amber connect
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Quick Start Guide

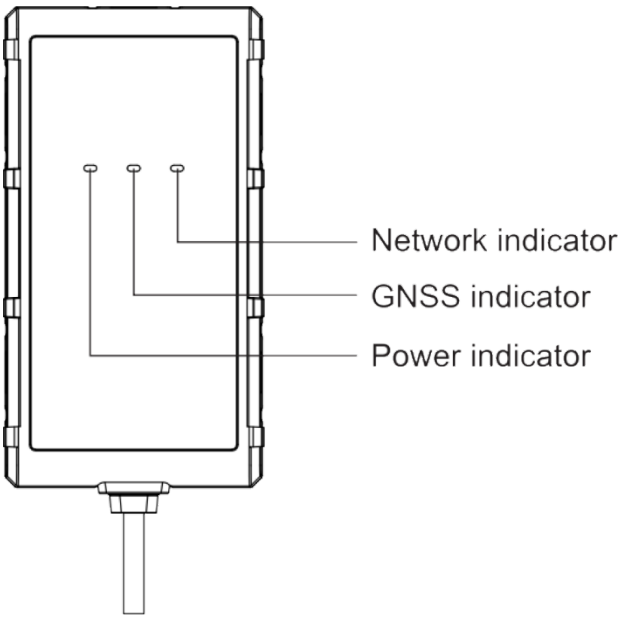
ACC420
Amber Covert C420
Advanced UBI LTE Device

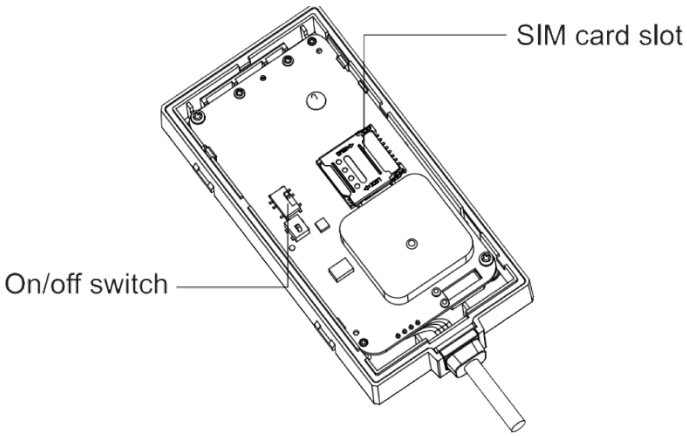
1 Install Your Device

2 Download Amber Connect App

3 Activate The Device

Product overview





Features

INS(Inertial Navigation System)

INS can be used as a fallback in weak or unavailable GPS signal area, e.g. underpass, tunnel, downtown.

Driver behavior monitoring

- Harsh acceleration alert
- Harsh brake alert
- Sharp turn alert
- Harsh lane change alert
- Crash alert
- Drifting alert
- Rolling alert
- Vehicle angle abnormality
- Real-time tracking
- Over-speed alert
- SOS alert
- Tamper alert
- Removal alert
- Power-supply-cut alert
- Low power alert
- Vibration alert
- Geo-fence

Standard Parts List

Item	Quantity
Amber Covert C420 device	1
Power cable (Length: 1 m)	1
Relay	Optional
Panic button	Optional

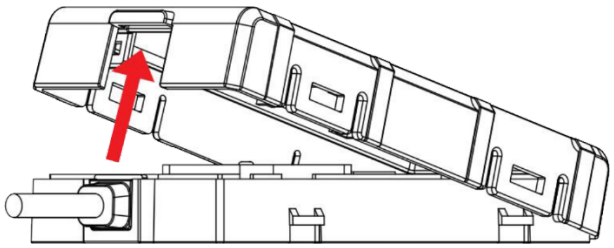
Specification

Network	4G&2G
Frequency	ACC420-E: FDD: B1/B3/B7/B8/B20/B28 TDD: B34/B38/B39/B40/B41 GSM: 850/900/1800/1900 MHz
	ACC420-L: LTE: B1/B2/B3/B4/B5/B7/B8/B28 GSM: 850/900/1800/1900 MHz
Positioning system	GPS/BDS/GLONASS/Galileo+INS
Location accuracy	<2.0 meters CEP
Relay	Optional
TTFF (open sky}	Avg. hot starts 1 sec Avg. cold starts 25 sec
Indication	GPS (Blue), Cellular (Green), Power (Red)
Battery	100mAh, 3. 7V Li-Polymer battery
Operating voltage	9-36VDC
Operating temperature	-20'C to + 70'C
Device weight	69 g
Device dimension	94.3mm*50.4mm*15.0mm

