

global sources 405 GPS Tracker



global sources 405 GPS Tracker User Manual

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global sources 405 GPS Tracker

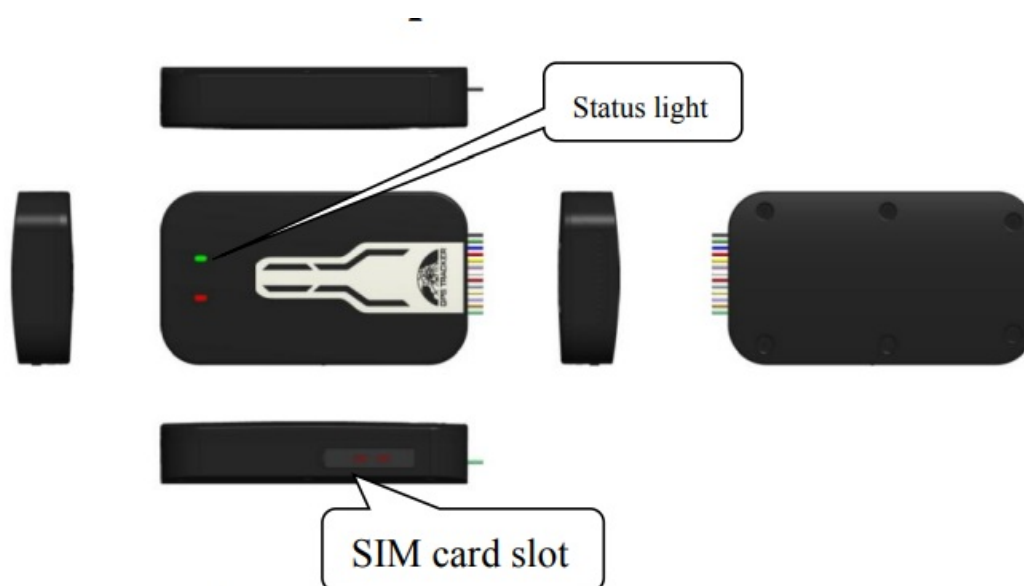


Thank you for purchasing the tracker. This manual shows how to operate the device correctly. Make sure to read this manual carefully before using this product. Please note that specifications and information are subject to changes without prior notice in this manual. Any change will be integrated into the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

Specifications

| | |
|----------------------|---|
| Product name | GPS TRACKER |
| Model | 405 |
| DIM. | 9.6×5.4×1.9cm |
| Weight | 70g |
| Network | GSM/GPRS/WCDMA/LTE |
| Band | 4G B1/B2/B3/B4/B5/B7/B8/B28A/B28B/B40 3G B1/B2/B3/B5/B8 2G 850/900/1800/1900Mhz |
| GPS sensitivity | -165dBm |
| GPS accuracy | 5m |
| Time To First Fix | Cold status 45s Warm status 35s Hot status 1s |
| Applicable car power | 12V-24V |
| Battery | Chargeable 3.7V 90mAh Li-ion battery |
| Storage Temp. | -40°C to +85°C |
| Operation Temp. | -20°C to +65°C |
| Humidity | 5%–95% non-condensing |

