



# FMP100

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Plug and Play tracker

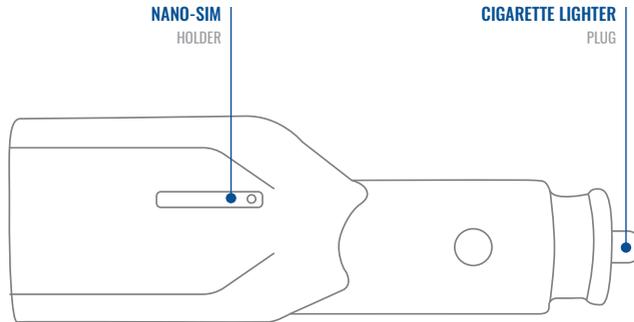
Quick Manual v1.6

# CONTENT

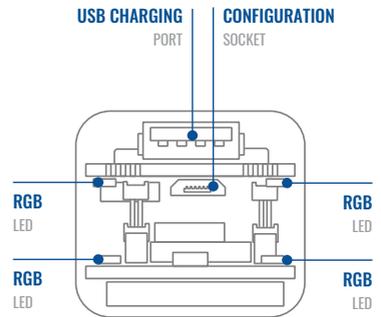
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# KNOW YOUR DEVICE

## SIDE VIEW (WITHOUT COVER)

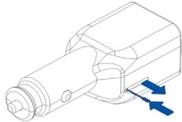


## FRONT VIEW (WITHOUT COVER)



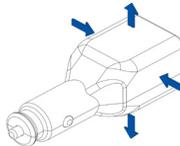
# SET UP YOUR DEVICE

## HOW TO INSERT MICRO-NANO-SIM CARD AND CONNECT THE BATTERY



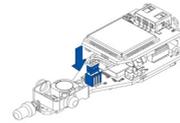
### 1 NANO-SIM TRAY INSERT

Insert the NANO-SIM tray removal tool into the hole on the NANO-SIM card tray and then push until the tray pops out.



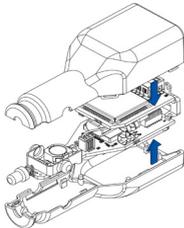
### 2 DEVICE COVER SPLIT

Split device cover to access battery connector inside.



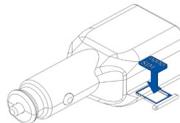
### 3 BATTERY CONNECTION

Connect the battery as shown to device.



### 4 ATTACHING COVER BACK

Gently close device cover back.

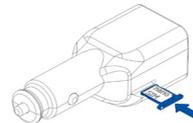


### 5 NANO-SIM CARD INSERT

Insert NANO-SIM card as shown with PIN request disabled or read [Security info](#)<sup>1</sup> how to enter it later in [Teltonika Configurator](#)<sup>2</sup>. Make sure that NANO-SIM card cut-off corner is pointing forward to slot. NANO-SIM slot 1 is closer to PCB, NANO-SIM slot 2 is the upper one.

<sup>1</sup> [wiki.teltonika.lt/view/FMC650\\_Security\\_info](http://wiki.teltonika.lt/view/FMC650_Security_info)

<sup>2</sup> [wiki.teltonika.lt/view/Teltonika\\_Configurator](http://wiki.teltonika.lt/view/Teltonika_Configurator)



### 6 DEVICE IS READY

Screw in all screws. Device is ready to be mounted.

# PC CONNECTION (WINDOWS)

1. Power-up FMP100 with **DC voltage (10 – 30 V)** power supply using **supplied power cable**. LED's should start blinking, see "**LED indications**".
2. Connect device to computer using **Micro-USB cable** or Bluetooth connection:
  - Using Micro-USB cable
    - You will need to install USB drivers, see "**How to install USB drivers (Windows)**"<sup>1</sup>
  - Using **Bluetooth**
    - FMP100 **Bluetooth** is enabled by default. Turn on Bluetooth on your PC, then select **Add Bluetooth or other device > Bluetooth**. Choose your device named – "**FMP100\_last\_7\_imei\_digits**", without **LE** in the end. Enter default password **5555**, press **Connect** and then select **Done**.
3. You are now ready to use the device on your computer.

