Connection and configuration of Galileosky OBD-II tracking device

User Manual

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Necessary tools, devices, materials.

To connect and configure Galileosky OBD-II tracking device it is necessary to have:

1. Satellite monitoring device Galileosky OBD-II (hereinafter – the tracking device)
2. There should be OBD-II connector in the vehicle or in the object where the tracking device should be connected.
3. A computer running Windows with the installed service software for configuration of Galileosky tracking devices - "Configurator". We recommend you to install the latest version of the service software from our site https://galileosky.com/podderzhka/programmyi.html.
General Information

The tracking devices determine the mobile object location recording the time and route as points with geographical coordinates and send the data to the server to be further processed and sent to the traffic controller panel.

In addition, a number of other vehicle parameters are recorded. The tracking devices can be used in any vehicle with the OBD-II connector.

Technical and functional capabilities of the tracking device allow to carry out the following:
- online location monitoring;
- monitoring of various parameters obtained from the CAN bus of the vehicle using the CAN scanner functionality;
- recording of monitoring information to internal nonvolatile flash memory in conditions of GSM network absence;
- a detailed drawing of corners without extra points on tangential paths;
- remote configuration via SMS or GPRS;
- remote tracking device software update via GPRS;
- using custom algorithms with the Easy Logic tool;

Inserting of SIM card into the tracking device, installation and connecting of the tracking device is carried out in accordance with the recommendations from the manual "Installation and connection of Galileosky tracking devices". The relevant manual can be downloaded at the link https://galileosky.com/podderzhka/dokumentacziya.html
Galileosky OBD-II tracking device does not have external antennas in comparison with Galileosky Base Block and Galileosky 5.0. The tracking device is connected directly to the OBD-II connector, which is usually located under the steering wheel of the vehicle (Pic. 1). The exact location of the OBD-II connector should be checked with the vehicle manufacturer.
How to configure the tracking device

Before starting work the Galileosky OBD-II tracking device should be configured using the Configurator service software. The tracking device should be configured as follows:

1. connect the tracking device to the PC using USB-cable (this tracking device may be configured without using an external power source)

2. run the Configurator and make sure that the tracking device is determined by the program (Pic. 2)

3. go to the "Settings" tab of the Configurator -> "Data transmission" (Pic. 3)
   - configure the access point of the chosen mobile operator;
   - configure the monitoring data processing server and the port through which it works;
   - if it is necessary you can configure the tracking device to transmit the data to the secondary server. To do this specify IP and the server port in the "Secondary data server" column.
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(version 1 of 25.05.2019)

- choose the data transmission protocol, we recommend to use Galileosky protocol as it allows to transmit the most complete amount of data to the server;
- Click "Apply" button.

4. go the "Settings" tab -> "Protocol" (Pic. 4)
   - choose the tags for the first package; (it is recommended not to mark optional tags in the first package, as the first package is used to establish communication between the tracking device and the monitoring server)
   - choose the necessary tags for the main package;
   - click "Apply" button.
   - go to the "Device" tab and restart the tracking device by pressing "Reset device" button.
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Pic. 4
“Protocol” tab of the Configurator
To receive the data from the Galileosky tracking device the monitoring software should be modified in accordance with the Galileosky protocol description. A full description of the Galileosky Protocol is available for download at the link https://galileosky.com/podderzhka/dokumentacziya.html

Create a monitoring object and configure it in accordance with the recommendations of the monitoring software. If necessary, edit the track settings on the "Settings" tab -> "Track" (Pic.5) in accordance with the manual "Setting of track by means of the tracking device" https://galileosky.com/podderzhka/dokumentacziya.html

![Pic. 5](image-url)
After that make sure that the device is connected to the server, it transmits the information and draws the track (Pic. 6)
The possibility of CAN scanner usage

A new solution of Galileosky allows you to read messages in CAN-bus in original form and look through their changes in real time mode.

Using this functionality, the user can quickly find in the CAN bus the interested parameters, such as engine speed, pedal position, door position, etc., as well as bind this data to the tags of Galileosky Protocol to send information to the monitoring server (using the tag mark on the Protocol tab of the "Configurator" program).

CAN scanner is primarily designed for technical specialists, who install tracking devices and carry CAN parsing out. CAN scanner usage dramatically reduces the time for searching and parsing CAN-messages.

The main window of the CAN scanner is shown in Pic. 7.

Moreover, the functionality of CAN scanner includes the function of sending messages to the CAN bus of the vehicle to get the additional information.

The relevant manual for work with CAN scanner can be downloaded at the link https://galileosky.com/podderzhka/dokumentacziya.html
Tracking device setting to work via J1979 protocol

Using the CAN scanner tool, it is also possible to scan OBD-II codes using the J1979 protocol. This mode is used to determine the data rate in the bus and the type of identifiers present in the CAN bus of the vehicle in the J1979 protocol. To start this mode, select the J1979 (OBD-II) filter type, and specify the connection speed (Pic.8). Speed of 250,000 bit/s or 500,000 bit/s, work with 11-bit or 29-bit identifiers are supported.

After that click "Start receiving". Go to the "Troubleshooting" tab, tick "CAN" and "CAN detailed" and make sure that there are extracted and decrypted messages sent over the J1979 protocol:

- Fuel level in the tank
- Coolant temperature;
- Engine speed;
- Error codes;

Engine speed
PID request 0x7DF 0x550C0102 0x55555555
0x7E8 = 04 41 0C 0E 08 AA AA AA
OBD response 0x E0C4104 0xAAAAAAAA08
Engine speed 898

Engine coolant temperature
PID request 0x7DF 0x55050102 0x55555555
0x7E8 = 03 41 05 6A AAAAAA
OBD response: 0x6A054103 0xAAAAAAAA
Engine coolant temp 66

More detailed manual on how to work with the OBD-II diagnostic connector can be downloaded at the link https://galileosky.com/podderzhka/dokumentacziya.html
Configuration of the Galileosky OBD-II tracking device is completed, the tracking device is ready to operate.

RSA “Galileosky”, LLC produces satellite monitoring equipment for GPS and GLONASS real time vehicles monitoring. The tracking devices determine the mobile object location recording the time and route as points with geographical coordinates and send the data to the server to be further processed and sent to the traffic controller panel.

In addition, a number of other vehicle parameters are recorded.

The tracking devices can be used in any vehicle.