DAI. Connection of a keyboard with RFID-reader through Wiegand-26

User manual

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Necessary Tools, Devices, Materials

To connect Galileosky GLONASS/GPS tracking device (hereinafter – tracking device) to a keyboard with RFID-reader (hereinafter – keyboard) through the Wiegand-26 protocol one should have:

1. Electrical tools.
2. Set of connecting wires with fuses.
General Information

Wiegand-26 is a simple wired communication interface between a RFID card reader and a controller, widely used in access control systems (ACS). It is intended for transfer of the identification result from the ACS reader to the controller.

In a particular case, the interface can transmit the number of the read-out contactless card, the number of the radio keychain, the dialed PIN code and the number of the fingerprint template.

The interface does not support encryption of the transmitted data, authentication of the parties, control of the integrity of the line between the reader and the controller, including reader indication control.

The reader is shown in Picture 1. The keyboard model with the Matrix EHT Keys Metal RFID reader manufactured by IronLogic company is suitable for working with the device https://ironlogic.ru/il_new.nsf/htm/ru_matrixmkeys
Connection of a keyboard with RFID-reader to the device

A keyboard with a Wiegand-26 interface can be connected to devices version 7.0 and Base Block with a firmware version 14 or higher. The connection to the device is made by connecting the DATA0 and DATA1 outputs of the keyboard with the IN0 and IN1 inputs of the device respectively (Pic. 2.3). Moreover, starting with firmware version 21.0, you can connect the reader to the inputs IN2 and IN3 respectively. The negative power input of the keyboard must be connected to the negative power of the device.

Attention! The devices support reader models with an output pulse length of at least 250 µs.
Configuration of the Tracking Device to Operate with the keyboard

To configure the device for operating with the keyboard, it is necessary to configure the inputs on the "Inputs/Outputs" tab in the Configurator program. The type of filter for the IN0 and IN1 inputs should indicate Wiegand26 Data0 and Data1 respectively (Pic. 4). You can also set the filter type with the following command:

INCFG0 4,5,3000,3000,7000,7000,0;
INCFG1 5,5,3000,3000,7000,7000,0;

For the IN2 and IN3 inputs, the setting in the Configurator program is performed in the same way, the commands are as follows:

INCFG2 4,5,3000,3000,7000,7000,0;
INCFG3 5,5,3000,3000,7000,7000,0;

After configuration, the data will be displayed in the iButton2 field of the Configurator (Pic. 5, 6).

Attention! It must be remembered that the decimal value typed on the keyboard is transmitted to the monitoring software in the format in which the reader sends it. To display...
Setting of Monitoring Software

To transfer data on keyboard operation to the monitoring server, you must perform the following steps:
1. Run the Configurator software;
2. Go to the “Settings” tab -> “Protocol”;
3. In the main packet settings tick the following fields: “iButton2” (Pic. 7).

4. Click the "Apply" button.
5. Attach the RFID card to the reader or enter the code on the keyboard.

The received data will be transmitted to the monitoring server. The value in the trailer_id variable corresponds to the iButton2 value (Pic. 8).

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 state of analog and discrete inputs of the tracking device and the state of digital interfaces.

The tracking devices can be used in any vehicle.