

BAANOOL BN-303F (2G)

BAANOOL BN-303F/G 2G GPS Tracker User Manual

Intelligent Management Tracking System for Vehicles

1. INTRODUCTION

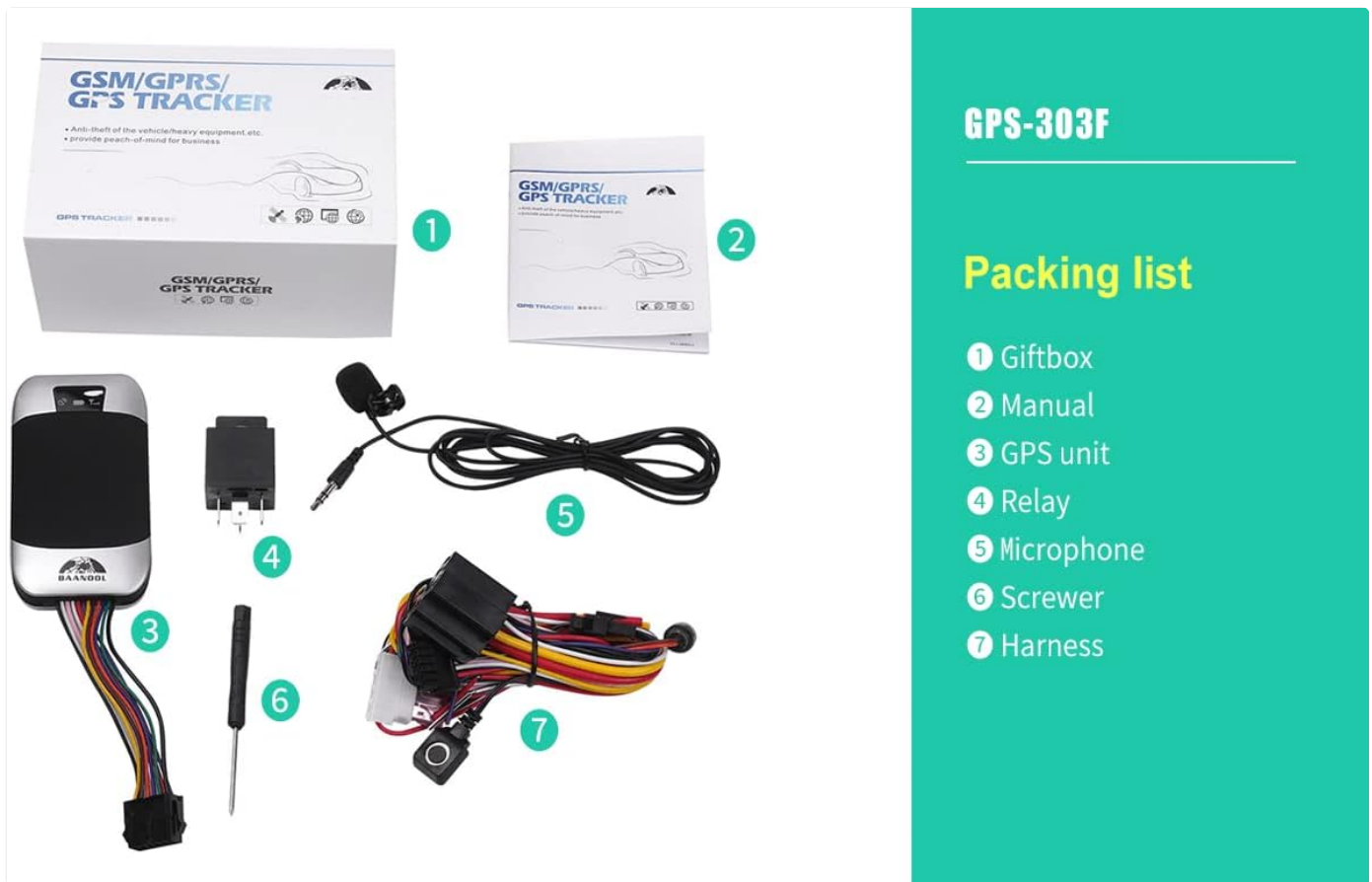
This user manual provides comprehensive instructions for the installation, operation, and maintenance of your BAANOOL BN-303F/G 2G GPS Tracker. This device is designed for intelligent management and real-time tracking of vehicles, offering features such as overspeed alarms, GEO-fencing, and remote engine cut-off capabilities. It operates on a 2G network and requires a separate SIM card for functionality. A free web platform and mobile application are provided for convenient monitoring.

