



FM6 FMB6

Professional tracker

**How to connect
FMB6 to Carrier
freezers**

Main installation location is displayed in the picture below:



Figure 1 Panel cover

Remove the panel stickers marked in the picture:



Figure 2 Fuse panel stickers location

Unscrew the panel screws marked in the picture and open the panel cover:



Figure 3 Location of the screws

The picture below displays the location of the electric panel where connectors can be found:



Figure 4 The main connector location

All of the the connectors displayed in screenshot, find the marked connector:

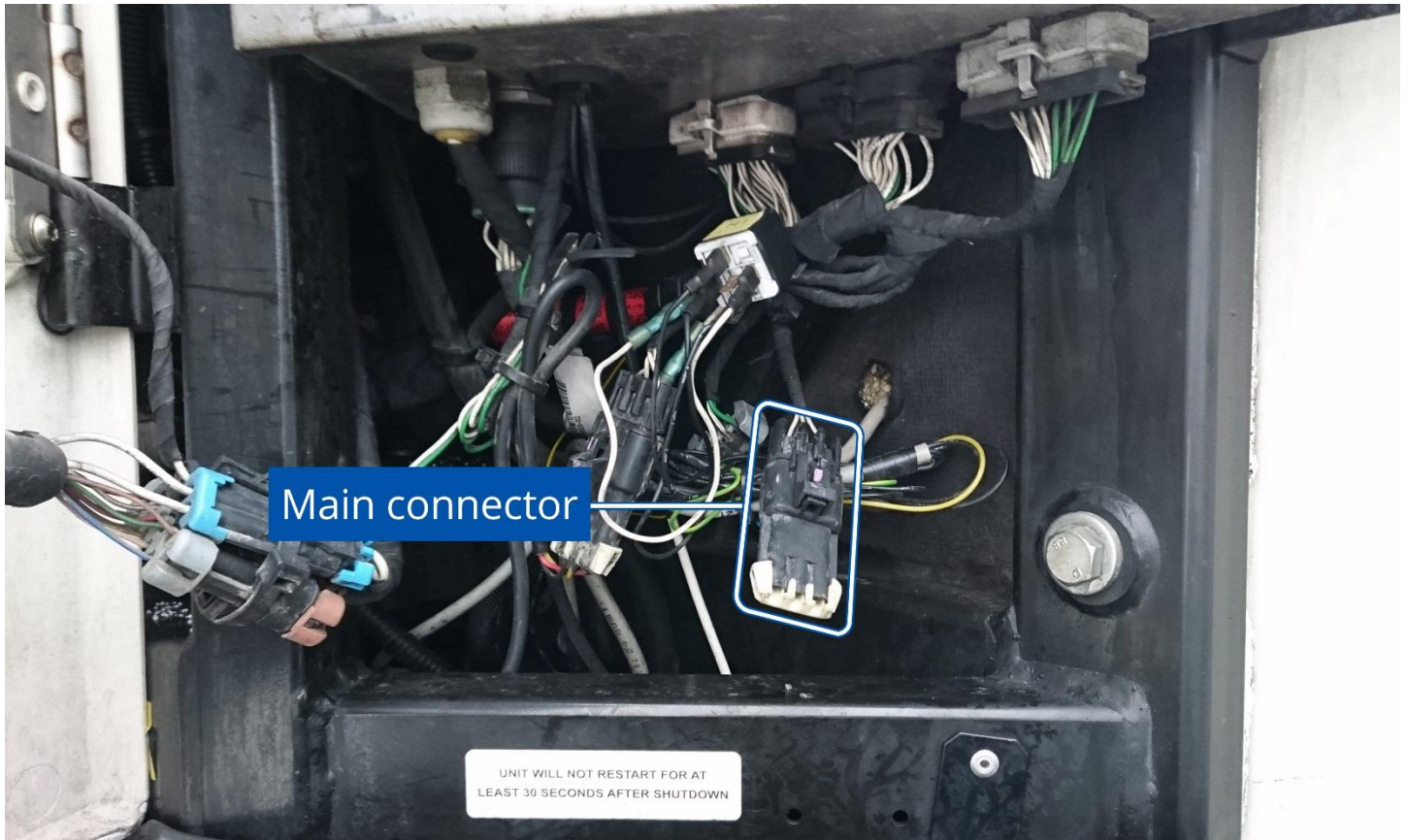


Figure 5 The main connector location

The connector should have a cap attached as displayed in the close up screenshot, unclip the cap and connect the “Carrier Special Cable”.

