

# Handheld GPS/GSM Tracker GH1201

User Manual v1.06

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# 1. PREFACE

### 1.1 INTRODUCTION

GH1201 is a device with built-in functions characteristic of a mobile phone and an integrated GPS receiver. This device is intended for the surveillance and protection of people, cargo and objects. The GPS receiver may define the current location of the device and sends this data to a person in charge or the operation centre.

The device has a voice mail option; therefore, it may be used as a usual mobile phone.

### 1.2 PROTECTION OF COPYRIGHTS

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All rights are owned by the author. You may not copy, compile or transfer the present information to third parties or distribute it without a prior written consent by UAB Teltonika.

Other products and company names mentioned in this Manual may be trademarks or names of products of such companies.

### 1.3 CONTACTS

In case you have problems with the use of the product beyond your possibilities to solve it, please address them to the Technical Assistance Centre (TAC) by e-Mail <a href="mailto:support@teltonika.lt">support@teltonika.lt</a> or contact your local vendor. We would be pleased to be of any assistance to you.

### 1.4 FOR YOUR SAFETY

Please read these basic explanations. In disregarding them you may face danger or trespassing of existing laws. In case you wish to have more information, please read the concise user manual.



### SWITCH ON SAFELY

Do not switch on the device where it is prohibited to use a mobile phone or when such use may cause disturbances or danger.



### SAFE TRAFFIC IS THE MOST IMPORTANT

Do not infringe local legislation. When driving, use your hands for driving the car only. The most important thing you have to think of when driving is the safety of the traffic.



### DISTURBANCES

All wireless equipment may be sensitive to disturbances which may have effect on its operation.



### SWITCH OFF IN HOSPITALS

Follow all restrictions. You might need to switch off when being in the vicinity of any medical equipment.



### **ŠWITCH OFF IN THE MEANS OF TRANSPORT**

Follow all restrictions. Wireless equipment may cause disturbances in air traffic.



#### SWITCH OFF WHEN FUELING

Do not use the device in petrol stations. Do not use it in the vicinity of fuels or chemicals.



### SWITCH OFF WHEN BEING IN THE VICINITY OF PLACES OF EXPLOSIONS

Follow all restrictions. Do not use the device at places where explosion works are carried out.



### PREPARE YOUR COMPUTER

Personal or portable computers to be connected to the device must comply with the requirements of LST EN 60950-1.2003.



### CONNECT THE DEVICE TO THE COMPUTER

Computers to be connected to the device may be stationary or portable having an USB connection.

# CHARGER

Chargers and personal computers must comply with the requirements of LST EN 60950-1.2003.



### USE ONLY THE BATTERIES SUPPLIED BY THE MANUFACTURER

If a battery of an improperly sort is inserted, there is a possibility for explosion or other harms.



### **USE THE BATTERY SAFELY**

Ensure that the battery is not immersed in the water. When storing, keep the device in a cool, dry place.

Ensure that the battery and device are not exposed to hot surfaces or direct sunlight.

Do not mix the polarity of wires when connecting the battery to the device.

Ensure that the positive and negative poles are protected from short circuit.

When transporting, ensure that the battery is safe from metal articles and do not keep it with metal rings, chains, etc.

Do not damage the battery with nails or sharp objects.

Do not try to charge the battery directly from a household socket. This may lead to explosion or other harms.

To avoid mechanical damages, it is advisable to carry the equipment in a blow-proof package.

The operation environment of the device has effect on its communication quality. If the operation of the device has been disturbed, only qualified maintenance staff may do the repair. It is recommended to deliver the device to a repair centre or back to the factory.

Power supply chains available at a place used for connecting GH1201 must have safety devices (automatic bipolar switch off devices) which protect from power supply excess, short circuit and failure of grounding. The switch off device must be installed at a place which is easy to access. Its power must be consistent with the power of the connected device, and the distance between the contacts must not be less than 3 mm.



### SAFELY DISCONNECT THE DEVICE

The device may be disconnected from the PC or charger by pulling out the USB connection from the computer USB socket or by pulling out the mini USB connection from GH1201.

# 2. GENERAL INFORMATION

### Parts of the set

GH1201 is supplied to the client packed in a cardboard box with all supplements which are necessary for operation. The set consists of:

- Handheld GPS/GSMTracker GH1201
- Li-Ion or Li-Pol 750mAh battery 3.7V
- USB mini USB cable
- 230V USB charger
- Compact disk with User Manual and software
- Printed User Manual booklet
- Mini Screw Driwer
- Neck Strap



Note: The manufacturer's set does not include any SIM card which is necessary to connect to the GSM network. A SIM card can be acquired from your local supplier of GSM services.