2. PRODUCT OVERVIEW

2.1. Package Contents

Verify that all items are present in your package:

- Giftbox
- User Manual
- GPS Unit (BN-303F/G)
- Relay
- Microphone
- Screwer
- Harness



GPS-303F

Packing list

- ① Giftbox
- ② Manual
- ③ GPS unit
- ④ Relay
- ⑤ Microphone
- ⑥ Screwer
- ⑦ Harness

Figure 2.1: Contents of the BN-303F/G GPS Tracker package, including the main unit, wiring harness, relay, microphone, and tools.

2.2. Device Features

- **Real-time Positioning:** Accurate location tracking via GPS satellites.
- **Remote Engine Cut-off:** Ability to remotely disable the vehicle's engine.
- **Multiple Alert Functions:** Includes overspeed alarm, GEO-fence, low battery alarm, power disconnection alarm, blind area alarm, SOS alarm, and movement alarm.
- **Waterproof Design:** Enhanced durability for various environmental conditions.
- **Built-in GPS/GSM Antennas:** Integrated antennas for reliable signal reception.
- **Monitoring Microphone:** Allows for remote audio monitoring (microphone included).
- **Free Platform:** Access to a free web platform and mobile application (BAANOOL IOT) with no monthly fees.
- **Wide Compatibility:** Compatible with various fuel vehicles (cars, motorcycles, fleets, trucks, taxis).
- **2G Network Support:** Operates on 2G GSM/GPRS networks (850/900/1800/1900MHz).



Free APP and web platform(Please consult the user manual)
Download APP on the Apple Store or Google Play Store
APP Name: BAANOOL IOT
Working Network: 2G
Accurate positioning
Waterproof
Application: Vehicles/Cars/Motorcycles/Fleets/Trucks/Taxis
Cut off the engine remotely
Built-in GPS/GSM antennas
Monitoring(The microphone is included)
Remote control: for BN-303G

You'll need to buy a SIM card to use this tracker

Multiple Alert Functions:
Overspeed Alarm
GEO-Fence
Low Battery Alarm
Power Disconnection Alarm
Blind Area Alarm
SOS Alarm
Movement Alarm
Please refer to the manual for more functions.

Figure 2.2: Overview of the BN-303F/G GPS Tracker's key features, including its network compatibility, application, and alert functions.



Figure 2.3: Visual representation of the GPS-303F's main functions and capabilities.

3. SETUP AND INSTALLATION

Professional installation is recommended for this device. Ensure the vehicle's power is off before beginning installation.

3.1. SIM Card Installation

A SIM card (not included) is required for the tracker to function. Ensure the SIM card supports 2G network and has sufficient balance for SMS and GPRS data.

1. Locate the SIM card slot on the side of the GPS tracker.
2. Use the provided tool or a paperclip to open the SIM card tray.
3. Insert the Nano SIM card into the tray with the gold contacts facing down, ensuring correct orientation.
4. Gently push the tray back into the slot until it clicks into place.

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Video 3.1: Demonstration of how to correctly insert the SIM card into the GPS tracker device.

3.2. Wiring Diagram and Connections

The BN-303F/G tracker needs to be connected to the vehicle's power supply. Refer to the following instructions and the installation video for proper wiring.

- **Power Connection:**

- Connect the **Red wire (Positive)** from the tracker's harness to the vehicle's positive battery terminal.
- Connect the **Black wire (Negative)** from the tracker's harness to the vehicle's negative battery terminal or a reliable ground point on the car chassis.

