

# FMBXXX FIRMWARE ERRATA

## V0.20

### 1) INTRODUCTION

---

We are always improving our devices performance, stability and reliability. That's why Teltonika is one of the leading GNSS trackers manufacturers in the world.

This document describes FMBXXX<sup>1</sup> devices firmware improvements, changes, new features implementations as well as current firmware release version.

Firmware version	Supported hardware
<b>01.00.XX</b>	FMB0YX, FMB9X0
<b>01.01.XX</b>	FMB0YX, FMB9X0, FMB96X
<b>01.03.XX</b>	FMB0YX, FMB9X0, FMB96X
<b>03.01.XX</b>	FMB0YX, FMB9X0, FMB96X, FMB1YX
<b>03.02.XX</b>	FMB0YX, FMB9X0, FMB96X, FMB1YX
<b>03.06.XX</b>	FMB0YX, FMB9X0, FMB96X, FMB1YX, FM30XY
<b>03.07.XX</b>	FMB0YX, FMB9X0, FMB96X, FMB1YX, FM30XY, FMB2YX

### 2) FIRMWARE VERSIONING

---

#### A) STRUCTURE

---

FMB.VER.[**XX**].[**YY**].[**ZZ**].Rev.[**##**].\_ID[**###**]

#### B) SYNTAX DESCRIPTION

---

**XX** – major FW version.

**YY** – branch number, shows major changes in firmware, i.e. new module support added or new major feature added.

**ZZ** – major changes like bigger fixes, improvements and new features addition.

**##** – minor changes like small fixes and improvements.

**ID[###]** – Spec ID KEY – Specific clients FW changes

---

<sup>1</sup> FMBXXX – FMB9, FMB96, FMB0, FMB1, FM30XY. Except FMB630.

Firmware Version	Release date	Changes
<b>03.07.07.Rev.00</b>	2018.04.05	<ul style="list-style-type: none"> <li>Improved simultaneous use of several Bluetooth connections</li> </ul>
<b>03.07.06.Rev.00</b> (recommended for FMB0, FMB9 and FMB1YX)	2018.03.19	<ul style="list-style-type: none"> <li>Fixed IO elements High/Low config parameters negative values saving</li> <li>Improved OBD communication</li> <li>Improved Outgoing Call trigger conditions</li> <li>Improved VIN reading</li> <li>Record saving optimization</li> <li>Improved iButton expire time calculation</li> </ul>
<b>03.07.01.Rev.00</b>	2018.03.02	<ul style="list-style-type: none"> <li>OBD pinout for FM3 improvement</li> <li>Improved data sending</li> <li>Improved FOTA WEB configuration sending</li> <li>Changed GPS state values reporting in SMS "getinfo" according documentation</li> <li>Improved Crash Detection</li> <li>Added GPRS OPEN timeout for FOTA WEB</li> <li>Improved UNLOCK key generation for keyword restoring</li> <li>LiPo battery charging optimization</li> <li><b>Added FMB2YX hardware support</b></li> </ul>
<b>03.06.04.Rev.00</b>	2018.02.12	<ul style="list-style-type: none"> <li>Improved record storing and sending algorithm</li> <li>Improved communication with accelerometer</li> <li>Improved firmware update handling with internal flash memory</li> </ul>
<b>03.06.01.Rev.00</b>	2018.01.29	<ul style="list-style-type: none"> <li><b>BLE functionality added</b></li> <li>Improved OBD request functionality</li> <li>Improved record search and sending scenario</li> <li>Fixed SD storage (used/total) info displaying</li> <li>Added OBD stuck protection</li> <li>Improved logging</li> <li>Improved movement detection in sleep modes</li> <li><b>Added SMS "getrecord" for High prio record generation</b></li> <li>Added fix for GPRS authentication pap/chap</li> <li><b>Added Ultra Deep Sleep functionality</b></li> <li>Improved LiPo charging algorithm</li> <li><b>Added support of FM30XY hardware</b></li> </ul>
<b>03.03.07.Rev.00</b>	2018.01.03	<ul style="list-style-type: none"> <li><b>New parameter for SMS event compositor: %gmap – provides Google Maps link in SMS event message</b></li> <li>Improvement for OBD data display in Configurator Status window</li> <li>Improved Ignition and Movement detection by CAN data (OBD/LVCAN)</li> <li>Improved iButton IO event generation after sleep mode</li> </ul>

