

Easy to use manual for GP2000X Personal Tracker



7.4x4.8x1.8cm
(Weight: 61g)

START GP2000X.

1. Insert a new SIM card to GP2000X (Note: make sure no any contacts in the SIM card and no **call transfer** and **call display** function is on, and **PIN code** off)
2. Turn on GP2000X and wait for 3 minutes, so that GP2000X can test-self finished
3. Call GP2000X with your mobile
4. If GP2000X is fixed then GP2000X will send the position message to which dials up

For example: you'll receive a message as below:

\$GPRMC, 093056.000, A, 2236.9111,N, 11408.1489,E, 0.00, 270.00, 251208,0,, A*63

Field	Contents	Descriptions	Notes
1	\$GPRMC	Message ID	RMC protocol header
2	093056.000	UTC Time	09:30 56.000
3	A or V	Status	A=Data Valid or V= Data Invalid
4	2236.9111,N	Latitude	22°36.9111" North
5	11408.1489,E	Longitude	114°08.1489" East
6	0.00	Speed in knots	1knot=1.852km
7	270.00	Course in degrees	270.00
8	251208	Date	25-12-2008 (DMY)
9	A*63	Check Sum	A*63

Means is:

UTC Time: 09:30 56.000

(A) Data is valid

Latitude: 22°36.9111", North

Longitude: 114°08.1489", East

Speed: 0.00 (sea mile) 1mile=1.852km

Course: 270.00

Date: 25-12-2008(DMY)

