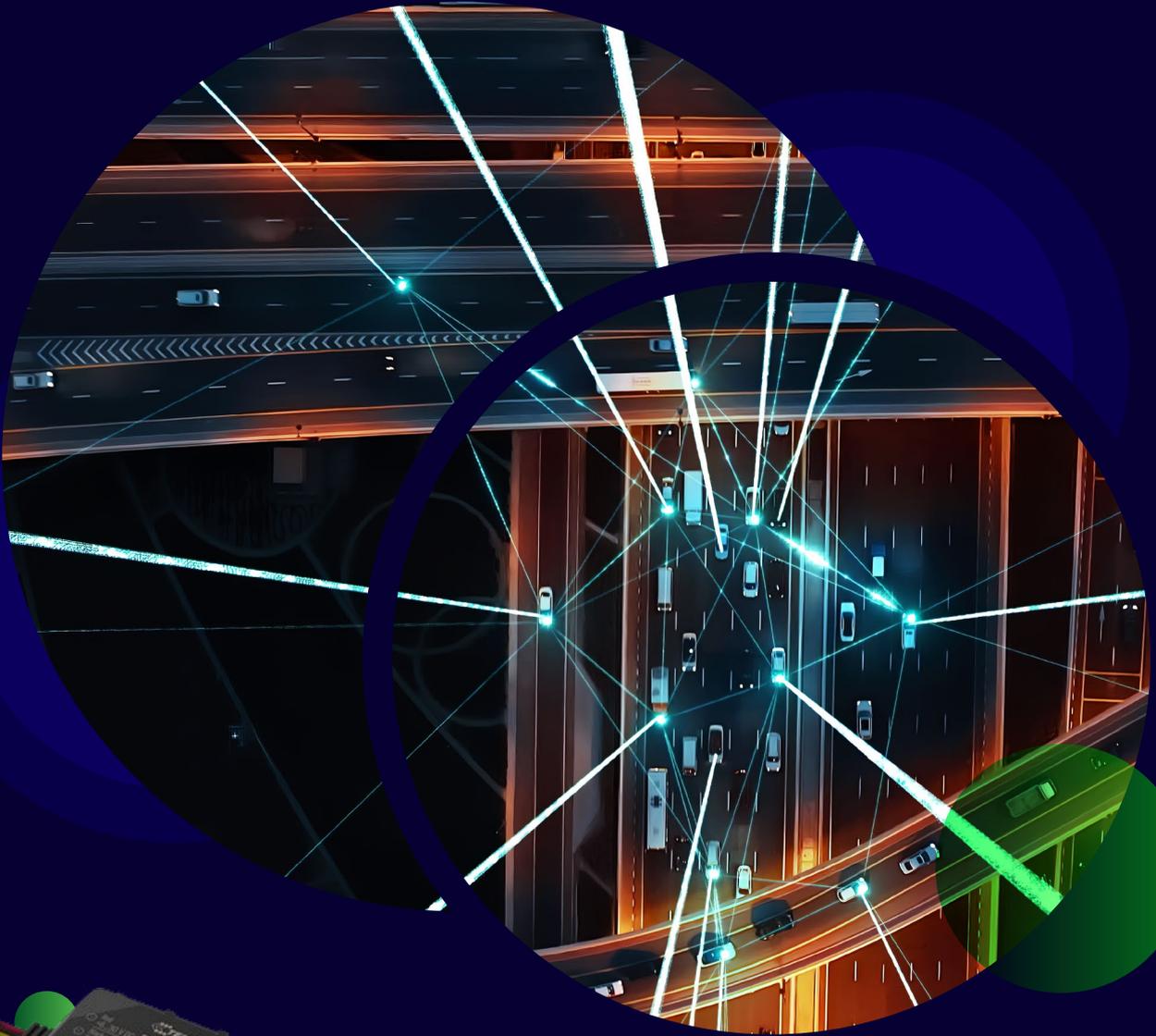


# Teltonika

Settings guide to report to MiX Fleet Manager



*mix*  
**TELEMATICS**  
MOBILE INFORMATION EXCHANGE

## INTRODUCTION

This document details the required settings for Teltonika hardware to successfully report to MiX Fleet Manager.

Please adhere to the recommended default values specified in this document to ensure that the device integrates correctly with MiX Fleet Manager. Some advanced settings are also covered in this document, but these are not required for standard track and trace functionality.



Please note that some of the sections might not be relevant to your device, due to older firmware or features not supported on the specific device.

## SUPPORTED FEATURES

The current supported features for Teltonika Hardware models in MiX Fleet Manager are listed below. Note that older discontinued hardware models will not be supported as the protocol might not be aligned.

### SUPPORTED FEATURES

### SUPPORTED HARDWARE TYPES

<b>TRIPS</b>	All hardware models
<b>OVER-SPEEDING</b>	All hardware models
<b>HARSH ACCELERATION</b>	All hardware models
<b>HARSH BRAKING</b>	All hardware models
<b>HARSH CORNERING</b>	All hardware models
<b>EXCESSIVE IDLE</b>	All hardware models
<b>POWER DISCONNECT</b>	All hardware models
<b>POWER RECONNECT</b>	All hardware models
<b>LOW BATTERY</b>	All hardware models
<b>LOW INTERNAL BATTERY</b>	All hardware models
<b>IMPACT DETECTION (CRASH)</b>	All hardware models
<b>DRIVER ID – DALLAS TAG ONLY</b>	Supported Hardware with 1-wire
<b>OVER-REVVING</b>	HW models that detect via CAN module or BT dongle
<b>ENGINE RPM</b>	HW models that detect via CAN module or BT dongle
<b>FUEL QUANTITY</b>	HW models that detect via CAN module or BT dongle
<b>ODOMETER</b>	HW models that detect via CAN module or BT dongle
<b>ENGINE HOURS (TOTAL)</b>	HW models that detect via CAN module or BT dongle
<b>START OF TRIP FUEL TANK LEVEL PERCENTAGE</b>	HW models that detect via CAN module or BT dongle

<b>END OF TRIP FUEL TANK LEVEL PERCENTAGE</b>	HW models that detect via CAN module or BT dongle
<b>DOOR OPENED</b>	HW models that detect via CAN module or BT dongle
<b>DRIVER SEATBELT NOT ENGAGED</b>	HW models that detect via CAN module or BT dongle
<b>PASSENGER SEATBELT NOT ENGAGED</b>	HW models that detect via CAN module or BT dongle
<b>ENGINE LIGHT (MIL) ON</b>	HW models that detect via CAN module or BT dongle
<b>DIAGNOSTIC TROUBLE CODE</b>	HW models that detect via CAN module or BT dongle
<b>ENGINE COOLANT TEMPERATURE HIGH</b>	HW models that detect via CAN module or BT dongle
<b>ENGINE OIL LEVEL LOW</b>	HW models that detect via CAN module or BT dongle
<b>INPUT 1 HIGH</b>	Supported HW models only
<b>INPUT 1 LOW</b>	Supported HW models only
<b>INPUT 2 HIGH</b>	Supported HW models only
<b>INPUT 2 LOW</b>	Supported HW models only
<b>VIN</b>	Supported HW models only

### SUPPORTED EVENT THRESHOLD CHANGES VIA MIX FLEET MANAGER

Some event values are configurable via MiX Fleet Manager for Teltonika hardware. When changing these values, the device will only update to the new settings once the device is online.

EVENT	ALL HARDWARE MODELS	DEVICE LIMITS			
		DEFAULT	MIN	MAX	UNITS
Set Odo	All hardware models	0	0	4294967	km
Over-speeding	All hardware models	120	0	255	km/h
Harsh braking	All hardware models	4.17	0.5	10	m/s/s
Harsh acceleration	All hardware models	2.78	0.5	10	m/s/s
Harsh Cornering	All hardware models	5.9	0.5	10	m/s/s
Excessive idle	All hardware models	300	0	3600	seconds
Over-revving	HW models that read RPM via CAN, BT dongle	5000	0	16384	rpm

### SUPPORTED COMMAND VIA MIX FLEET MANAGER

- Enable/Disable Immobilizer
- Request current position

## IMPORTANT SETTINGS FOR SUCCESSFUL DATA TRANSFER.

---

- Priority settings: Always use **Low priority**, else data will be received we out of sync
- Section 8.5 - Record Settings: Sort by **Oldest**
- Section 11.2 and Overspeeding: Use **Speed** in I/O *section 18* and not Overspeeding in Features section
- Section 15.1 Trips settings: Low Priority, Enable, Continuous settings should be used
- Section 19 and 20 you need to enable relevant CAN and OBDII settings if used.

## STARTING THE CONFIGURATOR APPLICATION

Ensure you are using the configurator that is compatible with your hardware model.

### 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.

### HOW TO INSTALL TELTONIKA CONFIGURATOR TOOL

---

1. Please download suitable Configurator based on your hardware model from [Teltonika Wiki page](#).
2. Extract the **Teltonika.Configurator\_x.x.x\_x.x.x\_x.x.zip** to a location on your computer.
3. Browse to that location of extracted folder.
4. Run **Teltonika.Configurator.exe** to launch the program.

### .NET PROBLEMS

---

In some cases we have seen .NET issues with the application that cannot be run. To resolve this issue, please refer to this link: [https://wiki.teltonika-gps.com/view/.NET\\_Runtime\\_for\\_Desktop\\_installation](https://wiki.teltonika-gps.com/view/.NET_Runtime_for_Desktop_installation)

Once you launch the application, you will see the device connected to your computer.

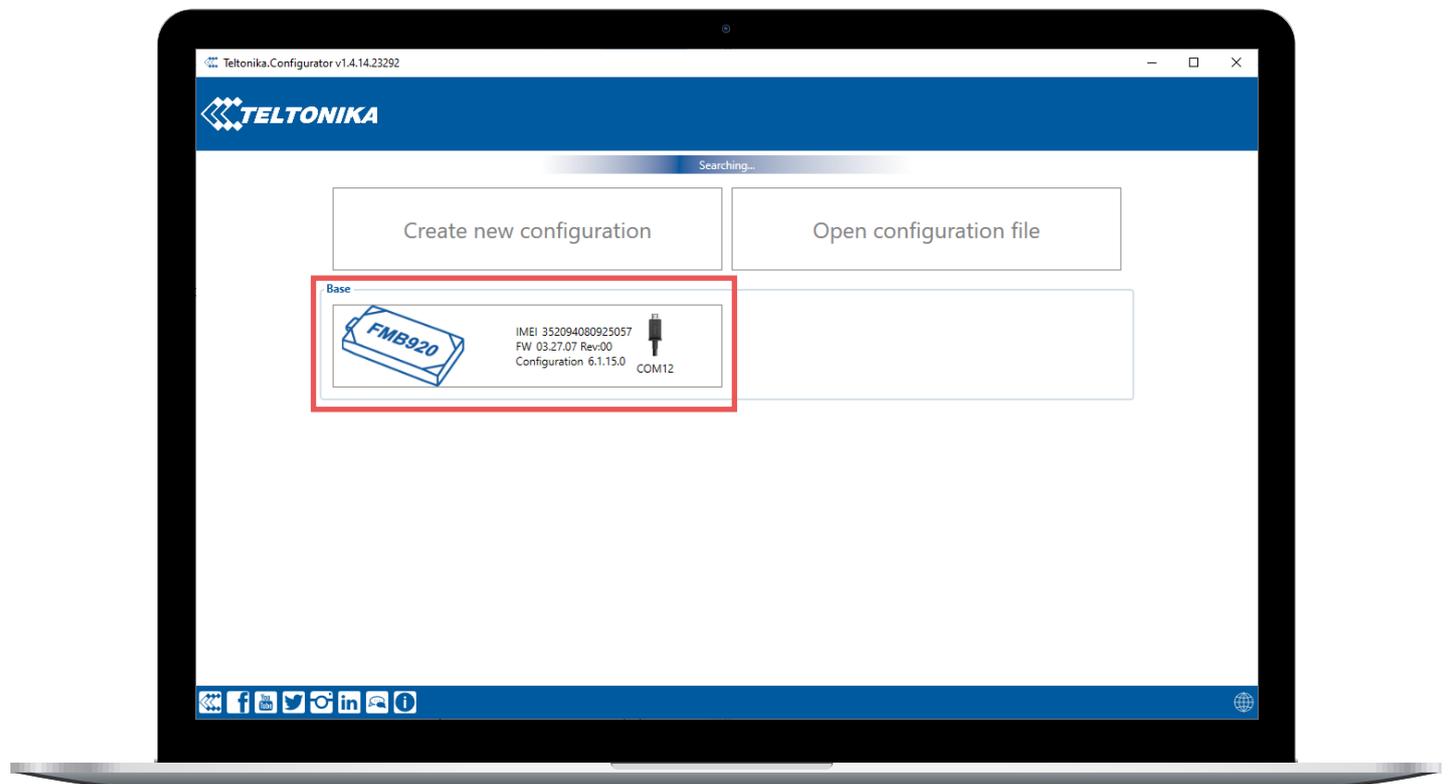
To connect your unit to the configurator, use a USB cable or can connect via Bluetooth. The device should also be connected to a power source or successful connection would not be possible.

