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Experience Telematics AI

Quick Start Guide

APC300
Amber Power C300
Vehicle GPS Tracker

1 Install Your device

2 Download Amber Connect App

3 Activate the device

1. Start Guide

1.1. Accessories

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

1.2. Main Functions

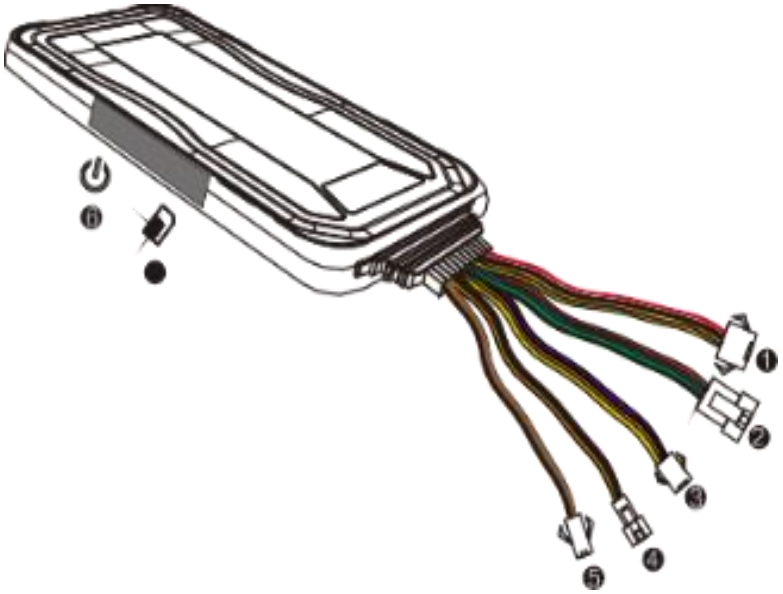
- Real-time GPS+AGPS tracking
- Track by time interval/distance/direction change
- Track through SMS, APP, Web
- Remotely fuel/power cut-off control
- Voice monitor
- SOS alarm
- Geo-fence alarm
- Vibration alarm
- Movement alarm
- External power supply cut-off alarm
- Door status-detection
- Analog & Digital input/Digital output
- Find the car by triggering light and buzzer
- Over-the Air (OTA)
- Low battery alert

1.3. Specification

Frequency	WCDMA 850/900/1900/2100MHz
	GSM 850/900/1800/1900MHz
Networks	WCDMA/EDGE/GPRS
Operating Voltage	9-36 VDC<300mA
Location Time	Cold start <35s, Hot start <2s
Location Accuracy	<10m
Operating Temperature	-20°C to 70°C
Dimension	98.5*52*15mm
Weight	80g

2. My Device

2.1. Appearance



- Power
- Oil/electricity
- ACC
- Data
- Extension
- interface
- SOS button
- MIC
- On/Off
- SIM Card Slot

2.2. LED Indicators

Power status - RED	
0.1s On and 0.1s Off	Low battery
2s On and 2s Off	Fully charged
0.1s On and 1.9s Off	Normal operating
Steady On	Device is charging
Off	Low battery/Power off

GPS LED Indicator – BLUE	
0.1s On and 0.1s Off	Searching GPS signal
Steady On	GPS is fixed
Off	No GPS fixed or initializing

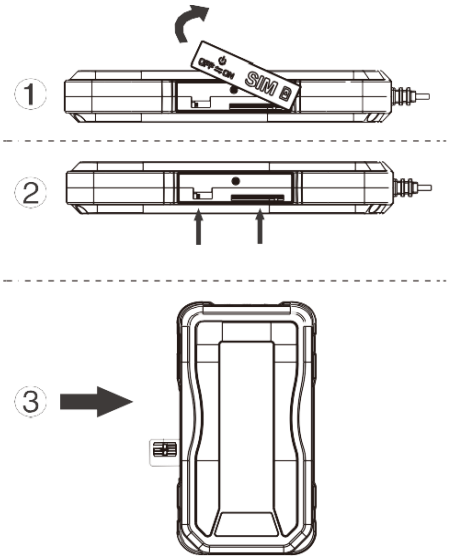
GMS LED Indicator – GREEN	
0.1s On and 0.1s Off	GSM initializing
2s On and 2s Off	Receiving GSM signal normally
Solid green	Connected to GPRS network
Off	No GSM signal

