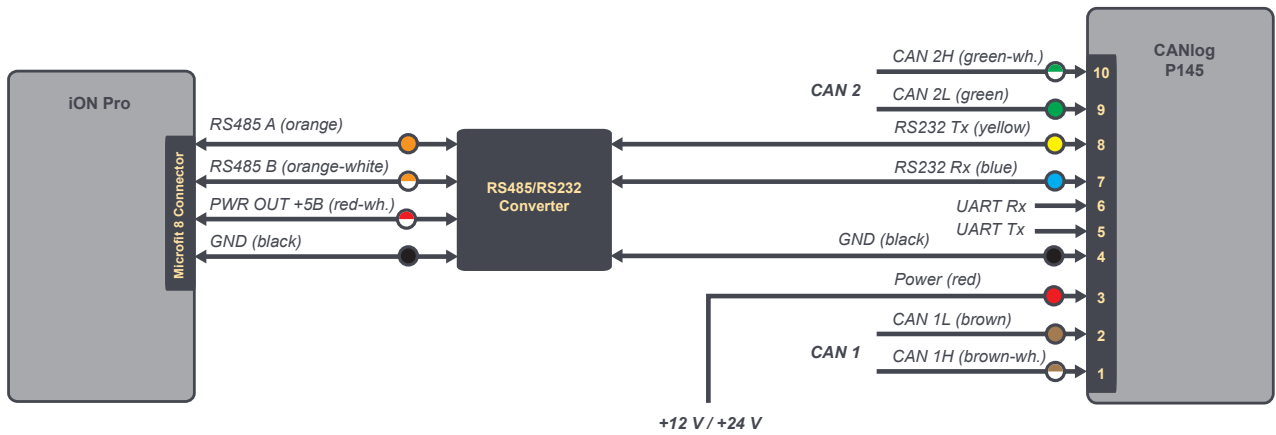




## 1. The Diagram of Connection the iON Pro Terminal via CANlog

The iON Pro terminal is connected to CANlog via the RS485-RS232 interface converter. CANlog is connected to a vehicle through CAN bus and then transmits data via RS232 interface. The terminal receives this data from the converter via RS485 interface. To connect to CANlog, use an optional Microfit 8 interface connector.



**Fig. 1.** The diagram of connection the iON Pro terminal via CANlog P145

Note that the CANlog connection diagram and the program number to a specific vehicle model need to be received from the CANLOG manufacturer.

