GPS
Personal
Tracker

User Manual

V6.0

GT30

Contents

1 Product Overview

The GT30 is a GPS/GPRS based personal tracking device, which is compact and easy to use.

GT30 has inbuilt GPS module to obtain accurate position data and utilizes its GSM capability to send the position data to a specified mobile phone or server base to allow users to monitor people or pets using the tracker.

GT30 supports two way voice communications and can be activated either by the guardian calling the tracker or the tracker holder activating the SOS button. The tracker can be configured to report its location to the server base or mobile phone at preset intervals.

GT30 has the following functions:

- Real time tracking via SMS or GPRS (TCP/UDP)
- Track on demand
- Show location directly on mobile phone
- Track by time interval
- Two-way audio
- SOS panic button
- Movement alarm
- Geo-fencing control
- Low battery alarm
- Overspeed alarm
- GPS blind area alarm (in/out)
- Three buttons for making phone call and/or sending message
- Built-in super magnet (optional)

2 For Your Safety

Read these simple guidelines. Not following them may be dangerous or illegal. Read the full user manual for more information.

Switch on safely	Do not switch on GT30 when wireless phone use is prohibited or when it may cause interference or danger.
Switch off in hospitals	Follow any restrictions. Switch GT30 off near medical equipment.
Switch off in aircraft	Follow any restrictions. Wireless devices can cause interference in aircraft.
Switch off when refueling	Do not use GT30 when at a refueling point. Do not use near fuels or chemicals.
Switch off near blasting	Follow any restrictions. Do not use GT30 when blasting is in progress.
Qualified service	Only qualified personnel can repair GT30.
Water resistance	GT30 is not fully water resistant. Keep it dry. Use waterproof bag if necessary.

3 GT30 Characteristics

Items	Specification
Charging Voltage	DC 4.2-5.5V/400mA (Mini USB port)
Internal Battery	Rechargeable and replaceable 1350 mAh battery (3.7V),
Dimension	77 mm × 51 mm × 25 mm
Weight	80g (with battery)
Operating temperature	-20° to 55° C
Humidity	5% to 95% Non-condensing
GSM module	Tri Band GSM 900/1800/1900Mhz or Quad Band GSM 850/900/1800/1900Mhz
GPS Chipset	latest GPS SIRF-Star III chipset
GPS Sensitivity	-158Db
GPS Frequency	L1, 1575.42 MHz
C/A Code	1.023 MHz chip rate
Channels	20 channel all-in-view tracking
Position Accuracy	10 meters, 2D RMS
Velocity Accuracy	0.1 m/s
Time Accuracy	1 us synchronized to GPS time
Default datum	WGS-84
Reacquisition	0.1 sec., average
Hot start	1 sec., average
Warm start	38 sec., average
Cold start	42 sec., average
Altitude Limit	18,000 meters (60,000 feet) max.
Velocity Limit	515 meters/second (1000 knots) max.
Acceleration Limit	Less than 4g
Jerk Limit	20 m/sec
Work time	55 hours in power-saving mode and 12 hours in normal working mode
LED	3 LED lights to show power, GPS, GSM and other status.
Button	3 buttons(SOS/B/C) for making phone calls and sending SMS

4 Getting Started

This section will describe how to set up your GT30.

4.1 Hardware and Accessories

GT30 is supplied in a box which includes:

GT30 with Battery   Car Charger   Wall Charger   Earphone with Mic   USB Cable   CD with User Guide, Drivers and Software

4.2 View

| Front View | Side View | Back View |

4.3 Functional Parts

Your GT30 has four buttons and three LEDs with three different colors to indicate the status of the unit.

