GPS Personal Tracker

User Manual

V7.0

EDW-60T

Contents

1.Product Overview

The EDW-60T is a GPS/GPRS based personal tracking device, which is compact and easy to use.

EDW-60T 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.

One unique feature of EDW-60T is the inbuilt microphone and loudspeaker that supports two way voice communications like a mobile phone 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.

EDW-60T has the following functions and features:

- SMS and GPRS TCP/UDP Communication
- AGPS (with GSM Base Station ID)
- Track on demand
- Show location directly on mobile phone
- Track by time interval
- Track by Distance
- Two-way audio
- Listen-in (voice monitoring)
- Inbuilt motion sensor for power saving
- SOS panic button
- Movement alarm
- Geo-fencing control
- Low battery alarm
- Speeding alarm
- GPS blind area alarm
- Three buttons for making phone call and/or sending message

2.For Your Safety

Read these simple guidelines. Not following them may be dangerous or illegal.

Switch on safely	Do not switch on EDW-60Twhen wireless phone use is prohibited or when it may cause interference or danger.
Switch off in hospitals	Follow any restrictions. Switch EDW-60T off near medical equipment.
Switch off in aircraft	Follow any restrictions. Wireless devices can cause interference in aircraft.
Switch off when refueling fuels or	Do not use EDW-60T when at a refueling point. Do not use near chemicals.
Switch off near blasting	Follow any restrictions. Do not use EDW-60T when blasting is in progress.
Qualified service	Only qualified personnel can repair EDW-60T.
Water resistance	EDW-60T is not fully water resistant. Keep it dry. Use waterproof bag if

necessary.

3.EDW-60T Characteristics

Items	Specification
Charging Voltage	DC 4.2-5.5V/400mA (Mini USB port)
Internal Battery	Rechargeable and removable 950 mAh battery (3.7V)
Dimension	78 mm × 45 mm × 21 mm (14mm)
Weight	70g (with battery)
Operating temperature	-20° to 55° C
Humidity	5% to 95% Non-condensing
GSM module	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	50 hours in power-saving mode and 10 hours in normal working mode
LED	3 LEDs 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 EDW-60T.

4.1 Hardware and Accessories

EDW-60T is supplied in a box which includes:

| GT60 | Battery | Wall Charger | Car Charger | USB Cable | CD |

4.2 View

| Front View | Side View | Back View |

4.3 Functional Parts

Your EDW-60T 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 battery
On	Charging
Flashing (1 second on and 2 seconds off)	Working
Blue LED - indicating GPS status	
On	One button is being pressed
Flashing (every 0.1 second)	The unit is being initialized
Flashing (0.1 second on and 2.9 seconds off)	GT60 has a GPS fix
Flashing (1 second on and 2 seconds off)	GT60 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)	GT60 is connected to the GSM network
Flashing (1 second on and 2 seconds off)	GT60 is not connected to the GSM network
Buttons	
Power On/Off Button	Press and hold it for 3-5 seconds to turn on/off EDW-60T
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 Data Cable or USB-to-Serial Adaptor is required for firmware update and configuration)
Lanyard Loop	For connecting lanyard.

4.4 First Use

Please read this manual before using your EDW-60T.

4.4.1 Ensure that your EDW-60T 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 GT60, please make sure the SIM installed supports displaying caller ID.

4.4.2 Put the battery in EDW-60T and charge the tracker 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 for charging. Red light is on during charging and is off when charging is complete.

4.4.3 Press and hold the Power On/Off button for 3-5 seconds to activate EDW-60T and 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: Change user's password.

Note:

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: Correct time into your local time

Note:

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=[-32768,32767] 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 link to Google Map
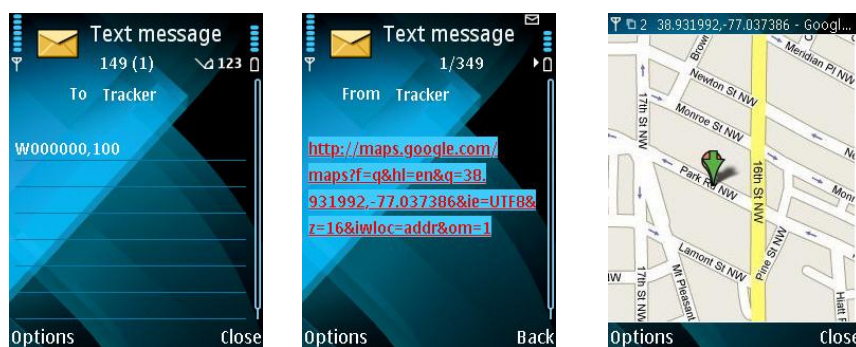
Command: W******,100

