

User manual

Mini-GPStracker

Data: 16-Apr-14



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Overview

This document contains full Mini-GPStracker description and gives information about installation and using it.

Trademarks

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1. Presentation

1.1 Box contents

The product is packed with original box.

We can find product sticker on the box. It matches modems sticker that is placed on the device. This proves that your modem is original product. More information about stickers in chapter 1.2.

The box includes:

A – CD with user manual

B – Mini-GPStracker terminal

C – Charger*

* depends on modem version

1.2. Sticker

Product stickers are on the modem and on the box of the product. A production sticker includes the following information:

- Product serial number (IMEI)
- the CE marking
- the 15-digit bar code
- crossed bin symbol
- company logo
- company website address

2. Basic features and services

Basic features and available services are contained in table below.

GSM	<p>Dual-band EGSM 900 / 1800 MHz GSM/GPRS protocol stack 3GPP Release 4 compliant GPRS class 10 Sensitivity: - 108 dBm (typ.) @ 900 MHz - 107 dBm (typ.) @ 1800 Mhz Extended temperature range: 40°C to +85°C (operational)</p>
GPS	<p>Frequency Band: GPS L1 Band, C/A Code Standards: NMEA 48 Channel GPS architecture Sensitivity</p> <ul style="list-style-type: none"> • Acquisition: -147 dBm • Navigation: -160 dBm • Tracking: -163 dBm <p>Time To First Fix:</p> <ul style="list-style-type: none"> • Hot Start: 1 s • Cold Start: < 35 s <p>Assisted-GPS (A-GPS) EGNOS, WAAS, GAGAN and MSAS capability embedded</p>
Configuration	<p>SMS:</p> <ul style="list-style-type: none"> • APN
Work time*	<p>Depends on data transfer (to server) frequency</p> <ul style="list-style-type: none"> • Every 1 minute: • Every 5 minutes (default): • Every 1 hour: • Every 5 hour: • Every 24 hour:
Complaints'	<ul style="list-style-type: none"> • RoHS/WEEE • CE

3. Using the modem

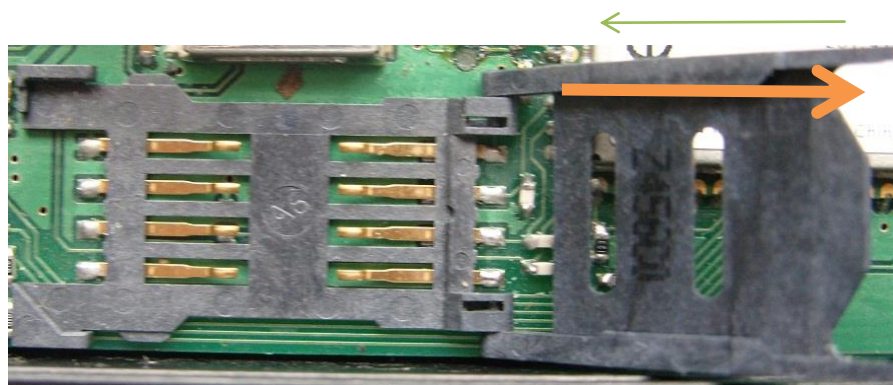
3.1. SIM card installation

In order to insert SIM card into the modem do following:

- Open housing (unscrew 4 screws)



- insert SIM card



- Below you can find a table with pinout of a miniMini-GPStracker cable:

Cable colour	Pin
White	Ground (GND)
Brown	Voltage (7 – 16 V)
Green	Digital input
Yellow	Digital output

3.2. First run

After connecting power supply modem is ready to work. Terminal sends GPS location data to WWW server whenever it is on.

3.3. Sending SMS commands

SMS with text „APN:*apn*;USER:*user*;PASS:*pass*” (without quotes)– *apn* is place to put APN proper for your network operator, *user* is the GPRS username and *pass* is the GPRS password. If you want to set only the APN you need to send “APN:*apn*” text message.

4. WWW server


4.1. General information


Server receiving data from the device is available here: www.m2mgps.eu. Log into your account using credentials given to your order. Password and other data can be changed using "My account". Server supports 5 languages (Czech, Polish, English, German and Russian) and two types of maps: Google Maps and OpenStreetMap.

