



## Pairing with Teltonika Devices

# Summary

- This guide is prepared by using Teltonika FMB920. Use this **link** to download the ready to use config file for FMB920
- There may be a delay on alerts (such as 30 sec) due to GPS Tracking Device and GSM capabilities
- Trak Smart Fuel Caps manufactured in 2022 or later are capable to pair with Teltonika Devices
- Trak Smart Fuel Cap uses Property ID 331 of Teltonika. Check **Teltonika Data Sending Parameters** from the link
- This guide is compatible with all other Teltonika GPS Tracking devices which has Bluetooth feature.
- Be sure of that your Teltonika has set **Data Protocol** to **Codec 8 Extended**

## BLE Sensors I/O elements [\[ edit \]](#) [\[ edit source \]](#)

Property ID In AVL Packet	Property Name	Bytes	Type	Value Range		Multiplier	Units	Description	HW Support	Parameter Group
				Min	Max					
331	BLE 1 Custom #1	Variable	HEX	0	-	-	-	Custom IO element for BLE sensor	FMBXXX [Expand]	Bluetooth Low Energy

# Bluetooth Settings

TELTONIKA

Load from device | Save to device | Update firmware | Reset configuration | FMB920 | IMEI: 352625692669326 | FW: 03.25.18 Rev:05 | Configuration: 6.4.1.0

Load from file | Save to file | Read records | Reboot device

Connection #1

Mode: Working mode (Disabled | TZ-BT04/05/05B sensor | Advanced)

Settings: MAC: DB1030531451

1st Sensor

Type	Data Offset	Data Size	Action	IO	Match	Endianness	Multiplier	Offset
ff	3	1	Match	None	5A	Little Endian	1	
ff	4	1	Save	Battery		Little Endian	1	
ff	5	1	Save	Temperature		Little Endian	1	
ff	6	2	Save	Custom		Little Endian	1	
	0	0	Match	None		Little Endian	1	
	0	0	Match	None		Little Endian	1	
	0	0	Match	None		Little Endian	1	
	0	0	Match	None		Little Endian	1	
	0	0	Match	None		Little Endian	1	
	0	0	Match	None		Little Endian	1	
	0	0	Match	None		Little Endian	1	

Connection #2

Enter the MAC ID of Trak Smart Fuel Cap here

Add the following parameters

# I/O Setting

Teltonika Configurator 1.7.22 8.3.27 R.21

TELTONIKA

Load from device Save to device Update firmware Reset configuration

Load from file Save to file Read records Reboot device

FMB920 IMEI: 352625692669326 FW 03.25.18 Rev:05 Configuration 6.4.1.0

Status Security System GPRS Data Acquisition SMS \ Call Settings GSM Operators Features Accelerometer Features Auto Geofence Manual Geofence Trip \ Odometer Bluetooth Bluetooth 4.0 Beacon List **I/O** OB2 II

Input Name	Current Value	Units	Priority	Low Level	High Level	Event Only	Operand	Avg Const
Eco Score	1000		None Low High Panic	0	0	Crash Yes No	Monitoring	
User ID	0x0000000000000000		None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Temperature #1	27	°C	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Temperature #2	0	°C	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Temperature #3	0	°C	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Temperature #4	0	°C	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Battery #1	42	%	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Battery #2	0	%	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Battery #3	0	%	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Battery #4	0	%	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Humidity #1	3000	%RH	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Humidity #2	0	%RH	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Humidity #3	0	%RH	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE Humidity #4	0	%RH	None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE 1 Custom 1	sl		None Low High Panic	0	0	Crash Yes No	On Change	
BLE 2 Custom 1			None Low High Panic	0	0	Crash Yes No	Monitoring	
BLE 3 Custom 1			None Low High Panic	0	0	Crash Yes No	Monitoring	

Make the settings as shown here;

Priority : High  
Operand: On Change

# Monitoring

The screenshot displays the Teltonika Configurator 1.7.22 B.3.27 R.21 interface. The left sidebar contains a menu with 'Status' highlighted. The main area shows 'Device Info' and 'I/O Data' sections. The 'I/O Data' section is divided into a grid of sensors and custom data points. A red box highlights the 'BLE 1 Custom 1' field, which contains the value 'r'. A red arrow points from the 'Status' menu item to the 'I/O Data' section, and another red arrow points from the 'BLE 1 Custom 1' field to the explanatory text on the right.

Device Info				
Device Name	Last Start Time	Power Voltage	Ext Storage (used/total)	Battery Voltage
FMB920	12/29/2021 11:43:10 AM	13253 mV.	9 / 122 MB <a href="#">Format</a>	3980 mV.
Firmware Version	RTC Time	Device IMEI	Device Uptime	Internal Battery Status
03.25.18 Rev:05	1/1/2022 5:17:13 PM	352625692669326	3:05:34:02	Not Charging 87%

  

I/O Data		
User ID	BLE Temperature #1	BLE Temperature #2
0x0000000000000000	28 °C	0 °C
BLE Temperature #3	BLE Temperature #4	BLE Battery #1
0 °C	0 °C	83 %
BLE Battery #2	BLE Battery #3	BLE Battery #4
0 %	0 %	0 %
BLE Humidity #1	BLE Humidity #2	BLE Humidity #3
3000 %RH	0 %RH	0 %RH
BLE Humidity #4	BLE 1 Custom 1	BLE 2 Custom 1
0 %RH	r	
BLE 3 Custom 1	BLE 4 Custom 1	BLE Fuel Level #1
		0 kvants
BLE Fuel Level #2	BLE Fuel Level #3	BLE Fuel Level #4
0 kvants	0 kvants	0 kvants

Cap Status can be seen here

r: Upper Cap Rotates (Rotatesense®)  
s: Upper Cap Stationary

u: Cap is Open  
l: Cap is Closed

# Monitoring and Alerts

#	Status	Hexadec.	Decimal	String
1	Normal Position (Cap is closed, and there is no tampering)	736c	29548	sl
2	Tamper Detection (Cap is closed, and someone is tampering the cap)(Rotatesense)	726c	29292	rl
3	Cap Open (Cap is opened, and there is no tampering)	7375	29557	su
4	Cap Open (Cap is opened, and someone is tampering the cap)(Rotatesense)	7275	29301	ru

to receive **tampering** alerts, be sure your Smart Fuel Cap has Rotatesense feature

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# Thank you!

Please contact us  
for more information

[www.trakfuel.com](http://www.trakfuel.com)