbers(1-50pieces)##

For example: send #805#0000#10#1## The GPS/GPRS

Tracker receives the instruction and confirms the password true,

it will send a message “Change Timer OK”.

2.6 Upload current position data

Edit a message as following format, and then send to the GPS Tracker: **Format:**

#806#user password##

For example: send #806#0000## The GPS/GPRS Tracker

receives the instruction and confirms the password true, it will

send a message “Star upload”. The data format as follows:

#user name#user password#status#item numbers#base information

GPRMC.....#base information GPRMC.....##

3 Auto-listening function and location by phone

When one of the three preset phone numbers calls the GPS Tracker, the red LED will flash.

(1) hangs up after 3-9 rings, the GPS Tracker will send a message to the preset phone number (the request phone number) with its current position information;

(2) after 10 rings, the GPS Tracker will receive the call automatically. You can talk

through its exponential horn, and also a message including the location information will send to the preset phone number after calling.

4 SOS (Option)

Press SOS switch, the GPS Tracker will call its first preset phone number, and you can talk. If

the first cannot be available, it will call the second in turn, and the third.

And also the GPS Tracker will send an emergent SM to its preset phone number including its current position information at the same time.

5 Displaying location on map

5.1 download Google earth software from <http://earth.google.com/>

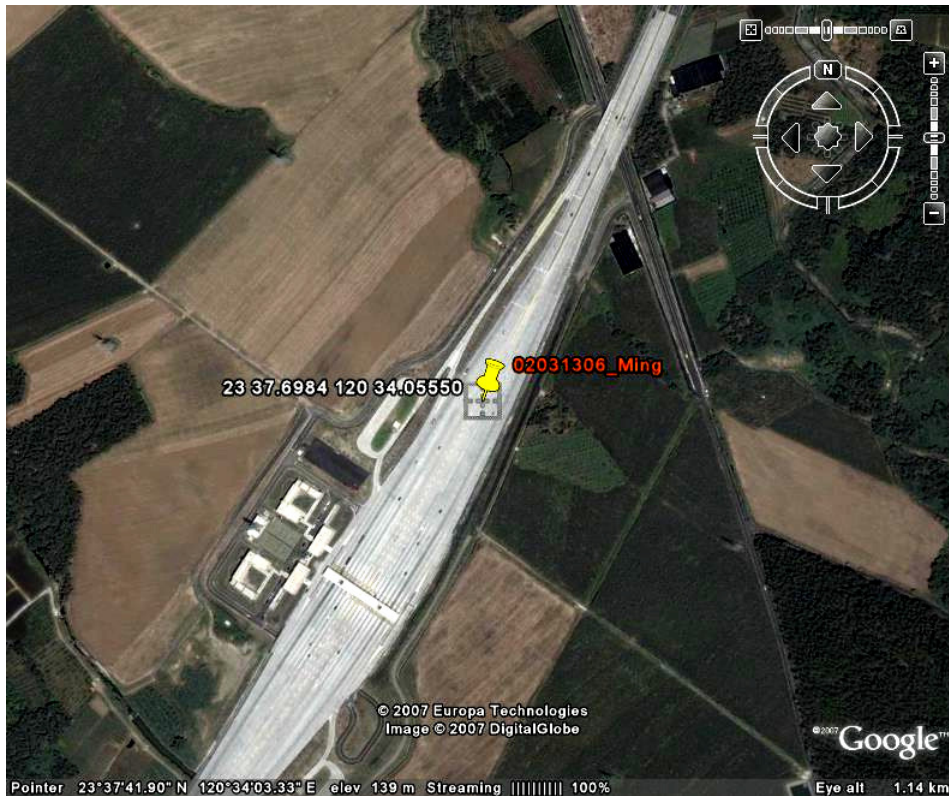
5.2 Start the Google Earth software. (For more information about Google

Earth software, please refer to <http://earth.google.com/>) as below picture shows:

[Note]: pay attention to change the Position Data Format

Or you can start the Internet Explorer and type <http://maps.google.com> to connect Google Map

website for displaying the location map.



5.3 Display the location in other DIY service center, add the SMS data or GPRS communication protocol to the service center, then you can do it.

5.4 Display location in professional service center for example <http://www.yourtracking.info>

SECUGLE GPS TRACKING SYSTEM ONLINE

Home Setting Tracking Realtime Trace On Map Trace Management Received Data Admin

[Trace Data On Map]

Show All Trace Data - In Map

Show Lines Clear markers before re-search

Trace Data:

ID	Lat	Lang	Time(GMT 0)	Speed	MovingTo	Msg
Click 23.01883	120.2466	2009/4/19 9:59:05	0.58	183.22	to South	
Click 23.01878	120.2467	2009/4/19 9:59:05	0.63	169.44	to South	
Click 23.01889	120.2466	2009/4/19 9:59:05	0.30	17.36	to North	
Click 23.01876	120.2466	2009/4/19 9:59:05	0.25	7.63	to North	
Click 23.0188	120.2467	2009/4/19 9:59:05	0.27	189.77	to South	
Click 23.01875	120.2466	2009/4/19 9:59:05	0.22	10.54	to North	
Click 23.01877	120.2466	2009/4/19 9:59:05	0.36	151.67	to South	
Click 23.01878	120.2467	2009/4/19 9:59:05	0.15	166.21	to South	
Click 23.01885	120.2467	2009/4/19 9:59:05	0.36	167.25	to South	
Click 23.01874	120.2467	2009/4/19 9:59:05	0.03	341.46	to North	
Click 23.01876	120.2467	2009/4/19 9:49:08	0.84	156.96	to South	

Trace Filter :

Search

Tracker ID: MT-3000

Date Search :

Date From : 0:00

Date to : 0:00

Real Time Tracking - Microsoft Internet Explorer

檔案(F) 編輯(E) 檢視(V) 我的最愛(A) 工具(T) 說明(H)

Google 上一步 地址 http://www.yourtracking.info/Trace/TraceRealTime.aspx 移至

admin | Logout Clock Help

SECUGLE GPS TRACKING SYSTEM ONLINE

Home Setting Tracking Realtime Trace On Map Trace Management Received Data Admin

[RealTime Tracking] current time zone: GMT 0

Hide Filter 地圖 衛星 混合地圖

Select Tracker:

Available Tracker	Selected Tracker
01234567101	9213125471
9210246931	356939010003746
356939010003589	886937631349
355510002024874	3910478557
355510002023520	355510002028859
356939010013026	5153575653
356939010012846	359853003403606
356939010013000	356939010031414
356939010013166	356939010051125
356939010012291	
356939010012333	

Tracking now!

Setting:

Fresh rate: 10 seconds

*Multi tracker can be tracked at the same time now, Double click the tracker to locate it on map

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開始 2 4 2 2 CH A 網路網路 PM 06:35