Go - tracC

User Manual

January 2010

Contents

Welcome

Thank you for purchasing Go-TraC.

This GSM (Global System for Mobile communication) and GPS (Global Positioning system) tracker has numerous applications that include immediate location and real-time tracking modes also movement , outside area and panic alarms.

The respective GSM and GPS modules allow you to contact the tracker, using your mobile phone, which then receives the GPS signal and automatically calculates the longitude and latitudinal coordinates of the tracker.

The information, coordinates, speed, battery power and time, are received by the callers mobile phone via SMS (Short Messaging Service) through the GSM network.

When inputting the coordinates into Google Earth, which can be downloaded free http://earth.google.com , the location of the tracker will be displayed.
There is no fee or service charge made with this product. The only additional charge is the SMS sending cost. Your phone must have incoming caller ID display function.

Know your Tracker

Power Supply Socket

LED Indicator

Operator Button

SIM Card Slot

Operator Button

To power on press the "Operator" button until the LED lights up. When the LED flashes it means the tracker is functioning.
To turn the tracker off press the "Operator" button until the LED Light flashes, then immediately press button 3 times - the LED and tracker will switch off

LED Indicator.

Flashes once = ON.
Flashes twice = ON -Weak GPS signal.
Flashes three times = ON - Battery Low.
Flashes four times = ON - Weak GPS signal & battery low.
Continuous = searching for GSM network.
LED Off = Off.
Flashing fast = Sending/Receiving a SMS

Charging the tracker

Only use the mains AC adaptor supplied to charge the tracker.

Plug the adaptor into a 220V A/C domestic power socket. Remove the round clear rubber stopper, from the side of the tracker, and insert the adaptor plug. Charging will take 3 – 4 hours.

On full charge the battery life will last between 10 – 15 days. This may be reduced due to varying usage conditions e.g. continuous usage and/or a weak GSM signal can reduce standby time.

Sim Card Slot

Obtain a SMS and incoming caller ID facility enabled GSM SIM card.

Before installing or removing a SIM card ensure the tracker is switched off. Remove the long narrow black rubber strip, located along the side, to reveal the SIM card socket. Lightly press the yellow switch-point with a pointed implement. The SIM card holder will be ejected. Pull it right out and place the SIM card in the holder (chip facing up). Replace the holder into the tracker and replace the black rubber strip.

Remember to Keep the SIM Card topped up with credit it is a PAYG SIM

Antenna.
It is critical that the GPS signal can be received. The tracker must therefore not be totally shrouded by metal; however placing the tracker on a metal surface will help to amplify the signal.
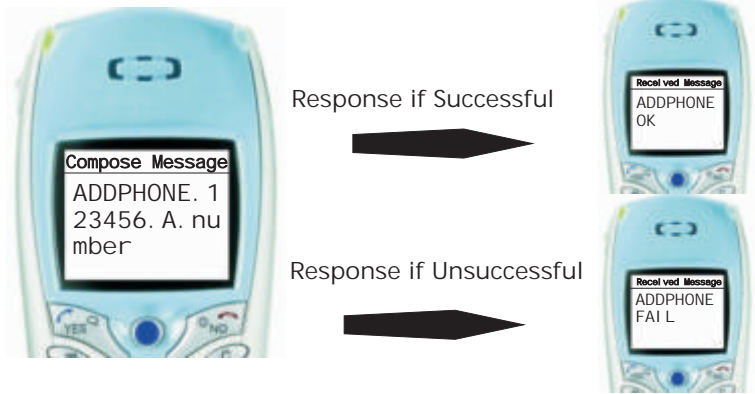
Set Up

Registering Numbers to Tracker

For Security reasons you have to register up to 3 mobile cellular phones with you tracker

