



FTC164

Next-generation LTE CAT1 tracker with flexible inputs and enhanced GNSS accuracy

Quick Manual v1.3 | 2026-03-31



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GLOSSARY

CEP – Circular Error Probable: a statistical measure used to describe the accuracy of a positioning system, commonly used in the context of GNSS. CEP represents the radius of a circle, centered on the true position, within which a given percentage (usually 50%) of the measured positions are expected to fall.

COM port – Serial communication interface that is used to transfer information to/from devices such as modems, terminals and various peripherals.

COLD start – A COLD start occurs when the GNSS receiver lacks all the necessary information for a position fix, requiring it to start from scratch. This means it needs to acquire and decode the almanac and ephemeris data from the satellites, determine the satellite positions, and calculate its position.

FOTA – Firmware-Over-The-Air.

HOT start – A HOT start occurs when the GNSS receiver has all the necessary information to calculate a position fix readily available. This includes the almanac and ephemeris data, the approximate time, and its last known position.

IMEI – International Mobile Equipment Identity: a unique numeric identifier used by networks to identify devices.

NITZ – Network Identity and Time Zone: a mechanism in GSM, used to provision time, date and other parameters to mobile devices in a network.

NTP – Network Time Protocol: a networking protocol for clock synchronization between computer systems.

SELV – Safety Extra Low Voltage: an electrical system in which the voltage cannot exceed 50 VAC or 120 VDC under normal conditions, and under single-fault conditions, including earth faults in other circuits.

Record – AVL data stored in device memory. AVL data contains GNSS and I/O information.

WARM start – A WARM start occurs when the GNSS receiver has some, but not all, of the necessary information for a position fix. It might have valid almanac data but needs to download new ephemeris data or doesn't have an accurate estimate of its current time or position.

i SIM card should be inserted in the module while the connector is plugged off (while module has no power).



SAFETY INFORMATION

This section contains information on how to operate FTC164 safely. By following these requirements and recommendations, you will avoid dangerous situations. You must read these instructions carefully before operating the device and follow them strictly!

SIGNALS AND SYMBOLS

Warnings and cautions which are general to the use of the device under all circumstances are included in this section. Some warnings and cautions are also inserted within the manual where they are most meaningful.



CAUTION! Cautions alert users to exercise appropriate care for safe and effective use of the product.



WARNING! This classifies a hazard of medium risk level. Failure to comply with the warning may result in serious injury.



Please note: Notes provide additional guidelines or information.

- The device uses a 8 V...32 V DC power supply. The nominal voltage is 12 V DC. The allowed range of voltage is 8 V...32 V DC.



CAUTION: Using a power supply outside this range may result in damage to the device or minor injuries. Always verify the power source before connection.

- To avoid mechanical damage, it is advised to transport the device in an impact-proof package. Before usage, the device should be placed so that its LED indicators are visible. They show the status of device operation.
- Before unmounting the device from vehicle, ignition **MUST** be OFF.



WARNING: Do not disassemble the device. If the device is damaged, the power supply cables are not isolated or the isolation is damaged, **DO NOT** touch the device before unplugging the power supply.



All wireless data transferring devices produce interference that may affect other devices which are placed nearby.



The device must be connected only by qualified personnel.



The device must be firmly fastened in a predefined location.



The programming must be performed using a PC with autonomic power supply.



Installation and/or handling during a lightning storm is prohibited.



The device is susceptible to water and humidity.



WARNING: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.



Battery should not be disposed of with general household waste. Bring damaged or worn-out batteries to your local recycling center or dispose them to battery recycle bin found in stores.



This sign on the package means that all used electronic and electric equipment should not be mixed with general household waste.

DATA SAFETY AND PRIVACY

In accordance with the General Data Protection Regulation (GDPR), this Data Processing Agreement (DPA) establishes obligations between Teltonika, the data processor, and its customers, acting as data controllers. The DPA outlines how Teltonika will handle customer data while adhering to GDPR regulations. This includes details on the data Teltonika can process, security measures in place, and customer rights concerning their data.

