

1. Start Guide

1.1 Accessories

- Main device
- Power cord
- 4-pin relay
- 5-pin relay*2
- Microphone
- SOS cable
- Extension cable
- Speaker

1.2 Main Functions

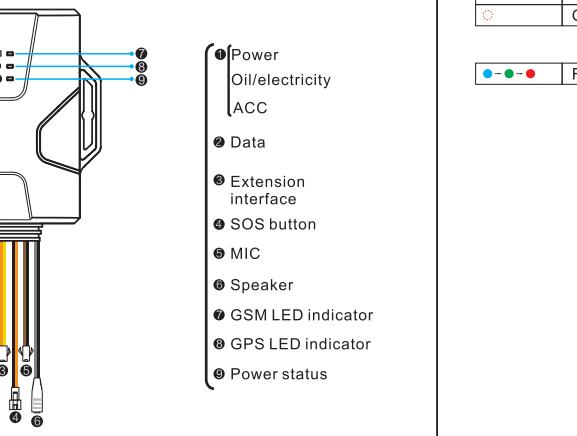
- Real-time GPS+AGPS tracking
- IP66 dust and waterproof
- 50000 pieces of data storage
- Track by time interval or distance
- Remotely fuel/power cut-off control
- Voice monitor
- SOS alarm
- Geo-fence alarm
- Vibration alarm
- Movement alarm
- External power supply cut-off alarm
- Two way communication
- Door status-detection
- Multiple analog & digital input/output
- Find the car by triggering light and buzzer

1.3 Specifications

Frequency	GSM 850/900/1800/1900MHz
GPRS	Class 12, TCP/IP
Operating Voltage	9-36VDC/ $<300mA$
Location Time	Cold Start: $<35s$
Storage	64MB
Battery	800mAh
Location Accuracy	<10 meters
Operating Temperature	-20°C ~ +70°C
Dimension	83 (L) x 76 (W) x 18 (H) mm
Weight	95g

2. My Device

2.1 Appearance

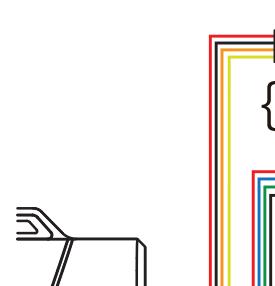


2.2 LED indicators

GPS LED Indicator - Blue		
●	0.1s ON & 0.1s OFF	Searching GPS signal
●	Steady on	GPS is fixed
○	OFF	No GPS fixed or initializing
GSM LED Indicator - Green		
●	0.1s ON & 0.1s OFF	GSM initializing
●	0.1s ON & 1.9s OFF	Receive GSM signal normally
●	Steady on	Connected to GPRS network
○	OFF	No GSM signal
Power Status - Red		
● - ●	0.1s ON & 0.1s OFF	Low battery
● - ●	2s ON & 2s OFF	Full charged
● - ●	0.1s ON & 1.9s OFF	Normal operating
●	Steady on	Device is charging
○	OFF	Low battery/Power off
● - ● Flash in a loop Device is in defense status		

