

TAT100 First Start

From Wiki Knowledge Base | Teltonika Mobility

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TAT100 is a device for asset tracking and additional protection against thefts of valuable goods, as well as it could be used in wide range of applications from tools tracking to container tracking.

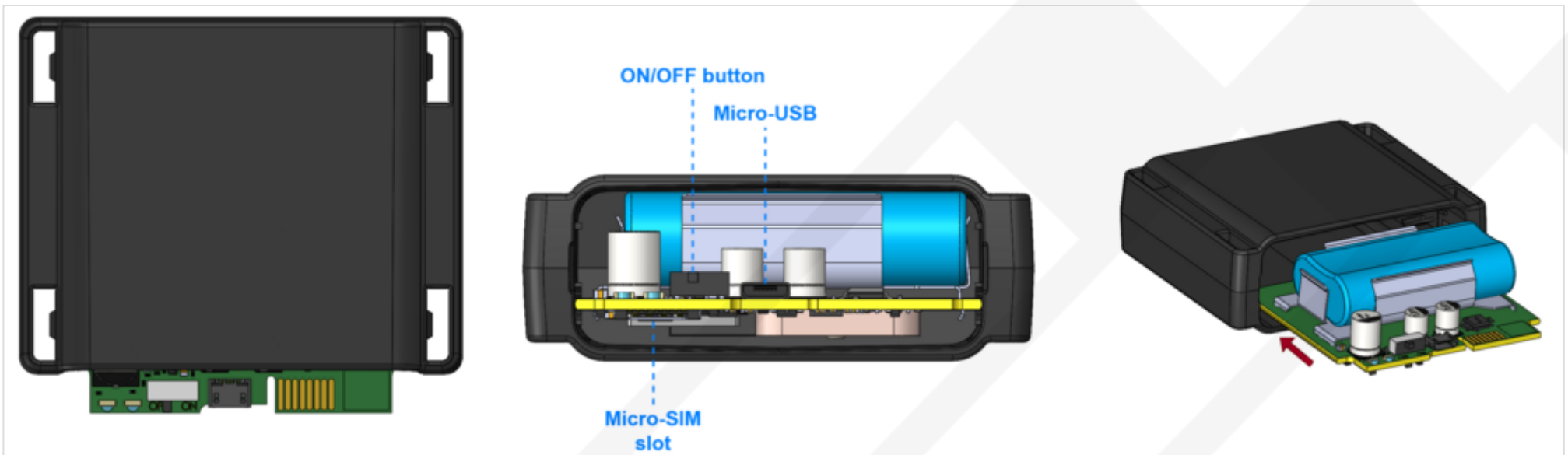
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Know your device

