

GM02E USER MANUAL

1. Summary

The new product GM02E GPS tracker with smaller size, it is more easy to install inside the car, just connect the power then start to work. This device support anti-spy technology and sleep function, it connect the server at preset time and moving state.



2. Product Features

- ✓ Quad-Band GSM supported
- ✓ GPS/Beidou/LBS location upload
- ✓ Wide range input voltage from 5-30V DC
- ✓ Smart ACC detection
- ✓ 1000 history location auto save
- ✓ Internal monitoring chip for system recovery automatically
- ✓ Support assisted-GPS technology, quick GPS fixed in 15S
- ✓ 3LEDs for status indication
- ✓ Enhance surge protection design
- ✓ Protection for wrong wire connected in positive and negative
- ✓ Support web base device management
- ✓ Support Android App and iOS App
- ✓ Support SMS commands
- ✓ Support real time tracking
- ✓ Support history track playback
- ✓ Self-Defined GEO Fence

3. Product Specification

Antenna specification:

- ✓ Quad-band GSM antenna
- ✓ GPS Antenna: 18x18x4mm Patch
- ✓ 2 grades LNA amplifier

Voltage and current specification:

- ✓ Work voltage: DC 5-30V
- ✓ Average current: 30mA at DC 12V
- ✓ 1500W Surge protection

Environment specification:

- ✓ Working temperature: -20℃～75℃
- ✓ Working humidity: 20%RH-95%RH
- ✓ Storage temperature: -40℃～85℃

GPS Specification:

- ✓ GPS/Beidou Support
- ✓ Accuracy: 3M
- ✓ Cold start: 28S
- ✓ Hot Start: 1S
- ✓ Assisted Start: 15S
- ✓ Tracking Sensitivity: -163dBm
- ✓ Reacquisition Sensitivity: -159dBm

GSM/GPRS band information:

- ✓ Frequency Band: GSM850/900/1800/1900
- ✓ GPRS Class: Class12
- ✓ Upgrade over Air

Product Size:

- ✓ 59mm x 26mm x 11.5mm
- ✓ Weight: 22g

3. Getting Start

3.1 Packing list:

Please check if all the accessories are in the gift box before use, accessories may different compare with the picture.

list:

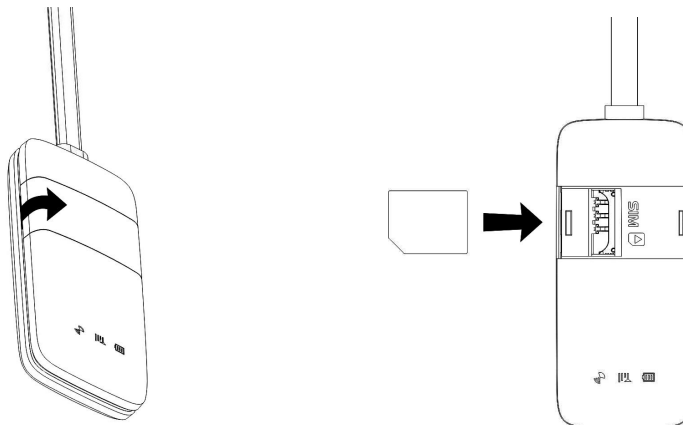
- GM02E Unit
- SIM Cover
- Power Cable
- User Manual



3.2 Installation Guide

1) SIM Card

This device use Mirco-SIM card, please select this type of SIM from operator, if you have standard SIM, you can cut it by SIM-Cutter. The following picture shows how to open SIM cover and insert SIM card.



2) Installation

GM02E support 12V/24V battery system, the RED wire connect to 12V and the BLACK wire connect to the ground, please make sure the good isolation in wire connected point. To prevent short circuit, we recommend the professional installation. The GPS antenna and LED in the same side, GPS antenna face to the sky is better for receiving signal. GM02E support smart ACC(ignition) detection, no extra wire needed.

3.2 Status LED Description

After apply power to the device, 3 LEDs will light up, the meanings of the LED shows in following table:

No.	LED Color	Status	Descriptions
1	Red	Light	Register to GSM network
		Blink	Registering to GSM network or unrecognized SIM card.
2	Yellow-Green	Light	Server connected
		Blink	Connecting to the server or failed in connect to the server.
3	Blue	Light	GPS Fixed
		Blink	Searching for GPS fixed

4. Manage your device

If you have already had the account, you can login the management system that your distributor provided, if not, please contact your distributor(also the service provider) create the account for you. You can also get the <Device Management Guide> from your distributor.

