Please read this manual carefully before attempting installation and online activation. Pictures are for indication and illustration purposes only.
Accessories:
- Power cord (standard)
- Relay (standard)
- Microphone (standard)
- SOS Alarm button (standard)

Assure check the accessories before using. The figures are for indication and illustration purposes only.

Features:
- GSM 850/900/1800/1900 Quad band
- Ease of use for voltage input range: 9-36VDC
- GPS continuous positioning, GPRS timing interval
- Back-up battery (susceptible to power)
- Built-in vibration sensor, theftproof
- CC ignition detection
- Three SOS numbers in maximum
- Alarm and burglar alarm
- Voice monitor function
- Alarm when the power supply is disconnected intentionally
- Back-up battery
- Compatible with external connection through (serial port)
- Fencing via SMS command

2.1 Red LED (power/working status)

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashing (interval 0.1s)</td>
<td>Low battery indication</td>
</tr>
<tr>
<td>Continuously in bright state</td>
<td>Charging</td>
</tr>
<tr>
<td>Slow flashing (interval 0.2s)</td>
<td>Full charge</td>
</tr>
<tr>
<td>Continuously in dark state</td>
<td>Low battery / power off</td>
</tr>
<tr>
<td>Slow flashing (flash 0.1s after every 2s)</td>
<td>Working normally</td>
</tr>
</tbody>
</table>

2.2 Green LED (GSM status indicator)

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick flashing (interval 0.1s)</td>
<td>GSM initialization</td>
</tr>
<tr>
<td>Slow flashing (flash 0.1s after every 2s)</td>
<td>Receive GSM signal normally</td>
</tr>
<tr>
<td>Continuously in bright state</td>
<td>GSM conversation/Start GPRS</td>
</tr>
<tr>
<td>Continuously in dark state</td>
<td>No GSM signal</td>
</tr>
</tbody>
</table>

2.3 Blue LED (GPS status indicator)

<table>
<thead>
<tr>
<th>LED Status</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashing (interval 0.1s)</td>
<td>Searching GPS signal</td>
</tr>
<tr>
<td>Continuously in bright state</td>
<td>GPS located</td>
</tr>
<tr>
<td>Continuously in dark state</td>
<td>GPS not located</td>
</tr>
</tbody>
</table>

2.4 Ignition detection indication

Three (blue/red/green) LEDs are in cycling flashing.

3. Interface introduction

4. Method of installation

4.1 Preparation before installation

4.1.1 Open the packing box to check whether the type of device is correct and whether the accessories are included, or else please contact your distributor.

4.1.2 Choose SIM card: each device needs to insert a GSM SIM card. Please refer to the distributor's suggestions to choose the SIM card.

4.1.3 Installing SIM card: The SIM card slot is on the right side of device. Open the SIM card silicon seal, then insert the SIM card to the slot (do not insert the SIM card backwards). When the SIM card is ready you will hear a click. Or else please insert again and then replace the silicon seal.

Note: Please use GSM network SIM card.

4.2 Installation

The device installation is covert. Please refer installation to an auto electrical contractor.
4.3 Device outlet specification

<table>
<thead>
<tr>
<th>No.</th>
<th>Specification</th>
<th>Color</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2</td>
<td>Keypod</td>
<td>Orange/Orange</td>
<td>Connect to SOS button</td>
</tr>
<tr>
<td>3, 4</td>
<td>MIC, MIC+</td>
<td>Grey/Brown</td>
<td>Connect to Microphone</td>
</tr>
<tr>
<td>5</td>
<td>TX</td>
<td>Green</td>
<td>Sending data (TX)/backup</td>
</tr>
<tr>
<td>6</td>
<td>RX</td>
<td>Blue</td>
<td>Receiving data (RX)/backup</td>
</tr>
<tr>
<td>7</td>
<td>GND</td>
<td>Purple</td>
<td>Ground wire</td>
</tr>
<tr>
<td>8</td>
<td>MOTOR</td>
<td>Yellow</td>
<td>Connect to relay control line</td>
</tr>
<tr>
<td>9</td>
<td>ACC</td>
<td>Orange</td>
<td>Connect to ACC ignition</td>
</tr>
<tr>
<td>10</td>
<td>V-</td>
<td>Black</td>
<td>Vehicle 12V/24V negative storage battery</td>
</tr>
<tr>
<td>11</td>
<td>V+</td>
<td>Red</td>
<td>Vehicle 12V/24V positive storage battery</td>
</tr>
</tbody>
</table>

**Notes of the relay wiring**

The relay wiring of pump: oil connectors of both ends are a fine white line (85) and a fine yellow line (86). The fine white line (85) is connected to vehicle positive power (+12V). The fine yellow line is connected to the device relay control line. Cut off the positive connection line of the pump; then connect in series to the relay N.C. contact (thick green line 87a) and the other end to relay COM contact (thick green line 30).

