



**FMM6**

**FMC6**

**FMB6**

Professional trackers

**How to connect  
tracker to Carrier  
reefers**

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:

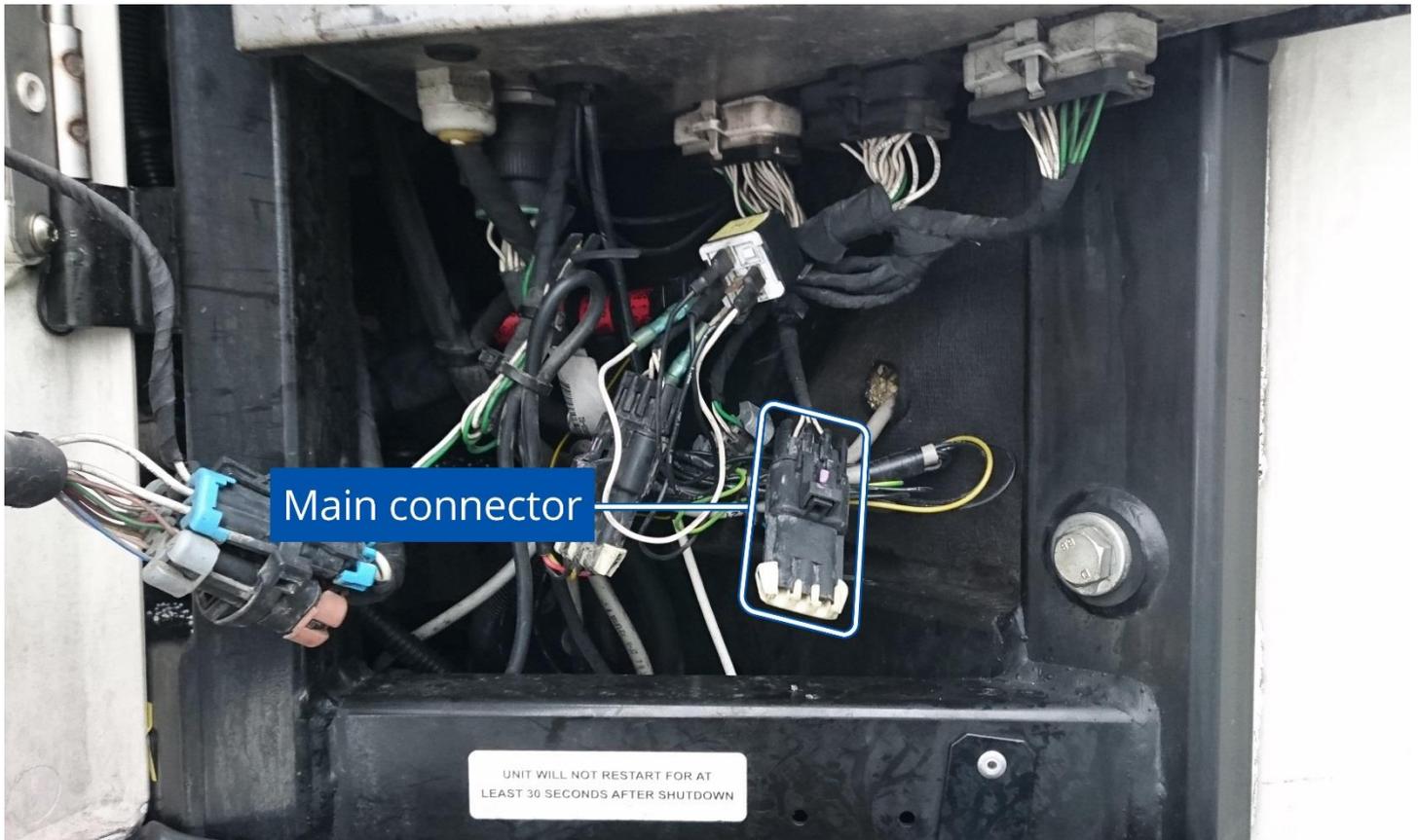


Figure 5 The main connector location close view

The connector should have a cap attached as displayed in the close up screenshot, unclip the cap.