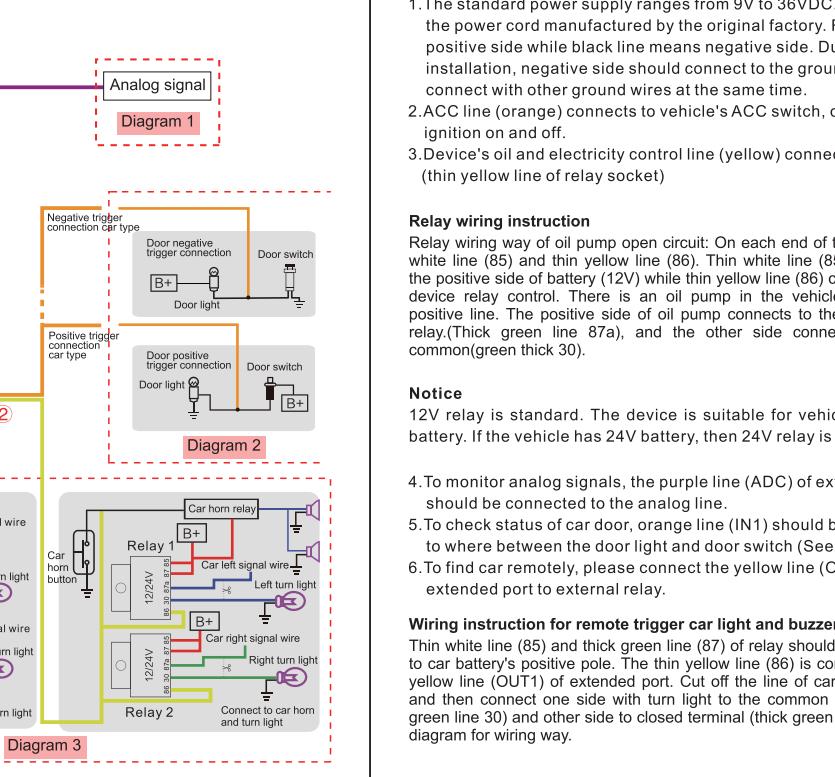
3. Wire Connection

3.1 Wire Definition



Line	Color	Description	Definition
1	Red	PW+	12V/24V car battery positive
2	Black	GND	12V/24V car battery negative
3	Orange	ACC	ACC ignition
4	Yellow	RELAY	Relay
5	Red	5V-OUT	External power supply
6	Blue	RX	Data receiving / backup interface
7	Green	TX	Data sending/backup interface
8	Black	GND(negative)	
9	Purple	ADC	Analog input
10	Orange	In1	Digital input
11	Yellow	OUT1	Output, Relay
12	Black	GND	
13	Orange	SOS+	SOS button
14	Brown	MIC+	MIC
15	Black	MIC-	MIC
16	Grey	SPK+	Speaker
17	Black	SPK-	Speaker

3.2 Wiring diagram



Wiring Instruction

- The standard power supply ranges from 9V to 36VDC. Please use the power cord manufactured by the original factory. Red line means positive side while black line means negative side. During installation, negative side should connect to the ground, do not connect with other ground wires at the same time.
- ACC line (orange) connects to vehicle's ACC switch, detecting ignition on and off.
- Device's oil and electricity control line (yellow) connects to relay's 86. (thin yellow line of relay socket)

Relay wiring instruction

Relay wiring way of oil pump open circuit: On each end of the wire is thin white line (85) and thin yellow line (86). Thin white line (85) connects to the positive side of battery (12V) while thin yellow line (86) connects to the device relay control. There is an oil pump in the vehicle. Cut off the positive line. The positive side of oil pump connects to the close-end of relay.(Thick green line 87a), and the other side connects to relay's common(green thick 30).

Notice

12V relay is standard. The device is suitable for vehicles with 12V battery. If the vehicle has 24V battery, then 24V relay is needed.

4. Operation of device

Power on/ Power off

- Power on:** Insert a valid SIM card. Connect to external power OR toggle on the power switch. Power LED will flash first. During signal searching process, GSM LED and GPS(blue) LED will flash. Once Blue GPS LED keeps steadily ON, the device is located and it starts to work.

Power off:

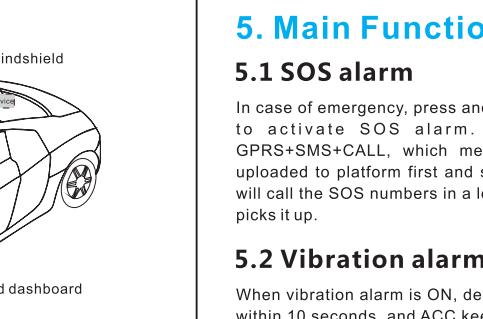
Just toggle off the power switch.

Notice:

- When device is connected with external power, please toggle on the power switch to keep the built-in battery charged. If the power switch is OFF, battery cannot be charged. Device will turn OFF if external power supply disconnects.

3.3 Device Installation

Under rear windshield
Under front windshield
Around dashboard



5. Main Functions

5.1 SOS alarm

In case of emergency, press and hold the SOS button for 3 seconds to activate SOS alarm. Defaulted alarm method is GPRS+SMS+CALL, which means SOS alarm message will be uploaded to platform first and sent to SOS number. Finally device will call the SOS numbers in a loop (Maximum 3 times) till someone picks it up.

5.2 Vibration alarm (default OFF)

When vibration alarm is ON, device detects multiple times vibration within 10 seconds, and ACC keeps OFF for 3 minutes. Alarm will be activated.