4.2. Maps

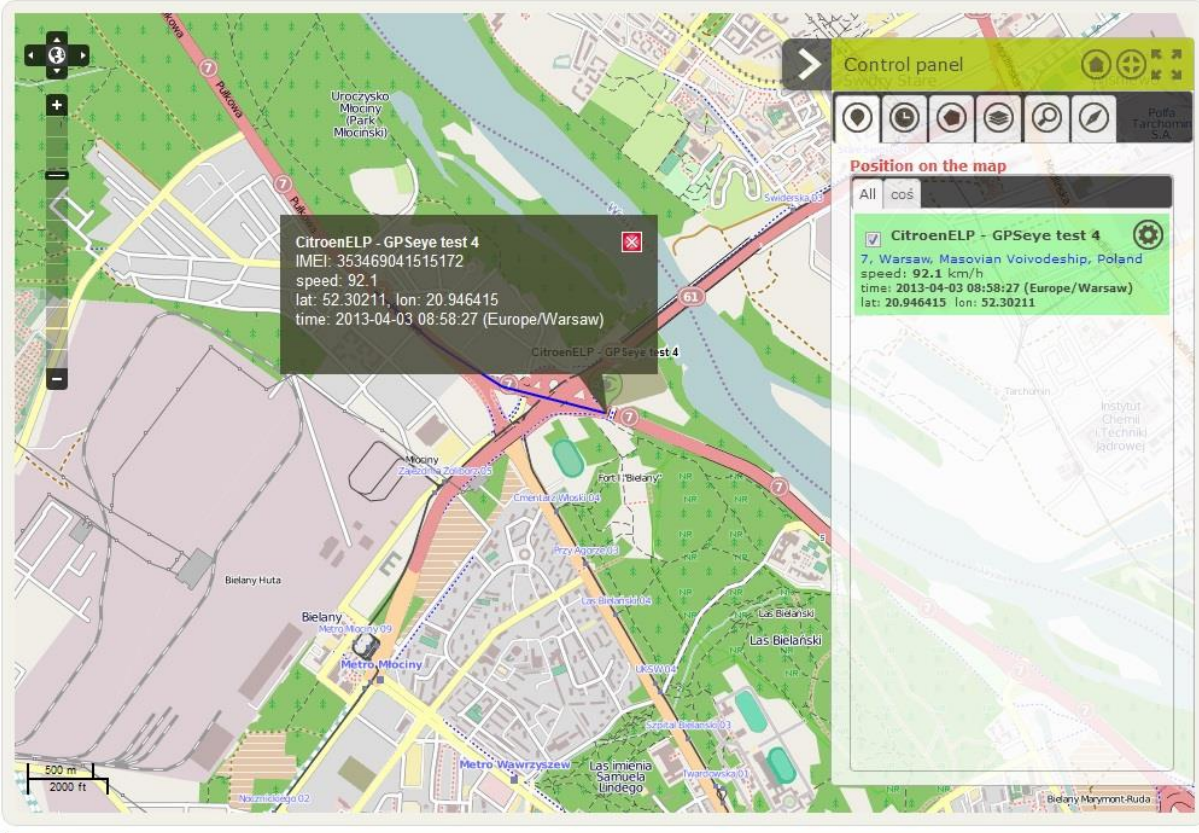
Maps view:

You are logged in as: **demo**

[Polski](#) [English](#) [Deutsch](#) [Русский](#) 



Map | Groups | Export of data | Events



CitroenELP - GPSeye test 4
IMEI: 353469041515172
speed: 92.1
lat: 52.30211, lon: 20.946415
time: 2013-04-03 08:58:27 (Europe/Warsaw)

