

TK101B

GPS Vehicle Tracker

User Manual



Table of Contents

Preface	1
Attention	2
◆Main functions	3
◆Set up	3
◆Hardware Installation	7
1.Installation diagram of The Tracker	7
2.GPS Vehicle Tracker Installation	7
3. Install relay	8
4. LED Indications	8
◆Application.....	9
◆Specs.....	9
◆Command Set.....	10

Preface

Thank you for purchasing our products. This deliberately edited manual is to introduce the tracker with the complete technical data and the instructions showing how to operate the device smoothly and correctly. Make sure to read this manual carefully before

using this product. Most problems could be solved through the explanations and the troubleshooting tips. Once you finish reading it, keep it handy for necessary reference. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

Attention

1. Make sure to read this manual carefully before using this product.
2. Please insert the SIM card before installing, and make sure the SIM card has no password, otherwise the tracker will not work normally.
3. Please make sure that all the cables of the tracker has been connected rightly, and then connect the tracker to host power. Must not install or take down the tracker when it is power on. If you found any troubles or omissions about the connections of cables, please cut off power first, otherwise you will easily damage the tracker.
4. The tracker works in wireless communications, so please cut off the host power before your vehicles entering fuel depot and dangerous material place.
5. The tracker's work voltage is 9V-28V. Please use the tracker in the scope of work voltage.
6. The host of GPS tracker is a low-power wireless transmitter and receiver. It receives and sends radio frequency signal when it is working.
7. To avoid electromagnetic interference or uncompatible configuration, please stop using your tracker in the noticed place.

◆ Main functions

1. Positioning and Tracking: Through the on-line Positioning Platform or the cell phone to locates at times, and get the working status. You can choose the Positioning Platform by yourself.
2. Remote controlling oil and circuit: you can control the car oil and circuit via the unit by SMS in anywhere and anytime.
3. Overspeed Alert: Send SMS to the unit to start over speed alert function. When the vehicle is overspeed, the unit will send the overspeed alert to all authorized numbers.
4. Geo-fence: Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to all authorized numbers when it breaches the district.
5. Auto Track: You can set up auto track by SMS or on-line positioning platform.
6. Mileage statistics; ACC checking; cutting off power and alarm; Door state check.

◆ Set up

1. Initialization

Send **“begin + password”** in SMS to the unit, it will reply “begin ok” and initialize all the settings. (Default password: 123456)

2. Add authorized number

Send SMS **“admin123456 13612345678”**. "admin" as instruction, "123456" as password, "13612345678" as authorized number. It will reply “admin ok!”.

3. Delete authorized number

Send SMS **“noadmin123456 13612345678”**. "noadmin" as instruction, "123456" as password, "13612345678" as deleted number. It will reply “noadmin ok!”.

4. Change the Password

Send SMS: **“password + old password + space + new password”** to change the password. For example: Send SMS “Password123456 138138”. "password" as instruction, "123456" as old password, "138138" as new password. Password must be six digits. Tracker's initial password is 123456.

5. Control Circuit

Send SMS **“stopelec+password”** to control circuit. For example send SMS: “stopelec123456”.

"stopoil" as instructions, "123456" as the password.

To supply the circuit again, send SMS **“supplyelec+password”** to the unit. For example, send SMS **“Supplyelec123456”** to the tracker. "Supplyelec" as instruction, "123456" as password.

6. Overspeed alert

Set up: Send SMS **“speed+password+space+080”** to the unit (support the speed is 80km/h).

For example, send SMS **“speed123456 080”**. "speed" as instruction, "80" as limit speed, **“123456”** as password.

Cancel: Send SMS **“nospeed+password”** to deactivate the overspeed alert.

7. Geo-fence

Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to the authorized numbers when it breaches the district.

Set up: The user can Send SMS **“stockade + password + space + MinLatitude, MinLongitude; MaxLatitude, MaxLongitude”** to unit to set the restricted district. In case of breach, it will send SMS **“stockade! + geo-info”** to the authorized numbers.

For example send SMS **“stockade123456 22.548123, 114.081234; 22.549123, 114.082234”** to the unit.

Remark: The first latitude & longitude is coordinate of min of the Geo-fence, while the second latitude & longitude is the coordinate of the max. It will alarm one time in each setting.

Cancel: Send SMS **“nostockade + password”** to deactivate this function.

This function will be out of effect after the unit moves outside the district.

8 . Restart the tracker.

Send SMS **“reboot+password”** to the tracker. For example **“reboot123456”**.The tracker will be restarted. It will reply **“system will reboot...”**.

9. Enquiry Positioning

Send SMS **“position”** to the unit, then the unit will send SMS with real-time longitude and latitude to the cell phone.

