

# GEOPOINT LCD

## PERSONAL TRACKER



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User Guide

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July Edition 2009

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It is absolutely forbidden to use the device for different uses other than those for which it has been devised for, as inferred to in this manual. When using the features in this device, obey all laws and respect privacy and legitimate rights of others.

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### **Note for the users of appliances**



According to the article 13 of the Legislative Decree no. 151 dated July 25, 2005, "Enforcement of the 2002/95/EC and 2003/108/EC directives, relevant to the reduction of dangerous substances in electric and electronic appliances, as well as waste disposal", the symbol of a crossed dustbin applied on appliances or on their cases means that the product at the end of its life cycle must be disposed in a dedicated location than other waste.

The user must, therefore, dispose the appliance at its end-of-life in the relevant disposal site for electric and electronic waste or give it back to resellers at the time of purchasing a new equivalent one.

The correct disposal and consequent start up of a recycling of the unused appliance, treatment and final disposal compatible to the environment concurs to avoid possible negative effects on the environment and health and favours the reusing and / or recycling of the parts making the apparatus.

The abusive disposal of such products done by users is fined according to the present legislation.

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## **Safety Instructions**

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Please read the following safety instructions carefully. Not following them may be dangerous and/or illegal. For further details, please read carefully the user manual complete version contained in the enclosed CD ROM.

- Do not switch the device on when prohibited or whenever it could cause any interference or danger.
- Obey all local laws. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety.
- All wireless devices may be susceptible to interference, which could affect the performance of other appliances (TV, radio,...).
- Switch the device off in hospitals or near medical equipment (hearing aid equipment, pacemaker, ...) the device could cause interference. Always keep a distance of 20 cm between pacemaker and device.
- Wireless and digital devices can cause interference with aircraft equipment.
- Do not use the device at a refuelling point. Switch-off when near petrol stations or fuel depots and chemical plants. The device could interfere with the correct functioning of the electronic equipment.
- Do not use the device where blasting is in progress.
- Do not use the device for any uses other than those it has been built for. Keep to the instructions as explained in the product manual.
- Only qualified personnel may install or repair this product.
- Use only approved accessories and batteries. Do not use incompatible products. The use of nonstandard products can cause damage to device and/or people.
- The batteries must be disposed according to the appropriate modes. The consumer must duly hand in worn out batteries, either at the appropriate collection points for the general public, in his own town, or wherever batteries of the same kind are sold (compulsory warning according to law on the disposal of batteries).
- The device is not water-resistant, keep it dry. Contact with water or any other liquid could cause serious damage to the device.

# General Information

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The tracker is a portable device able to transmit its geographical location to a mobile phone or PC in real-time. Moreover, the detected data can be recorded for further analysis.

The tracker is available in two different version:

- **LCD:** GPS tracker with display, phone and 2MB data memory.
- **BOX:** GPS tracker without display, without vocal communication and 512kB data memory.

Both trackers can be offered combined in the **KIT** version, particularly indicated for the use of *Finder* function, useful for real-time locating.

This User Guide describes the tracker in the LCD version.

The tracker has three basic functions:

- locating and transmitting its actual position
- sending an SOS message in case of an emergency
- voice communication as a mobile phone

The tracker is provided with MyTrack software allowing the tracker management and personal tracking.



The GPS receiver and the GSM device work at higher radio frequencies which can be stopped by enclosures containing metal and plastic parts.

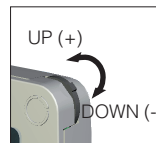
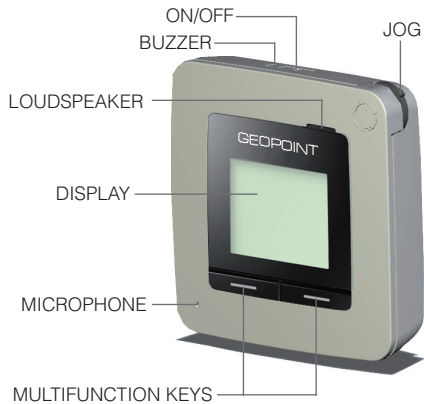
**It is suggested to keep the tracker under light clothes, as external as possible.**

Examples of shielding materials: kevlar, carbon fibre, some polyurethanic and polyamidic resins especially if black, etc.

Examples of materials which cannot influence the radio waves: ABS, ABS+PC, polycarbonate, etc.



**For further details on tracker use and functions, please read carefully the user manual complete version contained in the enclosed CD ROM.**





# Preliminary Procedures

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## Inserting the SIM Card

In case of a SIM card:

- **prepaid:** the communication between the tracker and the provided software is made exclusively by SMS text or GPRS network.
- **with subscription:** the communication between the tracker and the provided software is made by SMS text, GPRS network or also sending/receiving data (only if the data number has been activated by the network provider).

**PIN: - - - - Before inserting the SIM card in the tracker, disable the PIN code by means of a mobile phone.**

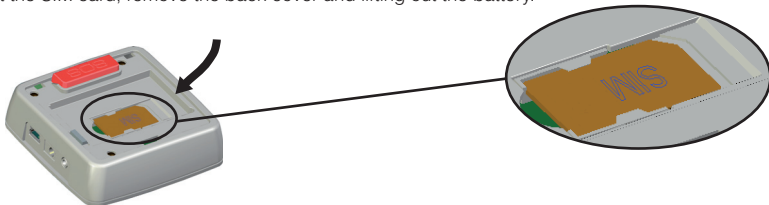


**Inserting a SIM card any SMS message, contained in it or which will be received in the future, will be deleted and cannot be retrievable.**



**If the battery is not inserted within 30 seconds, the date and hour settings will be ERASED.**

To insert the SIM card, remove the back cover and lifting out the battery.



## How to Charge the Battery

Before using the tracker for the first time, the battery must be completely charged.

Before charging, check that the network electrical supply corresponds to that of the battery charger. Do not exceed the network voltage indicated on the battery charger.



**Use only batteries and battery chargers with the following features:**

- **Battery: model ABL-6C Li-ion**
- **Battery charger: model ZD050050EU**
- **Car charger: model ESC-004**

**The manufacturing company is not liable for any damage to the tracker due to the use of accessories different from those expressly indicated.**



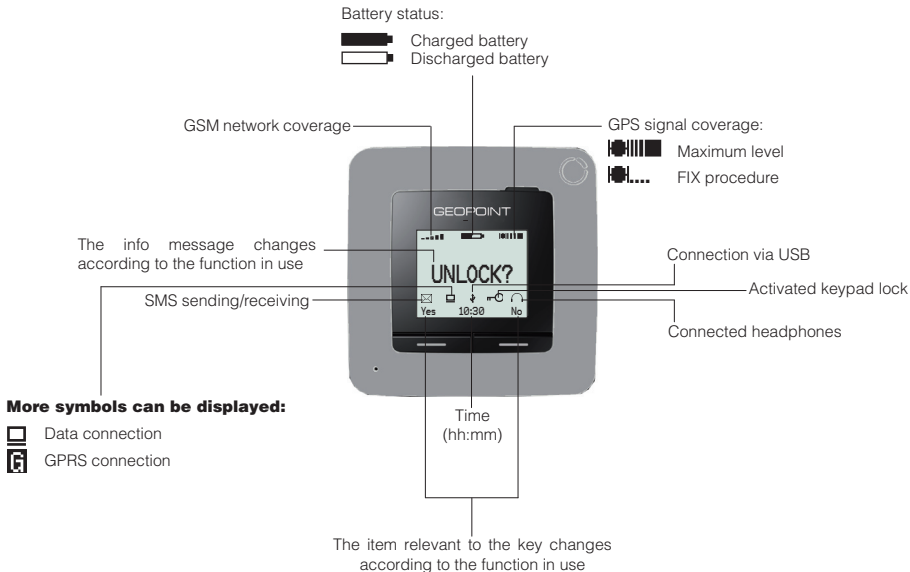
**Do not leave the tracker in particularly hot or cold environments during the battery charging. Keep the tracker between -10°C and +40°C environmental temperature.**