Control panel

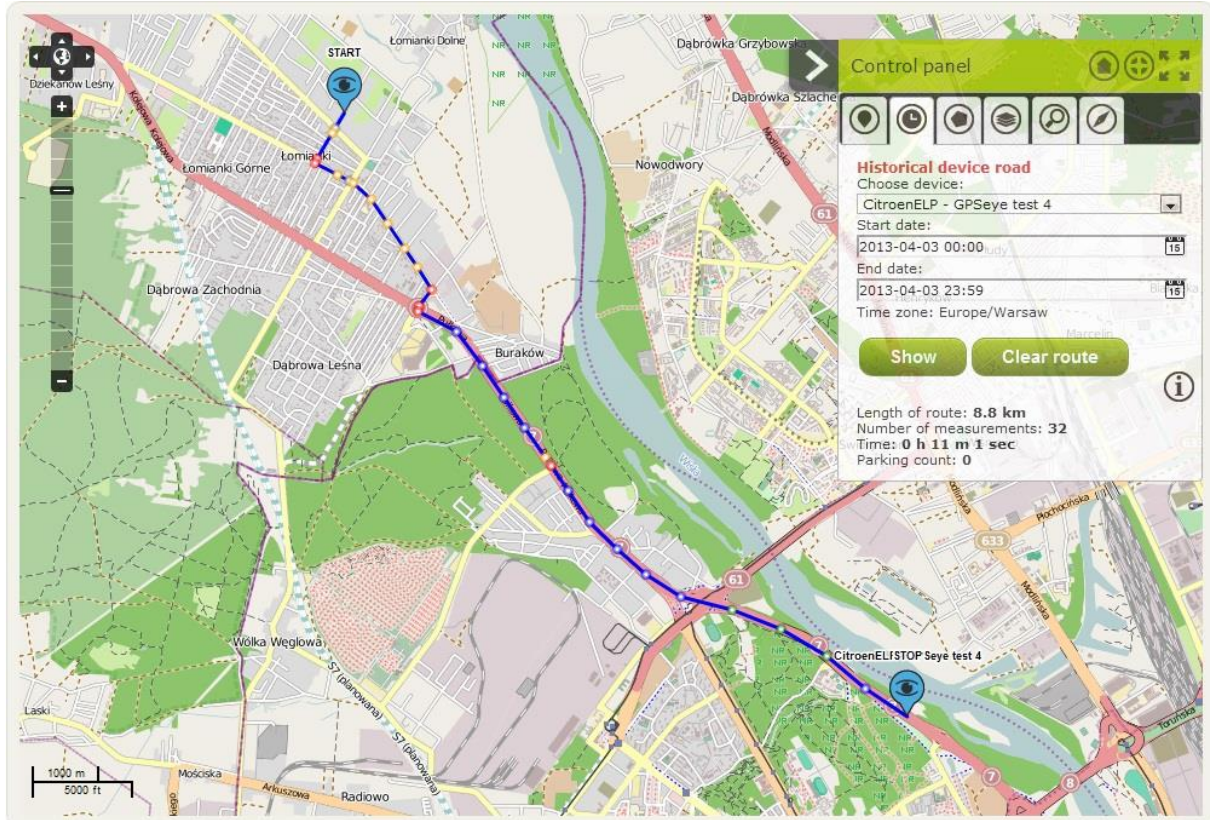
Position on the map

All

CitroenELP - GPSeye test 4

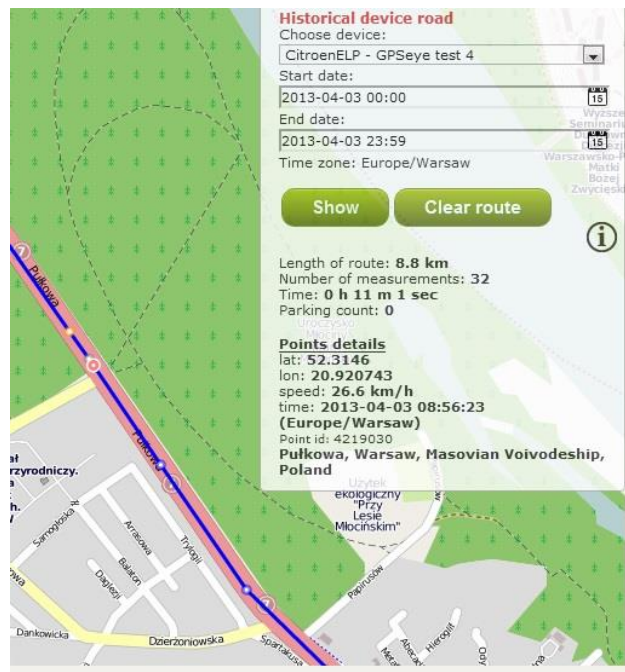
7, Warsaw, Masovian Voivodeship, Poland
speed: 92.1 km/h
time: 2013-04-03 08:58:27 (Europe/Warsaw)
lat: 20.946415 lon: 52.30211

Start view shows actual location of all users devices. After clicking on one of them name and device description is shown as well as actual position (latitude and longitude), speed, data and time. Position is synchronized every 5 seconds (default) – there is no need to refresh the website. To change map type or show map in full screen choose



In order to see history (trip route) choose the device from right side menu, then enter start and finish date and click on “Show”.

