Private/Business Driving Mode Functionality

Contents

Solution description

This solution will allow your company car to be used by employees for personal purposes without violating the EU General Data Protection Regulations by masking all the personal data while vehicle is used in Private mode. Moreover, self-employed people can easily convert their own car into a business asset and ensure that the data provided (Example - distance traveled) is correct and shown only working hours' driven distance, because using **FMP100** is simple as it can be.

What you need for a solution?

- For this solution we will use FMP100 device. However, any **FMBXXX** series device can be used (excluding FMX640 series) with this scenario depending on how you want to change the trip mode (via BLE or a button connected to DIN)
- Teltonika Configurator to set up FM device correctly for the solution.
- Dedicated firmware version **03.27.07.Rev.461** (please contact you sales manager for the newest version)
- SIM card in order to get data to your server
- FOTA WEB to remotely send the configuration to the device.

Installation

The device is easy to install, but keep in mind that although the device have high-gain antennas, it is

important to mount the device with engraving on top and in metal-free space. For example if you have several 12V sockets in a van, you should not choose one in the back cabin.


Figure 1. Recommended mounting location

Configuration

1. Prerequisites:

1.1. Read through First start guide

1.2. Understanding of possible Sleep modes.

2. Configuring Private/Business Mode Scenario

- Configure the APN in **GPRS settings**.

- 2001 – APN
- 2002 – APN username (No APN username > leave the field blank)
- 2003 – APN password (No APN password > leave the field blank)

- Configure the server in **GPRS settings**.

- 2004 – Domain
- 2005 – Port
- 2006 – Data sending protocol (0 – TCP, 1 – UDP)

- Enable Codec 8 Extended in **System settings**.

- Parameter ID: 113 – Codec 8 Extended (0 – Codec 8, 1 – Codec 8 Extended)

AVL parameters greater than 255 (HEX 0xFF) require “Codec 8 extended” to be sent to the server.

- Select priority in **Trip \ Odometer** - *Private/Business mode settings*.

- Parameter ID: 11850 – Priority settings (0 – Disable, 1 – Low priority, 2 - High priority, 3 - Panic priority)

- Enable Eventual Records in **Trip \ Odometer** - *Private/Business mode settings*.

- Parameter ID: 11814 – Eventual Records (0 – Disable, 1 – Enable)

- Choose a trigger to change trip mode in **Trip \ Odometer** - *Private/Business mode settings*.

- Parameter ID: 11811 – Triggers (16 – BTApp, 32 – NBL-1 Button1, 64 – NBL-1 Button2, 128 – FMP100 Button, 255 – Enable All)

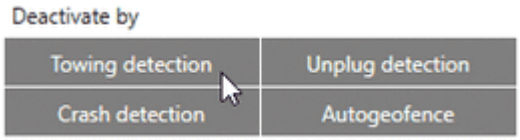
- Choose which position should device send when Private mode is enabled in **Trip \ Odometer** - *Private/Business mode settings*.

- Parameter ID: 11813 – GPS Data Masking (0 – Normal, 1 – Data sent as Zero, 2 – Last good known position)

- Choose whether the distance traveled in private mode should be included in the total odometer IO element in **Trip \ Odometer** - *Private/Business mode settings*.

- Parameter ID: 11815 – Odometer calculation (0 – Disable, 1 – Enable)

- Choose which event will deactivate Private mode and switch to Business in **Trip \ Odometer** - *Private/Business mode settings*.



- Parameter ID: 11816 – Deactivate by (0 – Disable, 1 – Towing detection, 2 – Unplug detection, 4 – Crash detection, 8 – Autogeofence, 15 – Enable All)

- Choose a trigger type to change between Private/Business modes in **Trip \ Odometer** - *Private/Business mode settings*.