Select the connected device to open the settings.



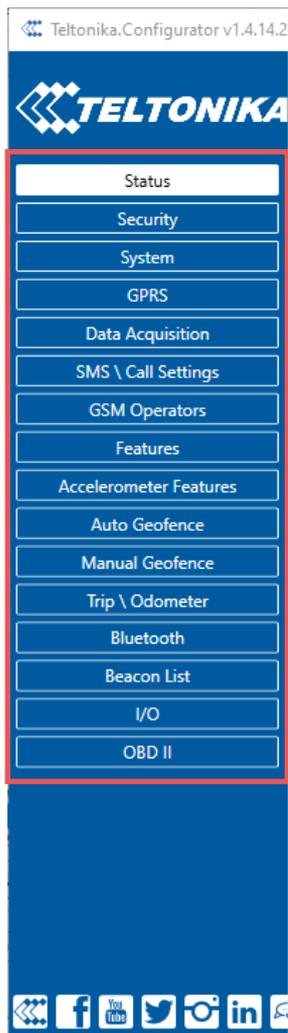
### Other options:

- **Create new configuration:** To create a new configuration file without having a device connected. This file can then be saved and copied to another device via the Configurator app or (over the air) OTA via FOTA web platform.
- **Open configuration file:** To open a saved configuration file and edit.

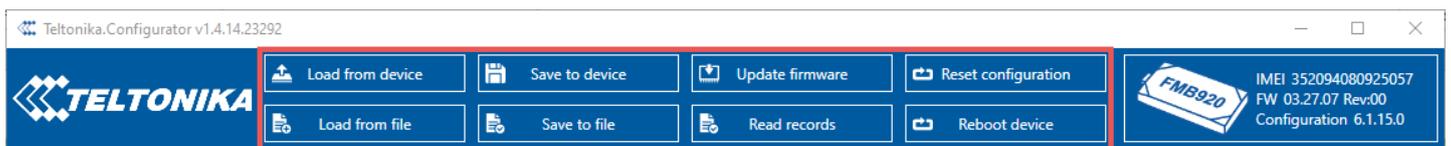


## NAVIGATION PANELS

Overview of the Navigation panel and what settings are associated to it. Sections will only be visible if the hardware supports it.



<b>OVERVIEW</b>	To view status of device like firmware version, connectivity status etc.
<b>SECURITY</b>	To set SIM PIN and configuration password.
<b>SYSTEM</b>	Movement/Ignition source settings, sleep settings, GPS settings.
<b>GPRS</b>	APN and server details.
<b>DATA ACQUISITION</b>	AVL rate settings.
<b>SMS \ CALL SETTINGS</b>	Set user/pass for SMS commands to avoid someone changing settings via SMS.
<b>GSM OPERATORS</b>	Not used
<b>FEATURES</b>	Harsh event, Jamming, and other settings.
<b>ACCELEROMETER FEATURES</b>	Not used
<b>AUTO GEOFENCE</b>	Not used
<b>MANUAL GEOFENCE</b>	Not used
<b>TRIP \ ODOMETER</b>	Trip settings.
<b>BLUETOOTH</b>	Not used
<b>BEACON LIST</b>	Not used
<b>I/O</b>	Over speeding set here
<b>OBD II</b>	Only supported devices.



<b>LOAD FROM DEVICE</b>	Load the setting that is on the device.
<b>LOAD FROM FILE</b>	Load settings from a saved configuration file.
<b>SAVE TO DEVICE</b>	Save all setting to the device.
<b>SAVE TO FILE</b>	Save all settings to a file.
<b>UPLOAD FIRMWARE</b>	Update the firmware of the device.
<b>READ RECORDS</b>	Not used
<b>RESET CONFIGURATION</b>	Restore factory settings of the device.
<b>REBOOT DEVICE</b>	Reboot the device.

## STATUS

The status screen gives information about the device and connectivity status.

### DEVICE INFO

Shows all the device's details, the firmware version, charge state, IMEI, etc.

Device Info					
<b>Device Name</b> FMB920	<b>Last Start Time</b> 1/5/2004 11:58:43 PM	<b>Power Voltage</b> 22736 mV.	<b>Ext Storage (used/total)</b> 17 / 119 MB <a href="#">Format</a>	<b>Battery Voltage</b> 4057 mV.	
<b>Firmware Version</b> 03.27.07 Rev:00	<b>RTC Time</b> 1/6/2004 12:13:13 AM	<b>Device IMEI</b> 352094080925057	<b>Device Uptime</b> 00:14:30	<b>Internal Battery Status</b> Not Charging 94%	

### GNSS INFO

Shows GPS information

GNSS Info	GSM Info	I/O Info	Maintenance
<b>GNSS Status</b>			
<b>Module Status</b> ON	<b>GNSS Packets</b> 869		
<b>Fix Status</b> Fix	<b>Fix Time</b> 00:00:45		
<b>Satellites</b>		<b>Location</b>	
<b>Visible:</b>		<b>Latitude/Longitude</b> -34.0560883, 18.832365	
<b>GPS</b> 10	<b>GLONASS</b> 8	<b>Altitude</b> 185	<b>HDOP</b> 1.05
<b>BeiDou</b> 0	<b>Galileo</b> 0	<b>Speed</b> 0 km/h	<b>Angle</b> 293.47°
<b>Total In View</b> 18		<b>PDOP</b> 1.38	
<b>In Use:</b>			
<b>GPS</b> 5	<b>GLONASS</b> 2		
<b>BeiDou</b> 0	<b>Galileo</b> 0		
<b>Total In Use</b> 7			

### GSM INFO

Shows network status, data (records) sent, data traffic and SMS counter as well as servers (sockets).

GNSS Info	GSM Info	I/O Info	Maintenance
<b>GSM Status</b>			
<b>Modem Status</b> Modem On	<b>SIM State</b> Unknown	<b>GPRS Status</b> Deactivated	
<b>Actual Operator Code</b> 0	<b>Signal Level</b> No Signal		
<b>Records</b>		<b>GPRS Traffic</b>	
<b>Sent Records Count</b> 0	<b>Last Record Send</b> 1/1/1970 2:00:00 AM	<b>Sent Data</b> 310 KB <a href="#">Reset</a>	<b>Received Data</b> 24 KB <a href="#">Reset</a>
<b>Last Server Response Time</b> 1/1/1970 2:00:00 AM		<b>Total Traffic</b> 335 KB	
		<b>SMS Count</b>	
		<b>Received SMS</b> 4 <a href="#">Reset</a>	<b>Sent SMS</b> 0 <a href="#">Reset</a>
		<b>SMS Count</b> 4	
<b>Sockets</b>			
<b>Type</b> AVL Data Sending		<b>Socket</b> Closed	

## I/O INFO

Shows the I/O elements values like Ignition/Movement status, etc.

GNSS Info GSM Info **I/O Info** Maintenance

**I/O Data**

Ignition	0	Movement	0	Data Mode	4	GSM Signal	0
Sleep Mode	0	GNSS Status	1	GNSS PDOP	14	GNSS HDOP	11
External Voltage	22719 mV	Speed	0 km/h	GSM Cell ID	0	GSM Area Code	0
Battery Voltage	4057 mV	Battery Current	0 mA	Active GSM Operator	0	Trip Odometer	0 m
Total Odometer	2220000 m	Digital Input 1	0	Analog Input 1	174 mV	Digital Output 1	0
Fuel Used GPS	0 ml	Fuel Rate GPS	0 l/h*100	Axis X	-14 mG	Axis Y	123 mG
Axis Z	1010 mG	ICCID	00	Eco Score	0	User ID	0x0000000000000000
Battery Level %		RT Status		Pulse Counter DIM1		Coordinates ISO6700	

## MAINTENANCE

This section is only used for advanced logs by the Teltonika support team.

GNSS Info GSM Info I/O Info **Maintenance**

**Log / Dump**  
Log  
Dump

**Accelerometer**  
Read

**DOUT**  
DOUT 1 OFF

**LLS calibration**  
Available sensors  
Analog Input 1  
Fuel, L.      Value, mV

0	0	↕	↔	↔	↔
0	0	↕	↔	↔	↔
0	0	↕	↔	↔	↔
0	0	↕	↔	↔	↔

Add row      Clear rows

a0	0
a1	0
a2	0
a3	0

Calculate      Export



## SECURITY

Here you can set a SIM pin and a secret password to lock the settings so that no one can change it.

### ENABLE PIN

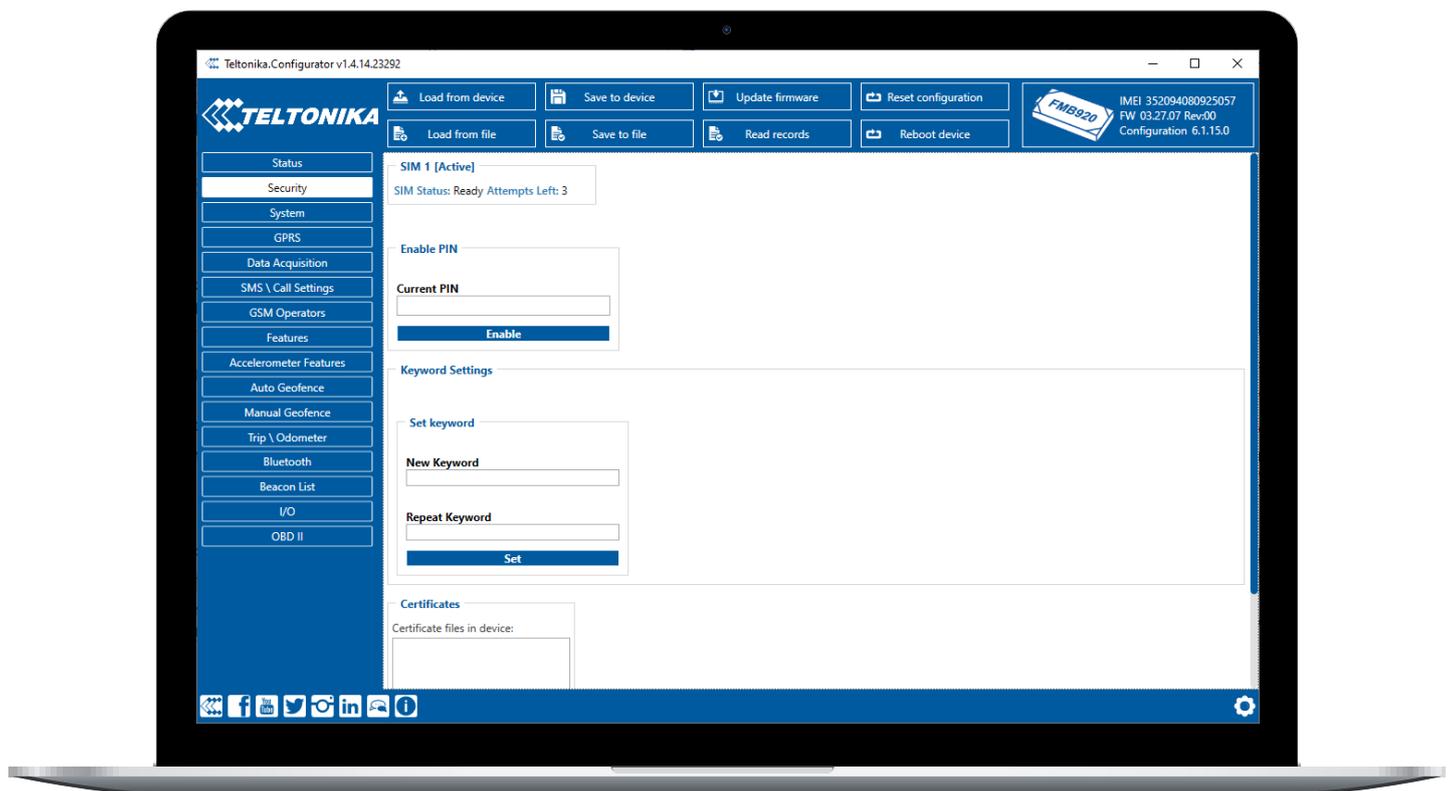
Set your SIM PIN number on the device.

### KEYWORD SETTINGS

A “keyword” is set by default for the devices to avoid someone changing settings when connecting to a computer.