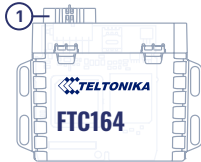
For a comprehensive understanding of the agreement, including permitted sub-processors, data breach procedures, and dispute resolution, please refer to the full Data Processing Agreement:

teltonika-gps.com/about-us/policies-certificates/data-processing-agreement



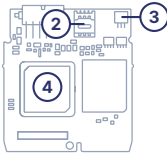
KNOW YOUR DEVICE

Top view



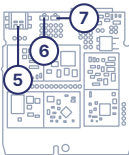
1. 2×6 socket

Top view (without cover)



2. SIM slot
3. Battery connector
4. GNSS Antenna

Bottom view (without cover)



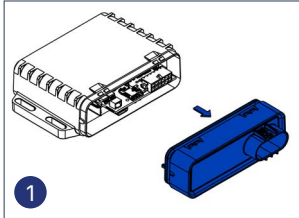
5. USB Type-C connector
6. Status led
7. Navigate LED

STANDARD PACKAGE CONTAINS

- 1 pcs. of FTC164 trackers
- 1 pcs. of Input/Output power supply cables (0.9 m)
- Packaging box with Teltonika branding

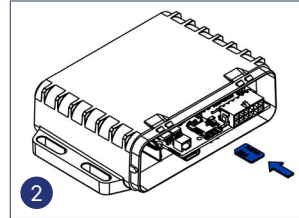


SET UP YOUR DEVICE



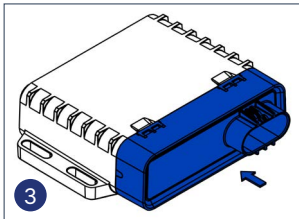
1. Remove top cover

You will receive your device partially closed, with the internal battery already connected. Remove the top casing



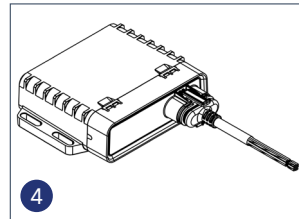
2. Insert SIM card

Insert SIM card as shown



3. Insert top casing

Insert the top casing as shown



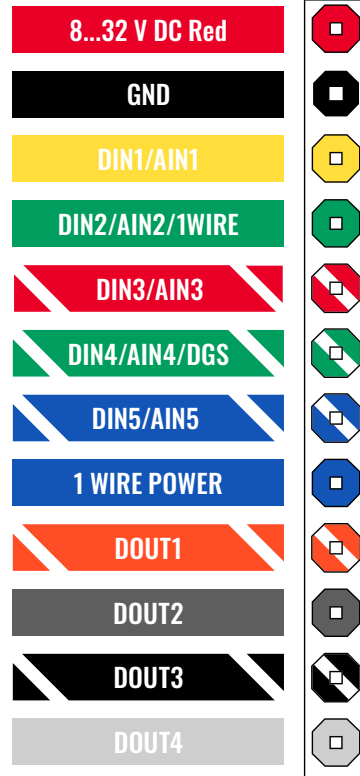
4. Device is ready

the cable as shown. The device is ready to be mounted



PINOUT

Pin number	Pin name	Description
1	VCC	(Red) Power supply (+8-32 V DC) (+).
2	DOUT3	(Grey) Digital output channel 3.
3	DIN3/AIN3	(White) Digital input channel 3 / Analog input channel 3.
4	DIN4/AIN4/ DGS	(White/Green) Digital input channel 4 / Ground sense / Analog input channel 4.
5	DIN1/AIN1	(Yellow) Digital input 1 / Analog input 1.
6	INPUT6	(White/Blue) TX EXT (LV CAN – TX).
7	GND	(Black) Ground (-).
8	DOUT1	(White/Orange) Digital output channel 1.
9	DOUT2	(Purple) Digital output channel 2.
10	1WIRE POWER	(Blue) +3.8 V output for 1-Wire devices.
11	DIN2/ AIN2/1WIRE DATA	(Green) Digital input channel 2 / Analog input 2 / Data for 1-Wire devices.
12	INPUT 5	(White/Yellow) RX EXT (LV CAN – RX).





