

# Installation and operating instructions

## TK108A vehicle, person, package gps tracker



### Introduction

In developing the products we offer, the manufacturers have acted with the utmost care and in accordance with international standards.

### Warranty

We offer a 12-month warranty on the products, which is valid from the date of purchase. Keep the invoice or block you received at the time of purchase and / or the warranty card of the device, because you can only enforce your warranty claim if you have them. During the warranty period, we will replace any defective main unit, accessory or software of the product in the event of any defect attributable to a manufacturing, material or software defect. Subsequent repairs to the device or its accessories are not permitted by the manufacturer due to the design of the device.

The warranty does not cover a product (or accessory) that has been damaged or rendered inoperable due to attempts to modify or repair the software, physical impact, poor voltage, improper use.

To ensure proper, effective and safe use of the product, read the instruction manual carefully and keep it for future reference. Flexcom Kommunikációs Kft. Shall not be liable for any damage, product damage, short-term or long-term health damage that may occur as a result of use, repair, storage and transport other than those described in this manual.

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**Protection of personal data**

The product is a complete product as a combination of hardware and software components. For safe and correct use, proceed as described in this manual during installation and use. Keep the device or software out of the reach of unauthorized persons. Our company provides all technical and regulatory conditions to ensure that data management complies with legal requirements and that your data does not fall into unauthorized hands. We accept no liability for damage resulting from unauthorized use of the product and software.

## Formats and notations

**The following style settings are used in descriptions, guides, and other documents:**

- Bold text**     Name of product components, instructions, options, processes, services, user interface elements.
- Italic text*     Links to other publications, emphasis.
- Courier text**   System messages, internet addresses, document names.

### Warning and cautionary signs:



Tips, advice, ideas.



Document download option.



General attention to information about the product or its operation.



Indication of situations with a lower risk to the user or the product (minor injuries, inconveniences).



Indication of situations which present a higher risk to the user (serious injury, possibly death) or which may cause damage or destruction of the product.

## Product Description

The device combines several functions of accurate positioning, safety, monitoring, emergency alarms and full tracking. It supports SMS / GPRS / Internet data transfer functions and can be widely used in many areas of location-based services, traffic safety and management.

Based on its design and mounting, the device was designed by the manufacturer primarily for tracking (land, water or air) vehicles - as a result, its users are primarily the owners and drivers operating the vehicles. The device is based on the GSM / GPRS network and GPS satellite positioning. You can track your device using SMS messages or a web application.

Settings that affect the operation of the device can only be changed from another device (smartphone, computer) using the appropriate application or SMS commands - so users can be sure that the device always works according to the parameters they specify.

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## How to use

After inserting a SIM card and setting up via SMS or a mobile phone or PC application, the device is connected to the vehicle's electrical system. Once turned on, the GPS receiver and SIM card will automatically connect to the GPS and GSM networks (if available) and begin collecting position data, which can be queried using SMS or an Internet application.

To use the features of your device, you need a SIM card, similar to a mobile phone. The device communicates with the mobile service provider's network via SIM card, SMS or mobile phone or PC applications.

After inserting the SIM card and charging the battery or connecting it to the vehicle, you can make the necessary settings by sending an application or SMS (eg entering the device ID name, frequency of sending GPS position data, etc.).

When switched on

- The device continuously registers position data, which can be queried with SMS commands at a limited level.
- If you have a software subscription, the device sends the position data to the software service center - the processed results (eg map route display, route event list, real-time tracking) - can be viewed in the phone or computer application.

The subscription software provided by the distributor for the device greatly expands the range of features of the device. These extensions are only available in the mobile or PC application.

*You will find detailed information on the installation, use, maintenance and decommissioning of the device in the following sections of the documentation.*

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## Technical parameters

### Physical characteristics

Parameter	Value
Dimensions (mm)	W: 106, L: 94, H: 37.5
Weight (g)	343
Humidity	5% to 95% (non-condensing)
Water resistance	IP67
Operating temperature	-20C to + 55C
Storage temperature	-40C to +85C

### Memory

Parameter	Value
Built-in	None
TF card	Yes

### Energy supply

Parameter	Value
Battery	Li-ion polymer 3.7V 10000mAh
Charging current	max. 2A
Charging time	7-9 hours