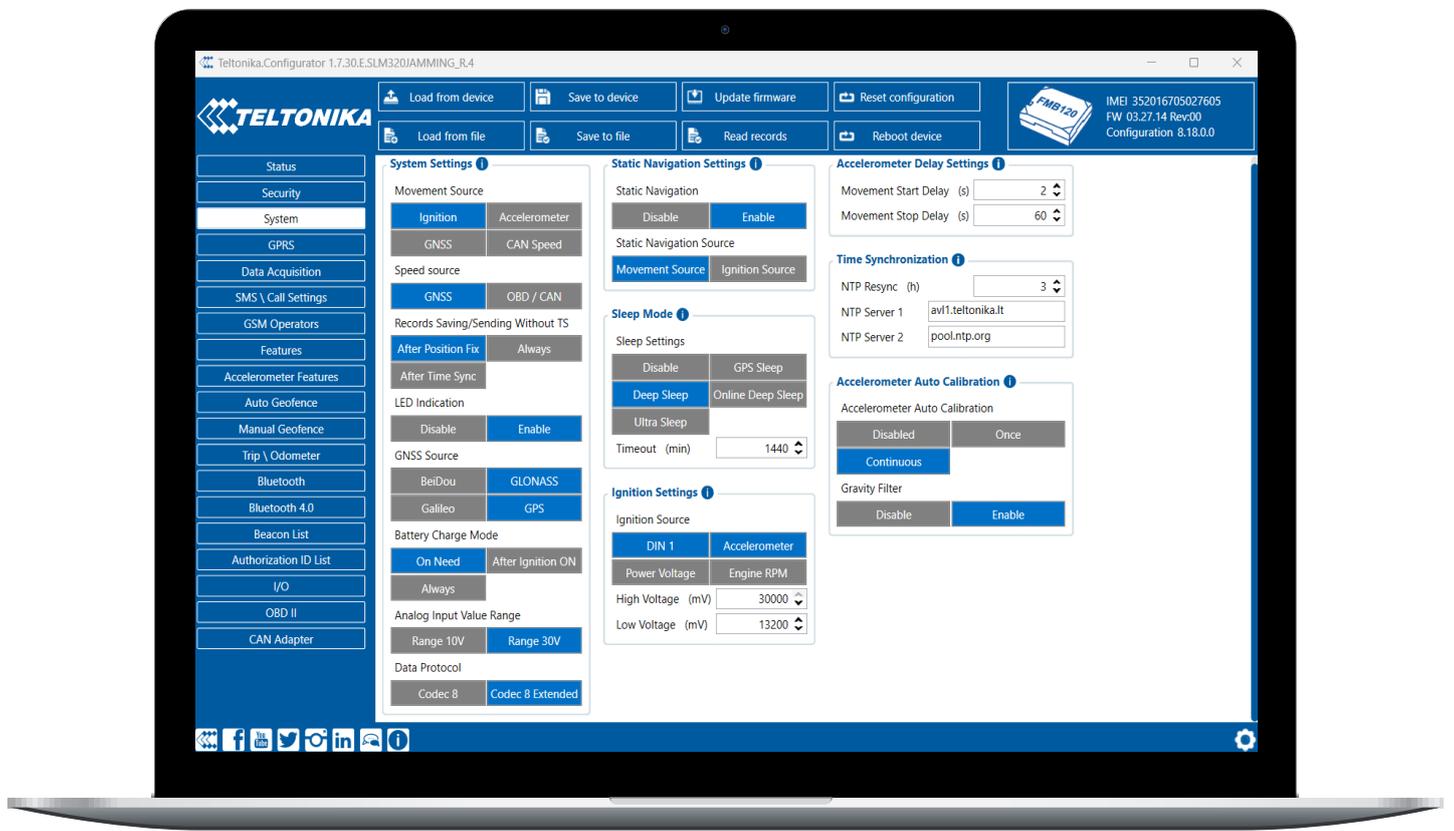
### CERTIFICATES

Not used.



## SYSTEM

The system section is mainly used to define the ignition and movement source.



## SYSTEM SETTINGS

**System Settings**

**Movement Source**

Ignition	Accelerometer
GNSS	CAN Speed

**Speed source**

GNSS	OBD / CAN
------	-----------

**Records Saving/Sending Without TS**

After Position Fix	Always
After Time Sync	

**LED Indication**

Disable	Enable
---------	--------

**GNSS Source**

BeiDou	GLONASS
Galileo	GPS

**Battery Charge Mode**

On Need	After Ignition ON
Always	

**Analog Input Value Range**

Range 10V	Range 30V
-----------	-----------

**Data Protocol**

Codec 8	Codec 8 Extended
---------	------------------

SECTION	DEFAULT OPTION TO SELECT
Movement Source	Ignition
Speed Source	GNSS
Records Saving/Sending Without TS	Always
LED Indicator	Enable
GNSS Source	GLONASS , GPS
Battery Charge Mode	After Ignition ON
Data Protocol	Either. Codec8 = Basic functions Codec 8 Extended – new features like driverID via Dallas iButton

## STATIC NAVIGATION SETTINGS

Static Navigation Settings	
Static Navigation	
Disable	Enable
Static Navigation Source	
Movement Source	Ignition Source

### STATIC NAVIGATION

Enable

### STATIC NAVIGATION SOURCE

Movement Source

## SLEEP MODE

Sleep Mode	
Sleep Settings	
Disable	GPS Sleep
Deep Sleep	Online Deep Sleep
Ultra Sleep	
Timeout (min)	10

### SLEEP SETTINGS

Deep Sleep

### TIMEOUT (MIN)

10

## IGNITION SOURCE

Ignition Source	
Ignition Settings	
DIN 1	Accelerometer
Power Voltage	Engine RPM
High Voltage (mV)	30000
Low Voltage (mV)	13500

### IGNITION SETTINGS

High/Low Voltage  
Only applicable is "Power Voltage" used

### DIN1 , ACCELEROMETER IF NO INPUTS, THEN "POWER VOLTAGE"

High = 30000  
Low = 13500 (depending on Alternator voltage)

## ACCELEROMETER DELAY SETTINGS

Accelerometer Delay Settings	
Movement Start Delay (s)	3
Movement Stop Delay (s)	60

### MOVEMENT START DELAY (S)

3

### MOVEMENT STOP DELAY (S)

60

## TIME SYNCHRONIZATION

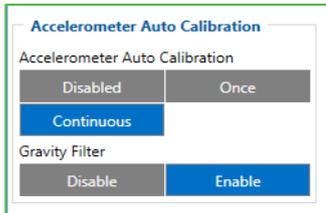
Time Synchronization	
NTP Resync (h)	1
NTP Server 1	av11.teltonika.lt
NTP Server 2	pool.ntp.org

### NTP RESYNC (H)

NTP Server1 / NTP Server2

### NTP SERVER1 / NTP SERVER2

av11.teltonika.lt / pool.ntp.org



**ACCELEROMETER AUTO CALIBRATION**

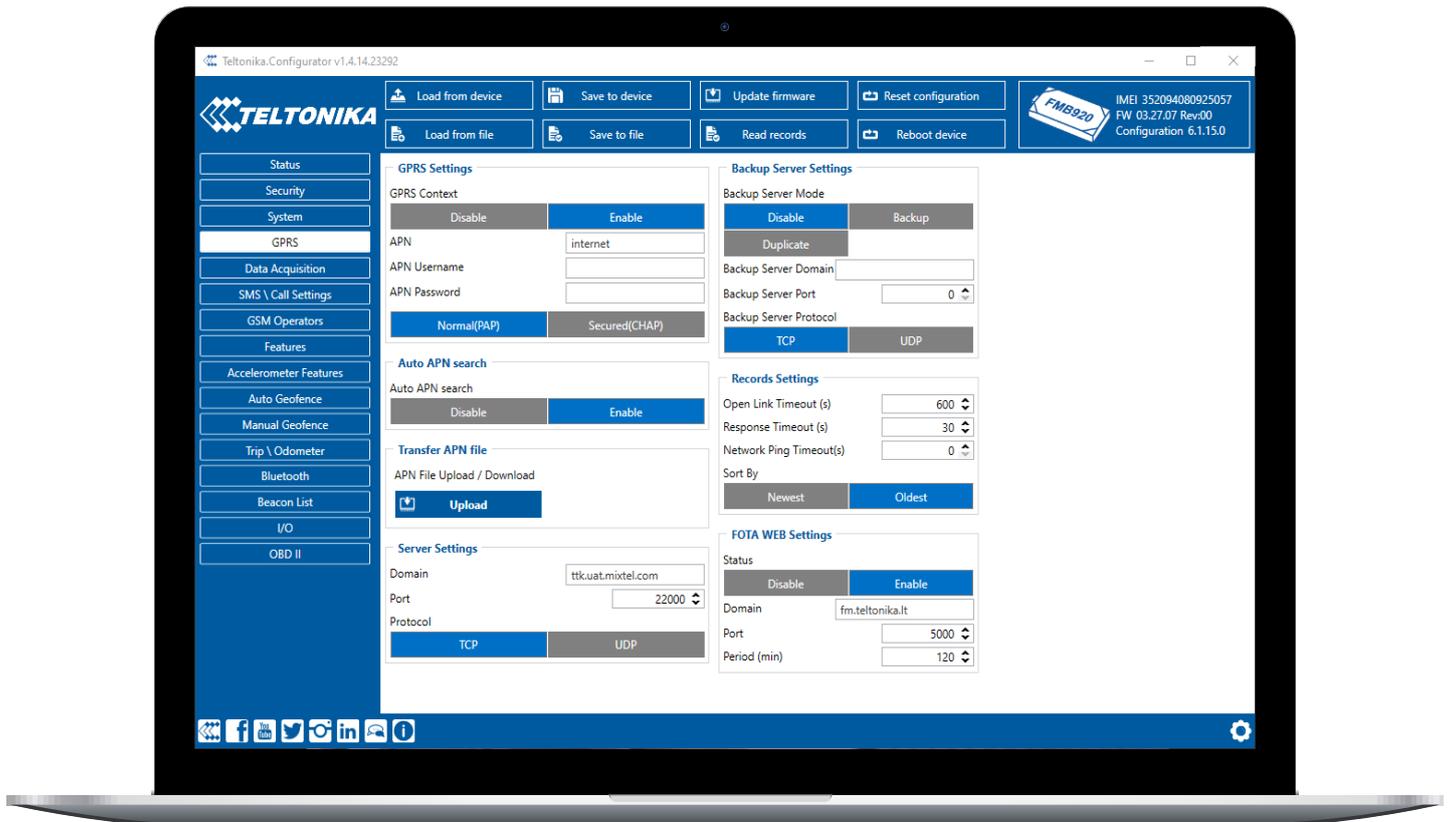
Continuous

**GRAVITY FILTER**

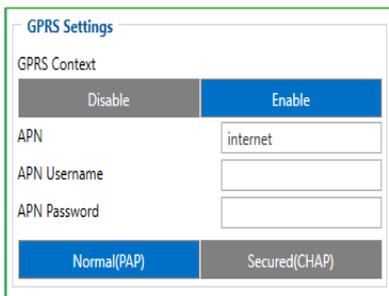
Enable

**GPRS**

The GPRS section covers all APN and server settings.



**GPRS SETTINGS**



**GPRS CONTEXT**

**APN**

**USERNAME AND PASSWORD**

**MODE**

GPRS CONTEXT	Enable
APN	Internet (If private APN used, it needs to be able to reach the servers)
USERNAME AND PASSWORD	Only if required
MODE	Normal(PAP)

## AUTO APN SEARCH / TRANSFER APN FILE

**Auto APN search**

Auto APN search

Disable  Enable

---

**Transfer APN file**

APN File Upload / Download

Upload

**AUTO APN SEARCH**

Not supported, do not use

**TRANSFER APN FILE**

Not supported, do not use

## SERVER SETTINGS

**Server Settings**

Domain

Port

Protocol

TCP  UDP

**DOMAIN/PORT**

Depends on which MiX Fleet Manager environment you connect to, see table below.

**PROTOCOL**

TCP

PLATFORM	DATACENTRE	DOMAIN	PORT
MiX Fleet Manager	ZA	ttk.za.mixel.com	22000
	AU	ttk.au.mixel.com	22000
	UK	ttk.uk.mixel.com	22000
	ENT	ttk.ent.mixel.com	22000
	US	ttk.us.mixel.com	22000

## BACKUP SERVER SETTINGS

**Backup Server Settings**

Backup Server Mode

Disable  Backup

Duplicate

Backup Server Domain

Backup Server Port

Backup Server Protocol

TCP  UDP

**DOMAIN/PORT**

Depends on which MiX Fleet Manager environment you connect to, see table above.