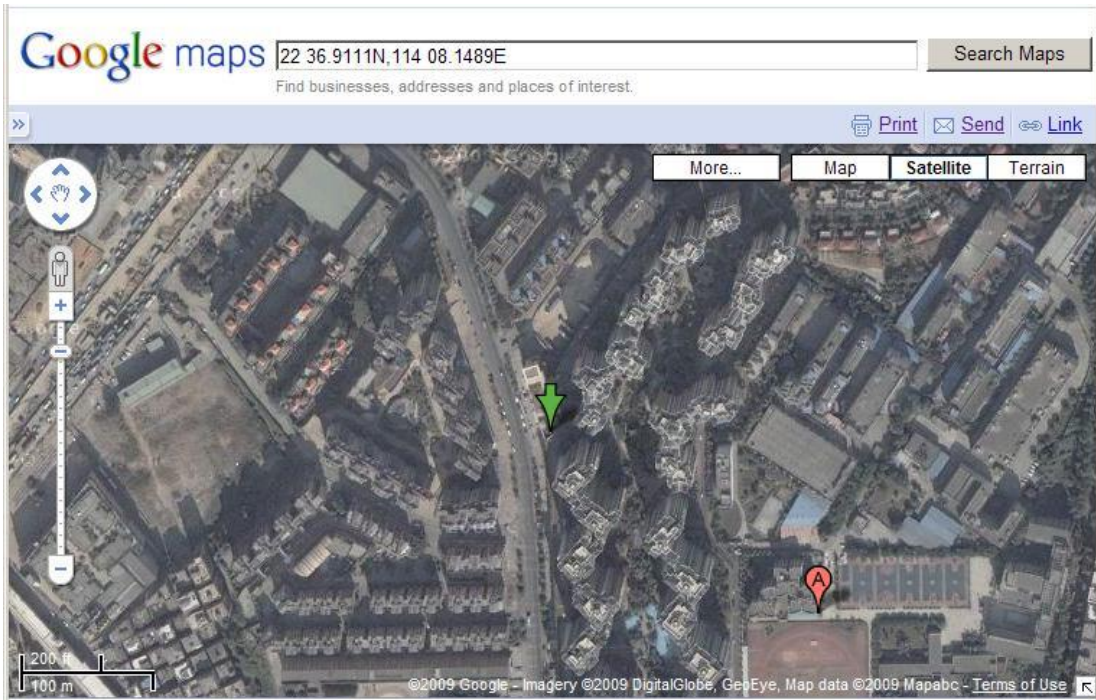
Checksum: A*68

5. You can input this message data on this free link as following format:

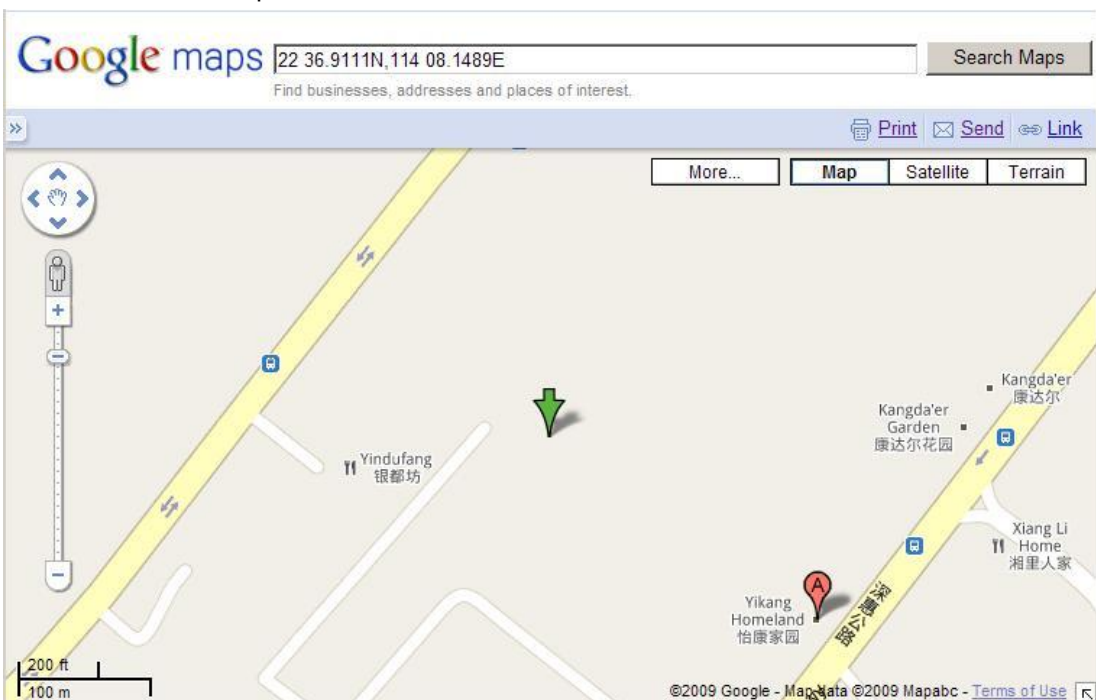
<http://maps.google.com>

Input Format: 22 36.9111N, 114 08.1489E

(**Attention:** digital 22 is degrees, digital 36.9111 is Minutes, there should be space between degrees and minutes when you input Latitude & Longitude)



You can also click map button to switch show mode:



HOW TO USE GP2000X WITH GPRS SERVER?

If you have a GPRS server yourself, the below information will help you how to setup all parameters for GP2000X, if you haven't GPRS server and software, you can also ask for your provider to get the GPRS software, the software won't be free.

USE SMS_COMMAND TO SETUP GPRS Parameters

Remark1:

All GPRS parameters will be saved in SIM card phone books unless APN name.

After you send a SMS Command, if the admin mobile number can't receive a SMS Respond from the tracker a long time, then you need to call the tracker to force executive the command, if you still not received the respond, you can't send the next SMS command.

Important: the SIM card which in the tracker can't be exist any contacts, because any contacts will be look as default parameters for the tracker, error parameters maybe cause the tracker not work well.

Steps:

The steps (the italic characters are parameters, please instead with real Parameters, All commands must be capital letters):

1. *ADMIN+8613632685163#0000# (Necessary)

Respond: Set Admin Number OK!

(Set an admin mobile number for GP2000X)

2. *HOSIP211.148.131.048#8080#0000# (Necessary)

Respond: SET HOST IP and Port OK!

(Set Host IP and Port)

3. *AT+CSTT="internet"# (Necessary)

Respond: AT+CSTT="internet" or OK

(Set APN Name)

4. *WMODE1111#0000# (Necessary)

Respond: 1111

(Switch GPS tracker work mode to GPRS/Internet)

5. ***BIDNO+8613632685163#0000#** (Optional)

Respond: Set BIDNO OK!

(Bind a personal mobile number for receive GPRMC message)

6. ***DTUID+989377460633#0000#** (Optional)

Respond: Set DTU_ID OK!

(Set GP2000X_ID for yourself, Default GP2000X DTU_ID=IMEI No.)