3. Installation

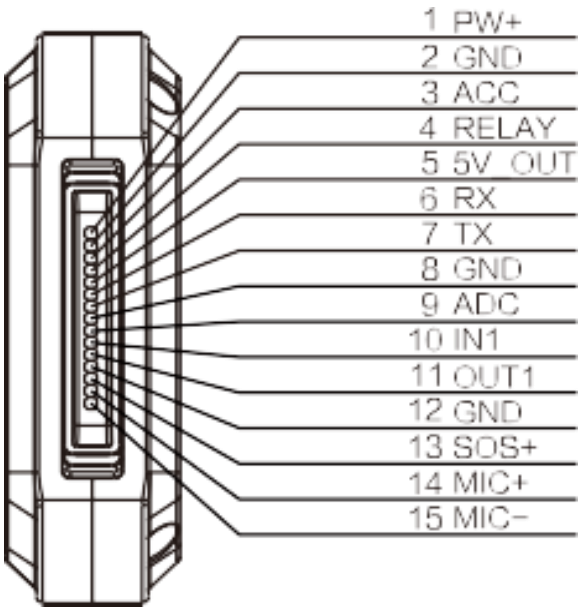
3.1. Install the SIM card

Notice: SIM should be inserted correctly. SIM card should have GPRS service.