To add phone number(s) for SMS function send the following SMS from your mobile phone to the tracker:
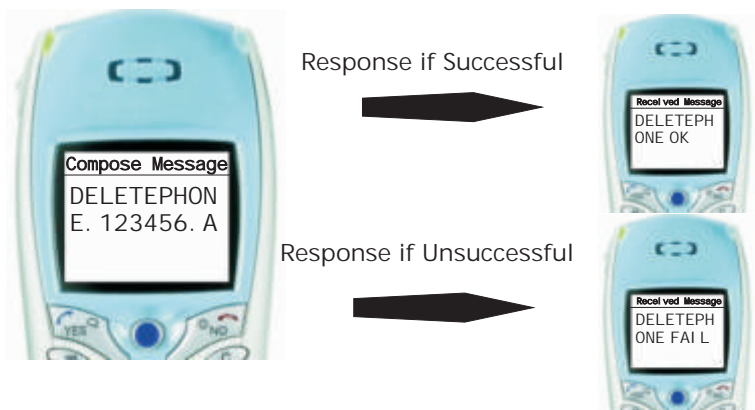
Based Upon the following being
Number = The Mobile Number To be Registered
123456 = Passcode
A = Memory Location

Compose Message
ADDPHONE. 123456. A. number

Response if Successful

Received Message
ADDPHONE OK

Response if Unsuccessful

Received Message
ADDPHONE FAIL

Deleting Numbers on Tracker

To delete phone number(s) registered on the tracker send the following SMS to the tracker

Based upon the following being
123456 = Passcode
A = Memory Location

Compose Message
DELETEPHONE. 123456. A

Response if Successful

Received Message
DELETEPHONE OK

Response if Unsuccessful

Received Message
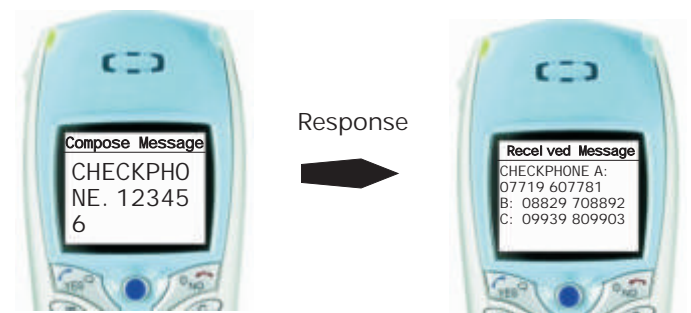DELETEPHONE FAIL

Checking Numbers registered to Tracker

The location of each number can be checked. To do this Send the Following SMS to the tracker.

Based Upon the following being
123456 = Passcode

The Numbers in the Response Graphic are for illustration purposes.

Compose Message
CHECKPHONE. 123456

Response

Received Message
CHECKPHONE A: 07719 607781
B: 08829 708892
C: 09939 809903

Setting the Location Recorder

Your tracker has the ability to record its location at user defined intervals. Should the tracker loose GPS coverage then the last known location of the tracker will be sent. The tracker may loose GPS coverage if it is taken inside, or taken through a road tunnel.

The interval time can be range from 0 minute to 98 minutes. Should the desired interval time be 10minutes then send the following SMS to the tracker.

SETPOWER = The command
123456 = Passcode
10 = Interval time (in minutes)

The interval time has to be entered in a 2 digit format. E.g. Should the required time be 5 minutes then the 05 should be entered.

Compose Message
SETPOWER. 1
23456. 10

This function can be turned off totally, if required. The tracker will have a longer life if being run from a stand alone battery source, rather than from a vehicle's electronics system.

To turn off this function of the tracker then send the following SMS to the tracker.

Compose Message
SETPOWER. 1
23456. 99

Locating the tracker Immediately

To obtain an immediate location response from the tracker, using a preset phone. Dial the tracker and after 3 rings the tracker will hang up then reply automatically via SMS

Calling
....
Tracker

Response

Recieved Message
LATITUDE: 54.526283N
LONGITUDE: 001.506556W
SPEED (Km/h): 45.0
DIRECTION: 202.20
GMT: 2009/10/05
08:29:06:00
BATTERY: 83%