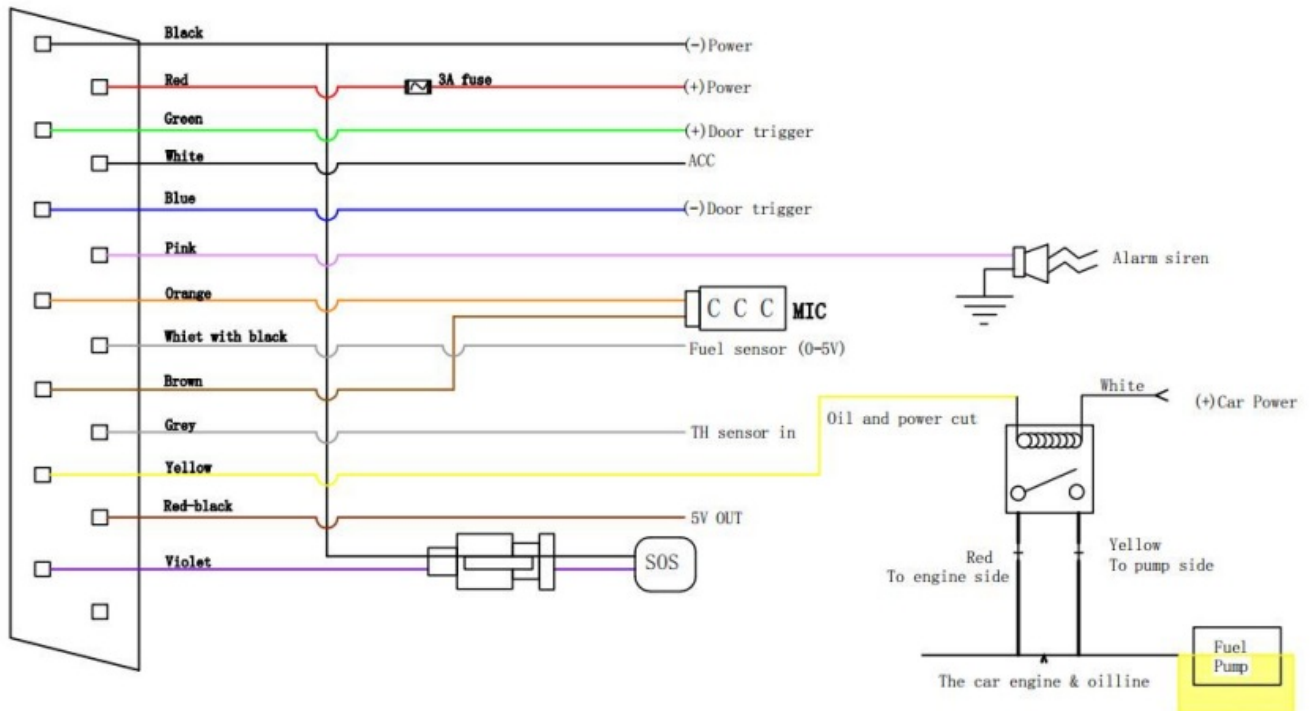
Hardware Description



Terminal Installation

1. Please ask a qualified engineer to install it.
2. The installation environment should ensure that the GSM and GPS signals are good
3. Please do not install it in a dusty and humid environment.

4. Find the 14PIN wiring harness provided with the product, insert it into the corresponding wiring hole of the product, and connect it to the original car circuit as shown in the following Wiring Diagram



5. The pink wire can be connected to the original car alarm horn or the alarm horn purchased together.
6. Understand that the vehicle door trigger type is a positive trigger or a negative trigger. Connected to the green wire if it is a positive trigger, and connected to the blue wire if it is a negative trigger.
7. The gray wire is connected to the temperature and humidity sensor, and the red and black wires are connected to the temperature and humidity sensor power supply.
8. Please install the SOS button where the driver can touch it.
9. SIM card installation Open the sealed buckle of the sim card, insert the sim card, and then, Put the sealed buckle back. Please be sure to confirm that the SIM card network frequency band is the network frequency band supported by the tracker. Caller ID must be turned on and the PIN code must be turned off. The call forwarding function cannot be turned on.



10. After inserting the SIM card, connect the positive and negative (red and black) wires of the power supply to the 12V or 24V power supply of the car. Wait the device works normally After 1 minute of power-on.

Device Status Light

| Indicators | Status | |
|-----------------|---------------------------|-----------------------------|
| Power LED (Red) | Flash | Low battery |
| | Always-ON | Charging |
| | OFF | Fully charged |
| GSM LED (Green) | Always-ON | No GSM signal |
| | Flash 1 time each second | GSM signal ok |
| | Flash 2 times each second | GSM signal ok GPS signal ok |

This tracker supports mobile apps, web servers, Bluetooth, and SMS to track and manage in multiple ways.

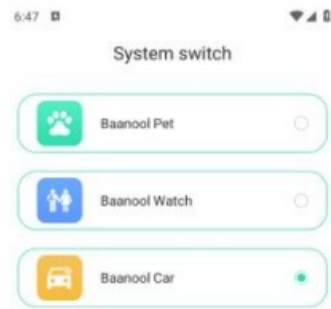
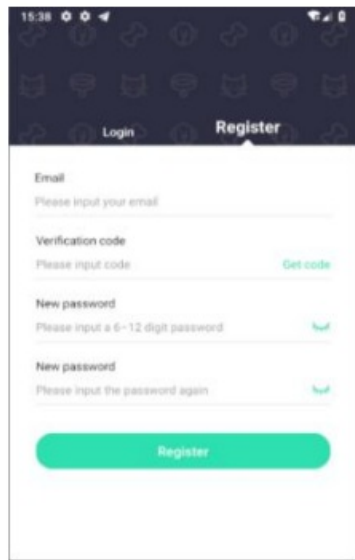
- If using the mobile APP and web server, need a SIM card to activate a data package or use a data sim card.
- If using SMS mode, need SIM card activated functions of SMS, voice call, and call display is on