Note: The standard relay is 12V and only suits the 12V car battery. Please choose 24V relay if it is 24V car battery.
5. Cautions of device wiring

5.1 Power/ACC/Tele-cutoff(petrol/electricity) control line (4 pin)

5.1.1 The standard voltage is 9V-36VDC. Please use the power line which provided by the manufacturer. The red line is the positive. The black line is the negative. The negative should earth alone or link iron during installing. Do not connect it to other ground wire.

5.1.2 ACC line (orange) is connected to the ACC switch of the vehicle. Please make sure to connect the ACC line. The tracker will decide whether to enter ignition detection according to ACC status. If do not connect to ACC line, the device will enter ignition detection status. If the vehicle vibrates when moving, it will activate the vibration alarm. If there is need for the theftproof function, connect the ACC line to the positive in parallel and keep high level.

5.1.3 Tele-cutoff (petrol/electricity) control line (yellow) is connected to pin 86 of the Tele-cutoff (petrol/electricity) relay (equal to the yellow line of the relay socket).

5.2 USB cable (3 pin) Firmware updating interface/expanded function to reserve space.

5.3 MIC line (2 pin) Externally connect to microphone for voice monitor function.

5.4 SOS line (2 pin) Externally connect to SOS switch for SOS function.

6. Parameter setting

The SMS command is divided by comma. There is a reply SMS after sending the command. If set successfully, there is a “ok” reply SMS; or else please set again.

The device will reply the corresponding information after sending the SMS command.

Any phone numbers can send SMS command to the device as default.

6.1 APN setting

To connect default platform www.cootrack.net, please send the SMS command below:

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#

E.g: APN,internet, CLIENTE, AMENA#

6.2 DNS setting

To connect other platform, please send the two SMS commands below:

Command format:

① APN, APN’s Name#
② SERVER, 1, DNS, Port, 0#

E.g: APN,internet# SERVER, 1, www.cooaccess.net, 8841, 0#

It will reply “OK” after set successfully.

6.3 ON/OFF GPRS

When you want to disable GPRS, you can send SMS command to the SIM card number which used in the device.

Command format:

GPRS ON: GPRSON, 1#

GPRS OFF: GPRSON, 0#

It will reply “OK” after set successfully.

6.4 Add specific number

SMS command to the device to set the SOS number.

SOS,A, No.1, No.2, No.3#

“#” means to add new numbers, for example:

SOS, A, 13510905991, 13510905992, 13510905993#

If there is only one SOS number, you can appoint a specific number as SOS number. And the null means no adding.

Warranty card of GPS Vehicle tracker

Special statement:

1. Technique of this product subject to change without further notice.

2. Any change about the appearance and color is subject to the real object.

3. Warranty card applies to the product with the IMEI number listed below.

4. Please keep this card safely for the after-sale service, as well as your receipt.

5. Refer to the table below for the warranty reference.

This card is the basic certificate for warranty, please fill it carefully and keep it safely.

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>IMEI number</td>
</tr>
<tr>
<td>Date</td>
<td>IMEI number</td>
</tr>
<tr>
<td>Sales unit name</td>
<td>Invoice number</td>
</tr>
<tr>
<td>Sales unit address</td>
<td></td>
</tr>
<tr>
<td>Sales unit phone number</td>
<td></td>
</tr>
</tbody>
</table>

1. Main engine is guaranteed for one year for non-human damage since the date of purchase.
2. The situations listed below are not in the scope of warranty, the user has to pay maintenance cost:
   (1) exceed the warranty period;
   (2) disassemble or maintain without authorization;
   (3) immersion, break or burn of circuit board;
   (4) damages from improper installation, use, maintenance or storage;
   (5) damages of shell, lens or internal antenna;
   (6) IMEI number is teared or vague;
   (7) warranty certificate is inconsistent with product model, or the certificate is altered;
   (8) the damages due to force majeure.
7.1 Power on/ Power off
Power on: Once insert a valid SIM card and connect all the wires, turn on the device, then Power LED will flash first. During signal searching process, GSM and GPS LED will flash. Once GPS LED keeps solid light, it means the device has been located and it starts to work.

Power off: Just turn off the power switch.

The device will begin to upload positioning data to server once inserting a valid SIM card and power on. During the working time, it can upload data to server every 10 seconds.

7.2 Check location
7.2.1 Via SMS
7.2.1.1 SMS "WHERE #", to the SIM number of device. The device will send a location message automatically. You can get the coordinates. If the device does not search any information of location, it will send "No data" to the cell phone.

Example:
Lat: N22.571285, Lon: E113.877115, Course: 42.20, Speed: 0.0740, Date/Time: 10-11-23 22:28:51

7.2.1.2 SMS "URL#", to the SIM number of device. The device will send a location Google Map link. If the device does not search any information of location, it will send "No data" to the cell phone.

