

B21 OBD2 Specification and Manual

V 1.0

Thank you for using this product, please read the installation guide carefully before use, in order to get the correct installation method and quick operation guide. If the appearance and color of the product are changed, please prevail in kind!



1. Product description

The OBD device integrates a GSM/GPRS module, a high-precision GPS module, and a built-in acceleration sensor. It is a vehicle security intelligent device for wireless communication and GPS positioning. The device is plug and play, and you can install it yourself without a professional. With a dedicated positioning service platform, owners can easily apply positioning tracking, vehicle theft, trip playback, remote listening (optional) and other functions.

2. Packing list

OBD device	1 pc
User manual	1 pc
Product certification	1 pc

3. Specifications

Operating Voltage	12V~24V
Working current	Avg 25mA@12V (ACC ON)
Stand-by current	< 2mA@12V (ACC OFF)
Sizes	48mm*25m*23mm
Location	GPS / Beidou / LBS positioning

Built-in battery	50mAH polymer lithium battery
Positioning error	The GPS positioning error is <10m (the actual positioning error is related to the environment and weather conditions of the vehicle in which it is located). The LBS positioning error depends on the current base station coverage information.
Network	GPRS GSM850/900MHz/DCS1800MHz/1900MHz
Communication method	TCP
Working temperature	-25~+75°C
Storage temperature	-40~+85°C
Backup battery working time	30 Minutes

4. Product Features

- **Real-time tracking**
Upload location information in real time after the vehicle ignition on.
- **Track playback**
Specify the trajectory between time points, map road map
- **Collision alarm**
When the vehicle is in the parking state, the alarm is reported when it is collided.
- **Illegal displacement**
When the vehicle is in the parking state, the alarm is reported when it is towing.
- **Plug out alarm**
Automatic detection device is removed, upload alert.
- **Low battery power alarm**
Monitor vehicle battery status, low battery voltage low alarm.
- **Overspeed alarm**
Monitor vehicle speed overspeed alarm

5. LED indicator status

Yellow LED (GSM/GPRS status indicator)

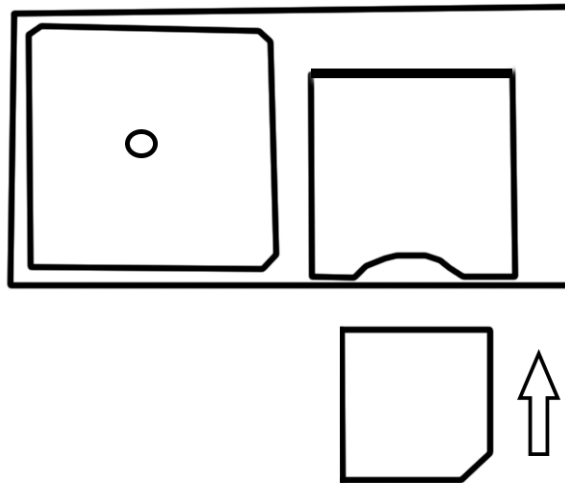
Status	Meaning
Continuously bright	GPRS communication correctly, connected to the server
1s bright, 4s off	GPRS communication correctly, not connected to the server
1s bright, 1s off	Not connected to the network
Continuously off	Not has GSM signal

Blue LED (GPS status indicator)

Status	Meaning
Continuously bright	GPS positioning successfully
1s bright, 1s off	Searching GPS signal
Continuously off	Not has GPS signal

6. SIM card installation

Open the top cover of the device and insert the SIM card correctly in the direction shown below.



- Insert the SIM card in the direction above. The corner of the card is at the right rear and the SIM card chip is facing down.
- When the SIM card is inserted, there is a feeling of spring rebound, and the card can be pressed to the bottom to be stuck (if there is no spring rebound feeling, consider whether it is inserted correctly or not).
- Please ensure that the SIM card is charged before inserting the card.

Notes:

1. The device needs a GSM SIM card to be networked.
2. SIM card needs to open GPRS Internet access function
3. The size of the SIM card used is: 15*12mm (Micro SIM card)

7. SMS command

SMS command	SMS format	Reply	Remark
Center number setting	AS7777AT+AUTHNUMBER=13600000000,13600000000,13600000000;	+AUTHNUMBER:13600000000,13600000000,136000	Supports up to 3 center numbers. If no one is set, no