Mobile APP

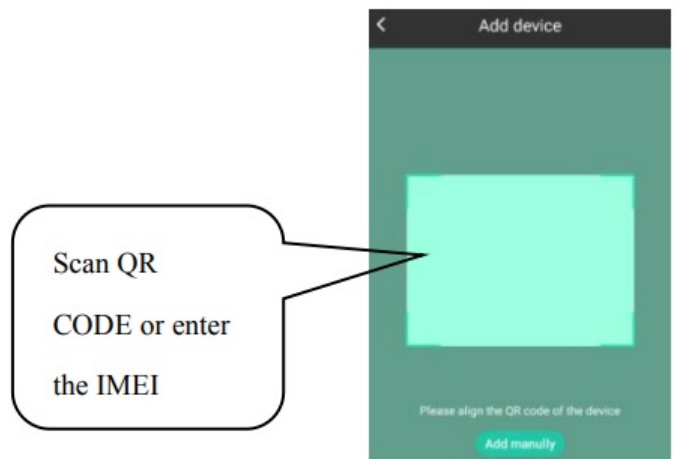
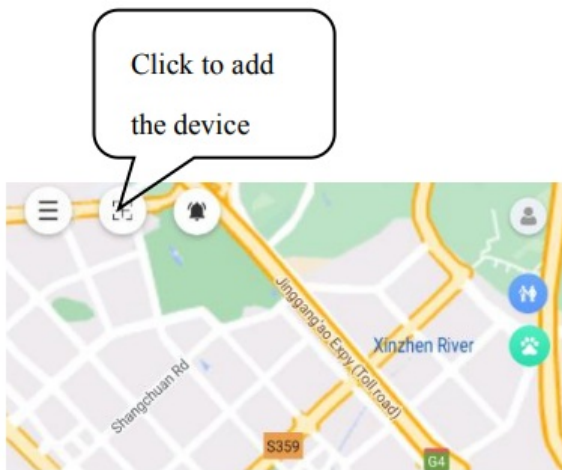
Scan the QR code to download APP



- Google Play App Store search “BAANOOL IOT” to download it Register
- Open BAANOOL IOT, register a new account, and login, Choose “BAANOOL car “to enter it.



- Bind Device Click this button(shown in the picture below) to add the device scan the QR CODE on the device or enter the IMEI manually to bind the device.

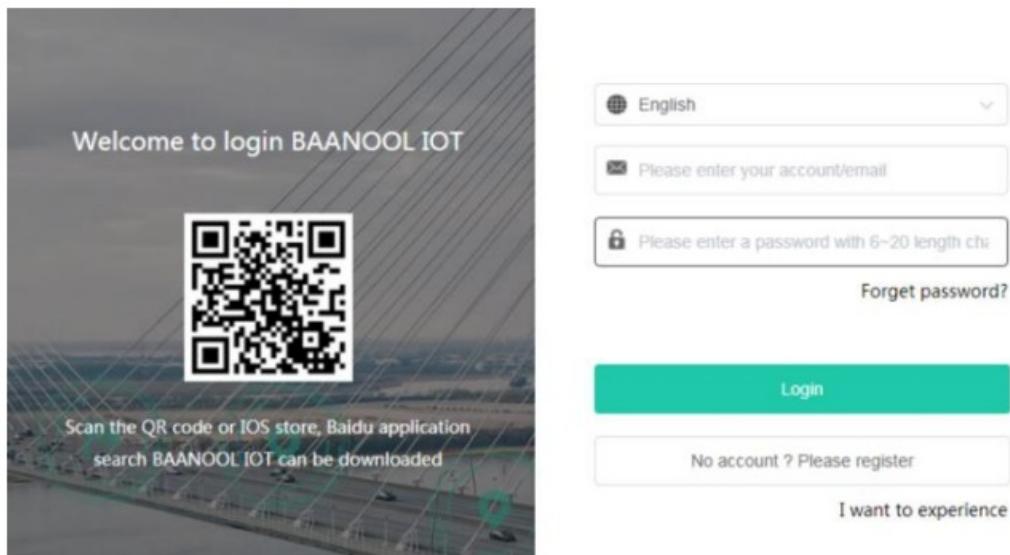


- Use the device

Usually, the device can automatically select the APN, username, and password without setting it. If the device is still offline after 3 minutes of binding, you need to set the APN username and password in Bluetooth or SMS according to 11.19 and 11.20. After the device comes GPRS online normally, you can view and manage the device.