**PROTOCOL**

TCP

## RECORDS SETTINGS

**Records Settings**

Open Link Timeout (s)

Response Timeout (s)

Network Ping Timeout(s)

Sort By

Newest  Oldest

**OPEN LINK TIMEOUT (S)**

600

**RESPONSE TIMEOUT (S)**

30

**NETWORK PING TIMEOUT (S)**

0

**SORT BY**

Oldest

## FOTA WEB SETTINGS

**FOTA WEB Settings**

Status

Disable  Enable

Domain

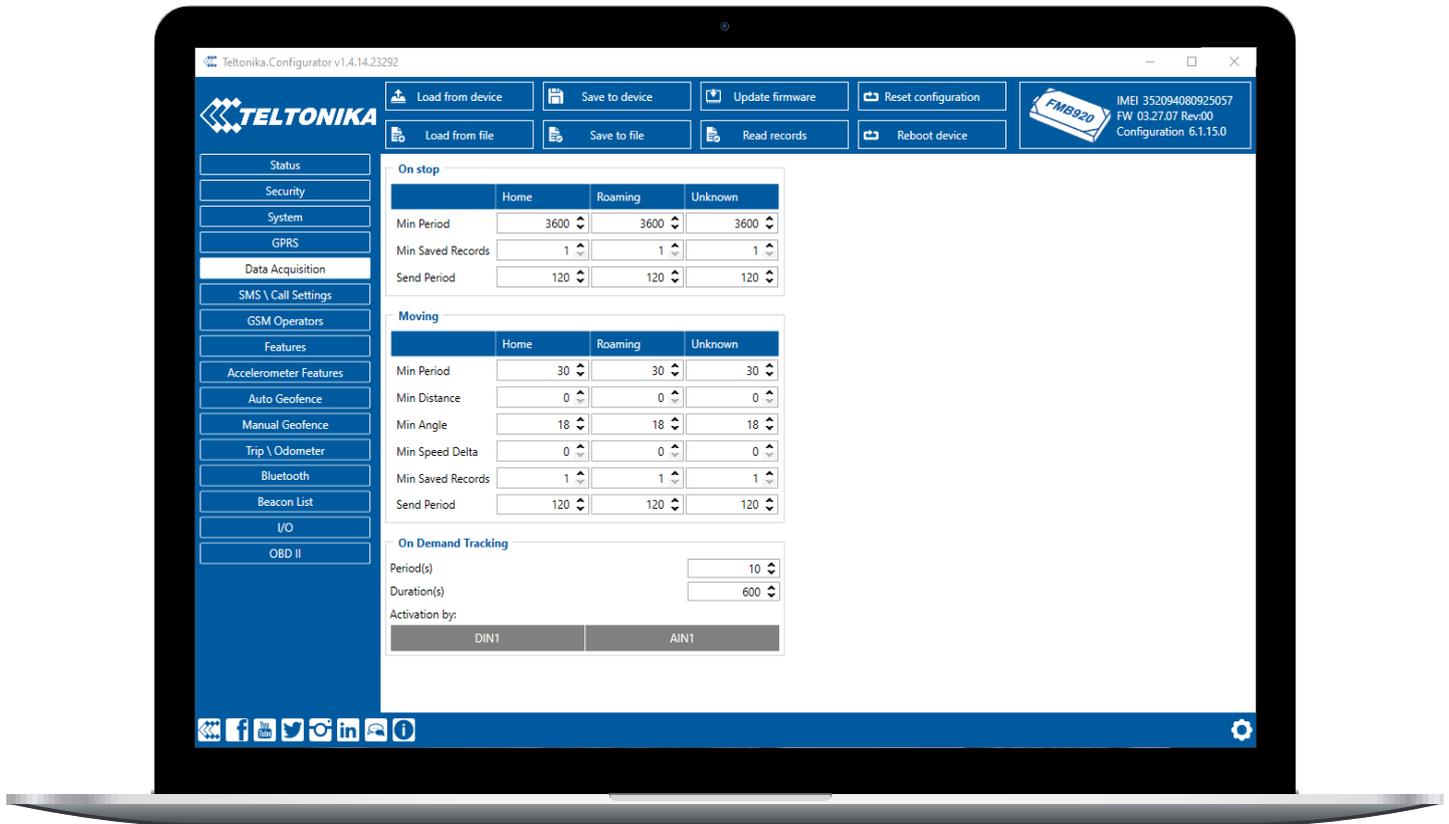
Port

Period (min)

<b>STATUS</b>	Enable
<b>DOMAIN</b>	fm.teltonika.it
<b>PORT</b>	5000
<b>PERIOD (MIN)</b>	120

## DATA ACQUISITION

In this section you can adjust the AVL rate of the unit.



## ON STOP

AVL rate "Out of Trip"

On stop			
	Home	Roaming	Unknown
Min Period	3600	3600	3600
Min Saved Records	1	1	1
Send Period	120	120	120

SECTION	Home	Roaming	Unknown
<b>MIN PERIOD</b>	3600	3600	3600
<b>MIN SAVED RECORDS</b>	1	1	1
<b>SEND PERIOD</b>	120	120	120

## MOVING

### AVL rate "In Trip"

Moving			
	Home	Roaming	Unknown
Min Period	30	30	30
Min Distance	0	0	0
Min Angle	18	18	18
Min Speed Delta	0	0	0
Min Saved Records	1	1	1
Send Period	120	120	120

SECTION	Home	Roaming	Unknown
MIN PERIOD	30	30	30
MIN DISTANCE	0	0	0
MIN ANGLE	18	18	18
MIN SPEED DELTA	0	0	0
MIN SAVED RECORDS	1	1	1
SEND PERIOD	120	120	120

## ON DEMAND TRACKING

Not supported in MiX Fleet Manager.

**On Demand Tracking**

Period(s)

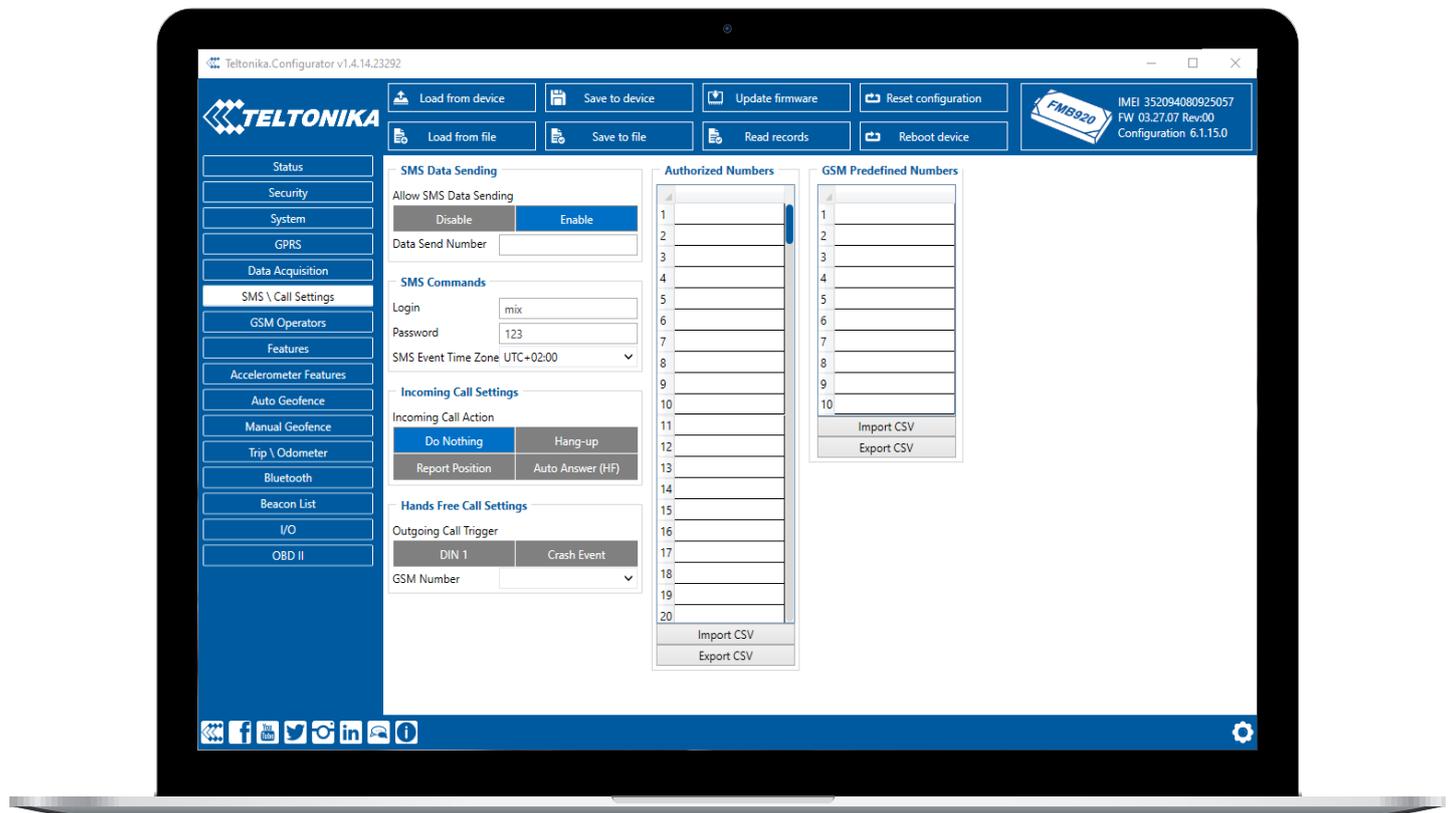
Duration(s)

Activation by:

DIN1  AIN1

## GSM OPERATORS

Use this section to enable SMS commands and set a user/pass for these commands.



## SMS DATA SENDING

To Enable SMS function

SMS Data Sending	
Allow SMS Data Sending	
Disable	Enable
Data Send Number	<input type="text"/>

**ALLOW SMS DATA SENDING**

Enable

**DATA SEND NUMBER**

## SMS COMMANDS

To set a user/pass for setting changes via SMS

SMS Commands	
Login	<input type="text" value="mix"/>
Password	<input type="text" value="123"/>
SMS Event Time Zone	UTC+02:00

**LOGIN**

mix

**PASSWORD**

123

**SMS EVENT TIME ZONE**

any (function not used)

## FEATURES

This section is to set harsh driving and jamming:

The screenshot displays the Teltonika Configurator v1.4.14.23292 interface. The top navigation bar includes buttons for 'Load from device', 'Save to device', 'Update firmware', 'Reset configuration', 'Load from file', 'Save to file', 'Read records', and 'Reboot device'. The main content area is divided into several configuration panels:

- Eco/Green Driving:** Scenario Settings (Disable, Low Priority, High Priority, Panic Priority), Max Acceleration (2.78), Max Braking (4.17), Max Cornering (5.9), Source (GPS, Accelerometer), Advanced Eco Driving (Disable, Enable), Eco/Green Driving Duration (Disable, Enable), Output Control (None, DOUT 1), DOUT ON/OFF Durations (200 ms), and Send SMS To (Green Driving).
- Over Speeding:** Scenario Settings (Disable, Low Priority, High Priority, Panic Priority), Max Speed (120), Output Control (None, DOUT 1), DOUT ON/OFF Durations (200 ms), and Send SMS To (Overspeeding).
- Jamming:** Scenario Settings (Disable, Low Priority, High Priority, Panic Priority), Eventual Records (Disable, Enable), Output Control (None, DOUT 1), DOUT ON/OFF Durations (200 ms), and Time Until Jamming Event Detection (60 s).
- DOUT Control Via Call:** Digital Output Control (None, DOUT 1), DOUT Deactivation Settings (None, DIN 1), and Duration Timeout (5 s).
- GNSS Fuel Counter:** City Consumption (0), Highway Consumption (0), Average Consumption (0), City Speed (30), Highway Speed (90), Average Speed (60), Correction Coefficient (1), Fuel Consumption On Idling (1), Higher Speeds Add (20), and Highway Consumption Every (50).
- DOUT Control Via Ignition:** DOUT Control (None, DOUT1), DOUT Deactivation Via DIN (None, DIN1), and Ignition Off Timeout (5 s).

## ECO/GREEN DRIVING

Harsh acceleration, braking and cornering limits

Eco/Green Driving	
Scenario Settings	
Disable	Low Priority
High Priority	Panic Priority
Max Acceleration (m/s <sup>2</sup> )	2.78
Max Braking (m/s <sup>2</sup> )	4.17
Max Cornering (rad/s)	5.9
Source	
GPS	Accelerometer
Advanced Eco Driving	
Disable	Enable
Eco/Green Driving Duration	
Disable	Enable
Output Control	
None	DOUT 1
DOUT ON Duration (ms)	200
DOUT OFF Duration(ms)	200
Send SMS To	
SMS Text	Green Driving

SCENARIO SETTING	Low Priority
MAX ACCELERATION (M/S <sup>2</sup> )	2.78
MAX BRAKING (M/S <sup>2</sup> )	4.17
MAX CORNERING (RAD/S)	5.9
SOURCE	GPS
ADVANCED ECO DRIVING	Disabled
ECO/GREEN DRIVING DURATION	Disabled
OUTPUT CONTROL	None
DOUT ON DURATION (MS)	any (function not used)
DOUT OFF DURATION (MS)	any (function not used)
SEND SMS TO	
SMS TEXT	Green Driving

## OVER SPEEDING

**Do not use this section.** This function is set via I/O options. This function will give two over speeding events, once when going over the limit and then when going below the limit. No duration option is available.

