1.Overview

1.1 Features

· LTE & WCDMA & GSM
· WiFi hotspot
· ACC detection for ignition status
· IP65 water proof
· Remote cut-off (petrol/power)
· Multiple alerts

1.2 Specifications

Frequency	GSM: 850/900/1800/1900 MHz
	WCDMA: 850/900/1900/2100MHz (B1/B2/B5/B8)
	LTE:B1/B2/B3/B4/B5/B7/B8
GPS	Chipset : U-blox 7020
	Frequency: GPS L1, 1575.42MHz
Location accuracy	<10 meters
WiFi	2.4 GHz
LED indicator	GPS (blue), GSM(green), power (red)
Battery	450mAh/3.7V
Working voltage/current	9-36V 12VDC/76mA(12VDC); 38mA(24VDC)
Operating temperature	-10℃ ~ 40℃
Dimension	113(L)*51(W)*20(H)mm
Weight	105g

1.3 Accessories

12V relay
SOS cable
Power cable

2.Device appearance

3.Wiring Diagram

POWER AND I/O

Purple:SOS+   Red:DC
Black:GND   Orange:ACC
White:SOS-   Yellow:Relay

A1	Red	● PW+	Power: 9ᴠ~36ᴠ
A2	Orange	● ACC	ACC
A3	Yellow	● Relay	Fuel/Power cut-off
A4	Black	● GND	GND
A5	Purple	● SOS +	SOS (Positive)
A6	white	○ SOS -	SOS (Negative)

4.LED indications

Green LED(GSM indicator)

Status	Definition
0.3s ON, 0.3s OFF	GSM initializing
1s ON, 3s OFF	GSM normal
0.1s ON, 3s OFF	GPRS online
OFF	No GSM or SIM card

Red LED (Power indicator)

Status	Definition
0.3s ON, 0.3s OFF	Low battery
1s ON, 3s OFF	Work normally
Solid Red	Charging
OFF	No battery/Malfunction

Blue LED(GPS indicator)

Status	Definition
0.3s ON, 0.3s OFF	Searching GPS signal
1s ON, 3s OFF	GPS positioned successfully
OFF	GPS sleeps or doesn't work
Solid ON	Bluetooth configuration

Note: LED indicators will be off after 180s when ACC is OFF.

5.Hardware Operation

(1)SIM Card installation

SIM card should have access to GPRS and SMS.
Remove the cover, switch the device to OFF and insert the SIM card in correct direction.

❌ Micro ✔ Nano ❌

6.Device Installation

You need to choose somewhere that it won't be found, because the whole point of fitting covert GPS vehicle tracker is the secrecy element.

1. Your device has built-in GSM antenna and GPS antenna. During installation, please make sure the receiving side face is up ; any high power devices such as reversing radar, anti-theft device or communication equipment would affect the signal of the device.

2. All metallic cases of the windshield will attenuate the signal on the tracking device. It's simply due to the shielding effects of the metal compound of the case.

3. The device should be fixed into position with cable ties or wide double-side tape.

7.Wiring

1. The standard voltage is 9V-36V, the red wire is the positive, the black wire is the negative.

2. Connect the black wire to ground.

- Under the dash board below the front windshield;
- In the parcel shelf in the rear;
- In the front bumper (non-material face), make sure the device does not get wet;
- Under the wiper version (non-metal), make sure the device does not get wet;
- Non Covert Installation – fix the device on the dash board below windshield.

NOTE:
Please pay attention to the diagram description, battery is 9-36V and relay remains 12V / 24V.

8.Operations & Functions

The following operation can be achieved through the terminal platform or APP provided by the dealer.