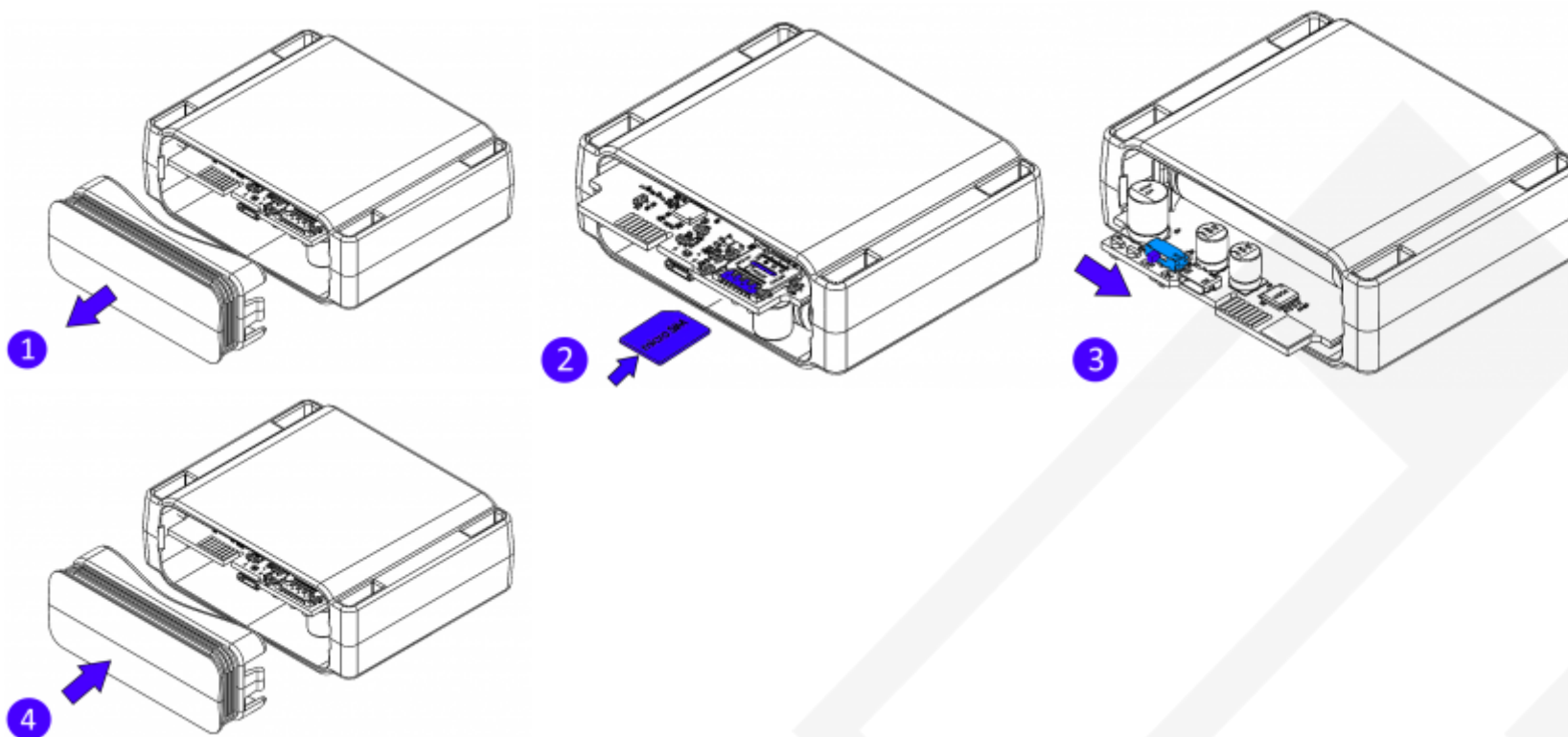


Set up your device

How to insert Micro SIM card and start the device

1. Remove the **cover**.

2. Insert **Micro-SIM** card as shown with **PIN request disabled** or read **Security info** how to enter it later in **Configurator**. Make sure that Micro-SIM card **cut-off** corner is pointing forward to slot and **chip** is facing USB port.
3. Flip the switch to **ON**.
4. **Configure** the device. When it is done, **reattach** the cover and push it in place.



Micro-SIM card insertion/removal must be performed when device is turned off. Otherwise Micro-SIM card might be damaged or device will not detect it.

PC Connection (Windows)

1. Remove the cover.

2. Turn on your device by flipping the switch to **ON**.
3. Connect device to computer using **Micro-USB cable**. You will need to install USB drivers, see “How to install USB drivers (Windows)” shown below.
4. 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** (<https://teltonika-gps.com/downloads/en/fmb120/TeltonikaCOMDriver.zip>).
2. Extract and run **TeltonikaCOMDriver.exe**.
3. Click Next in driver installation window.
4. In the following window click **Install** button. Setup will continue installing the driver and eventually the confirmation window will appear. Click **Finish** to complete the setup.


Configuration (Windows)

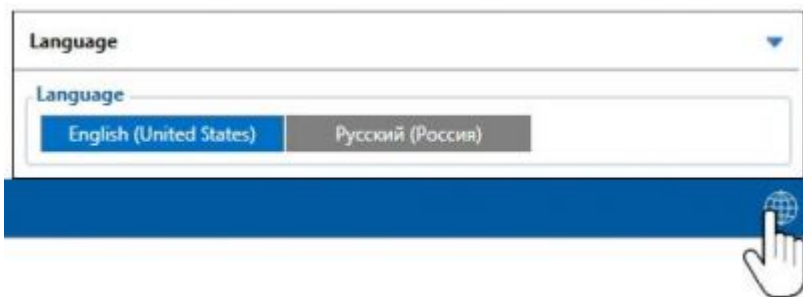
At first the device will have default factory settings unless you order pre-configured device. These settings should be changed according to the user's needs.

Main configuration can be performed via **Teltonika Configurator** software. Configurator operates on Microsoft Windows OS and uses prerequisite MS .NET Framework. Make sure you have the correct version installed.

