ANBTEK GT09L Vehicle GPS Tracker User Manual

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ANBTEK GT09L Vehicle GPS Tracker

Product Description

The GT09L is an IP67 rated 4G LTE/GSM/GPS tracker suitable for cars, motorcycles, scooters, and e-bikes. It features a superior receiver sensitivity, fast TTFF, and 4G LTE design. The tracker can continuously report the current position to a backend server. It comes with a built-in acceleration sensor that can detect the moving/static and driving behavior, ignition state, and SOS alarm. The tracker can also use a microphone for real-time voice monitoring and R232 for RFID reading and stop the engine by remote. The GT09L is developed using open CPU technology, which brings lower cost, lower power consumption, and fast response speed advantages. It is reputed to have industrial-level performance but at economical solution pricing.

Package Contents

Item	Picture	Remark
Tracker		Standard
Wire harness		Optional
Immobilizer relay		Optional
SOS button		Optional

Features and Specifications

Item	Description
Dimension	98*52*18mm
Power range	8-36V DC/1.5A
Working humidity	5%~95%
Operating temperature	-30~75
Internal backup battery	120mAh/4.2V
Data transmit	4G LTE/GSM/SMS Communication
LED indicator	1: Red for network 2: Green for GPS 3: Blue for battery
Input	1: ACC detect 2: SOS detect
Output	Immobilizer(cut engine) relay or buzzer
AD	One input AD
RS232	One RS232
Microphone	Support Built-in accelerometer
4G chip	FIBOCOM L610
4G/GSM frequency	L610-CN LTE FDD: B1 B3 B5 B7 LTE TDD: B34 B39 B40 B41 GSM:900MHz/1800MHz L610-LA LTE FDD: B1 B2 B3 B4 B5 B7 B8 B28 B66 GSM:850MHz/900MHz/1800MHz/1900 MHz L610-EU LTE FDD: B1 B3 B7 B8 B20 B8 GSM:850MHz/900MHz/1800MHz/1900 MHz
GPS chip	GPS sensitivity GPS position accuracy 4G/GSM Null zone data storage Position report Alarm alerts Configuration OTA ZKMICRO: ATGM332D(BDS+GPS) -160dB 5 Meters 800 Waypoints Time based and distance(mileage) based and angle-based GEO Fence, speed over, power tamper and SOS(Panic),idle SMS + computer(USB configurator) + server Support

Knowledge before Usage

Factory Default Setting

– IP/Port: Empty
– APN, User, and pass: Empty
– Speed Limit: Off=000Km/H
– Position data Update Time Interval: 30 seconds when ignition on, 30 seconds when ignition off
– Authorized Phone numbers A/B/C: None

Power Supply and Consumption

This device is expected to connect with a DC power source with a range of 8-36V DC. Working current maximum 2A input. Device working current < 18mA @24V DC

How to Insert Sim card

Before inserting the sim card, please make sure the sim card 4G and SMS and GPRS are activated. The device will automatically turn on after inserting the SIM card.

Installation

Wiring Diagram

PIN 1: Red – Power +(8-36V DC)
PIN 2: Black – Power Ground
PIN 3: White – Ignition Detection(ACC)
PIN 4: Yellow – Cut-off, Digital output
PIN 5: Brown – Door status high input
PIN 6: Blue – Panic(SOS) low input

Wire Color:
PIN 1: White
PIN 2: Yellow
PIN 3: Brown
PIN 4: Blue
PIN 5: Black
PIN 6: Red

Wire Color:
PIN 1: Red
PIN 2: Black
PIN 4: White
PIN 3: Yellow

LED working status

Item	Color
Network	Red
GPS	Green
Battery	Blue

Product Usage Instructions

1. Connect the tracker to a DC power source with a range of 8-36V DC.
2. Insert a sim card after ensuring that it is 4G and SMS and GPRS activated.
3. Check the LED working status to ensure network, GPS, and battery connectivity.
4. Follow the wiring diagram to install the tracker in your vehicle.
5. Check the factory default settings and modify as per your requirement.
6. Authorized Phone number A/B/C can be added for notifications.
7. The device will continuously report the current position to a backend server.
8. The built-in acceleration sensor can detect moving/static and driving behavior, ignition state, and SOS alarm.
9. The microphone can be used for real-time voice monitoring and R232 for RFID reading and stop the engine by remote.
10. The device comes with a backup battery of 120mAh/4.2V.
11. The device has a support built-in accelerometer and FIBOCOM L610 4G chip.

12. The device supports GPS sensitivity GPS position accuracy 4G/GSM Null zone data storage Position report Alarm alerts Configuration OTA.