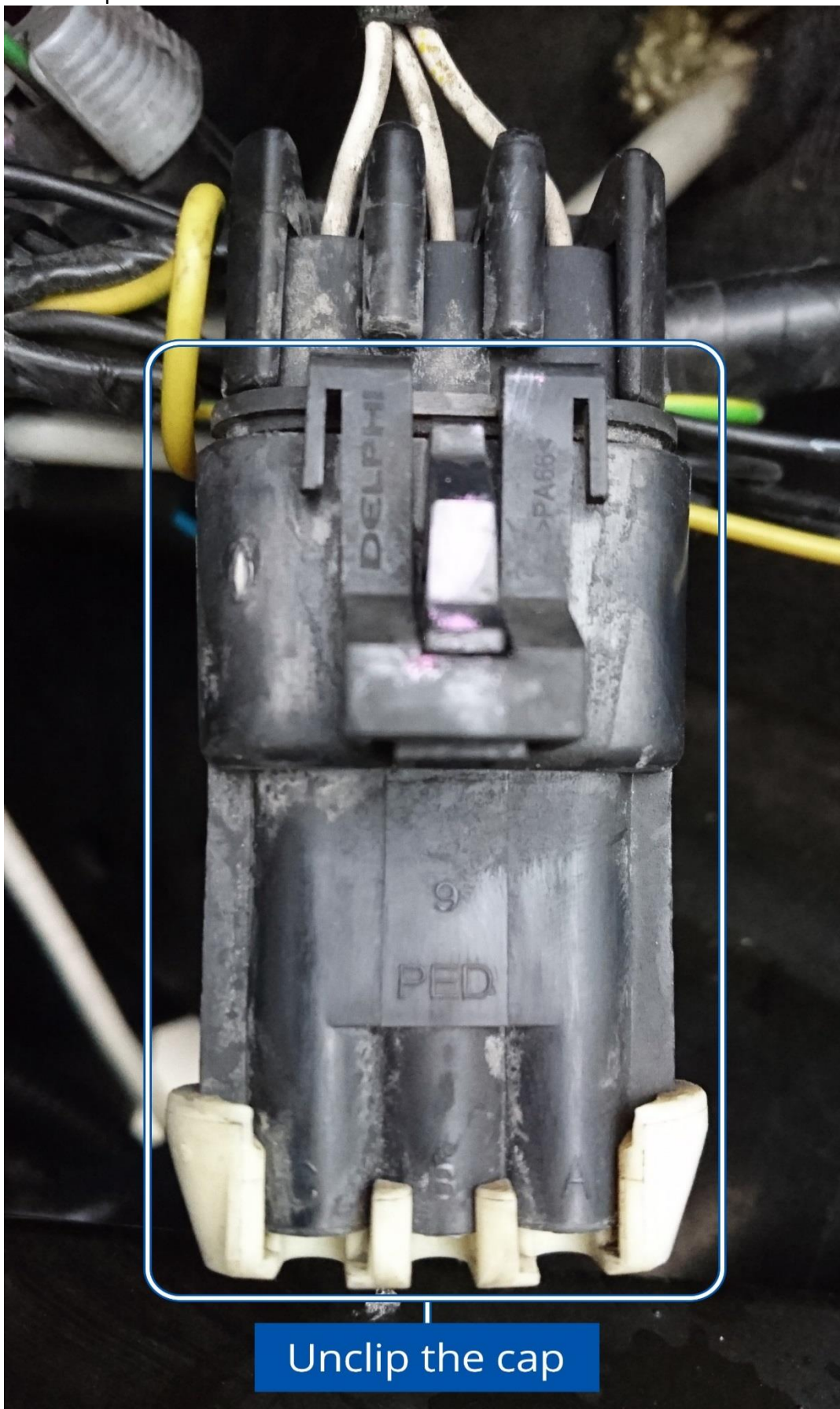


Figure 6 The main connector cap

The principle connection scheme with “Carrier Special Cable” and FMB640/FMC640 devices is potrayed below:

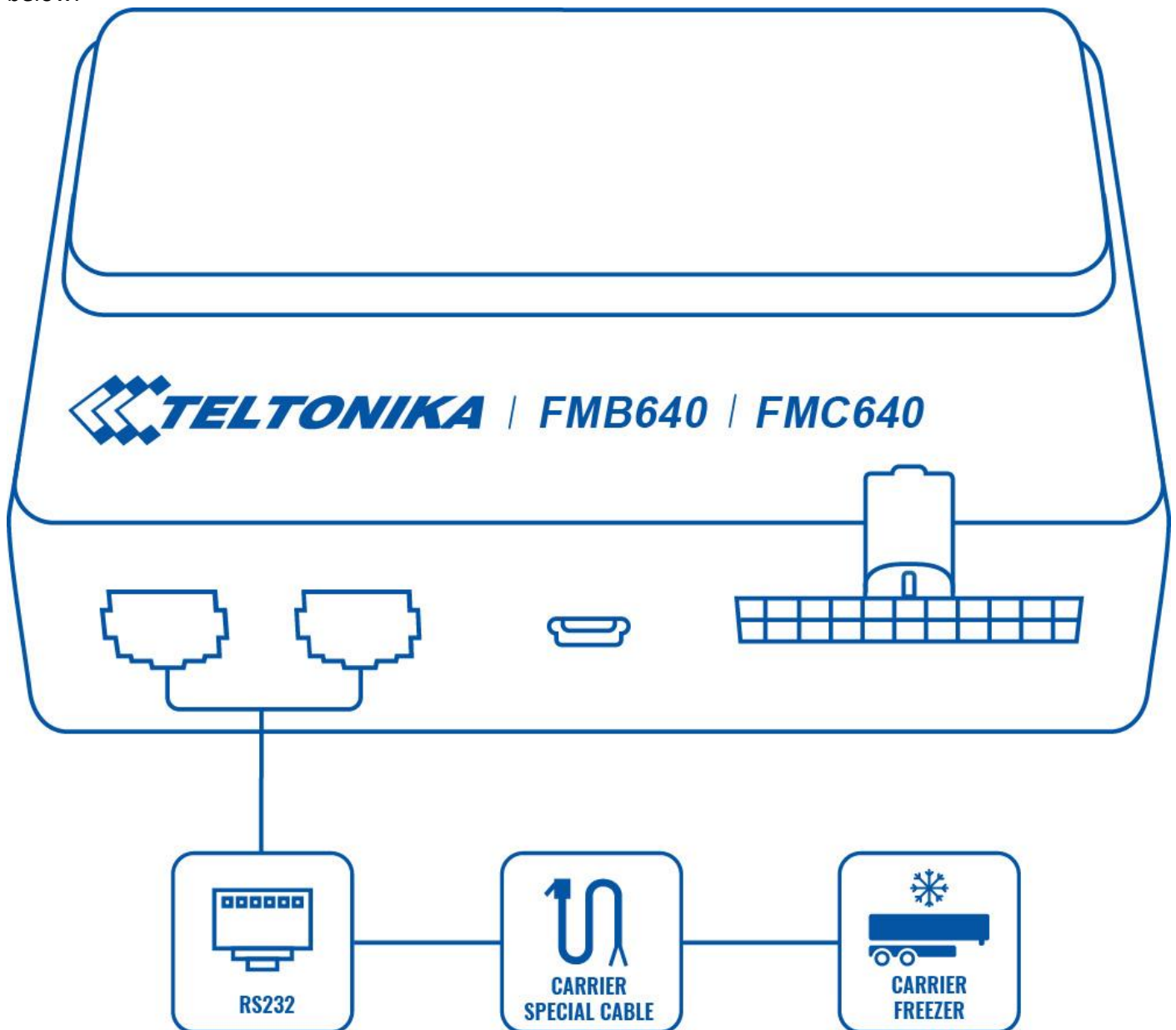


Figure 7 The principle connection scheme

*- to get more information on “Carrier Special Cable”, please contact your local sales manager. All of the “Teltonika’s” accessories can be found in our official website [here](#).

The FMB6 devices can be installed in the panel as displayed in this example:

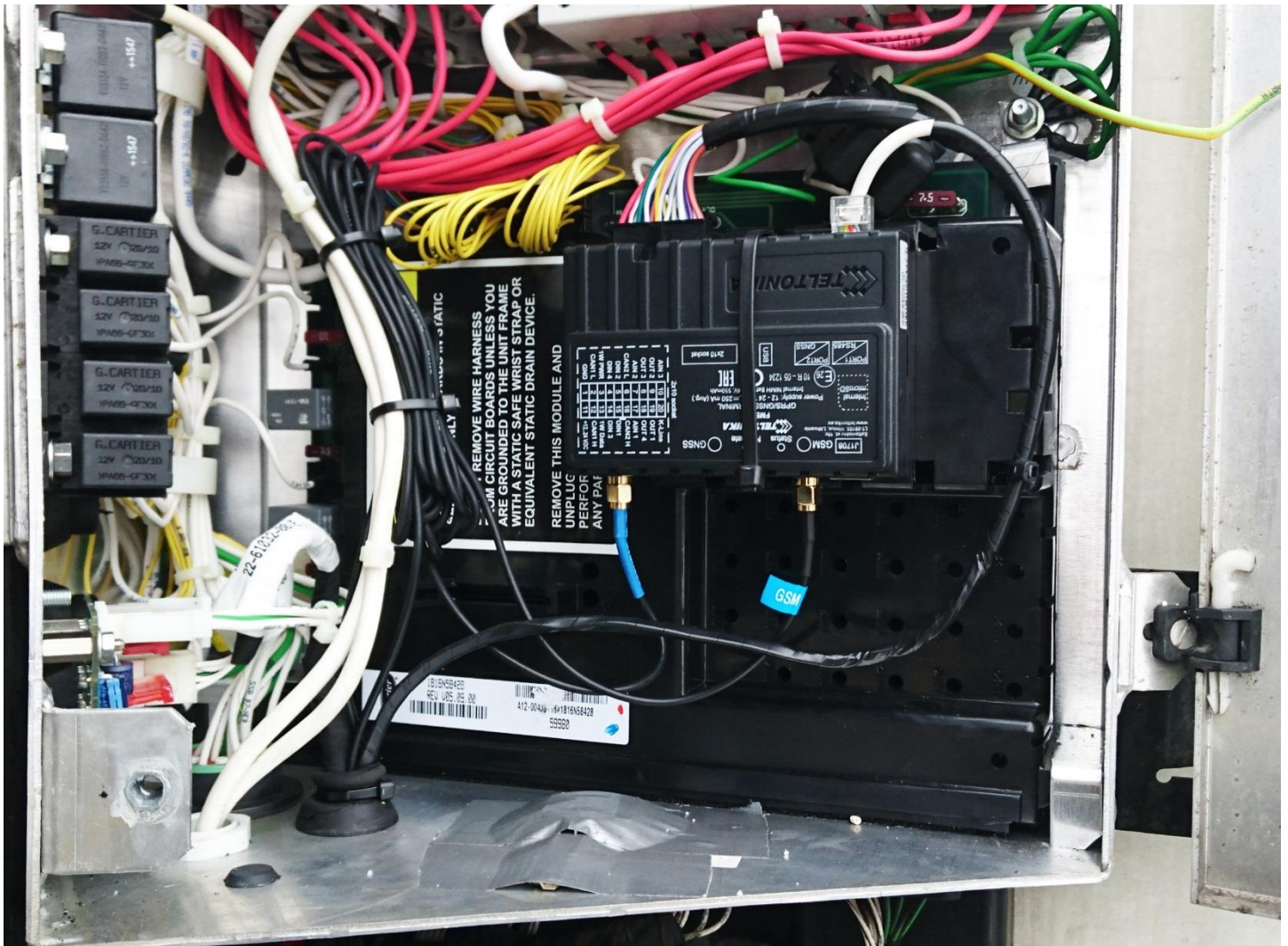


Figure 8 An example of FMB6 device installed in the panel

Device's wires lead down through gasket to the connector as displayed below:

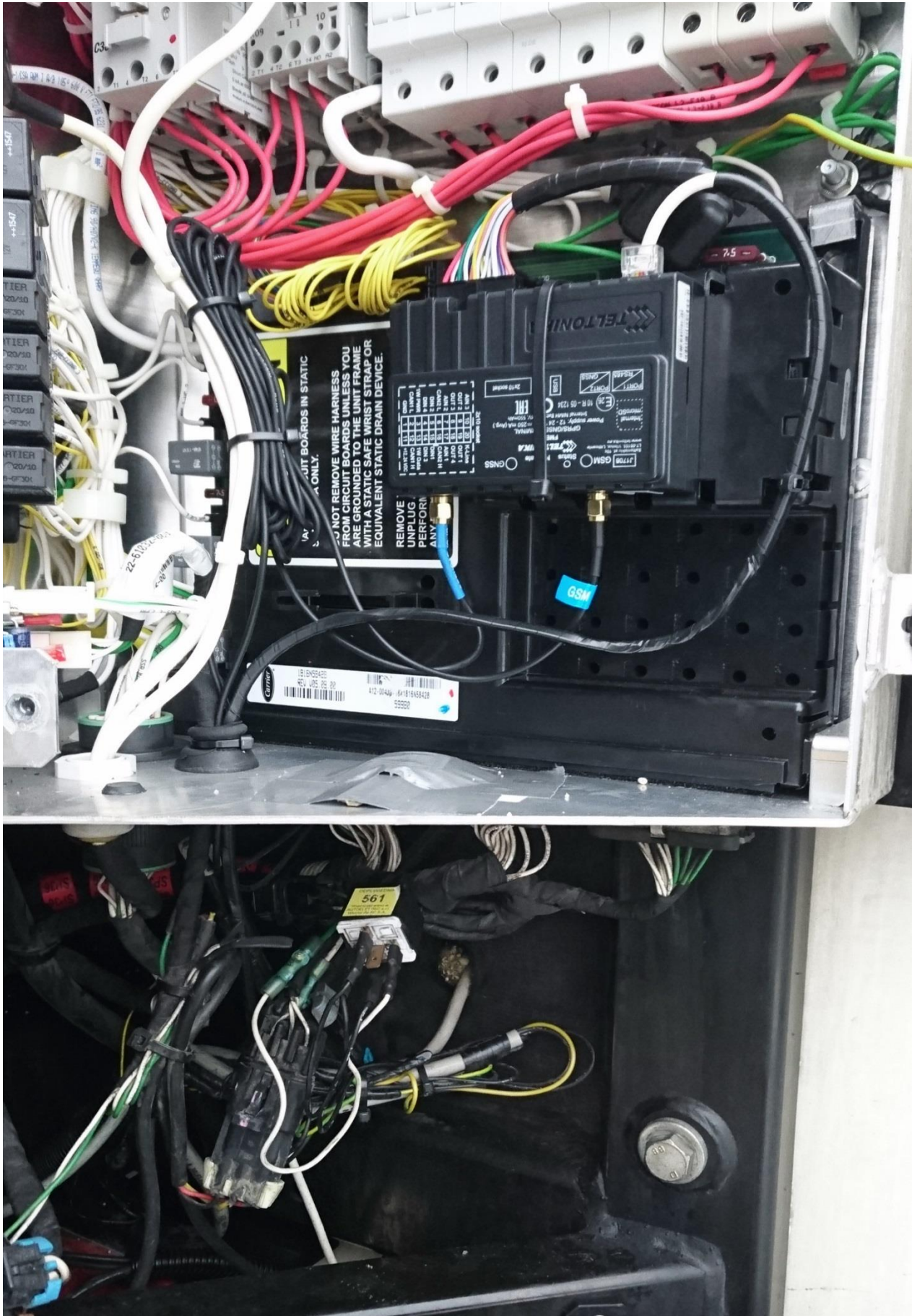


Figure 9 An example of FMB6 device installed in the panel full view

Connect the FMB6 wires to the main connector in the electric panel exactly as shown below. Wires marked in the screenshot (RS232 GND(Black), RS232 TX (Orange/Blue), RS232 RX(Yellow/Green)).

