



RS232. Connection and Operation of CUB5 Indicator

User Manual

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Necessary Tools, Devices, Materials

To connect the CUB5 indicator (hereinafter – CUB5) to the Galileosky tracking device (hereinafter – tracking device, vehicle tracker) one should have:

1. Electrical tools.
2. Set of connecting wires.
3. Windows-based computer with the installed program of configuration of Galileosky tracking devices – "Configurator". It is recommended to install the latest version of the program from the site <https://galileosky.com/podderzhka/programmyi.html>

General Information

CUB5 – is a segment 8-bit display, which can be connected to the tracking device using RS232 interface. It can display current sensors data; CAN bus data, mileage and so on (Pic. 1). Specific displayed parameter is selected in the process of settings of the vehicle tracker through the Configurator. Information in the indicator is updated once a second.

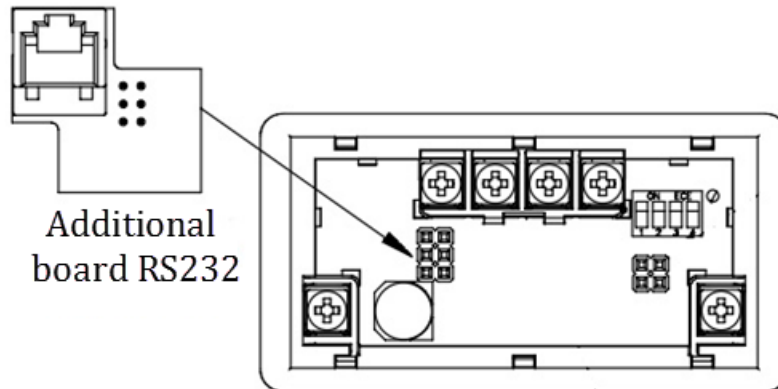


Pic. 1

Different modifications of CUB5 indicator

Connection of CUB5 via RS232 Interface

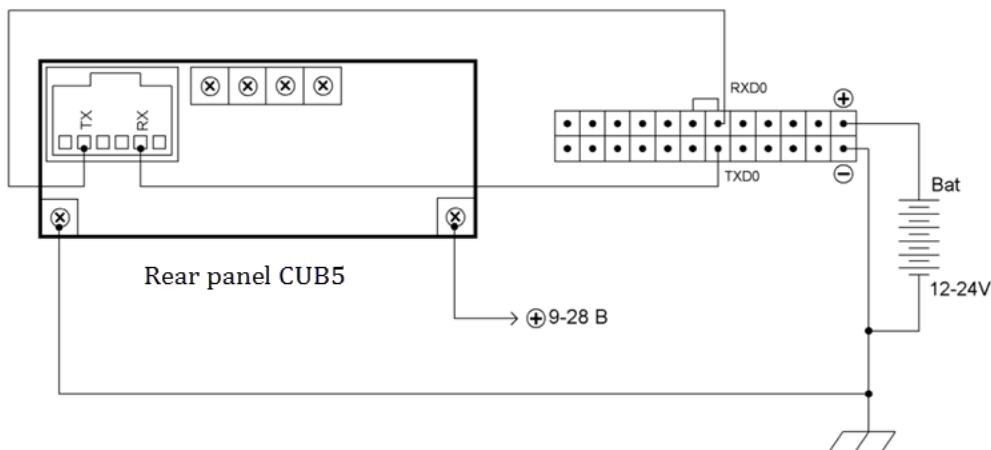
Before connecting, make sure that there is an additional card with the connector for the RS232 interface on the backwall of the indicator (Pic. 2).



Pic. 2

Checking of availability of additional card

CUB5 connection to Galileosky 5.0 or 7.0 tracking devices is carried out in accordance with the scheme presented in Picture 3. RS232 contacts can have a different location in other device versions. You can find the scheme for interface location on the box of the tracking device.



Pic. 3

The scheme of connection of CUB5 to RS232 input

For v1.8.5 or v2.2.8 tracking devices, which have the second RS232 port, it is possible to use still RXD1 and TXD1 contacts.