1) Manage device over web

Visit the web that the distributor provided, login using the account and password, you can track the device's real time location and history track. Device setting and status query can also support.

2) Manage device using APP

After login, select the device you need to manage, including retime tracking, history track playback and settings. GM02E support anti-spy mode(MODE1), you need to set by APP or web. Mode description as follow:

Mode1: We also call this anti-spy mode, device will disconnect to the server when in stop, and it will online when moving or keep online for 5 minutes at preset time.

Mode2: This is the default mode, device will always online.

5. SMS commands

1) APN setting		
Instruction	Format	Example
APN Setting 1	APN, APN-Name,user,psw#	APN,ac.vodafone.es,vodafone,vodafone#
APN Setting 2	APN, APN-Name#	APN,cmnet#
Note:	APN settings are difference in difference country, if password require please follow setting 1, otherwise setting 2.	
Example:	Send: APN,cmnet# Return: Set APN OK!	

2) TIMER setting		
Instruction	Format	Example
TIMER Setting	TIMER,n#	TIMER,20#
Note:	n=0, or n>=10. n=0, stop upload data. n>=10 and ACC Signal in high level, upload data in every n seconds.	
Example:	Send "TIMER,20#" Return "TIMER set ok. Now data upload period is 20 seconds. "	

3) Restore Factory Settings

Instruction	Format	Example
Restore Factory default	FACTORY #	FACTORY #
Note:	Restore factory setting, part of settings will restore factory default.	
Example:	Send: FACTORY# Return: Factory Reset OK	

4) Reset Device

Instruction	Format	Example
RESET	RESET #	RESET #
Note:	Device will reboot.	
Example:	Send : RESET# Return : System Reboot OK	

5) Check Paramaters

Instruction	Format	Example
Query Device Information	PARAM#	PARAM#
Note:	Use this instruction to query device main parameters.	
Example	Send: PRARM# Return: IMEI:3534XXXXXXXXXXXX; (Serial number) APN:cmnet; (Current APN) IP:gm02e.szdatasource.com:8841; (Server address and port) TIMER:10S; (Gap time for location update) CENTER TEL:0; (Center phone number) TIME ZONE:8.00 ; (Default TimeZone) LANGUAGE:EN; (EN – English, CN - Chinese) LCWL : OFF (Geo fence, notify by SMS) Mode :2 (Current working mode, default mode2) Protocol : GM02E (Current Protocol type)	

6) Check Working Status

Instruction	Format	Example
STATUS	STATUS#	STATUS#
Note:	Use this message to check the device working status, like GSM, GPRS, GPS status.	

Example	Send: STATUS# Return: EXT-POWER: 12.80V; (Input voltage indication) V-BAT: 85%; (Internal battery voltage indication) GPRS:NORMAL; (NORMAL: Connected to the server, FAILED: Fail to connect to the server.) GSM Signal:MIDDLE, (GSM signal level, H-High, M-Middle, L-Low) GPS: FIXED, (GPS status: FIXED and INVALID) GPS Signal:MIDDLE, (GPS signal level, H-High, M-Middle, L-Low) ACC: ON;(ACC status, ON-Engine start, OFF-Engine stop) Fuel Supply:ON; (Fuel supply status, some module support)
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7) URL		
Instruction	Format	Example
URL	n/a	URL#
Note:	Return the hyperlink on google map.	
Example:	Send:URL# Return:<LocalTime:2017-01-20,15:12:13> http://map.google.com/maps?q=22.334278,113.575.05	

6. Trouble Shutting

For first time use, device can not connect to the server, display offline in management system, please check according the follow.

- a) Check the power connection, it must connect to the main power line;
 - b) Check if the SIM card in right direction;
 - c) Check the SIM with GPRS service;
 - d) Check parameters by SMS command PARAM#;
 - e) Check if the APN being set correctly;
 - f) Check if the car in GSM cover area.
 - g) Check LED status, 3 LEDs will light up.
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- 2) Device online, but no location update.
 - a) Please test outdoor;
 - b) Please check if the GPS face to the sky and no shielding by metal part, don't test near the high building or under the tree.