BAANOOL IOT's Web Server

Open www.baanooliot.com, The login account name and password are the same as the mobile App's



Mobile APP and web server functions

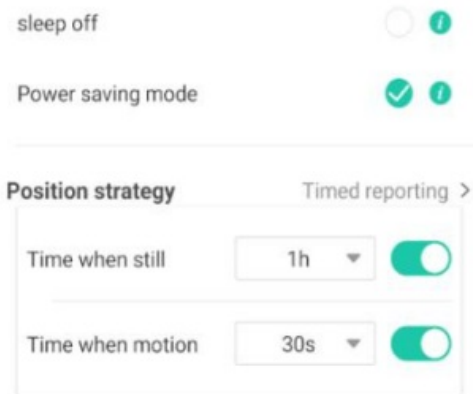
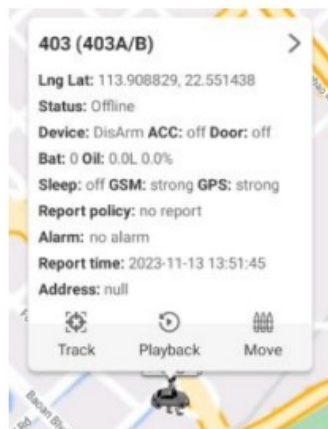
Positioning Strategy

You can click the "tracking" button to select the working mode and tracking interval, when not moving, set a longer time interval to report the location (eg: 1 hour), when moving, you can set a short time interval for report location frequently (eg: 10 seconds). when the GPS device is moving will show the motion trace.

Work Mode

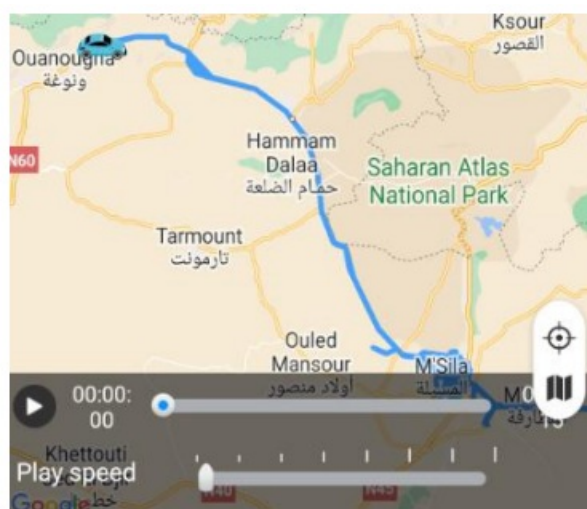
| Work mode | Descriptions |
|--------------------|--|
| Real-time tracking | <p>GPRS is always online, and GPS devices report locations according to the set time interval. When moving or not move</p> <p>GPRS always online is defaulted, and report location every 10 seconds when moving or report the location every hour when not moving.</p> |
| Smart mode | <p>GPRS offline when not moving (phone calls, SMS messages, and alarms triggered get GPRS online, SOS/door open alarm /illegal ignition alarms are triggered, the device will be always GPRS online until these alarms are canceled).</p> <p>when moving, the GPS device Wakes up and goes online, no matter moves or not, the device will report the location at the set time interval.</p> |

Tracking Time Interval



Playback

you can click “playback” to check the history motion trace



Remote Immobilizing

no quick Remote immobilizing, Remote immobilizing quickly, Remote fuel resume

Arm/Disarm

arm Silent Arming disarm

Alarm function in arming state

Door Opening Alarm

When the door is opened in an arming state, the tracker will send an SMS notification “Door alarm+latitude & longitude” to authorized numbers. The siren will beep for 20 seconds, and if the door is still open, then the siren will beep for another 20 seconds with 20 20-second pause, disarming to quit the alarm.

8.5.2 ACC Alarm

In the arming state, if the ignition of the vehicle has been switched “ON”(The key is rotated to the “ACC ON” position or the vehicle is started, the ignition alarm is triggered, The siren will beep for 20 seconds, and if the ignition is still on, then the siren will beep for another 20 seconds with 20 seconds pause, disarming to quiet the alarm.

Shock Alarm

In the arming state, the tracker detects the movement and shock, sends “Sensor alarm + latitude /longitude” to authorized numbers, and only sends it once in 3 minutes. Siren will beep for 5 seconds for the first trigger and second trigger, and then, Siren beep for 10 seconds for another trigger,

Other Alarms

Low Battery Alarm

when the battery voltage is close to 3.55V, the tracker will send a message“low battery + latitude & longitude” to

authorized numbers 2 times at 15-minute intervals.