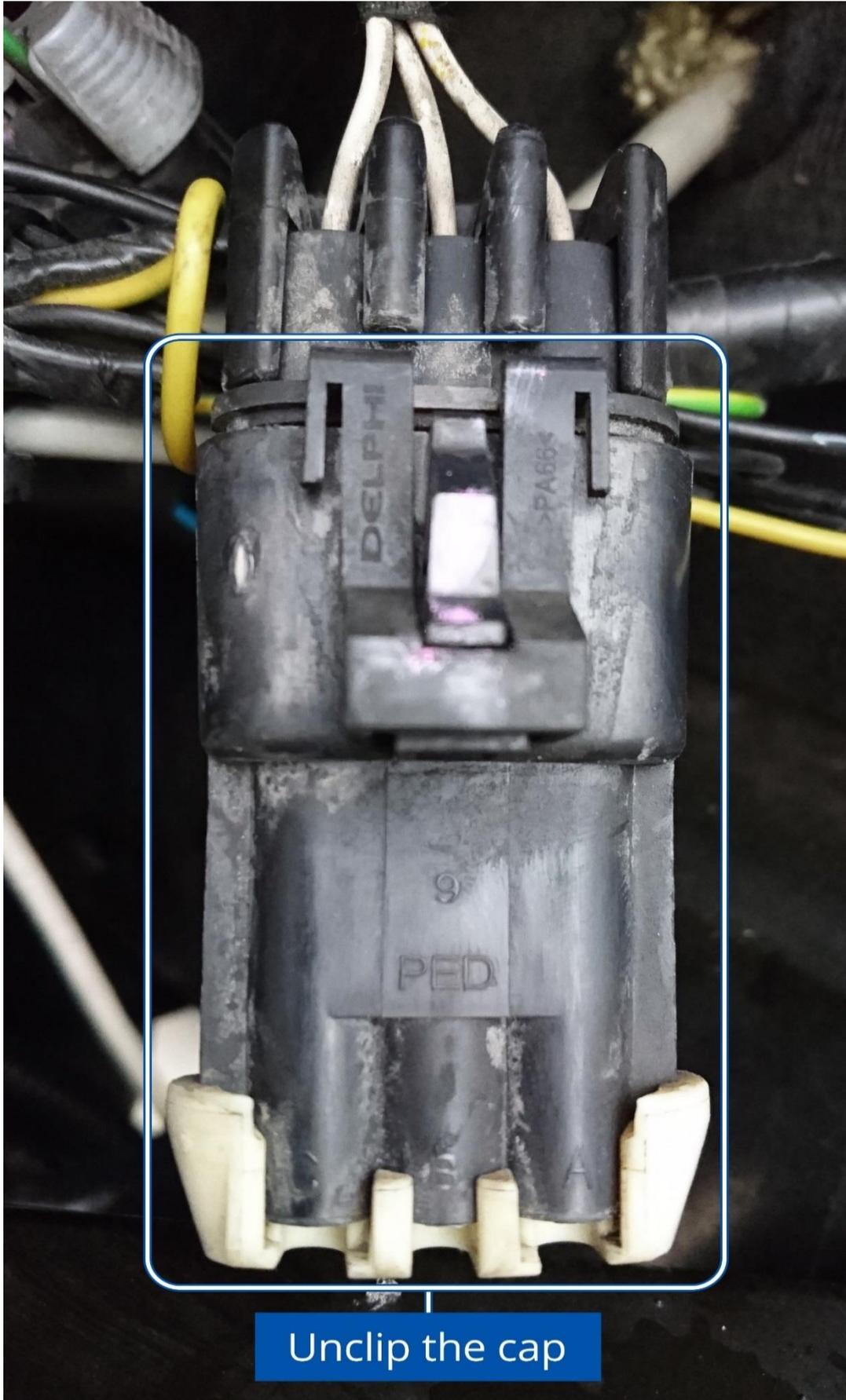


Figure 6 The main connector cap

The principle connection scheme with “Carrier Special Cable” and FMB640/FMC640/FMM640 devices is portrayed below:

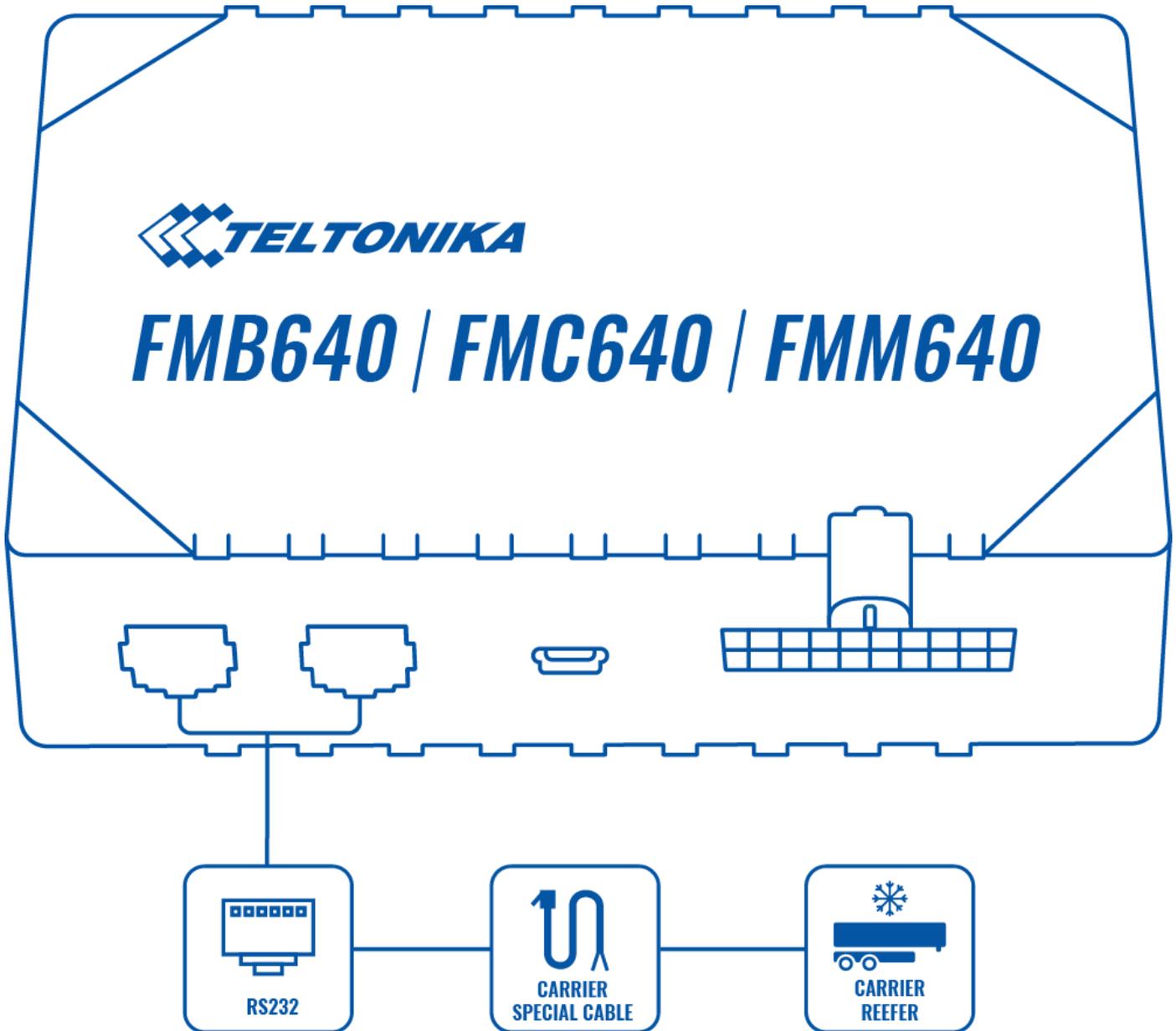


Figure 7 The principle connection scheme

\*- to get more information on “Carrier Special Cable”, please contact your local sales manager. Description of Carrier reefer cable can be found in our official website [here](#).