Red LED - indicating battery status	
Off	Power is off or charging is complete
Flashing (every 0.1 second)	Low power
On	Charging
Flashing (1 second on and 2 seconds off)	Working
Blue LED - indicating GPS status	
On	One button is pressed
Flashing (every 0.1 second)	The unit is being Initialized
Flashing (0.1 second on and 2.9 seconds off)	GT30 has a GPS fix
Flashing (1 second on and 2 seconds off)	GT30 has no GPS fix
Green LED - indicating GSM status	
On	One call is coming in / one call is being made
Flashing (every 0.1 second)	The unit is being Initialized
Flashing (0.1 second on and 2.9 seconds off)	GT30 is connected to the GSM network
Flashing (1 second on and 2 seconds off)	GT30 is not connected to the GSM network
Buttons	
Power On/Off Button	To turn on/off GT30
SOS Button	To make a phone call and/or send an SMS to the preauthorized phone number. Press it to receive an incoming call. Press it to increase volume during conversation.
Call B	To make a phone call and/or send an SMS to the preauthorized phone number.

	Press it to reject a call, cancel calling or complete a conversation.
Call C	To make a phone call and/or send an SMS to the preauthorized phone number. Press it to decrease volume during conversation.
Other Connectors	
Mini USB	Used for charging, firmware update and configuration on PC. (USB to Serial Converter is required for firmware update and configuration)
SIM Card	To insert SIM card here
Earphone Plug	For connecting earphone
Lanyard Loop	For connecting lanyard.

4.4 First Use

Please read this manual before using your GT30.

4.4.1 Ensure that your GT30 has a working SIM installed.

- Check that the SIM has not run out of credit (Test the SIM in a phone to make sure it can send and receive SMS)

- Check that the SIM Lock code is turned off

- If you require the function of sending an SMS location report to the authorized phone number when it makes a call to the GT30, please make sure the SIM installed supports displaying caller ID.

4.4.2 Charge the battery for at least 3 hours in power-off status using the wall charger or car charger. Or you can connect the tracker directly to computer by USB. Red light is on during charging and is off when charging is complete.

4.4.3 Push the Power On/Off button to the ON side and wait for about 20 seconds. It will then enter standby mode. It is suggested that you be in an outer place where it can receive better GPS when you turn on the device.

Check that the Red LED (Battery) is flashing 1 second on and 2 seconds off.

Check that the Green LED (GSM) is flashing 0.1 second on and 2.9 seconds off.

Check that the Blue LED (GPS) is flashing 0.1 second on and for 2.9 seconds off.

5. Change Password

Command: W******,001,######

Description: Changes user's password.

Notes:

1. ****** is user's password and the default password is 000000. The tracker will only accept commands from a user with the correct password. Commands with wrong password will be ignored.

2. ###### is the new password. Password should be 6 digits.

Example:

W000000,001,123456

W123456,001,999999

6. Time Zone

Command: W******,032,T

Description: Corrects time into your local time

Notes:

1. Default time of the tracker is GMT

2. This correction is applied to location reports by SMS and SMS alarms.

T=0, to turn off this function.

T=[1, 65535] to set time difference in minute to GMT.

For those ahead of GMT, just input the time difference in minute directly. For example, GMT+8, W000000,032,480

'-'is required for those behind GMT. For example, W000000,032,-120.

Example:

W000000,032,480

W000000,032,-120

7. Track

7.1 Track by SMS

- Track on Demand - Reply with longitude, latitude, speed and date

Command: W******,000

Description: Get the current location of the tracker, send this SMS or make a telephone call directly to the tracker and it will report its longitude and latitude by SMS with format as follows: -

Latitude = 22 32 36.63N Longitude = 114 04 57.37E, Speed = 2.6854Km/h, 2008-12-24,01:50

Example:

W000000,000

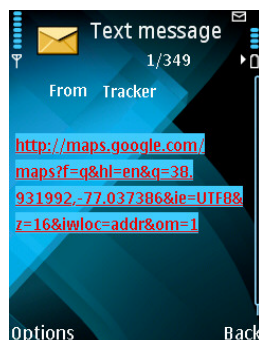**- Track on Demand - Reply with a Google link**

Command: W******,100

Description: Send this command to the tracker and then you receive an SMS with an http link. Click on the link then the location can be shown directly on Google Map on your mobile phone. For example:

http://maps.google.com/maps?f=q&hl=en&q=22.540103,114.082329&ie=UTF8&z=16&iwloc=addr&om=1

Notes: Only smart phones and PDA support this function.