**When the battery is almost discharged, the tracker, if ON, emits an acoustic warning every minute.**

## Use of the Tracker

### Symbols



<b>Tracker Function</b>	<b>Description</b>	<b>Refer to</b>
GPS Info on Display	the tracker displays the info relevant to its position	chapter <i>Use of the Tracker</i>
Phone	the tracker displays the phonebook and a call can be received or carried out	chapter <i>Use of the Tracker</i>
SOS key	the tracker sends an alarm message	chapter <i>Use of the Tracker</i>
Position Request	the tracker sends an SMS containing its position to the phone number which requested this data	chapter <i>Tracker Management by SMS</i>
Automatic Position Sending	the tracker sends automatically its position by SMS or by GPRS connection	chapter <i>Use of the Tracker</i> , section <i>Setup</i> chapter <i>Tracker Management by SMS</i>
Position Data Recording	the tracker records its position data to review the track afterwards	chapter <i>Use of the Tracker</i> , section <i>Setup</i> chapter <i>Setup by MyTrack Software</i>
Geofence	the tracker sends an alarm SMS to the preset phone number everytime it exits or re-enters in a preset rectangular area	chapter <i>Tracker Management by SMS</i>
Anchor	the tracker sends an alarm SMS to the preset phone number everytime it exits or re-enters in a preset circular area	chapter <i>Use of the Tracker</i> chapter <i>Tracker Management by SMS</i>
Finder	the tracker finds another tracker of the same type and displays the direction and the distance to follow	chapter <i>Use of the Tracker</i>
Guide	the tracker finds a previously saved destination point and displays the direction and the distance to follow	chapter <i>Use of the Tracker</i>
Speed	the tracker emits an acoustic alarm when the preset speed limit has been overcome	chapter <i>Use of the Tracker</i>

Tracker Function	Description	Refer to
Power Save Mode	the tracker switches on/off automatically to optimize the battery consumption	chapter <i>Setup by MyTrack Software</i>
Alarm SMS	the tracker sends alarm SMS to the preset phone number everytime a status change happens (low battery, memory full, ...)	chapter <i>Tracker Management by SMS</i> chapter <i>Setup by MyTrack Software</i>



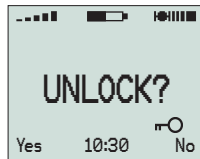
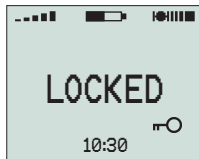
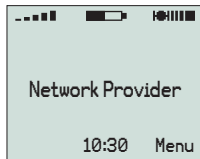
**The tracker can work without the SIM card. In this case, all functions operating with GSM/GPRS network will not be available.**

## Keypad Lock

The keypad lock disables the keys to avoid accidental use of the tracker.

### SOS

It is possible to send an alarm message by means of pressing the **SOS** key, even when the keypad lock is activated.

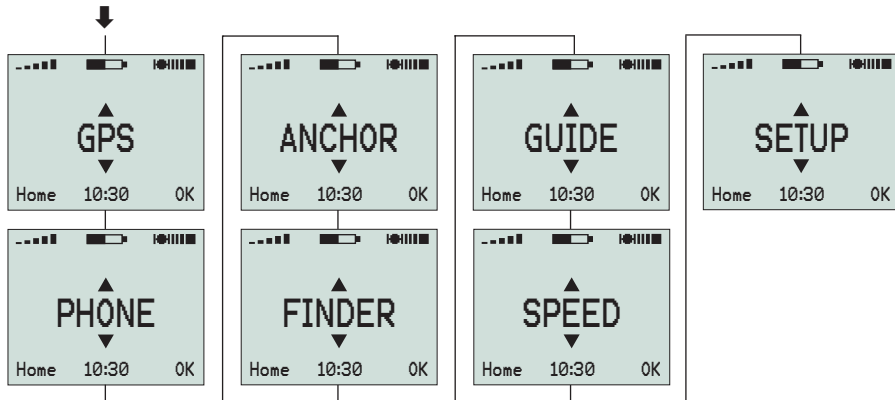


## Menu Structure

To access the main menu, press **Menu** in the Home page. The first section, *GPS*, will be displayed. Scroll down the sections turning the **JOG** and press **OK** to enter into the desired item. To exit the main menu and display the Home page, press **Home**.

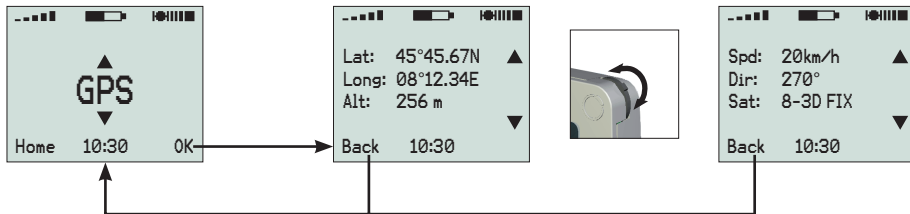


**The Speed function is not available in case of tracker compatible for OnTrack application.**



## GPS

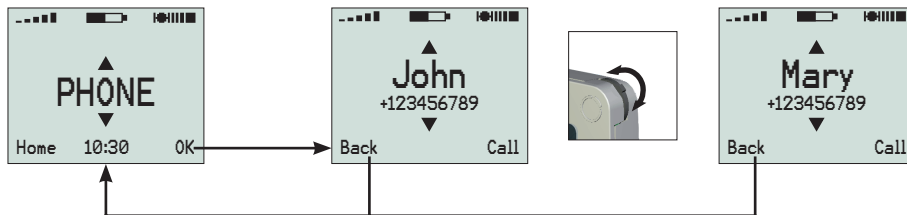
The data received by the GPS system are shown on the display.



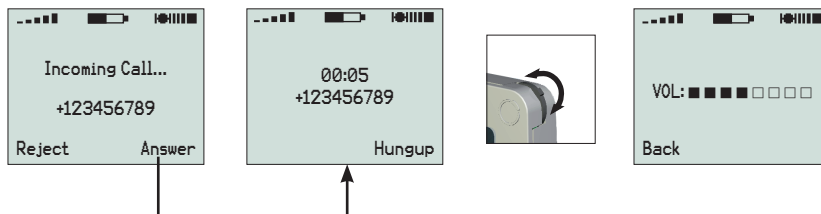
## Phone

The tracker also works as a GSM telephone. The call functions are extremely simple. The phone numbers and names are pre-programmed in the phone book by means of the provided software.

## PHONE BOOK (MAX 10 NUMBERS)



## RECEIVING A CALL



**During the transfer of data between the tracker and PC, it is not possible to make or receive any calls.**

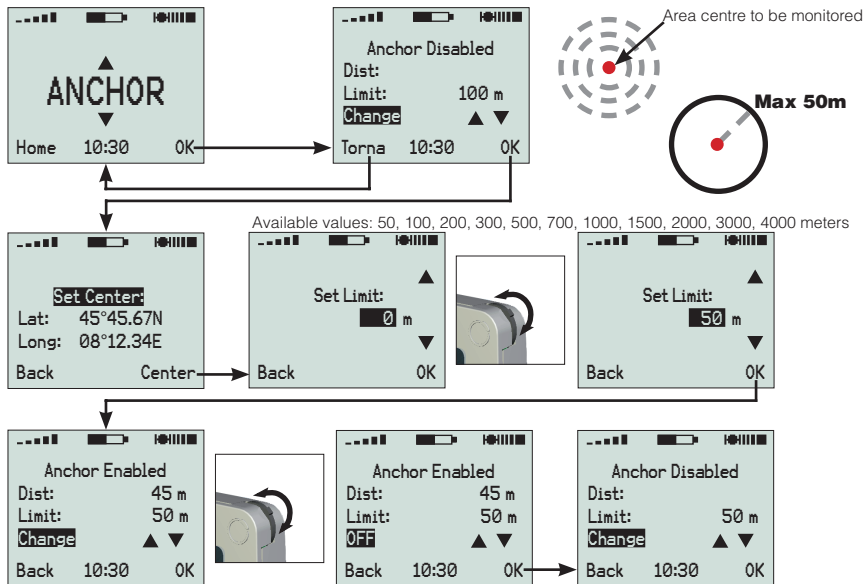


**The tracker does not allow to use the phone book possibly memorized on the SIM card in use. However, the information contained in it, except for SMS messages saved by a mobile phone, will not be erased.**



## Anchor

The *Anchor* function allows to monitor within a pre-established circular area the position of a person, an object or an animal. When the tracker detects the exiting from the pre-established area or the re-entering, it sends an alarm SMS containing its position data to the preset phone number. This function is programmable either operating directly on the tracker or by the provided software or by sending an SMS command.