In order to track details of the trip please zoom chosen part of the route and move mouse cursor on it. When mouse goes on one of points on the route, detailed GPS position information shows up together with next points.



4.3. Management

In „Devices” menu you can manage your devices. It is possible to edit them, connect to groups, change names, description and activate it. To attach device to the group choose “Add device to group”. Drag and drop its block to chosen group. To delete one from the group drag and drop it outside the group field.

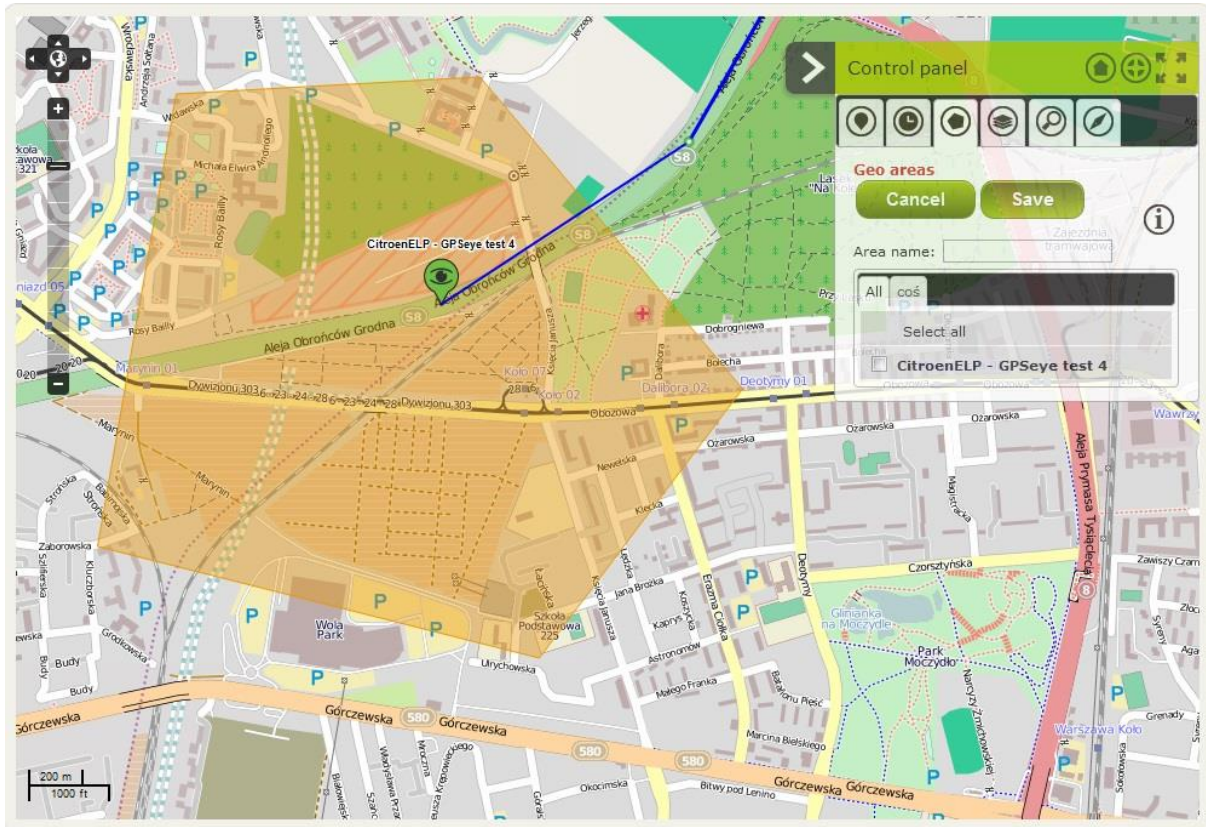
In „Groups” menu you can manage your groups: add new, edit existing or delete existing group.

4.4. Data export

Whole history of all devices can be exported to xls file using “Export GPS data”. Choose device, range of dates (start and end dates) and click “Export to Excel file”

4.5. Areas

In Control panel choose Geo areas in order to set area with borders. In case car moves out of the chosen borders proper event notification is raised. Check next chapter 4.6 Events.



4.6. Events

As one of your cars moves out of specified borders an event is created and available in Events tab.