If any part is missing in the set, please contact the representative of the manufacturer or dealer (www.teltonika.eu).

### Specifications of the device

GPS receiver	SiRF Star III 20 channels
GPS antenna	Internal
GSM frequencies	GSM 900/1800 MHz and 850/1900 MHz
GPRS	Class 10 data
Voice calls	Yes
Vibro call	Yes
Data transfer	SMS or GPRS
Connection to a PC	USB
Transmission of NMEA Code	USB
Configuration	SMS or USB
Internal memory	1MB
Buttons	6
Lock for keyboard	Yes
Battery	Li-Ion or Li-Pol 750mAh 3.7V
LED indicators	3 (Power Supply, GSM, GPS/Alarm)
Dimensions (mm)	91 x 44 x 19
Standby time (GPS off / GPRS off)	336 hours*
Working time (GPS always on / GPRS off)	6 hours*
Working time periodically switching on GPS (time: 1 hour)	120 hours*
Recommended operating temperature	0 up to 50°C
General operating temperature	-20 up to 60 °C
Weight	80g

\* More powerful batteries may be purchased as additional accessories

### Electronic specifications

Parameter	Min	Norm	Max
Supply voltage (DC)	4.5V	5V	5.5V
Use of electric current	2mA	360mA	2500mA (10ms)
Battery voltage (DC)	3.7V		4.2V
Charger voltage (DC)	4.5V	5V	5.5V
Charger electric current	600mA		1000mA

# 3. GETTING STARTED

# Inserting SIM card and battery

All SIM cards must be kept in a save place. You may request your SIM card supplier to provide SIM cards and information about the use of SIM card-related services. The supplier may be a service supplier, a network operator or another seller. The SIM card must be inserted in the way as set below.



To insert the battery correctly, please connect its connector to the connector of the device. Afterwards hold the battery so that the wire of the battery is directed to the left. Bend the wire carefully and put it along the left internal side of the device. Now put the battery along the left side of the device over the wire and insert it into the device.

# Charging the battery

By connecting the device to one of the USB connectors of a PC or by using the 230V – 5V charger available in the set, it is possible to charge the internal battery of the device. For the first time, it is advisable to charge the battery using the 230-5V charger (not via PC).

- Connect the charger and the device by using an USB cable.
- Plug the charger in the alternating current wall socket.

After the device is connected to the PC or alternating current wall socket, the battery charging will start. Charging is indicated by the indicator which is present on the GH1201 (see <u>Indicators of the device</u>). If, for the first time, the device has been connected with an empty battery, the indicator starts to flash just after several minutes.



Note: Only approved batteries, chargers and supplements supplied by Teltonika should be used with this device. By using other sorts of batteries, chargers and supplements you risk to be deprived of all guaranties and it may also be dangerous for you and your environment.

If an unsuitable SIM card has been inserted or the device fails to detect it, the device will reload automatically and tries to start the connection anew. If the reconnection fails, the device will show it by its indicator (Indicators of the device).

If the card has been inserted later, the device must be switched off and switched on again or has to be reloaded.



Note: As with any other radio communication transmitters, do not touch its antenna. Touching the antenna may be a cause for deterioration of the communication quality and the device may use more energy as usual. The antenna of the device will operate better and its battery will decharge slower if the surface of the antenna will not be subject of touching when in use.

# 4. INSTALLING SOFTWARE

Drivers and software necessary for installing are filed on a compact disk supplied with the device. If you have Internet access, please check if there is any updated software version (<u>www.teltonika.eu</u>). The software version available in the device may be indicated on the splash screen.

**Minimum system requirements** 

Operating Systems (OS)*:	MS Windows 2000 SP3 or MS Windows XP SP1
Disk space:	20 MB
Minimum screen resolution:	1024 x 768 (Full Screen)
Windows Installer V.	3.0

\* We are currently working on the support of additional OS. Please contact us or your local seller for further information.

All components required for the **Track Assistant Software** are part of a compact disk available in the set of the device; however, should you fail to find it, try downloading it from the official website: <u>www.teltonika.eu</u>.

- Insert the compact disk available within the set into the CD driver.
- The installation of the software starts by activating the Setup.exe file available in the catalogue ...\Drivers Installation Files\Setup\Track\_Assistant.msi
- Install the Track Assistant Software by referring to the information indicated within the related windows.