1. Open waterproof rubber plug
2. Power on/off, SIM card slot
3. Insert SIM card (metal face up)

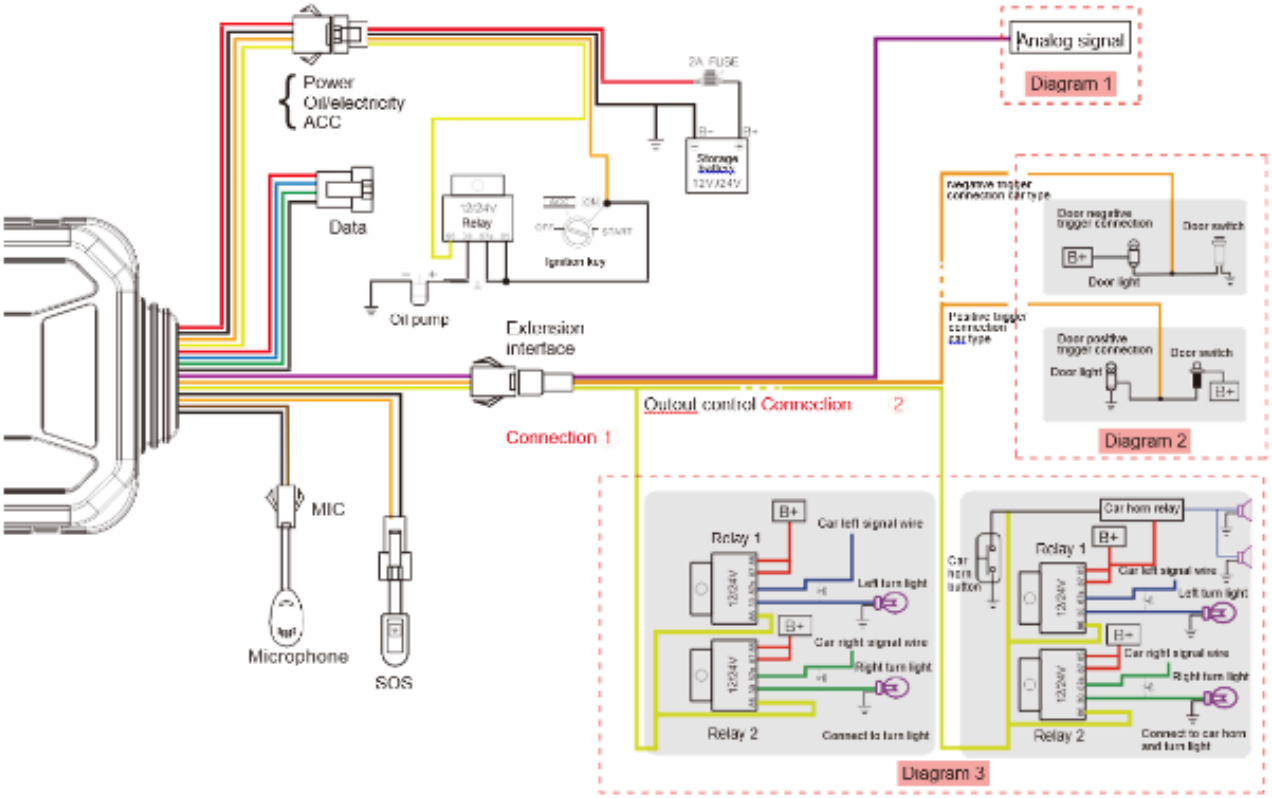


3.2. Device Wire Definition



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	Ground(Negative electrode)
9	Purple	ADC	Extended Interface
10	Orange	In1	
11	Yellow	OUT1	
12	Black	GND	SOS button
13	Orange	SOS+	
14	Brown	MIC+	Microphone
15	Black	MIC-	

3.3. Device Wiring Way



Notice: Purple line (ADC) of terminal connects to analog signals line, like voltage of external device, analog temperature sensor, fuel sensor. Voltage detected by analog signal ranges from 0~30Vdc.

Wiring Instruction

1. 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.

2. ACC line (orange) connects to vehicle's ACC switch, detecting ignition on and off.

3. 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.

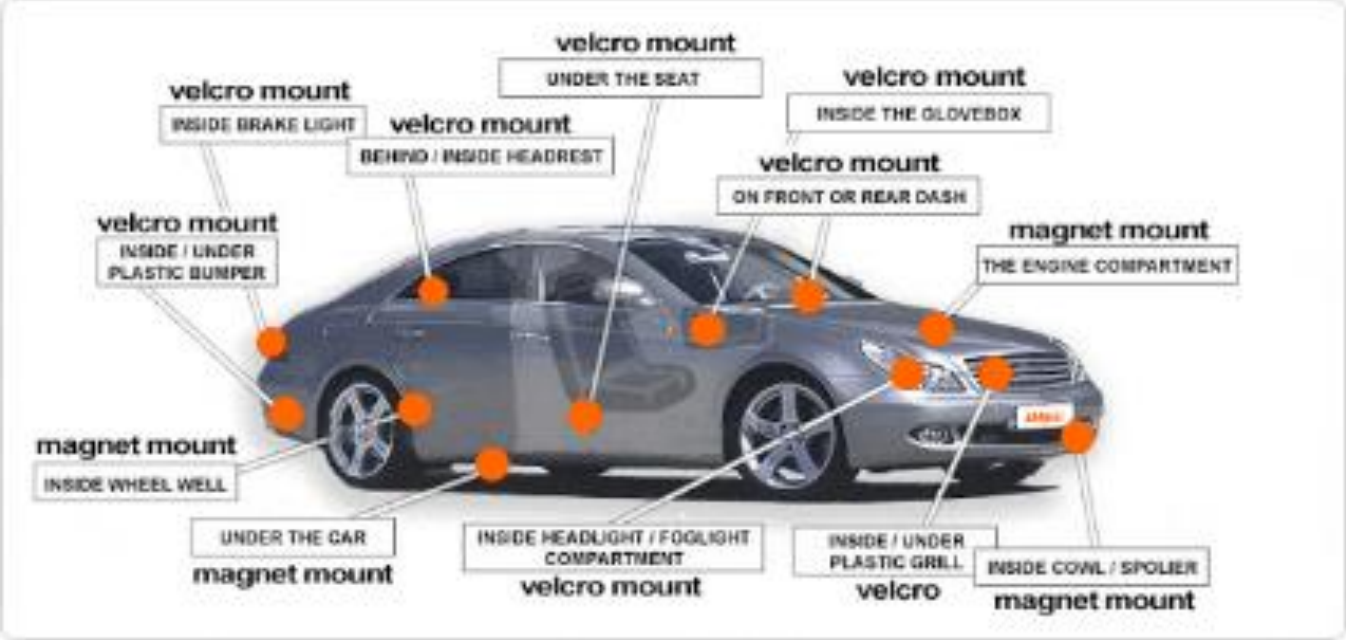
4. To monitor analog signals, the purple line (ADC) of extended port should be connected to the analog line.