Description

GT09L is an IP67 Rated 4G LTE/GSM/GPS tracker for cars, motorcycles, scooters, and e-bikes. It's with superior receiver sensitivity, fast TTFF, and 4G LTE design. And it can continuously report the current position to the backend server. It has a built-in acceleration sensor, which can detect the moving/static and driving behavior and detect ignition state and SOS alarm and use the microphone for real-time voice monitoring and R232 for RFID reading and stop the engine by remote. GT09L is developed by "open CPU" technology which brought lower cost, lower power consumption, and fast response speed advantages. It's reputed for industrial-level performance but on economical solution pricing.

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Output	Immobilizer(cut engine) relay or buzzer	
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4G/GSM frequency	L610-CN	LTE FDD: B1 B3 B5 B7 LTE TDD: B34 B39 B40 B41 GSM:900MHz/1800MHz
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GPS chip	ZKMICRO:ATGM332D(BDS+GPS)	
GPS sensitivity	-160dB	
GPS position accuracy	5 Meters	
4G/GSM Null zone data storage	800 Waypoints	
Position report	Time-based and distance(mileage) based and angle based	
Alarm alerts	GEO Fence, speed over, power tamper and SOS(Panic), idle	
Configuration	SMS + computer(USB configurator) + server	
OTA	Support	

Knowledge before Usage

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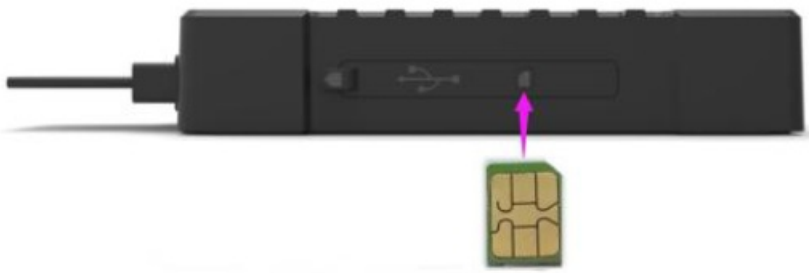
Before inserting the sim card, please make sure the sim card 4G and SMS and GPRS are activated. The device will automatically turn on after inserting the SIM card.



Installation

Wiring Diagram

PIN	Wire Color	Remark
1	Red	Power +(8-36V DC)
4	Black	Power Ground
2	White	Ignition Detection(ACC)
5	Yellow	Cut-off, Digital output
6	Brown	Door status high input
3	Blue	Panic(SOS) low input

PIN	Wire Color	Remark
1	White	reserve
2	Yellow	reserve
3	Brown	AD(Fuel and temperature)
4	Blue	reserve

PIN	Wire Color	Remark
3	Black	5v
1	Brown	GND
4	Red	RS232-TXD
2	Blue	RS232-RXD

PIN	Wire Color	Remark
1	Red	SPK+
2	Black	SPK-
4	White	MIC_N
3	Yellow	MIC_P

LED working status

Item	Color	Working	Status
Network	Red	Off	Power off
		On	Cannot recognize sim card
		Fast flashing	Registering network
		Slow flashing	Successfully registered the network
GPS	Green	Off	GPS off or no GPS data
		Fast flashing	GPS positioning
		Slow flashing	GPS positioning succeeded
Battery	Blue	On	Battery on
		Off	Battery off

Device configuration

GT09L allows the user to use SMS Commands to configure necessary parameters. For details please check as follows instructions.

Device ID

GT09L doesn't need to configure the device ID. GT09L uses 136 + the last 8 digits of IMEI as ID. On the unit case side is a barcode sticker. please use this code as the device ID when you register the device tracking platform. The following picture ID is: 13653256836.

Configure data(4G/GPRS) Parameter

- SMS Setting Command:
- SPJLX*P:password*U: IP, port, T#
- URL: IP or domain name of the tracking server.
- port: port of the tracking server.
- T: data transmit mode. T=1 is using TCP mode. T=0 is using UDP mode. Default as 1.

Example

- SPJLX*P:123456*U:198.11.175.123,9016,1#

SMS query Command

- SPJLX*P:password*C:#

Configure APN

- SMS setting Command:
- SPJLX*P:password*A: APN user name,APN password#
- Example 1: APN name is cement, APN user name is ABC, APN password is 123
- SPJLX*P:123456*A:cmnet,abc,123#
- Example 2: APN name is cement, no APN user name, and APN password
- SPJLX*P:123456*A:cmnet,,#

Remote Cut-engine (Immobilizer)

- Wireless cut-off engine SMS command
- SPJLX*P:password*D:O21#
- Wireless disable engine lock status SMS command
- SPJLX*P:password*D:O20#

Configure Authorized Phone Numbers for alarm alerts

- After the authorized number is set, only the authorized number calling is accepted, when the device detects an alarm (SOS alarm, power failure alarm), it will send SMS to the authorized number.
- SMS setting command:
- SPJLX*P:password*S:number1,number2,number3,#