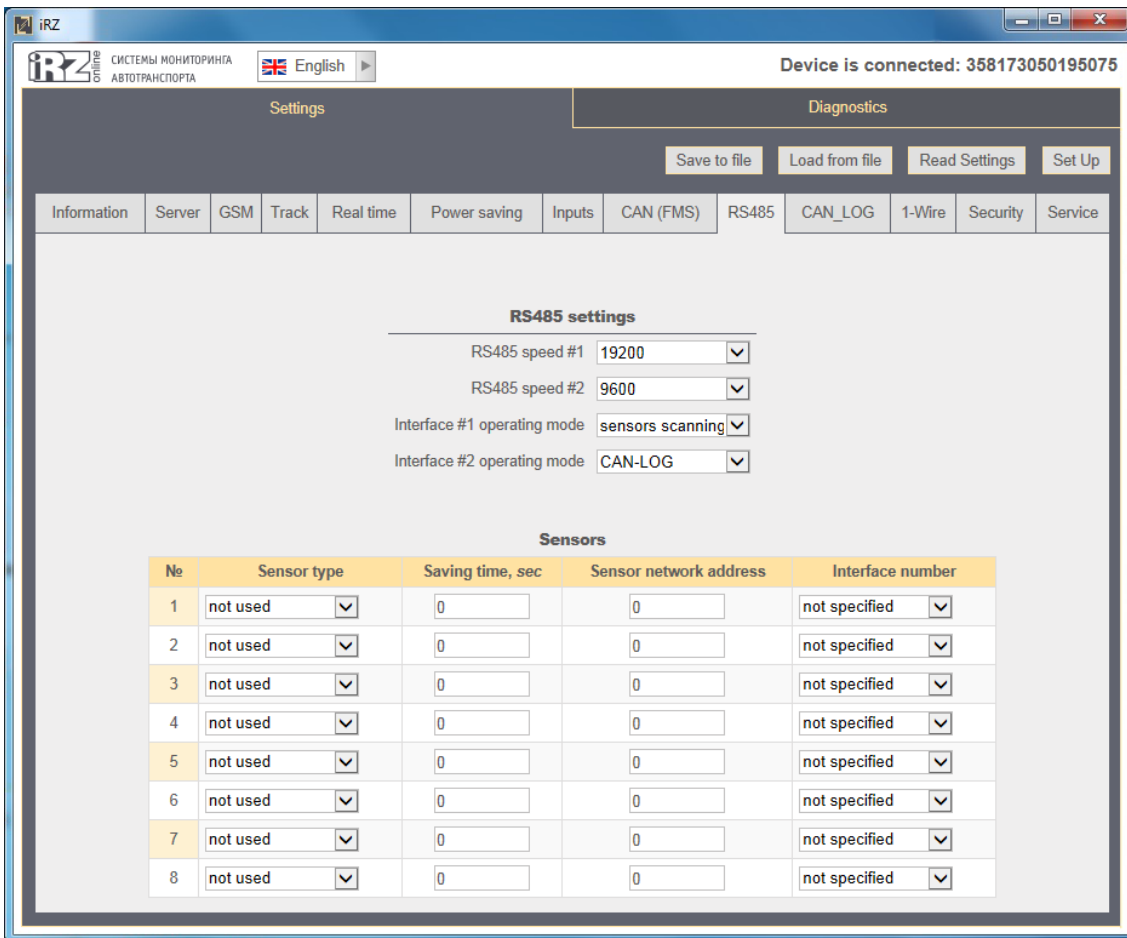


## 2. Setting Up the iON Pro Terminal

After plugging the **vehicle (vehicle CAN bus)-CANlog-iON Pro** junction, it is required to set up the terminal to receive data from CANlog. Plug the terminal into a computer and open the configuration manager (**Conf\_iRZ.exe**).

**1** In the **Settings** mode go to the **RS485** tab and select the value of **9600** in the **RS485 speed #2** option (RS485 interface speed), and in **Interface #2 operating mode** select **CAN-LOG**.

Click **Set Up** to save changes.



**Fig. 2.** Settings, the **RS485** tab



Next you need to make sure that connection is correct and CANlog data is received by the terminal with the vehicle engine being started.

**2** In the **Diagnostics** mode click the **CAN\_LOG** tab and make sure that the **Value** column in the **CAN\_LOG data** table is not empty – it must have at least some values displayed. For example, as it is illustrated in Figure 3.

The screenshot shows the iRZ online diagnostics interface. At the top, there is a header with the iRZ logo, the text 'СИСТЕМЫ МОНИТОРИНГА АВТОТРАНСПОРТА', a language selector set to 'English', and a status indicator 'Device is connected: 358173050195075'. Below the header, there are two main tabs: 'Settings' and 'Diagnostics'. Under the 'Diagnostics' tab, there are several sub-tabs: 'GPS/GLONASS and GSM', 'Inputs', 'RS485', '1-Wire', 'CAN', and 'CAN\_LOG'. The 'CAN\_LOG' tab is selected, displaying a table titled 'CAN\_LOG data'. The table has four columns: 'Sensor ID', 'Name', 'Status', and 'Value'. The 'Status' column contains green dots for active sensors and grey dots for inactive ones. The 'Value' column contains numerical values for active sensors and is empty for inactive ones.

Sensor ID	Name	Status	Value
1	Security state flags	●	12051
2	Engine total operation time, h	●	
3	Vehicle total mileage, km	●	165010
4	Total fuel consumption, l	●	12143
5	Tank fuel level	●	77
6	Engine speed	●	1200
7	Engine temperature, °C	●	
8	Vehicle speed, km/h	●	60
9	Load on axle #1	●	
10	Load on axle #2	●	
11	Load on axle #3	●	
12	Load on axle #4	●	
13	Load on axle #5	●	
14	Accident controllers	●	
15	AdBLUE liquid level	●	
16	Agricultural machinery condition	●	
17	Reaper time, h	●	
18	Harvested area, Ha	●	
19	Productivity, 0.01 Ha/h	●	
20	Amount of harvested crop	●	
21	Grain moisture	●	
22	Threshing drum speed	●	
23	Concave clearance at output, mm	●	
24	Throttle pedal position	●	
25	Engine load	●	