<sup>1</sup>[wiki.teltonika-gps.com/view/FMP100\\_LED\\_status](http://wiki.teltonika-gps.com/view/FMP100_LED_status)

<sup>2</sup>Page 6, "How to install USB drivers"

# HOW TO INSTALL USB DRIVERS (WINDOWS)

1. Please download COM port drivers from [here](#)<sup>1</sup>.
2. Extract and run **TeltonikaCOMDriver.exe**.
3. Click **Next** in driver installation window.
4. In the following window click **Install** button.
5. Setup will continue installing the driver and eventually the confirmation window will appear. Click **Finish** to complete the setup.

<sup>1</sup>[teltonika.lt/downloads/en/FMP100/TeltonikaCOMDriver.zip](http://teltonika.lt/downloads/en/FMP100/TeltonikaCOMDriver.zip)

# CONFIGURATION

At first FMP100 device will have default factory settings set. These settings should be changed according to the users needs. Main configuration can be performed via [Teltonika Configurator](#)<sup>1</sup> software. Get the latest **Configurator** version from [here](#)<sup>2</sup>. Configurator operates on **Microsoft Windows OS** and uses prerequisite **MS .NET Framework**. Make sure you have the correct version installed.

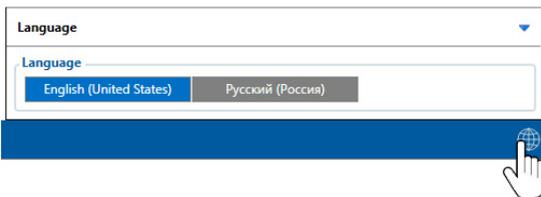
<sup>1</sup> [wiki.teltonika-gps.com/view/Teltonika\\_Configurator](http://wiki.teltonika-gps.com/view/Teltonika_Configurator)

<sup>2</sup> [wiki.teltonika-gps.com/view/Teltonika\\_Configurator\\_versions](http://wiki.teltonika-gps.com/view/Teltonika_Configurator_versions)

## MS .NET REQUIREMENTS

Operating system	MS .NET Framework version	Version	Links
Windows Vista			
Windows 7			
Windows 8.1	MS .NET Framework 4.6.2	32 and 64 bit	<a href="http://www.microsoft.com">www.microsoft.com</a> <sup>1</sup>
Windows 10			

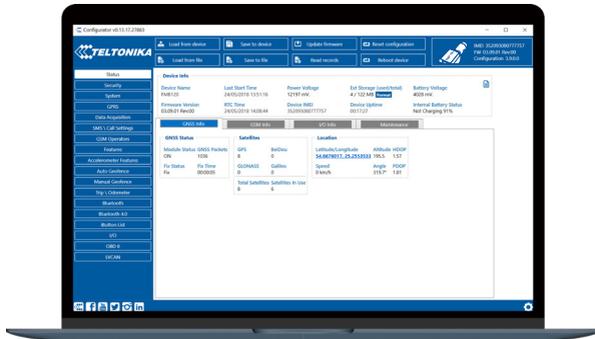
<sup>1</sup> [dotnet.microsoft.com/en-us/download/dotnet-framework/net462](http://dotnet.microsoft.com/en-us/download/dotnet-framework/net462)



Downloaded Configurator will be in compressed archive. Extract it and launch Configurator.exe. After launch software language can be changed by clicking  in the right bottom corner.



Configuration process begins by pressing on connected device.



After connection to Configurator **Status window** will be displayed.

Various **Status window**<sup>1</sup> tabs display information about **GNSS**<sup>2</sup>, **GSM**<sup>3</sup>, **I/O**<sup>4</sup>, **Maintenance**<sup>5</sup> and etc. FMP100 has one user editable profile, which can be loaded and saved to the device. After any modification of configuration the changes need to be saved to device using **Save to device** button. Main buttons offer following functionality:

-  **Load from device** – loads configuration from device.
-  **Save to device** – saves configuration to device.
-  **Load from file** – loads configuration from file.
-  **Save to file** – saves configuration to file.
-  **Update firmware** – updates firmware on device.
-  **Read records** – reads records from the device.
-  **Reboot device** – restarts device.
-  **Reset configuration** – sets device configuration to default.