**Before enabling this function, it is necessary to set the phone number where SMS will be sent by means of the provided software.**

Example of the SMS message displayed on the mobile phone, when the tracker enters the area

GEO,ID:GLORIA,ANCHOR ENTER,POS:45g37.9481N,008g28.9992E,ALT:0218m,07/04/10,10:09

Example of the SMS message displayed on the mobile phone, when the tracker exits the area

GEO,ID:GLORIA,ANCHOR EXIT,POS:45g37.9481N,008g28.9992E,ALT:0218m,07/04/10,10:09

The SMS message structure of the *Anchor* function is described here below:

GEO	Tracker type.
ID:-----	Tracker name preset by the user through the provided software.
ANCHOR ENTER	Alarm message.
POS:-----,-----,-----	Latitude and longitude of the geographical position.
ALT:-----	Altitude in m.
--/--/--,--:--	Event date and time (yy/mm/dd hh:mm).

## Finder

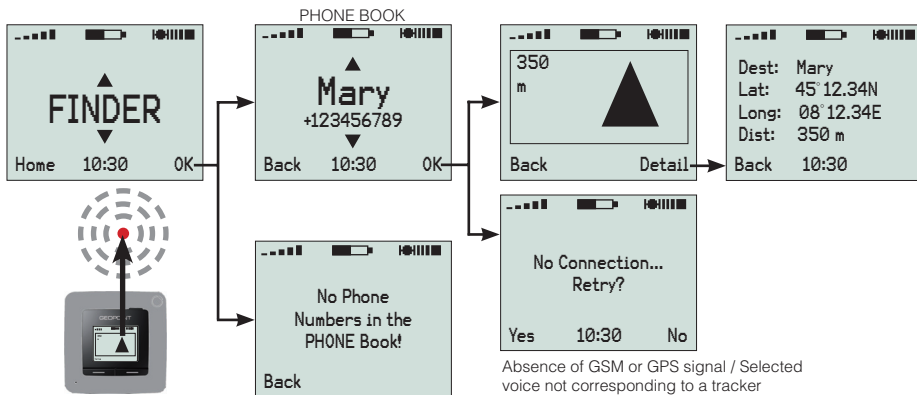
The *Finder* mode allows to find another tracker of the same type (LCD or BOX version) by displaying the distance and the direction to follow. The *Finder* function can only be used if the distance between the trackers is less than 999 Km.



**To carry out the *Finder* function, set the communication rate by the provided software.**



**The necessary motion** for updating the relevant position, **must be no less than 10 meters in 3km/h**. More motion means more precise indication of direction. It is important to keep the tracker pointing in the direction used for reference. In every way, if change of direction is inevitable, e.g. the ground is not viable, on approaching the correspondent, the direction will be constantly updated and corrected by the tracker.

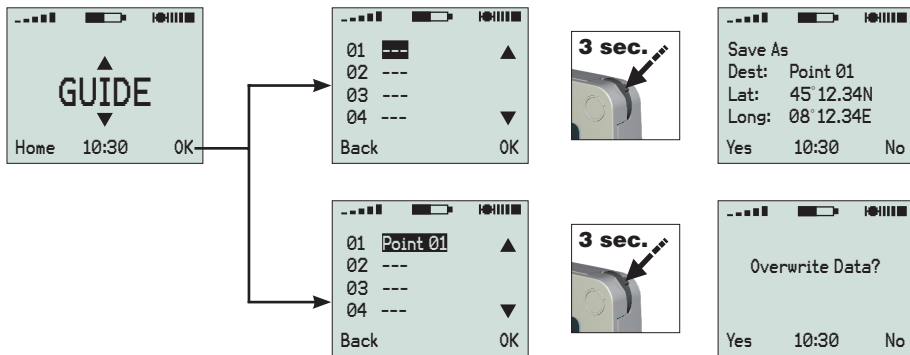


## Guide

The *Guide* function allows to reach a destination point by displaying the distance and direction. The *Guide* function is available only if the distance between the tracker and destination point is less than 999 Km. It is possible to set the *Guide* function by means of the provided software or directly on the tracker.

**3D FIX** It is suggested to save the destination point when the GPS signal level is optimal. In case of weak GPS signal, the accuracy of destination point coordinates will not be guaranteed.

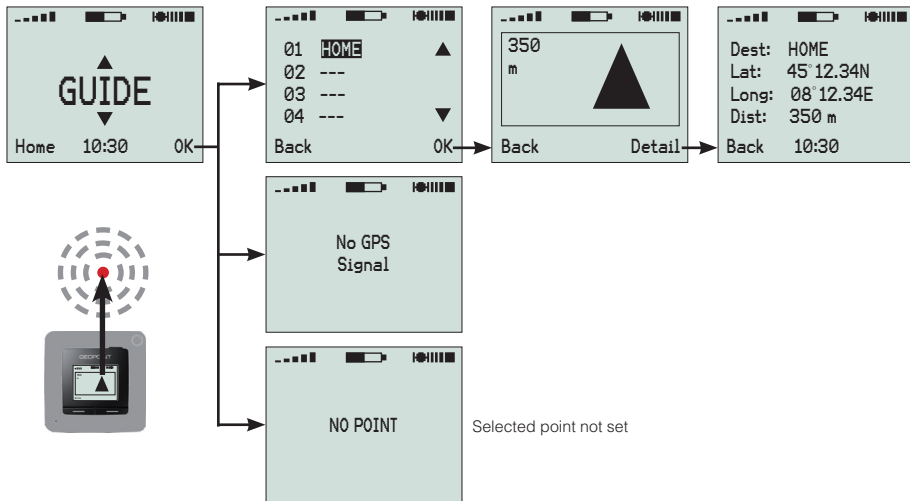
### HOW TO SAVE A DESTINATION POINT (MAX 30 POINTS)



## HOW TO REACH A DESTINATION POINT



The necessary **motion** for updating the relevant position, **must be no less than 10 meters in 3km/h**. More motion means more precise indication of direction. It is important to keep the tracker pointing in the direction used for reference. In every way, if change of direction is inevitable, e.g. the ground is not viable, on approaching the correspondent, the direction will be constantly updated and corrected by the tracker.

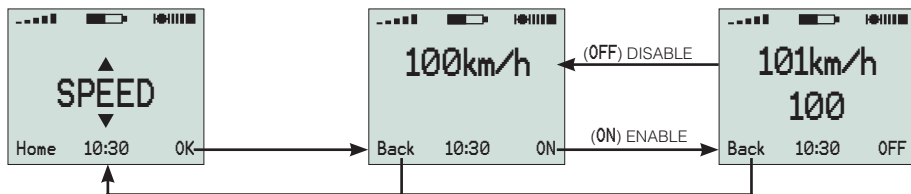


## Speed

The *Speed* function allows to set a speed limit which, when exceeded, causes the emission of a progressive acoustic alarm: more is the difference between the real speed and that programmed, quicker will be the alarm reproduction.



