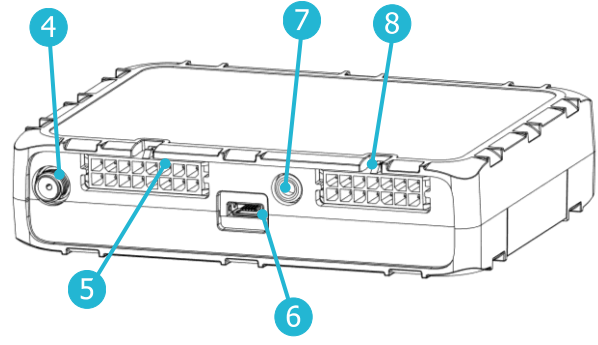
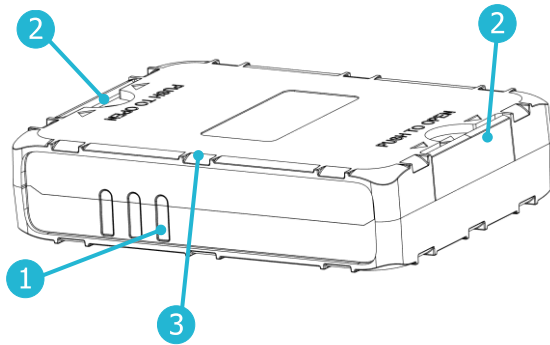


## Make sure that you have:

- A computer with Windows 7/8/10
- An internet connection (or a predownloaded [Device Center](#))
- A USB A to USB micro (Type B) cable
- Tools for installation and wire connection: a panel removing tool, a wrench, a crimp terminal, zip-ties (or double-sided tape)

## Device overview



- 1 Indication LEDs
- 2 Opening handles
- 3 Grooves for zip-ties
- 4 GNSS antenna port
- 5 16 Pin port
- 6 Micro USB port
- 7 Audio port
- 8 14 Pin port

## 14 Pin cable pinout

No.	Pin	Wire color	Description
1	+BAT	Red	Power supply (9-32 V)
2	DOUT1	Purple	Digital output 1
3	1W Data	Green/Yellow	1-Wire data
4	DIN3	Pink	Digital input 3
5	DIN4	Yellow	Digital input 4
6	CAN2-L	Blue	CAN Low
7	K-Line	Brown	K-Line
8	GND	Black	Ground
9	DOUT2	Orange	Digital output 2
10	1W+5V	Red/Yellow	1-Wire power
11	AIN2	Green	Analogue input 2
12	AIN1	Grey	Analogue input 1
13	CAN2-H	White	CAN High
14	SW CAN	Green/White	Single-Wire CAN

## 16 Pin cable pinout

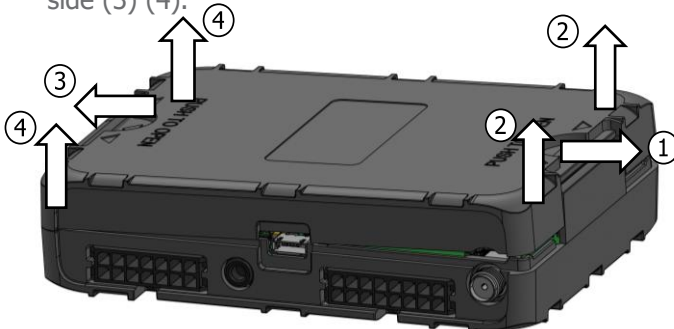
No.	Pin	Wire color	Description
1	PortC-485 A	White/Brown	RS485 line A
2	PortA-RS232 TX	Green/Brown	PortA RS232 TX
3	PortB-RS232 TX	Pink/Green	PortB RS232 TX
4	DIN1	Yellow/Black	Digital input 1
5	DIN2	Pink/Black	Digital input 2
6	AIN4	White/Green	Analogue input 4
7	CAN1-L	Blue/Red	CAN Low
8	GND	Black	Ground
9	PortC-485 B	Yellow/Brown	RS485 line B
10	PortA-RS232 RX	Blue/Yellow	PortA RS232 RX
11	PortB-RS232 RX	Red/Cyan	PortB RS232 RX
12	DOUT3	White/Purple	Digital output 3
13	DOUT4	White/Orange	Digital output 4
14	AIN3	White/Grey	Analogue input 3
15	CAN1-H	White/Red	CAN High
16	1W+5V	Red/ Yellow	1-Wire power