Most important configurator section is **GPRS** – where all your server and **GPRS settings**<sup>6</sup> can be configured and **Data Acquisition**<sup>7</sup> – where data acquiring parameters can be configured. More details about FMP100 configuration using Configurator can be found in our **Wiki**<sup>8</sup>.

<sup>1</sup> [wiki.teltonika-gps.com/view/FMP100\\_Status\\_info](http://wiki.teltonika-gps.com/view/FMP100_Status_info)

<sup>2</sup> [wiki.teltonika-gps.com/view/FMP100\\_Status\\_info#GNSS\\_Info](http://wiki.teltonika-gps.com/view/FMP100_Status_info#GNSS_Info)

<sup>3</sup> [wiki.teltonika-gps.com/view/FMP100\\_Status\\_info#GSM\\_Info](http://wiki.teltonika-gps.com/view/FMP100_Status_info#GSM_Info)

<sup>4</sup> [wiki.teltonika-gps.com/view/FMP100\\_Status\\_info#I2FO\\_Info](http://wiki.teltonika-gps.com/view/FMP100_Status_info#I2FO_Info)

<sup>5</sup> [wiki.teltonika-gps.com/view/FMP100\\_Status\\_info#Maintenance](http://wiki.teltonika-gps.com/view/FMP100_Status_info#Maintenance)

<sup>6</sup> [wiki.teltonika-gps.com/index.php?title=FMP100\\_GPRS\\_settings](http://wiki.teltonika-gps.com/index.php?title=FMP100_GPRS_settings)

<sup>7</sup> [wiki.teltonika-gps.com/index.php?title=FMP100\\_Data\\_acquisition\\_settings](http://wiki.teltonika-gps.com/index.php?title=FMP100_Data_acquisition_settings)

<sup>8</sup> [wiki.teltonika-gps.com/index.php?title=FMP100\\_Configuration](http://wiki.teltonika-gps.com/index.php?title=FMP100_Configuration)

# QUICK SMS CONFIGURATION

Default configuration has optimal parameters present to ensure best performance of track quality and data usage.

Quickly set up your device by sending this SMS command to it:

```
« setparam 2001:APN;2002:APN_username;2003:APN_password;2004:Domain;2005:Port;2006:0»
```

1

2

3

4

5

6

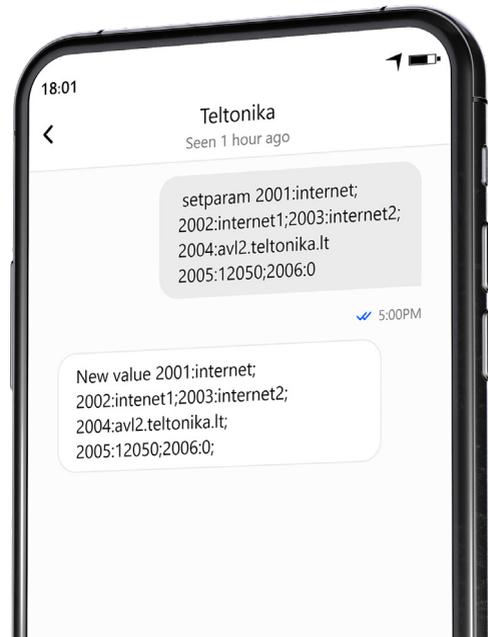
**Note:** Before SMS text, two space symbols should be inserted.

## GPRS SETTINGS:

- 1 2001 – APN
- 2 2002 – APN username (if there are no APN username, empty field should be left)
- 3 2003 – APN password (if there are no APN password, empty field should be left)

## SERVER SETTINGS:

- 4 2004 – Domain
- 5 2005 – Port
- 6 2006 – Data sending protocol (0 – TCP, 1 – UDP)