To turn on the alarm: SENALM,ON,M#
M=0~2, Alarm method. 0=GPRS; 1=GPRS+SMS;
2=GPRS+SMS+CALL.
To turn off the alarm: SENALM,OFF#

5.3 Voice monitoring

When MIC is connected while speaker is not, use pre-set SOS number to dial the device, after 10 seconds, device enters into monitoring mode automatically. The caller can hear the voice inside the vehicle.

Notice:

- 1.Pre-set SOS number is necessary.
Non-SOS number cannot activate this function.
2.SIM card of device must have caller ID service.

5.4 Two-way communication

When MIC and speaker are both connected well, use pre-set SOS number to dial the device, after 10 seconds, device enters into two-way talk mode.

GPS Vehicle tracker

User Manual

(Version 1.0)



This user manual has been specially designed to guide you through the functions and features of your GPS vehicle tracker.

5.5 Moving alarm (Default OFF)

When ACC is OFF and vehicle moves out of pre-set distance, alarm will be activated.

To set the alarm: MOVING,ON,R,M#

R=100~1000; Distance radius: Unit: meter

M=0~2, Alarm method: 0=GPRS; 1=GPRS+SMS;

2=GPRS+SMS+CALL.

E.g. MOVING,ON,200,2#

To turn off the alarm: MOVING,OFF#

5.6 Oil/Electricity cut-off/restore

When vehicle is stolen, oil/electricity cut-off command can be sent by platform, APP or SMS.

Notice:

1. Make sure ACC is correctly connected.

2. When ACC is OFF, command will be executed immediately.

3. When ACC is ON, but GPS is not fixed, command will be postponed.

4. When ACC is ON, GPS is fixed, command will be executed when vehicle speed is less than 20km/h.

If you want to cut off/restore oil by SMS command, you have to set a center number firstly. Only the center number can send the cut off/restore oil command to the device.

Set center number: CENTER,A,mobile number#

Delete center number: CENTER,D#

Notice:

1.Only the SOS number can be used to set center number.

2.Only the SOS number can be used to delete center number.

3.There is only one center number can be set.

SMS command to cut off/restore petroil connection: RELAY,A#

A=0/1; 0= restore petroil; 1=cut off petroil

E.g. RELAY,1# to cut off petroil

5.7 Power disconnection alarm

When the external power supply is disconnected unexpectedly, alarm will be activated. Defaulted alarm method is GPRS+SMS.

To set the alarm: FIND#

After the device receives the command, it will trigger the car's turn signal lamp and horn to help you get your car's position easily and accurately. Before that, please follow 3.3 diagram-3 to connect the wire correctly.

5.8 Low battery alarm

When device's battery is too low to support the use, device will send an alert. Defaulted alarm method is GPRS+SMS.

5.9 Restart device

If GPRS is abnormal (device is offline), user can send SMS command RESET# to restart the device. Device will reboot after 20 seconds after receiving the command.

5.10 Door detection

The device can upload the change of door status (OPEN/CLOSE) to platform and APP timely. (See 3.3 diagram-2 for wiring method.)

SMS command to choose the triggering type for your car: DOOR,A#

A=0/1; 0=negative triggering; 1=positive triggering.

Usually Chinese, Japanese and Korean Series belong to negative triggering, European and American Series belong to positive triggering. Defaulted setting is negative triggering.

5.11 Find the car by triggering light and buzzer

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

5.12 Analog signal

The analog port is currently used for measuring car battery's voltage, which will be uploaded to platform/APP in fixed time interval. Purple line (ADC) of device extended port can receive analog signal, like voltage of external device, analog temperature sensor and fuel sensor (See 3.3 diagram for wiring method). Voltage range of analog input is 0~50VDC.

SMS command to set the report time interval: ADT,ON,T#

T: upload interval; scope: 5~3600(second)

Turn off analog upload: ADT,OFF# (Defaulted setting)

6. Platform Operation

Get registered on the designated service platform by authorized dealer, then you can start the tracking service and settings.

6.1 APN & Server setting

To ensure normal network operation, please confirm your APN and server setting before login.

In most countries, APN could be automatically adapted to local mobile operators. If not, please send SMS to set the APN.

If username and password is required for APN, please add it into the command. (See command list 7-7)

Confirm the server address and setting with distributors. If server is incorrect, please send SMS to change. (See command list 7-8)

6.2 Login service platform

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

6.3 Download APP

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

7. Common Command List