Example:

W000000,100

7.2 Track by Calling

Make a missed call to the tracker and it will report its longitude and latitude by SMS with format as follows: -

Latitude = 22 32 36.63N Longitude = 114 04 57.37E, Speed = 2.6854Km/h, 2008-12-24,01:50

7.3 Track by Preset Interval

Command: W******,002,XXX

Description: Sets an interval for the tracker to continuously return its location by SMS

Notes:

1. XXX is the interval in minute.

2. If XXX=000 to turn off tracking by time

Example:

W000000,002,030

The tracker will send location data back to your mobile phone every 30 minutes.

7.4 Google Earth and Google Map

Download Google Earth from http://earth.google.com/.

Start Google Earth (For more information about Google Earth please refer to http://earth.google.com/) or go to http://maps.google.com in your Internet Explorer

Input the latitude and longitude that you receive from the tracker by SMS and click the search button. Google Earth or Google Maps will display the location for you.
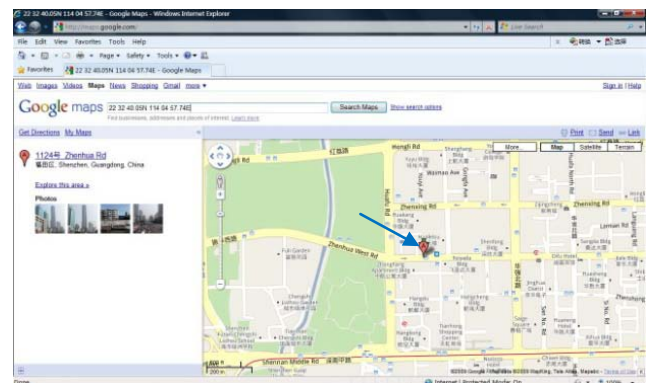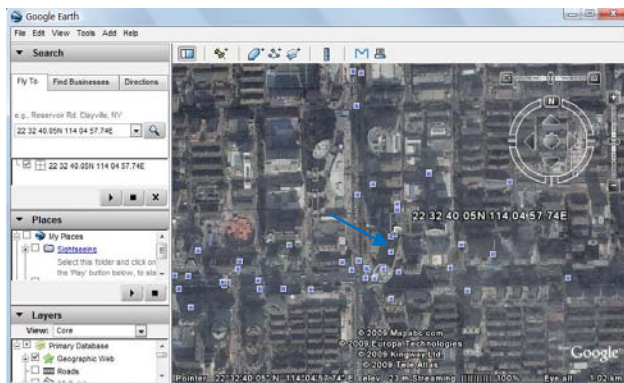
Example:

When you receive: Latitude = 22 32 40.05N Longitude = 114 04 57.74E

Type as the following picture shows:

(Note: you should input the latitude and longitude as: 22 32 40.05N 114 04 57.74E)

And then you can find the location of your tracker:
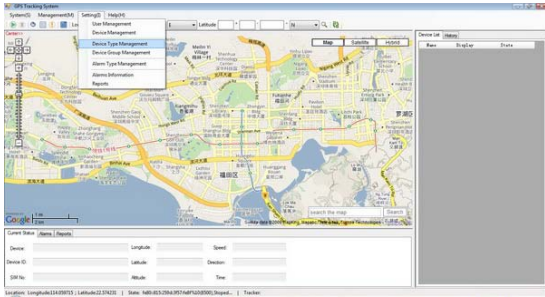

Or you can use local map software on PDA or car navigation device to input the coordinates.

7.5 Track by MS01

If you have bought our GPRS tracking software MS01, after proper configuration, you can do tracking on MS01.

 GPS Tracking System - MS01

Please refer to MS01 User Guide for more information.

7.6 Track by GPRS between Server and Tracker

7.6.1 Set Tracker ID

Command: W******,010,ID

Description: Sets a digital ID for the tracker.

Notes:

Tracker ID must not over 14 digits.