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

Note:

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.
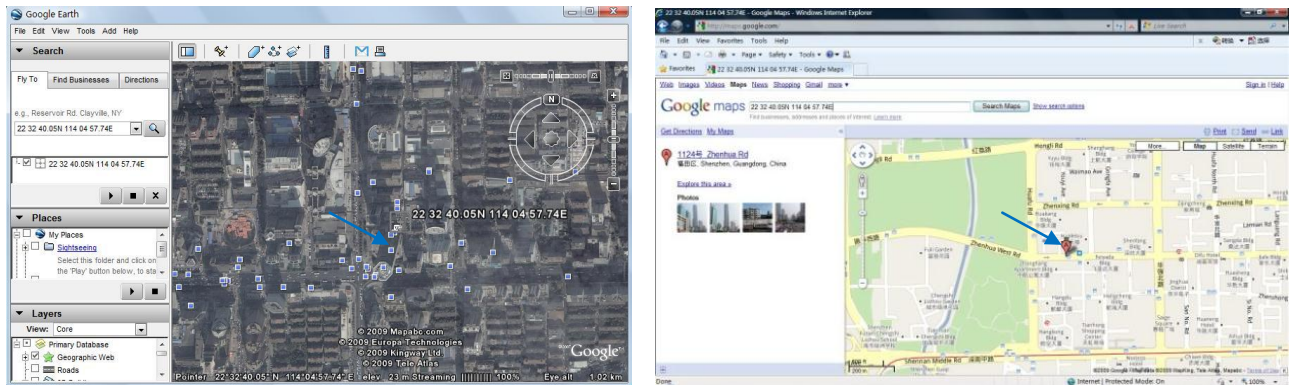
Example:

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/MS02

If you have bought our GPS Tracking Software MS01 or MS02, after proper configuration, you can do tracking on MS01/MS02.
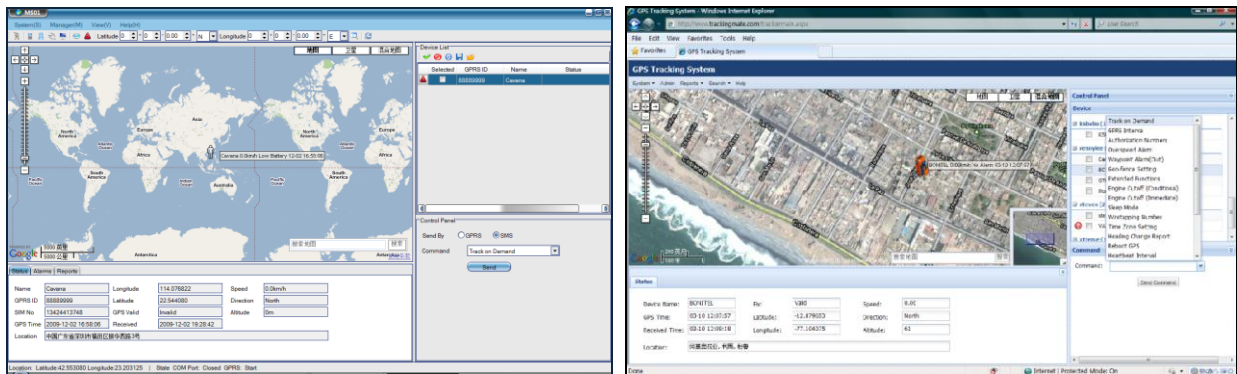
Please refer to MS01/MS02 User Guide for more information.

7.6 Track by GPRS between Server and Tracker

7.6.1 Set Tracker's GPRS ID

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

Description: Set a digital GPRS ID for the tracker.

Note: GPRS ID must not over 14 digits.

Example:

W000000,010,00001

7.6.2 Set APN

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

Description: Set APN details for the tracker

Note:

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,user,6688

W000000,011,CMNET

7.6.3 Set IP and Port

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

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

Note:

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.example.com,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: Enable GPRS tracking function.

Note:

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: Set time interval for sending GPRS packets.

Note:

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>

7.7 Track by GpsGate

The GT60 supports GpsGate Software.

Please contact us or GpsGate for more information of settings.

8. Authorization

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

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

Note:

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

Based on EDW-60T's inbuilt loudspeaker and microphone, you can use EDW-60T to make or receive phone calls.

9.1 Receiving Phone Call

Use your phone or mobile phone to call the tracker, the green LED will be on and you hear beeps produced by the tracker. 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.