## Indication LED patterns

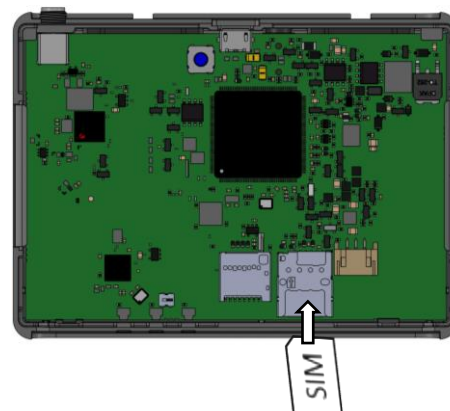
LED	Pattern	Description
GNSS	Once every second	Accurate signal
	Once every 0.4 seconds	No signal
Cellular	Once every 4 seconds	Connected to network and internet
	Once every second	Connected to network, no internet
	Once every 0.2 seconds	No signal
	Always on	Link with the server is open
Peripherals	Always off	No devices connected
	Once every 5 seconds	One device connected
	Twice every 5 seconds	Two devices connected
	Three times every 5 seconds	Three devices connected
All	Once every 5 seconds	Sleep mode

## Configuration

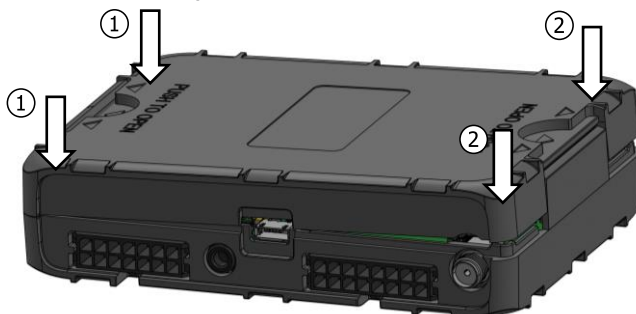
- 1 Open the housing using your hands. Push one handle away from the housing (1) and gently lift up that side (2). Repeat the process for the other side (3) (4).



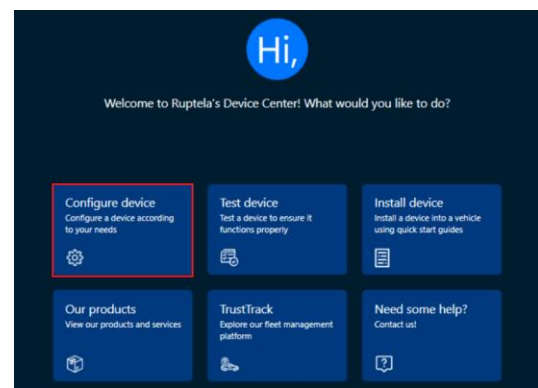
- 2 Insert your SIM card.



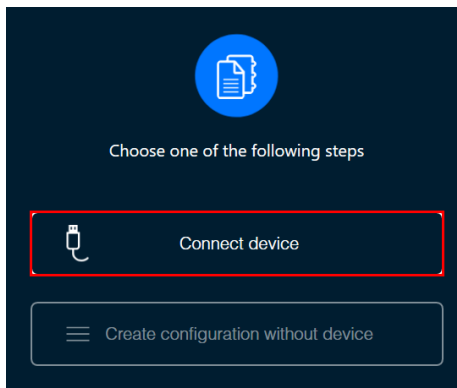
- 3 Close the device by putting the top back on and push one side down until you hear a click. Push down the other side until you hear a click.



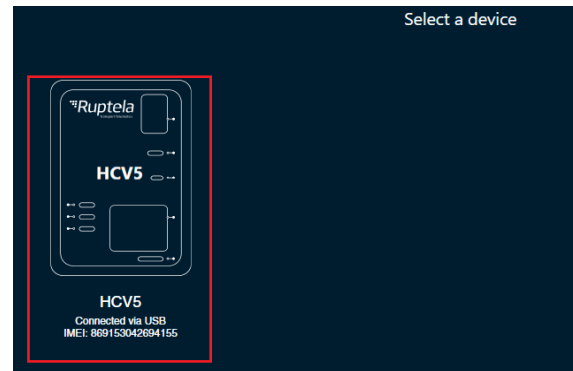
- 4 Download and launch the [Device Center](#). Install device drivers if prompted. Click **Configure device** in the main menu.