10. Auto track

Send SMS **“at30sum5”** to the unit, it will reply **“Auto track set ok.”** and report a Geo-info at 30 seconds intervals for 5 times: The max intervals is 65535 seconds. You can send **“at30sum0”** for heaps of times.

Send **“noat123456”** to the tracker, it will reply **“Cancel auto track ok.”**. And the tracker will stop send messages.

11. Modes switch between “telephone” and “web”

Set up: Send SMS “**web + password**” to device. For example, the password is 123456. Send SMS “web123456” to the device, the device will reply SMS “set web ok”. After this, the tracker will report the GPS data to IP address.

If you want to send GPS data to telephone, you can send SMS “**telephone + password**” to device, the device will reply “set telephone ok”. And then, the device will send GPS data to your telephone by SMS. (The default is sending the GPS data to the telephone)

12. Modify IP address and port

The IP address and port of the tracker can be modified and transferred data to other platform. Send SMS “ **IP + ip address + PORT + port value**” to the unit. If the platform’s IP address and port is 123.67.87.9 and 344, send SMS “ip 123.67.87.9port344” to the tracker. It will reply “set IP address and PORT ok.”. After this, device will send GPS data to this IP and Port.

13. Set Device ID number

This command uses only for GPRS communication. Default device ID is the same. In order to identify device for platform, must set device ID for every device. Send SMS “**number + tracker ID number**” to the tracker. For example “number13612345678”.

14. Set APN

In order to send GPS data to IP address, you still must set mobile network Access Point Name (APN). If you don’t know the APN, you can consult local network service supplier. The format of set APN is “**APN + password +space + apn value**”. For example you send SMS “apn123456 cmnet” to the device. The device will reply SMS “Set APN ok.” .

15. Set GPRS user name and password

Some country must be set GPRS user name and password for GPRS communication. The format of set GPRS user name and password is “**user + space + GPRS user name + space + GPRS password**”. For example, “user name 123456”, “user” is command, “name” is GPRS user name, “123456” is GPRS password. After send SMS, tracker will reply “Set GPRS User and Password ok .” .

16. Set country time zone

In the default, tracker reply position SMS time is UTC time. After you can set zone time, tracker will reply the time of your country. The format is “**zone + password + space + time zone value**”. For example, “zone123456 8” is set east 8 time zone. Time zone value

ranges from -12 to 12. One time zone stands for one hour. “zone123456 -8” is set west 8 time zone. After send SMS, tracker will reply “Set Time Zone OK.”.

17. Set ACC open and close send data interval

You can set the interval of send data when ACC open and close. The format of set ACC open interval is “**acon + time interval**”. For example “acon 30” stand for when ACC open send data for every 30 seconds. The format of set ACC close interval is “**acoff + time interval**”. For example “acoff 60” stand for when ACC close send data for every 60 seconds.

18. Set ACC open and close send SMS notify

You can set the SMS notify of when ACC on and off. The format of set is “**acnotify + 1 or 0**”. For example “acnotify 1” stand for when ACC on and off send SMS to authorized numbers. “acnotify 0” stand for close send SMS notify. In order to use this function, you must set authorized numbers.

19. Get GPS Info with Google Format

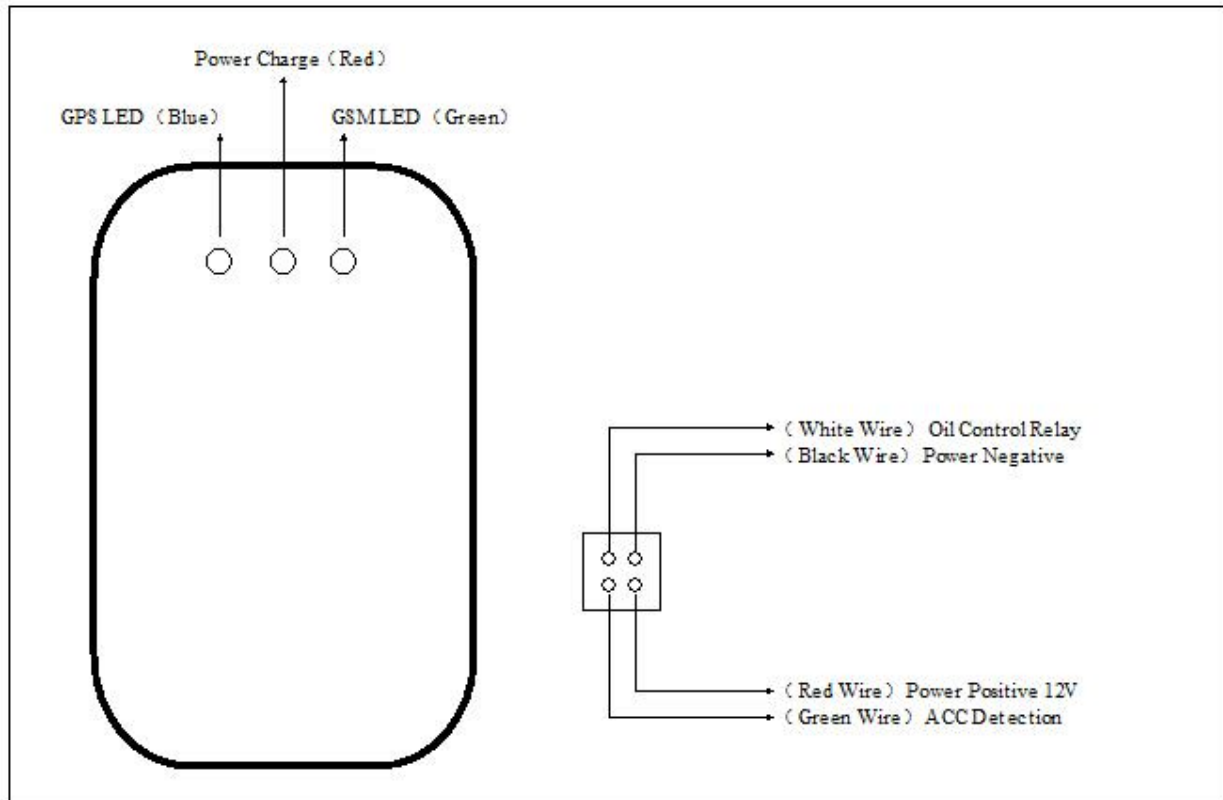
You can get latitude and longitude with Google website format. So you can open map directly by mobile. The format of SMS is “**google**”. After you send SMS, tracker will reply GPS info with google website format.