External Power Alarm

This function is activated by default. The tracker will send “Power alarm+latitude& longitude” to authorized numbers when external power is disconnected.

SOS Alarm

Press the SOS button for 3 seconds(For model B/D, press  the key on the remote control), tracker will send an SMS notification “Help me+latitude& longitude” to all the authorized numbers.

Geo-fence

After Several Geofences are set on the APP or web server a Geo-fence alarm will be triggered When the tracker moves out or moves in these Geofences.



Movement Alarm

on the platform, you can draw a circle regarding the device's current position as the center. When the device leaves the current position and exceeds the circle range, a Movement alarm will be triggered.



Over speed Alarm

After setting up the speed value (km/h), over speed alarm will be triggered. when the device runs over the speed set before

Fuel Alarm

When the vehicle's fuel consumption exceeds the normal standard while the vehicle is running, or there is fuel leakage or fuel stealing when the vehicle is stopped, the tracker will send “oil: xx%+latitude & longitude” to the authorized numbers. The siren will beep for 20 seconds.

Temperature Alarm (Option)

When the device's operating temperature exceeds the set temperature range, the device will trigger a temperature

alarm. The available temperature range is from -40°C to 80°C.

WiFi hotspot (For C/D model)

This function is deactivated by default. When the hotspot is turned on, the user's other devices can use the wifi name and password to connect to the Internet.

If a camera is installed, the hotspot should be turned on to use the photography and video functions.

WiFi camera (Optional for C/D model)

Configure the network for the camera

Open the app After turning on the wifi hotspot in the APP menu, the hotspot name will come out, Click the hotspot name will display the QR code for Network configuration.

Point the camera at the QR code to scan the code, The camera prompts "Network configuration successful".

Photography function

When the vehicle detects a DOOR/ACC/SOS alarm, the device will report alarms and automatically turn on the camera, then, upload the captured photos to the monitoring platform and send the link of photos to all authorized numbers.

View real-time video

Both the monitoring platform and the APP can open a live video stream to view the surrounding environment of the vehicle. When the video is playing, you can click the camera button to capture video frames.

Audio is off by default, you can click the mute button to turn on real-time audio.

Video playback

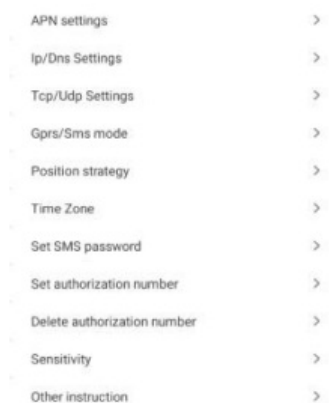
- You can view the video playback on the App, and the playback is muted by default.
- Click the mute button to turn on the sound.

Listen

You can listen for 15 seconds each time set this function.

Bluetooth configuration parameters

You can click the Bluetooth icon on the App login page or the home page after login to enter the Bluetooth configuration parameter function interface and click "Bn405" to directly modify device parameters after the connection is successful. All SMS commands can be set via Bluetooth.



Other functions







You can control functions of deactivating the alarm, SIM Card Balance inquiry, firmware update, restart, and initialization Settings. and set shock sensitivity, authorization, times of alarm, time zone, external power on /off, Fuel sensor calibrating, vibration sensitivity, angle, SMS password, and check device details, Operation record, and installation.

Bluetooth automatic arm/disarm

- Open the phone Settings, find the Bluetooth menu, open Bluetooth, and search for Bluetooth named “Bn405”, click Connect, enter the machine password, and then the pairing succeeds.
- When you are far away from the terminal and the Bluetooth connection is disconnected, the terminal automatically arms.
- When close to the terminal, Bluetooth automatically connects, and the terminal disarms.

Note: When using other methods (remote control, SMS command, app, web version, Bluetooth setting parameters) after deployment, Bluetooth sensor automatic deployment/withdrawal will be invalid, until through other means of withdrawal, Bluetooth sensor automatic deployment. If you do not use Bluetooth sensing, please unpair in the Bluetooth menu of your phone.