8.1 SOS number

(1) Add SOS number via SMS command
Send SMS command: **SOS,A,number1,number2,number3 #** (A means add number).
3 SOS numbers can be set. If set successfully, the terminal will reply "OK".
e.g. **SOS,A,13510****60,135116****6,136126****8#** (set all 3 SOS numbers)
SOS,A,13510**60#** (set the first SOS number)
SOS,A ,135116**6#** (set the second SOS number)
SOS,A ,,136126**8#** (set the third SOS number)

(2) Delete SOS Numbers
Send SMS command: **SOS, D,1,2,3#**
(D means delete SOS number)
e.g. **SOS, D,1# means delete the first number**
SOS, D,3# means delete the third number
If you don't know the sequence number, you can also delete the number by SMS command like this: **SOS,D,number#**
e.g. **SOS,D,13527852360#** means delete this SOS number directly.
It will reply "OK" if the number is deleted successfully.

(3) Add SOS numbers via platform
You can set SOS number via the platform or APP when device is online.

8.2 APN setting

To ensure GPRS is activated, please make sure APN is correct. You can send SMS command to set APN:
APN command format: **APN,APN's Name#**
E.g: APN.internet# ("internet" is the APN of carrier)
The device will reply "OK" if setting successfully.

Note: The APN of some countries have user name and password, you may need to send SMS command as following: **APN,APN name,user name,password#**

8.3 Server setting

Default platform is **www.tracksolid.com**
To connect to other platform, please send the SMS command to change the DNS or server IP:
DNS : **SERVER,1,DNS,Port,0#**
E.g: SERVER,1,gpsdev.tracksolid.com,21100,0#
IP: **SERVER,0,IP,Port,0#**
It will reply "OK" after set successfully.

8.4 Center number

Set center number :
CENTER,A,phone number#
Delete center number :
CENTER,D#

8.5 Upload positioning data regularly

Command
TIMER,T1,T2#
T1: ranges from 0/5 ~ 18000 seconds, the upload interval when ACC ON
T1=0: no data uploaded
T1=5 ~ 18000 seconds (Default: T1=10)
T2: ranges from0/5 ~ 18000 seconds, the upload interval when ACC OFF
T2=0: no data uploaded
T2=5 ~ 18000 seconds (Default: T2=0)

8.6 Arming time setting

Delay time for device entering arming state after the vehicle power is off and ACC is in low-level. In the arming state, if the vehicle vibrates for a few times, it will activate the vibration alarm system. If the vehicle battery is still not on (ACC is in low level) after 3 minutes, the device will start vibration alarm.
SMS format:
DEFENSE,TIME#
The time ranges from 1 to 60 minutes, default is 10.

NOTE:
1. Preset SOS numbers before sending SMS alarm messages and calls.

2. If there is no need for vibration alarm, please send SMS **SENALM,OFF#** to close it.

8.7 Wire cut-off alarm

When the electricity supply of device is cut off, it will activate cut-off alarm. In this case, the device will send related SMS to the SOS numbers and dial the numbers in circles. If nobody answers, the call just keeps 3 loops at most. At the meantime, the device will upload power cut off alarm data to the server. And it will send:
Cut off Power Alarm! <06-17 14:53>,
http://maps.google.com/maps?q=N22576713,E113,916585
It will reply "OK" after set successfully.

NOTE:
The SOS numbers should be preset, please refer to 8.1.

8.8 Oil cut-off

1. via platform

Send oil cut-off command on platform. To make sure the security of vehicle, tracker can only indicate to cut off oil when GPS is in valid position status, and the speed is less than 20KM/H or in static. Platform account password is needed when sending oil cut off command.

2. Via SMS

Firstly, you should set a center number. Please refer to **8.4**. Only center number can send the command to the device to cut off and restore oil.
The format is: **RELAY,1#**
After the command is carried out, it will reply "RELAY:ON" If the command didn't carry out, it will reply the reason about fail to carry out.

NOTE:
To ensure the safety of the driver and the car, this command is valid only under two conditions: the GPS is located; the speed is less than 20km/h.

8.9 Restoring Oil

1. via platform

When the alarm is off, sending recover oil commands manually. Device will restore oil supplying, and vehicle will work normally again.
Platform account password is needed when sending oil cut off command.