Example:

W000000,010,00001

7.6.2 Set APN

Command: W******,011,APN,Username,Password

Description: Sets APN details for the tracker

Notes:

1. APN username and password are optional. If no APN username and password are required, just input APN only;

2. APN defaulted as 'CMNET';

3. APN + username + password should not over 39 characters.

Example:

W000000,011,CMNET,xxxxx,6688

W000000,011,CMNET

7.6.3 Set IP and Port

Command: W******,012,IP,Port

Description: Sets IP and Port for tracker for GPRS communication.

Notes:

1. IP is your server's IP or the domain name.

2. Port: [1,65534]

Example:

W000000,012, 220.121.7.89,8500

W000000,012,www.xxxxx.net,8500

7.6.4 Set DNS Server IP (optional)

Command: W******,009,DNS Server IP

Description: In case the domain name you set by the last command (W******,012,IP, Port) doesn't work,

which means your server IP is not properly set. You can first use this command to set DNS Server IP (please check with your DNS server provider for the DNS Server IP) and then redo the command W******,012,IP, Port.

Example: W000000,009,220.23.4.90

7.6.5 Enable GPRS Tracking

Command: W******,013,X

Description: Enables GPRS tracking function.

Notes:

X=0, to turn off GPRS tracking (default);

X=1, to enable GPRS tracking via TCP

X=2, to enable GPRS tracking via UDP

Example: W000000,013,1

7.6.6 Set GPRS Interval

Command: W******,014,XXXXX

Description: Sets time interval for sending GPRS packets.

Notes:

XXXXX should be in five digits and in unit of 10 seconds.

XXXXX=00000, to turn off this function;

XXXXX=00001~65535, time interval for sending GPRS packet and in unit of 10 seconds.

In this example, the tracker will send every 600 seconds (10 minutes).

Example: W000000,014,00060

The tracker will send every 600 seconds (10 minutes).

For more information regarding GPRS tracking please refer to <GPRS Communication Protocol>

8. Authorization

Command: W******,003,F,P,T1 or W******,003,F,P,T1,T2 (optional)

Description: Authorizes phone numbers for the buttons/inputs for receiving location reports or SMS alarms or phone calls

Notes:

F=0, to turn off this function; (default)

F=1, only sends SMS to the authorized phone number;

F=2, only calls the authorized phone number;

F=3, both SMS and calling

P=1, set an authorized number for SOS button (Input 1)

P=2, set an authorized number for B button (Input 2)

P=3, set an authorized number for C button (Input 3)

T1: Preset phone number. Max.16 digits

If you need to set different numbers for receiving SMS and phone call, you can then use W******,003,F,P,T1,T2, In this case T1 is the phone number for receiving SMS and T2 for receiving phone call.

Example:

W000000,003,3,1,88888888

W000000,003,3,1,88888888,99999999

9. Call Function

You can use the earphone for conversation purpose.

9.1 Receiving Phone Call

Use your phone or mobile phone to call the tracker, the green LED will be on. Press SOS button to receive the incoming call or press Call B button to reject the call.

9.2 Making Phone Call

After you have authorized phone numbers for SOS/Call B/Call C button, you can press one of these buttons to make a call to the preset phone number.

Press Call B button to cancel a calling or to end a conversation.

9.3 Volume Adjustment

During a conversation, press SOS button to increase the volume or press Call C button to decrease the volume.

10. Low Power

Command: W******,004,X

Description: When the tracker's voltage is lower than the preset value, it will send an SMS alarm to the authorized phone number for SOS.

Notes: X is the preset value of voltage.

=0 , to turn off this function	=1, <3.3V	=2 , <3.4V
=3 , <3.5V (default)	=4 , <3.6V	=5 , <3.7V

Example: W000000,004,2

11. Overspeed

Command: W******,005,XX

Description: Turns on overspeed alarm. When the tracker speeds higher than the preset value, it will send an SMS to the phone number for SOS.

Notes: XX is the preset value of speed and in 2 digits.

=00 , to turn off this function

=[01, 20] (unit: 10Km/h)

Example: W000000,005,08

When the tracker's speed is over 80km/h, an SMS alarm will be sent out.
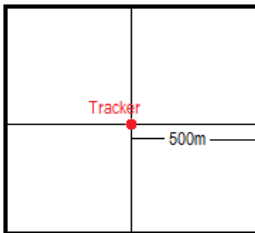
12. Movement/Geofence

12.1 Movement Alarm

Command: W******,006,XX

Description: When the tracker moves out of a preset square scope, it will send an SMS alarm to the authorized phone number for SOS.