Remote controller Optional

| Key | Function | Descriptions |
|---|-----------------------|--|
|  | Arming | Press for 0.5 second, siren beep one time .If the vehicle is in the |
| | | ignition state(Represents ths key not pulled),it cannot enter the armed state ,siren not beep |
|  | Disarming | Press for 0.5 second, siren beep 2 times, all alarms are stopped |
|  | Silent arming | Press for 0.5 second in disarm state, siren beep one time. In silent mode, the siren will not sound even if alarm is triggered. DISARM will quit from silent mode. |
|  | SOS | Press for 3 seconds, Tracker will send SOS alarm to authorized phone numbers. Siren won't beep. |
|  | Deterrence/Car locate | Press for 0.5 second in arm state, siren will keep beep for 10 seconds, press disarm key  to quit |

I prefer to use an APP and web server to set up GPS device, You can ignore the following instructions

SMS Functions

- The device defaults to working in GPRS mode and SMS mode at the same time.
- If you only use SMS mode to manage the device, it is recommended to turn off GPRS by referring to the command on 11.23 to save power and GPRS data.

Attention

When reading this user manual, you will notice that we have used “+” and “space” between some words;”+” between two words means they should be written together as one word, and “space” between two words means you should leave one character space between two words.

Changing Password

SMS command: password+oldpassword+space+new password, Tracker response: password OK. The default password is 123456, please change the password the first time use it.

Authorization

Setup SMS command: admin+password+space+mobile phone number,

Tracker response: admin ok

Cancel SMS command: noadmin+password+space+authorized number

Tracker response: admin ok

Call the tracker 10 times in succession, the number will be authorized automatically as the first number and the tracker response "Add master ok"

Up to 5 numbers can be authorized. Alarm information can only be received if authorized cell phone No. is set

Single Positioning

SMS Command: position+password It will reply to an SMS with a location report Click the link to check the tracker's location on the map,

- Make a call to the tracker and it will automatically hang up and reply to an SMS with positioning.
- If there aren't any authorized numbers set up, it will reply to all calls with a location report; if there are authorized numbers set up, then it will not respond when an unauthorized number calls it

Positioning Strategy

Working mode

Real-time tracking online+password gsm signal is always online, the location can be queried at any time, and whether the device is stationary or moving, the location will be reported at set intervals.

Smart mode: sleep+password The tracker sleeps when it is stationary (phone calls, SMS, and alarms can trigger the tracker to go online. After SOS, door opening alarms, and illegal ignition alarms are triggered, the device will be online in real time until the alarm is lifted). It wakes up when it is in motion. Whether it is stationary or moving, the device will follow the set track interval time as accord to the location.

Setting Positioning Time Interval

- **SMS Command:** fix+020s+002h+005n+password, tracker will report at 20-second intervals when the device is moving and update a position at 2-hour intervals when motionless, and only 5 times are updated, 005n means 5 times, n means unlimited times.
- **Cancel the setting:** nofix+password Tracker response: no fix ok

Remote Immobilizing

- **Delayed immobilizing**
 - **Command:** stop+password. When the current speed of the vehicle is greater than 20km/h, the command will not be executed immediately. It will be executed only after the vehicle speed is less than 20 km/h.
- **Immobilizing immediately**
 - **Command:** quickstop+password, no matter whether the vehicle speed is greater than 20km/h, the command will be executed immediately.
 - **Remote fuel resume**
 - **Command:** resume+password, restore fuel and power supply.

Arming / Disarming

- **Arming arm+password Response:** Tracker is activated the vehicle terminal enters the armed state. If the vehicle is in the ignition state(Represents the key not pulled), it cannot enter the armed state, and then reply "Set up fail! pls turn off ACC".
- **Silent Arming silent+password Respond:** silent ok! the terminal enters the silent arming state. After the alarm is triggered, the siren does not sound, but an alarm text message will be sent to the authorized number.
- **Disarm disarm+password Tracker response** Tracker is deactivated the vehicle terminal will be deactivated, and these alarms won't be triggered anymore.

Alarm function in Arming state

Door Opening Alarm

- When the door is opened in an arming state, the vehicle terminal will send an SMS notification "Door alarm+latitude & longitude" to authorized numbers. The siren will beep for 20 seconds, and if the door is still open, then the siren will beep for another 20 seconds with 20 20-second pause, disarming to quit the alarm.