## JAMMING

GSM jamming event

Jamming	
Scenario Settings	
Disable	Low Priority
High Priority	Panic Priority
Eventual Records	
Disable	Enable
Output Control	
None	DOUT 1
DOUT ON Duration (ms)	200
DOUT OFF Duration (ms)	200
Time Until Jamming Event Detection (s)	60

SCENARIO SETTING	Low Priority
EVENTUAL RECORDS	Enabled
OUTPUT CONTROL	None
DOUT ON DURATION (MS)	any (function not used)
DOUT OFF DURATION (MS)	any (function not used)
TIME UNTIL JAMMING EVENT DETECTION (S)	any (function not used)

## DOUT CONTROL VIA CALL

This section is not supported on MiX Fleet Manager Integration

## GNSS FUEL COUNTER

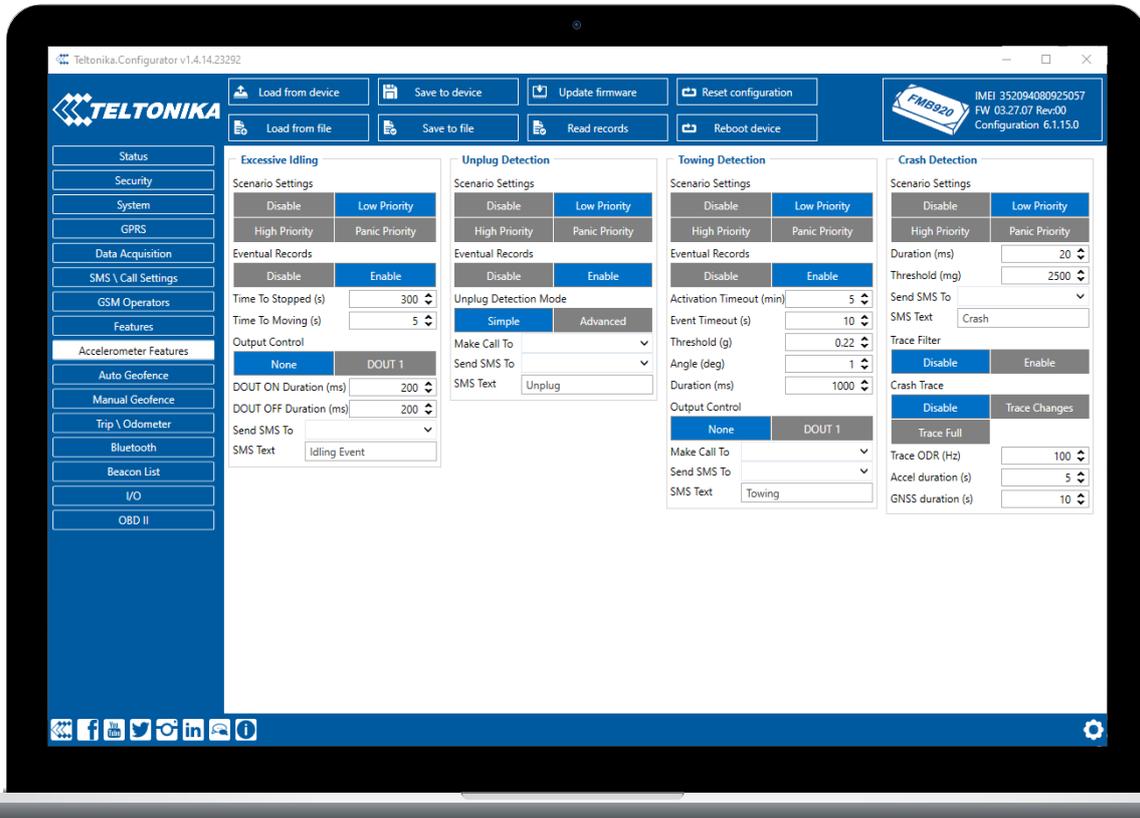
This section is not supported on MiX Fleet Manager Integration.

## DOUT CONTROL VIA IGNITION

This section is not supported on MiX Fleet Manager Integration.

## ACCELEROMETER FEATURES

This section covers additional features like idling, unplug detect, towing detect, and crash detect.



## EXCESSIVE IDLE

The Excessive Idle event will fire when IGN is high and no movement detected for 5min (300s)The event duration is not supported on the hardware.

Excessive Idling	
Scenario Settings	
Disable	Low Priority
High Priority	Panic Priority
Eventual Records	
Disable	Enable
Time To Stopped (s)	300
Time To Moving (s)	5
Output Control	
None	DOUT 1
DOUT ON Duration (ms)	200
DOUT OFF Duration (ms)	200
Send SMS To	
SMS Text	Idling Event

SCENARIO SETTING	Low Priority
EVENTUAL RECORDS	Enabled
TIME TO STOPPED (S)	300
TIME TO MOVING (S)	5
OUTPUT CONTROL	None
DOUT ON DURATION (MS)	any (function not used)
DOUT OFF DURATION (MS)	any (function not used)
SEND SMS TO	
SMS TEXT	any (function not used)

## UNPLUG DETECT

To send an event as soon as power source have been removed/restored to the unit.

**Unplug Detection**

Scenario Settings

Disable	Low Priority
High Priority	Panic Priority

Eventual Records

Disable	Enable
---------	--------

Unplug Detection Mode

Simple	Advanced
--------	----------

Make Call To

Send SMS To

SMS Text

SCENARIO SETTING	Low Priority
EVENTUAL RECORDS	Enabled
UNPLUG DETECT MODE	Simple
MAKE CALL TO	
SEND SMS TO	
SMS TEXT	Unplug

## TOWING DETECTION

To enable the towing detection event based on movement and angle if IGN is low.

**Towing Detection**

Scenario Settings

Disable	Low Priority
High Priority	Panic Priority

Eventual Records

Disable	Enable
---------	--------

Activation Timeout (min)

Event Timeout (s)

Threshold (g)

Angle (deg)

Duration (ms)

Output Control

None	DOUT 1
------	--------

Make Call To

Send SMS To

SMS Text

SCENARIO SETTING	Low Priority
EVENTUAL RECORDS	Enabled
ACTIVATION TIMEOUT (MIN)	5
EVENT TIMEOUT (S)	10
THRESHOLD (G)	0.22
ANGLE (DEG)	1
DURATION (MS)	1000
OUTPUT CONTROL	None
MAKE CALL TO	
SEND SMS TO	
SMS TEXT	Towing

## CRASH DETECT

To enable if a crash event is detected. Duration or additional data is not available, only the event.

**Crash Detection**

Scenario Settings

Disable	Low Priority
High Priority	Panic Priority

Duration (ms)

Threshold (mg)

Send SMS To

SMS Text

Trace Filter

Disable	Enable
---------	--------

Crash Trace

Disable	Trace Changes
Trace Full	

Trace ODR (Hz)

Accel duration (s)

GNSS duration (s)

SCENARIO SETTING	Low Priority
DURATION (MS)	20
THRESHOLD (MG)	2500
SEND SMS TO	
SMS TEXT	Crash
TRACE FILTER	Disable
CRASH TRACE	Disable
TRACE ODR (HZ)	any (function not used)
ACCEL DURATION (S)	any (function not used)
GNSS DURATION	any (function not used)

## AUTO GEOFENCE

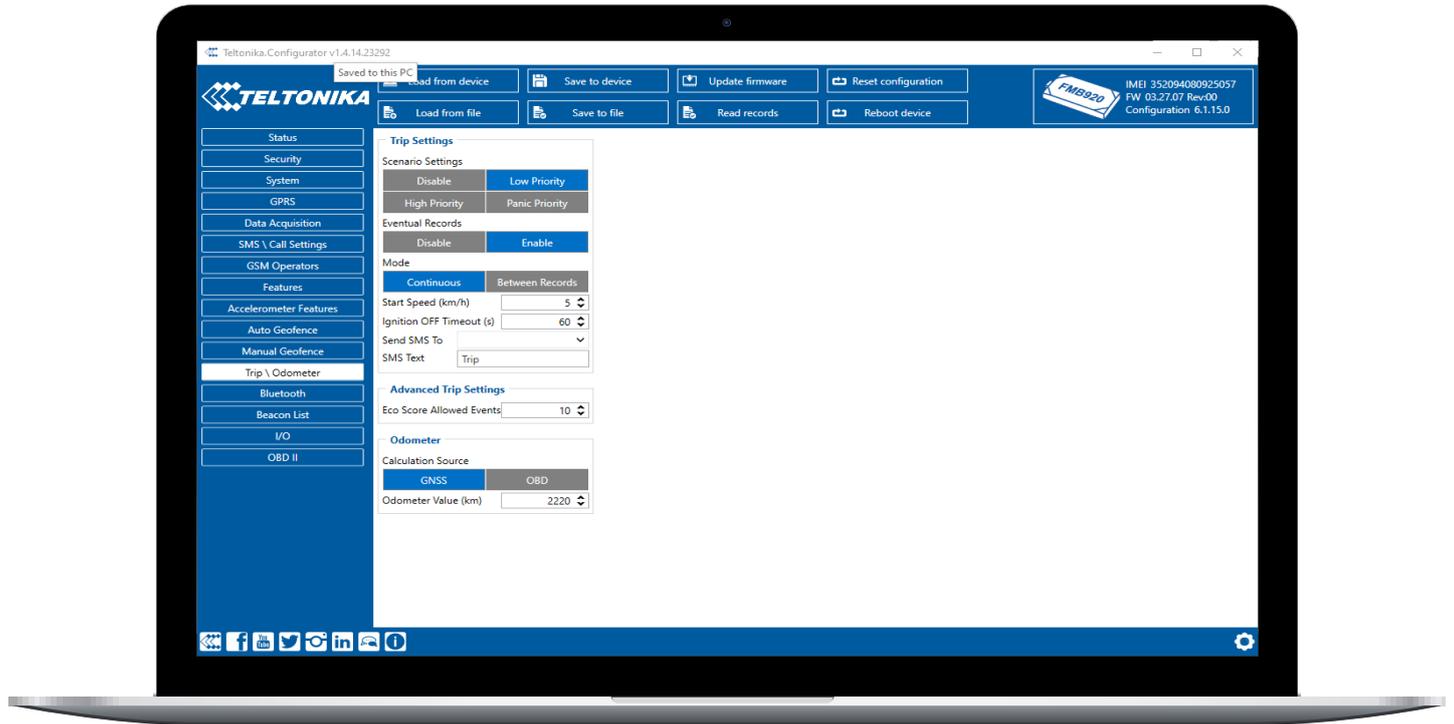
This section is not supported for MiX Fleet Manager integration

## MANUAL GEOFENCE

This section is not supported for MiX Fleet Manager integration

## TRIP / ODOMETER

How trip detection and reporting should be setup.



## TRIP SETTINGS

To ensure trips are correctly displayed in MiX Fleet Manager

Trip Settings	
Scenario Settings	
Disable	Low Priority
High Priority	Panic Priority
Eventual Records	
Disable	Enable
Mode	
Continuous	Between Records
Start Speed (km/h)	5
Ignition OFF Timeout (s)	60
Send SMS To	
SMS Text	Trip

SCENARIO SETTING	Low Priority
EVENTUAL RECORDS	Enabled
MODE	Continuous
START SPEED (KM/H)	5
IGNITION OFF TIMEOUT (S)	60
SEND SMS TO	
SMS TEXT	Trip

