

FMBXXX FIRMWARE ERRATA

V0.24

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 FMBXXX¹ devices firmware improvements, changes, new features implementations as well as current firmware release version.

Firmware version	Supported hardware
01.00.XX	FMB0YX, FMB9X0
01.01.XX	FMB0YX, FMB9X0, FMB96X
01.03.XX	FMB0YX, FMB9X0, FMB96X
03.01.XX	FMB0YX, FMB9X0, FMB96X, FMB1YX
03.02.XX	FMB0YX, FMB9X0, FMB96X, FMB1YX
03.06.XX	FMB0YX, FMB9X0, FMB96X, FMB1YX, FM30XY
03.07.XX	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

¹ FMBXXX – FMB9, FMB96, FMB0, FMB1, FMB2, FM30XY. Except FMB630.

Firmware Version	Release date	Changes
03.10.08.Rev.00 (recommended for FMB1YX)	2018.06.25	<ul style="list-style-type: none"> • Fixed FOTA WEB hardware detection • Improved SMS/GPRS command "setdigout" with speed parameter according to documentation (do not trigger DOUTx if GNSS FIX unavailable) • Added ELD VIN number validation • Fixed OBD and LVCAN IO current value showing in configurator • Fixed record sending if mode was changed and send period "0" • Added FMB125 BLE DualSIM HW support
03.10.03.Rev.00 (recommended for FM30XY, FMB96, FMB2, FMB0 and FMB9)	2018.05.31	<ul style="list-style-type: none"> • Added TZ-BT05B sensor support • Improved BLE scanning • Improved data sending scenario • Fixed configuration loading after download via FOTA WEB issue • Improved DOUT functionality • Added CAN-CONTROL support • Changed LVCAN Engine Temperature and LVCAN Fuel Level value coefficient (according IO protocol) • Added new SMS/GPRS command "getimsi" for IMSI number reading • Added ELD functionality • DNS support improvement • Stability improvements
03.09.01.Rev.00	2018.04.30	<ul style="list-style-type: none"> • Improved FOTA WEB functionality • Improved odometer value calculating from LVCAN (km->m) • Improved 1-wire operation with long wires • Improved Bluetooth functionality • Improved OBD data reading
03.08.05.Rev.00	2018.04.18	<ul style="list-style-type: none"> • Improved Static Navigation filter • Improved Crash Detection scenario • Improved device connection to configurator after FW update • Updated LVCAN protocol to support 4 and 5 digits numbers • BT functionality optimization
03.07.07.Rev.00	2018.04.05	<ul style="list-style-type: none"> • Improved simultaneous use of several Bluetooth connections
03.07.06.Rev.00	2018.03.19	<ul style="list-style-type: none"> • Fixed IO elements High/Low config parameters negative values saving • Improved OBD communication • Improved Outgoing Call trigger conditions • Improved VIN reading • Record saving optimization • Improved iButton expire time calculation

<p>03.07.01.Rev.00</p>	<p>2018.03.02</p>	<ul style="list-style-type: none"> • OBD pinout for FM3 improvement • Improved data sending • Improved FOTA WEB configuration sending • Changed GPS state values reporting in SMS "getinfo" according documentation • Improved Crash Detection • Added GPRS OPEN timeout for FOTA WEB • Improved UNLOCK key generation for keyword restoring • LiPo battery charging optimization • Added FMB2YX hardware support
<p>03.06.04.Rev.00</p>	<p>2018.02.12</p>	<ul style="list-style-type: none"> • Improved record storing and sending algorithm • Improved communication with accelerometer • Improved firmware update handling with internal flash memory
<p>03.06.01.Rev.00</p>	<p>2018.01.29</p>	<ul style="list-style-type: none"> • BLE functionality added • Improved OBD request functionality • Improved record search and sending scenario • Fixed SD storage (used/total) info displaying • Added OBD stuck protection • Improved logging • Improved movement detection in sleep modes • Added SMS "getrecord" for High prio record generation • Added fix for GPRS authentication pap/chap • Added Ultra Deep Sleep functionality • Improved LiPo charging algorithm • Added support of FM30XY hardware
<p>03.03.07.Rev.00</p>	<p>2018.01.03</p>	<ul style="list-style-type: none"> • New parameter for SMS event compositor: %gmap – provides Google Maps link in SMS event message • Improvement for OBD data display in Configurator Status window • Improved Ignition and Movement detection by CAN data (OBD/LVCAN) • Improved iButton IO event generation after sleep mode • Fixed Trip odometer precision when counting mode is "Between records" • Fixed "setdigout" command usage on FMB9YX
<p>03.03.06.Rev.00</p>	<p>2018.01.03</p>	<ul style="list-style-type: none"> • Fixed GPS speed value.
<p>03.03.03.Rev.00</p>	<p>2017.12.05</p>	<ul style="list-style-type: none"> • Added iButton ID inversion to solve incompatibility with FMA • Added additional iButton family ID's • Improved backup server triggering if main server DNS request fails • Removed los generation in deep/online sleep for EcoScore, Dallas Temp/ID, iButton, RFID, LLS • Enabled GSM I/O's in online sleep