Device

Select device for filter.

Events type

Select event type for filter.

Start date:










Select start date for events.
Time zone: Europe/Warsaw

End date:

Select end date for events.
Time zone: Europe/Warsaw

Filter events
Clear filter

Strona 1 z 16 >>

Device	Time	Message	Icon
CitroenELP - GPSeye test 4	2013-04-03 08:52:38 (Europe/Warsaw)	Pojazd CitroenELP - GPSeye test 4 opuścił obszar Custom	
CitroenELP - GPSeye test 4	2013-04-03 08:48:48 (Europe/Warsaw)	Pojazd CitroenELP - GPSeye test 4 opuścił obszar tttt	
CBZ test 2	2013-04-03 08:05:23 (Europe/Warsaw)	Pojazd CBZ test 2 powrócił do obszaru lomianki	
CBZ test 2	2013-04-03 07:38:58 (Europe/Warsaw)	Pojazd CBZ test 2 opuścił obszar w1	
CBZ test 2	2013-04-02 23:30:02 (Europe/Warsaw)	Pojazd CBZ test 2 nie odpowiada	-
CBZ test 2	2013-04-02 17:17:33 (Europe/Warsaw)	Pojazd CBZ test 2 powrócił do obszaru w1	
CBZ test 2	2013-04-02 16:51:12 (Europe/Warsaw)	Pojazd CBZ test 2 opuścił obszar lomianki	
CBZ 601	2013-04-02 00:05:01 (Europe/Warsaw)	Pojazd CBZ 601 nie odpowiada	
CBZ 601	2013-04-01 10:30:01 (Europe/Warsaw)	Pojazd CBZ 601 nie odpowiada	
CBZ 601	2013-03-31 21:25:01 (Europe/Warsaw)	Pojazd CBZ 601 nie odpowiada	

5. Integration with other Web-platforms

miniMini-GPStracker can be reprogrammed to send its location to other Web-platforms as required. The communication with server (sending a GPS location) is done via TCP/IP protocol and below is the example of data frame from tracker to server:

```
355995543512345&$GPRMC,081813.000,A,5220.7697,N,02053.5673,E,0.00,111.57,020412,,,A*62
```

Device is sending IMEI & raw \$GPRMC frame (or multiple \$GPRMC frames separated by & char).

6. FAQ

Data missing on the server:

- Device battery discharged – plug device to car power supplier
- SIM card missing in the device or PIN is „1111” or GPRS inactive for that SIM – change card or edit PIN
- GSM out of range – move device to an area with efficient GSM signal strength. Described device is approved for usage in GSM 900 and 1800 MHz. To get more information about cellular networks contact your service provider.
- No GPS signal – move device to an area with efficient GPS signal
- Device does not change its position – remember that data is sent only while driving

7. Security

The mini-GPStracker terminal is an electronic product that should be treated with care. Please follow suggestions shown below due to using modem for many years.

- Do not expose mini-GPStracker to any extreme circumstances like high temperature or high humidity
- Do not keep modem in dirty and dust places
- Do not disassemble the Mini-GPStracker modem
- Do not expose the modem to any water, rain or steam
- Do not drop, shake or knocking your modem
- Do not place your modem close to magnetic devices – credit cards, etc
- Use of third party equipment or accessories, not made or authorized by Eltronika may invalid the warranty of modem and/or cause failure or permanent damage of modem
- Do not expose the modem to children under 3 years

8. Technical characteristics

8.1. Electrical characteristics

Voltage supply: 7 – 16 V

8.2. Mechanical characteristics

Weight: 90 g

Length: 73 mm

Width: 46 mm

Hight: 17 mm

8.3. RF characteristic

8.3.1 Frequencies

Parameter		Frequency
GSM 900	TX	880 – 915 MHz
	RX	925 – 960 MHz
DCS 1800	TX	1710 – 1785 MHz
	RX	1805 – 1880 MHz

8.3.2. Performance

Band		900	1800
GSM/GPRS	TRP [dBm]	22	24,5
	TIS [dBm]	-99	-101,5
EGPRS	TRP [dBm]	20,5	19,5
	TIS [dBm]	-92,5	-93,5

On-line support

Eltronika provides a range on on-line support which includes:

- the latest version of this document
- information about newest updates for Mini-GPStracker
- technical support

Information about this and other products can be found on our website:

www.eltronika.com

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