Notes: XX is the preset distance to the tracker's original place

=00, to turn off this function

=01, 30m	=02, 50m	=03, 100m	=04, 200m
=05, 300m	=06, 500m	=07, 1000m	=08, 2000m

Example: W000000,006,06

When tracker moves out of this square scope, it will send out an SMS alarm.

12.2 Geo-fence Alarm

Command: W******,017,X or W******,117,X

Description: Turns on Geo-fencing alarm. When the tracker moves in/out the preset scope, it will send an SMS alarm to the authorized phone number for SOS.

Notes:

1. 017 is for alarm when tracker moves out the preset scope;

2. 117 is for alarm when tracker moves in.

3. X is the coordinates which include: Lower-left X,Lower-left Y,Upper-right X,Upper-right Y

4. Lower-left X should be less than Upper-right X;

5. All longitudes and latitudes should be in ASCII format as follows: -

   Longitude: DDDFF.FFFF,E/W. 4 places of decimal. '0' is needed to be stuffed if no value available.

   Latitude: DDFF.FFFF,N/S. 4 places of decimal. '0' is needed to be stuffed if no value available;

6. Send W******,006,00 to turn off Geo-fence function.

Example:

W000000,017,11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N

W000000,117,11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N

Remarks:

1. Only one alarm can be set in either In or Out;

2. Only one alarm can be set in either Movement Alarm or Geo-fence Alarm.

13. Power Down

Command: W******,026,XX

Description: Makes the tracker into power down mode when it is inactive for a period of time. In Power

Down states, GPS stops working and GSM enters sleep and stop sending out message until it is activated by message, incoming calls or triggered by buttons.

Notes:

XX=00, to turn off this function.

XX=01~99, to turn on Power Down after a specified period of being inactive. It is in unit of minute.

Example: W000000,026,10

The tracker will enter power down mode after it is inactive for 10 minutes.

14. Initialization

Command: W******,990,099###

Description: This is to make all settings (except for the password) back to factory default.

Notes:

Turn on the device, press the SOS button for five times continuously and the red LED will be on, and then send (within 120 seconds) this SMS to the tracker.

is the ending character and is required in the text message.

Example: W000000,990,099###

15. Password Initialization

Command: W888888,999,666

Description: This is to make the password back to factory default in case you forget your password.

Notes: turn on the tracker, press the SOS button for five times continuously and the red LED will be on, and then send this SMS (within 120 seconds) to the tracker to make the password back to factory default (000000).

Example: W888888,999,666

For more details regarding SMS commands, please go to Annex 1 Command List.

16. Parameter Editor

The tracker can be configured by computer using the Parameter Editor.

GPS Tracker Parameter Editor V1.39

Please refer to <GPS Tracker Parameter Editor> for more information.

Annex 1. SMS Command List

Note: ****** is user's password and the default password is 000000. The tracker will only accept commands from a user with the correct password. Commands with wrong password will be ignored.