		<ul style="list-style-type: none"> • Added setdigout dependency on speed. DOUT change is not executed while speed is too high. • GPS version string truncated in “getver” SMS response • Movement detection sensitivity decreased • Improvement in records manager to prevent records corruption • High priority events are not checking send period now • Towing IO reset on feature reactivation added • Fixed FOTA WEB issue when APN has login and password • Major stability improvement patch! • Added immobilizer state restore on startup • SMS sending is now aborted after 3 unsuccessful attempts • SMS events text composition added. You can add additional parameters to SMS text • Improved HID RFID reading in FMB125 • Added Green Driving Duration IO element (AVL ID: 243) • Fixed SIM PIN change via Bluetooth • RS232 buffered modes added
03.02.03.Rev.00	2017.10.17	<ul style="list-style-type: none"> • Updated GPS FW (Galileo satellites are used now too) • Auto calibration procedure improved • Added new LV-CAN200 parameters: CNG Status, CNG Used, CNG Level, OIL Level, Engine Temperature • Added “gettimeiccid” SMS/GPRS command • IMEI packaging for UDP fixed • Crash Trace fixed • BTAPP application improvement • OBD PID data requesting when VIN unavailable fixed • Fake overspeeding events are now filtered out • Fixed BT name autogenerating if empty • Fixed records sending via UDP • Autoconnect to FotaWeb on power ON and after “cpureset” added • OBD protocol detection improvements • GNSS (used for records) data while device is in GPS sleep / deep sleep / online deep sleep fixed • Changed BT DEFAULT name autogeneration by device type • Improved SD present and mounted state detection • Removed check for AIN min value 500mV • Records sending by min saved records fix
03.01.04.Rev.00	2017.09.06	<ul style="list-style-type: none"> • New feature: NMEA via Bluetooth • New feature: Read records • New feature: iButton reading notification via DOUT. • New SMS/GPRS command: <i>getvin</i> (Returns vehicle VIN number. Applicable for FMB001, or other FMB devices with connected OBDII

		<p>dongle)</p> <ul style="list-style-type: none"> • BTAPP protocol updated • Improvements in records sending (fixes increased traffic usage) • Improved configuration saving time
01.03.13.Rev.00	2017.11.07	<ul style="list-style-type: none"> • Improved overall device stability • Fixed Bluetooth Data Link. • Fixed Bluetooth name auto generating if empty. • Fixed Bluetooth clear all Paired device list from configurator. • Fixed records sending via UDP. • Fixed IMEI packaging for UDP. • Improved SMS login/pass validator. All characters are now allowed. • Added protection for OBD Odometer value reset. • Added protection for IMEI corruption. • Fixed bad records detector. • Added call functionality (when event detected) in Deep Sleep mode. • Restart protection fixed. • Improvements in SIM PIN setting. • Changed default FOTA WEB Domain. • Fixed OBD PID data requesting when VIN unavailable. • OBD protocol detection improvements. • Modem power ON improvements. • NTP improvements. • Added "getimeiccid" SMS/GPRS command. • SMS/GPRS command "sdformat" improvements. • SMS Login/Pass validator improvements. • Removed check for AIN min value 500mV. • Added additional IO High/Low level setter by ParamID. • Fixed SMS processing state check in modem SLEEP mode setter. • FOTA functionality improvement. • Added protections by GSM number and text length. • IO event External Voltage DeltaChange improvements. • Fixed issues with double records, bad records, record search. • Fixed microSD to RAM switching for records saving. • Added retries for unsuccessful outgoing call.
01.03.11.Rev.00	2017.10.19	<ul style="list-style-type: none"> • Fixed Crash detection functionality. • Battery charging improvement. • Record sending via UDP fixed. • Record sending in DeepSleep improvement. • FOTA WEB functionality improvement. • Added protection for IMEI corruption.