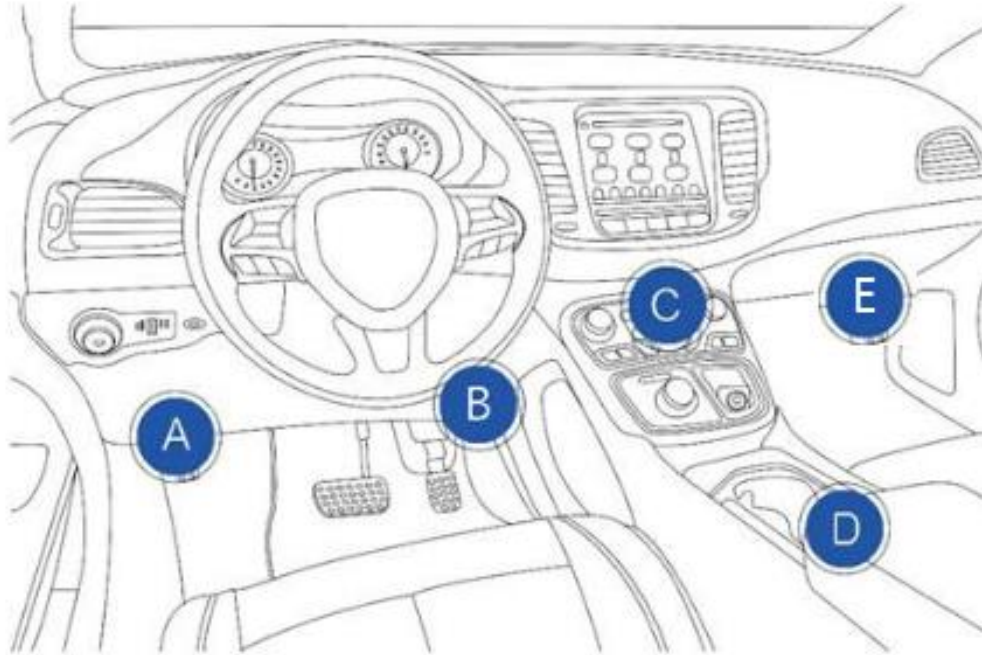
		00000 OK	number can be included between the two commas.
Query center number	AS7777AT+AUTHNUMBER;	+AUTHNUMBER: 13600000000,1360000000,1360000000 OK	
Factory reset	AS7777AT+FACTORY=1;	OK	
Restart device	AS7777AT+RESET;	OK	
Set the IP address and port	AS7777AT+MSERVER=100.101.102.103,5000,1;	+MSERVER:100.101.102.103,5000,1 OK	Support IP/domain name. After setting, you need to restart the device.
Query device IP address and port	AS7777AT+MSERVER;	+MSERVER:100.101.102.103,5000,1 OK	
APN settings	AS7777AT+APN=CMNET,USER,PWD;	+APN=CMNET,USER,PWD OK	
Query APN settings	AS7777AT+APN;	+APN=CMNET,USER,PWD OK	
Report data interval setting	AS7777AT+TIMESLOT=15,5,60,0,360,3;	+TIMESLOT:15,5,60,0,360,3 OK	15 is the ignition upload time interval, unit in seconds. 5 is the time interval for the flameout upload, unit in minutes. 60 is the heartbeat interval, unit in seconds.
Query data reporting interval	AS7777AT+TIMESLOT;	+TIMESLOT:15,5,60,0,360,3 OK	
Query device network status	AS7777AT+NETSTATE;	+NETSTAT:1,1,30,-70,1 OK	The return value of the command depends on the actual network environment.

8. Installation Notes

Find the location of the vehicle OBD interface. The OBD interface is a 16-pin female connector and the interface is trapezoidal.



Note: The OBD interface positions of different models are different. The following figure shows the possible locations of the OBD interface. Some vehicle OBD ports are hidden behind the plastic baffle:



Area A: Above the clutch pedal

Area B: above the accelerator pedal

Area C: Front of the center console downshift lever

Area D: behind the front handlebar of the armrest box

Area E: under the co-pilot glove box

Note: Connect to the vehicle OBD interface, you can directly plug in or use the extension cable connection (installation of the dedicated extension cord and Velcro can be selected at the dealer according to actual needs)

9. Other notes

Please use the accessories specified by our manufacturer. Any other accessories will invalidate all warranty services. If non-original accessories are used, the device will be damaged and the vehicle will be damaged. We will not be responsible for any damage.

- Above the installation location must be where there is no electromagnetic wave absorption (such as metal, explosion-proof insulation film).
- Don't touch the device with liquid or wet hands.
- Do not put the device into fire.
- Equipment may not work when temperature is below -20°C or above $+60^{\circ}\text{C}$.
- When the device is directly plugged into the OBD interface to affect the driver's operation, please use the extension cable to lead to a safe position.
- If your vehicle is normal (including OBD interface), inserting a normal OBD device will not affect your car. If the vehicle is abnormal after you insert the device, it is recommended that you unplug the device immediately and stop using and info us.

10. After sales service

1. This product is warranted for one year from the date of sale. During the warranty period, it is a non-human factor (product quality problem) and contact the after-sales service department for contact.
2. Damage caused by human factors or force majeure (such as floods, earthquakes, vehicle accidents) is not covered by the free warranty.
3. If the product is damaged or defective after the expiration of the warranty period, a repair cost will be charged.
4. Free technical support for installation, consulting, etc.

11. Troubleshooting

Fault phenomenon	Possible reason	Solution
Platform/APP device offline	SIM card has no balance	Top up the SIM card
	SIM card is inserted incorrectly or has poor contact	Reinstall SIM card
	Online parameter setting error	Refer to the manual to reset the parameters.
	The vehicle is in weak network place where underground parking lots, tunnels, etc.	Drive out the signal difference area
	Device is not powered properly.	Check if the plug connector is in reliable connecting and the power supply voltage is within the device specifications.
Unable to locate	The vehicle is in weak network place where underground parking lots, tunnels, etc.	Leave weak signal area