ACC Alarm

- The tracker will send "ACC alarm + latitude/longitude" to authorized numbers if the ignition of the vehicle has been switched "ON" (The key is rotated to the "ACC ON" position) or start the vehicle directly when the tracker works in the arming state. The siren will beep for 20 seconds, and if the ignition is still on, then the siren will beep for another 20 seconds with 20 20-second pause, disarming to quiet the alarm. 11.7.3 Shock alarm
- The vehicle moves and shocks when it is arming and the tracker will send "Sensor alarm + latitude /longitude" to authorized numbers, and only sent once in 3 minutes. The siren will beep for 5 seconds for the first trigger and second trigger, and then beep for 10 seconds for another trigger, disarming to quit the alarm
- There are three different levels for the Vibration alarm, the default is level 2, SMS command: sensitivity+password+space+2

Alarms

Low battery alarm

This feature is activated by default, when the battery voltage is close to 3.55V, the tracker will show the end message "low battery + latitude & longitude" 2 times at 15-minute intervals.

- **SMS command to deactivate:** lowbattery+password+space+off
- **Tracker response:** low-battery off ok
- **Example:** lowbattery123456 off
- **SMS command to activate:** lowbattery+password+space+on
- **Tracker response:** low battery on ok
- **Example:** lowbattery123456 on

External power disconnection alarm

This feature is activated by default. The tracker will send "Power alarm+latitude& longitude" when external power is disconnected.

- **SMS command to deactivate:** ext power +password+space+off
- **Tracker response:** ext power off ok
- **Example:** expower123456 off
- **SMS command to activate:** ext power +password+space+on
- **Tracker response:** ext power on ok
- **Example:** expower123456 on

SOS alarm

Press the SOS button for 3 seconds(For model B/D, press  key on the remote control), the tracker will trigger the SOS alarm

Movement alarm

- **SMS command:** move+password+space+ radius, Tracker response: move ok
 - **Cancel the setting:** nomove+password, Tracker response: no move ok
- Draw a circle with the current position of the device as the center, Once the device exceeds the radius, the movement alarm will be triggered.

Over-speed alarm

SMS command: speed+password+space+ speed threshold, Tracker response: speed ok

Cancel: nospeed+password, Tracker response: no speed ok

When the speed exceeds the set speed threshold, an overspeed alarm will be triggered

Fuel Alarm

- When the vehicle's fuel consumption exceeds the normal standard while the vehicle is running, or there is fuel leakage or fuel stealing when the vehicle is stopped, the tracker will send "oil: xx%+latitude & longitude" to the authorized numbers. The siren will beep for 20 seconds.
- SMS command to stop the notification: nooil+password
- For reasons such as different fuel tank heights and specifications of fuel sensors, the tracker needs to set the proper height to zero and full values to read the correct percentage value.
- Calibrate 0% when the fuel tank is empty:
- **SMS command:** oilzero+password
- **Tracker response:** oil zero ok!
- **Example:** oil zero 123456 Calibrate 100% after filling the fuel tank 100%:
- **SMS command:** oilfull+password
- **Tracker response:** oilfull ok!
- **Example:** oil full 123456

Configure times of alarm

The times of SOS, power, oil, door, and ACC alarm sending can be set.

SMS command: time-password+times value

Response: time ok Send once by default.

Temperature alarm(Optional)

The available temperature range is from -40°C to 80°C.

Send the SMS command “temperature+password+ space+the lowest temperature the number should be 2 digits), the highest temperature (the number should be 2 digits)” to the tracker, it will reply “temperature ok”. When the temperature is beyond the limited range, the tracker will send an SMS alarm to the authorized numbers.
Deactivate temperature alerts: notemperature+password, Tracker response: no temperature OK

WiFi hotspot (For C/D model)

This function is deactivated by default. When the hotspot is turned on, the user's other devices can use the wifi name and password to connect to the Internet.

activate: hotspot+password+spaceton, Tracker Response: wifi name and password

deactivate: hotspot+password+space toff, Tracker Response: hotspot off ok

Check WiFi hotspots: checkhotspot+password, Tracker Response: wifi name and password

Modify WiFi hotspot password:

SMS command: hotspotpwd+password+space hotspot new password, Tracker Response: hotspotpwd ok

Listen

The default mode is Track mode, dial the device, reply position

SMS command: listen+password, switch to Listen mode, dial the device, enter call SMS command: tracker+password, restore to Track mode

ACC ON/OFF Alert

- This function is OFF by default.
- SMS command to activate: ACC+password, Tracker Response: ACC ok
- SMS command to deactivate: noACC+password, Tracker response: nOACC ok

SIM Card Balance Enquiry

First way:

- **SMS command:** balance-password+space phone number of operator +space code
- The tracker will forward the received text message from the operator to the sender of the command



Second way:

SMS command: forward+password+space +phone number of operator

When the network operator sends a text message requiring recharge, the tracker will forward it to the authorized number