Devices can be installed in the panel as displayed in this example:

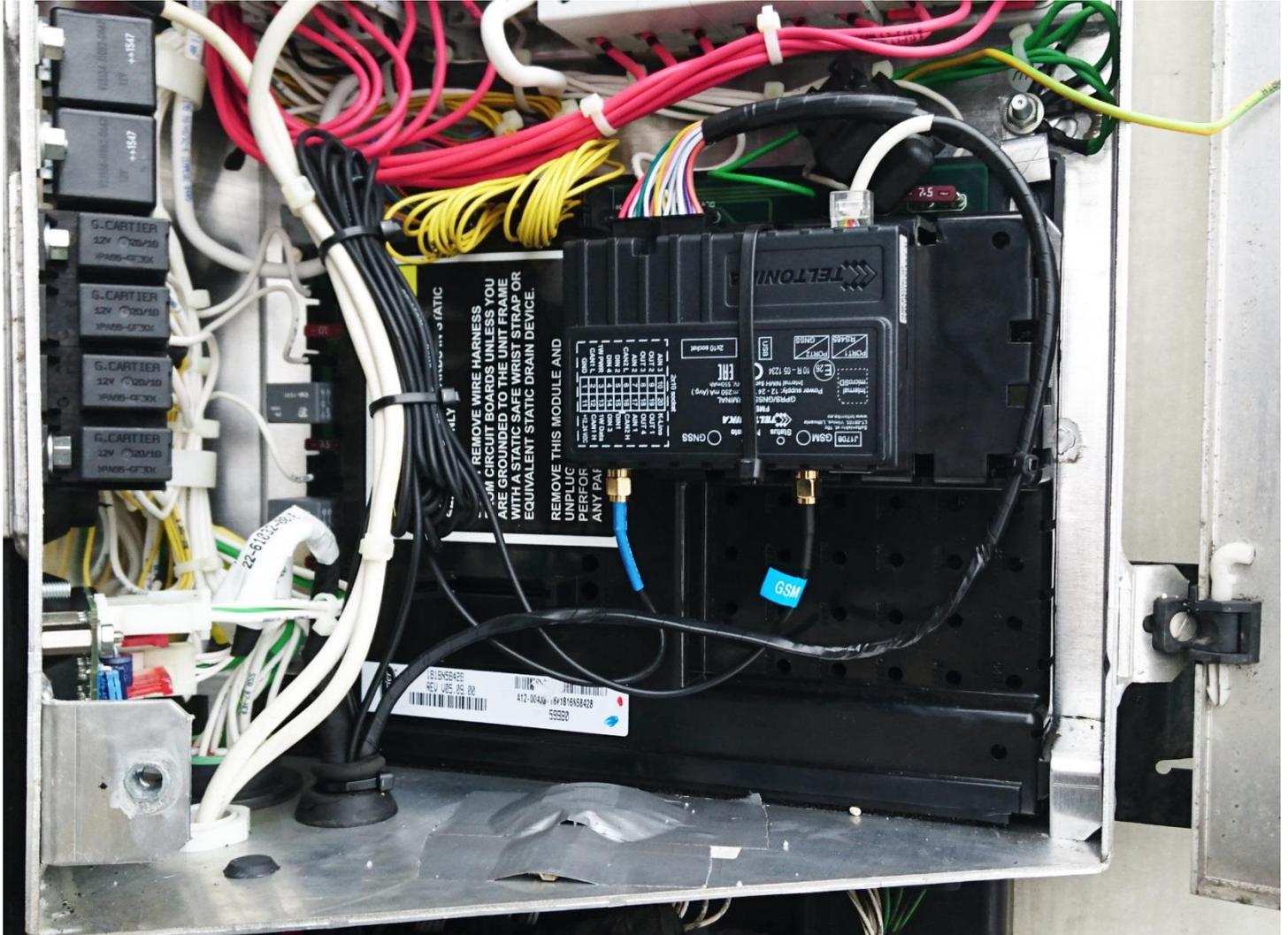


Figure 8 An example of tracking device installed in the panel

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