# 5. KEYS AND PARTS

- 1 Microphone
- 2 USB connector
- 3 Lock for the keyboard
- 4 Speaker
- 5 Keyboard
- 6 Indicators
- 7 Switch On / Switch Off button
- 8 Reset Button



Butte	on	State	Description
C		Incoming Call	Answer incoming call
		On Call	Mute
		On Call	End call
		Incoming Call	Reject incoming call
		On Call	Decrease device speaker volume
		Incoming Call	Answer incoming call
		On Call	Increase speaker volume
		Incoming Call	Answer incoming call
Alar	m	On Call	End call

Note: (7) By a push on the (Switch On / Switch Off) button, the device can be switched on or off.

If you wish to **switch on** the device, push the button shortly. After a short time the indicator **I** lights up and a special switch-on signal appears. GH1201 will switch immediately into the standby mode.

If you wish to **switch off** the device, push the button until all three indicators light up and then release the button. Now you will hear the special switch off signal and the indicator **a** will light up red/green.

If you continue to push the button even after all three indicators light up the switch off process will be cancelled and a cancellation signal can be heard.

### Connecting to a PC

GH1201 can be connected to a stationary or portable computer by using an USB data cable.

Please wait until the computer detects the new device and it will switch on automatically. Afterwards, activate the **Track Assistant Software**.

# 6. DEVICE INDICATORS

### Indicating the status

If you wish to correctly find out the parameters under which the device operates, observe as carefully as possible the status of the three indicators.

Each status indicator consists of 2-coloured lamps - one of which is indicating a **failure** (red) and the other one is indicating a **process in progress** (green).

The red **GPS/ALARM** indicator, which signals at the time of **Alarm** (warning signal), is an exception.

	Battery	GSM GSM	GPS/ALARM
Indicator Off	Device on stand-by	Device on stand-by	Device on stand-by

On	Battery fully charged	
Flashing	Battery is charging	Device is trying to find the location
Flashing twice at a time		Devise did find the location

On		SIM error / impossible to detect the GSM network (when on stand-by)	
Flashing		SIM error / impossible to detect the GSM network	Alarm signal activated (ALARM)
Flashing twice at a time	Battery has reached a critical level		

	Both indicators on	Device is switching off / reloading	
<u> </u>			

### Indicating a button push



If GH1201 is in standby mode you can check if the device is powered with a short button push. The standby check is possible with each button on the keyboard. If the device is powered, the Battery LED will lighten green.

Each button on the keyboard may have a special function and can be configured with the **Track Assistant Configuration Tool**. You can activate the button function like this: After you have started to push the button, the **Battery** indicator turns on but there is no sound signal; if you keep on pushing the button, the **GSM** indicator turns on as well and a sound signal (a beep) can be heard. Now the button has to be released and the device will execute the button function.



The button function can be recalled directly: If you keep on pushing the button after the first sound signal a second signal (deeper signal, cancellation notification) will be heard and the **Battery** indicator turns on. Now you can release the button and none button function will be executed at all.

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Note: If the keyboard is locked, it will not be possible to switch on the device at all. If you keep on pushing the switch-on button, the device will switch on and off immediately. If the keyboard is locked, the device does not react to any button push. The only exception is the Alarm button. Please view the Track Assistant Configuration Tool explanation for further details.

### Sound indication

Function activated – one short beep
Function turned off – two beeps (high and low)
Error – one short low tone beep
Device switching on – special sound signal
Device switching off – special sound signal
Outgoing SMS Notification - one short beep
Outgoing SMS Error Notification - two low tone beeps
Incoming SMS Notification – three special sound signals
Alarm Actuation Delay - two low tone beeps

# 7. SPECIAL SMS REQUESTS

Special requests – these are special text messages which are checking the GH1201 device status and provide response via SMS to the requesting person. Example: The requesting person sends a SMS with the content FIX? using a Mobile Phone to GH1201 and GH1201 will send back a status SMS.

The special requests are:

**FIX?** – GH1201 starts the GPS receiver (not in Log Tracking mode), gets location and sends it (in case of reception) to the requesting person. If no current coordinates will be detected GH1201 will send the latest coordinates (date/time) from its internal memory.

#### Location is available

FIX! Id:GH-1201 Imei:35397601XXXXXXX Time:YYYY.MM.DD HH:MM:SS Fix:54.1215, 25.1324 Sat:9 Op:24602 Cell:030B Sign\_Lvl:26 Bat\_Lvl:94

#### Location is not available\*

FIX! Id:GH-1201 Imei:35397601XXXXXXX Time:YYYY.MM.DD HH:MM:SS Fix:N/A Sat:N/A Op:24602 Cell:030B Sign\_Lvl:26 Bat\_Lvl:94

\* N/A will only be sent if no data is available within the internal memory

**INF?** – GH1201 will send all information about it's status.



**GEO?** – GH1201 will check in which Geofence zone<sup>1</sup> it is and if it is inside - will send the Geofence zone name.