PC CONNECTION (WINDOWS)

1. Power-up FTC164 with **DC voltage (8-32V)** power supply using **power wires**. LEDs should start blinking.
2. Connect device to computer using Micro-USB cable
3. Install USB driver, see "How to install USB drivers (Windows)"

HOW TO INSTALL USB DRIVERS (WINDOWS)

1. Download COM port drivers from here¹.
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.

¹ wiki.teltonika-gps.com/images/d/d0/TeltonikaCOMDriver.zip



QUICK SMS CONFIGURATION

The default configuration ensures best track quality and optimal 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»
```

1 2 3 4 5 6 7

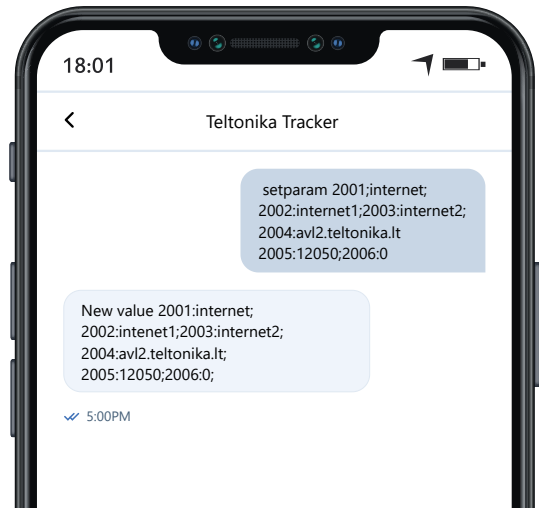
- 1 Before SMS text, one space symbol should be inserted. This space is dedicated for device SMS password.

GPRS SETTINGS:

- 2 **2001** – APN
- 3 **2002** – APN username (leave field empty if there is no APN username)
- 4 **2003** – APN password (if there are no APN password, empty field should be left)

SERVER SETTINGS:

- 5 **2004** – Domain
- 6 **2005** – Port
- 7 **2006** – Data sending protocol (0 – TCP, 1 – UDP)





DEFAULT CONFIGURATION SETTINGS

MOVEMENT AND IGNITION DETECTION:



Vehicle movement will be detected by accelerometer



Ignition will be detected by vehicle power voltage between 13.2 – 30 V

DEVICE MAKES A RECORD ON MOVING IF ONE OF THESE EVENTS HAPPEN:



Every 300 seconds



Vehicle drives 100 meters



Vehicle turns 10 degrees



Speed difference between last coordinate and current position is greater than 10 km/h

DEVICE MAKES A RECORD ON STOP IF:



1 hour passes while vehicle is stationary and ignition is off



RECORDS SENDING TO SERVER:
Every 120 seconds, records are sent to the server (if device has made a record)

After successful SMS configuration, FTC164 device will synchronize time and update records to configured server. Time intervals and default I/O elements can be changed by using [TCT⁴](#) or [SMS parameters⁵](#).

⁴ wiki.teltonika-gps.com/view/FTC164_Configuration

⁵ wiki.teltonika-gps.com/view/Template:FMB_Device_Family_Parameter_list



MOUNTING RECOMMENDATIONS

CONNECTING WIRES

- Wires should be fastened to stable wires or other non-moving parts. Any heat emitting and/or moving objects should be kept away from the wires.
- There should be no exposed wires. If factory isolation was removed while connecting wires, the isolation material should be applied.
- If the wires are placed in the exterior or in places where they can be damaged or exposed to heat, humidity, dirt, etc., additional isolation should be applied and the wires should not be loose.
- Wires cannot be connected to the board computers or control units.

CONNECTING POWER SOURCE

- Be sure that after the car computer goes to sleep mode, power might be still available on the power wires. Depending on car, this may happen in 5 to 30 minutes period.
- When module is connected, measure voltage again to make sure it did not decrease.
- It is recommended to connect to the main power cable in the fuse box.
- 3 A, 125 V external fuse shall be used.

CONNECTING GROUND WIRE

- Ground wire is connected to the vehicle frame or metal parts that are fixed to the frame.
- If the wire is fixed with the bolt, the loop must be connected to the end of the wire.



TROUBLESHOOTING

Troubleshooting section provides guidance to resolve frequently encountered issues during the setup and operational phases of the FTC164 device.

COMMON ISSUES AND SOLUTIONS (FAQ)

Problem	Solution
The device does not turn on when connected to power.	<ol style="list-style-type: none">1. Ensure the input voltage range is within 8 – 32 V DC.2. Avoid overvoltage and ensure that the device is mounted and connected according to mounting recommendations.
Inability to receive GPS signals.	<ol style="list-style-type: none">1. Ensure that the device is mounted correct side up with antennas facing up.2. Check if device is not obstructed by metallic surfaces or other thick materials.

FREQUENTLY USED SMS/GPRS COMMANDS

Command	Description	Response sent on success?	Response sent on failure?
cpureset	Restarts the device	No	Yes
getstatus	Returns status of the device	Yes	Yes
allver	Returns information about device firmware and hardware	Yes	No
web_connect	Triggers FOTA service / connection	Yes	Yes



LED INDICATIONS

NAVIGATION LED

Behaviour	Meaning
Permanently switched on	GNSS signal is not received
Blinking every second	Normal mode, GNSS is working
Off	GNSS is turned off because: Device is not working or Device is in sleep mode
Blinking fast constantly	Device firmware is being flashed

STATUS LED

Behaviour	Meaning
Blinking every second	Normal mode
Blinking every two seconds	Sleep mode
Blinking fast for a short time	Modem activity
Off	Device is not working or Device is in boot mode

BASIC CHARACTERISTICS

Product

Model name	FTC164-MDAB0: MeiG SLM336-E FTC164-MEAB0: MeiG SLM336-L
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GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU
Receive type	135 tracking/acquisition channels
Tracking sensitivity	-165 dBm
Position accuracy	< 1.5 m CEP
Velocity accuracy	< 0.1 m/s (within +/- 15% error)

Cellular

2G bands	FTC164-MDAB0: GSM: B2/B3/B5/B8 FTC164-MEAB0: GSM: B2/B3/B5/B8
4G LTE bands	FTC164-MDAB0: LTE-FDD (CAT1): B1/B3/B5/B8/B20/B28 FTC164-MEAB0: LTE-FDD (CAT1): B2/B3/B4/B5/B7/B8/B28/B66
Data transfer	LTE FDD (CAT 1): Max. 10 Mbps (DL) / Max. 5 Mbps (UL) GSM (GPRS): Max. 85.6 Kbps (DL) / Max. 85.6 Kbps (UL)



Transmit power	Class 4 for GSM850/900: 33±2dBm Class 1 for GSM1800/1900: 30±2dBm Class 3 for LTE FDD: 23±2.7dBm
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Data support	SMS (TEXT, PDU), Network protocols (TCP, UDP)
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Data codec

Codec support	Codec 8 Extended
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Power

Input voltage range	8-32 V DC
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Internal Back-up battery	2600mAh Li-Ion battery, 3.7V (9.620 Wh)
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Internal fuse	3A, 125V
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Power consumption	At 12V < 24 mA (nominal with no load) At 12V < 0.25A Max (with full Load/Peak) At 12V Online deep sleep < 10.34 mA At 12V Deep sleep < 2.56 mA At 12V Power off sleep < 0.28 mA At 4V Online deep sleep < 24.36 mA At 4V Deep sleep < 6.81 mA At 4V Power off sleep < 0.19 mA
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Physical specification

Dimensions	87.75 × 106.40 × 29.70 mm (L x W x H)
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Weight	147 g
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Operating environment

Operating temperature (without battery)	-30°C to +85°C
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Storage temperature (without battery)	-30°C to +85°C
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Operating temperature (with battery)	-20°C to +60°C
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Storage temperature (with battery)	-10°C to +25°C
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Operating humidity	5% to 95% non-condensing
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Ingress protection rating	IP69K
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Battery charge temperature	0°C to +45°C
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Battery discharge temperature	-20°C to +60°C
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Battery storage conditions	Battery Storage Conditions -10°C to +50°C - 1 month -10°C to +35°C - 3 months 0°C to +30°C - 12 months
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Interface

Digital Inputs	5
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Negative Inputs	1
-----------------	---

Digital Outputs	4
-----------------	---



Analog Inputs	5
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1-Wire	1
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*Pinouts are software-defined, configurable pins that can be selected based on the user scenario. For more information, refer to the FTM164 Wiki (link to FTM164 First Start Pinouts section).

Features

Sensors	Accelerometer
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Scenarios	Eco Driving, Over Speeding, Idling Detection, Immobilizer, Unplug Detection, Jamming Detection, Crash Detection, Dallas Sensor Support, Towing Detection
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Sleep modes	Online Deep Sleep, Deep Sleep, Power Off Sleep
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Configuration and firmware update	FOTA WEB, Telematics Configuration Tool (TCT)
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SMS	Configuration, DOUT control, Debug
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GPRS commands	Configuration, DOUT control, Debug
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Time synchronization	GNSS, NTP, NITZ
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Ignition detection	Digital Input 1, Accelerometer, External Power Voltage
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Certification & approvals

Regulatory



CERTIFICATION AND APPROVALS



This sign on the package means that it is necessary to read the User's Manual before your start using the device. Full User's Manual version can be found in our [Wiki](#)¹



The RoHS1 is a directive regulating the manufacture, import and distribution of Electronics and Electrical Equipment (EEE) within the EU, which bans from use 10 different hazardous materials (to date).



Hereby, Teltonika declare under our sole responsibility that the above described product is in conformity with the relevant Community harmonization: European Directive 2014/53/EU (RED).