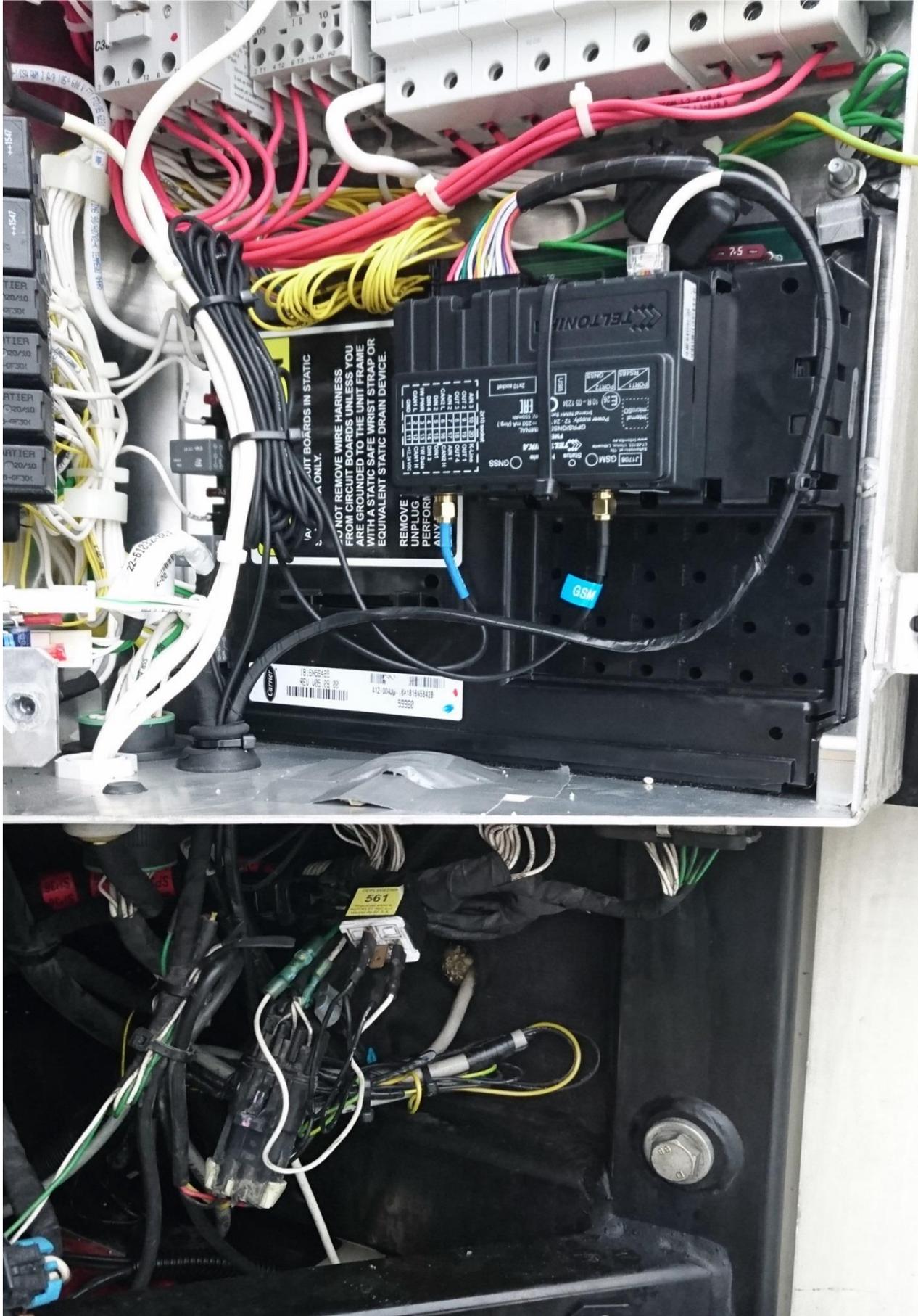


Figure 9 An example of tracking device installed in the panel full view

Connect the tracker's 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)).