Description	SMS Command	Example
Track on Demand	W******,000	W000000,000
Remarks: To get the current location of the tracker, send this SMS or make a telephone call directly to the tracker and it will report its longitude and latitude by SMS with format as follows: - Latitude = 22 32 36.63N Longitude = 114 04 57.37E, Speed = 2.6854Km/h, 2008-12-24,01:50		
Track on Demand **-Google Link**	W******,100	W000000,100
Remarks: Send this command to the tracker and then you receive an SMS with an http link. Click on the link then the location can be shown directly on Google Map on your mobile phone. For example: http://maps.google.com/maps?f=q&hl=en&q=22.540103,114.082329&ie=UTF8&z=16&iwloc=addr&om=1 (Note: Only smart phones and PDA support this function.)		
Change Password	W******,001,######	W000000,001,123456
Remarks: To change user's password. ###### is the new password. Password should be 6 digits.		
Track by Interval	W******,002,XXX	W000000,002,030
Remarks: To set interval for automatic timed report. XXX is the interval in minute. If XXX=000 to turn off tracking by time. In this example, the tracker will send location data back to your mobile phone every 30 minutes.		
Authorize Phone Number for SOS, B and C button	W******,003,F,P,T1 (W******,003,F,P,T1,T2)	W000000,003,3,1,88888888 W000000,003,3,1,88888888,99999999
Remarks: To authorize phone numbers for the buttons/inputs for receiving location reports, SMS alarms and phone calls. F=0, to turn off this function; (default) F=1, only sends SMS to the authorized phone number; F=2, only calls the authorized phone number; F=3, both SMS and calling P=1, set an authorized number for SOS button (Input 1) P=2, set an authorized number for B button (Input 2) P=3, set an authorized number for C button (Input 3) T1: Preset phone number. Max.16 digits If you need to set different numbers for receiving SMS and phone call, you can then use W******,003,F,P,T1,T2, In this case T1 is the phone number for receiving SMS and T2 for receiving phone call.		
Low Power Alarm	W******,004,X	W000000,004,2
Remarks: When the tracker's voltage is lower than the preset value, it will send an SMS alarm to the authorized phone number for SOS. X is the preset value of voltage.		
=0 , to turn off this function	=1, <3.3V	=2 , <3.4V

| =3 , <3.5V (default) | =4 , <3.6V | =5 , <3.7V | |

Overspeed Alarm	W******,005,XX	W000000,005,08

Remarks: When the tracker speeds higher than the preset value, it will send an SMS to the phone number for SOS.

XX is the preset value of speed and in 2 digits.

=00 , to turn off this function

=[01, 20] (unit: 10Km/h)

In this example, when the tracker's speed is over 80km/h, an SMS alarm will be sent out.

Movement Alarm	W******,006,XX	W000000,006,06

Remarks: When the tracker moves out of a preset square scope, it will send an SMS alarm to the authorized phone number for SOS.

XX is the preset distance to the tracker's original place

=00, to turn off this function

=01, 30m	=02, 50m	=03, 100m	=04, 200m
=05, 300m	=06, 500m	=07, 1000m	=08, 2000m

Geo-fence Alarm	W******,017,X W******,117,X	W000000,017,11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N W000000,117,11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N

Remarks: 017 is for alarm when tracker moves out the preset scope; 117 is for alarm when tracker moves in.

When the tracker moves in or out, it will send an SMS alarm to the authorized phone number for SOS.

X is the coordinates which include:

Lower-left X,Lower-left Y,Upper-right X,Upper-right Y

For example, 11404.0000,E,2232.0010,N,11505.1234,E,2333.5678,N

Note:

1. Lower-left X should be less than Upper-right X;

2. All longitudes and latitudes should be in ASCII format as follows:-

   Longitude: DDDFF.FFFF,E/W. 4 places of decimal. '0' is needed to be stuffed if no value available.

   Latitude: DDFF.FFFF,N/S. 4 places of decimal. '0' is needed to be stuffed if no value available;

3. Only one alarm can be set in either Movement Alarm or Geo-fence Alarm;

4. Send W******,006,00 to turn off Geo-fence function.

Extended Functions	W******,008,ABCDEFGHIJ####	W000000,008,1011100011###

Remarks:

A=0, turn off the function of sending SMS position report after a phone call is made to the tracker.

A=1, turn on the function of sending SMS position report after a phone call is made to the tracker.

B=0, location data of NMEA 0183 GPRMC will be interpreted into normal text for easy reading.

For example, *Longitude = 114 degree - 04 minute -57.74 second, Latitude = 22 degree -32 minute -40.05 second*

B=1, location data complies with NMEA 0183 GPRMC protocol.

For example, $GPRMC,161509.000,A,2232.5485,N,11404.6887,E,0.3,153.7,290709,,*03

C=0, turn off the function to automatically hang up an incoming call.

C=1, turn on the function to automatically hang up an incoming call after 4 - 5 rings.

D=0, turn off the function of sending an SMS when the tracker is turned on.

D=1, turn on the function of sending an SMS to SOS number when the tracker is turned on.