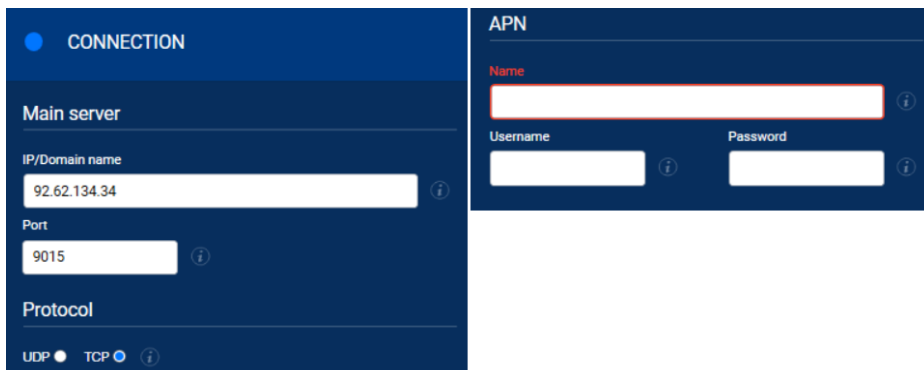
- 5 Connect the device to your computer using a USB cable.  
Click **Connect device**.



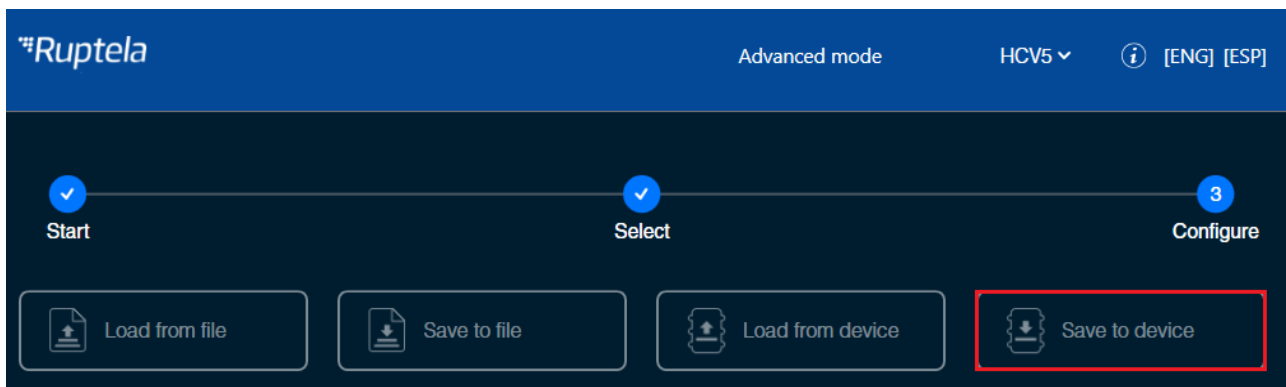
- 6 Select your device.



- 7 Open the **Connection** settings.  
Configure Fleet Management System **Main Server** settings (TrustTrack server settings are entered by default).  
Configure GSM provider **APN** settings.



- 8 Click **Save to device** to upload the config to the device.



## Installation

For faster and easier installation, it is highly recommended to use [installation harnesses](#).

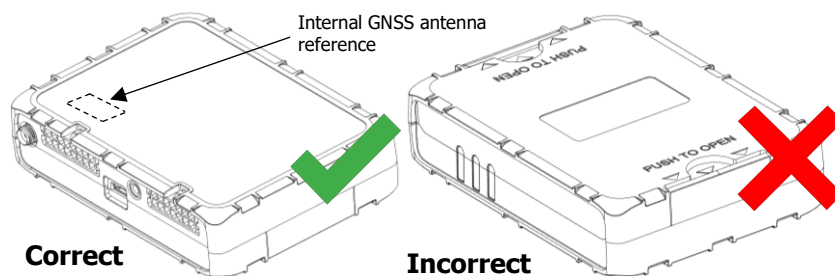
- 1 Install the device positioned upwards, make sure it is not covered by metal.  
**The internal GNSS antenna is very sensitive to the device positioning. Wrong placement will result in reduced tracking accuracy!**

Follow the recommendations:

- It is allowed to tilt up to 45 degrees in any axis, but the top surface in all cases must be facing up
- Install behind the dashboard
- Install as close to the windshield as possible
- Avoid installing near metal surfaces
- Do not install the device near heat emitting or moving parts

Fasten the device in the vehicle using zip-ties or double-sided tape.

**Make sure it is secured tightly.**



- 2 If available, install the GNSS antenna facing towards the sky.