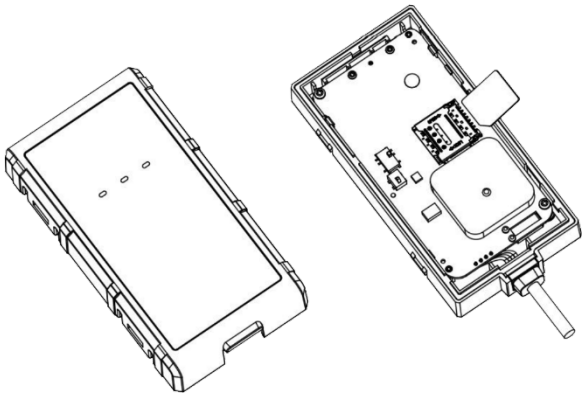
Product setup

1. Prepare a micro SIM card that supports the same network with this device

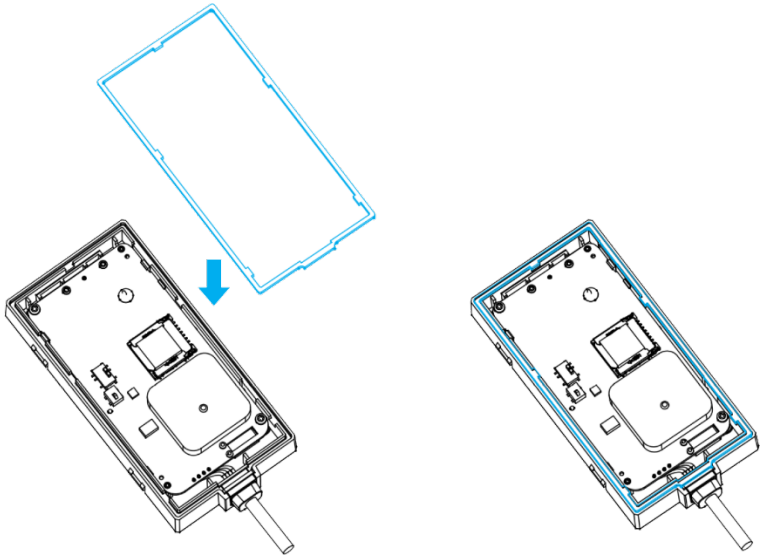
2. Remove the upper cover of device.



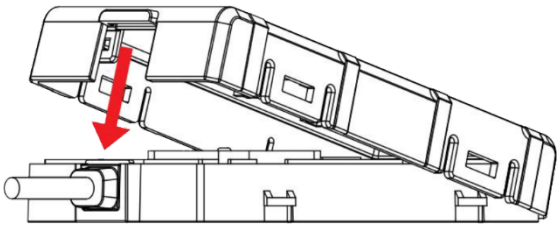
3. Insert SIM card into the slot and toggle the switch to ON



4. To ensure waterproof take effect, make sure the silicon rubber ring is installed in place.



5. Press the upper case down and make sure all 5 clips are completely in Place



LED indications

Power Status (Red)

On for 0.3s and off for 0.3s	Low power
On for 1s and off for 3s	Fully charged
On for 0.1 s and off for 3s	Working normally
Solid on	Charging (Higher priority than the status of low power)
Off	Battery is exhausted/Internal failure

GNSS Status (Blue)

On for 0.3s and off for 0.3s	Searching GNSS signal
Solid on	Positioned successfully
Off	GNSS module is in sleep mode or not working

Cellular Status (Green)

On for 0.3s and off for 0.3s	Network initializing
On for 1 s and off for 3s	Receiving signal normally
On for 0.1 s and off for 3s	Network connected
Solid on	Network online
Off	No signal received/No SIM card detected