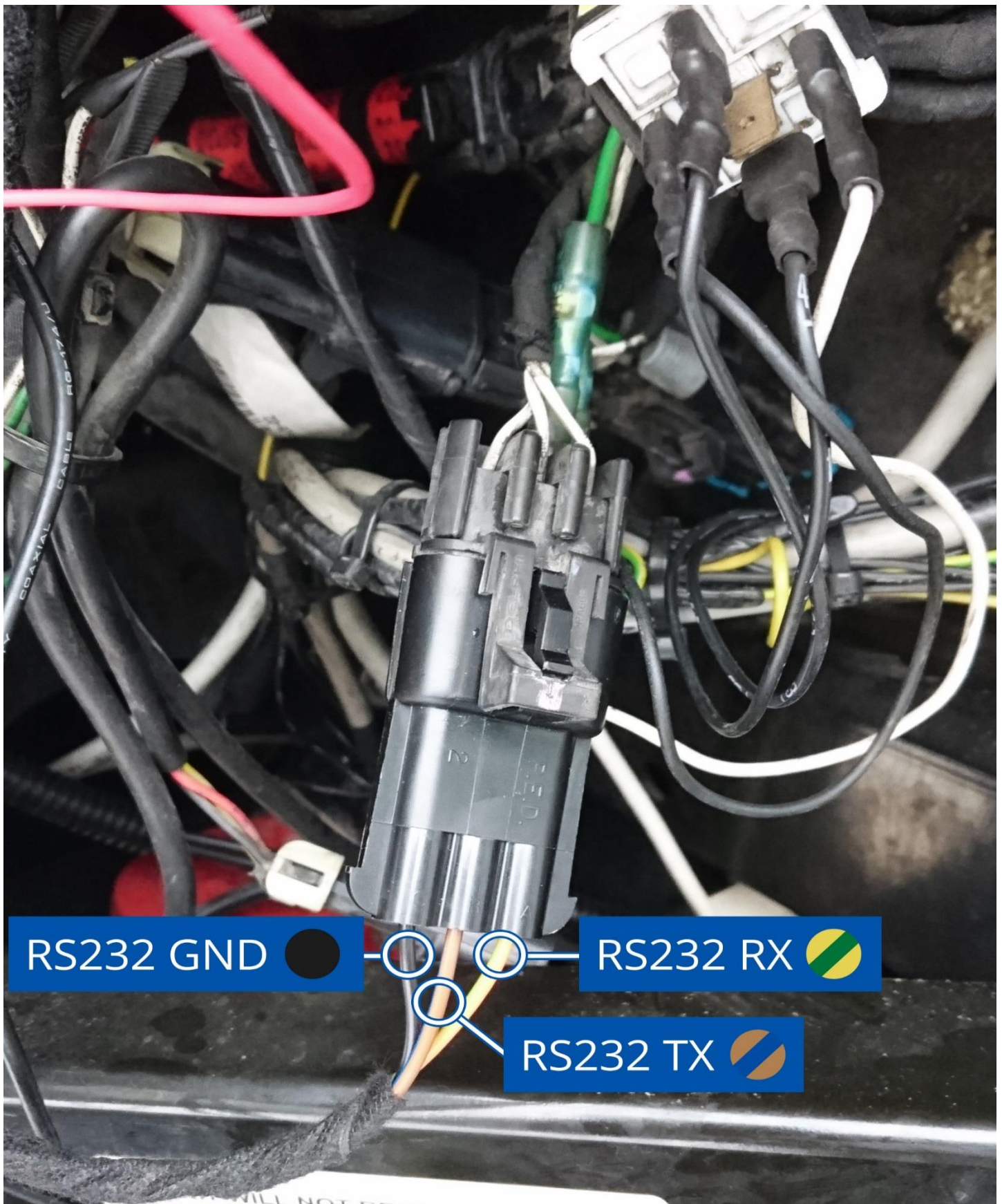


Figure 10 The connection of the FMB6 device's wires to the main connector

Make sure FM6 device is configured to receive data from “Carrier Freezer”. To do this, enter the configurator window, select **RS232 \ RS485** section displayed in the screenshot below and configure accordingly (**COM1 Settings, Mode “Carrier Freezer”, Baudrate: 9600**)