#### **Device is in the Zone(s)**

GEO! Id: GH-1201 Imei:	ŀ	$ \ge $
35397601XXXXXXX Time:		
YYYY.MM.DD HH:MM:SS Fix: 54.1215,		
25.1324 Sat:9 Bat_Lvl:94 Geo:		
ZONE_NAME		
		$\sim$

#### Device is out of the Zone(s)

GEO! Id: GH-1201 Imei: 35397601XXXXXXX Time: YYYY.MM.DD HH:MM:SS Fix: 54.1215, 25.1324 Sat:9 Bat\_LvI:94 Geo: N/A

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**LIVE?** – When GH1201 receives such a request it returns back the information about how long it has been working.



<sup>&</sup>lt;sup>1</sup> To get valid reponses the Geofence zones must be configured using TAMT (Track Assistant Monitoring Tool).

**MN?** – NAVIGON<sup>2</sup> Mobile Navigator 6 ® (Version 6.3 or higher). After receiving such a SMS GH1201 will send back a SMS to the Mobile Phone and you will be able to see the GH1201 position within the NAVIGON software (on the NAVIGON Map). On top you can navigate towards it while using your Mobile Phone.



### ALARM:ON - GH1201 will enable the ALARM signal.

Location is available

ALARM! Id:GH-1201 Imei:35397601XXXXXX Time:YYYY.MM.DD HH:MM:SS Fix:54.1215, 25.1324 Sat:9 Op:24602 Cell:030B Sian Lvl:26 Bat Lvl:94

### Location is not available

ALARM! Id:GH-1201 Imei:35397601XXXXXX Time:YYYY.MM.DD HH:MM:SS Fix:N/A Sat:N/A Op:24602 Cell:030B Sign\_Lvl:26 Bat\_Lvl:94

ALARM: OFF - GH1201 will disable the ALARM signal.

#### Location is available

ALARM OFF! Id:GH-1201 Imei:35397601XXXXXX Time:YYYY.MM.DD HH:MM:SS Fix:54.1215, 25.1324 Sat:9 Op:24602 Cell:030B Sian LvI:26 Bat LvI:94

#### Location is not available

ALARM OFF! Id:GH-1201 Imei:35397601XXXXXXX Time:YYYY.MM.DD HH:MM:SS Fix:N/A Sat:N/A Op:24602 Cell:030B Sign\_Lvl:26 Bat\_Lvl:94

TRACK? - GH1201 will send all collected positions to a Server via GPRS.

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TRACK:ON – GH1201 will enable the "Track" function.



TRACK:OFF – GH1201 will disable the "Track" function.

TRACK OFF! Id: <device ID> Imei: 35397601XXXXXXX Time: YYYY.MM.DD HH:MM:SS

**TRACK:ON**,<**P1**<sup>3</sup>>,<**P2**<sup>4</sup>> -Starts "Track" function according to the parameters P1 and P2 (please view footer).

<sup>&</sup>lt;sup>2</sup> Restriced to Mobile Phones operating on Symbian Series 60 basis. You need to have the licensed NAVIGON Mobile Navigator 6 Software, Version 6.3 or higher , for this service. Please contact NAVIGON or Teltonika for further information.

<sup>&</sup>lt;sup>3</sup> Interval of position acquisition (sec.)

<sup>&</sup>lt;sup>4</sup> Duration of the "Track" function (min.)

# 8. TRACK ASSISTANT PROGRAMS

# Track Assistant Configuration Tool

The Track Assistant Configuration Tool will be installed together with the device drivers. It may be turned on by clicking Start > All Programs > Teltonika > Track Assistant Configuration Tool in the program menu. A special window will inform about the activation of this program.



### 8.1 CONFIGURATION OF GH1201 USING A PC

Please start the Track Assistant Configuration Tool. After GH1201 has been connected to the PC the battery LED **I** will start flashing in green.



Click the button **Connect Tracker** if you want to configure your device directly from your PC using an USB cable.

Click the button **Connect Modem** if you did connect a Teltonika GSM modem and wish to configure your GH1201 remotely.

Click the button **Load Configuration** if you want to review a saved configuration file.

If you wish to switch to another configuration window, always click the button Next.



When the device is connected to the computer, the name of the last clicked button will change to **Disconnect Tracker**, and by clicking this button you can disconnect the device from the computer.