Interfaces

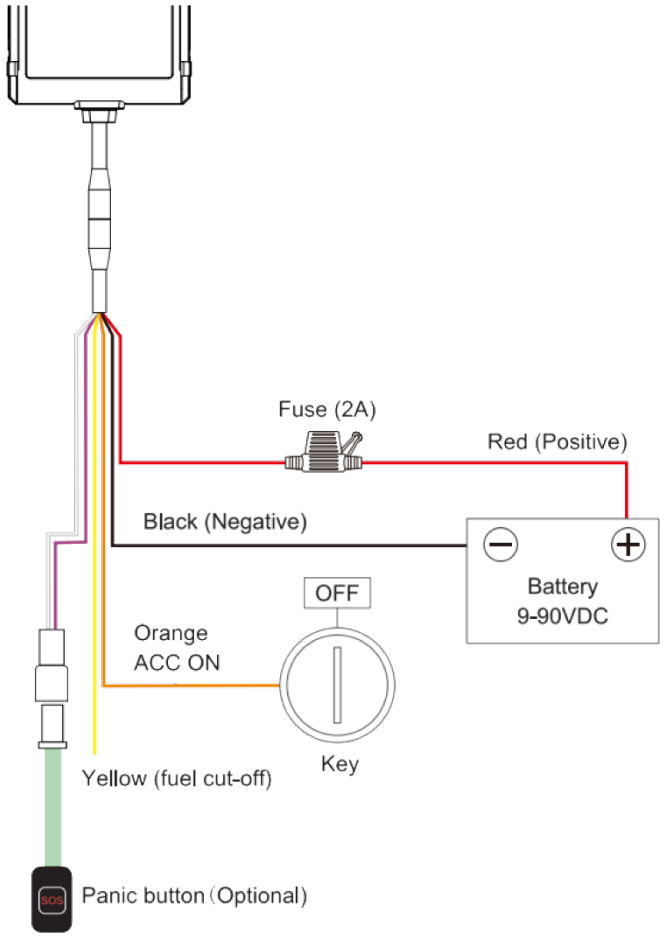
6 Pin Standard Version

Interface	Color	Description
V+	Red	Power + (9-36V)
V-	Black	Power - Ground pin
ACC	Orange	Vehicle ignition detection
Relay	Yellow	Cut-off vehicle fuel supply
SOS+	Purple	SOS trigger pin
SOS-	White	SOS Ground Pin

Wiring of Standard Version

Tips for finding right wires:

1. Use multi meter to find out the positive and negative sides of vehicle battery.
   Note: No matter the ignition key is switched to ON or OFF, current battery voltage can be shown in the multi meter.
2. The way to find ACC wire: Connect multi meter's black probe to negative side, and connect red probe to a random wire, at this moment, the voltage shown in multi meter is 0V; turn the key to ON, if the supply voltage is shown, that's the correct ACC wire.
3. Connect the two connectors together, if the vehicle has no connector, please connect device's wires to corresponding vehicle wires.



Power connection

The standard power supply ranges from 9V to 36VDC.
During installation, negative side should connect to the ground.
Do not connect with other ground wires simultaneously.

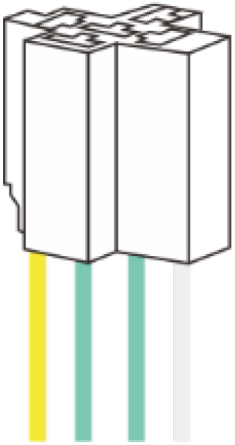
Ignition wire

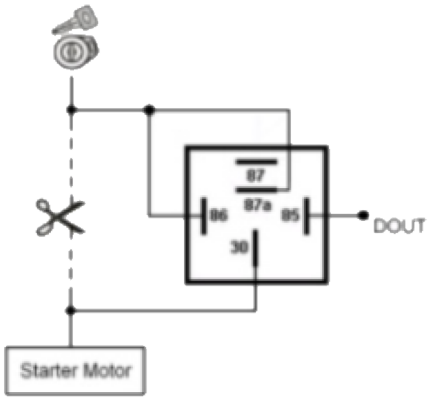
ACC line(orange) connects to vehicle's ACC, detecting ignition.
Be sure to check if it's a real ignition wire i.e. power does not disappear after starting the engine.

Relay wiring

Relay's white line connects to the positive side of battery(12V)
while the yellow line connects to the device's relay control
(yellow line on power cord).

Find the fuel pump of the vehicle and cut off its positive power line. The positive side of fuel pump connects to the green line(87a) while the side closing to starter motor connects to green line(30), as the below chart. Switch of the two green lines have the same effect.





12V relay is standard. The device is suitable for vehicles with 12V supply. If the vehicle power supply is 24V, use 24V relay.