2. Via SMS

Only center number can send the command to the device to restore oil.
The format is: **RELAY,0#**
After the command is carried out, it will receive "RELAY:0FF"

8.10 Over Speed Alarm

When the car is moving over a limited speed in average in a limited time period, then the device will send over speed alarm SMS to user.
To turn on the over speed function, please send below SMS command:
SPEED,ON,Time,Limited speed,way of alarm#
Time range（Second）: 5-600s (default as 10s).
Limited speed range (km/h) : 1-255, default : 100.
Way of alarm: 0, GPRS only; 1, SMS+GPRS; default : 1.
Example: **SPEED,ON,10,120,1#**
Means when the car is moving over 120 km/h in average in 10 seconds, the device will send over speed alarm to user.

8.11 Restore to factory setting

SMS command format: **"FACTORY#"** to set all parameter to default factory value. Once received "FACTORY:OK!" it succeeds.

8.12 Reboot device

When there is something wrong with the link of GPRS, e.g., the parameter setting of the device is correct, but you can't track the car on the platform. At this moment you can send a command to the device to reboot the device.
The format is: **RESET#**

8.13 SOS

In emergent case, press SOS for 3 seconds to activate SOS alarm. Then the device will send SOS SMS to preset SOS numbers and dial the numbers in a loop for 3 times till the call picked up. Alarm message will also be sent to the platform.

8.14 Wi-Fi hotspot

Command: **HOTSPOT,S,N,P#**

S=ON/OFF Default: OFF (uppercase required)
N=Name, 20 characters, default: last four digits of IMEI
P=Password, minimum eight, default password: 11111111

After receiving this command, the device will reboot after 20 seconds

9.Platform & APP

9.1 Login service platform

Please login the designated service platform to set and operate the device.

9.2 Download APP
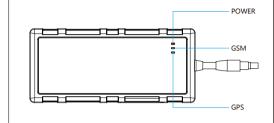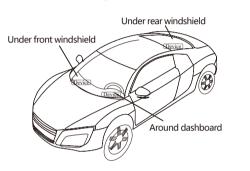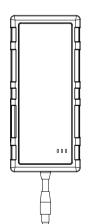
Please download and install the APP in designated website, APP store or Google Play.

iOS   Android

After receiving this command, the device will reboot after 20 seconds

10. Warning

Battery specified by manufacturer is recommended.
Maintenance or service arising from any other accessories is not guaranteed.
Manufacturer assumes no responsibility for any damage caused by non-original accessories.
Do not bend or open the battery
Do not immerse or burn the battery
Device dis-assembly is strongly forbidden.
Nonprofessionalsoperation may cause device damage.

Warranty instructions and service

1.The warranty is valid only when the warranty card is properly completed, and upon presentation of the proof of purchase consisting of original invoice indicating the date of purchase, model and serial No.of the product. We reserve the right to refuse warranty if this information has been removed or changed after the original purchase of the product from the dealer,.
2. Our obligations are limited to repair of the defect or replacement the defective part or at its discretion replacement of the product itself.
3. Warranty repairs must be carried out by our Authorized Service Centre. Warranty cover will be void, even if a repair has been attempted by any unauthorized service centre.
4. Repair or replacement under the terms of this warranty does not provide right to extension or renewal of the warranty period.
5. The warranty is not applicable to cases other than defects in material, design and workmanship.

11. Troubleshooting

If you are having trouble with your device, try these troubleshooting procedures before contacting a service professional.