Explanation of the response

LATITUDE - The Latitude Co-Ordinates.
LONGITUDE - The Longitude Co Ordinates
SPEED (Km/h): The Speed the tracker is moving, this may be zero is the tracker is not moving
DIRECTION (Degrees): This is the direction that the tracker is moving, North is '0', East is '90', South is '180' and West is '270'.
GMT: This is the time the Location was recorded given at GMT YYYY/MM/DD HR:MI:SE:MS
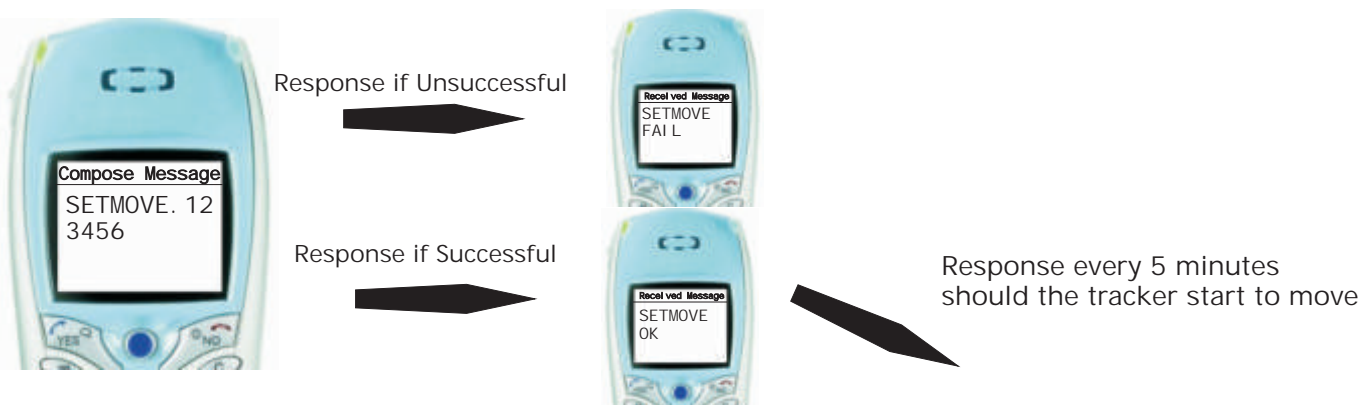BATTERY: The Remaining Battery Power

NOTE - If there is no Mobile Numbers registered on the Tracker then any phone can carry out this function

Setting the Movement Alarm

An alarm, in the form of an SMS text message, can be set so if the tracker moves location it will send a notification.

The alarm can be only sent by a registered number on the tracker. A SMS will be sent every 5 minutes whilst the tracker is moving, to the phone that set the alarm.

Compose Message
SETMOVE. 12
3456

Response if Unsuccessful

Recel ved Message
SETMOVE
FAI L

Response if Successful

Recel ved Message
SETMOVE
OK

Response every 5 minutes
should the tracker start to move

Note: This additional function will greatly reduce the battery life and should not be set if not essentially required.

To cancel this function send the following SMS

Compose Message
CANCELMOVE
. 123456

Response if Unsuccessful

Recel ved Message
MOVE NOT
SET

Response if Successful

Recel ved Message
MOVE
CANCEL

Reci eved Message
OBJECT MOVE
LATI TUDE: 54. 526283N
LONGI TUDE: 001. 506556W
SPEED (Km/h): 45. 0
DI RECTI ON: 202. 20
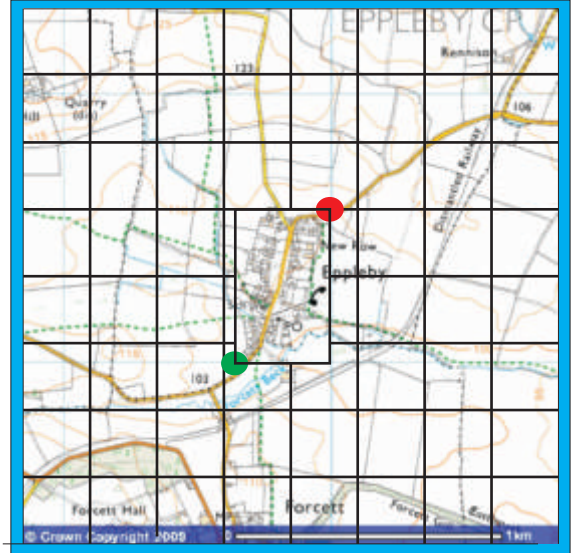GMT: 2009/10/05
08: 29: 06: 00
BATTERY: 83%

Setting the Area Alarm

The tracker can send an alarm if it is taken out of a pre-defined area. This area, could be a field, village, town or country.