7. ***RESET#0000#** (Optional)

No Respond

(Reset the GPS tracker)

Remark2: all commands must be capital letter, and all respond message only return to Admin mobile number (Admin mobile number must be available mobile number)
You need to setup admin mobile number for the tracker at first

Appendix 1

Literature

SMS/GPRS COMMANDS FOR GP2000X

GP2000X TRACKING COMMANDS FOR SMS&GPRS FIRMWARE V1.10 (GPS/GSM/GPRS)

*Syntax contract: All commands must be start symbol * and ended symbol # and with 4 digital Operate password, All commands must be capital letter*

1. ***ADMIN**

Function: SET AN ADMIN MOBILE NUMBER FOR GP2000X

Syntax: *ADMIN<Mobile No.>#<Password>#

Parameters: <Mobile No.> (Available personal mobile number)

<Password> (Optional: It's needed, If operate password is enabled)

Return: Set Admin Number OK!

For example: *ADMIN+86613632685163#0000#

2. *MONIT

Function: Enabled Monitor Function

Syntax: *MONIT<X>#<Password>#

Parameters: X=0: Disabled Monitor Function (Default)

X=1: Enabled Monitor Function

<Password> (Optional: It's needed, If operate password is enabled)

Return: Set Monitor OK!

For example: *MONIT1#0000# (Enabled Monitor Function)

3. *BIDNO

Function: Bind a Personal Mobile Number for Receive GPRMC Message

Syntax: *BIDNO<Mobile No>#<Password>#

Parameters: <Mobile No.> (Must be Available Personal Mobile Number)

<Password> (Optional: It's needed, If operate password is enabled)

Return: SET BIDNO OK!

For example: *BIDNO+8613632685163#0000#

Description: *BIDNO is command header and italic text is Personal Mobile Number

4. *AUTOT

Function: Set Auto Tracking counter and Interval

Syntax: *AUTOT<Counter>#<Interval>#<Password>#

Parameters: <Counter> (Set tracking counter)

<Interval> (Set tracking interval)

<Password> (Optional: It's needed, If operate password is enabled)

Return: \$GPRMC Positions (**NMEA 0183**)

For example: *AUTOT02#30S#0000#

Descriptions:

Parameter<Counter> is only below

01

02

04

08

10

20

40

80

1D <means 100>

2D < means 200>

4D < means 400>

8D < means 800>

1T < means 1000>

2T < means 2000>

4T < means 4000>

8T < means 8000>

Parameter<Interval> is only below

10S	Interval=10 Seconds
20S	Interval=20 Seconds
30S	Interval=30 Seconds
01M	Interval=01 minutes
02M	Refer to pre.
03M	
05M	
10M	
20M	
30M	
01H	Interval=01hour
02H	Interval=02hours
03H	Refer to pre.
06H	
12H	
24H	

Remark: Call GP2000X Mobile No. = Execute last Auto tracking command

5. *GLAST

Function: GET LAST AVAILABLE POSITION

Syntax: *GLAST#<Password>#

Parameters: <Password> (Optional: It's needed, If operate password is enabled)

Return: Return last available Position

For example: *GLAST#0000#

6. *BASID

Function: Get GSM Base Station ID

Syntax: *BASID#<Password>#

Parameters: <Password> (Optional: It's needed, If operate password is enabled)

Return: *GSM Base Station Codes

For example: *BASID#0000#

7. *MOVES

Function: SET MOVING SENSER NOTE

Syntax: *MOVES<X>#<Password>#

Parameters: <X> (Set Moving Sensitive Levels)

X=1	Send Notes to admin mobile number while speed>=2 km/h
X=2	Send Notes to admin mobile number while speed>=4 km/h
X=3	Send Notes to admin mobile number while speed>=6 km/h
X=4	Send Notes to admin mobile number while speed>=7 km/h
X=5	Send Notes to admin mobile number while speed>=8 km/h
X=6	Send Notes to admin mobile number while speed>=11 km/h
X=7	Send Notes to admin mobile number while speed>=13 km/h
X=8	Send Notes to admin mobile number while speed>=15 km/h
X=9	Send Notes to admin mobile number while speed>=17 km/h
X=0	Cancel Moving Sensor Note

<Password> (Optional: It's needed, If operate password is enabled)

Return: Set Moving Sensor OK!