## ADVANCED TRIP SETTINGS

**Advanced Trip Settings**

Eco Score Allowed Events

<b>ECO SCORE ALLOWED EVENTS</b>	10
---------------------------------	----

## ODOMETER

**Odometer**

Calculation Source

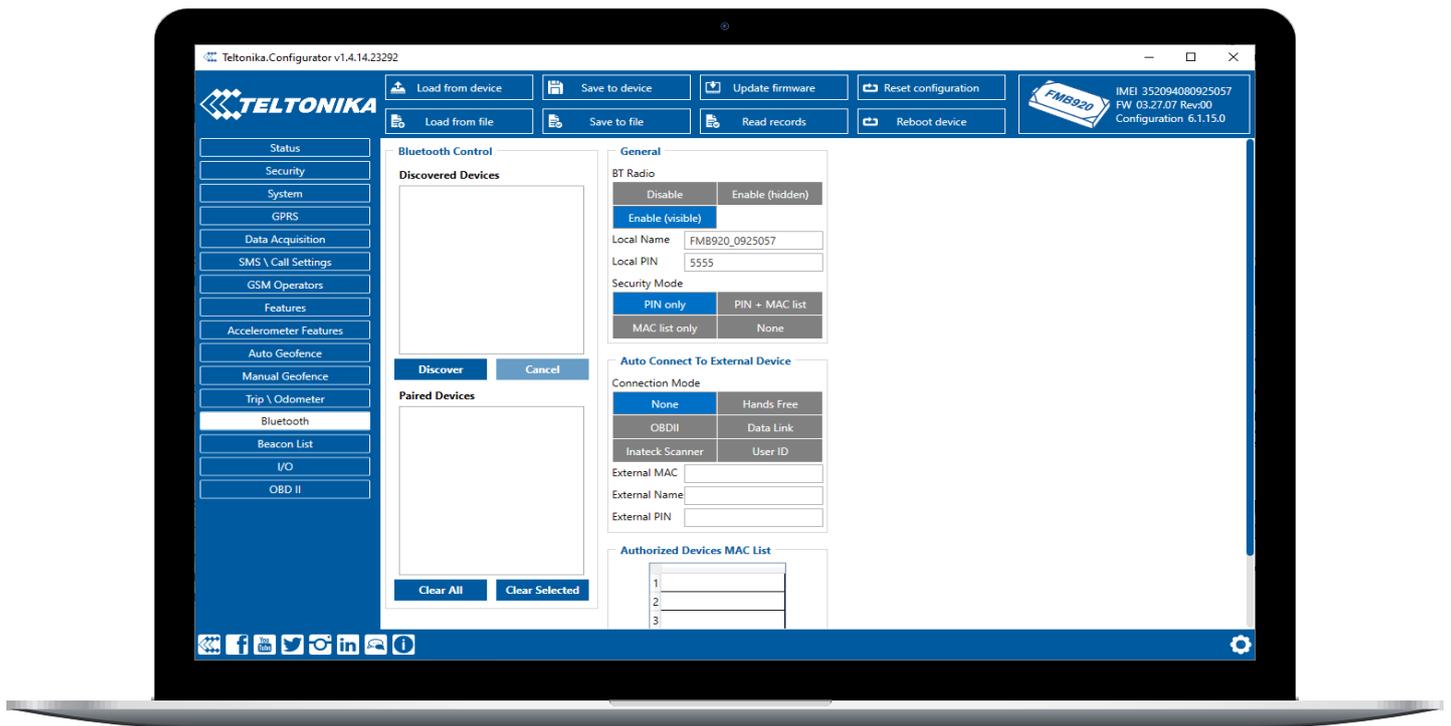
GNSS  OBD

Odometer Value (km)

<b>CALCULATION SOURCE</b>	GNSS
<b>ODOMETER VALUE (KM)</b>	

## BLUETOOTH

This section is to enable Bluetooth connection so you can change settings via Bluetooth on the app or via PC.



## BLUETOOTH CONTROL

This section is not supported on MiX Fleet Manager Integration.

## GENERAL

To enable the device's Bluetooth for connection to the app or PC to change settings.

General

BT Radio

Disable Enable (hidden)

Enable (visible)

Local Name FMB920\_0925057

Local PIN 5555

Security Mode

PIN only PIN + MAC list

MAC list only None

BT RADIO	Enable (visible)
LOCAL NAME	User can set this
LOCAL PIN	User can set this
SECURITY MODE	PIN Only

## AUTO CONNECT TO EXTERNAL DEVICE

This section is not supported on MiX Fleet Manager Integration.

## AUTHORIZED DEVICES MAC LIST

This section is not supported on MiX Fleet Manager Integration.

## BEACON LIST

This section is not supported for MiX Fleet Manager integration

## I/O

Some features like over speeding and over revving (if supported by the hardware) is set here:

INPUT NAME	PRIORITY	LOW VALUE	HIGH VALUE	EVENT ONLY	OPERAND	AVG CONST
Ignition	Low	0	0	Yes	On Change	10
Movement	Low	0	0	No	On Change	10
Speed	Low	0	120	Yes	On Exit	50
Total Odometer	Low	0	0	No	Monitoring	

Priority:

- **None:** No data will be sent
- **Low:** Data will be sent in normal Priority
- **High:** Do not use
- **Panic:** Do not use

Low Level; High Level

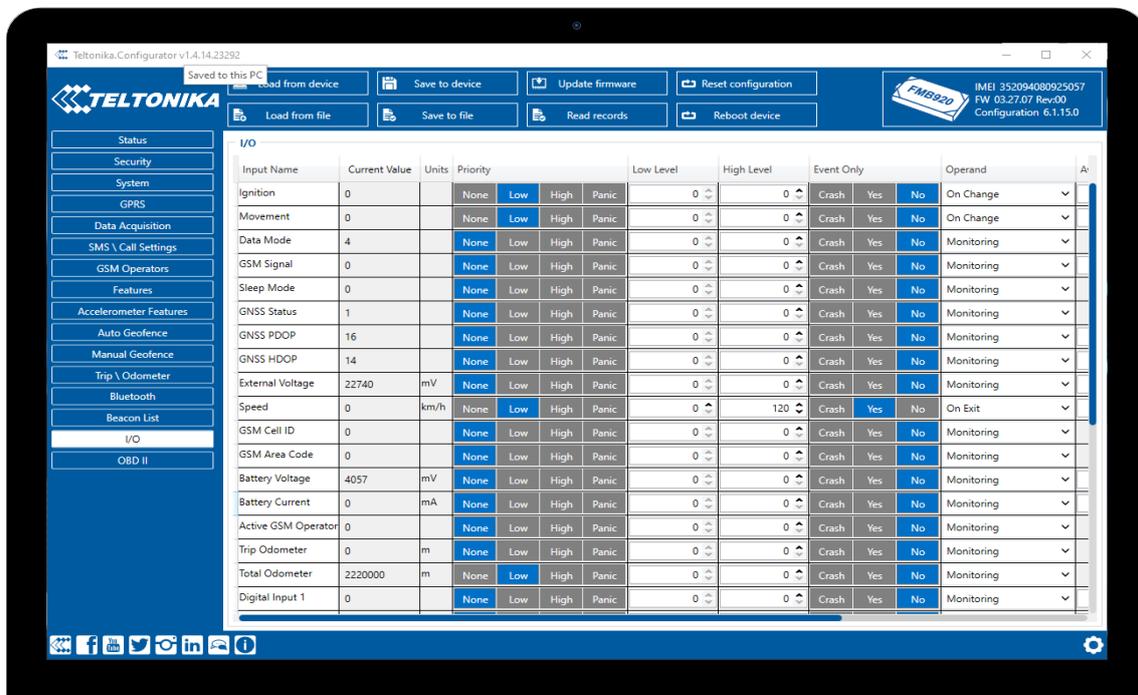
- Low or High levels, will be used by Operand function

Event Only:

- **Crash:** Only on Crash, data will be sent
- **Yes:** Only when condition "Operand" true, will be sent
- **No:** Will be sent with every AVL

Operand:

- **On Exit:** When "current value" leaves a range between low and high level limits
- **On Enter:** When "current value" enters a range between low and high level limits
- **On Both:** Always, On Exit and On Entrance operands' logic at same time
- **Monitoring:** No event at all. Values are recorded only when other triggers worked.
- **On Hysteresis:** Record is generated when input value crosses the high limit value from below the low limit value or vice versa.
- **On Change:** As soon as value changes
- **On Delta Change:** When input value changes and the absolute change becomes equal to or higher than the limit value.

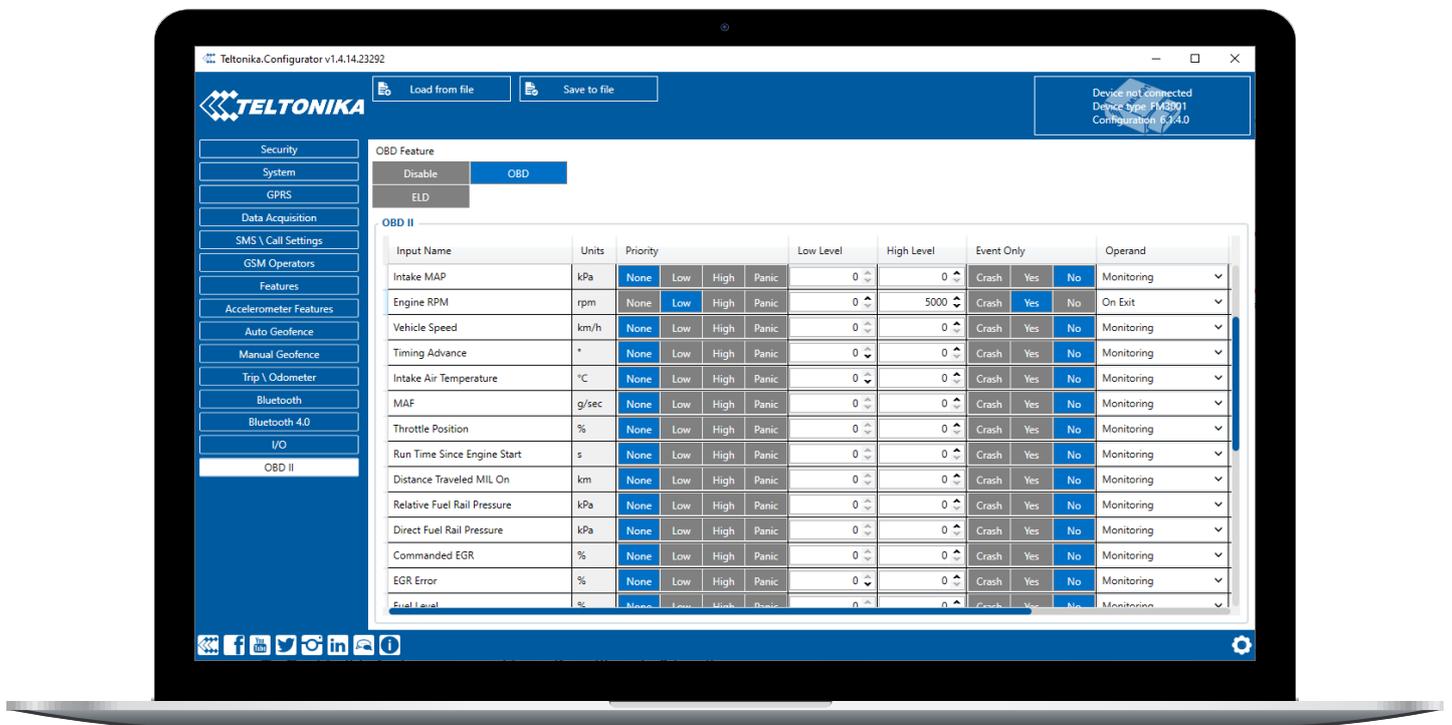


## OBDII

For vehicles that can read certain items like RPM and Speed, you can enable them here.

RPM values will only be sent when going over the limit of the event.

Ensure you enabled the supported Events on Section 2.1 and ensure Priority, Low/High Levels, Event Only and Operand modes are set correctly.



#### Priority:

- **None:** No data will be sent
- **Low:** Data will be send in normal Priority
- **High:** Do not use
- **Panic:** Do not use

#### Low Level; High Level

- Low or High levels, will be used by Operand function

#### Event Only:

- **Crash:** Only on Crash, data will be sent
- **Yes:** Only when condition "Operand" true, will be sent
- **No:** Will be sent with every AVL

#### Operand:

- **On Exit:** When "current value" leaves a range between low and high level limits
- **On Enter:** When "current value" enters a range between low and high level limits
- **On Both:** Always, On Exit and On Entrance operands' logic at same time
- **Monitoring:** No event at all. Values are recorded only when other triggers worked.
- **On Hysteresis:** Record is generated when input value crosses the high limit value from below the low limit value or vice versa.
- **On Change:** As soon as value changes
- **On Delta Change:** When input value changes and the absolute change becomes equal to or higher than the limit value.

