ATC700

Mini asset tracker

Quick Manual v1.2 | 2025-12-03

CONTENTS

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 ATC700 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.

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.

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

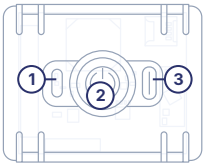
In accordance with the General Data Protection Regulation (GDPR), this Data Processing Agreement (DPA) establishes obligations between Teltonika, the data processor, and its customers, acting as data controllers. The DPA outlines how Teltonika will handle customer data while adhering to GDPR regulations. 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

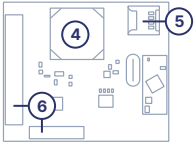
KNOW YOUR DEVICE

Top view



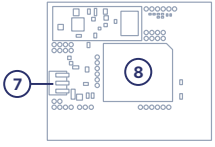
1. Status RGB LED
2. Configurable button
3. USB Type-C connector

Top view (without cover)



4. GNSS antenna
5. SIM slot
6. LTE antenna

Bottom view (without cover)



7. Battery connector
8. Modem

STANDARD PACKAGE CONTAINS

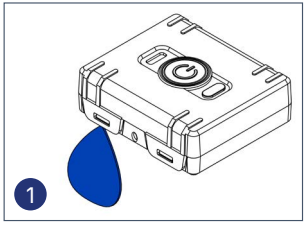
— 1 pc. ATC700 tracker

— 1 pc. USB-C cable

— 1 pc. USB-C Dust plug

— Packaging box with Teltonika branding

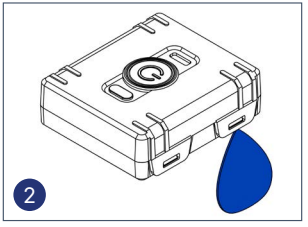
SET UP YOUR DEVICE



1. Remove top cover (1)

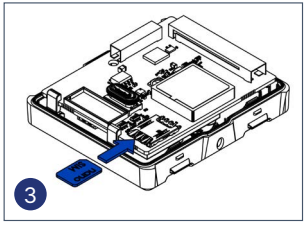
You will receive the tracker with the top cover partially closed. Use a pry tool[1] and open one side of the top cover.

⚠ **Warning:** When opening the cover, avoid touching the USB port to prevent its small rubber seal from coming off.



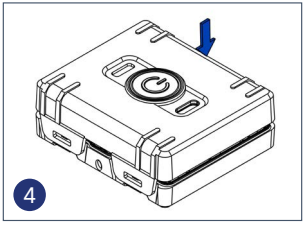
2. Remove top cover (2)

Turn the device. Use a pry tool[1] and omen the other side of top cover. Gently remove top cover.



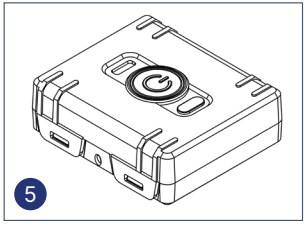
3. Insert SIM card

Insert SIM card as shown. Make sure Nano-SIM card cut-off corner is pointing towards SIM slot.



4. Re-attach top cover

Ensure that both sides are fully secured and a clicking sound is heard when closing.



5. Device is ready

Device is ready to be mounted.

[1] The pry tool is not included

PC CONNECTION (WINDOWS)

1. Connect device to the computer using USB Type-C cable.
2. Install USB driver, see “How to install USB drivers (Windows)”

HOW TO INSTALL USB DRIVERS (WINDOWS)

1. Download COM port drivers from here[1].
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.

CONFIGURATION (WINDOWS)

Most Teltonika devices are shipped with default factory settings. Use Telematics Configuration Tool (TCT)[2] to change these settings according to your needs.

	TCT
Operating system	Windows 10 Windows 11
MS .NET Framework version	MS .NET framework 6.0
Version	64 bit
Disk Storage	1 GB of free disk space
Internet	Ethernet port or Wi-Fi w/ network access for auto-update

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

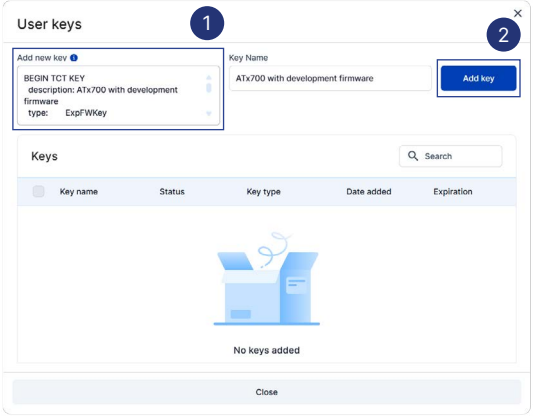
[2] wiki.teltonika-gps.com/view/Getting_started_with_TCT