If you wish to start, click the button Next.



Please read the information about the device in the window User Registration: IMEI Number and the Firmware Version of the device program. Please enter the User Name, which will be shown for this device within the Track Assistant Monitoring Tool, the phone number of the SIM card inserted into the GH1201 and additional information about the owner of the device.

Type the name of the device into the box **Device Name**, which will be indicated as device ID within all SMS messages sent by GH1201 (please view **Special SMS Requests**).

Configuratio	1 Tool		
	Security Sim card PIN Code:	0	
4	Device SMS Request Authorized N Enable security	lumbers List:	
uratio	SMS number 1: SMS number 2: SMS number 3:	(i.e. +37060012345)	
Configuration	SMS number 4:		
*		Back Next	Cancel

If a SIM card with an activated PIN Code has been inserted into the device, you need to type it into the box SIM Card of the window Security.

The PIN Code has no effect if configurations are being rewritten but please note that if the PIN Code is not typed, it will prevent the device from registering into the GSM network.

If the device is not registered in the GSM network, it will not be possible to send or receive SMS messages and dial phone numbers as well receiving any calls.

You can turn the list of authorised SMS numbers on or off within the box **Device**. If the list is activated, the user must type in the subscribers' numbers, which the device will respond to.

If this function has been activated, it will protect GH1201 from unwelcome queries via SMS (i.e. Fix?, Inf? Geo? etc.) by external persons without authorization.

If the list of authorised numbers is not activated, everybody is allowed to send queries via SMS to the device, and the device will always respond to them.



You can dedicate a function for each button on the **Keyboard**. Later on you can activate this funciton by clicking on the respective button on your GH1201. Please view the section "Indicating a button push" in this manual as well.

**Call** function allows you to call to a number which should be typed into the Phone Number field. Please use a format like: +441234567890

If you choose the **SMS** function, a special request field will appear. There you can chose which kind of information the device will send to the number typed into the **Phone Number** field.

Alarm Off function will allow you to turn off an Alarm which has been activated before with the Alarm button.

**Track Switch** function will turn on / turn off the track function.

**Emulate Modem** function will switch the device into the modem modus when GH1201 is connected to a PC.

Please note: If you set the button Alarm activation method to Call, window 8 of this Configuration Tool will not open.



By ticking next to **Vibration**, you can activate a vibro call. You can also activate a signal warning about incoming or outgoing SMS messages.

Choose the ringing tone of the device and set the levels of the ring (**Ring Level**, 5 = loudest level) and speaker (**Speaker Level** 10 = loudest level).



When you open the Alarm window you can insert up to five SMS numbers to send Alarm Messages. In parallel a call to one phone number can be initiated, specified in the below box Call Number 1.

In the box Alarm SMS Sending Interval (sec.) you can specify the frequency of sending SMS messages. After the specified time passes, the device will automatically send Alarm SMS messages. The time is indicated in seconds.

In the box Alarm Duration Time (sec.) you can specify the duration of the alarm. After the specified time passes, the alarm will be automatically turned off. The time is indicated in seconds.

In the box Alarm Delay you can specify the Alarm actuation time. After the specified time passes the Alarm will be activated. During this time period the alarm procedure can be cancelled by pushing the defined Alarm Off button.

**Delay sound notification** activates an additional acoustic signal for this alarm preparation phase.

Uncheck **Keyboard lock valid for Alarm button** if you want the Alarm button to be always active - even if the keybord is locked.

On top you can choose the option that the Alarm will be combined with **Vibration**.

<b>8</b>		GPS Coordinates Logging Periodical tracking I GPS Logging interval: 120 🔹 sec.	0
	Configuration	Event based Tracking Track update interval: Track logging duration: U C min. V Unlimite	e d
	Ç,	Back	Cancel

You can fix the automatic data update interval (**GPS Logging Interval**). If this function has been activated, the device will activate the GPS module after the set time. The geographical co-ordinates will be located and recorded into the device memory.

If the device has been requested to specify the current location, the search may take up to 3 minutes.

If the automatic data update interval has been activated, the device will automatically update the data about its location within the internal memory.

If you wish to get an immediate reply with the last geographical co-ordinates from the memory of the device, you need to activate the function Log Tracking.

If this function has been activated, the device will not start to track the new geographical coordinates (up to 3 minutes process as indicated above) but will directly send the newest location stored within the internal memory.

On top you can setup the **Event Based Tracking** settings. This track you can activate by pressing a button or sending a special SMS.

The **Track Update Interval** is setting the interval in which the GPS coordinates will be acquired.