20. Set call reply SMS format

You can set reply SMS format after you call tracker. The format of SMS is “**geosms + value**”. The SMS of “**geosms 1**” set reply SMS format as “**position**”. The SMS of “**geosms 2**” set reply SMS format as “**google**”.

◆ Hardware Installation

1. Installation diagram of The Tracker



GPS Vehicle Tracker Installation Diagram

2. GPS Vehicle Tracker Installation

GPS tracker should be installed by technical professional of local service centre. Without permission, the user can't repair and move the tracker randomly. If users do, any unfortunated damage should be compensated by himself.

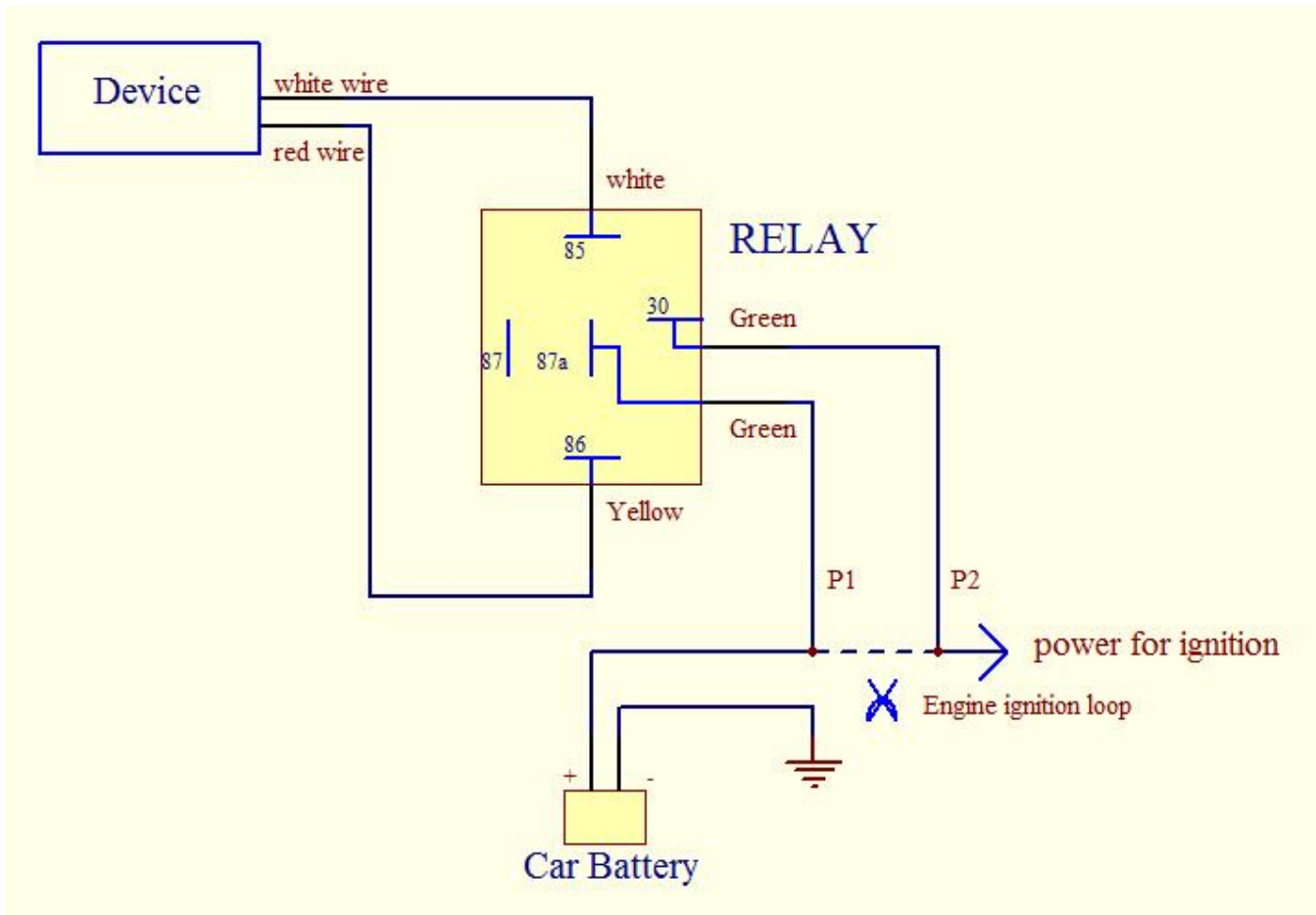
Installation steps (caution: the following installation should under no power, otherwise will be dangerous)