TCT

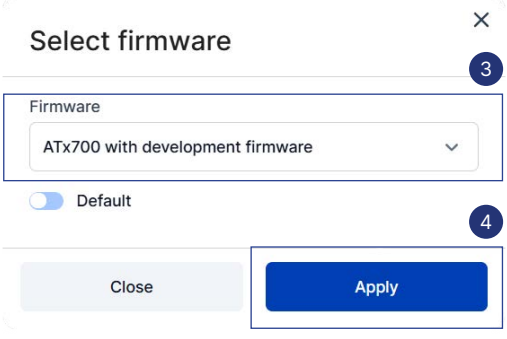
1. Download the TCT (compressed archive).
2. Extract the archive and launch the executable. The TCT will be installed.
3. Launch the TCT.
4. Go to Settings → User keys, copy the full key text from **"BEGIN TCT KEY"** to **"END TCT KEY"** and paste in Add new key field, then press Add key:

```
BEGIN TCT KEY
  description: ATx700 with development firmware
  type:        ExpFWKey
  key:         196b94ad-b3e4-4ab2-b092-258cc8c5fdb9
  expires:     2026-11-01
  signature:   v1|NRRBW8v8SlMvI6ICGtZAobRukuFVE1SUQYgBdZxqQmqsypy
7Hxy/dw7TTjA0y8i09dtTjxBapLZAESIUT1T1XF29/nvb5jtNsjQKdQ3uzYYL1tlu
lAZ5109JxrvEA28+aJEIHl91RgEZt0cmXbt9U5uQq0Yudf/3RlzGvrdc1tU4GqgO+
yAvaSNO99ERFxTjVpRtJknx+4666LxBMZlNeOBupMdFupPZmxLwcrF+EBPf3wiDJV
Nl2SLwKAOpx1bR0yx5Ofk2zVfeRGO8OwifzcDDiUjBRw2vwFULbn6jjVEGCDOXqV8
4zqy0SE/ClLjJ1+7Alk49KR+nS+qCQKT+Fw==
END TCT KEY
```

Note: This TCT key will expire on 2026-11-01. Please contact us via HelpDesk to receive a new one before the expiration date.

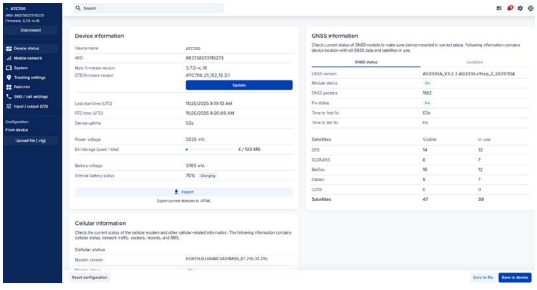


5. Go to **Settings → Select firmware**, then select **ATx700 with develop version firmware** and press **Apply**:



6. In the Discovered devices list, select your device and press **Configure**.

7. The Device status window opens. It contains device, GNSS, and Cellular information.



Most important configurator sections are Mobile network (server, Mobile network settings) and Tracking settings (data collection parameters). More details about ATC700 configuration using TCT can be find on our Wiki[1].

Save to device	Save to device – saves configuration to device.
Upload file (.cfg)	Upload file – loads configuration from file.
Save to file	Save to file – saves configuration to file.
Update	Update – update device firmware.
Reset configuration	Reset configuration – sets device configuration to default.

[1] wiki.teltonika-gps.com/view/ATC700_Configuration

DEFAULT CONFIGURATION SETTINGS

RECORDS SENDING TO SERVER:

A record with location will be transmitted to the server **every 15 minutes**, regardless of the product's movement status.

SLEEP MODE:

The device is configured with **Power Off Sleep** mode enabled by default to ensure maximum operating time.

The device will not send any records until the server parameters (Domain, and port) are configured. During this time, all records are stored in the device's internal memory. Once configured, the stored data is automatically transmitted to the specified server.

Time intervals and default I/O elements can be changed by using TCT[2], SMS parameters[3] or FOTA Web.

[2] https://wiki.teltonika-gps.com/view/ATC700_Configuration

[3] https://wiki.teltonika-gps.com/view/ATC700_Parameter_List

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

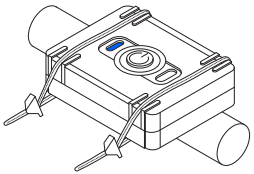
GPRS SETTINGS:

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:

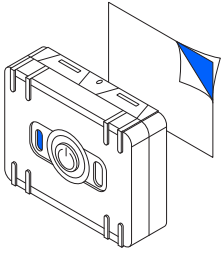
5. **2004** – Domain
6. **2005** – Port
7. **2006** – Data sending protocol (0 – TCP, 1 – UDP)

MOUNTING RECOMMENDATIONS



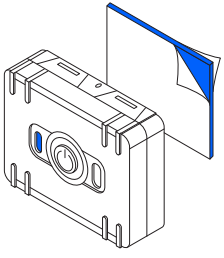
1. ZIP TIE

Quick and secure attachment for various surfaces, ideal for permanent installation.