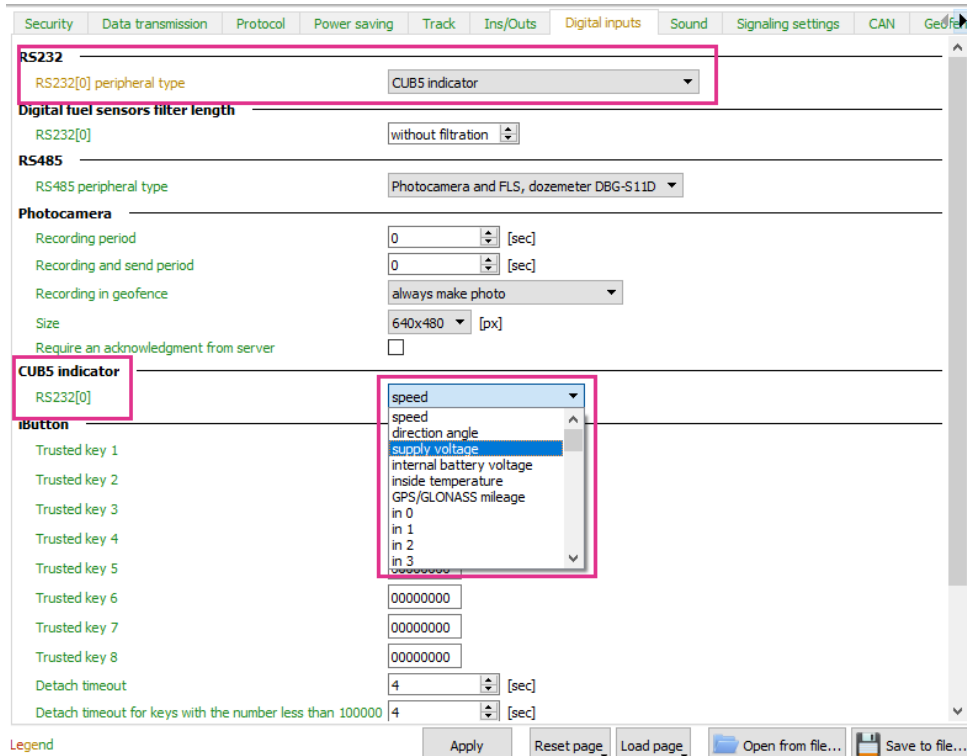
ATTENTION! Grounds (GND) of the tracking device and the CUB5 must be connected; RS232 contacts must be connected strictly according to the scheme RX of the CUB5 - TXD0 of the vehicle tracker and TX of the CUB5 - RXD0 of the tracker. The CUB5 power supply is provided separately.

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Setting of RS232[0] (RS232[1]) input of the tracker to display information on the indicator can be performed in two ways.

1. Setting via the Configurator (Pic. 4):

- 1.1. Go to the "Setting" tab -> "Digital inputs" of the Configurator and select "CUB5 indicator";
- 1.2. in the CUB5 Indicator block choose the parameter information on which you plan to bring to the CUB5 display;



Pic. 4

RS232 input setting in the Configurator

- 1.3. press "Apply" button;
- 1.4. go to the "Device" tab of the Configurator and reset the tracking device using "Reset" button.

2. Setting via commands:

- 2.1. send `RS2320 7` (or `RS2321 7`) command to the tracking device to connect the indicator;
- 2.2. send `CUB5` command with the following parameters to the tracking device

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Command format

CUB5 N0

Parameters

N0 – parameter number displayed on the indicator connected to RS232 port.

Parameters:

- 0 – speed, accurate within 0.1, [km/h];
- 1 – directional angle accurate within 0.1 [°];
- 2 – external supply voltage [mV];
- 3 – internal accumulator voltage [mV];
- 4 – temperature inside the GPS tracker [°C];
- 5 – mileage according to the GPS/GLONASS data, accurate within 0.1, [km]
- 6 – input IN0;
- 7 – input IN1;
- 8 – input IN2;
- 9 – input IN3;
- 10 – RS232[0];
- 12 – temperature sensor 0 [°C];
- 13 – temperature sensor 1 [°C];
- 14 – temperature sensor 2 [°C];
- 15 – temperature sensor 3 [°C];
- 16 – temperature sensor 4 [°C];
- 17 – temperature sensor 5 [°C];
- 18 – temperature sensor 6 [°C];
- 19 – temperature sensor 7 [°C];
- 20 – CAN. Total fuel consumption [l]
- 21 – CAN. Tank fuel level, accurate within 0.1 [%]
- 22 – CAN. Coolant temperature [°C];
- 23 – CAN. Engine speed;
- 24 – CAN. mileage, accurate within 0.1 [km]
- 25-39 – CAN8BITR0 - CAN8BITR14;
- 40-44 – CAN16BITR0 – CAN16BITR4;
- 45-49 – CAN32BITR0 – CAN32BITR4;
- 50 – RS485[0];
- 51 – RS485[1];
- 52 – RS485[2].

Explanation

Settings of parameters display on the CUB5 indicator.

Example

Request: CUB5 1

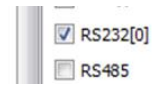
Reply: CUB5:RS2320=1, RS2321=0;

2.3. to reset the tracking device send *Reset* command.

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Make sure the tracking device correctly transmits the information to the indicator display: to do this you should visually compare the values shown on the display with the indications which are shown in the "Troubleshooting" tab of the Configurator. There should be a tick in the "RS232[0]" ("RS232[1]") field (Pic. 5):

```
RS232[0].CUB5. Command VA1860*  
RS232[0].CUB5. Command VA1860*  
RS232[0].CUB5. Command VA1860*  
RS232[0].CUB5. Command VA1860*
```



Pic. 5

Checking of matching of displayed data

Connection of the CUB5 to the Galileosky tracking device via RS232 interface is completed; the tracker is ready to operate.