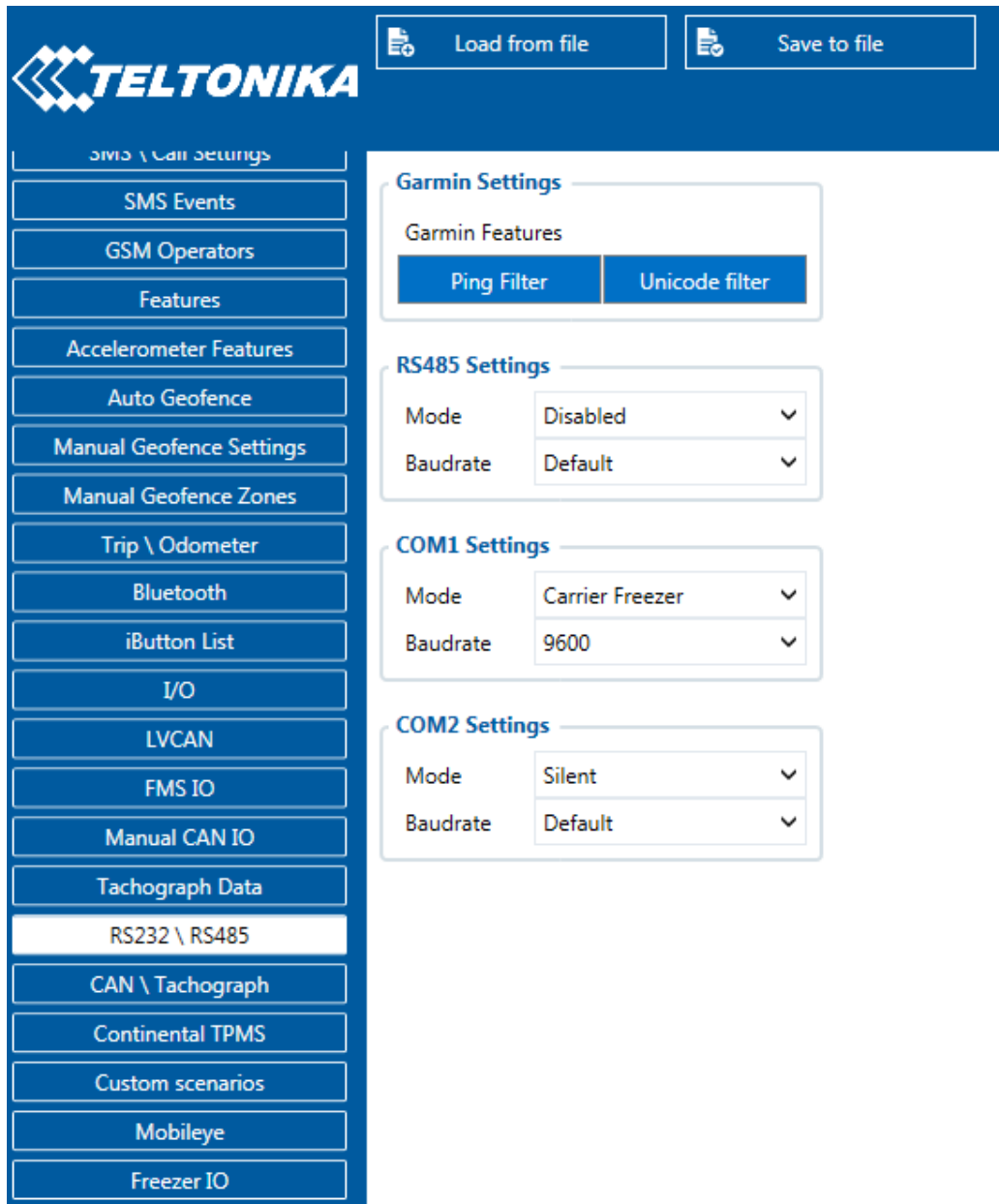


Figure 11 The configurator’s RS232 \ RS485 settings section

The screenshot below displays **Freezer I/O** parameters section, here you can set up your device to send required parameters.

Input Name	Priority				Low Level	High Level	Event Only		Operand
	None	Low	High	Panic			Yes	No	
MT Temperature (C)	None	Low	High	Panic	0	0	Yes	No	Monitoring
SetPoint 1 Temperature	None	Low	High	Panic	0	0	Yes	No	Monitoring
Ambient Temperature	None	Low	High	Panic	0	0	Yes	No	Monitoring
Compressor Coolant Temperature	None	Low	High	Panic	0	8	Yes	No	Monitoring
Fridge Compressor RPM	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Compressor Config	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Battery Voltage (V * 10)	None	Low	High	Panic	0	0	Yes	No	Monitoring
Compressor Motor Work Minutes (HM)	None	Low	High	Panic	0	0	Yes	No	Monitoring
Freezer Work Minutes (HMT)	None	Low	High	Panic	0	0	Yes	No	Monitoring
Electric Minutes (HME)	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Door State	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Instalation Serial	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Trailer Registration Number	None	Low	High	Panic	0	0	Yes	No	Monitoring
Error Count	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Alarm 1	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Alarm 2	None	Low	High	Panic	0	0	Yes	No	Monitoring
Fridge Alarm 3	None	Low	High	Panic	0	0	Yes	No	Monitoring

Figure 12 The configurator's Freezer I/O settings section

Codec 8 Extended should be selected as the main data protocol in the **"Protocol Settings"** tab, which is located in **"System"** section.