E, defaulted as 1 (the tracker shuts down automatically when the power voltage is lower than 3V).

F=0, Turn off the SMS alarm when the tracker enters GPS blind area.

F=1, Turn on the SMS alarm when the tracker enters GPS blind area. SMS is to be sent to the authorized phone number for SOS.

G=0, all LEDs work normally.

G=1, all LEDs stop flashing when the tracker is working.

H, reserved and defaulted as '0'

I, reserved and defaulted as '0'

J, reserved and defaulted as '1'

is the ending character

(ABCDEFGHIJ defaulted as 1000100001)

Presetting by SMS for GPRS tracking (*Ensure that your SIM card supports GPRS connection prior to setting)*		
Set Tracker ID	W******,010,ID	W000000,010,00001
Remarks: to set a digital ID for the tracker. Tracker ID must not over 14 digits.		
Set APN	W******,011,APN,Username, Password	W000000,011,CMNET,xxxxx,6688 W000000,011,CMNET
Remarks: If no APN username and password are required, just input APN only; APN defaulted as 'CMNET'; APN + username + password should not over 39 characters.		
Set IP and Port	W******,012,IP,Port	W000000,012, 220.121.7.89,8500 W000000,012,www.xxxxx.net,8500
Remarks: IP is your server's IP or the domain name. Port: [1,65534]		
Set DNS Server IP	W******,009,DNS Server IP	W000000,009,220.23.4.90
Remarks: In case the domain name you set by the last command (W******,012,IP,Port) doesn't work, which means your server IP is not properly set. You can first use this command to set DNS Server IP (please check with your DNS server provider for the DNS Server IP) and then redo the command W******,012,IP,Port.		
Enable GPRS Tracking	W******,013,X	W000000,013,1
Remarks: X=0, to turn off GPRS tracking (default); X=1, to enable GPRS tracking via TCP X=2, to enable GPRS tracking via UDP		
Set GPRS Interval	W******,014,XXXXX	W000000,014,00060
Remarks: to set time interval for sending GPRS packets. XXXXX should be in five digits and in unit of 10 seconds.		

XXXXX=00000, to turn off this function;

XXXXX=00001~65535, time interval for sending GPRS packet and in unit of 10 seconds.

In this example, the tracker will send every 600 seconds (10 minutes).

For more information regarding GPRS tracking please refer to <GPRS Communication Protocol>

Sleep Mode	W******,021,XX###	W000000,021,02###

Remarks: this setting is for power saving.

XX=00 turn off sleep mode	XX=01 Level I	XX=02 Level II

is the ending character

Here is some explanation for the sleep mode. First, assume that the GPS acquisition time is ONE minute.

[1] In Level I

The GPS module will be working for the first three minutes (i.e. 3 times of acquisition time) and then shut down for ONE minute (i.e. equivalent to acquisition time), and then work again for another three minutes......

[2] In Level II

The GPS module will be working for the first two minutes (i.e. twice of acquisition time) and then shut down for ONE minute (i.e. equivalent to acquisition time), and then work again for another two minutes......

Power Down	W******,026,XX	W000000,026,10

Remarks: to set power down mode when the tracker is inactive for a period of time.

In Power Down mode, GPS stops working and GSM enters sleep and stop sending out message until it is activated by message, incoming calls or triggered by buttons.

XX=00, to turn off this function.

XX=01~99, to turn on Power Down after a specified period of being inactive. It is in unit of minute.

In this example, the tracker will enter power down mode after it is inactive for 10 minutes.

Listen (Wiretapping)	W******,030,T	W000000,030,88888888

Remarks: T is the telephone number for wiretapping and max. 16 digits.

This is an optional function which requires an external microphone.

Correct Time Difference	W******,032,T	W000000,032,480 W000000,032,-120

Remarks: Default time of the tracker is GMT, you can use this comment to correct it to your local time. This command is for SMS tracking only.

T=0, to turn off this function.

T=[1, 65535] to set time difference in minute to GMT.

For those ahead of GMT, just input the time difference in minute directly. For example, GMT+8, W000000,032,480

'-'is required for those behind GMT. For example, W000000,032,-120.