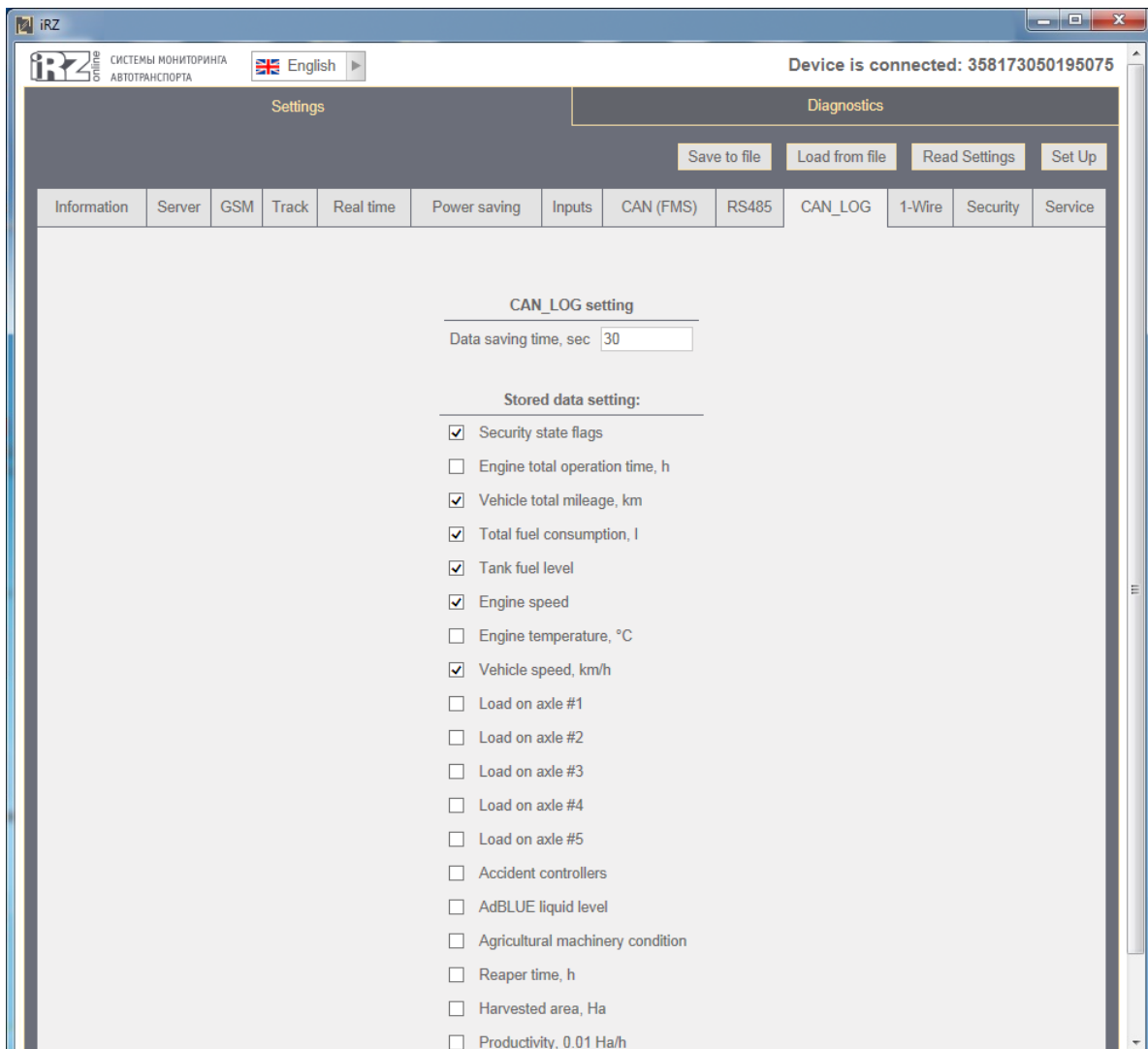
**Fig. 3.** Diagnostics, the **CAN\_LOG** tab



If the terminal receives data via CANlog, it indicates that connection is correct. It only remains to customize what data the user is intended to receive and process on the side of the server.

**3** In the **Settings** mode click the **CAN\_LOG** tab and select the data required to be received in the **Stored data setting** section.

For this purpose, check the required boxes. In addition, you can set the period to save data from CANlog by inputting the number (seconds) in the **Data saving time** option. Click **Set Up** to save changes.



**Fig. 4.** Settings, the **CAN\_LOG** tab

When configuring data, take into account that the more parameters are saved by the terminal and the less the period is, the more data is transmitted by it.