BAANOOL BN-401A-N (4G)

User Manual
BAANOOL 4G GPS TRACKER
Model: BN-401A-N (4G)

1. INTRODUCTION

The BAANOOL BN-401A-N is a 4G GPS tracker designed for precise localization and management of vehicles in North American regions. This device offers real-time tracking, historical playback, and various alarm functions, all accessible via a free mobile application and web platform. It is compatible with a wide range of vehicles including cars, motorcycles, trucks, and more.

This manual provides detailed instructions for the installation, operation, and maintenance of your BN-401A-N GPS tracker to ensure optimal performance and longevity.

2. SAFETY INFORMATION

Please read and understand all safety instructions before installing and operating the device. Failure to follow these instructions may result in damage to the device, vehicle, or personal injury.

- Ensure the vehicle's power is disconnected before installation to prevent electrical shock or short circuits.
- Install the device in a secure location away from extreme heat, moisture, or direct sunlight.
- Do not attempt to open or modify the device. Refer all servicing to qualified personnel.
- Use only the provided accessories and wiring harness.
- Verify correct voltage (12-24V) before connecting to the vehicle's power supply.

3. PACKAGE CONTENTS

Upon opening the package, please verify that all the following items are included:

- Giftbox
- Relay (if applicable for your specific kit)
- GPS unit (BN-401A-N)
- Harness
- User Manual

Figure 3.1: Package Contents of BN-401A-N GPS Tracker.

4. SPECIFICATIONS

The following table outlines the technical specifications of the BN-401A-N GPS Tracker:

Parameter	Value
Model	BN-401A-N
4G Bands (North America)	B2/B4/B5/B7/B12/B13/B66/B28A
Network	LTE
Dimensions (L x W x H)	6.78 x 4.1 x 2.15 cm (2.67 x 1.6 x 0.85 inches)
GPS Unit Weight	58g (6 ounces)
GPS Accuracy	5m
Voltage of Power	12-24V
Internal Battery	Chargeable 3.7V 90mAh Li-ion battery (included)
Connectivity Technology	Cellular
Supported Applications	Car, Motorcycle, Vehicle, Fleet, Scooter, Bus, Taxi, Truck, Free APP & Web Platform
Waterproof	Yes

Figure 4.1: Device Dimensions and Key Specifications.

5. SETUP GUIDE

5.1 SIM Card Installation

The BN-401A-N requires a Nano SIM card (not included) for cellular communication. Ensure the SIM card is active and has data, SMS, and call capabilities. This model is specifically designed for North American 4G networks.

1. Locate the SIM card slot on the device.
2. Carefully insert the Nano SIM card into the slot with the correct orientation until it clicks into place.
3. Ensure the SIM card is securely seated.

5.2 Wiring and Installation

The device should be installed on the vehicle's onboard power supply (12-24V). Professional installation is recommended.

1. Identify a stable 12-24V power source in your vehicle (e.g., ACC power, battery).
2. Connect the red wire of the device's harness to the positive (+) terminal of the power source.
3. Connect the black wire of the device's harness to the negative (-) terminal or vehicle ground.
4. If your model includes a relay for remote engine cut-off, follow the specific wiring diagram provided with the relay.
5. Secure the GPS unit in a hidden but accessible location within the vehicle, ensuring it has a clear view of the sky for optimal GPS signal reception. Avoid placing it near large metal objects that could interfere with the signal.

Figure 5.1: BN-401A-N GPS Tracker with Wiring.

5.3 App and Web Platform Setup

BAANOOL provides a free mobile application and web platform for managing your GPS tracker.

