

MSP500 First Start

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MSP500 is a special tracking terminal with GNSS/GSM/Bluetooth® connectivity, internal GNSS/GSM antennas, RS232 interface for ESC/POS printer support and internal Ni-Mh battery. Moreover, device contains integrated buzzer and relay for a speed limiting functionality based on a fuel pump power supply switching.



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Know your device




How to insert Micro-SIM card and connect the battery

1. Gently remove MSP500 **cover** using **plastic pry tool** from both sides.
2. Insert **Micro-SIM** card as shown with **PIN request disabled** or read [Security info](#) how to enter it later in [Teltonika Configurator](#). Make sure that Micro-SIM card **cut-off corner** is pointing forward to slot.
3. Connect **battery** as shown to device. Position the battery in place where it does not obstruct other components.
4. After **configuration**, see "[PC Connection \(Windows\)](#)", attach device **cover** back.

Device is ready to be installed.



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

Socket pinout

PIN NUMBER	PIN NAME	DESCRIPTION
1	VCC (10-32)V DC (+)	Power supply (+10-32 V DC).
2	RS232 GND	RS232 Ground pin.
3	RS232-TX	Output for data transmit through RS232.
4	USB DATA +	Differential serial data +
5	USB DATA-	Differential serial data -
6	GND (-)	Ground.
7	AIN1	Analog input, channel 1. Input range: 0-30 V DC.
8	RS232-RX	Input for data receive through RS232
9	USB GND	Ground PIN for USB
10	USB +5V	Ground PIN for USB

Wiring scheme

For the more detailed MSP500 device wiring, see the scheme below.



PC Connection (Windows)

1. Power-up MSP500 with **DC voltage 10-30 V** power supply using **supplied power cable**. LED's should start blinking, see "[MSP500 LED status](#)".
2. Connect device to computer using **USB B-Type cable** connection:
 - Using **USB B-Type cable**
 - You will need to install USB drivers, see "[How to install USB drivers \(Windows\)](#)"
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 Teltonika [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)

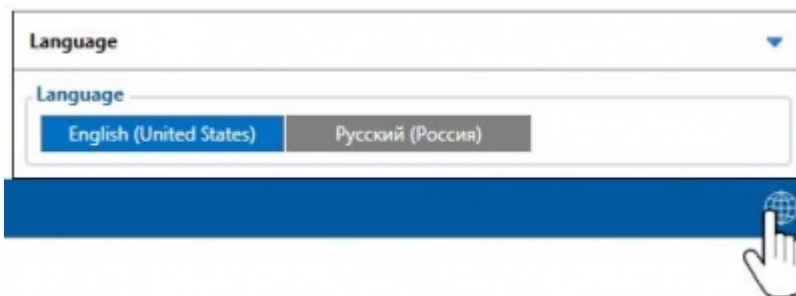
At first MSP500 device will have default factory settings set. These settings should be changed according to the user's needs.

Main configuration can be performed via [Teltonika Configurator](#) software. Get the latest MSP500 **Configurator** version from [here](#). Configurator operates on Microsoft Windows OS and uses prerequisite MS .NET Framework. Make sure you have the correct version installed.

MS .NET requirements

Operating system	MS .NET Framework version	Version	Link
• Windows Vista	MS .NET Framework 4.6.2	32 and 64 bit	www.microsoft.com
• Windows 7			
• Windows 8.1			
• Windows 10			

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](#) tabs display information about [GNSS](#), [GSM](#), [I/O](#), [Maintenance](#) and etc. MSP500 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 MSP500 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.



Default configuration settings

Movement and ignition detection:

- | | |
|---|---|
| <input type="checkbox"/> Vehicle movement will be detected by accelerometer | <input type="checkbox"/> Ignition will be detected by vehicle power voltage between 13,2 - 30 V |
|---|---|

Device makes a record **On Moving** if one of these events happen:

- | | |
|--|--|
| <input type="checkbox"/> 300 seconds passes | <input type="checkbox"/> Vehicle turns 10° degrees |
| <input type="checkbox"/> Vehicle drives 100 meters | <input type="checkbox"/> Speed difference between last coordinate and current position is greater than 10 km/h |

Device makes a record **On Stop** 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, MSP500 device will **synchronize time** and **update records to configured server**. Time intervals and default I/O elements can be changed by using [Teltonika Configurator](#) or [SMS parameters](#).

Safety information

This message contains information on how to operate MSP500 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..+30V 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.

- Before unmounting the device from the vehicle, ignition **MUST be OFF**.

===Precautions===

- 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.**
- Please consult representatives of your vehicle model regarding OBD II location on your vehicle. In case you are not sure about proper connection, please consult qualified personnel.**
- The programming must be performed using a PC with autonomic power supply.**
- The device is susceptible to water and humidity.**
- 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 MSP500.**
- WARNING! Do not use MSP500 device if it distracts driver or causes inconvenience due to OBD II placement. Device must not interfere with driver.**