With **Track Logging Duration** you can define the time period after which the Event Based Tracking will be finalized.



If you wish that the device will automatically reply after a set number of rings, please activate the function **Auto Answer** and specify the number of rings.

If you wish to hear a special signal warning each time a minute passes, activate the function Minute Minder.

If you need to restrict the number of subscribers that are able to call to the device, activate the list of authorised subscribers' numbers.

To activate, choose the function **Only from** List.

After having activated this function you need to type the numbers of subscribers into the below boxes. Then, the device will ignore all calling numbers which are not available in this list.

If the function **Everybody** has been activated, all subscribers' numbers will be able to call to the device.

Configuration	on Tool	
	Low Battery notifica	ation by SMS
10	Send notification by SMS if following b	pattery value reached:
	Battery level becomes 60% and 40	%
	Battery level becomes 60%, 40% a	nd 100%
Configuration	Destination Phone Numbers (i.e. +37060012 SMS number 1:	Numbers are the same
IL:	SMS number 2:	as configured for Alarm.
figu	SMS number 3:	NOTE : If you delete a number from this list, it
Ü	SMS number 4:	will be as well deleted within the Alarm
	SMS number 5:	Number List.

Activate the function **Send Notification about Battery Level** if you wish to be informed via SMS message about the level of the battery.

After having activated this function, it will be possible to choose either of the following: Inform about the battery level, when the battery level becomes 60% and 40% or when the level becomes 60% and 40%, as well as when GH1201 is 100% charged.

Please specify the numbers in the below list of numbers, to whom SMS messages notifying about the battery level will be addressed.

Configuratio	on Tool	
11	Congratulations You have successfully entered all the information required to configure your device. You can write this configuration to your device now if you choose "Write to device" you can save this configuration to the file if you choose "Save to file" you can save this configuration to modem by SNS if you	
Configuration	choose "Send through SMS".  Save to file  Write to device Send through SMS  Back Finish	Cancel

In the last window you are able to choose the function **Save to File**, if you wish to save the settings on your PC.

If you wish to store the settings into your GH1201 please choose Write to Device.

**Send Through SMS** will be active when a (Teltonika) GSM Modem is connected to your PC. If this option is selected the program will send all configuration changes to the GH1201 device via SMS.

Click the button **Finish**. If you have choosen **Send Through SMS** a window will open and you need to insert the telephone number of your GH1201 to receive the configuration SMS.

#### 8.1.1 PIN Code

If a SIM card with an activated PIN Code has been inserted into the device, it will not be able to connect to the GSM network and perform certain functions. Therefore, if you want the device to be fully operational, the PIN Code must be either removed by using a Mobile Phone, if available.

Or, if you wish to enable automatic PIN Code entry by using the program **Track Assistant**, connect the device to a PC and click the button **Connect**. When the device starts the connection to the PC, the program will check if it hosts a SIM card and if the PIN Code is activated. If it has been activated, the program will automatically open a window where you can insert the PIN Code. Now the PIN Code will be adopted by GH1201 and will be always used when the device will be switched on.

### Track Assistant Monitoring Tool

The Monitoring Tool is installed together with the drivers of the device. You can switch it on witin the program menu Start > All Programs > Teltonika > Track Assistant Monitoring Tool. A special window will inform you about the activation of the program.



### 8.2 MONITORING OF GH1201 USING A PC

The **Track Assistant Monitoring Tool** enables the user to manage GH1201 directly from his personal or portable computer which is connected to a GSM Modem. With a GSM Modem (i.e. Teltonika ModemUSB/G10) connected to the personal or portable computer, you can receive SMS messages with geographical coordinates from the device and immediately track it on the map.

The quantity of SMS messages is not restricted since all SMS messages available in the Modem may be stored in the computer memory and, thus, compile the whole history of received or sent SMS messages.

By using the **Track Assistant Monitoring Tool** you may also request the device for special SMS queries, which do not need to be memorised because they are already programd within the program.

By using a special tool option, you will be able to set up to ten Geofence zones and send the configurations with SMS messages by a Modem or record it directly to the device if it is connected.

In addition, you will be able to store the data within the computer, review them or send them to another person.

### 8.2.1 General view of the Monitoring Tool

The tool consists of five information windows (3, 4, 5, 8, 9) and four configuration tools (1, 2, 6, 7).