- **ACC Line Connection:**

- Connect the **White wire (ACC Line)** from the tracker's harness to the vehicle's ACC line. This line provides power when the ignition is on.

- **Fuel Pump Cut-off (Optional):**

- To enable remote engine cut-off, cut the vehicle's fuel pump wire.
- Connect the two ends of the cut fuel pump wire to the appropriate terminals of the provided 12V relay.
- Connect the relay's control wires to the tracker's designated wires for engine cut-off (refer to the harness color coding).

- **Door Trigger Connection (Optional):**

- For door open/close alerts, connect the tracker's **Blue wire (Negative)** or **Green wire (Positive)** to the corresponding door trigger line of the vehicle.

- **SOS Button Connection (Optional):**

- Connect the **Violet wire (SOS Line)** to the provided SOS button.
- Stick the SOS button in an easily accessible but discreet location within the vehicle.

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Video 3.2: Detailed guide on the installation process of the GPS Tracker, including wiring connections for power, ACC, fuel pump, door trigger, and SOS button.

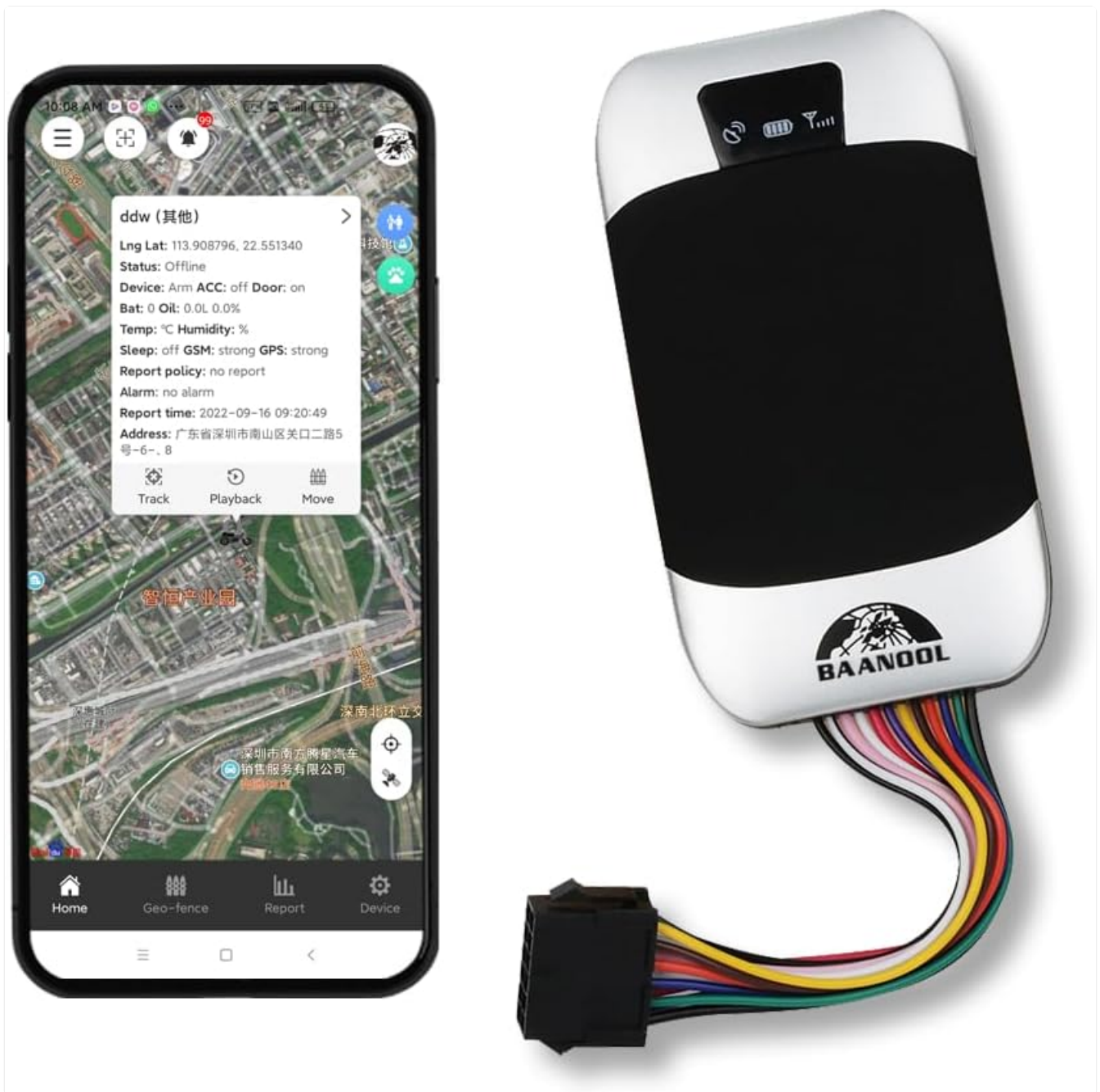


Figure 3.1: The BN-303F/G GPS Tracker connected to its wiring harness, alongside a smartphone displaying the tracking application interface.

4. OPERATING INSTRUCTIONS

4.1. Power On and Signal Lights

After connecting the device to the vehicle's power, the signal lights will indicate its status:

- **Red Light:** Indicates full battery (always on).
- **Blue Light:** Flashes to indicate good GPS signal.
- **Green Light:** Flashes to indicate good GSM signal.

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Video 4.1: Visual demonstration of the signal lights on the GPS tracker and their meanings.

4.2. Using the Free APP/Platform

Download the BAANOOL IOT APP from the Apple App Store or Google Play Store. The web platform is also available for

access.

- **Real-time Tracking:** Monitor your vehicle's current location on a map.
- **Historical Playback:** Review past routes and movements of the vehicle.
- **GEO-fence:** Set up virtual boundaries and receive alerts when the vehicle enters or exits these areas.
- **Overspeed Alarm:** Configure speed limits and receive notifications if the vehicle exceeds them.
- **Remote Control:** Control device functions, such as engine cut-off, via the app or web platform.



Figure 4.1: The BAANOOL IOT application interface on both mobile and web platforms, demonstrating real-time tracking capabilities.