Check Status

- **SMS command:** check+password,
- **Response:** Power, Battery %, GPS signal, GSM signal, GPRS, APN, UP, IP, Port, Temperature, Humidity etc

Check IMEI

- **SMS command:** imei+password
- **Tracker response:** X (A 15 digit IMEI of your device)
- **Example:** imei 123456

Time zone setting

The tracker works in the local time zone by default. If you find that the time zone is incorrect, you can configure the time zone

- **SMS command:** time-space +zone +password+space+time zone value
- **Tracker responds:** time ok
- **Example:** time zone 123456 8

Reset Hardware

- **SMS Command:** reset+password
- **Tracker Response:** reset ok
- **Example:** reset 123456

APN Setting

- **SMS command:** APN+password+space+local APN, Tracker response: APN OK Settings are only required to use the APP and web version platform.
- **Configure user name and password of GPRS**
- **SMS command:** up+password+space-user+space-password
- **Tracker response:** up ok
- Settings are only required to use the APP and web version platform

Configure Server IP/DNS

- **SMS command:** adminip+password+space+IP/DNS domain name+space +port, Tracker response: DNS success! No setup is required to use baanooliot.com
- **TCP / UDP switch**
- **SMS command:** tep+password, Tracker response: tep ok
- **SMS command:** udp+password, Tracker response: udp ok No setup is required to use baanooliot.com

SMS Mode

- **SMS command:** SMS+password, Tracker response: SMS ok

The tracker turns on GPRS by default. If you prefer SMS and phone calls to manage the tracker, it is recommended to use this command to turn off GPRS.

GPRS Mode

SMS command: gprs+password, Tracker response: GPRS ok

Initialization

SMS command: begin+password, Tracker response: begin ok The tracker returns to default factory settings.

Package contents

| No. | Photo | Name | Specifications | Applicable model |
|-----|---|---------------------------------|------------------------|------------------------|
| 1 |  | Harness | 14PIN | Standard |
| 2 |  | Microphone | Length with 1.5 meters | Standard |
| 3 |  | Relay | 12V/40A or 24V/40A | Standard |
| 4 |  | Siren | 12V/24V | Optional |
| 5 |  | Fuel Sensor | | Optional |
| 6 |  | Remote control | | Optional for B/D model |
| 7 |  | Temperature and Humidity sensor | | Optional |
| 8 |  | Wifi Camera | | Optional for C/D model |

Cautions

Please be sure to follow when using:

1. Keep the tracker used in a dry environment. The humid environment can easily damage internal circuits.
2. Please do not put it in a dusty environment.
3. Do not put the tracker in overheated or overcooled places.
4. Handle carefully. Don't vibrate or shake it violently.
5. Please clean with a dry cloth, do not use chemicals and detergents.
6. Please do not paint the device; this may lead to internal circuit failure.
7. Please read the user manual carefully before installation and operation, and understand voltage range.
Otherwise, it won't work properly or damage the tracker.

Troubleshooting


| Faults | Solution |
|-----------------------------|--|
| Fail to turn on | 1. Please check if the power wiring is correct. |
| No GSM signal | <ol style="list-style-type: none"> 1. Check whether the SIM card is put in place. 2. Whether the SIM card is a GSM network SIM card. 3. Don't turn on the PIN code. 4. Call forwarding cannot be opened. |
| No GPS signal | The device needs to be in an unobstructed position to ensure that it can receive GPS signals normally. |
| No response for SMS command | <ol style="list-style-type: none"> 1. No credit on SIM card. 2. The password is incorrect or the format of the SMS command is incorrect. |

| | |
|--|---|
| No response for a call/No alarm notification message | <ol style="list-style-type: none"> 1. Did you have set up the authorized phone number? 2. If an authorized number exists, did you make the call from an authorized phone number? 3. The format of the phone number is incorrect. |
| Fail to stop the engine | 1. Please check whether the engine stop wiring is connected correctly. |
| Remote control cannot be used | Turn off the tracker, and turn it on to program the remote control again. |



FAQ

- **Q: How can I activate the data package for the SIM card?**
 - A: You need to contact your mobile service provider to activate a data package for your SIM card.

Documents / Resources

| | |
|--|--|
|  <p>GPS Tracker User Manual</p> | <p>global sources 405 GPS Tracker [pdf] User Manual 405, 405 GPS Tracker, GPS Tracker, Tracker</p> |
|--|--|

References

-  [BAANOOL IOT](#)
-  [BAANOOL IOT](#)
- [User Manual](#)

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