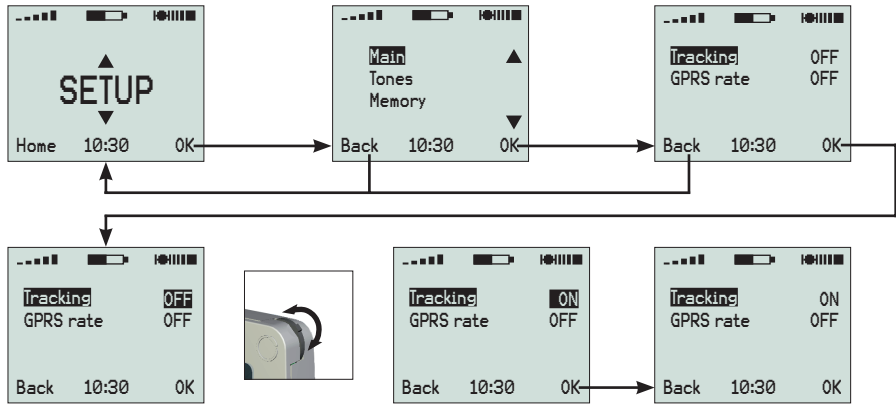
**The *Speed* function is not available in case of tracker compatible for OnTrack application.**



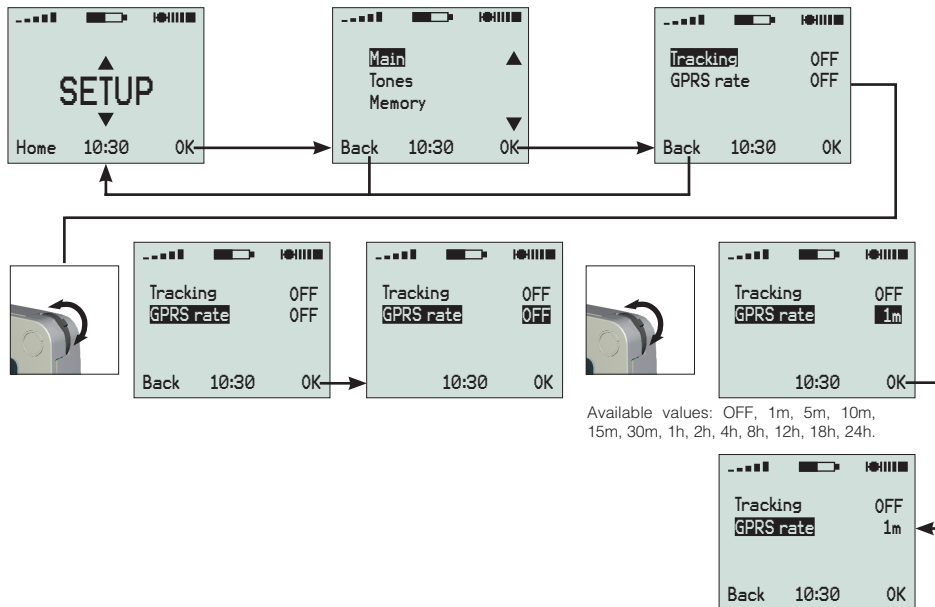
## Setup

### HOW TO ENABLE THE CYCLIC POSITION SMS SENDING

For further details on this function, refer to the chapter *Tracker Management by SMS*, paragraph *Automatic Position Sending*.



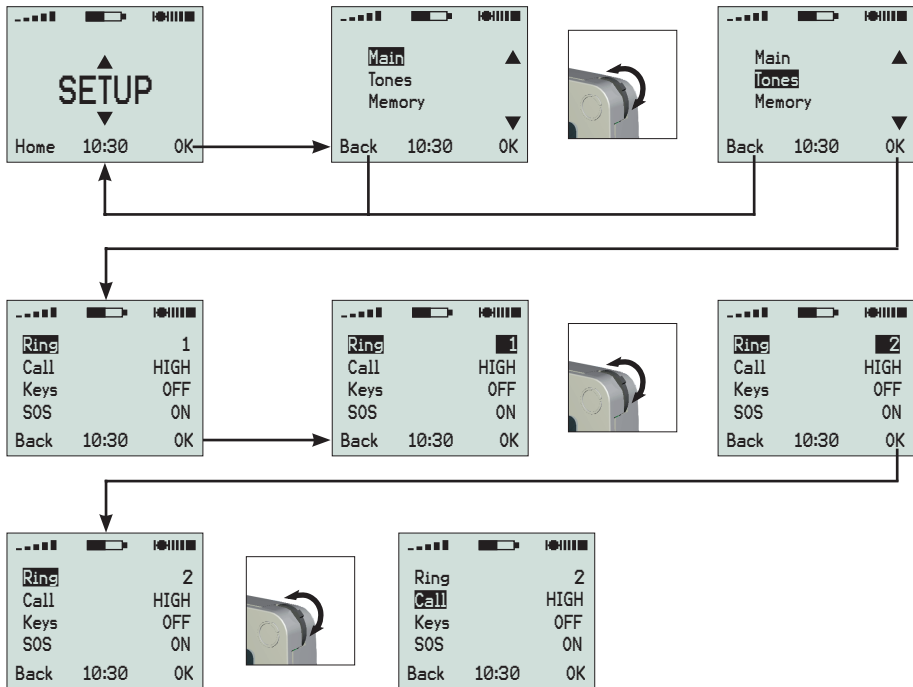
## HOW TO SELECT THE RATE FOR CYCLIC GPRS CONNECTION



**Before rate selection, check if the GPRS parameters have been set properly.**



## TONES SETUP



<i>Ring</i>	Select the call tone type.
<i>Call</i>	Set the call tone volume. <i>OFF</i> : tone disabled. In case of a call, the tracker will not emit any acoustic signal. <i>LOW</i> : tone with a low volume level. <i>HIGH</i> : tone with a high volume level.
<i>Keys</i>	Enable/disable the keys tone.
<i>SOS</i>	Enable/disable the acoustic signal tone for the SOS key.

## RECORDINGS

The tracker allows to record:

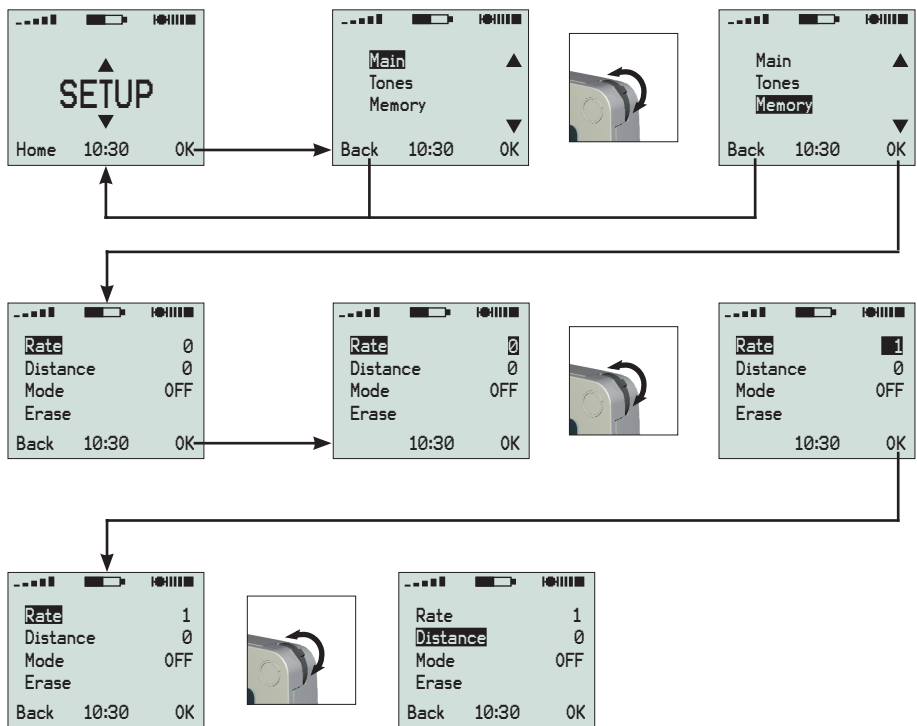
- the detected events automatically without setting the recording
- the position data to review the track afterwards, if the recording was previously set

The tracker can records approx. 70,000 position points and approx. 1,900 events.  
When an event occurs, the tracker detects it and start to record in the Event LOG.