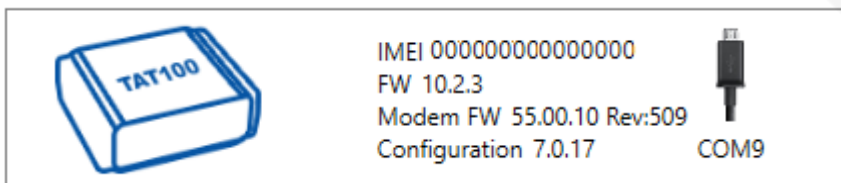
MS .NET requirements

Operating system	MS .NET Framework version	Version	Link
Windows Vista Windows 7 Windows 8.1 Windows 10	MS .NET Framework 4.6.2	32 and 64 bit	www.microsoft.com (https://dotnet.microsoft.com/en-us/download/dotnet-framework)

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:

Load from device

Save to device

Update firmware

Reset configuration

Load from file

Save to file

Read records

Reboot device

IMEI 00000000000000
FW 10.2.3
Modem FW 55.00.10 Rev:509
Configuration 7.0.17

- Status
- Security
- System
- GPRS
- SMS \ Call Settings
- GSM Operators
- Tracking
- I/O

Device Info

Device Name	Last Start Time	Power Voltage	Ext Storage (used/total)	Battery Voltage
TAT100	5/13/2021 14:30:07	4938 mV.	12 / 122 MB Format	6303 mV.
Firmware Version	RTC Time	Device IMEI	Device Uptime	
10.2.3	55.00.10 Rev:509	5/13/2021 14:45:02	0000000000000000	00:14:54

GNSS Info

GSM Info

I/O Info

Maintenance

GNSS Status

Module Status	GNSS Packets
ON	870
Fix Status	Fix Time
No fix	00:00:00









Location

Latitude/Longitude	Altitude	HDOP
0, 0	0	0
Speed	Angle	PDOP
0 km/h	0°	0

Satellites

Visible		In Use	
GPS	GLONASS	GPS	GLONASS
1	0	0	0
BeiDou	Galileo	BeiDou	Galileo
0	0	0	0
IRNSS		IRNSS	
0		0	
Total In View		Total In Use	
1		0	

Various **Status info** tabs display information about **GNSS, GSM, I/O, Maintenance** and etc. TAT100 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 sections are GPRS – where all your server and **GPRS settings** can be configured and **Tracking** – where data acquiring parameters can be configured. More details about TAT100 configuration using Configurator can be found here.

Important configuration notes

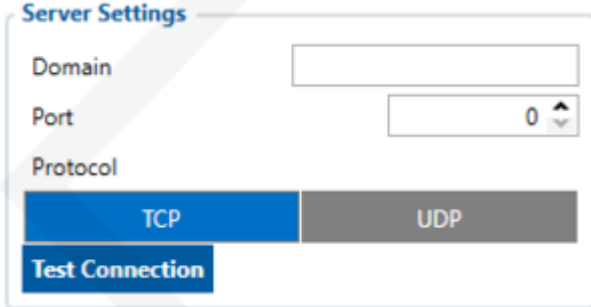
We strongly recommend testing the network connection from device to the server before adjusting TAT100 configuration to your needs.

Use the following steps to perform this test:

- Configure these parameters: APN, server Domain and server Port
- Save configuration to the device by clicking on a Save to device button;
- Initiate connection by pressing the **Test Connection** button

At this point, TAT100 device will create one high-priority record and initiates connection to the server immediately. If connection was not initiated, it can mean any of the following:

- Improperly inserted SIM Card



Server Settings

Domain

Port

Protocol

TCP UDP

Test Connection

- Incorrect values are set to these fields: APN, Domain or Port
- GPRS functionality disabled by GSM provider
- No GSM coverage
- Server cannot be reached

Try solving this problem before proceeding with further device configuration.

Please note:



- **Why TAT100 is not sending data: Instructions**
- **Common configuration issues: Instructions**



CAUTION! Device usage with USB cable.

In order to prevent device battery from running out of power, make sure USB cable is not connected, while testing the device.

Continuous use of device, while connected to the USB cable will result in faster battery drain.

Tracking scenarios

Periodic: This mode is used to get positioning data at fixed intervals. Configuration range is from 360 to 259200 (in seconds).

Tracking Scenarios

Tracking Mode

None	Periodic
Scheduler	

Time Zone

Tracking Periods

On Stop (s)

On Moving (s)

Please note:



- Default tracking period (On Move/On stop) is set to 28800 seconds (8 hours)
- Frequent tracking period will reduce battery lifetime!
- For more information refer to: Tracking settings

Scheduler: This mode is used to get positioning data at fixed schedule. Device can send positioning data up to 6 times on set days.

Time Zone: Set tracking scenario time zone. Time zone can be set in range of -12h to +14h.

Main rules of Schedule setting:

- Intervals between time must be at least 6 minutes.
- Days of the week must be selected and highlighted for the device to send records according to set schedule.