Example:

Note: The specific numbers should be preset, just refer to 6.4

7.3 SOS alarm
In emergent case, press SOS for 3s to activate SOS alarm. Then the device will send SOS SMS to preset specific numbers and then dial the numbers in circles until the call is picked up. At the meantime, the device will upload position data to the server, and it will send:


Note: The specific numbers should be preset, just refer to 6.4

7.4 Wire cut-off alarm
When the electricity supply of device is cut off, it will activate cut-off alarm. When the electricity is cut off, the device will send related SMS to the specific 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 SOS alarm data to the server. And it will send:


Note: The specific numbers should be preset, just refer to 6.4

7.5 Low battery alarm
When the device is only working with battery, once the internal voltage of battery is lower than 3.7V, device will send low battery alarm SMS to specific number and alarm on platform.

Low battery alarm SMS content example: "Attention!!! Battery too low, please charge." Which means the battery is too low, to inform user charging it in time.

Note: The specific numbers should be preset, just refer to 6.4

7.6 Vibration alarm
When vehicle power is off, ACC status is also low, and if the lead time of low ACC is more than 10 minutes (settable), device will activate security alarm. When the security alarm is on, once the vehicle vibrates for several times, the alarm will be activated, in the later 3 minutes, vehicle power is still off (ACC status is low, device will start alarm). At this time, it will send alarm SMS to SOS specific number, and dial the SOS specific number in cycle until through. If nobody answers, the call just keeps 3 loops at most. The tracking platform will also receive vibration alarm message.

e.g.: Sensor Alarm! <Date Time: 11-06-17 14: 53: 06>, http://maps.google.com/maps?q=N22577613,E113.916585

Note: The specific numbers should be preset, just refer to 6.4

7.7 Voice monitoring
When the special number cell phone dial device, ringing for 10 seconds, it will enter voice monitoring status. At this time, caller can monitoring the sound in vehicle. Incoming call from non special number will not activate voice monitoring function.

Note: To realize this function, please set special number beforehand. The SIM card put into the device should be equipped with caller Identification.

7.8 Oil cut-off
7.8.1. 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.

7.8.2. Via SMS
Firstly, you should set a center number. Please refer to 6.6. 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 "Cut off the fuel supply: Success! Speed:0 Km/h". 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

7.9 Restoring Oil
7.9.1. 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.

7.9.2. 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 "Restore fuel supply:Success!"

7.10 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,Time,Limited speed#
Time range (Minute) : 1-10
Limited speed range (km/h) : 0-255 (0 refers to turn off over speed alarm function)
Example: SPEED,3,120#
Means when the car is moving over 120km/h in average in 3 minutes, the device will send over speed alarm to user.

8. Web based tracking online activation

The GPRS web based tracking platform allows real time tracking with the latest Google maps. There is also a playback feature that allows you to view where the vehicle has been for up to 30 days in the past making it ideal for fleet management.

9. Trouble shooting

9.1. After installing it in the first time, if device can not get connected with platform server, at this time it is "logged off" status in platform.
Please check the installation of device:

1) Check whether the connection of power-line is correct, please do not connect it with the car control line.
2) Check whether SIM card is installed correctly, please refer to the installation manual;
3) Check whether the power switch is toggled to "ON", the switch is in the left of the SIM card's slot.
4) Whether ACC ignition cable is connected, please turn on the ACC with key after it is connected.
5) Check the LEDs' status. In normal working status, the red LED is in solid bright or flashing; green LED and blue LED are both in solid bright.

6) Check whether GPS is located, if not, please drive to the open areas for positioning.

9.2 If it is "offline" status in platform:
First of all, check the three LEDs' status. If it is not convenient to check that, please check the SIM card status:
1) Call the SIM card number of the device to check whether you can get through;
2) Check whether the vehicle is in no GSM area, such as basement;
3) Check the GSM/GPS disconnection area, whether it is all disconnected or few of them disconnected, to make sure whether it is the fault of operator's internet.
4) Check whether your SIM card charge is overdue;
5) Check whether the SIM card supports GPRS;
6) Check the parameter setup, whether the device IMEI number, GPRS sending interval is correct;

9.3 If the device' GPS function is normal, but can not locate for a long time, please check whether the installation setup of device is correct:
1) Please make sure the GPS antenna face is up;
2) Please make sure there is no electromagnetic wave-absorbent object (metal) above the device, especially the thermal-protective coating on the windshield, it may affect the GPS reception of the device;

9.4 If GPS can not receive the signals normally (there is high building around to interfere with GPS reception), please drive to the open areas for positioning. Generally, it needs 1-2 minutes to receive the first coordinates.

9.5 If GSM can not receive the signals normally, please check whether SIM card is installed correctly or there is no GSM signal at the location you are, such as basement parking, please drive to a place covered by GSM signal reception.

9.6 When cellphone with special number receives tele- cutoff alarm sms, please make sure whether it is illegal wire cutoff, or the FUSE on power line is blown. If the FUSE in it is blown, please contact your distributor to exchange with the same model FUSE, after the internal trouble is shoot, it can be power on to work again.