REACH addresses the production and use of chemical substances, and their potential impacts on both human health and the environment. Its 849 pages took seven years to pass, and it has been described as the most complex legislation in the Union's history and the most important in 20 years. It is the strictest law to date regulating chemical substances and will affect industries throughout the world.



This sign on the package means that all used electronic and electric equipment should not be mixed with general household waste.



UK Conformity Assessed (UKCA) marking is a conformity mark that indicates conformity with the applicable requirements for above described products sold within Great Britain.



The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by UAB Teltonika Telematics is under license. Other trademarks and trade names are those of their respective owners.



Para maiores informações, consulte o site da ANATEL www.anatel.gov.br
Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados.
For more information, see the ANATEL website www.anatel.gov.br
This equipment is not entitled to protection against harmful interference and must not cause interference in duly authorized systems.



E-Mark and e-Mark are the European conformity marks issued by the transport sector, indicating that the products comply with relevant laws and regulations or directives. Vehicles and related products need to go through the E-Mark certification process to be legally sold in Europe.



The Australian Standard AS/NZS 4417.1 and AS/NZS 4417.2 Marking of electrical products to indicate compliance with regulations – General rules for use of the mark provides general requirements for the use of the RCM including location of the marking on the equipment and its dimensional requirements.



ISO 16750-2:2012 applies to electric and electronic systems/components for road vehicles. It describes the potential environmental stresses and specifies tests and requirements recommended for the specific mounting location on/in the road vehicle.

¹ wiki.teltonika-gps.com/view/FTC164_Certification_%26_Approvals



DECLARATION OF IMEI ASSIGNMENT

The IMEI number is used by a GSM network to identify valid devices and therefore can be used for stopping a stolen phone from accessing that network. For example, if a mobile phone is stolen, the owner can call their network provider and instruct them to blacklist the phone using its IMEI number. This renders the phone useless on that network and sometimes other networks too, whether or not the phone's subscriber identity module (SIM) is changed.

DECLARATION OF DEVICE OPERATION TEMPERATURE

An operating temperature is the temperature at which an electrical or mechanical device operates. The device will operate effectively within a specified temperature range which varies based on the device function and application context, and ranges from the minimum operating temperature to the maximum operating temperature (or peak operating temperature). Outside this range of safe operating temperatures the device may fail.

CHECK ALL CERTIFICATES

All newest certificates may be found in our [Wiki](#)²

² wiki.teltonika-gps.com/view/FTC164



WARRANTY

We guarantee our products 24-month warranty¹ period.

All batteries carry a 6-month warranty period.

Post-warranty repair service for products is not provided.

If a product stops operating within this specific warranty time, the product can be:

- Repaired
- Replaced with a new product
- Replaced with an equivalent repaired product fulfilling the same functionality
- Replaced with a different product fulfilling the same functionality in case of EOL for the original product

WARRANTY DISCLAIMER

Customers are only allowed to return products as a result of the product being defective, due to order assembly or manufacturing fault.

Products are intended to be used by personnel with training and experience.

Warranty does not cover defects or malfunctions caused by accidents, misuse, abuse, catastrophes, improper maintenance or inadequate installation – not following operating instructions (including failure to heed warnings) or use with equipment with which it is not intended to be used.

Warranty does not apply to any consequential damages.

Warranty is not applicable for supplementary product equipment (i. e. PSU, power cables, antennas) unless the accessory is defective on arrival.

[More information on what is RMA²](#)

¹Additional agreement for an extended warranty period can be agreed upon separately.

² wiki.teltonika-gps.com/view/RMA_guidelines



COMPANY DETAILS

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TELEMATICS WEBSITE
teltonika-gps.com

For more information about our products and services, please visit our website: teltonika-gps.com.



WIKI KNOWLEDGE BASE
wiki.teltonika-gps.com

For technical assistance, troubleshooting, and further inquiries, refer to our comprehensive support resources at our technical assistance portal: Teltonika Wiki.



FOTA WEB
fota.teltonika.lt