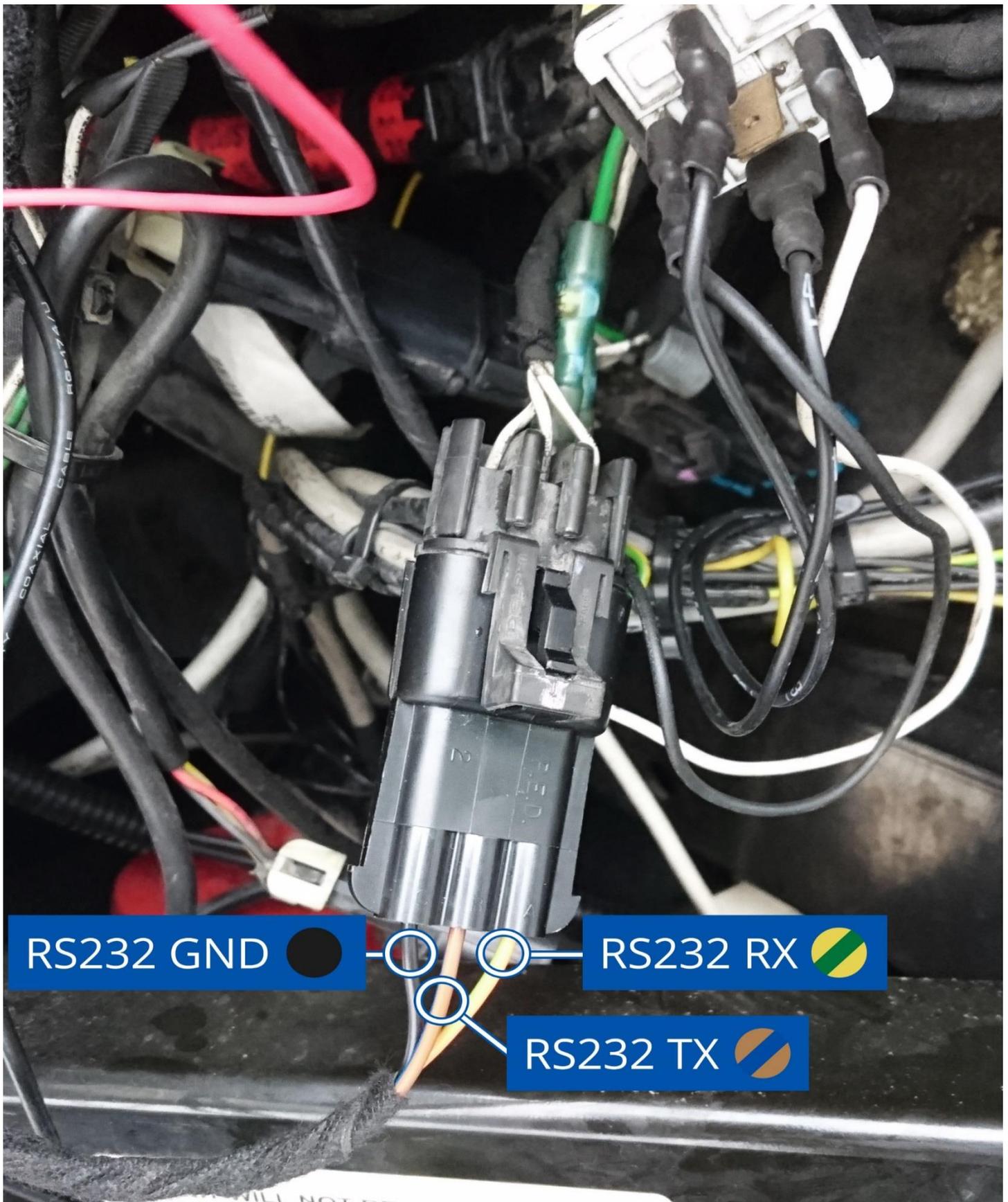


Figure 10 The connection of the tracking device's wires to the main connector

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

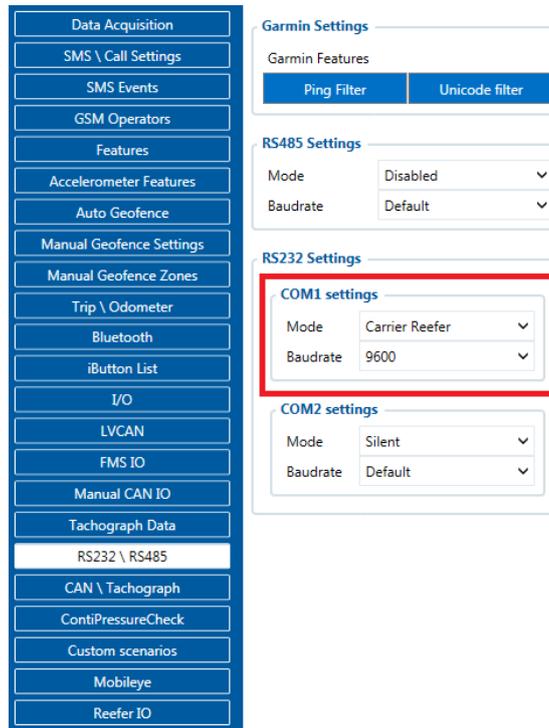


Figure 11 The configurator’s RS232 \ RS485 settings section

The screenshot below displays **Reefer 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	
Zone1 Return Air Temperature 1	None	Low	High	Panic	0	0	Yes	No	Monitoring
Zone1 Return air temperature 2	None	Low	High	Panic	0	0	Yes	No	Monitoring
Zone1 Supply Air Temperature 1	None	Low	High	Panic	0	0	Yes	No	Monitoring
Zone1 Supply air temperature 2	None	Low	High	Panic	0	0	Yes	No	Monitoring
Zone1 Set Temperature	None	Low	High	Panic	0	0	Yes	No	Monitoring
Zone2 Supply air temperature 1	None	Low	High	Panic	0	0	Yes	No	Monitoring
Zone2 Return air temperature 1	None	Low	High	Panic	0	0	Yes	No	Monitoring
Zone2 Set Temperature	None	Low	High	Panic	0	0	Yes	No	Monitoring
Ambient Air Temperature	None	Low	High	Panic	0	0	Yes	No	Monitoring
Compressor Coolant Temperature	None	Low	High	Panic	0	0	Yes	No	Monitoring
Compressor RPM	None	Low	High	Panic	0	0	Yes	No	Monitoring
Compressor Config	None	Low	High	Panic	0	0	Yes	No	Monitoring
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
Work Minutes (HMT)	None	Low	High	Panic	0	0	Yes	No	Monitoring
Electric Minutes (HME)	None	Low	High	Panic	0	0	Yes	No	Monitoring
Door State	None	Low	High	Panic	0	0	Yes	No	Monitoring
Installation Serial	None	Low	High	Panic	0	0	Yes	No	Monitoring
Trailer Registration Number	None	Low	High	Panic	0	0	Yes	No	Monitoring
Error Count	None	Low	High	Panic	0	0	Yes	No	Monitoring
Alarm 1	None	Low	High	Panic	0	0	Yes	No	Monitoring
Alarm 2	None	Low	High	Panic	0	0	Yes	No	Monitoring
Alarm 3	None	Low	High	Panic	0	0	Yes	No	Monitoring

Figure 12 The configurator’s Reefer 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. The description of **Codec 8 Extended** can be found in our wiki link [here](#).