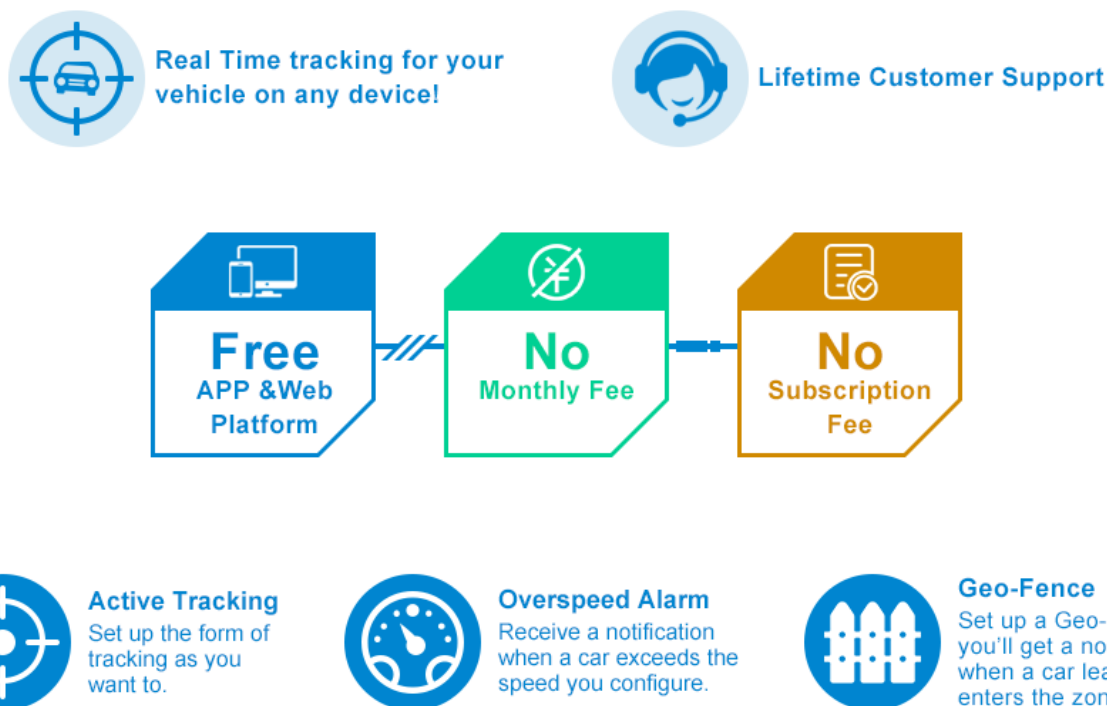


Figure 4.2: Illustration of the multi-vehicle tracking feature within the BAANOOL IOT system.

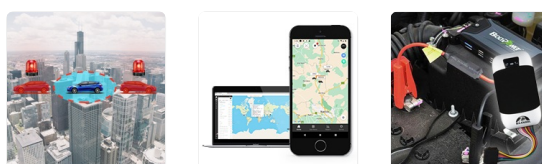


Figure 4.3: Icons illustrating key tracking features: Active Tracking, Overspeed Alarm, and Geo-Fence.

5. MAINTENANCE

- Regularly check all wiring connections to ensure they are secure and free from corrosion.
- Ensure the SIM card has sufficient credit and data plan for continuous operation.
- Keep the device clean and free from dust and debris.
- Avoid exposing the device to extreme temperatures or direct sunlight for prolonged periods.
- If the device is waterproof, ensure all covers and seals are properly closed to maintain water resistance.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Device offline on platform/APP	No SIM card inserted, SIM card expired/no balance, 2G network unavailable, incorrect APN settings, device not powered on.	Insert valid SIM card, recharge SIM card, check 2G network coverage, configure correct APN via SMS, ensure proper power connection.
Inaccurate GPS location	Weak GPS signal (e.g., indoors, underground parking), device not facing sky, interference.	Move vehicle to open area, ensure device has clear view of sky, check for obstructions.

Problem	Possible Cause	Solution
No response to SMS commands	Incorrect command format, SIM card issues (no SMS service, full inbox), device not registered on network.	Verify SMS command format, check SIM card SMS service, ensure device is powered and has GSM signal.
Engine cut-off not working	Incorrect relay wiring, relay faulty, vehicle speed too high (safety feature).	Check relay connections, test relay, ensure vehicle speed is below 20km/h for safety cut-off.

If problems persist, please contact BAANOOL customer support for assistance.

7. SPECIFICATIONS

Feature	Detail
Model	BN-303F (2G) / BN-303G
Dimensions	96mm x 53mm x 16mm (3.78 x 2.09 x 0.63 inches)
Weight	70g (2.47 oz) / 10.6 ounces
Network	2G GSM / GPRS
Band	2G (850 / 900 / 1800 / 1900MHz)
GPS Sensitivity	-159dBm
GPS Accuracy	5m
GPS Start Time	Cold status: 45s, Warm status: 35s, Hot status: 1s
Applicable Car Power	12V – 24V
Battery	Chargeable 3.7V 350mAh Li-ion battery (included)
Storage Temperature	-40°C to +85°C
Operation Temperature	-20°C to +65°C
Humidity	5% – 95% non-condensing
Special Feature	Waterproof
Connectivity Technology	Cellular
Supported Application	Alarm, Vehicle Tracking

8. WARRANTY AND SUPPORT

BAANOOL GPS trackers come with a **15-month warranty**. As an original manufacturer, BAANOOL provides comprehensive after-sales service.

If you encounter any problems with your device, please contact BAANOOL customer support for a solution. You can find contact information on the official BAANOOL website or through your purchase platform.



Figure 8.1: BAANOOL offers lifetime customer support for their products.