5. To check status of car door, orange line (IN1) should be connected to where between the door light and door switch (See the diagram).

6. To find car remotely, please connect the yellow line (OUT1) of extended port to external relay.

Wiring instruction for remote trigger car light and buzzer. Thin white line (85) and thick green line (87) of relay should be connected to car battery's positive pole. The thin yellow line (86) is connected to the yellow line (OUT1) of extended port. Cut off the line of car turn light first and then connect one side with turn light to the common terminal (thick green line 30) and other side to closed terminal (thick green line 87a). See diagram for wiring way.

Note：The device should face up to the sky. Metal thermal barrier or heating layer of the windshield



affects the signal. Please change installation places to receive better signal.

4. Operation of device

Power on/ Power off

Power on: Once you insert a valid SIM card and connect all the wires, turn on the device. Power LED will flash first. During signal searching process, GSM LED and GPS(blue) LED will flash. Once Blue GPS LED keeps steadily ON, it means the device has been located and it starts to work.

Power off: Just turn off the power switch.

Notice

When device is connected with external power, please turn on the battery switch. The battery will then connect with the device circuits and its built-in battery will be charged. If battery is OFF, battery can't be charged. The device will be power off if no external power supply.

5. Main Functions

5.1 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 then dial the numbers in a loop for 3 times until the call is picked up. Alarm message will also send to platform. (See command list 7-8)

5.2 Power cut-off alarm

When the electricity supply of device is cut off, it will activate cut-off alarm.

5.3 Low battery alarm

When battery is low, the device will activate low battery alarm.

5.4 Vibration alarm(default OFF)

When vehicle vibrates several times, the vibration alarm will be triggered. If no ignition after 3 minutes (ACC OFF), the device will send vibration alarm message immediately.

5.5 Voice monitoring

Use pre-set SOS number to dial the device, after 10 seconds, device changes to monitoring mode automatically. The caller can then hear the noise inside the vehicle. Device won't be in monitor mode when non-SOS number call in.

Notice

1. Pre-set SOS number is necessary.
2. SIM card of device must have caller ID service.

5.6 Displacement alarm(default OFF)

Device will send movement alarm when vehicle moves out the pre- set distance (when ACC is off and GPS is fixed).

5.7 Oil/Electricity cut-off

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 centre number firstly. Only the centre number can send the cut off/restore oil command to the device.

Notice

1. Only the SOS number can be used to set centre number.
2. Only the SOS number can be used to delete centre number.
3. There is only one centre number can be set.

5.8 Restore oil/electricity

When alarm is all-clear, you can send restore oil/electricity command by platform, APP or SMS and restore vehicle power.

5.9 Door detection

The device is able to detect door status. It uploads car status to platform and APP timely. Negative triggering is default. When car door's status is negative triggering, there is no need to set. Instead, if car door status is positive triggering, the triggering way has to be modified. (Command: DOOR,1#). See diagram 2 (3.3) for wiring way. (See command list 7-17)

Notice

Negative triggering (default): when door is open, signal level of door is 0V; when door is closed, signal level of door is power voltage. Positive triggering: when door is open, signal level of door is power voltage; when door is closed, signal level of door is 0V.

5.10 Analog signal

The device can measure car battery's voltage and upload it to platform/APP in fixed time based on your needs. Purple line (ADC) of device extended port can receive analog signal, like voltage of external device, analog temperature sensor and fuel sensor. Voltage range of analog input is 0~30Vdc.

5.11 Find the car by triggering light and buzzer

When need to pick out the car parking on giant parking lot, you can send a command. After the device receives the command, it will control turn light relay or horn relay by the yellow line of extended port, so as to trigger the car's light or horn. In this way, you can figure out your car's position easily and accurately.