### **1 – SYSTEM TOOL MENU**

Edit			
Ж	Cut	Ctrl+X	
C <sub>a</sub>	Сору	Ctrl+C	
8	Paste	Ctrl+V	



Hide Navigation F11 - hide the Navigation menu

Edit profiles - edit data of the user registered within the system

Monitoring – activate the map

SMS – activate the SMS window

Track Log – activate the tool to copy data from the device to read out log data

View Location on Map – activate the tool where you can insert the geographical co-ordinates - and the system will later show them on the map Handheld GPS

	Connect	Connec	
	Device Info	Device	
GS	M modem Connect modem	Connec Assistar	
То	ols		

Ctrl+O

**Connect** ... – connect the device to the Monitoring Tool **Device Info** – review the information about the device

Connect Modem – connect a Modem to the Track Assistant Monitoring Tool

Options ... Ctrl+O – additional settings

### 2 – IMAGE MENU

Options...



### **3 – USER PROFILES**

After the device has been configured successfully and all necessary data has been inserted a profile will be created for each new user. By clicking twice on the respective profile (or by clicking on the icon Edit user profiles) the detailed profile data will be shown and can be edited.

A new record in the list of registered users appears immediately after the connection of the new device and the introduction of the necessary data. Data on the registered users may be found by clicking twice on the name of the selected user or choosing the button for editing user data in the image menu or system tool menu.

### 4 – LIST OF AVAILABLE MAPS

A list of maps available in the PC will be displaced here. The maps are detected automatically.

#### **5 – LIST OF TRACK LOGS**

A list of previously stored Track Logs will be displaced here. By clicking on **Show** you can see them on the map.

### **6 – NAVIGATION MENU**

Easy navigation between different windows.

### 7 – TRACK LOG FILTER

With this filter you can select the mostly needed data based on date and time, which can be reflected later as positions on the map to be analysed. Also, it is possible to review the set Geofence zones.

#### 8 – MAP

### 9 – DATA ON DEVICE CONNECTION STATUS

Here, you will be able to view the information about the current device status, no matter if it is a Modem or GH1201. If the device is connected to the system, you will be able to see the message **Device Connected**, and if it is a Modem the message will be **GSM Modem Connected**, as well as COM ports **PORT** to which they are connected. In the system, you will also be able to see the name of the device if it has been registered.

### 8.2.2 Transfer of the logged data to a PC

The device has an internal 1MB memory where it can store the history of its geographical coordinates. If you wish to transfer this data from GH1201 to the PC, please follow these steps:

- Activate Track Assistant Monitoring Tool.
- Connect the device to one of the USB ports of the PC.
- Click the button Connect.
- Choose View > Track Log in the system menu.

The window Track Log will open.

Track Log					
Copy Track   Save Track Clear Log   Export Import Open KML file   Options					
Name	Created	From 2007.11.08	🖌 18:30:09 🛛 😂	to 2007.11.08 💌 18:30:	09 📚 Apply Reset
		Date	Time	Latitude	Longitude Alt
<	>	<			>
Rename	Delete				Ok
<u>E</u>					

Click the button **Copy Track** (an arrow to the right of the button **Copy Track** allows to choose the log data you wish to store into the PC).

Choose the menu **Event Points** to transmit the summary of all tracks which has been taken by event (on request by button push or SMS) from the GH1201 to your PC.

Coose **Periodical Points** to show the history of track points based on the periodical GPS Logging (i.e. every 30 sec.)

Choose **Alarm Points** to show the data stored while the warning signal **Alarm** has been launched.

When the track contains too many points an Error warning will appear.



If an error window (as shown in above figure) appears during data transfer, you can click **OK** to resolve the issue. Upon clicking you will have two options. These options will help to optimize the data history. The options are as mentioned below:

- a) By increasing the distance between neighbouring points (picture a)
- b) By increasing the maximum number of track points for display (picture b).

Optimize track ignoring adjacent points closer than: 100 💸 Meters.	Max quantity of track points to display (on map, etc.):
Data filter and image window	Data filter and image
(a)	window (b)

After having copied the data from the device, the program will inquire if you wish to save it.

The program window **Track Log** provides an unique possibility to filter the data read processes based on the date and time. If you wish to see just the data pertaining to a specific period you need to type the data and time of your choice in the boxes next to the words **From** and **to**. After a specific period is selected, click the button **Apply**, and you will be able to see the data pertaining only to the selected period, which you will be able to treat in the following way:

- Save in the program (button Save Track).
- Create data archive in the form of a special file (button Export).
- View them on a Google Earth map (button Open KML File).



Note: The button **Open KML File** will only be activated if you install a free of charge **Google Earth** map (you can download it from the link <u>http://earth.google.com/download-earth.html</u>).

The data saved in the program may in the map be reviewed by choosing the relevant Track Log within the Monitoring window and by clicking the button **Show**.