## DEFAULT CONFIGURATION SETTINGS

### MOVEMENT AND IGNITION DETECTION:



**VEHICLE MOVEMENT**  
will be detected by  
accelerometer



**IGNITION**  
will be detected by  
vehicle power voltage  
between 13,2 – 30 V

### DEVICE MAKES A RECORD ON STOP IF:



**1 HOUR PASSES**  
while vehicle is  
stationary and  
ignition is off



**EVERY 120 SECOND**  
it is sent to the server  
If device has made a  
record

### DEVICE MAKES A RECORD ON MOVING IF ONE OF THESE EVENTS HAPPEN:



**PASSES**  
300 seconds



**VEHICLE DRIVES**  
100 meters



**VEHICLE TURNS**  
10 degrees



**SPEED DIFFERENCE**  
between last coordinate  
and current position is  
greater than 10 km/h

After successful SMS configuration, FMP100 device will synchronize time and update records to configured server. Time intervals and default I/O elements can be changed by using [Teltonika Configurator](#)<sup>1</sup> or [SMS parameters](#)<sup>2</sup>.

<sup>1</sup> [wiki.teltonika-gps.com/view/Teltonika\\_Configurator](http://wiki.teltonika-gps.com/view/Teltonika_Configurator)

<sup>2</sup> [wiki.teltonika-gps.com/view/Template:FMB\\_Device\\_Family\\_Parameter\\_list](http://wiki.teltonika-gps.com/view/Template:FMB_Device_Family_Parameter_list)

# USER INTERFACE

## USER INTERFACE LED INDICATION SCENARIOS

SCENARIO	INDICATION	MEANING
GSM error	Red LED 500 ms blink 3 times + Buzzer	SIM is not inserted, device can't connect to the operator or GSM signal is being jammed
No GNSS fix	Red LED 1000 ms blink 1 time	Device doesn't have valid GNSS fix and is searching for coordinates
GNSS fix	Green LED 1000 ms blink 1 time	Device has valid GNSS fix
Key pressed	1000 ms interval Buzzer while active	Key is pressed and held
Private Trip	Green LED 500 ms blink 3 times + Buzzer	Battery is almost fully discharged
Business Trip	Blue LED 500 ms blink 3 times + Buzzer	Indication used to remind the user that device is still operational

**Note!** This table contains only the default scenarios. Additional scenarios/default ones can be modified using [Teltonika Configurator](#). User is able to select different indication color (Red, Green or Blue), frequency of LED blinking and buzzer status.

# KEYBOARD

## KEYBOARD DEFAULT ACTIONS

BEHAVIOUR	MEANING
1 Click	Check Trip Mode
2 Clicks	Change Trip Mode
Long Click	Alarm

# BASIC CHARACTERISTICS

## MODULE

Name	Teltonika TM2500
Technology	GSM/GPRS/GNSS/BLUETOOTH

## GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU, SBAS, QZSS, DGPS, AGPS
Receiver	33 channel
Tracking sensitivity	-165 dBm
Position accuracy	< 2.5 CEP

Velocity accuracy	< 0,1 m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s
Cold start	< 35 s

## CELLUAR

Technology	GSM
2G bands	Quad-band 850 / 900 / 1800 / 1900 MHz
Data transfer	GPRS Multi-Slot Class 12 (up to 240 kbps)
Data support	SMS (text/data)

## POWER

Input voltage range	10 - 30 V DC with overvoltage protection
Back-up battery	3,7 V 170 mAh (0.63 Wh)
Power consumption	At 12V < 5 mA ( <b>Ultra Deep Sleep</b> <sup>1</sup> )
	At 12V < 7 mA ( <b>Deep Sleep</b> <sup>1</sup> )
	At 12V < 7 mA ( <b>Online Deep Sleep</b> <sup>1</sup> )
	At 12V < 8 mA ( <b>GPS Sleep</b> <sup>1</sup> )
	At 12V < 28 mA (nominal)

## BLUETOOTH

Specification	4.0 + LE
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<sup>1</sup> [wiki.teltonika-gps.com/view/FMP100\\_Sleep\\_modes](http://wiki.teltonika-gps.com/view/FMP100_Sleep_modes)

Supported peripherals

**Temperature and Humidity sensor<sup>2</sup>, Hands-free headset<sup>3</sup>,**  
Inateck Barcode Scanner, Universal BLE sensor support