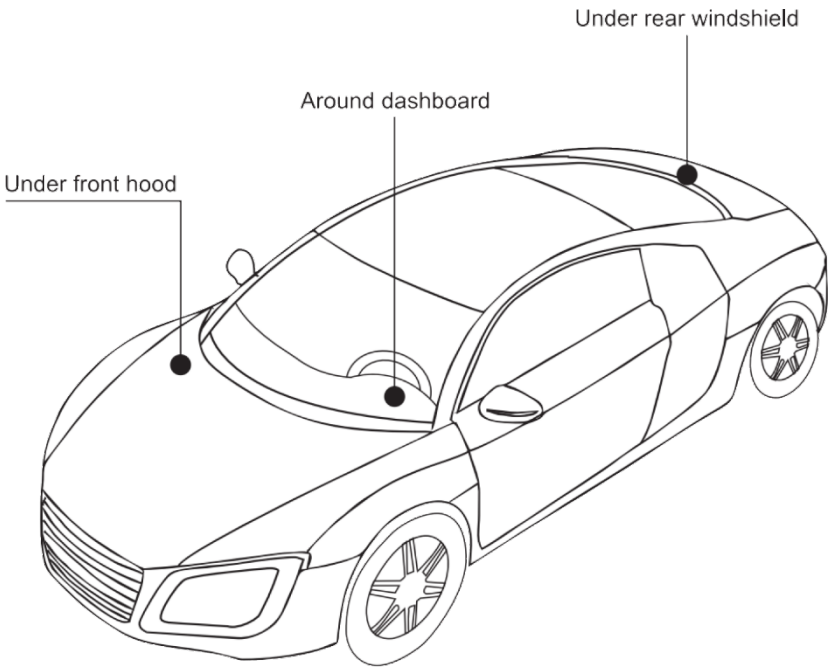
Device installation

Important notes:

- The GPS tracker is equipped with the inertial navigation system (INS) , which can be used as a short-term fallback while GPS signals are unavailable, for example when a vehicle passes through a tunnel. To ensure GPS & INS tracking and driver behaviour monitoring and to avoid GPS drift, please fix the device with the Velcro provided.
- You can install the device at any direction as the relative installation angle will be automatically calculated after the vehicle moves for a while.
- The device should face up to sky.
- Metal thermal barrier or heating layer, which are always installed on windshield, may affect the signal, please avoid installing the device under these objects.

Installation recommendation

Please install the device under the guidance of professional personnel.



Platform & APP

1. Login service platform Please login the designated service platform to set and operate the device.
2. Download APP Please download and install the APP in designated website, APP store or Google Play store.

Driver behaviour monitoring

Harsh acceleration alert

The device defines harsh acceleration as occurring when the vehicle's speed increases sharply. And alert will be sent to the platform.
E.g: The vehicle's speed increase from 0KM/H to 50KM/H after 2 seconds of engine start.

Harsh brake alert

The device defines harsh braking as occurring when the vehicle's speed decreases sharply. And alert will be sent to the platform.
E.g: The vehicle's speed drops from 50KM/H to 10KM/H after 2 seconds of emergency braking.

Sharp turn alert

The device defines sharp turn as occurring when the vehicle makes high-speed turn. And alert will be sent to the platform.
E.g: The driving speed is greater than 30KM/H, and the angle change is greater than 90 degrees.

Harsh lane change alert

The device defines harsh lane change as occurring when the vehicle suddenly change lanes at high speed. And alert will be sent to the platform.
E.g: The driving speed is greater than 60KM/H, and the angle change is less than 20 degrees.

Crash alert

If collision occurs, the device will send alert to the platform.
Slight impact and scratch will not trigger the alert.

Rolling alert

When the vehicle-rolling angle exceeds 70°, the device will send alert to the platform.

Vehicle drift alert

When the vehicle changes the course angle for more than 3 seconds at an angular velocity Greater than 20° / s, the device will sent a alert to the platform.

Vehicle angle abnormality

When the vehicle rolling angle is greater than 20° and less than 70°, the device will send alert to the platform.

Collision alarm uploading IMU data

Setting the BEFORUBI switch to OFF, when a collision alarm occurs, the device will package and upload 20Hz IMU data to the platform, 10 seconds before the collision and 10 seconds after the collision, which users can use to reconstruct the accident process.

Troubleshooting

Type	Use
Unable to connect to Amber connect	Check the APN and IP settings. Check whether the data service of SIM card is enabled. Check the balance of SIM card.
Tracker shows offline	Check whether external power is still connected. Check if the vehicle entered network blind area. Check the balance of SIM card.
Unable to connect locate	Make sure the top side facing upward without metallic things shielded. Make sure it's not in area with no satellite coverage.
Location drift	In area with poor GNSS signal (tall building around or basement), drifting may happen. Check whether vibration happens around to trigger the accelerator.
No command reply	Make sure command format is correct. Vehicle may be in network blind area. Make sure SIM card is well inserted and has SMS service.

Warranty instructions

1. The warranty is valid only when the warranty card is property 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

Need help? Contact 24/7 live support!

In App Chat | support@amberconnect.com | Chat via website www.amberconnect.com

Works with Android phones and tablets, iPhone, iPad.
Compatible with Chrome, Mac and PC web browsers.

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