		<ul style="list-style-type: none"> <li>• Fixed Trip odometer precision when counting mode is “Between records”</li> <li>• Fixed “setdigout” command usage on FMB9YX</li> </ul>
<b>03.03.06.Rev.00</b>	2018.01.03	<ul style="list-style-type: none"> <li>• Fixed GPS speed value.</li> </ul>
<b>03.03.03.Rev.00</b>	2017.12.05	<ul style="list-style-type: none"> <li>• Added iButton ID inversion to solve incompatibility with FMA</li> <li>• <b>Added additional iButton family ID’s</b></li> <li>• Improved backup server triggering if main server DNS request fails</li> <li>• Removed Ios generation in deep/online sleep for EcoScore, Dallas Temp/ID, iButton, RFID, LLS</li> <li>• Enabled GSM I/O’s in online sleep</li> <li>• <b>Added setdigout dependency on speed.</b> DOUT change is not executed while speed is too high.</li> <li>• GPS version string truncated in “getver” SMS response</li> <li>• Movement detection sensitivity decreased</li> <li>• Improvement in records manager to prevent records corruption</li> <li>• High priority events are not checking send period now</li> <li>• Towing IO reset on feature reactivation added</li> <li>• Fixed FOTA WEB issue when APN has login and password</li> <li>• <b>Major stability improvement patch!</b></li> <li>• Added immobilizer state restore on startup</li> <li>• SMS sending is now aborted after 3 unsuccessful attempts</li> <li>• <b>SMS events text composition added.</b> You can add additional parameters to SMS text</li> <li>• Improved HID RFID reading in FMB125</li> <li>• <b>Added Green Driving Duration IO element (AVL ID: 243)</b></li> <li>• Fixed SIM PIN change via Bluetooth</li> <li>• <b>RS232 buffered modes added</b></li> </ul>
<b>03.02.03.Rev.00</b>	2017.10.17	<ul style="list-style-type: none"> <li>• Updated GPS FW (Galileo satellites are used now too)</li> <li>• Auto calibration procedure improved</li> <li>• Added new LV-CAN200 parameters: CNG Status, CNG Used, CNG Level, OIL Level, Engine Temperature</li> <li>• Added “getimeiccid” SMS/GPRS command</li> <li>• IMEI packaging for UDP fixed</li> <li>• Crash Trace fixed</li> <li>• BTAPP application improvement</li> <li>• OBD PID data requesting when VIN unavailable fixed</li> <li>• Fake overspeeding events are now filtered out</li> <li>• Fixed BT name autogenerating if empty</li> <li>• Fixed records sending via UDP</li> <li>• Autoconnect to FotaWeb on power ON and after “cpureset” added</li> <li>• OBD protocol detection improvements</li> </ul>

		<ul style="list-style-type: none"> <li>• GNSS (used for records) data while device is in GPS sleep / deep sleep / online deep sleep fixed</li> <li>• Changed BT DEFAULT name autogeneration by device type</li> <li>• Improved SD present and mounted state detection</li> <li>• Removed check for AIN min value 500mV</li> <li>• Records sending by min saved records fix</li> </ul>
<b>03.01.04.Rev.00</b>	2017.09.06	<ul style="list-style-type: none"> <li>• New feature: NMEA via Bluetooth</li> <li>• New feature: Read records</li> <li>• New feature: iButton reading notification via DOUT.</li> <li>• New SMS/GPRS command: <i>getvin</i> (Returns vehicle VIN number. Aplicable for FMB001, or other FMB devices with connected OBDII dongle)</li> <li>• BTAPP protocol updated</li> <li>• Improvements in records sending (fixes increased traffic usage)</li> <li>• Improved configuration saving time</li> </ul>
<b>01.03.13.Rev.00</b>	2017.11.07	<ul style="list-style-type: none"> <li>• Improved overall device stability</li> <li>• Fixed Bluetooth Data Link.</li> <li>• Fixed Bluetooth name auto generating if empty.</li> <li>• Fixed Bluetooth clear all Paired device list from configurator.</li> <li>• Fixed records sending via UDP.</li> <li>• Fixed IMEI packaging for UDP.</li> <li>• Improved SMS login/pass validator. All characters are now allowed.</li> <li>• Added protection for OBD Odometer value reset.</li> <li>• Added protection for IMEI corruption.</li> <li>• Fixed bad records detector.</li> <li>• Added call functionality (when event detected) in Deep Sleep mode.</li> <li>• Restart protection fixed.</li> <li>• Improvements in SIM PIN setting.</li> <li>• Changed default FOTA WEB Domain.</li> <li>• Fixed OBD PID data requesting when VIN unavailable.</li> <li>• OBD protocol detection improvements.</li> <li>• Modem power ON improvements.</li> <li>• NTP improvements.</li> <li>• Added "getimeiccid" SMS/GPRS command.</li> <li>• SMS/GPRS command "sdformat" improvements.</li> <li>• SMS Login/Pass validator improvements.</li> <li>• Removed check for AIN min value 500mV.</li> <li>• Added additional IO High/Low level setter by ParamID.</li> <li>• Fixed SMS processing state check in modem SLEEP mode setter.</li> <li>• FOTA functionality improvement.</li> </ul>