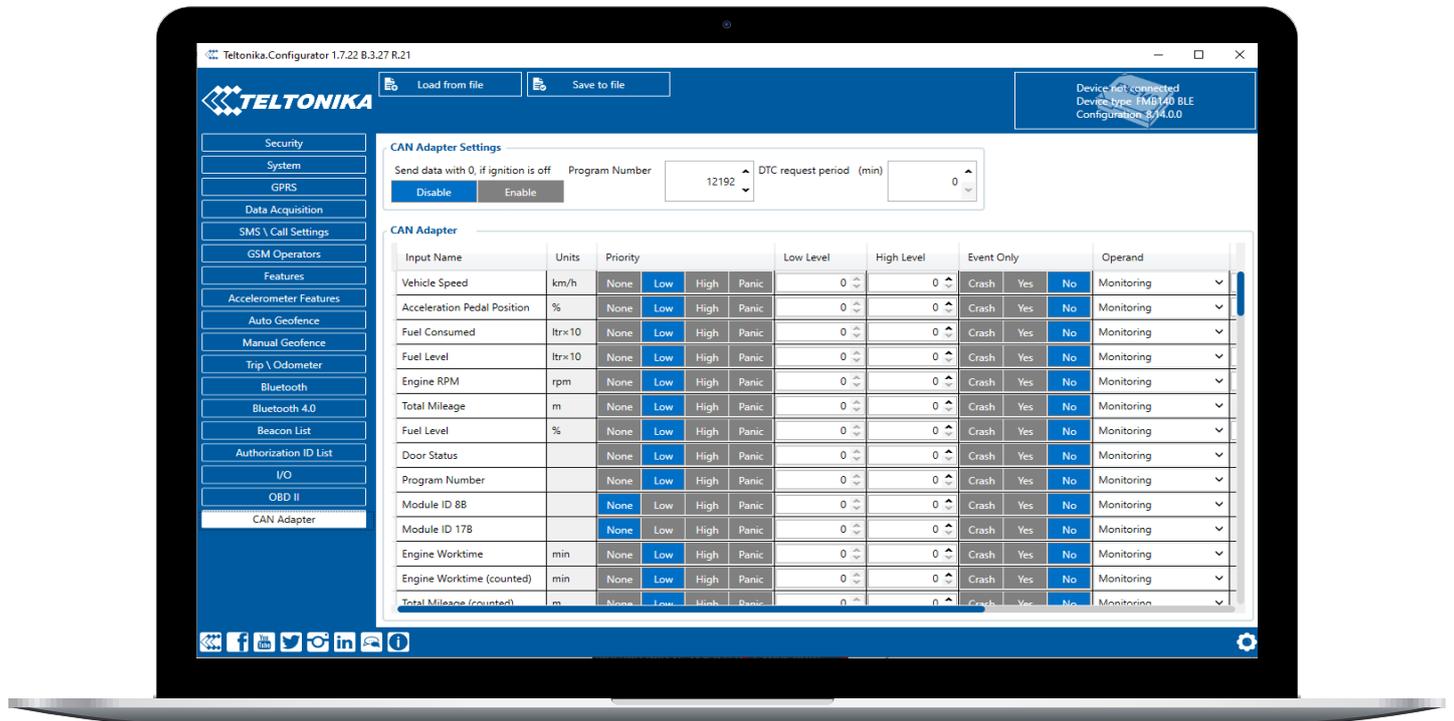
## CAN

For vehicles that can read certain CAN items like RPM and Speed, you can enable them here.

Ensure you enabled the supported Events on Section 2.1 and ensure Priority, Low/High Levels, Event Only and Operand modes are set correctly.

Appropriate "Program number" needs to be set based on vehicle.

Supported Vehicles List: **LV-CAN200** , **ALL-CAN300**.



Priority:

- **None:** No data will be sent
- **Low:** Data will be send in normal Priority
- **High:** Do not use
- **Panic:** Do not use

Low Level; High Level

- Low or High levels, will be used by Operand function

Event Only:

- **Crash:** Only on Crash, data will be sent
- **Yes:** Only when condition "Operand" true, will be sent
- **No:** Will be sent with every AVL

Operand:

- **On Exit:** When "current value" leaves a range between low and high level limits
- **On Enter:** When "current value" enters a range between low and high level limits
- **On Both:** Always, On Exit and On Entrance operands' logic at same time
- **Monitoring:** No event at all. Values are recorded only when other triggers worked.
- **On Hysteresis:** Record is generated when input value crosses the high limit value from below the low limit value or vice versa.
- **On Change:** As soon as value changes
- **On Delta Change:** When input value changes and the absolute change becomes equal to or higher than the limit value.

## ADVANCED FEATURES

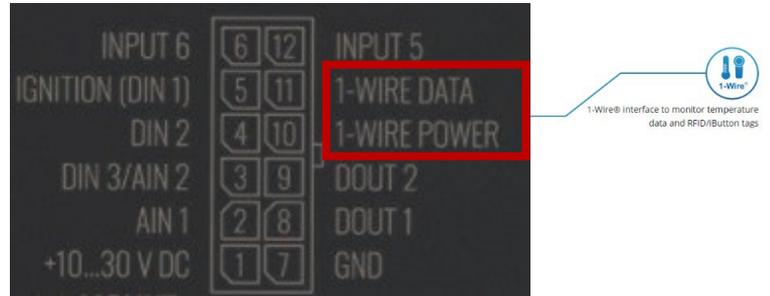
This section covers advanced features that will only function if the hardware model supports it.

### DRIVERID VIA DALLAS IBUTTON

To enable extended Driver ID on MiX Fleet Manager via supported Teltonika hardware we make use of the iButton / 1-Wire protocol function.

Please verify that the hardware can support this. The device needs to have 1-wire option on the harness.

To enable this feature, you need to verify the settings in 3 locations.



### FEATURES SECTION

Enabling Driver ID reading to provide feedback to the driver of a successful reading of the tag. If no other driver tag read feedback is included as part of the reader device, it's recommended this functionality be used with an external LED or a buzzer connected to DOUT2. This will give the driver confirmation that the ID tag was successfully read. Note the DOUT ON Duration can be adjusted as appropriate. The default is 1 second (1000ms).

**iButton Read Notification**

Output Control

None	DOUT 1
<b>DOUT 2</b>	DOUT 3

DOUT ON Duration (ms)

iButton List Checking

<b>Disable</b>	Enable
----------------	--------

Depend On Ignition

Disable	<b>Enable</b>
---------	---------------

<b>OUTPUT CONTROL</b>	DOUT2
<b>DOUT ON DURATION (MS)</b>	1000
<b>IBUTTON LIST CHECKING</b>	Disable
<b>DEPEND ON IGNITION</b>	Enable

### TRIP / ODO SECTION

Disabling sending driver ID with every AVL

**Advanced Trip Settings**

Eco Score Allowed Events

Remember iButton/Rfid

Disable	<b>Enable</b>
---------	---------------

<b>REMEMBER IBUTTON</b>	Enable
-------------------------	--------

### I/O SECTION

Enabling sending driver ID once value changed, this will then cater for drivers identifying not immediately upon start-up.

Input Name	Current Value	Units	Priority	Low Level	High Level	Event Only	Operand	Avg Const
iButton	0x013A98360055005F		None <b>Low</b> High Panic	<input type="text" value="0"/>	<input type="text" value="0"/>	Crash Yes <b>No</b>	Monitoring	<input type="text" value="30"/>

INPUT NAME	PRIORITY	LOW VALUE	HIGH VALUE	EVENT ONLY	OPERAND	AVG CONST
iButton	Low	0	0	No	Monitoring	30

## IMMOBILIZATION FUNCTION

Currently this function is only supported independently on the hardware via iButton control. There is no feedback or integration with MiX Fleet Manager. Immobilization is controlled via iButton only.

## FEATURE SECTION

This setup will allow any driver key to unlock the immobilization function.

**Immobilizer**

Scenario Settings

Disable	Low Priority
High Priority	Panic Priority

Eventual Records

Disable	Enable
---------	--------

Output Control

None	DOUT 1
DOUT 2	

iButton List Check

Disable	Enable
Beacon	Both

Send SMS To

SMS Text

Ignition Off timeout (s)

SCENARIO SETTING	Low Priority
EVENTUAL RECORDS	Enabled
OUTPUT CONTROL	DOUT 1 or 2 depending on wiring
IBUTTON LIST CHECK	Disabled
SEND SMS TO	
SMS TEXT	Immobilizer
IGNITION OFF TIMEOUT (S)	30

To set this up so that only pre-programmed keys can unlock, you need to enable iButton List Check and populate the list.

## FEATURES SECTION

**Immobilizer**

Scenario Settings

Disable	Low Priority
High Priority	Panic Priority

Eventual Records

Disable	Enable
---------	--------

Output Control

None	DOUT 1
DOUT 2	

iButton List Check

Disable	Enable
Beacon	Both

Send SMS To

SMS Text

Ignition Off timeout (s)

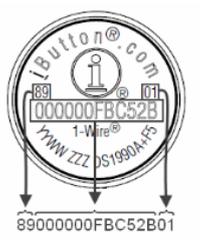
SCENARIO SETTING	Low Priority
EVENTUAL RECORDS	Enabled
OUTPUT CONTROL	DOUT 1 or 2 depending on wiring
IBUTTON LIST CHECK	Enabled
SEND SMS TO	
SMS TEXT	Immobilizer
IGNITION OFF TIMEOUT (S)	30

## 1-WIRE SECTION

**iButton List**

1	5900001573EFDD01
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0

Import CSV  
Export CSV



The image shows a circular logo for iButton.com with a stylized 'i' and 'B' and the text '1-Wire®'. Below the logo is a photograph of a physical iButton device, a small circular metal button with a central pin. Below the photograph is the alphanumeric ID '89000000FBC52B01'.

Manually enter the iButton values on the list or import via CSV file.

Only the ID's on this list will be able to disable immobilization function.

A maximum of 500 can be added.

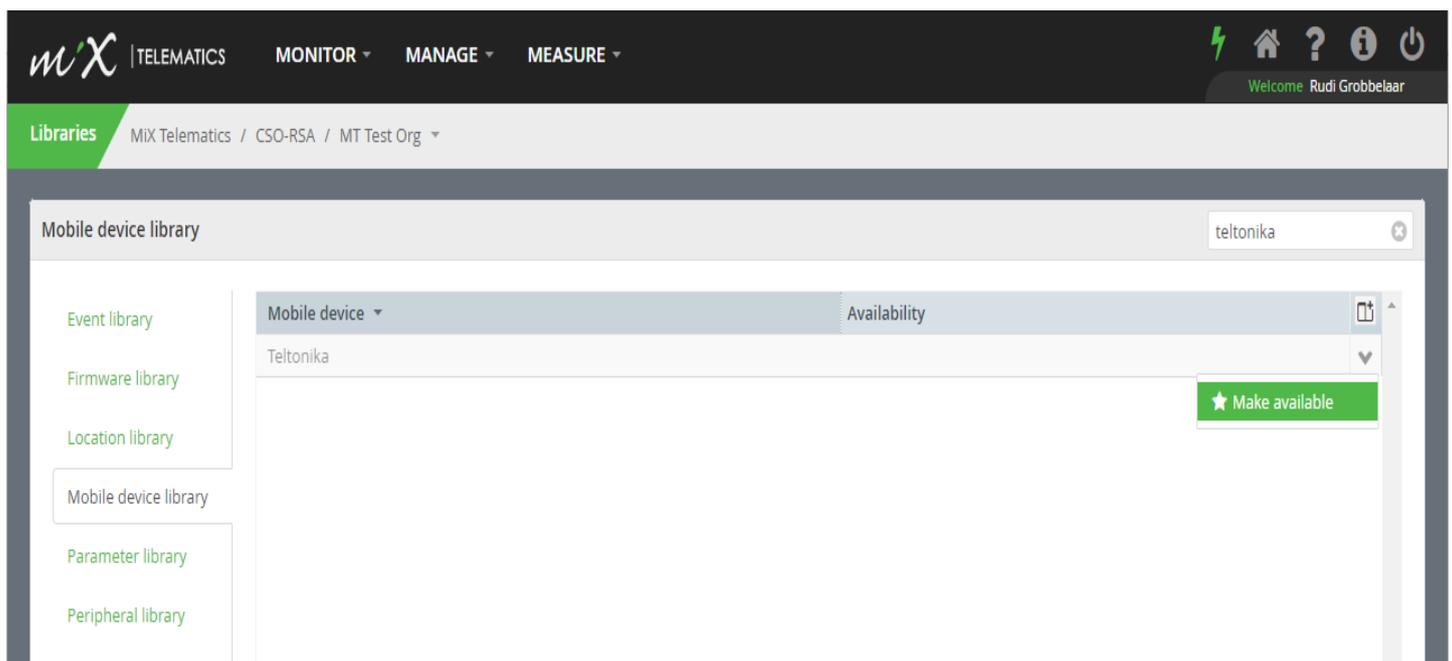
This cannot be done remotely and needs to be done on the unit.

## ADDING TELTONIKA UNIT TO MIX FLEET MANAGER

This section will guide you on how to add the programmed unit to MiX Fleet Manager.