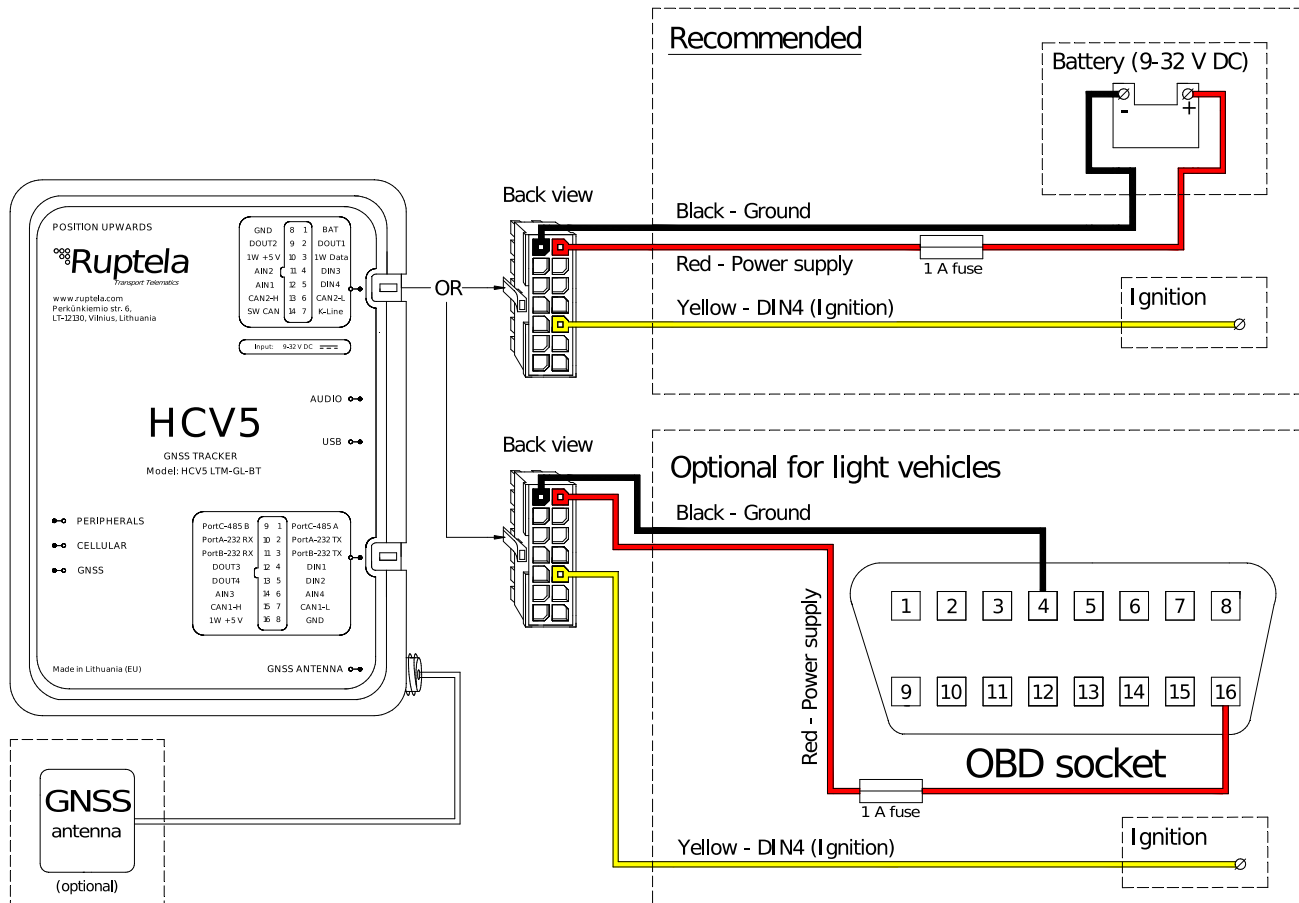
- 3 Connect the device according to the wiring diagram (on Page 5).  
Turn on the ignition.
- 4 Test your device using the Device Center installation assistant tool. If the Overall status is green, then the device is properly installed.

**Check that the required data is received before finishing the installation.**



## Wiring diagram

- Power input: 9-32 V DC
- Recommended protection fuse: 1 A



## Further reading

- Documentation website: <http://doc.ruptela.com>
- Datasheet: [HCV5 LCV5 Pro5](#)
- User manual: [HCV5 LCV5 Pro5](#)
- Device Center: <https://doc.ruptela.lt/display/AB/Device+Center>
- Datasheets and Quick Start guides for harnesses: <https://doc.ruptela.lt/display/AB/Harnesses>

We highly recommend you read the user manual before using the device.

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