## INTERFACE

Connection	Cigarette lighter socket
Configurable buttons	1
GNSS antenna	Internal High Gain
GSM antenna	Internal GSM High Gain
USB	1 x USB 2.0 Micro-USB for configuration
	1 x USB type A for external device charging (5V 1A)
LED indication	RGB LED
SIM	Nano-SIM
Memory	128MB internal flash memory

## PHYSICAL SPECIFICATION

Dimensions	96,7 x 33,4 x 27,5 mm (L x W x H)
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<sup>2</sup> [teltonika-gps.com/products/accessories](http://teltonika-gps.com/products/accessories)

<sup>3</sup> [https://wiki.teltonika.lt/view/How\\_to\\_connect\\_Blue-tooth\\_Hands\\_Free\\_adapter\\_to\\_FMB\\_device](https://wiki.teltonika.lt/view/How_to_connect_Blue-tooth_Hands_Free_adapter_to_FMB_device)

## OPERATING ENVIRONMENT

Operating temperature (without battery)	-40 °C to +85 °C
Storage temperature (without battery)	-40 °C to +85 °C
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP41
Battery charge temperature	0 °C to +45 °C
Battery discharge temperature	-20 °C to +60 °C
Battery storage temperature	-20 °C to +45 °C for 1 month -20 °C to +35 °C for 6 months

## FEATURES

Sensors	Accelerometer
Scenarios	<b>Green Driving, Over Speeding detection, Jamming detection, GNSS Fuel Counter</b> , Excessive Idling detection, Unplug detection, Towing detection, Crash detection, Auto Geofence, Manual Geofence, Trip <sup>4</sup>
Sleep modes	<b>GPS Sleep, Online Deep Sleep, Deep Sleep, Ultra Deep Sleep</b> <sup>5</sup>

<sup>4</sup>[wiki.teltonika-gps.com/view/FMP100\\_Features\\_settings](http://wiki.teltonika-gps.com/view/FMP100_Features_settings)

<sup>5</sup>[wiki.teltonika-gps.com/view/FMP100\\_Sleep\\_modes](http://wiki.teltonika-gps.com/view/FMP100_Sleep_modes)

Configuration and firmware update  
**FOTA Web**<sup>6</sup>, FOTA, **Teltonika Configurator**<sup>7</sup> (USB, Bluetooth), FMBT mobile application (Configuration)

SMS Configuration, Events, Debug

GPRS commands Configuration, Debug

Time Synchronization GPS, NITZ, NTP

Fuel monitoring OBDII

Ignition detection Accelerometer, External Power Voltage

<sup>6</sup>[wiki.teltonika-gps.com/view/FOTA\\_WEB](http://wiki.teltonika-gps.com/view/FOTA_WEB)

<sup>7</sup>[wiki.teltonika-gps.com/view/Teltonika\\_Configurator](http://wiki.teltonika-gps.com/view/Teltonika_Configurator)

# SAFETY INFORMATION

This message contains information on how to operate FMP100 safely. By following these requirements and recommendations, you will avoid dangerous situations. You must read these instructions carefully and follow them strictly before operating the device!

- The device uses SELV limited power source. The nominal voltage is +12 V DC. The allowed voltage range is +10...+30 V DC.
- To avoid mechanical damage, it is advised to transport the device in an impact-proof package. Before usage, the device should be placed so that its LED indicators are visible. They show the status of device operation.
- When connecting the 2x6 connector wires to the vehicle, the appropriate jumpers of the vehicle power supply should be disconnected.
- Before unmounting the device from the vehicle, the 2x6 connector must be disconnected. The device is designed to be mounted in a zone of limited access, which is inaccessible to the operator. All related devices must meet the requirements of EN 62368-1 standard.
- The device FMP100 is not designed as a navigational device for boats.



Do not disassemble the device. If the device is damaged, the power supply cables are not isolated or the isolation is damaged, DO NOT touch the device before unplugging the power supply.



All wireless data transferring devices produce interference that may affect other devices which are placed nearby.



The device must be connected only by qualified personnel.



The device must be firmly fastened in a predefined location.



The programming must be performed using a PC with autonomic power supply.



Installation and/or handling during a lightning storm is prohibited.



The device is susceptible to water and humidity.



Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.



