

FZ500/ FZ500M User Guide V1.1



Confidential

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1 Copyright and Disclaimer

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While this manual provides accurate information, ongoing research and development may result in periodic updates. The version you are reading reflects the current state of our products, and we have strived to present a clear and comprehensive description to facilitate ease of use. However, due to rapid technological advancements, some technical expressions may evolve. We reserve the right to make modifications and improvements without prior notice.

2 Product Overview

The FZ500/FZ500M is an advanced **LTE 4G GPS tracker** designed for container and trailer tracking. Its **compact and discreet design** allows it to be **installed or hidden** within the **trailer chassis, container sidewalls, or even air vents**, seamlessly blending in as a standard component.

Equipped with a **high-capacity battery**, it can operate for **up to 10 years**. The device supports **multiple working modes** and features an **anti-removal alarm** for enhanced security.

- FZ500 comes with a **one-time-use battery**.
- FZ500M is equipped with a **rechargeable battery**.

3 Product Functions





Items	Functions
Communication	Location Data transmitting-GPRS(TCP/UDP)
	Commands- GPRS/Serial port
Position Tracking	Real time location monitoring mode
	Track by time point (1 to 4 time point one day)
	up to 3-10 years working
Alarm	Low battery alarm (GRPS)
	Speeding alarm (GPRS)
	Anti-dismantle alarm(GPRS)
Buffer	Data in Buffer when in GPRS blind area
Initialization	Initialize tracker's Parameters via GPRS/Serial port

4 Specifications

Items	Specifications			
Indiv. Box Dimension	8.6 inches X 4.3inches X 2.16 inches (220*110*55mm)			
Tracker Dimension	8 inches X 2.6 inches X 1 inch (205*67*26.5 mm)			
Tracker Color	Black (Other colors can be customized)			
Weight	Tracker weight	0.6 lbs (0.3kg)	Total package	0.77 lbs (0.35kg)
Working voltage	DC 4.2V			
Working current	80mA-100mA/4.2V			
Sleeping mode	<15uA			
Working Days	Disposable battery: Once a day location update, battery will last for 8 years Two location updates a day, battery will last for 5 years			
Built-in battery	Standard Built-in Rechargeable 7800mAh (9600mAh Optional) Li-Socl2/Li-MnO2 disposable battery 8000mAh			
Operating temperature	-13°F to 176°F			
Operating humidity	0% -- 100%			
LED indicator	Green led and Red led light indicates GPS and GSM status respectively			
Power Switch	Built-in battery switch on Mainboard			
4G LTE Module	FZ500M Quectel BG95-M3 4G CAT-M1 & NBIot Cellular Module FZ500			
	Quectel EC200 Series 4G CAT1 Cellular Module			
GPS Module	Positioning accuracy	<= 2m CEP		
	Cold start time	<=30s(AGNSS Close) <=5.5s(AGNSS Open)		
	Warm start time	<= 2s (in average)		
	GPS Sensitivity	-159Db		
	GPS L1 C/A	1575.42 MHz		
	GLONASS L1	1602.5625 MHz		

	BeiDou B1	1561.098 MHz
	QZSS L1	1575.42 MHz

5 Standard Package and Optional Accessories

Name	Picture	Standard/Optional Parts
Main unit		Standard
Internal Battery		Li-Socl2/Li-MnO2 disposable battery 8000mAh (Default) Built-in Rechargeable 7800mAh (9600mAh Optional)
Tamper Alarm		Standard
Mirco-USB Configuration cable		Optional

6 Appearance and Structure



Front Side



Back Side

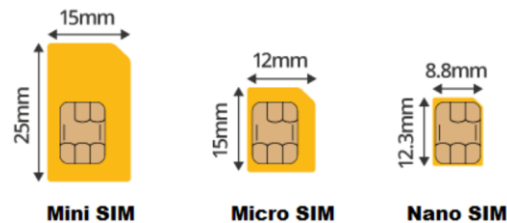
7 First Use

7.1 Insert SIM Card



Operation Steps:

- Open the waterproof tape
- Open the SIM card slot
- Insert the **Micro (Standard) SIM card** into the card slot with its gold-plated contacts facing towards the Printed Circuit Board (PCB)
- Slide the SIM card holder to the **left to lock** it in place
- Do not forget to turn on the battery switch before putting the mainboard back in its metal casing.



7.2 Charging the device

If using the 18650 rechargeable battery version, when you use the device for the first time. Ensure that the device is charged at least two hours. Eight hours are recommended. The device can be installed on a vehicle only after it has been configured and tested.

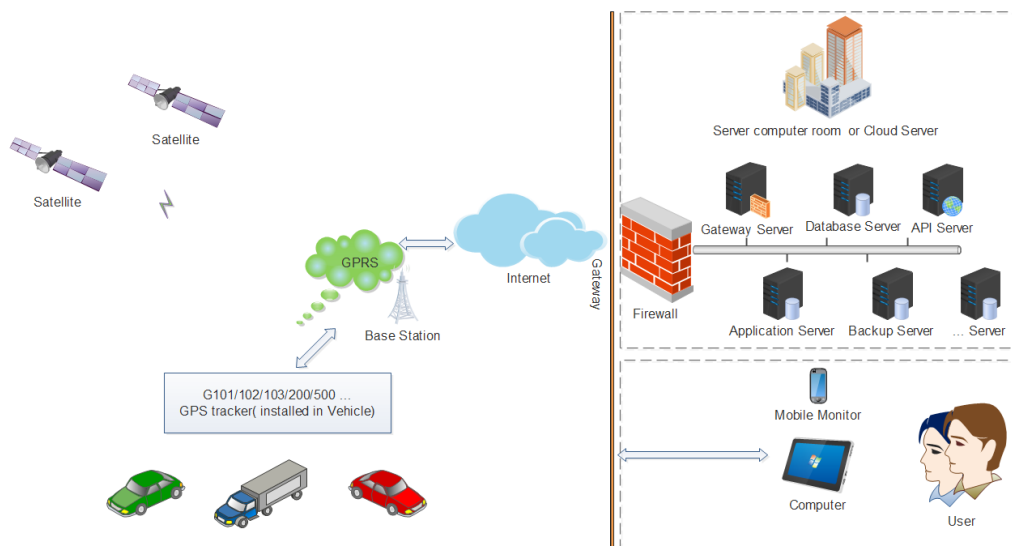
7.3 LED light Indicator

LED Light	ON/OFF Indication		Explain
	Light On	Light Off	
Blue	Blinking every 1 sec		Low Battery
	Blinking every 0.2 sec		Charging
	Constant On		Fully charged the battery
Green		Off	GPS Located
	Blinking every 1 sec		GPS Un-located
	Blinking every 0.5 sec		Initialization
Red	Blinking every 1sec		Searching for GSM Network
		Off	GPRS online

8 Tracking the device in Falcon Zoom portal

8.1 Principle of communication

The FZ500 device doesn't like GPS navigator, it can't work independently and must be working with a GPS tracking system.



9 Warranty

- The warranty period is 24 **months** from the delivery date. However, it does not cover defects, failures, or damages caused by **improper use, unauthorized disassembly, or modifications**.
- Our obligations are limited to **repairing the defect, replacing the faulty part, or, at our discretion, replacing the product entirely**.
- Repairs or replacements under this warranty do not entitle the user to **an extension or renewal of the warranty period**.
- The warranty applies **only to defects in materials, design, and workmanship** and does not cover other issues.

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