The following list shows all the events which can be detected and recorded automatically by the tracker.

- power on/off
- low battery
- making or receiving a voice call
- receiving a data call
- making a GPRS call
- hanging up a call
- motion on/off
- GSM network available/unavailable
- GPS signal available/unavailable
- entry/exit from Geofence area
- entry/exit from Anchor area
- firmware update
- SOS alarm
- memory erasing
- roaming on/off
- network GSM provider changing if roaming on

# Use of the Tracker



The setup of the position points recording can be carried out by means of the provided software or directly on the tracker.

<i>Rate</i>	Set the temporal recording rate. Available values: 0, 1, 5, 10, 30, 60, 300 seconds. By selecting 0, the recording at temporal rate is disabled.
<i>Distance</i>	Set the distance (in meters) to cover. Available values: 0, 10, 50, 100, 500, 1km. By selecting 0, the recording for covered distance is disabled.
<i>Mode</i>	Select the memory recording mode. <i>FILL</i> : after having finished all the available memory space, stop recording (the oldest data is kept). <i>RING</i> : after having finished all memory space, the data already recorded is overwritten (the latest data is kept). <i>OFF</i> : disable the recording.
<i>Erase</i>	Delete all data contained in the memory.



The *Erase* function deletes all GPS data contained in the tracker memory. **Once deleted, the data is no longer retrievable.**



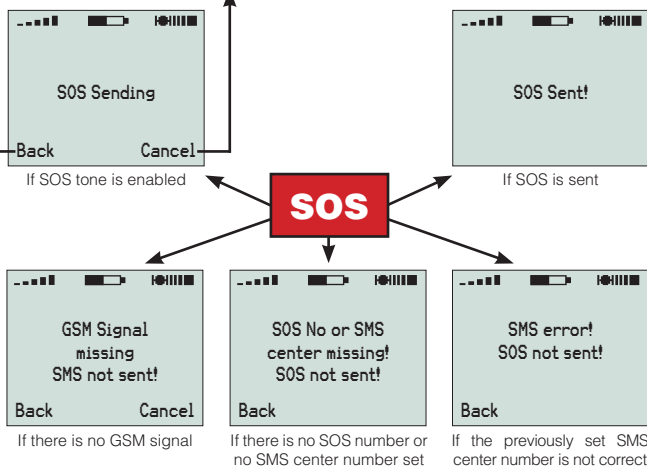
If the **Power Save Mode with position SMS or cyclic GPRS** has been enabled, the tracker position will be recorded at each automatic switching ON. The set *Rate* and *Distance* parameters will not be considered.

## SOS Key

By pressing the **SOS** key for at least 2 seconds, for 5 consecutive times every minute, an SMS message is immediately sent to the preset phone numbers (max. of 4 phone numbers), and a brief acoustic warning signal is emitted at SMS sending (refer to the paragraph *Setup*). This message also contains the current data on the location, if the GPS signal has been revealed. If there is no GPS signal coverage, the last position data will be sent.

Back to previous page without  
disable the SOS sending

Pressed for at least 2 sec.  
disable the SOS sending





If no numbers have been set or in the absence of GSM signal, every time the SOS key is pressed, an acoustic warning signal is emitted.



In the event that there is no network service coverage, the alarm functions may not be available.

Example of the SMS message displayed on the mobile phone, with the detected **current position data**

GEO,ID:GLORIA,SOS ALARM,POS:45g37.9480N,008g28.9992E,ALT:0218m,07/04/10,10:09

Example of the SMS message displayed on the mobile phone, with the last **position data detected before the GPS signal loss**

GEO,ID:GLORIA,SOS ALARM,LAST POS:45g37.9480N,008g28.9992E,ALT:0218m,07/04/10,10:09

The SMS message structure of the SOS function is described here below:

GEO	Tracker type.
ID:-----	Tracker name preset by the user through the provided software.
SOS ALARM	Alarm message.
POS:-----,-----,-----	Latitude and longitude of the geographical position.
ALT:-----,--	Altitude in m.
--/--/--,--:--	Event date and time (yy/mm/dd hh:mm).

# Tracker Management by SMS

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## Position Request

It is possible to ask for the tracker position by means of an SMS command. After receiving the SMS command, the tracker sends a message containing the position data to the phone number which sent the command.

To know the tracker position in real time, send the following command: **rpos**  
For further details, refer to the paragraph *Reading and Writing SMS Commands*.

## Automatic Position Sending

The tracker can send its own position at a programmable rate. The automatic position sending can be carried out in two different modes:

- by SMS
- by GPRS connection

### **CYCLIC POSITION SMS**

The tracker can send an SMS message at intervals, containing all the information on its current position. This function is useful for monitoring the tracker motion at a distance by a mobile phone.

To use this function, it is necessary to:

- set, using the provided software, the phone number where the position messages will be sent
- set the rate for cyclic position SMS using the provided software or sending an SMS command
- enable the function using the provided software or sending an SMS command

## CYCLIC GPRS CONNECTION

The cyclic GPRS connection allows to connect the tracker automatically at a programmed rate for the continuous position updating. At the programmed rate, the tracker will be connected only for the time needed for sending the position point. This function is very useful if combined with the I-Scout web server as it allows to display the detected positions by every station connected to internet.

To use this function, it is necessary to:

- set the GPRS parameters using the provided software or sending an SMS command
- enable the function setting the rate for the cyclic GPRS connection using the provided software

## Anchor

The *Anchor* function allows to monitor within a pre-established circular area the position of a person, an object or an animal. When the tracker detects the exiting from the pre-established area or the re-entering, it sends an alarm SMS containing its position data to the preset phone number.

This function is programmable using the complete SMS command (enabling and radius setting), either operating directly on the tracker, or partially by the provided software.

When the complete SMS command is received by the tracker (e.g. *wanc=1,0500*), the function is enabled and the current tracker position is considered as area central point. If the function is enabled without setting the radius, the previously set coordinates for the central point and the last programmed radius will be considered. If no radius was previously programmed, by default it will be set to 100 m.

This function is programmable completely by SMS command (*wanc*), either operating directly on the tracker. By the provided software, only function enabling and radius setting is possible.



**Before enabling this function, it is necessary to set the phone number where SMS will be sent by means of the provided software.**



Example of the SMS message displayed on the mobile phone, when the tracker enters the area

GEO, ID:GLORIA, ANCHOR ENTER, POS:45g37.9481N, 008g28.9992E, ALT:0218m, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when the tracker exits the area

GEO, ID:GLORIA, ANCHOR EXIT, POS:45g37.9481N, 008g28.9992E, ALT:0218m, 07/04/10, 10:09

The SMS message structure of the *Anchor* function is described here below:

GEO	Tracker type.
ID:-----	Tracker name preset by the user through the provided software.
ANCHOR ENTER	Alarm message.
POS:-----,-----,-----	Latitude and longitude of the geographical position.
ALT:-----	Altitude in m.
--/--/--,--:--	Event date and time (yy/mm/dd hh:mm).

## Geofence

The *Geofence* function allows to monitor the entry and the exit of the tracker in a pre-established area. This is a rectangular area and can be programmed by set the area diagonal coordinates by means of the provided software, or by means of an SMS command sent by a mobile phone. To set the SMS command, refer to the paragraph *Reading and Writing SMS Commands*.