Scheduler

Day of the Week	Records per day		1st	2nd	3rd	4th	5th	6th
Monday	1	▼	12:00	12:00	12:00	12:00	12:00	12:00
Tuesday	1	▼	12:00	12:00	12:00	12:00	12:00	12:00
Wednesday	1	▼	12:00	12:00	12:00	12:00	12:00	12:00
Thursday	1	▼	12:00	12:00	12:00	12:00	12:00	12:00
Friday	1	▼	12:00	12:00	12:00	12:00	12:00	12:00
Saturday	1	▼	12:00	12:00	12:00	12:00	12:00	12:00
Sunday	1	▼	12:00	12:00	12:00	12:00	12:00	12:00

Please note:

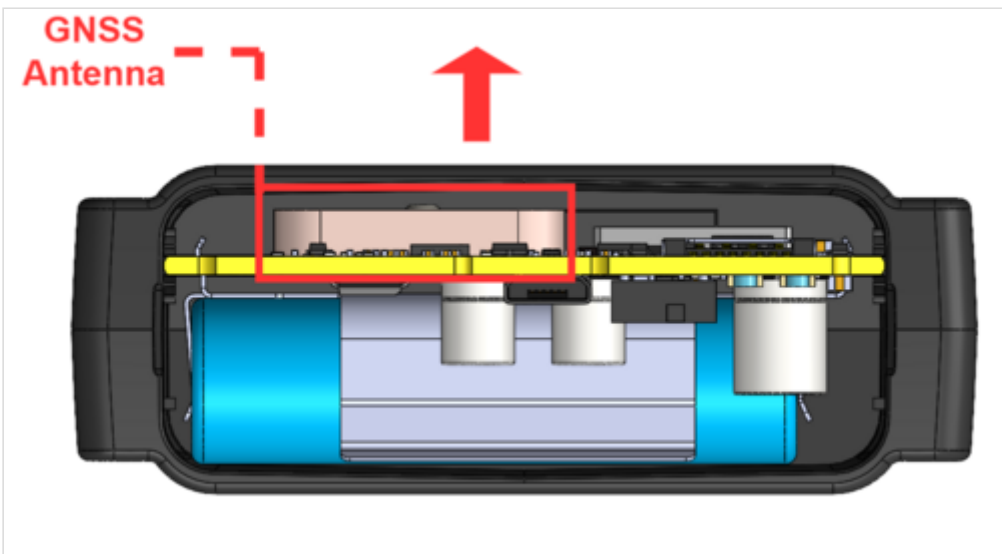


Device has up to 3 min. hardcoded time to get fixed position while it's awake from a Sleep Mode.

If GNSS signal is poor - device will need more time to get fixed position. Battery usage is higher while device is looking for GNSS positions than it stays in Sleep Mode.

Mounting recommendations

- We recommend placing the device in such a way, that the GNSS antenna is facing upwards to the sky.
- We recommend to install the device in a place where the TAT100 line of sight to the sky is not obstructed.



Quick SMS configuration

Please note:

- SMS message cannot be delivered until the device has woken up from Sleep Mode to deliver location data to the server.
- During the period, when device is in Sleep Mode, SMS carrier holds SMS message delivery.
- We cannot control mobile provider's SMS deliveries or assure that your SMS message will be received until next device wake up cycle, therefore we recommend to configure the device using the configurator.



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)

Note: Before SMS command, two space symbols must be inserted.

Server settings:

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












After successful SMS configuration, TAT100 device will **synchronize time** and **update records to configured server**.

Safety information

This message contains information on how to operate TAT100 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!

Precautions

	Operate the device in suitable conditions Do not use the device where mobile connectivity is forbidden.
	Road safety first Comply with local traffic laws, always hold your hands on a steering wheel when using a device. Your safety is of utmost importance when you drive.
	Interference All wireless devices are sensitive to electromagnetic interference, as a result wireless devices affect the performance of each other.
	Limit the use of device in hospitals Please follow all restrictions. Turn off the device in the vicinity of medical devices when required.
	Limit the use of device in vehicles Please follow all restrictions. Wireless devices can interfere with other electronic equipment in vehicles.
	Be cautious near flammable materials and liquids
	Use only original batteries Using uncertified manufacturer or different type batteries may cause an explosion.
	Use batteries safely Protect batteries from moisture. Avoid extensive operation at high temperatures. Batteries are integrated, do not attempt to change or charge the batteries.
	Remove device safely Device must be disconnected from computer by unplugging the micro USB cable from the device.

**Other**

In order to prevent device from mechanical damage it is advisable to transport it in a shock-resistant packaging. If device stopped working properly regardless of the settings only a qualified specialist can help. It is recommended to contact your local seller or your UAB Teltonika manager in such a case.

<https://wiki.teltonika-mobility.com/view/TAT100>

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