GPS Vehicle Tracker

User Guide

This book is designed to explain the base functions and features of the GPS vehicle tracker.

1 QUICK LOOK

1.1 What is in the box

GPS Tracker

Manual

Cable

1.2 Key features

- Real-time GPS tracking
- Playback history
- Track through SMS, Web, App
- Overspeed alarm
- Remotely fuel/power control
- 3 color LED light
- Vibration alarm
- ACC status monitor
- GEO-fence
- Build in backup battery

1.3 Specifications

Frequency	LTE-FDD: B1/B3/B5/B7/B8/B20/B28(A/B) LTE-TDD:B38/B40/B41
Operating Voltage	9~100VDC
GPS Sensitivity	-159dBm
Location Time	<38s (Cold start, open sky)
Working Temperature	-20℃ ~ +70℃
LED Indicator	GSM-green, GPS-blue, Power-red
Battery	70mAh
Dimension	78*40*12.5mm

1.4 LED indicators

GPS Indicator -- Blue

Flashing (bright 0.1s, dark 0.1s)	Searching GPS signal
Always bright	GPS is fixed
Off	Sleep mode

GSM Indicator -- Green	
Flashing (bright 0.1s, dark 0.1s)	GSM network initializing
Slow flashing (bright0.1s, dark 2s)	Failed to connect with server
Always bright	GPRS network connected
Off	No card was identified

Power status Indicator -- Red	
Flashing (bright 0.1s, dark 0.1s)	Battery low
Slow flashing (bright 0.1s, dark 2s)	Work normally

Off	Battery extreme low/Power off

2 GETTING START

2.1 Insert the SIM card

A Micro SIM card with GPRS and Caller ID functions is required to use cellular service when connecting to GSM network to provide locating information of the GPS tracker, install it before turn on the device.

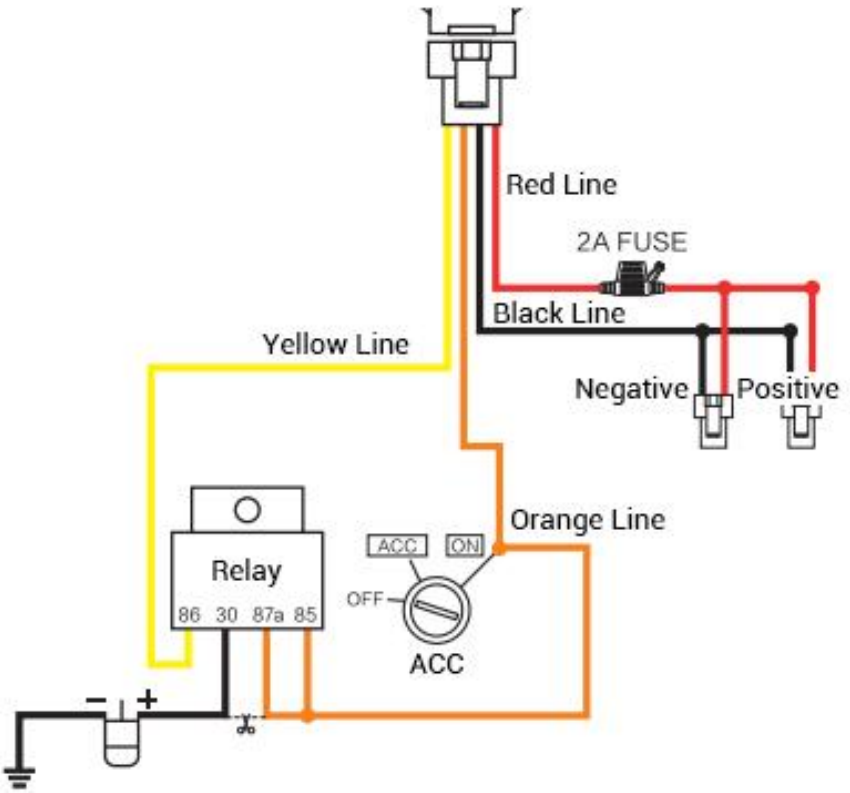
- Remove the bottom cover:

- Place the SIM card as the pattern shows:

- Toggle the battery switcher to ON:

- Replace the bottom cover:

2.2 Device wiring diagram



Red Line	Positive
Black Line	Negative (Connect to Ground)
ACC (Orange)	Connect to ACC ON
Fuel Control（Yellow）	Connect to Relay

2.3 Install the device

- Please install the device under the guidance of professional.

- To avoid of theft or damage, please installed the device in a hidden place.
- The device should be fixed installed with cable or double side tape.
- Avoid placing the device close to higher power electrical devices, such as reversing radar, anti-theft device or other vehicle communication equipment.
- Device has built-in 4G network antenna& GPS antenna. Please make sure the font side of device faces to sky, with no metal object above to interfere with signal reception.
- Please pay attention to waterproof.

2.4 CONFIGURATION

2.4.1 Set APN

Normally the device will search APN for your SIM operator automatically, but if you find the device can not be online, please send SMS to the device as:

apn,apnname,user,psw# (if there is no user name and password, leave blank)

e.g: **apn,epc.tmobile.com,,#**

2.4.2 Set center number

Center number are used to get the alarms' SMS & Calling from your device.

Set center numbers by sending SMS:

center,number1#

e.g: **center,16910***#**

3 APPLICATION

3.1 Web service platform

Please contact with your device supplier for Web service platform details to manage your device online.

3.2 App for mobile

Please contact with your device supplier for App download details to manage your device on your smartphone.