		<ul style="list-style-type: none"> <li>• Added protections by GSM number and text length.</li> <li>• IO event External Voltage DeltaChange improvements.</li> <li>• Fixed issues with double records, bad records, record search.</li> <li>• Fixed microSD to RAM switching for records saving.</li> <li>• Added retries for unsuccessful outgoing call.</li> </ul>
<b>01.03.11.Rev.00</b>	2017.10.19	<ul style="list-style-type: none"> <li>• Fixed Crash detection functionality.</li> <li>• Battery charging improvement.</li> <li>• Record sending via UDP fixed.</li> <li>• Record sending in DeepSleep improvement.</li> <li>• FOTA WEB functionality improvement.</li> <li>• Added protection for IMEI corruption.</li> </ul>
<b>01.03.03.Rev.00</b>	2017.07.24	<ul style="list-style-type: none"> <li>• Added FOTA WEB functionality</li> <li>• Optimization of power consumption in sleep modes</li> <li>• GNSS IO Text "GNSSpower" changed to "GNSSStatus"</li> <li>• Added zero filling the ibutton values</li> <li>• Enabled IOs GNSS, Total Odometer in dsleep mode</li> <li>• Improved getio SMS response for FMB125</li> <li>• Added CCID validity check before PIN registration</li> <li>• Minimized power consumptions in sleep modes</li> <li>• Added SD card check before it's usage</li> <li>• Changed excessive idling default/max values</li> <li>• DUAL SIM functionality implementation</li> <li>• PIN Entering to second SIM improvement</li> <li>• SMS/GPRS getgps command improvement</li> <li>• Operator Black list implementation</li> </ul>
<b>01.00.32.Rev.00</b>	2017.07.10	<ul style="list-style-type: none"> <li>• Authorized GSM numbers list increased to 200</li> <li>• Unplug feature improvement</li> <li>• SMS command 'sdformat' – deletes all internal memory</li> <li>• SMS command 'deleterecords' – deletes Avl records from memory</li> <li>• Faster GPS FIX after leaving sleep mode</li> <li>• 'odomet' SMS command fixed</li> <li>• Excessive Idling functionality improvement</li> <li>• DOUT state is restored on startup</li> <li>• Towing activation timeout max value increased</li> <li>• Averaging now works in Deep Sleep mode too</li> <li>• Minor OBD improvements</li> <li>• Bluetooth pairing improvements</li> <li>• FMB962/FMB964 hardware support added</li> <li>• Records sending when link is open fixed</li> </ul>
<b>01.00.30.Rev.05</b>	2017.05.26	<ul style="list-style-type: none"> <li>• Added 5 geozones functionality</li> </ul>

		<ul style="list-style-type: none"> <li>• IO elements ICCID and SD Status are added</li> <li>• Added Keyword functionality</li> <li>• Crash detection improvement, now it detects consecutive events</li> <li>• Towing Detection improvement</li> <li>• Unplug detection improvement</li> <li>• GPRS connection stability improvement</li> <li>• Improved Unplug detection – now detects “plug” events too</li> <li>• Data sending without microSD card</li> <li>• getgps SMS commands format fixed</li> <li>• Default configuration changed – allow sending in roaming and unknown modes</li> </ul>
<b>01.00.22.Rev.12</b>	2017.04.13	<ul style="list-style-type: none"> <li>• Improved connection to GSM operators</li> </ul>
<b>01.00.22.Rev.11</b>	2017.04.07	<ul style="list-style-type: none"> <li>• Improved LiPo battery charger state interpretation</li> </ul>
<b>01.00.22.Rev.09</b>	2017.03.28	<ul style="list-style-type: none"> <li>• Updated GPS firmware version</li> <li>• Hardware detection improvement</li> </ul>
<b>01.00.22.Rev.06</b>	2017.03.14	<ul style="list-style-type: none"> <li>• Corrected “Green driving” values: “m/s<sup>2</sup>” conversion to “g”</li> <li>• SIM PIN entering fixed.</li> <li>• SMS Reading improved. Don't go to DeepSleep if there are SMS to read in memory.</li> <li>• GPS Fuel Counter fix.</li> <li>• Jamming detection improvement.</li> <li>• AutoGeofence functionality improvement.</li> <li>• Entering to DeepSleep fixed</li> <li>• IO elements “event only” parameter fix</li> <li>• Improvement in connection to GSM operator</li> <li>• Added SD card drive capacity parameter to Status window</li> <li>• Added BeiDou satellite numbers</li> <li>• Trip odometer I/O calculation improvement.</li> </ul>
<b>01.00.19.Rev.02</b>	2017.01.18	<ul style="list-style-type: none"> <li>• OBD data, VIN, DTC error count reading, DTC PID's requests, DTC delete via Bluetooth</li> <li>• Fixed GPS no fix lock-up</li> </ul>
<b>01.00.17.Rev.03</b>	2017.01.06	<ul style="list-style-type: none"> <li>• Bluetooth Voice call added</li> </ul>
<b>01.00.15.Rev.00</b>	2016.11.23	<ul style="list-style-type: none"> <li>• Accelerometer axis values XYZ as IO elements</li> <li>• Configuration send/save over Bluetooth</li> <li>• NTP+NITZ Time synchronization</li> <li>• EcoDriving auto calibration</li> </ul>