<ul style="list-style-type: none"> Security System GPRS Data Acquisition SMS \ Call Settings SMS Events GSM Operators Features Accelerometer Features Auto Geofence Manual Geofence Settings Manual Geofence Zones Trip \ Odometer Bluetooth iButton List I/O LVCAN FMS IO Manual CAN IO Tachograph Data RS232 \ RS485 CAN \ Tachograph 	<p>Sleep Mode</p> <p>Sleep Settings</p> <table border="1"> <tr> <td>Disable</td> <td>GPS Sleep</td> </tr> <tr> <td>Deep Sleep</td> <td>Online Deep Sleep</td> </tr> </table> <p>Timeout (min) <input type="text" value="10"/></p>	Disable	GPS Sleep	Deep Sleep	Online Deep Sleep	<p>Protocol Settings</p> <p>Data Protocol</p> <table border="1"> <tr> <td>Codec 8</td> <td>Codec 8 Extended</td> </tr> </table>	Codec 8	Codec 8 Extended	<p>Static Navigation Settings</p> <p>Static Navigation</p> <table border="1"> <tr> <td>Disable</td> <td>Enable</td> </tr> </table> <p>Static Navigation Deactivation Source</p> <table border="1"> <tr> <td>Movement OR Ignition</td> <td>Movement</td> </tr> <tr> <td>Ignition</td> <td>Movement AND Ignition</td> </tr> </table>	Disable	Enable	Movement OR Ignition	Movement	Ignition	Movement AND Ignition																						
	Disable	GPS Sleep																																			
	Deep Sleep	Online Deep Sleep																																			
	Codec 8	Codec 8 Extended																																			
	Disable	Enable																																			
	Movement OR Ignition	Movement																																			
	Ignition	Movement AND Ignition																																			
	<p>System Settings</p> <p>GNSS Source</p> <table border="1"> <tr> <td>GPS</td> <td>GLONASS</td> </tr> </table> <p>Analog Input Value Range</p> <table border="1"> <tr> <td>Range 10V</td> <td>Range 30V</td> </tr> </table> <p>AIN4/DOUT4 Mode</p> <table border="1"> <tr> <td>Ain4</td> <td>DOUT4</td> </tr> </table> <p>Analog Input Value Range 3-4</p> <table border="1"> <tr> <td>Range 10V</td> <td>Range 30V</td> </tr> </table> <p>Odometer Source settings</p> <table border="1"> <tr> <td>GPS</td> <td>LVCAN</td> </tr> <tr> <td>FMS</td> <td>KLINE</td> </tr> </table> <p>Speed Source settings</p> <table border="1"> <tr> <td>GPS</td> <td>LVCAN</td> </tr> <tr> <td>FMS</td> <td>KLINE</td> </tr> </table>	GPS	GLONASS	Range 10V	Range 30V	Ain4	DOUT4	Range 10V	Range 30V	GPS	LVCAN	FMS	KLINE	GPS	LVCAN	FMS	KLINE	<p>Records Settings</p> <p>Records Saving/Sending Without TS</p> <table border="1"> <tr> <td>After Position Fix</td> <td>Always</td> </tr> <tr> <td>After Time Sync</td> <td></td> </tr> </table> <p>Open Link Timeout (s) <input type="text" value="30"/></p> <p>Response Timeout (s) <input type="text" value="30"/></p> <p>Sort By</p> <table border="1"> <tr> <td>Newest</td> <td>Oldest</td> </tr> </table> <p>Save records to</p> <table border="1"> <tr> <td>Internal memory</td> <td>SD card</td> </tr> </table> <p>Ping mode</p> <table border="1"> <tr> <td>Disabled</td> <td>Empty Codec.12</td> </tr> <tr> <td>0xFF</td> <td></td> </tr> </table> <p>Network Ping Timeout (min.) <input type="text" value="60"/></p>	After Position Fix	Always	After Time Sync		Newest	Oldest	Internal memory	SD card	Disabled	Empty Codec.12	0xFF		<p>Ignition Source</p> <p>Ignition Settings</p> <table border="1"> <tr> <td>Digital input 1</td> <td>Digital input 2</td> </tr> <tr> <td>Digital input 3</td> <td>Digital input 4</td> </tr> <tr> <td>Movement</td> <td>Power Voltage</td> </tr> </table> <p>High Voltage (mV) <input type="text" value="30000"/></p> <p>Low Voltage (mV) <input type="text" value="13200"/></p> <p>Movement Start Delay (s) <input type="text" value="1"/></p> <p>Movement Stop Delay (s) <input type="text" value="60"/></p>	Digital input 1	Digital input 2	Digital input 3	Digital input 4	Movement	Power Voltage
	GPS	GLONASS																																			
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Movement	Power Voltage																																				

Figure 13 The configurator's System settings section

Document change log description:

Nr.	Date	Version number	Comments
1	2019.03.25	1.0	Document created