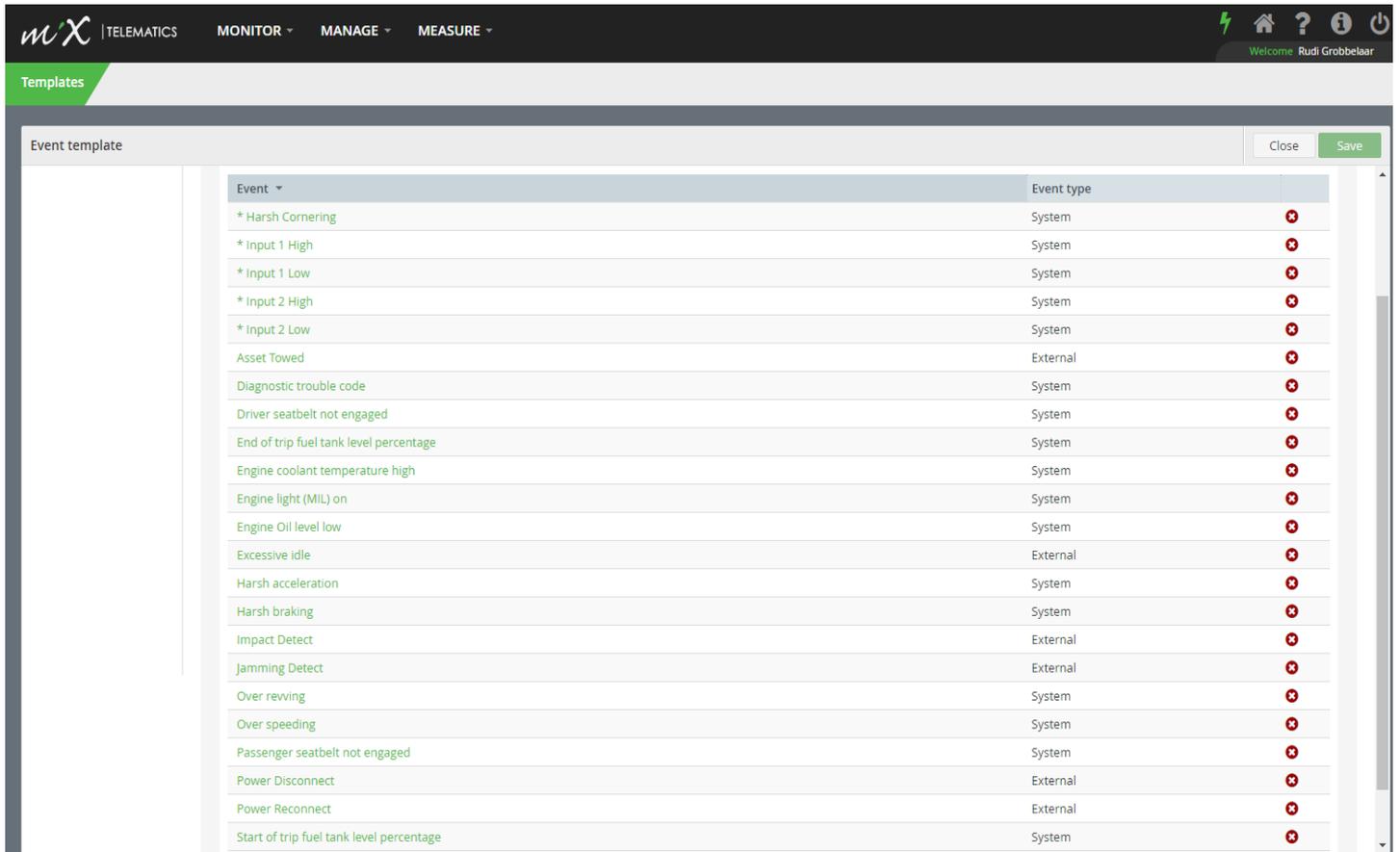
### NAVIGATE TO **MANAGE > LIBRARY > MOBILE DEVICES**

Search for Teltonika in search bar and click on dropdown to Enable the mobile device type.



The screenshot shows the MiX Telematics web interface. The top navigation bar includes 'miX | TELEMATICS', 'MONITOR', 'MANAGE', and 'MEASURE'. A user profile 'Welcome Rudi Grobbelaar' is visible in the top right. The main content area is titled 'Libraries' and shows a breadcrumb path: 'MiX Telematics / CSO-RSA / MT Test Org'. The 'Mobile device library' section is active, displaying a search bar with 'teltonika' entered. Below the search bar, a dropdown menu is open, showing 'Teltonika' selected. A green button labeled '★ Make available' is positioned to the right of the dropdown.

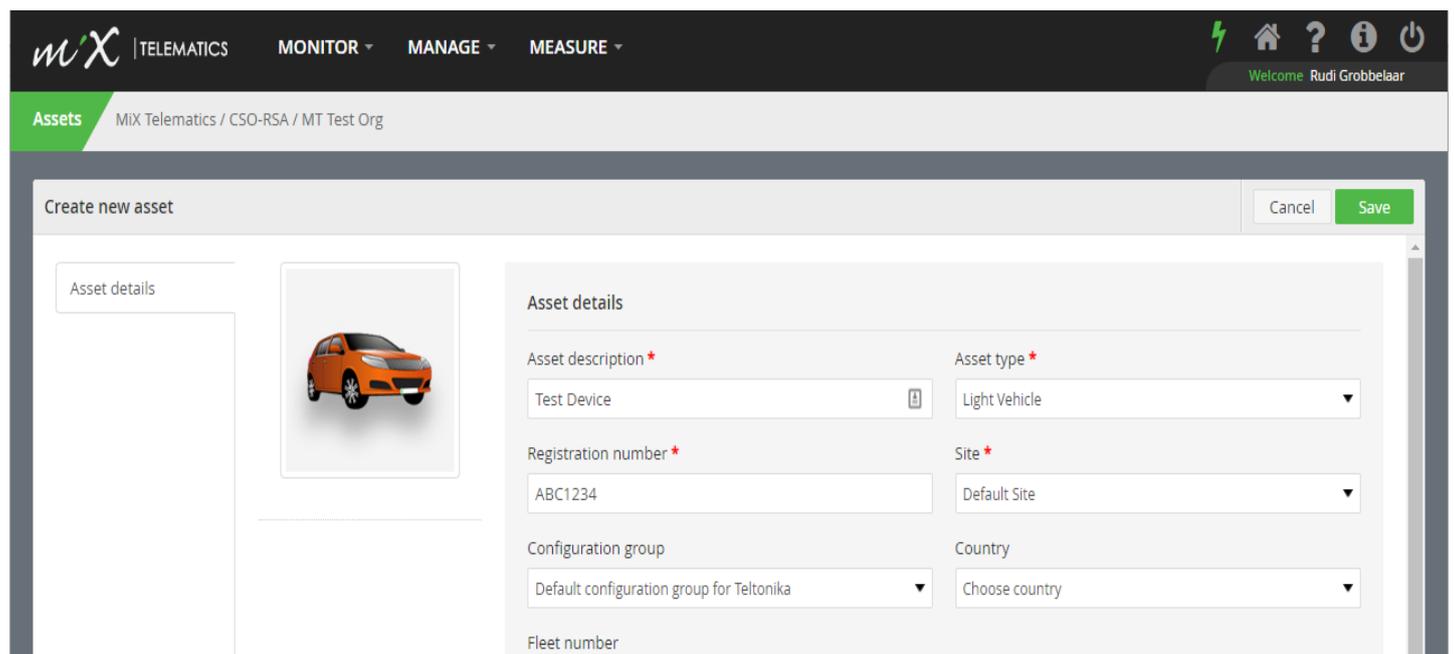
Once enabled a default configuration group called **“Default configuration group for Teltonika”** will be created with accompanying event template.



Event	Event type	
* Harsh Cornering	System	✖
* Input 1 High	System	✖
* Input 1 Low	System	✖
* Input 2 High	System	✖
* Input 2 Low	System	✖
Asset Towed	External	✖
Diagnostic trouble code	System	✖
Driver seatbelt not engaged	System	✖
End of trip fuel tank level percentage	System	✖
Engine coolant temperature high	System	✖
Engine light (MIL) on	System	✖
Engine Oil level low	System	✖
Excessive idle	External	✖
Harsh acceleration	System	✖
Harsh braking	System	✖
Impact Detect	External	✖
Jamming Detect	External	✖
Over revving	System	✖
Over speeding	System	✖
Passenger seatbelt not engaged	System	✖
Power Disconnect	External	✖
Power Reconnect	External	✖
Start of trip fuel tank level percentage	System	✖

## NAVIGATE TO MONITOR > FLEET ADMIN > ASSETS

Create a new Asset and assign to “Default configuration for Teltonika”



**Create new asset** [Cancel] [Save]

Asset details



**Asset details**

Asset description \*  
Test Device

Asset type \*  
Light Vehicle

Registration number \*  
ABC1234

Site \*  
Default Site

Configuration group  
Default configuration group for Teltonika

Country  
Choose country

Fleet number

## NAVIGATE TO MOBILE DEVICE SETTINGS

Add Teltonika IMEI to “Unique identifier” field and save.

The screenshot shows the 'Edit asset: Test Device (ABC1234)' page in the mX Telematics system. The page is divided into a left sidebar with navigation options like 'Asset details', 'Asset status', and 'Mobile device settings'. The main content area is titled 'Mobile device details' and shows a form for configuring a Teltonika mobile device. The 'Device type' is set to 'Teltonika'. The 'Unique identifier' field is empty and has a red border with a red error message 'This field is required' below it. There are buttons for 'Change mobile device' and 'Remove mobile device'.

## SMS COMMANDS

The Teltonika devices support changing settings via SMS commands.

### SUPPORTED SMS COMMAND AND THE FUNCTION

List of supported SMS commands that can be send to the unit.

COMMAND	DESCRIPTION/FUNCTION	RESPONSE
getinfo	Returns RTC time, GPS status, SAT	Yes
getver	Returns code version, device IMEI, modem app version, RTC time	Yes
getstatus	Returns Data Link:0 GPRS:0 Phone:0 SIM:0 OP:24602 Signal:5 NewSMS:0 Roaming:0 SMSFull:0 LAC:0 Cell ID:0	Yes
getgps	Returns GPS status, Satellite number, Latitude, Longitude, Altitude, Speed, Date, Time	Yes
ggps	Returns location information with Google maps link	Yes
readio	Returns IO status	Yes
cpureset	Resets device	No

getparam	Returns selected parameter value	Yes
setparam	Sets selected parameter value	Yes
flush	Redirects device to other server	Yes
countrecs	Returns record number	Yes
fc_reset	Resets fuel consumption parameters	Yes
towingreact	Towing reactivation	Yes
btgetlist	Returns requested Blue-tooth list(values:0, 1, 2)	Yes
btgscan	Starts Blue-tooth scan(values: none, 1)	Yes
btvisible	Sets Blue-tooth to visible with TMO	Yes
btrelease	Disconnects from current device and pauses auto connect functionality for TMO	Yes
btunpair	Unpair Blue-tooth device	Yes
faultcodes	Fault codes reading from OBD	Yes
obdinfo	Returns OBD info. Protocol, VIN, AdaptiveTiming value, requested PID counter, OBD application state, available vehicle PIDs, mil status, number of DTCs	Yes
cleardtc	Clears a dtc counter and deletes fault codes	Yes
getimeiccid	Returns IMEI of device and ICCID of sim card. Response is sent to SMS/GPRS sender and to number which is provided in SMS. If no number is provided -> response is sent only to sender)	Yes
getvin	Return VIN of the vehicle	Yes
getrecord	SMS command initiates saving and sending of high priority record	No
web_connect	Force connect to the FOTA server	Yes

## SENDING AN SMS TO THE UNIT

You first need to ensure that the SIM card can send and receive SMS's that are in the unit. When using Telenor for instance, you can only send SMS from another Telenor SIM card.

## THE SMS STRUCTURE

<SMS login><space><SMS password><space><command><space><value>

SMS Login and password are set on section 9.2

SMS command *getinfo* example:  = <space>

- If you have set SMS login and password: `mix 123` getinfo
- If SMS login and password are not set leave two spaces before command: getinfo

Example:



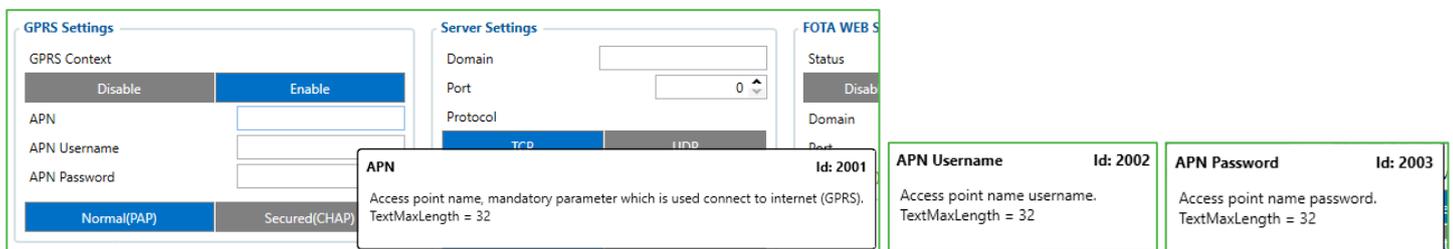
## SET PARAMETER

You have the ability to set any parameter (setting) of the unit via SMS command.

To obtain the parameter value, look on the configurator software and hover your mouse over the section you need and the ID will be displayed.

Example:

In configurator, when you have your mouse over the text field for APN you see pop-up message gives Id:2001 and for APN Username id:2002 and APN Password Id:2003



Text: `mix 123` setparam  2001:tlnr02.mixtel.cxn;2002:mix1;2003:mix2

The message will set the APN name (tlnr02.mixtel.cxn), Username(mix1) and Password(mix2).

SMS command of limited to 160 characters.

= <space>