https://wiki.teltonika-gps.com/view/FMC880\_First\_Start

# **FMC880** First Start

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Special and small waterproof LTE CAT 1 GNSS tracker.



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### Know your device

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### **Pinout**

N NAME	DESCRIPTION
	( <b>Red)</b> Power supply (+10-30 V DC)
ND (-)	(Black) Ground
2	<b>C</b> (10-30)V (+)

### Set up your device

#### How to insert Micro-SIM card and connect the battery

- 1. Unscrew 6 screws counterclockwise.
- 2. Remove the **cover**.
- 3. Insert **Micro-SIM** card as shown with **PIN request disabled** or read <u>Security info</u> how to enter it later with <u>Teltonika Configurator</u>. Make sure that Micro-SIM card **cut-off corner** is pointing forward to slot.
- 4. Connect the **battery** as shown to device. Position the battery in place where it does not obstruct other components.
- 5. After **configuration**, see <u>PC Connection (Windows)</u>, attach device **cover** back and **screw** in all screws.
- 6. Device is ready to be mounted.



Micro-SIM card insertion/removal must be performed when device is powered off external voltage and battery are disconnected. Otherwise Micro-SIM card might be damaged or device will not detect it.

#### **PC Connection (Windows)**

- Power-up FMC880 with DC voltage 10-30 V power supply using power cable. LED's should start blinking, see "FMC880 LED status".
- 2. Connect device to computer using **Micro-USB cable** or **Bluetooth**® connection:
  - Using Micro-USB cable
    - You will need to install USB drivers, see "<u>How to install USB drivers</u> (<u>Windows</u>)"
  - $\circ~$  Using  ${\bf Bluetooth} \circledast$ 
    - FMC880 Bluetooth® is enabled by default. Turn on Bluetooth® on your PC, then select Add Bluetooth® or other device > Bluetooth®. Choose your device named "FMC880\_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.

#### How to install USB drivers (Windows)

- 1. Please download COM port drivers from here.
- 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.

#### **Configuration (Windows)**

At first FMC880 device will have default factory settings set. These settings should be changed according to the user's needs.

Main configuration can be performed via <u>Teltonika Configurator</u> software. Get the latest FMC880 **Configurator** version from <u>here</u>. Configurator operates on Microsoft Windows OS and uses prerequisite MS .NET Framework. Make sure you have the correct version installed.

#### **MS**.NET requirements

-	MS .NET Framework version	Version	Link
• Windows • Windows 7 • Windows 8.1 • Windows 10	MS .NET Framework 5.0	32 and 64 bit	<u>.NET</u> <u>Fram</u> <u>ewor</u> <u>k</u>

Downloaded **Configurator** will be in compressed archive. Extract it and launch **Configurator.exe**.

After launch software language can be changed by clicking **Software** in the right bottom corner:

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Configuration process begins by pressing on connected device:



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

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Various <u>Status window</u> tabs display information about <u>GNSS</u>, <u>GSM</u>, <u>I/O</u>, <u>Maintenance</u> and etc. FMC880 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:

- 1. **Load from device** loads configuration from device.
- 2. **Save to device** saves configuration to device.
- 3. **Load from file** loads configuration from file.
- 4. 🗵 Save to file saves configuration to file.
- 5. **Update firmware** updates firmware on device.
- 6. 🗷 **Read records** read records from device.
- 7. **Reboot device** restarts device.
- 8. 🗷 **Reset configuration** sets device configuration to default.

Most important configurator section is GPRS - where all your server and GPRS settings can be

configured and **Data Acquisition** – where data acquiring parameters can be configured. More details about FMC880 configuration using Configurator can be found **here**.

#### **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"
```

GPRS settings:

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

Server settings:

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

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

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#### **Default configuration settings**

Movement and ignition detection:

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Vehicle movement will be detected by accelerometer	Ignition will be detected by vehicle power voltage between 13,2 – 30 V				
Device makes a record <b>On Moving</b> if one of these events happen:					
💌 300 seconds passes	💌 Vehicle turns 10° degrees				
➤ Vehicle drives 100 meters	Speed difference between last coordinate and current position is greater than 10 km/h				
Device makes a record <b>On Stop</b> if:					
▲ 1 hour passes while vehicle is stationary and ignition is off					
Records sending to server:					
If device has made a record it is sent to the server every 120 seconds					

After successful SMS configuration, FMC880 device will **synchronize time** and **update records** to **configured server**. Time intervals and default I/O elements can be changed by using <u>Teltonika</u>

## **Quick installation guide**

### **Mounting recommendations**

Double sided tape on the back
Example of device mounting

Device fastening

- Locate the battery in your vehicle. If present remove the battery cover to access the battery.
- Wipe clean the installation surface of the battery if any dust or dirt is visable.
- There is a double sided tape on the back of the device, use it to attach the device on the battery, so that the GNSS antenna and LEDs indicators are facing up.

Connecting power wire

• Device power wire is designed to be directly connected to the positive terminal fastener of the vehicle battery.

Connecting ground wire

• Device ground wire is designed to be directly connected to the negative terminal fastener of the vehicle battery.

### **Safety information**

This message contains information on how to operate FMC880 safely. By following these requirements and recommendations, you will avoid any dangerous situations. You must read these instructions carefully and follow them strictly before operating the device!

• The device uses a 10 V...30 V DC power supply. The nominal voltage is 12 V DC. The allowed range of voltage is 10 V...30 V DC.

- To avoid mechanical damage, it is advised to transport the device in an impact-proof package.
- Before dismounting the device from the vehicle, ignition **MUST be OFF**.

Do not disassemble the device. If the device is damaged, the power supply cables are
x 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.**
- The device is susceptible to water and humidity if the device housing is not properly closed.
- ▶ Installation and/or handling during a lightning storm is prohibited.
- ► Teltonika is not responsible for any harm caused by wrong cables used for connection between PC and FMC880
- **Risk of explosion if battery is replaced by an incorrect type.**

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.

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