The GPS co-ordinates have to be known for the most Northeasterly point and the most Southwesterly point.

The map here shows a village in Yorkshire, UK. For the tracker to send the SMS alarm the points ● and ● should be calculated to give create a square area. If the tracker moves into the hatched area then the alarm will be sent.

The ● forms Point A and the ● forms Point B

If the co-ordinates are gained from a source such as GoogleEarth or a Satellite Navigation system then they may give the Latitude Co-Ordinates in a 7 digit format (eg 1.234567N) this format should converted to an 8 digit format by prefixing the 7 digit format with '0's (Zeros). So the previous example would become 01.234567. The Longitude co-ordinantes may come in a 7 or 8 digit format (eg 1.234567W). These formats should be converted to a 9 digit format by, again, prefixing them with '0's (Zeros). The example above would become 001.1234567W.

The following text should be sent to set the required area.
The command _then a._
SETAREA
The password _then a._
123456
Point A
A
Latitude Co-ordinates for Point A
54.304125N
Longitude Co-ordiantes for point A _then a._
001.434561W
Point B
B
Latitude Co-ordinates for Point B
54.310114N
Longitude Co-ordinates for Point B
001.432349W

Compose Message

SETAREA. 123456. A 54. 304125N001. 43 4561W. B54. 310114 N001. 432349W

Response if Unsuccessful

Receved Message
SETAREA
FAI L

Response if Successful

Receved Message
SETAREA
OK

Area Alarm...(cont)

Once set, as soon as the tracker moves outside the specified area the mobile phone that set the area alarm will receive an SMS with the following information contained in it.

The information contained in the SMS will be the same as would be received if the Locate Immediately action were to be actioned. Refer to the Locate Immediately information for an explanation of the response.

Note: This additional function will greatly reduce the battery life and should not be set if not essentially required.

Recieved Message
OVER AREA
LATITUDE: 54.310203N
LONGITUDE: 001.432084W
SPEED(km/h): 45.0
DIRECTION: 82.50
GMT: 2009/10/08
13:29:06:00
BATTERY: 46%

To cancel this function send the following SMS

Compose Message
CANCELAREA.12
3456

Response if Unsuccessful

Recelved Message
AREA NOT
SET

Response if Successful

Recelved Message
AREA
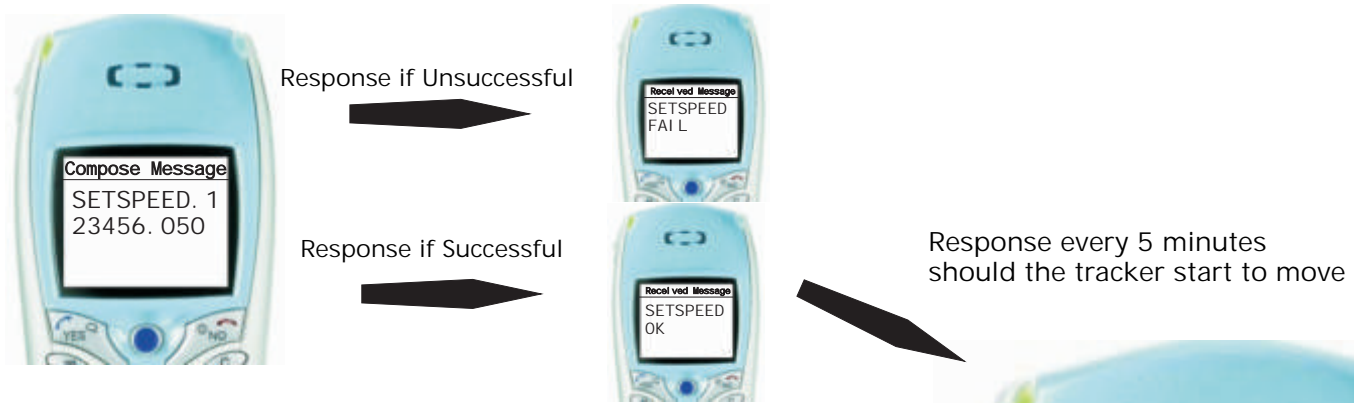CANCEL

Speed Limit Notification

The tracker can be set so if it moves over a certain speed, it will send an SMS notification, to a registered mobile phone.