<p>01.03.03.Rev.00</p>	<p>2017.07.24</p>	<ul style="list-style-type: none"> • Added FOTA WEB functionality • Optimization of power consumption in sleep modes • GNSS IO Text "GNSSpower" changed to "GNSSstatus" • Added zero filling the ibutton values • Enabled IOs GNSS, Total Odometer in dsleep mode • Improved getio SMS response for FMB125 • Added CCID validity check before PIN registration • Minimized power consumptions in sleep modes • Added SD card check before it's usage • Changed excessive idling default/max values • DUAL SIM functionality implementation • PIN Entering to second SIM improvement • SMS/GPRS getgps command improvement • Added dual server support • Operator Black list implementation
<p>01.00.32.Rev.00</p>	<p>2017.07.10</p>	<ul style="list-style-type: none"> • Authorized GSM numbers list increased to 200 • Unplug feature improvement • SMS command 'sdformat' – deletes all internal memory • SMS command 'deleterecords' – deletes Avl records from memory • Faster GPS FIX after leaving sleep mode • 'odoset' SMS command fixed • Excessive Idling functionality improvement • DOUT state is restored on startup • Towing activation timeout max value increased • Averaging now works in Deep Sleep mode too • Minor OBD improvements • Bluetooth pairing improvements • FMB962/FMB964 hardware support added • Records sending when link is open fixed
<p>01.00.30.Rev.05</p>	<p>2017.05.26</p>	<ul style="list-style-type: none"> • Added 5 geozones functionality • IO elements ICCID and SD Status are added • Added Keyword functionality • Crash detection improvement, now it detects consecutive events • Towing Detection improvement • Unplug detection improvement • GPRS connection stability improvement • Improved Unplug detection – now detects "plug" events too • Data sending without microSD card • getgps SMS commands format fixed • Default configuration changed – allow sending in roaming and

		unknown modes
01.00.22.Rev.12	2017.04.13	<ul style="list-style-type: none"> Improved connection to GSM operators
01.00.22.Rev.11	2017.04.07	<ul style="list-style-type: none"> Improved LiPo battery charger state interpretation
01.00.22.Rev.09	2017.03.28	<ul style="list-style-type: none"> Updated GPS firmware version Hardware detection improvement
01.00.22.Rev.06	2017.03.14	<ul style="list-style-type: none"> Corrected "Green driving" values: "m/s²" conversion to "g" SIM PIN entering fixed. SMS Reading improved. Don't go to DeepSleep if there are SMS to read in memory. GPS Fuel Counter fix. Jamming detection improvement. AutoGeofence functionality improvement. Entering to DeepSleep fixed IO elements "event only" parameter fix Improvement in connection to GSM operator Added SD card drive capacity parameter to Status window Added BeiDou satellite numbers Trip odometer I/O calculation improvement.
01.00.19.Rev.02	2017.01.18	<ul style="list-style-type: none"> OBd data, VIN, DTC error count reading, DTC PID's requests, DTC delete via Bluetooth Fixed GPS no fix lock-up
01.00.17.Rev.03	2017.01.06	<ul style="list-style-type: none"> Bluetooth Voice call added
01.00.15.Rev.00	2016.11.23	<ul style="list-style-type: none"> Accelerometer axis values XYZ as IO elements Configuration send/save over Bluetooth NTP+NITZ Time synchronization EcoDriving auto calibration