Set SMS Initials	W******,033,P,Char	W000000,033,1,help

Remarks: this command is to set initial characters for SOS message when SOS/IN1, Button B/IN2, Button C/IN3 is pressed.

P=1, SOS button/Input1	P=2, B button/Input2	P=3, C button/Input3

Char is the character in SOS message and max 32 characters and defaulted as:

1 SOS Alarm!	2 Cry For Help!	3 Call The Police!

Set Prefix (Country Code)	W******,502,*Data#	W000000,502,*+86#
Remarks: be advised caution in this setting. Normally, your country code (for example in China it is +86) will be automatically added and displayed prior to a phone number when sending SMS. In this case, you don't have to do this setting. If the country code is not added, you are required to input the country code, for example, +86, to enable the tracker can send out SMS to your mobile phone. Data: max 10 digits		
Get Version No. and Serial No.	W******,600	W000000,600
Remarks: to get the version and serial number of tracker's firmware		
Get IMEI	W******,601	W000000,601
Remarks: to get IMEI of the tracker		
Reboot GSM	W******,901###	W000000,901###
Remarks: to reboot the GSM module of the tracker		
Reboot GPS	W******,902###	W000000,902###
Remarks: to reboot the GPS module of the tracker		
Initialization	W******,990,099###	W000000,990,099###
Remarks: Turn on the device, press the SOS button for five times continuously and the red LED will be on, and then send (within 120 seconds) this SMS to the tracker to make all settings (except for the password) back to factory default. ### is the ending character.		
Password Initialization	W888888,999,666	W888888,999,666
Remarks: In case you forget your password, turn on the tracker, press the SOS button for five times continuously and the red LED will be on, and then send this SMS (within 120 seconds) to the tracker to make the password back to factory default (000000).		

Annex 2. Troubleshooting

Problem: Unit will not turn on when pushing the power switch to On side	
Possible Cause:	Resolution:
Power switch was not pushed properly	Check and make sure the power button is pushed to On side.
Battery needs charging	Recharge battery for 3 hours
Problem: Unit will not reply with SMS	
Possible Cause:	Resolution:
Green LED is flashing (1 second on and 2 seconds off)	Make GT30 connected to GSM network.
GSM Network is slow	Wait for SMS. Some GSM networks slow down during peak time or when they have equipment problems.
Unit is sleeping	Cancel sleeping mode

Wrong password in your SMS or wrong SMS format	Write correct password or SMS format
The SIM in GT30 has run out of credit	Replace or top up the SIM card
Problem: Green LED is Flashing (1 second on and 2 seconds off)	
Possible Cause:	**Resolution:**
No GSM signal	Check with a mobile phone to see if there is a signal in the area or try to call the unit to see if you hear a ring tone.
No SIM card	Insert a working SIM card. Check in phone that the SIM can send SMS message.
SIM card has expired	Check in phone that the SIM can send SMS message. Replace SIM card if needed.
SIM has PIN code set	Remove PIN code by inserting SIM in you phone and deleting the code.
SIM is warped or damaged	Inspect SIM, clean the contacts. If re-inserting does not help try another to see if it will work.
Roaming not enabled	If you are in a different country your SIM account must have roaming enabled.
Battery is low	Recharge the unit and the GSM will start working.
Problem: Blue LED is Flashing (1 second on and 2 seconds off) or the SMS received starts with 'Last...'	
Possible Cause:	**Resolution:**
Unit does not have clear view of the sky	Move the unit to a location where the sky is visible. Tall buildings, trees, heavy rain, can cause problems with the GPS reception.
Bad GPS reception	Place the front side of GT30 towards sky
Battery is low	Recharge the unit and the GPS will start working.
Problem: Unit Fails to Connect to Server via GPRS	
Possible Cause:	**Resolution:**
SIM card in GT30 does not support GPRS function	Enable SIM card GPRS function.
GPRS function of GT30 is turned off	Turn on GPRS function of GT30.
Incorrect IP address or PORT	Get the right IP address and PORT and reset to GT30.
GSM signal is weak	Move the unit to a location with good GSM reception.