After having set the parameters of the *Geofence* function, the tracker will send an SMS message of alarm to the preset phone number (set by means of the provided software) each time it enters/exits the pre-established area or each time it is switched on outside the pre-established area.

Example of SMS message displayed on the mobile phone, when the tracker enters the area

GEO, ID:GLORIA, GEOFENCE ENTER, POS:45g37.9481N, 008g28.9992E, ALT:0218m, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when the tracker exits the area

GEO, ID:GLORIA, GEOFENCE EXIT, POS:45g37.9481N, 008g28.9992E, ALT:0218m, 07/04/10, 10:09

The SMS message structure of the *Geofence* function is described here below:

GEO	Tracker type.
ID:-----	Tracker name preset by the user through the provided software.
GEOFENCE ENTER	Alarm message.
POS:-----,-----,-----	Latitude and longitude of the geographical position.
ALT:-----	Altitude in m.
--/--/-- :--	Event date and time (yy/mm/dd hh:mm).

## Alarm SMS

The *Alarm SMS* are alarm messages sent (if the function has been enabled by the provided software) to a phone number every time that:

- the tracker battery is almost discharged
- the tracker memory is full
- the GPRS network is available
- the GPRS network is not available
- the GPS signal of the tracker has been lost
- the GPS signal of the tracker has been restored
- tracker motion is revealed
- the tracker motion stops

This function can only be programmed by means of the provided software.

Example of the SMS message displayed on the mobile phone, when the tracker battery is almost discharged

GE0, ID:GLORIA, LOW BATTERY, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when the tracker memory is full

GE0, ID:GLORIA, MEMORY FULL, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when the GPRS network is available

GE0, ID:GLORIA, GPRS OK, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when the GPRS network is not available

GE0, ID:GLORIA, GPRS OFF, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when there is GPS signal

GE0, ID:GLORIA, GPS FIX OK, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when the GPS signal has been lost

GE0, ID:GLORIA, NO GPS FIX, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when a tracker motion is revealed

GE0, ID:GLORIA, MOTION ON, 07/04/10, 10:09

Example of the SMS message displayed on the mobile phone, when tracker motion stops

GE0, ID:GLORIA, MOTION OFF, 07/04/10, 10:09

The SMS message structure of the *Alarm SMS* function is described here below:

GEO	Tracker type.
ID:-----	Tracker name preset by the user through the provided software.
LOW BATTERY	Alarm message.
--/--/-- --:--	Event date and time (yy/mm/dd hh:mm).

## Reading and Writing SMS Commands

The SMS commands allows to set or read some tracker settings. These messages can be sent by a mobile phone or by a GSM device able to send/receive SMS (i.e. a GSM modem).

When the tracker is switched ON and there is GSM signal, it can receive any SMS command. If the tracker receives a correct SMS command, an answer is sent to the SMS command sender.

If the message contains invalid characters, the tracker will not reply. If it contains invalid values, the tracker will reply a message containing "**COMMAND ERROR**". All commands start with the letter "**r**" (reading) or "**w**" (writing).



**Ensure that the SMS commands are written exactly as shown in the table. Any change (space, capital letter, small letter,...) could affect the recognition of the command.**



**Before enabling the sending of position SMS in cyclic mode (wposc), ensure that the SMS phone number has been programmed.**

## Reading Commands

Command	Meaning and Values	Example
rpos	<p>Read instantaneous GPS position data.</p> <p>The tracker can reply in 3 different ways:</p> <p>A) POS: &lt;position data&gt; = GPS position in real time.</p> <p>B) LAST POS: &lt;position data&gt; = no GPS signal. The reply message contains the last detected GPS data.</p> <p>C) POS: NO GPS DATA = from the tracker switching on, the GPS signal has not been detected.</p> <p>NOTE: the date and time refer to:</p> <ul style="list-style-type: none"> <li>• SMS sending, in case of Reply A</li> <li>• last detected GPS data, in case of Reply B</li> </ul>	<p>Command: <b>rpos</b></p> <p>Reply A:  <b>POS:41g37.8283N,012g28.8191E,ALT:0262m,DIR:023g,SPEED:0050km/h,SAT:09,07/05/26,15:56</b></p> <p>Reply B:  <b>LAST POS:45g37.8283N,008g28.8191E,ALT:0262m,DIR:023g,SPEED:0050km/h,SAT:09,07/05/26,15:56</b></p> <p>Reply C:  <b>POS: NO GPS DATA</b></p> <p><i>Description:</i></p> <p>41g37.8283N      Lat. in degree, min.  012g28.8191E      Long. in degree, min.  0262m              Altitude in m  023g                Direction in degree  0050km/h          Speed in km/h  09                    Satellites number  07/05/26          Date (yymmdd)  15:56                Time (hhmm)</p>
rposc	<p>Read cyclic position SMS setup and power save mode status.</p> <p>[status: 0=disabled, 1=enabled]  [rate: 01÷99 minutes]  [power save mode: 0=disabled, 1=enabled]</p>	<p>Command: <b>rposc</b></p> <p>Reply: <b>rposc=1,01,0</b></p> <p><i>Description:</i>  1=enabled cyclic position SMS  01=1 minute rate  0=disabled power save mode</p>

Command	Meaning and Values	Example
rms	Read the accelerometer setup values. [sensitivity: 00=disabled sensor, 01=maximum, 10=minimum] [timeout: 01÷99 minutes]	Command: <b>rms</b> Reply: <b>rms=02,10</b> <i>Description:</i> 02=sensitivity level 2 10=10 minutes timeout
rgf	Read the Geofence setup. [status: 0=disabled, 1=enabled] [LAT1, LONG1, LAT2, LONG2=latitude and longitude of the 2 points which define the Geofence area]	Command: <b>rgf</b> Reply: <b>rgf=1,45g37.7981N,008g28.8012E,41g37.8971N,012g28.8012E</b> <i>Description:</i> 1=enabled 45g37.7981N,008g28.8012E=latitude and longitude of the first point 41g37.8971N,012g28.8012E=latitude and longitude of the second point
ranc	Read the Anchor setup. [status: 0=disabled, 1=enabled] [radius: 0050, 0100, 0200, 0300, 0500, 0700, 1000, 1500, 2000, 3000, 4000 m]	Command: <b>ranc</b> Reply: <b>ranc=1,0100</b> <i>Description:</i> 1=enabled 0100=radius at 100 m

## Writing Commands

Command	Meaning and Values	Example
wposc	<p>Set the cyclic position SMS in text format and the relevant power save mode. [enabling: 0=disable, 1=enable] [rate: 01÷99 minutes] [power save mode: 0=disable, 1=enable]</p> <p>NOTE: the power save mode works only with SMS rate ≥ 5 minutes. Never set like this: wposc=0,xx,1</p> <p>NOTE: to enable or disable only the cyclic position SMS, send the wposc command with the first field only. In this case, the previously set rate is considered.</p>	<p>Case A Command: <b>wposc=1,01,0</b> Reply: <b>wposc=1,01,0 OK</b></p> <p><i>Description:</i> 1=enables the cyclic position SMS 01=1 minute rate 0=disables the power save mode</p> <p>Case B Command: <b>wposc=1</b> Reply: <b>wposc=1 OK</b></p> <p><i>Description:</i> 1=enables the cyclic position SMS with the previous set rate</p>
wms	<p>Set the accelerometer values. [sensitivity: 00=disables sensor, 01=maximum, 10=minimum] [timeout: 01÷99 minutes]</p>	<p>Command: <b>wms=02,10</b> Reply: <b>wms=02,10 OK</b></p> <p><i>Description:</i> 02=sensitivity level 2 10=10 minutes timeout</p>