### Operating time

Parameter	Value
Standby time	180 days

### Network

Parameter	Value
GNSS	GPS / LBS
Type of data traffic	GSM / GPRS (2G)
SIM card	Nano
GSM frequencies	850, 900, 1800 and 1900 MHz
GSM chip	CB900
GSM signal strength measurement	Yes
GPS chip	NS1315
GPS sensitivity	-165 dbm
GPS accuracy	5 m

### Communication

Parameter	Value
SMS	Yes
TCP	Yes

### Sensors

Parameter	Value
Vibration sensor	Yes

**Interface**

Parameter	Value
GSM antenna	Internal
GPS antenna	Internal
Built-in microphone	Yes

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## Troubleshooting and repair

### Conditions for safe use of devices

#### Information for people with long-term health problems or disabilities

- This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.
- Their casing is made of plastic or metal, which currently has no known health risk (e.g., toxic or allergenic effects).

#### Technical service life of products

- If the device contains a battery, its life is usually approx. 3 years.
- If you find that the operating time is significantly reduced, replace the battery as soon as possible to avoid malfunction.
- Have the battery replaced by a qualified service technician - contact your product dealer for information.

#### Possible problems with proper use

- Cracks, breaks or deformation of the cabinet may cause skin injury or injury to the user's hands.
- Restrictions on the use of products
- Do not use the products under water or expose them to strong water jets or excessive vibration.

#### Maintenance

- The products do not require regular technical maintenance.
- Disconnect the device from the charger before cleaning. Do not use abrasives or cutting or abrasive tools for cleaning.

#### Decommissioning

- Products do not contain harmful, toxic substances.
- Their internal components, outer casings and accessories are not made of or only slowly degradable materials - they must be treated in accordance with the appropriate waste disposal procedure.

## Identifying problems and possible solutions

Symptom	Possible cause	Solution
The device does not turn on or turns off immediately after turning it on.	The battery may be exhausted.	Charge the battery.
Phone calls and / or SMS communication between the device and the phone do not work.	No GSM connection.	Check the strength of the GSM connection. If the LED is solid amber, there is no connection to the service provider's network. You may be in a shaded area - change position.
	The SIM card is defective or there is a contact error.	Remove the SIM card, or clean it with a soft eraser or stylus and reinsert it. If it still does not work, have it tested by a professional (eg a mobile service provider).
Phone application services do not work.	Your device, phone or none of them have a GPS satellite and / or GSM / Wifi connection.	Check GPS, GSM and wifi connection. If the LED is solid yellow or blue, there is no satellite and / or mobile service connection. Also check the wifi connection on your phone. Look for a place that is not shaded by trees, buildings, or other landmarks, or a place where the signal strength is higher.
	Service provider system error	If you do not find a problem with the above, there may be a system error with your telephone application provider.
The device does not respond to SMS commands	APN setting error	Check the APN settings of the tracking device.
	There may be an incorrect SIM card in your device.	A card with voice call, SMS and GPRS data traffic is required for the device to work properly.
SMS mode works, but the app does not.	The device may be in sleep mode.	Check the operation of the device. For example: send an alarm SMS to the device (see Chapter 5).

## Troubleshooting and warranty repair

If you can identify the error based on the above or the recommended solution does not work, contact your dealer:

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During the warranty period, if the conditions of the warranty have not been violated, the distributor will take care of the professional investigation of the cause of the failure, repair of the error or replacement of the device.

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## Decommissioning

### Disposing and destroying the device

If you decide to stop using the appliance, do not throw it away with the normal household waste. The device is a complex structure and its components contribute to environmental problems to varying degrees.

- The device has a printed circuit board made of copper, an epoxy resin based board, which is coated with gold in places. It is made using gallium arsenide, antimony, beryllium, brominated flame retardants, cadmium, lead, nickel, palladium, silver, tantalum and zinc, of which flame retardants and lead are the most dangerous to the environment.
- Copper, cadmium, nickel and zinc were used to make the battery.
- The cover is made of polycarbonate plastic, which is difficult to recycle, its material may also contain brominated flame retardants, which are particularly dangerous for the environment.
- The charging cable consists mainly of plastic-coated copper wires, but may also contain gold, cadmium and brominated flame retardants.

In case of improper handling, the above substances are more or less harmful to the environment. Therefore, if you dispose of the device, dispose of the device as electronic waste, hand it in to a specialist waste disposal service or dispose of it in a container for the collection of this type of waste.

### Disposal of packaging

The packaging of the device (box and inner packaging materials) was made using paper and various plastics. The box paper, the internal sealing profile and the bags protecting the device should be disposed of as plastic waste.