11. Movement/Geo-fence

11.1 Movement Alarm

Command: W******,006,X

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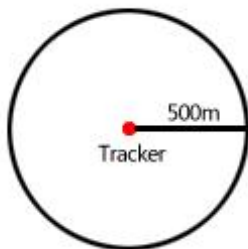
Note:

1. X is the preset radii to the tracker's original place

=0, to turn off this function

=1, 30m	=2, 50m	=3, 100m	=4, 200m
=5, 300m	=6, 500m	=7, 1000m	=8, 2000m

2. Radii: [1, 4294967295] meter(s), suggest to be set above 100 meters;

3. GPRS command is 0x12

Example: W000000,006,1

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

11.2 Geo-fence Alarm

Command: W******,302,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.

Note:

1. X is the parameters which includes: latitude, longitude, radii, in, out;

2. Latitude and lonitudes should be in ASCII format as follows:

Latitude is ddd.dddddd, '0' is needed to be stuffed if no value available. „-' should be added for south.

Longitude is dd.dddddd, '0' is needed to be stuffed if no value available. „-' should be added for west.

3. Radii: [1, 4294967295] meter(s), suggest to be set above 100 meters, if set above 8, it is corresponding radii;

4. If In and Out are 0, corresponding function is invalid, if are 1, valid;

5. Reply as Geo-Fence Alarm;

6. GPRS exiting command is 0x12, entering command is 0x13;

7. Send W******, 302 to turn off Geo-fence function;

Example:

W000000,302,22.000000,-114.123456,3000,1,1

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.

12. Track by Distance

Command: W******,303,X

Description: Send this command to set distance interval

Note:

1. X= [1, 4294967295], suggest to be set above 300 meters

2. X=0, turn off

Example: W000000,303,1000

13. Set Sensitivity of Tremble Sensor

Command: W******,035,XX

Description: Send this command to set sensitivity of tremble sensor

Note:

1. XX=[1,255], it will more sensitive if XX is more smaller

2. Default value is 30

Example: W000000,035,30

13. Listen-in (Voice Monitoring)

Command: W******,030,T

Description: Authorize a phone number to make a silence call to the tracker, the track answers the call automatically and allows the caller to listen to what happens around the tracker. There is no voice indication that the call is in progress

Note:

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

2. Calls from unauthorized number are treated as normal incoming calls and indicated by beeps.

Example:

W000000,030,88888888

14. Heartbeat

Command: W******,015,data

Description: Set an interval for heartbeat.

Note:

data is the interval in unit of minute

data=0, to turn off this function;

data=1~65535, set interval for heartbeat.

Example:

W000000,015,10

In this example, the tracker will send heartbeat every 10 minutes.

15. Power Down

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

Description: Make the tracker into power down mode when it is inactive or immobile 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 movement or triggered by three buttons.

Note:

XX=00, to turn off this function.

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

Example: W000000,026,10

The tracker will enter power down mode after it is inactive (or stationary) for 10 minutes.

18. Get IMEI

Command: W******,601

Description: Get IMEI of the tracker. IMEI is 15 digits

Example: W000000,601

19. Initialization

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

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

Note: Send SMS "Default?" to the device, and then send (within 120 seconds) this SMS command to the tracker.

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

Example: W000000,990,099###

20. Password Initialization

Command: W888888,999,666

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

Note: Send SMS "Default?" to the device, and then send (within 120 seconds) this SMS command to the tracker to make the password back to factory default (000000).
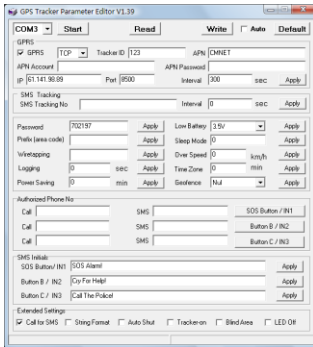
If you had set authorized telephone number, when password preset successfully, the telephone will get W888888,999,666

Example: W888888,999,666

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

18. 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.

Authorization		W******,003,F,P,T1	W000000,003,3,1,88888888
		(W******,003,F,P,T1,T2)	W000000,003,3,1,88888888,99999999

Remarks: To authorize phone numbers for Inputs for receiving location reports or SMS alarms or 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 Input 1

P=2, set an authorized number for Input 2

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.