All speads are in Kilometres Per Hour, with a range between 1 and 999Km/h and should be sent as a 3 digit number. For example if a notification of speeds higher than 80Km/h is required then 080 should be sent as the graphic below shows.

Command = Set Speed.   Passcode - 123456.   Speed Limit - 80Km/H

Response if Unsuccessful

Recei ved Message
SETSPEED
FAI L

Compose Message
SETSPEED. 1
23456. 050

Response if Successful

Recei ved Message
SETSPEED
OK

Response every 5 minutes
should the tracker start to move

Note: This additional function will greatly reduce the battery life and should not be set if not essentially required.

To cancel this function send the following SMS

Response if Unsuccessful

Recei ved Message
SPEED NOT
SET

Compose Message
CANCELMOVE
. 123456

Response if Successful

Recei ved Message
SPEED
CANCEL

Reci eved Message
OVERSPEED
LATI TUDE: 54. 526283N
LONGI TUDE: OO1. 5O6556W
SPEED (Km/h): 85. O
DI RECTI ON: 2O2. 2O
GMT: 2OO9/1O/O5
O8: 29: O6: OO
BATTERY: 83%

Continuous Tracking

The Tracker has the ablilty to send its location at set intervals to continuously give its location for a set period of time.

The interval time is set in minutes and must be entered in a 2 digit format. For example an interval of 5 minutes would be entered as '05'. The set period of time is also set in minutes, and must be entered as a 3 digit format, so 90minutes would be entered as '090'.

To set the tracker to continuously send notifications of its location enter send the following information.

The Command
SETTRACKING
Passcode
123456
Interval of time followed by 'M'
05
Tracking period followed by 'T'
090

This means that every 5minutes for a period of 90minets an SMS will be sent with the trackers location.

Note: This additional function will greatly reduce the battery life and should not be set if not essentially required.

Compose Message
SETTRACKING. 1
23456. 05M090T

The response if successful

Recieved Message
LATITUDE: 54. 310203N
LONGITUDE: 001. 432084W
SPEED(km/h): 45. 0
DIRECTION: 82. 50
GMT: 2009/10/08
13: 29: 06: 00
BATTERY: 46%

To cancel this function send the following SMS

Compose Message
CANCELTRAC
K. 123456

Response if Unsuccessful

Recieved Message
TRACK NOT
SET

Response if Successful

Recieved Message
TRACK
CANCEL

Testing and Troubleshooting

Testing the Tracker

To test the tracker press and hold the Operator Button on the Tracker for 6 seconds. The LED Indicator will flash fast then turn off then release the button. The tracker will send the information shown here to all registered mobile phones.

Recieved Message

```
TEST
LATITUDE: 54.526283N
LONGITUDE: 001.506556W
SPEED (Km/h): 85.0
DIRECTION: 202.20
GMT: 2009/10/05
08:29:06:00
BATTERY: 83%
```

Troubleshooting the Tracker

The tracker may 'auto-power off' so please check that the unit is switched on.

Check that the battery is powered up, recharge as necessary.

Check that SIM card has been installed correctly.