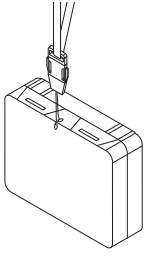
2. DOUBLE-SIDED TAPE[1]

Easy and fast mounting on flat surfaces without any tools.



3. MAGNETIC STICKER[1]

Flexible solution for quick attachment and removal on metal surfaces.



4. THIN CORD

Convenient for carrying — can be worn around the neck or attached as needed.

[1] This accessory can be included in the product package. Please contact your sales representative to arrange this.

TROUBLESHOOTING

Troubleshooting section provides guidance to resolve frequently encountered issues during the setup and operational phases of the ATC700 device.

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[1]

Meaning	Colour	Behaviour	Duration
Power on	Green	Steady	3 s
Low Battery	Red	Blinking - 1 s ON / 1 s OFF	Until power off
Charging	Yellow	Pulsing - fade in 2 s / fade out 2 s	Until charged or USB disconnected
100% charged	Green	Steady	Until USB disconnected
FW update	Blue	Blinking - 0.1 s ON / 0.1 s OFF	Until update finished
CFG uploading	Blue	Steady	3 s
Periodic record sending	Yellow	Blinking - 0.2 s ON / 2 s OFF	Until record is sent or failed
Record sent with GNSS fix	Blue	Steady	3 s
Record sent no GNSS fix	Yellow	Steady	3 s
Record sending failed	Red	Steady	3 s
Alarm	Red	Pulsing - 0.5 s fade in / 0.5 s fade out	6 s
Normal operation	Blue	Blinking - 0.5 s ON / 1 min OFF	In idle
Power OFF	Red	Steady	2 s

[1] This feature will not be available in the pilot batch.

BASIC CHARACTERISTICS

Module

Name	**ATC700-QJAE0:** Quectel EG915U-EU with AG3335 **ATC700-QKAE0:** Quectel EG915U-LA with AG3335
Technology	LTE CAT 1/GSM/GPRS/GNSS

GNSS

GNSS	GPS, GLONASS, GALILEO, BEIDOU
Receiver	L1: 75 channel
Tracking sensitivity	-165 dBm
Position Accuracy	< 1.8 m CEP
Velocity Accuracy	< 0.1 m/s (within +/- 15% error)
Hot start	< 1 s
Warm start	< 25 s

Celluar

2G bands	**ATC700-QJAE0: GSM:** B2/B3/B5/B8 **ATC700-QKAE0: GSM:** B2/B3/B5/B8
4G bands	**ATC700-QJAE0:** LTE FDD: B1/B3/B5/B7/B8/B20/B28 **ATC700-QKAE0:** LTE FDD: 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±4dBM Class 1 for GSM1800/1900: 30±2dBM Class 3 for LTE-FDD: 23±2dBM
Data support	SMS (TEXT, PDU), Network protocols (TCP, UDP)

Power

Internal battery	1000 mAh Li-Po, 3.7V (3.7Wh)
Internal fuse	3A
Power Consumption	Normal operation: 74.26 mA Online Deep Sleep: 10.80 mA Power Off Sleep: 0.11 mA

Interface

GNSS antenna	Internal High Gain
GSM antenna	Internal High Gain
USB	2.0 USB Type-C
LED indication	1 status RGB LED light
SIM	Nano-SIM
Memory	128MB internal flash memory

Physical Specification	
Dimensions	62.2 × 54.2 × 20.33 mm (L x W x H)
Weight	71 g

Operating Environment	
Operating temperature (with battery)	-20°C to +60°C
Battery charge temperature	0°C to +45°C
Storage temperature (with battery)	-10 °C to +25 °C for 1 month 0 °C to +25 °C for longer than 3 months
Operating humidity	5% to 95% non-condensing
Ingress Protection Rating	IP65 (internally tested, not certified). IP68 - in development.

Data Codec	
Data sending protocols	Codec 8 extended[1]

Features	
Sensors	Accelerometer
Scenarios	Periodic tracking, Scheduler, Alarm button, Power bank support, Multi-action button[2], Geofence[2], Movement-based tracking[2], Geofence with time zone[2], On-demand tracking[2], Configurable LED indication[2 3]
Sleep modes	Online Sleep, Power Off Sleep
Configuration and firmware update	FOTA Web[4], Teltonika Configurator (TCT)[5]
Time Synchronization	GPS, NTP
Movement detection	Accelerometer

[1] wiki.teltonika-gps.com/view/Codec#Codec_8_Extended

[2] Feature development is still in progress and won't be included in the pilot batch

[3] wiki.teltonika-gps.com/view/ATC700_Features_settings

[4] wiki.teltonika-gps.com/view/FOTA_WEB

[5] https://wiki.teltonika-gps.com/view/Teltonika_Configurator

WARRANTY

We guarantee our products 24-month warranty[1] 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 RMA[2]

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

[3] 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