- Parameter ID: 11849 – Trigger Type (0 – External, 1 – Weekly Schedule)

- Also you can configure User Interface and Keyboard in the dedicated Teltonika Configurator

section

Quickstart: From default configuration to Private/Business scenario in one SMS:
Note that this SMS command does not include APN, Domain and port parameters

<SMS Login> <SMS Password> **setparam**
113:1;11850:1;11814:1;11811:128;11813:2;11815:1;11816:4;11849:0

You can check how this SMS configures device - Teltonika Configurator

Parsing information

1.Prerequisites

1.1. Open TCP/UDP port

1.2. Read Java parser first start guide

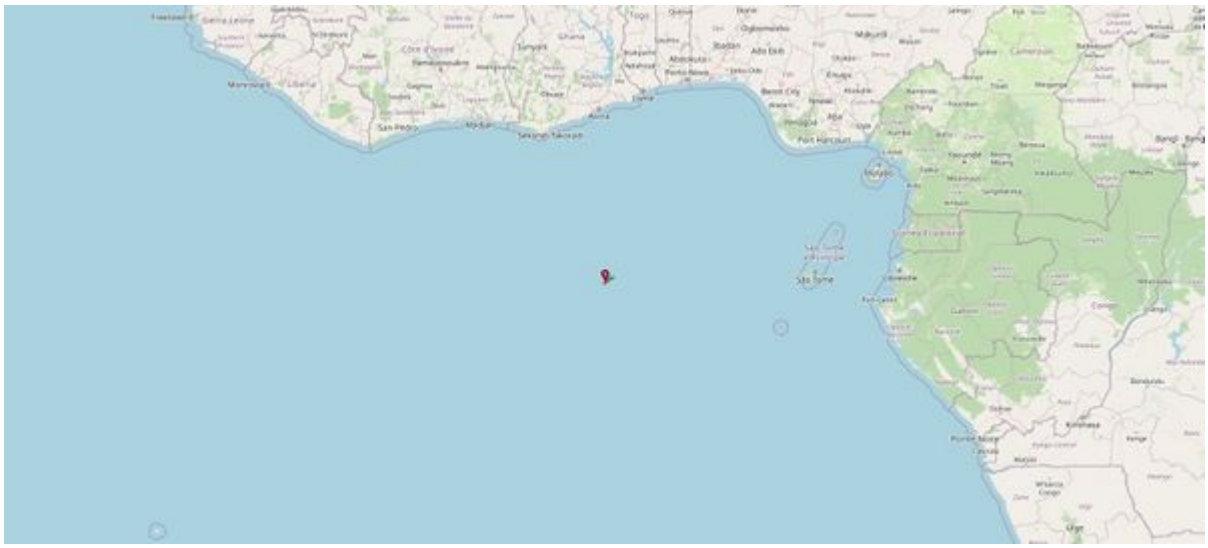
2.Private mode periodic record parsing example

Unparsed received data in hexadecimal stream

000000000000000328E010000017E065DE1B8000000000000000000000000000000000000000000000000003000300EF0000F000018701000000000000000000010000793F

AVL Data Packet Part	HEX Code Part
Zero Bytes	00 00 00 00
Data Field Length	00 00 00 32
Codec ID	8E (Codec 8 Extended)
Number of Data 1 (Number of Total Records)	01
Timestamp	00 00 01 7E 06 5D E1 B8
Priority	00
Longitude	00 00 00 00
Latitude	00 00 00 00
Altitude	00 00
Angle	00 00
Satellites	00
Speed	00 00
Event IO ID	00 00
N of Total ID	00 03
N1 of One Byte IO	00 03
1’st IO ID	00 EF (AVL ID 239, Name: Ignition)
1’st IO Value	00
2’nd IO ID	00 F0 (AVL ID 240, Name: Movement)
2’nd IO Value	00
3’rd IO ID	01 87 (AVL ID 391, Name: Private mode)
3’rd IO Value	01 (Private mode state 1 - Private mode on)
N2 of Two Bytes IO	00 00
N4 of Two Bytes IO	00 00

N8 of Two Bytes IO	00 00
NX of X Byte IO	00 00
Number of Data 2 (Number of Total Records)	01
CRC-16	00 00 79 3F



Zero coordinate in Private mode

3.Private mode eventual record parsing example

Unparsed received data in hexadecimal stream

000000000000000328E010000017E065F2208010F0E5880209AAF5E00BF00D1140000018700030003000EF0000F000018700000000000000000000010000D182