If tracker does not send back information, check that SIM card has caller ID display and SMS service function and that the SIM card PIN code has been disabled.
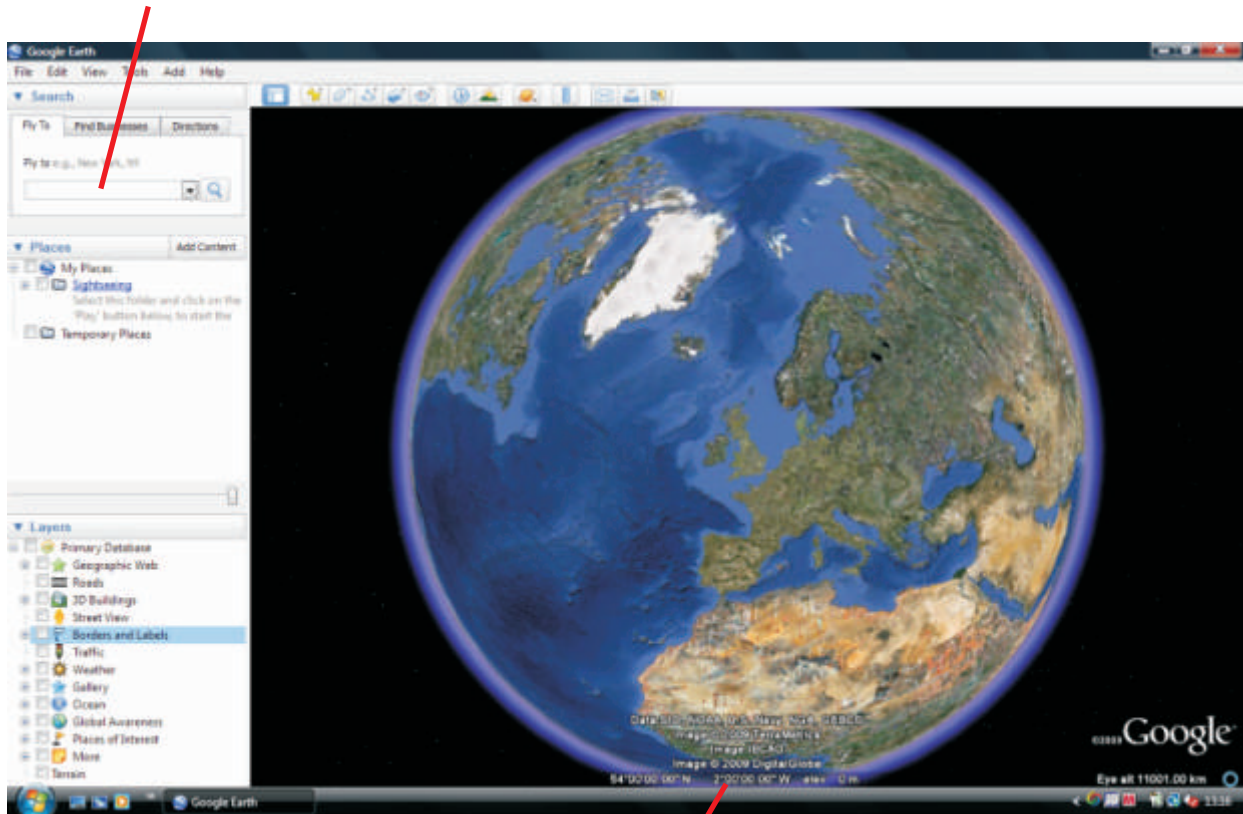
If the tracker does not respond then check that the power is on and that the SIM card has enough pre-payment on it.

The Basics of GoogleEarth

Various online and downloadable mapping tools can be used to enter the GPS co-ordinates into and to gain co-ordinates for the area function of the tracker. In the case of GoogleEarth these can be done very easily as shown in the graphic below.

Enter Co-ordinates here

Latitude and Longitude
Co-ordiantes where mouse pointer is located

Specifications

Location accuracy : 5-10 Meters
GPS receiver: 32 channels
GSM Band: or 850, 1800, 1900Mhz
Registered Cellular Moblie Numbers : 3
Reoccuring Charges: GSM/SMS sending cost
Antennas: GSM and GPS
Battery: Rechargeable lithium
Battery Life: 10-15days
Waterproof: To level IP56
Dimensions: 85 x 55 x 30mm approx.
Weight: 100 grams approx.

Attachable anywhere on metal with integrated magnets
Attachable to non-metal surfaces using cable ties

Go-traC Legal Information

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GoogleEarth image is © 2009 Google

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