4 MAIN FUNCTIONS

4.1 Moving and Statics

In normal situation, the GPS tracker use the build in G-sensor to check itself is moving or not. Device changes into “Moving” status when the G-sensor detects 3 vibrations in 10s.

If there is no G-sensor or G-sensor is off, device check its status by moving speed. Device changes into “Moving” status when the speed is over 3km/h, or, the status of device is “Statics”.

When device is

Moving: Upload the location data according preset time interval, 10s as default.

Statics: GPS is on, upload the heartbeat packet only.

4.2 Sleep mode and Deep sleep mode

4.2.1 Sleep mode: When the device into “Statics” for 5 minutes, device changes into “Sleep mode”. During the “Sleep mode”, device will

- Off the GPS and upload the heartbeat packet only.
- Wakes up when G-sensor detects 3 vibrations in 10s, and the speed is over 3km/h.

4.2.2 Deep sleep mode:

During the “Deep sleep mode”, device will Off the GPS and GSM.There are two ways can go into deep sleep. One is to open and close through voltage, the other is through speed.

A. Voltage: when the power voltage is lower than preset value, trigger a Low battery alarm before into “Deep sleep mode”.then device into deep sleep mode. Device will wake up when the power voltage is higher than preset value.

B.Speed: when the deep sleep switch is turned on (can be set through the SMS or platform), the status of device is statics,the device enters deep sleep.And when the vehicle moving,the sleep is turned off.

4.3 Cut off / Restore the Fuel/power supply

Cut off the fuel/power supply: To ensure the safety of

the driver and vehicle, this operation available when the GPS is located and the moving speed is under 20km/h. Notice that if the device does not satisfy with these two conditions at the same time, the operation will be delay executed but not canceled.

Restore the fuel/power supply: Fuel/power supply can be restored on demand anytime.

4.4 Vibration alarm

When the device is in Arming status, a **Vibration alarm** will be triggered when device detects 3 vibrations in 10s.

4.5 ACC alarm

When the ACC alarm detection is ON, an **ACC alarm** will be triggered after the ACC status changes for 5 seconds.

4.6 Over speed alarm

When the device is moving faster than preset overspeed detection setting, an **Over speed alarm** will be triggered.

4.7 Wired cut alarm

When the power wire of device is cut-off, a **Wired cut**

alarm will be triggered after 5 seconds.

4.8 Battery low alarm

When battery voltage is lower than 3.4V, a **Battery low alarm** will be triggered.

4.9 External power voltage low alarm

When the voltage of external power is lower than preset value, an **External power voltage low alarm** will be triggered.

5 CONFIGURATIONS

Device supports SMS commands for all configurations in case you don't want to operate the device via GPRS network on web service platform.

Operation	SMS	Remark
Check location	Where#	Device reply with Latitude & Longitude
	123#	Device reply with address detail

	url#	Device reply with map link
Set GPS data upload interval	timer,time#	e.g: time,15#
Set APN	apn,apnname,user,password#	
Add center numbers	center,number#	e.g:center,13636361136#
Set heartbeat interval	Heart,time#	Unit: minutes e.g: heart,5#
Set time zone	timezone,-2#	+: East - : West
Enable ACC alarm	accalarm,on#	
Disable ACC alarm	accalarm,off#	
Cut-off the fuel/power supply	tc#	Available for center numbers only
Restore the	tct#	Available for center

fuel/power supply		numbers only
Set the calling time of alarm	call,n#	n=1~3 e.g: call,3#
Turn on vibration alarm	senalm,on#	
Turn off vibration alarm	senalm,off#	
Check vibration arming status	defense#	
Restart device	reset#	
Restore device to factory	factory#	
Check firmware info	version#	
Check status	status#	
Check parameters	param#	

Get the device location now	locatenow#	

6 Troubleshooting

6.1 After the first installation of the terminal, it has been unable to connect to the backend server and the backend displays that it has not been launched. Please check the terminal installation:

6.1.1 Check if the main power supply wiring is correct, and be careful not to connect it to the internal control line of the car.

6.1.2 Please refer to the installation instructions for the correct installation of SIM.

6.1.3 Is the ACC ignition wire connected? After connecting it, insert the car key to open ACC.

6.1.4 Check whether the GPS has been positioned. If not, please go to an open outdoor area for the first positioning.

6.2 The terminal displays offline status in the

background.

Firstly, observe whether the indicator lights of the device are normal. In the absence of conditions for observation, you can first check the status of the card, as follows:

6.2.1 Call the SIM card number of the device to see if you can hear the sound of the phone being connected.

6.2.2 Is the vehicle in the basement without covering network signals.

6.2.3 Is the SIM card in arrears.

6.2.4 Query parameter settings to check if the IMEI number and GPRS transmission interval of the device are correct.

6.3 If the GPS has not been positioned for a long time, please check if the installation position of the terminal meets the requirements:

6.3.1 When installing the terminal, the GPS antenna should face the sky.

6.3.2 The installation location above the terminal must be covered by substances (such as metal) that do not absorb electromagnetic waves.

When the GPS signal reception environment is poor (there are tall buildings blocking the GPS signal around), please drive to a place with open sky to locate. Generally, the first positioning time takes 1-2 minutes.

When 4g network signal reception is abnormal, please check whether the SIM card of the terminal is installed correctly; Alternatively, the location may not have network signal coverage (such as in a basement), please drive to a location with network signal coverage for use.

When a specific SOS phone number receives a power outage alarm message, determine whether it is illegal to cut the power cord. Otherwise, check if the fuse on the power cord has blown. If it has blown, contact your dealer to replace it with a FUSE

of the same specification and model, and check and eliminate internal faults in the terminal before powering on and working again.