Problems	Causes	Solutions
Poor signal	The signal waves are unable to transmit when use the GPS tracker in the places that have poor signal reception, such as: tall building around or basement.	Using the GPS tracker in the places that have good signal condition.
Unable to boot	Power switch is off	Switch to ON
	Battery low	charge
	No SIM card	Insert SIM card
Unable to connect to the network	SIM card inserted incorrectly	Check SIM card
	Dirty things exist above the SIM card	Clean SIM card
	Invalid SIM card	Contact network supplier
	Not in GSM service area	Move to service area
	Poor signal	Move to area with strong signal

Fail to locate	SIM has no access to GPRS		Contact network supplier to get GPRS service
	Always reply "Address inquiry failed"		Contact supplier

Maintenance Record

Date		Serviced by	
Product Model			
IMEI Number			
Fault Descriptions			
Comments			

CE Caution:

Use the Product in the environment with the temperature Between -10°C and 40°C; Otherwise, it may damage your product. Products can only be used below 2000m altitude
For the following equipment:
Product Name: 4G Vehicle GPS Tracker
Model: JM-VL01, GV40, VL01
Brand Name: Jimi
Shenzhen Jimi IOT Co., Ltd
E-mail: gaoxingxin@concox.cn
hereby declares that this [Name: 4G Vehicle GPS Tracker, Model: JM-VL01, GV40, VL01] is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
The equipment was passed. The test was performed according to the following European standards:

CE

The full text of the EU declaration of conformity is available at the internet address:
https://www.jimilab.com/JM-VL01-CE-DoC.pdf
The product shall only be connected to a USB interface of version USB2.0 and that the connection to a power USB is allowed.

CAUTION
RISK OF EXPLOSION IF BATTERY IS REPLACED
BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING
TO THE INSTRUCTIONS

This product is intended for sale and application in a business environment.
RED Article 10 2
-This product can be used across EU member states
RED Article 10 10
-The product is class 1 product, No restrictions
The RF distance between body and product is 5mm

GSM900: Tx: 880-915MHz, Rx: 925-960MHz
DCS1800: Tx: 1710-1785MHz, Rx: 1805-1880MHz
RF Output Power: GSM900: 31.30dBm, GSM1800: 25.39dBm
EDGE900: 30.30dBm, EDGE1800: 25.75dBm

WCDMA Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz
WCDMA Band 8: Tx: 880-915MHz, Rx: 925-960MHz
WCDMA Band 1: 22.86dBm, WCDMA Band 8: 22.37dBm

FDD-LTE Band 1: Tx: 1920-1980MHz, Rx: 2110-2170MHz
FDD-LTE Band 3: Tx: 1710-1785MHz, Rx: 1805-1880MHz
FDD-LTE Band 7: Tx: 2500-2570MHz, Rx: 2620-2690MHz
FDD-LTE Band 8: Tx: 880-915MHz, Rx: 925-960MHz
FDD-LTE Band 1: 23.50dBm, FDD-LTE Band 3: 22.98dBm,
FDD-LTE Band 7: 24.11dBm, FDD-LTE Band 8: 22.56dBm

Wi-Fi:
2412-2472MHz for 802.11b/g/n(HT20)
2422-2462MHz for 802.11n(HT40)
14.16dBm (EIRP)

GPS
Frequency Range: 1575.42MHz receiver

FCC RF Exposure Information and Statement

This device meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. The SAR limit of USA (FCC) is 1.6 W/kg averaged. Device: 4G Vehicle GPS Tracker
(FCC ID: 2AMLF-JM-VL01) has also been tested against this SAR limit. SAR information on this and other pad can be viewed on-line at http://www.fcc.gov/oet/ea/fccid/. Please use the device FCC ID number for search. This device was tested simulation typical 5mm body. To maintain compliance with FCC RF exposure requirements, use accessories should maintain a separation distance between the user's bodies mentioned above, the use of belt clips, holsters and similar accessories should not contain metallic components in its assembly, the use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.

FCC Warning

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE 1: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to
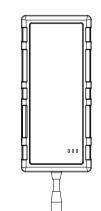
try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

4G Vehicle GPS Tracker
User Manual
(Version 1.0)

One side of the device is marked "THIS SIDE TOWARDS SKY", place the unit upside down will result in correction issues.
Avoid placing the device somewhere that metal will be covering it up.