For example: *MOVES3#0000#

Description: Send a note message to admin mobile No. While GP2000X is moving and speed>=15km/h

8. *SPEED

Function: SET SPEEDING NOTE

Syntax: *SPEED<X>#<Password>#

Parameters: <X>

X=1 Return Speeding Note while speed>=20km/h

X=2 Return Speeding Note while speed>=40km/h

X=3 Return Speeding Note while speed>=60km/h

X=4 Return Speeding Note while speed>=70km/h

X=5 Return Speeding Note while speed>=80km/h

X=6 Return Speeding Note while speed>=110km/h

X=7 Return Speeding Note while speed>=130km/h

X=8 Return Speeding Note while speed>=150km/h

X=9 Return Speeding Note while speed>=170km/h

X=0 Cancel speedup note function

Parameters: <Password> (Operate password)

Return: OK

For example: *SPEED3#0000# (Return Speeding Note while speed>=60km/h)

9. *CUTEN

Function: Cut Engine (Only support GP2000Ti Serials for Vehicles)

Syntax: *CUTEN#<Password>#

Parameters: <Password> (Optional: It's needed, If operate password is enabled)

Return: Cut Engine OK!

For example: *CUTEN#0000#

10. *ULOCK

Function: CANCEL MOVING SENSOR NOTE AND RESTORE CUT ENGINE

Syntax: *UNLOCK#<Password>#

Parameters: <Password> (Optional: It's needed, If operate password is enabled)

Return: UNLOCK ALL OK!

For example: *ULOCK#0000#

11. *HOSIP

Function: SET HOST SERVER IP FOR GPRS CONNECTION

Syntax: *HOSIP<IP Address>#<Port>#<Password>#

Parameters: <HOSIP> (HOST IP Address)

<Port> (HOST Port Number)

<Password> (Optional: It's needed, If operate password is enabled)

Return: Set HOST IP AND PORT OK.

For example: *HOSIP058.063.245.059#5701#0000#

<Remark: IP address not enough 3Byte please instead 0>

12. *AT+CSTT="APN","USERNAME","PASSWORD"#

Function: SET APN (ACCESS POINT NAME)

Syntax: *AT+CSTT="APN","UserName","APN Password"#

Parameters: <APN> (Necessary: provide by GSM service company)
[APN UserName] (Optional: provide by GSM service company)
[APN Password] (Optional: provide by GSM service company)

Return: AT+CSTT="APN"

For example: *AT+CSTT="internet" #

13. *WMODE

Function: SWITCH WORK MODE BETWEEN SMS or GPRS

Syntax: *WMODE<a><c><d>#<Password>#

Return: <a><c><d>

Parameters: <a>

a=0: Switch GP2000X Work Mode to SMS (**Default**)

a=1: Switch GP2000X Work Mode to GPRS/Internet

b=0: Close auto active function (**Default**)

b=1: Auto active tracking when GP2000X is moving

<c>

c=1 Enabled auto sleeping function (**Default**)

c=0 Disabled auto sleeping function

<d>

d=1 Only return available positions (**Default**)

d=0 Return includes invalid positions

<Password> (Optional: It's needed, If operate password is enabled)

For example: *WMODE0011#0000#

Means:

- a) Switch to SMS mode
- b) Close auto active function
- c) Enabled auto sleeping function
- d) Only return available positions

14. *GIMEI

Function: GET GP2000X IMEI No. (Default GP2000X_ID)

Syntax: *GIMEI#<Password>#

Parameters: <Password> (Optional: It's needed, If operate password is enabled)

Return: GP2000X IMEI No.

For example: *GIMEI#0000#

Description: IMEI Number is Default GP2000T_DTUID

15. *DTUID

Function: DEFINE GP2000X_ID YOURSELF

Syntax: *DTUID<+Any Digital Numbers>#<Password>#

Parameters: <+Any Digital Numbers>
 (Remark: symbol "+" is necessary for GP2000X_ID)
 <Password> (Optional: It's needed, If operate password is enabled)

Return: Set DTUID OK!

For example: *DTUID+8613632685163#0000#

Description: You Can Set DTUID= SIM Card No. Includes country No.
 Default GP2000T_DTUID is IMEI No. (Recommends)

16. *RESET

Function: Reset GP2000X

Syntax: *RESET#<Password>#

Parameters: <Password> (Optional: It's needed, If operate password is enabled)

Return: None

For example: *RESET#0000#

17. *PASWD

Function: Enabled/Disabled/Modify Operate password

Syntax: *PASWD<New Password>#<Old Password>#

Parameters: <New Password> (Only can be 4 digital numbers)
 <Password> (Optional: It's needed, If operate password is enabled)

Return: Set Password OK!