**System**

**Sleep Mode**

Sleep Settings

Disable	GPS Sleep
Deep Sleep	Online Deep Sleep

Timeout (min)

**System Settings**

GNSS Source

GPS	GLONASS
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Analog Input Value Range

Range 10V	Range 30V
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AIN4/DOUT4 Mode

Ain4	DOUT4
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Analog Input Value Range 3-4

Range 10V	Range 30V
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Odometer Source settings

GPS	LVCAN
FMS	KLINE

Speed Source settings

GPS	LVCAN
FMS	KLINE

**Protocol Settings**

Data Protocol

Codec 8	<b>Codec 8 Extended</b>
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**Records Settings**

Records Saving/Sending Without TS

After Position Fix	Always
After Time Sync	

Open Link Timeout (s)

Response Timeout (s)

Sort By

Newest	Oldest
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Save records to

Internal memory	SD card
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Ping mode

Disabled	Empty Codec.12
0xFF	

Network Ping Timeout (min.)

**Static Navigation Settings**

Static Navigation

Disable	Enable
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Static Navigation Deactivation Source

Movement OR Ignition	Movement
Ignition	Movement AND Ignition

**Ignition Source**

Ignition Settings

Digital input 1	Digital input 2
Digital input 3	Digital input 4
Movement	Power Voltage

High Voltage (mV)

Low Voltage (mV)

Movement Start Delay (s)

Movement Stop Delay (s)

**Figure 13** The configurator’s System settings section

## Document change log description:

Nr.	Date	Version number	Comments
1	2019.09.25	1.0	Document created
2	2019.09.26	1.1	„Carrier Special Cable” description added
3	2019.09.30	1.2	Minor text and figure changes
4	2019.10.04	1.3	Minor changes
5	2020.01.23	1.4	„Reefer I/O“ parameter section updated
6	2020.04.09	1.5	Updated link to official description of Carrier reefer cable (p.7)