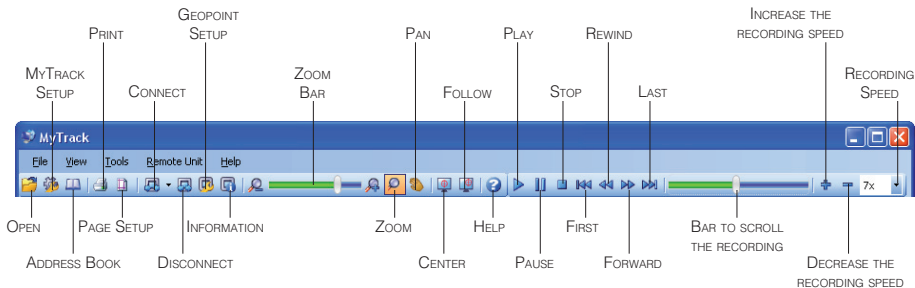
Command	Meaning and Values	Example
wgf	<p>Set the Geofence.            [status: 0=disable, 1=enable]            [LAT1, LONG1, LAT2, LONG2=latitude and longitude for the 2 points defining the Geofence area]</p> <p>NOTE: to enable or disable the Geofence function without setting the area, sent the wgf command with the first field only.</p>	<p>Case A            Command:  <b>wgf=1,45g37.7981N,008g28.8012E,41g37.8971N,012g28.8012E</b>            Reply:  <b>wgf=1,45g37.7981N,008g28.8012E,41g37.8971N,012g28.8012E OK</b></p> <p><i>Description:</i>            1=enable            45g37.7981N,008g28.8012E=latitude and longitude of the first point            41g37.8971N,012g28.8012E=latitude and longitude of the second point</p> <p>Case B            Command:     <b>wgf=1</b>            Reply:         <b>wgf=1 OK</b></p> <p><i>Description:</i>            1=enables the function considering the previous defined area</p>



Command	Meaning and Values	Example
wanc	<p>Set the Anchor.            [enabling: 0=disable, 1=enable]            [radius: 0050, 0100, 0200, 0300, 0500, 0700, 1000, 1500, 2000, 3000, 4000 m; default radius: 0100]</p> <p>NOTE: to set the tracker current position as area center point, send the complete wanc command, containing both enabling and radius fields (e.g. wanc=1,0100).</p> <p>NOTE: to enable or disable the Anchor function without setting the radius, send the wanc command with the first field only. In this case, the default radius or the previously set radius is considered.</p>	<p>Case A            Command: <b>wanc=1,0100</b>            Reply: <b>wanc=1,0100 OK</b>  <i>Description:</i>            1=enables            0100=radius at 100 m</p> <p>Case B            Command: <b>wanc=1,0100</b>            Reply: <b>NO VALID CENTER POS</b>  <i>Description:</i>            1=enables            0100=radius at 100 m            NO VALID CENTER POS=if the center point cannot be detected</p> <p>Case C            Command: <b>wanc=1</b>            Reply: <b>wanc=1 OK</b>  <i>Description:</i>            1=enables the function considering the default radius or the previously set radius</p>
wem	Erase all position data recorded in the memory.	Command: <b>wem</b> Reply: <b>wem OK</b>

Command	Meaning and Values	Example
<p>wgprs</p>	<p>Set the GPRS parameters and start the continuous GPRS connection.            [setup: 0=set the GPRS parameters without starting the connection,            1=connect with the new parameters (IP, PORT),            2=connect with the parameters previously preset]            [parameters: IP=host IP address, PORT=TCP port]            NOTE: the IP and PORT parameters should be written between commas.            NOTE: if there is no GPRS connection, the tracker sends an error SMS containing "GPRS ERROR".</p>	<p>Case A            Command:  <b>wgprs=0,"213.86.89.11","9500"</b>            Reply:  <b>wgprs=0,"213.86.89.11","9500" OK</b>  <i>Description:</i>            0=set GPRS parameters without starting the connection            213.86.89.11=host IP address (example)            9500=TCP port</p> <p>Case B            Command:  <b>wgprs=1,"213.86.89.11","9500"</b>            Reply:  <b>wgprs=1,"213.86.89.11","9500" OK</b>  <i>Description:</i>            1=GPRS connection with new parameters            213.86.89.11=host IP address (example)            9500=TCP port</p> <p>Case C            Command:     <b>wgprs=2</b>            Reply:         <b>wgprs=2 OK</b></p> <p>Case D            Reply:         <b>NO GPRS COVERAGE</b>  <i>Description:</i>            NO GPRS COVERAGE=if GPRS signal is missing</p>

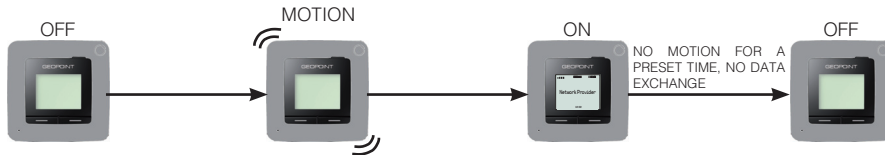
## Setup by MyTrack Software



## Power Save Mode

The *Power Save Mode* allows for optimal management of the battery tracker. It is possible to set the tracker automatic switching on/off according to specific use requirements. There are three *Power Save Modes* programmable by means of the provided software, except for *Cyclic Position SMS* which is programmable by SMS command too. After *Power Save Mode* enabling, the tracker will switch off automatically 2 minutes after tracker disconnection by the provided software.

### WITH MOTION



**WITH CYCLIC POSITION SMS**

**Before using this mode, enable and set the *Cyclic Position SMS* function with SMS rate  $\geq$  5 minutes.**

During the automatic switching on, if the tracker is connected by the provided software, the automatic switching off will be carried out after position SMS sending, after carrying out all the preset operations and 2 minutes after tracker disconnection.

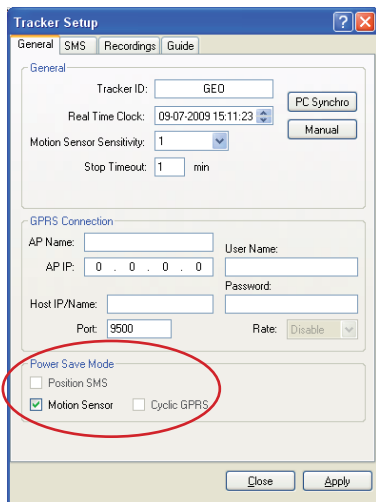
**WITH CYCLIC GPRS CONNECTION**

**Before using this mode, enable and set the *Cyclic GPRS Connection* function with rate  $\geq$  5 minutes.**

The tracker will switch off automatically after successful GPRS connection and after carrying out all the preset operations.

If, after two tries, the GPRS connection is failed, the tracker will switch off automatically.

To set a *Power Save Mode*, connect the tracker to the provided software and access the setup window by selecting *Setup* from *Remote Unit* menu.

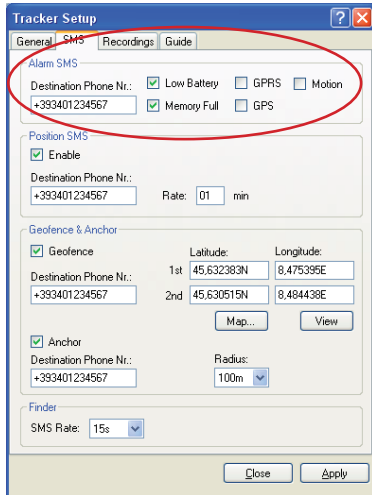


The screenshot shows the 'Tracker Setup' window with the following fields and options:

- General** (selected tab)
- Tracker ID: GEO
- Real Time Clock: 09-07-2009 15:11:23
- Motion Sensor Sensitivity: 1
- Stop Timeout: 1 min
- Buttons: PC Synchro, Manual
- GPRS Connection**
- AP Name: [ ]
- AP IP: 0 . 0 . 0 . 0
- User Name: [ ]
- Host IP/Name: [ ]
- Port: 9500
- Password: [ ]
- Rate: Disable
- Power Save Mode** (circled in red)
- Position SMS
- Motion Sensor
- Cyclic GPRS
- Buttons: Close, Apply

## Alarm SMS

To enable/disable the *Alarm SMS* and set the phone number, connect the tracker to the provided software and access the setup window by selecting *Setup* from *Remote Unit* menu.