Battery should not be disposed of with general household waste. Bring damaged or worn-out batteries to your local recycling center or dispose them to battery recycle bin found in stores.

# CERTIFICATION AND APPROVALS



This sign on the package means that it is necessary to read the User's Manual before your start using the device. Full User's Manual version can be found in our [Wiki](#)!

[1.wiki.teltonika-gps.com/index.php?title=FMP100](http://1.wiki.teltonika-gps.com/index.php?title=FMP100)



Hereby, Teltonika declare under our sole responsibility that the above described product is in conformity with the relevant Community harmonization: European Directive 2014/53/EU (RED).



E-Mark and e-Mark are the European conformity marks issued by the transport sector, indicating that the products comply with relevant laws and regulations or directives. Vehicles and related products need to go through the E-Mark certification process to be legally sold in Europe.



The Declaration EAC and the Certificate EAC in conformity with the technical regulation TR CU of the EurAsEC Customs Union are EAC certification documents issued by independent organizations. Such organizations perform their function through laboratories accredited to the public agencies in charge of the supervision of metrology and standardization in the three countries of the EAC Custom Union, joining at the moment the certification system : Russia, Belarus, Kazakhstan, Armenia and Kyrgyzstan.



UK Conformity Assessed (UKCA) marking is a conformity mark that indicates conformity with the applicable requirements for above described products sold within Great Britain.



This sign on the package means that all used electronic and electric equipment should not be mixed with general household waste.



The RoHS1 is a directive regulating the manufacture, import and distribution of Electronics and Electrical Equipment (EEE) within the EU, which bans from use 10 different hazardous materials (to date).



REACH addresses the production and use of chemical substances, and their potential impacts on both human health and the environment. Its 849 pages took seven years to pass, and it has been described as the most complex legislation in the Union's history and the most important in 20 years. It is the strictest law to date regulating chemical substances and will affect industries throughout the world.

## DECLARATION OF IMEI ASSIGNMENT

The IMEI number is used by a GSM network to identify valid devices and therefore can be used for stopping a stolen phone from accessing that network. For example, if a mobile phone is stolen, the owner can call their network provider and instruct them to blacklist the phone using its IMEI number. This renders the phone useless on that network and sometimes other networks too, whether or not the phone's subscriber identity module (NANO-SIM) is changed.



SIRIM QAS International Sdn. Bhd. is Malaysia's leading testing, inspection and certification body.



SDPPI (Direktur Jenderal Sumber Daya dan Perangkat Pos dan Informatika) is Indonesian Directorate General of Resources and Equipment for Post and Information Technology.

## CHECK ALL CERTIFICATES

All newest certificates may be found in our [Wiki](#)<sup>2</sup>.

<sup>2</sup>[wiki.teltonika-gps.com/view/FMP100\\_Certification\\_%26\\_Approvals](http://wiki.teltonika-gps.com/view/FMP100_Certification_%26_Approvals)

# WARRANTY

We guarantee our products 24-month warranty<sup>1</sup> period.

All batteries carry a 6-month warranty period.

Post-warranty repair service for products is not provided.

If a product stops operating within this specific warranty time, the product can be:

- Repaired
- Replaced with a new product
- Replaced with an equivalent repaired product fulfilling the same functionality
- Replaced with a different product fulfilling the same functionality in case of EOL for the original product

<sup>1</sup> Additional agreement for an extended warranty period can be agreed upon separately.

# WARRANTY DISCLAIMER

- Customers are only allowed to return products as a result of the product being defective, due to order assembly or manufacturing fault.
- Products are intended to be used by personnel with training and experience.
- Warranty does not cover defects or malfunctions caused by accidents, misuse, abuse, catastrophes, improper maintenance or inadequate installation – not following operating instructions (including failure to heed warnings) or use with equipment with which it is not intended to be used.
- Warranty does not apply to any consequential damages.
- Warranty is not applicable for supplementary product equipment (i. e. PSU, power cables, antennas) unless the accessory is defective on arrival.
- [More information on what is RMA<sup>1</sup>](#)

<sup>1</sup> [wiki.teltonika-gps.com/view/RMA\\_guidelines](http://wiki.teltonika-gps.com/view/RMA_guidelines)