For example: *PASWD8888#0000#

Description: 8888 is new password, 0000 is old Operate password

How to Disabled Operate password:

Syntax: *PASWD#<Old Password>#

Return: Delete Password OK!

For example: *PASWD#0000#

Description: If none New Password=Disabled Operate password

Reference Literature:

- 2 GP2000X GPS/GSM/GPRS Controller & Firmware Release Version 1.1
- 2 GPS/SMS TRACKING SYSTEM PERSONAL VERSION 3.41 (GP2000C)
- 2 GPS/GPRS SERVER SOFTWARE FOR SQL SERVER DATABASE (GP2000X)
- 2 GP2000X WEB APPLICATION SOFTWARE FOR GOOGLE EARTH
- 2 \$GPRMC DATA FORMAT (NMEA0183)

\$GPRMC

This message transfers recommended minimum specific GNSS data. The \$GPRMC message format is shown below.

Field	Format	Chars	Max chars	Notes
Message ID	\$GPRMC	6	6	RMC protocol header
UTC Time	Hhmmss.sss	1,2,2.1	2,2,2.3	Fix time to 1ms accuracy.

Status	char	1	1	A Data Valid. V Data invalid.
Latitude	Float	1,2.1	3,2.4	Degrees * 100 + minutes.
N/S Indicator	Char	1	1	N=north or S=south.
Longitude	Float	1,2.1	3,2.4	Degrees * 100 + minutes.
E/W indicator	Char	1	1	E=east or W=west.
Speed over ground	Float	1,1	5.3	Speed over ground in knots.
Course over ground	Float	1.1	3.2	Course over ground in degrees.
Date	ddmmyy	2,2,2	2,2,2	Current date.
Magnetic variation	Blank	(0)	(0)	Not used.
E/W indicator	Blank	(0)	(0)	Not used.
Mode	Char	1	1	A Autonomous
Checksum	*xx	(0) 3	3	2 digits.
Message terminator	<CR> <LF>	2	2	ASCII 13, ASCII 10.

For example:

\$GPRMC,092313.299,A,2238.8947,N,11355.2253,E,0.00,311.19,010307,,,A*68

UTC Time: 09:23 13.299

(A) Data is valid

Latitude: 22° 38.8947" ,North

Longitude: 113° 55.2253" ,East

Speed: 0.00 (sea mile) 1mile=1852meter

Course: 311.19

Date: 01032007

Checksum: *68

FAQ (Frequently Asked Questions) about GP2000X Tracker

- 1. Question:** I called GP2000X, but there is a message saying the number is not on or is not in covered area or is can't connect.

Answer:

- a. Please make sure enough battery and turn on GP2000X not less than 3 minutes. And GP2000X SIM card PIN code off, voice mail and call transfer must be off

b. There are two LED indicators on the tracker, one is GSM LED indicator (left side), and the other (right side) is WORK LED indicator (The work LED is always on after power on 3 minutes), GSM LED blink slowly, means GSM card work well, if not, maybe not enough battery or power on tracker less than 3 minutes

c. You need insert SIM card before turn on GP2000X and keep enough battery for GP2000X

2. Question: When you call GP2000X, but GP2000X can't auto hang up.

Answer: Please make sure you turn on GP2000X not less than 3 minutes

3. Question: When you call GP2000X and auto hangs up, but you can't receive the location message from GP2000X long time.

Answer:

a. Please make sure GP2000X SIM card which is no call transfer and call display function is on, and enough balance.

b. Please make sure no any contacts in GP2000X SIM card, because the contact at the location 40th in the SIM card is as default message receiver (also named SMS center NO), other contacts numbers maybe as any parameters for Host IP Address, Host Port number etc. more information please refer to <SMS/GPRS COMMAND> chapter.

c. Please place your GP2000X in which can receive satellite signal, not in any basement, place outdoor best.

4. If you need location information of GP2000X automatically sent to the Internet, and check GP2000X location information in internet, you need set some necessary parameters for the GP2000X, such as the Host IP Address, Host Port, APN (Access Point Name), GP2000X DTU_ID (Optional), also need switch GP2000X working mode to GPRS mode, about the mode of GPRS settings, please refer to <SMS/GPRS COMMANDS> chapter.