The screenshot shows the "Tracker Setup" dialog box with the "SMS" tab selected. The "Alarm SMS" section is circled in red. It contains a "Destination Phone Nr." field with the value "+393401234567" and four checkboxes: "Low Battery" (checked), "Memory Full" (checked), "GPRS" (unchecked), and "Motion" (unchecked). The "Position SMS" section has an "Enable" checkbox checked, a "Destination Phone Nr." field with "+393401234567", and a "Rate" field set to "01 min". The "Geofence & Anchor" section has a "Geofence" checkbox checked, with two rows of "Destination Phone Nr." and "Rate" fields. The first row has "1st" rate and "45,632383N" latitude, "8,475395E" longitude. The second row has "2nd" rate and "45,630515N" latitude, "8,494438E" longitude. There are "Map..." and "View" buttons. The "Anchor" checkbox is checked, with a "Destination Phone Nr." field containing "+393401234567" and a "Radius" dropdown set to "100m". The "Finder" section has an "SMS Rate" dropdown set to "15s". At the bottom are "Close" and "Apply" buttons.

**Tracker Setup**

General **SMS** Recordings Guide

Alarm SMS

Destination Phone Nr.: +393401234567  Low Battery  GPRS  Motion  
 Memory Full  GPS

Position SMS

Enable

Destination Phone Nr.: +393401234567 Rate: 01 min

Geofence & Anchor

Geofence

	Latitude:	Longitude:
1st	45,632383N	8,475395E
2nd	45,630515N	8,494438E

Map... View

Anchor

Destination Phone Nr.: +393401234567 Radius: 100m

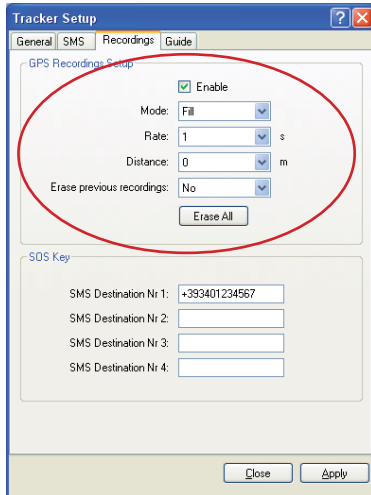
Finder

SMS Rate: 15s

Close Apply

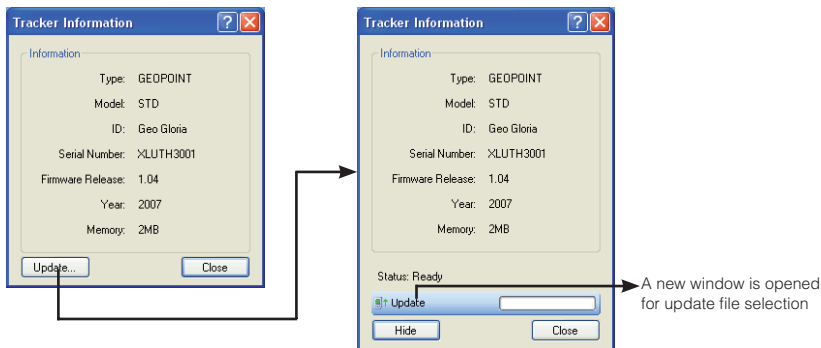
## Position Data Recording

To set a data position recording, connect the tracker to the provided software and access the setup window by selecting *Setup* from *Remote Unit* menu.



## Update of the Tracker Firmware Version

To update the tracker, connect the tracker to the provided software and access the info window by selecting *Info* from *Remote Unit* menu.



During tracker firmware upgrade, on the tracker will be displayed *UPGRADE...Please don't turn OFF the device!*.

Wait until the update is completed, this occurs when the tracker is turned off.



**If the tracker to be updated is connected with GSM/GPRS network, be sure that the GSM/GPRS network signal level is high.**



**If the tracker to be updated is connected by a USB cable, do not remove the cable during the update.**



**To perform the update, it is necessary to connect the provided battery charger to the tracker.**



# Maintenance

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The tracker and relevant accessories must be handled with care. Read the following instructions carefully.

- Clean the tracker with a soft cloth, avoiding the use of corrosive chemical products, solvents or aggressive detergents.
- Do not paint the tracker.
- Do not swallow the accessories or small components of the tracker.
- Avoid blows to the tracker which could internally damage the product.
- Do not open the tracker in any way differently from the way indicated in the manual.
- Do not wet the tracker. Humidity, condensation, rain or any other liquids containing mineral substances could damage the electronic circuits. In the event of contact with liquids, remove the battery and leave the tracker to dry.
- Do not use or leave the tracker in particularly hot environments. High temperatures could damage the electronic circuits, the battery and the plastic parts of the tracker.
- Do not use or leave the tracker in particularly cold environments. Low temperatures could cause damage to the electronic circuit boards of the tracker.
- Do not use or leave the tracker in particularly dirty or dusty environments, the tracker could get damaged.

## Technical Features

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GPS receiver:	SiRFstarIII - 20 channels
GSM frequencies:	850 / 900 / 1800 / 1900 MHz
Data memory:	2MB non-volatile FLASH
Porta di comunicazione:	no.1 USB
Sensor:	no.1 for accelerometer
Dimension/Weight:	74 x 74 x 23 mm / 120 gr
Battery:	model ABL-6C Li-ion - 3,7V 1000mAh
Battery charger:	model ZD050050EU input 100VAC - 240V 50/60Hz 0,15A output 5VDC 500mA
Car charger:	model ESC-004 input 13,6VDC output 5VDC 500mA
Conformity:	CE mark

<b>CONDITION</b>	<b>BATTERY LIFE</b>
Standby mode with motion sensor active.	~10 days
Tracking SMS every minute (GPS always on).	~9 hours
Tracking SMS every 5 minutes (GPS with hotstart).	~4 days
Continuous tracking.	~2 hours
Data connection, with GPS system continuously active.	~2 hours
Position data recording every minute.	~37 hours
Tracker not in use.	~2 days
Tracker in communication on GSM network.	~4 hours

### **Manufacturer's Limited Warranty**

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This warranty does not limit the user's (statutory) rights under applicable national laws relating to the sale of consumer products.

During the warranty period, the Manufacturer or Manufacturer authorized service company will in a commercially reasonable time remedy defects in materials, design and workmanship free of charge by repairing.

The Manufacturer will, in accordance with this Limited Warranty (unless otherwise required by law), remedy defects by repair or, should the Manufacturer in its discretion deem it necessary, replace the Product.

This Limited Warranty is only valid and enforceable in the country where the user has purchased the Product provided that the same Product has been intended for sale in that country by the Manufacturer. However, if the user has purchased the Product in a member state of the European Union, Iceland, Norway, Switzerland or Turkey and such Product was originally intended by the Manufacturer for sale in one of these countries, this Limited Warranty is valid and enforceable in all of these above listed countries. Some limitations to the warranty service may apply because of country specific elements in the Products.

### **Warranty Period**

The warranty period starts at the time of Product's original purchase by the first end-user. The Product may consist of several different parts and different parts may be covered by a different warranty period. The different Warranty Periods are:

- 24 months for the device
- 6 months for the following consumable parts and accessories: battery, chargers, headset, device cover
- 90 days for the media on which any software is provided, (e.g. CD ROM, DVD,...)

As far as national laws permit, the warranty period will not be extended or renewed or otherwise affected due to subsequent resale, repair or replacement of the Product authorized by the Manufacturer.



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