The created special data archive may be sent to other users who will be able to review it using **Track Assistant**, **Microsoft Excel** © or other programs supporting the \*.xml file format.

Data may be deleted from the device by clicking the button **Clear Log**. The data stored in the program may be deleted by clicking the button **Delete**; if you wish to rename it, click **Rename**.

### 8.2.3 Geofence zones and their detection

This function enables to detect the Geofence zone where the device is located. The user may set up to ten Geofence zones and dedicate names to them.

In the settings, you can provide the name of the zone **Zone Name**, geographical co-ordinates of the centre of the zone **Center Longitude**, **Center Lantitude**, radius of the zone **Radius** (in metres) and thickness of the fence of the zone **Fence Thickness**.

If this function is activated by **Enable Geofence Function**, the device will check if the zone fences are intersected. If the intersection of the zone fence (in both directions) has been detected, the device will send a SMS message to all numbers available in the list of subscribers' numbers under **Alarm** settings (Track Assistant Configuration Tool).

If a SMS message has been sent to the device with a text GEO?, the device will detect the zone where it is located, and if the device detects that it is located in one of the zones set, it will send the name of this zone; if no zone is detected, the device will send an SMS message where the zone will be shown as unidentified (N/A).

If you wish to set the zones, click the button **Geofence** in the image menu. If you set the zones for the first time, the window **Geofence Zones** will be activated where you can enable Geofence zones **Enable Geofence Zones**.

To set a zone, the following steps should be performed:



- 1 Enable the zone (Enable)
- 2 Name the zone (Zone Name)
- 3 Click Select on map to change into the map modus

4 – Place the mouse into the middle of the zone you would like to create. Hold the left mouse button and draw the circle until the desired radius has been reached. To design the fence thickness you need to click, with the intended distance to the defined radius, outside of the drawn circle. If you want to correct the zone immediately please click on the map again. Now the zone will be deleted and can be created again.

5 – Confirm the selection of the zone (**Done**)

6 – Save the updates into GH1201 or send the settings via SMS message by clicking the button Write to Device if a GSM Modem is connected.

7 – If you have connected modem and press button **Write to Device** a window will open whitch asks are you realy want to send configuration through SMS, press button **Yes** to continue configuration.

8 – Insert the telephone number of your GH1201 to receive the configuration SMS.

### 8.2.4 Maps

The program is designed in a way that it will detect a digital map or maps if they are installed. If the user has installed just one digital map, the map list of the **Track Assistant Monitoring Tool** will show the installed map. The program is able to process these digital maps:

- Microsoft Map Point
- Akis
- Google Earth (see Transfer of the compiled data to a PC)

# 9. MAINTENANCE AND REPAIR

This device is a high-quality design product; therefore, it should be handled carefully. The following advice will assist you in meeting the guarantee requirements.

- Do not let the device get wet. In the precipitation, humidity and all sorts of liquids there may be minerals which may be a cause of corrosion of the electricity chains. If your device got wet, take out the battery and let the device get fully dry; afterwards, insert the battery again.
- Do not use or keep the device in dusty and dirty places. Its moving and electronic parts may be damaged.
- Do not keep the device in high temperatures. High temperature may reduce the life time of the electronic parts or damage the batteries and deform or melt some plastic parts.
- Do not keep the device in cold environment. If the device warms up to the room temperature, humidity may start condensing which may cause the failure of electricity circuit boards.
- Do not try opening the device except as specified in this User Manual.
- Do not throw, knock or shake the device. By handling it in this way you can break internal circuit boards and small moving parts.
- Do not clean the device with strong chemicals, solutions or cleansing agents.
- Do not paint the device. The paint may block the moving parts and prevent them from operating well.
- Use the supplied or approved antenna only when it needs to be changed. Antennas which are not approved, their improvements or supplements may damage the device. By using supplements which are not approved you may also infringe the legislation in the field of the use of radio equipment.
- The chargers must be used indoors only.
- Before handing your device to the repair centre, make sure that its settings are stored within the Track Assistant Configuration Tool.

All these recommendations are equally important for your device, battery, charger and any other supplement. If any of the devices is not functioning properly, bring it for examination to the nearest authorised repair centre.



The sign on the packaging means that the User Manual must be read before making use of this product.



The sign on the packaging means that the electric and electronic equipment to be utilised must be stored separately.

In case you have problems with the use of the product beyond your possibilities to solve it, please address them to the Technical Assistance Centre by e-Mail <a href="mailto:support@teltonika.lt">support@teltonika.lt</a>.