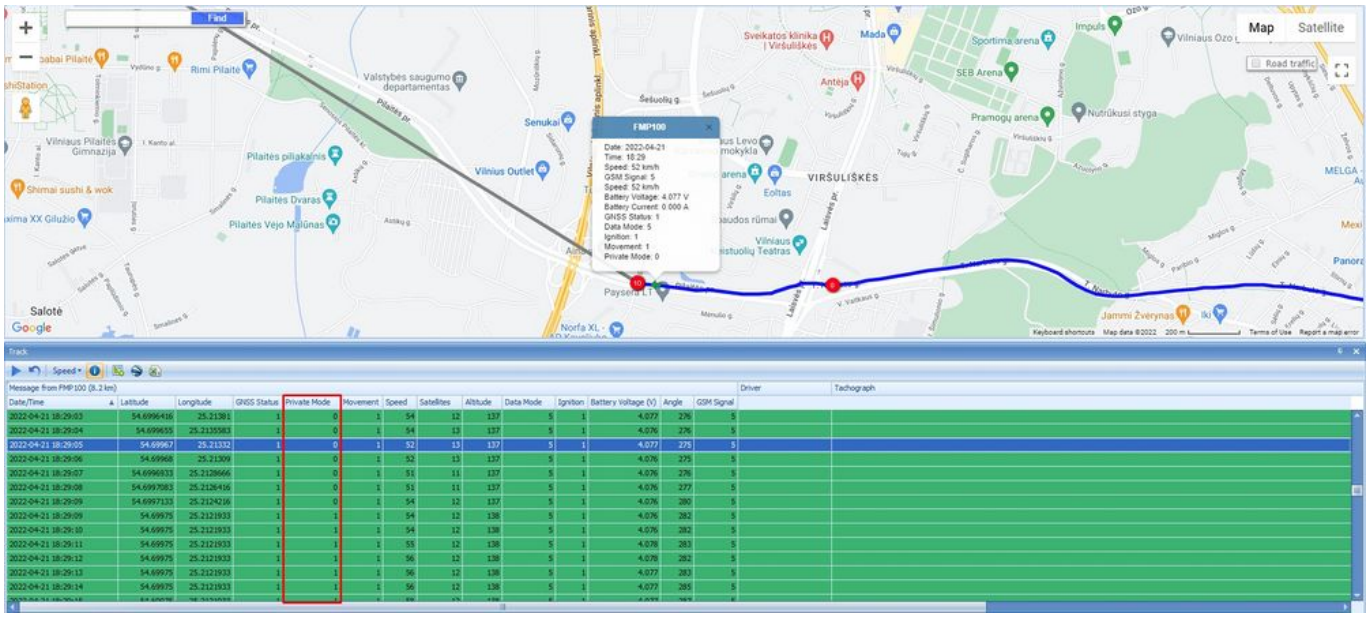
AVL Data Packet Part	HEX Code Part
Zero Bytes	00 00 00 00
Data Field Length	00 00 00 32
Codec ID	8E (Codec 8 Extended)
Number of Data 1 (Number of Total Records)	01
Timestamp	00 00 01 7E 06 5F 22 08
Priority	01
Longitude	0F 0E 58 80
Latitude	20 9A AF 5E
Altitude	00 BF
Angle	00 D1
Satellites	14
Speed	00 00
Event IO ID	01 87 (AVL ID 391, Name: Private mode)
N of Total ID	00 03
N1 of One Byte IO	00 03
1’st IO ID	00 EF (AVL ID 239, Name: Ignition)
1’st IO Value	00
2’nd IO ID	00 F0 (AVL ID 240, Name: Movement)
2’nd IO Value	00
3’rd IO ID	01 87 (AVL ID 391, Name: Private mode)
3’rd IO Value	00 (Private mode state 0 - Private mode off)

N2 of Two Bytes IO	00 00
N4 of Two Bytes IO	00 00
N8 of Two Bytes IO	00 00
NX of X Byte IO	00 00
Number of Data 2 (Number of Total Records)	01
CRC-16	00 00 D1 82

Private mode off

Demonstration in platform

TAVL: Open TAVL application → Select Client → Select Device → In "Track" tab Select the date interval → Select Advanced → Press Show button. All the information will appear in left down corner.



WIALON: Open WIALON → Open Messages → Select your device → Select the date interval → Select Message (data messages) → Select execute and you will see all the information.