Example

- SPJLX*P:123456*S:15000000001,15000000002,15000000003,#
- SMS query Command:
- SPJLX*P:password*S:?#
- SMS clear Authorized Phone Numbers Command:
- SPJLX*P:password*S:,#

Time zone Localization Setting

- GT09L can configure the timezone of TCP data and SMS data separately, but TCP data uses GMT time by default.
- SMS setting Command:
- SPJLX*P:password*TM:-/+hhmm#
- hh: mm is SMS data timezone hour and minute.
- Example: Setup time zone with -4.
- *SPJLX*P:123456*TM:-0400#

Set overspeed alarm

- SMS setting command:
- SPJLX*P:123456*s: Overspeed threshold, Overspeed duration#
- Example: when overspeed 120km/h and last for 3 seconds trigger the alarm
- SPJLX*P:123456*s:120,3#
- SMS query Command:
- *SPJLX*P:123456*s:?#

Reset Mileage report value

- In every Position data packet to the tracking server, the GT09L data package includes the current travel mileage. And the user can by SMS command to reset or adjust the mileage report value.
- SMS Command:

- *SPJLX*P:password*MILE:xxx#
- xxx mileage, the unit is Meter.
- Example: reset mileage to 2000 meters
- *SPJLX*P:123456*MILE:X#

Reset SMS command password

- The GT09L default password is 123456, it can reset the password by SMS, password length is 6.
- *SPJLX*P:password*P:new password#
- Example:
- *SPJLX*P:123456*P:888888#

Active sleep mode

- When sleeping GT09L will close the GPS module to save power.
- *SPJLX*P:password*DSL:X#
- Enter sleep mode when ACC is turned off for more than X seconds. 0 is canceled sleep mode.
- Example:
- *SPJLX*P:123456*DSL:300#

Tracking parameter(location update) setting

- GT09L can update location by time interval and direction angle change.
- Setup time interval:
- *SPJLX*P:password*E:1,xx,yy#
- xx is when ACC is on update time, yy is when ACC is on update time, and units is second.
- Example:
- *SPJLX*P:123456*E:1,30,60#
- Setup direction angle:
- *SPJLX*P:password*E:3,zz#zz is the angle change value.
- Example:
- *SPJLX*P:123456*E:3,30#

Voice monitor by SMS

- *SPJLX*P:password*I:xxxxxx#
- x x x x x x is the callback phone number
- Example:
- *SPJLX*P:123456*I:1500000150#

Query google link

- *SPJLX*P:password*LOCA:#

Reboot device

- *SPJLX*P:password*B:#

Recover factory setting

- *SPJLX*P:password*F:#

Setup vibration and Arm

- If turned on arm mode, after ACC OFF for 3 minutes GT09L will enter the armed state, in the armed state, if vibration or ACC on is detected, the alarm will be triggered.
- *SPJLX*P:password*SF:X,Y#
- X=0 is Turn off vibration alarm, and X=1 is Turn on vibration alarm.
- Y=0 is arm, Y=1 is disarm
- Example:
- *SPJLX*P:123456*SF:0,1#

Setup towing alarm

- Set up towing alarm after ACC OFF.
- *SPJLX*P:password*TOW:x,y#
- x is the continuous vibration time, in minutes.
- y is the towing distance, in meters.
- Example:
- *SPJLX*P:123456*TOW:1,100#

Query parameters

- *SPJLX*P:password*V:#

Setup DLT card type

- *SPJLX*P:password*DLTY: xx, yy, ZZ,#
- ‘xx, yy, ZZ,’ are DLT card type
- Example:
- *SPJLX*P:123456*DLTY:14,24,#
- Query DLT card type:
- *SPJLX*P:123456*DLTY:?#
- Clear DLT card type:
- *SPJLX*P:123456*DLTY:#

Setup DLT card ID

- *SPJLX*P:password*DLID:x x x x x x x, y y y y y y y,z z z z z z z #
- ‘x x x x x x x,y y y y y y y,z z z z z z z,’ are DLT card IDs.
- Example:
- *SPJLX*P:123456*DLID:141999995800100,241999995800100,#
- Query DLT card ID
- *SPJLX*P:123456*DLID:?#
- Clear DLT card ID:
- *SPJLX*P:123456*DLID:#

Setup DLT buzzer time

- *SPJLX*P:password*DLBB:x#
- X is DLT buzzer time, in minutes.
- Example:
- *SPJLX*P:123456*DLBB:5#

OTA Operation

GT09L allows a user to do firmware upgrading via a GPRS connection. Details operation command and procedure, please consult with your seller.

Documents / Resources

	ANBTEK GT09L Vehicle GPS Tracker [pdf] User Manual GT09L Vehicle GPS Tracker, GT09L, Vehicle GPS Tracker, GPS Tracker, Tracker