Note: VT310 doesn't support two-way conversation. Calling only gives ring and reminder to the authorized phone

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

Remarks: When the tracker speeds higher than the pre-set value, it will send an SMS to the authorized 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,X	W000000,006,6

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

X is the preset radii to the tracker's original place

=0, to turn off this function

=1, 30m	=2, 50m	=3, 100m	=4, 200m
=5, 300m	=6, 500m	=7, 1000m	=8, 2000m

Geo-fence Alarm		W******,302,X	W000000,302,22.000000,-114.123456,3000,1,1

Remarks: 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.

Note:

1. X is the parameters which includes: latitude, longitude, radii, in, out;

2. Latitude and lonitudes should be in ASCII format as follows:

Latitude is ddd.dddddd, „0‟ is needed to be stuffed if no value available. „-‟ should be added for south.

Longitude is dd.dddddd, '0' is needed to be stuffed if no value available. „-‟ should be added for west.

3. Radii: [1, 4294967295] meter(s), suggest to be set above 100 meters, if set above 8, it is corresponding radii;

4. If In and Out are 0, corresponding function is invalid, if are 1, valid;

5. Reply as Geo-Fence Alarm;

6. GPRS exiting command is 0x12, entering command is 0x13;

7. Send W******, 302 to turn off Geo-fence function;

Track by Distance	W******,303,X	W000000,303,1000

Remarks: Send this command to set distance.

Note:

1. X= [1, 4294967295], suggest to be set above 300 meters

2. X=0, turn off

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

Remarks:

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

A=1, turn on the function of sending SMS locaiton 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, Latitude = 22 32 36.63N Longitude = 114 04 57.37E, Speed = 2.6854Km/h, 2008-12-24,01:50

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 the authorized phone number for SOS 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=0, turn off the function of sending SMS alarm when the extra power of the vehicle tracker is cut.

I=1, turn on the function of sending an SMS alarm to the authorized phone number for SOS when the extra power of the vehicle tracker is cut.

J, 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's GPRS ID	W******,010,ID	W000000,010,00001
Remarks: to set a digital GPRS ID for the tracker.		
GPRS ID must not over 14 digits.		
Set APN	W******,011,APN,Username, Password	W000000,011,CMNET,user,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.example.com,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).		
Set Heartbeat Interval	W******,015,data	W000000,015,10
Remarks: to set interval for heartbeat.		
Data: in unit of minute		
data=0, to turn off this function;		
data=1~65535, set interval for heartbeat.		
In this example, the tracker will send heartbeat every 10 minutes.		
Set Sensitivity of Tremble Sensor	W******,035,XX	W000000,035,30
Remarks: Send this command to set sensitivity of tremble sensor		
Note:		

1. XX=[1,255], it will more sensitive if XX is more smaller

2. Default value is 30

Example: W000000,035,30

Heading Change Report	W******,036,degree	W000000,036,90

Remarks: when the heading direction of the tracker changes over the preset degree, a message with location data will be sent back to the server by GPRS.

degree=0, to turn off this function.

degree=[1,360], to set degree of direction change.

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

Sleep Mode	W******,021,X	W000000,021,2

Remarks: this setting is for power saving.

X=0 turn off sleep mode	X=1 Level I	X=2 Level II	X=3 Level III

Here is some explanation for the sleep mode.

GPS module will be closed for 64 seconds * X (X=1, 2, 3), if it gets continuous GPS fixed for 32 times or Non-GPS fixed for 128 times。After that, GPS module will periodically work and close

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

Remarks: to set power down mode when the tracker is inactive (stationary) 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, movement or input changes.

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-in (Voice Monitoring)	W******,030,T	W000000,030,88888888

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

Time Zone	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=[-32768,32767] 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 Header	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!

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: Send SMS "Default?" to the device, and then send (within 120 seconds) this SMS command 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, Send SMS "Default?" to the device, and then send (within 120 seconds) this SMS command to the tracker to make the password back to factory default (000000).		

Annex 2. Troubleshooting

Problem: Unit will not turn on	
Possible Cause:	**Resolution:**
The power button is not pressed long enough	Press and hold the button for 3-5 seconds.
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 GT60 connected to GSM network.
GSM Network is slow	Some GSM networks slow down during peak time or when they have equipment problems.
Unit is sleeping or in power down mode	Cancel sleeping mode or power down
Wrong password in your SMS or wrong SMS format	Write correct password or SMS format
The SIM in GT60 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 GT60 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 EDW-60T does not support GPRS function	Enable SIM card GPRS function.
GPRS function of EDW-60T is turned off	Turn on GPRS function of EDW-60T.
Incorrect IP address or PORT	Get the right IP address and PORT and reset to EDW-60T.
GSM signal is weak	Move the unit to a location with good GSM reception.

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