1. Power supply line: The red wire connects 12V" +"; Black wire connects to 12V" -"

2. Wire for cutting off circuit of the tracker

White wire connects the relay pin 85; **86** pin connect to **power positive**, 87a pin and 30 pin in series power supply circuits. Caution: Wrong connection of yellow wire will damage the tracker.

3. Install relay



4. LED Indications

Put the SIM card in place and installed the tracker in the car, the green indicator is on. The red indicator will on when the batter is charging.

GSM LED (Green)	
On	Device booting.
Flashing every 0.1 second	Sending messages or data.
Flashing every 1 second	Searching GSM signals.
Flashing every 2 second	Has connected to the GSM network.
GPS LED (Blue)	
Off	Searching GPS signals.
On	Has been located.
Flashing every 2 second	GPS module is standby.



◆ **Application**

1. Vehicle Rental/Special Tracking System
2. Finance and Insurance Business Tracking System
3. Car Commanding and Dispatching System
4. Heavy Construction Vehicles Tracking Device
5. Shipping Cargoes Tracking

◆ **Specs.**

Content	Specs
Dim.	87.6* 50.8 * 19.6(mm)
Weight	398g
Network	SMS, GPRS (CMNET)

GSM Band	900MHz/1800MHz or 850MHz/900MHz/1800MHz/1900MHz
GPS chip	UBLOX □ chip
GSM/GPRS Module	SIM800W or SIM840W
GPS sensitivity	-159dBm
GPS accuracy	3-30 m
Location Query	Mobile phone or platform
Work Voltage	DC 9V—28V
Battery	Chargeable changeable 3.7V / 750mAh Li-ion battery
Standby work current	< 50mA
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +70°C
Humidity	5%--95% non-condensing

◆ Command Set

No.	Function	SMS	Reply
1	Initialization	Begin123456	Begin ok
2	Add Number	Admin123456 13612345678	Admin ok
3	Delete Number	Noadmin123456 13612345678	Noadmin ok
4	Change password	Password123456 138138	Change password ok
5	Control circuit	Stopelec123456	Stop electricity ok
		Supplyelec123456	Supply electricity ok
6	Overspeed alert	Speed123456 080	Speed ok
		Nospeed123456	Cancel speed ok
7	Geo fence alert	Stockade123456 coordinate; coordinate	Set stockade ok
		Nostockade123456	Cancel stockade ok

8	Restart tracker	Reboot123456	System will reboot
9	Enquiry position	position	GPS info
10	Auto track	At30sum5	Auto track set ok
		Noat123456	Cancel auto track ok
11	Set auto track mode	Telephone123456	Set telephone ok
		Web123456	Set web ok
12	Change IP and PORT	Ip112.33.44.211port2332	set IP address and PORT ok
13	Set device id	Number13612345678	set number ok
14	Set APN	Apn123456 cmnet	Set apn ok
15	Set GPRS user name and password	User name pass	Set GPRS user name and password ok
16	Set time zone	Zone123456 8	Set time zone ok
17	Set ACC open and close interval	Accon 30	Set ACC ON Interval OK.
		Accoff 60	Set ACC OFF Interval OK.
18	Set ACC open and close SMS notify	Accnotify 1	Set ACC Notify OK.
		Accnotify 0	Set ACC Notify OK.
19	Get Google format GPS	Google	GPS info with Google website format
20	info Set reply SMS format	Geosms 1	Set Geo SMS Format OK