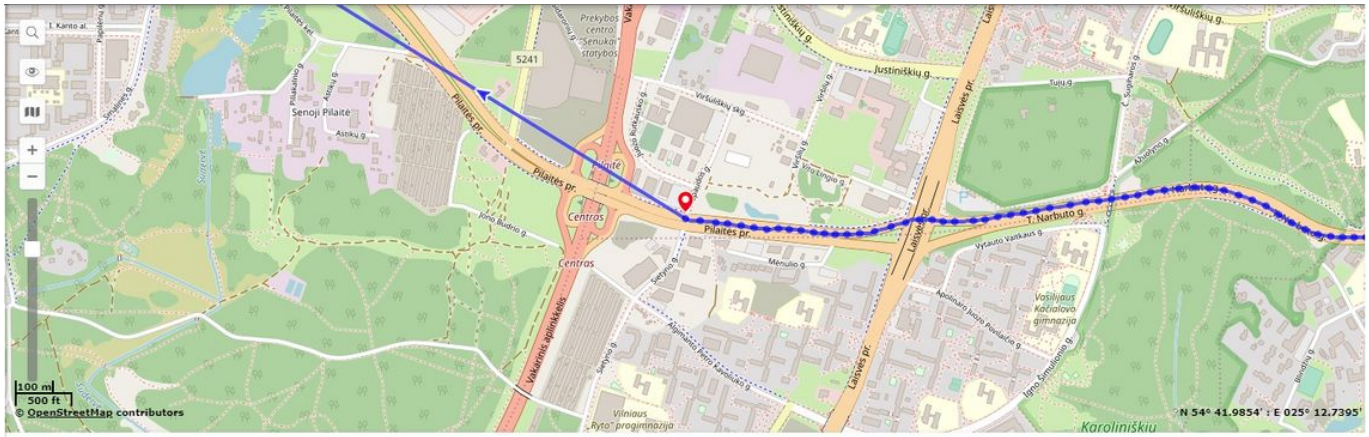


Table | Chart

#	Time	Speed, km/h	Coordinates	Altitude, m	Location	Parameters	Mes
539	2022-04-21 19:29:09	54	54.69975, 25.2121933 (12)	138	Pilaitės pr., 18, Vilnius, Lithuania	prior=0, event_io_id=391, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, i	
540	2022-04-21 19:29:09	54	54.6997133, 25.2124216 (12)	137	prior=0, event_io_id=391, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_21=5, io_69=1 io_391=1 io_24=54, pwr_int=4.076, io_67=4076, io_68=0		
541	2022-04-21 19:29:08	51	54.6997083, 25.2126416 (11)	137	Pilaitės pr., 18, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
542	2022-04-21 19:29:07	51	54.6996933, 25.2128666 (11)	137	Pilaitės pr., 18, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
543	2022-04-21 19:29:06	52	54.69968, 25.21309 (13)	137	Pilaitės pr., 18, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
544	2022-04-21 19:29:05	52	54.69967, 25.21332 (13)	137	Pilaitės pr., 16, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
545	2022-04-21 19:29:04	54	54.699655, 25.2135583 (13)	137	Pilaitės pr., 16, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
546	2022-04-21 19:29:03	54	54.6996416, 25.21381 (12)	137	Pilaitės pr., 16, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
547	2022-04-21 19:29:02	53	54.6996183, 25.2140433 (12)	136	Pilaitės pr., 16, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
548	2022-04-21 19:29:01	50	54.6996016, 25.2142649 (13)	136	Pilaitės pr., 16, Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
549	2022-04-21 19:29:00	48	54.69958, 25.2144549 (13)	137	Pilaitės pr., Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	
550	2022-04-21 19:28:59	45	54.6995733, 25.21466 (13)	136	Pilaitės pr., Vilnius, Lithuania	prior=0, event_io_id=0, total_io=9, io_239=1, io_240=1, io_80=5, gsm=5, io_	

50 « ‹ Page 11 of 50 › » Displaying 501 to 550 from 2498 messages

Enabling and Disabling private mode via SMS command

After appropriate configuration, private mode can be toggled with privatemode SMS command:

<sms login><sms password>**privatemode** <option>

Option	Effect	Return on success
ON	Turns private mode on	Privatemode ON
OFF	Turns private mode off	Privatemode OFF
?	Check private mode state	Privatemode ON or Privatemode OFF

Note:

- Command privatemode must be lower case, followed by one space. The options ON and OFF must be upper case, otherwise Wrong arguments error is returned.

- The privatemode command for all arguments is disabled if Trigger Type is Weekly Schedule. Sending the command returns error Weekly Schedule is Active! Can’t control Privatemode state.