1. **Download the App:** Search for "BAANOOL IOT" on the Apple App Store or Google Play Store and install it on your smartphone.
2. **Access Web Platform:** Visit the official BAANOOL tracking website (URL typically provided in the packaging or quick start guide).
3. **Register/Login:** Create an account or log in using your existing credentials. You will typically register the device using its unique ID number (IMEI), found on the device itself or its packaging.
4. **Configure APN:** Depending on your SIM card provider, you may need to configure the APN settings. This can usually be done via SMS commands sent to the device or through the platform/app settings. Refer to your SIM card provider's APN information.
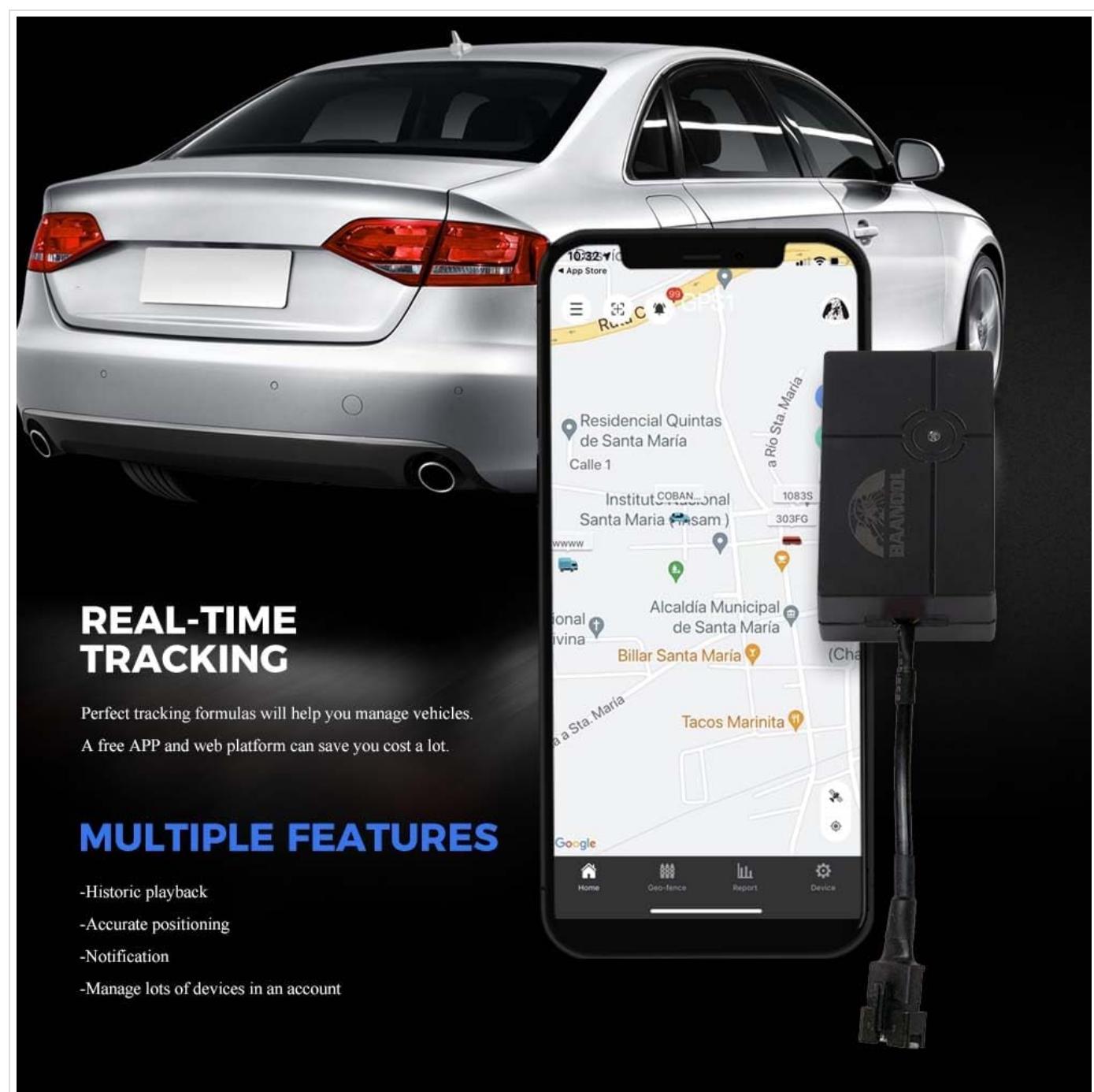

Figure 5.2: BAANOOL Tracking App Interface.

6. OPERATING INSTRUCTIONS

6.1 Real-time Tracking

Once the device is installed and connected to the platform, you can view its real-time location.

- Open the BAANOOL IOT app or log in to the web platform.
- Select your device from the list.
- The map will display the current location of your vehicle. Information such as speed, direction, and status (e.g., ACC on/off) will also be shown.

6.2 History Playback

Review past routes and activities of your vehicle.

- Navigate to the "History Playback" section in the app or web platform.
- Select the desired date and time range.
- The system will display the vehicle's route during that period, along with details like stops and speeds.

6.3 GEO-Fence Setup

Set up virtual boundaries to receive alerts when the vehicle enters or exits a defined area.

- Go to the "GEO-Fence" or "Geofence" section.
- Draw a polygon or circle on the map to define the desired area.
- Name the geofence and configure alert preferences (e.g., entry alert, exit alert).
- Save the geofence.

6.4 Bluetooth Configuration (BN-401A-N)

The BN-401A-N supports parameter configuration via Bluetooth, allowing for easy setup and adjustments.

- Ensure Bluetooth is enabled on your smartphone.
- Open the BAANOOL IOT app and navigate to the device settings or configuration section.
- Select the option to connect via Bluetooth. The app will search for nearby devices.
- Once connected, you can configure various parameters such as alarm settings, reporting intervals, and more.

6.5 Remote Control (for BN-401B-N model)

Note: This feature is primarily available for the BN-401B-N model. If your BN-401A-N model supports a remote control, refer to its specific instructions.
The remote control allows for arming/disarming the device and potentially other functions like engine cut-off (if wired with a relay).

- Press the arm button to activate security features.
- Press the disarm button to deactivate security features.
- For engine cut-off, ensure the relay is correctly installed and follow the specific instructions for activating this function via the app or remote.
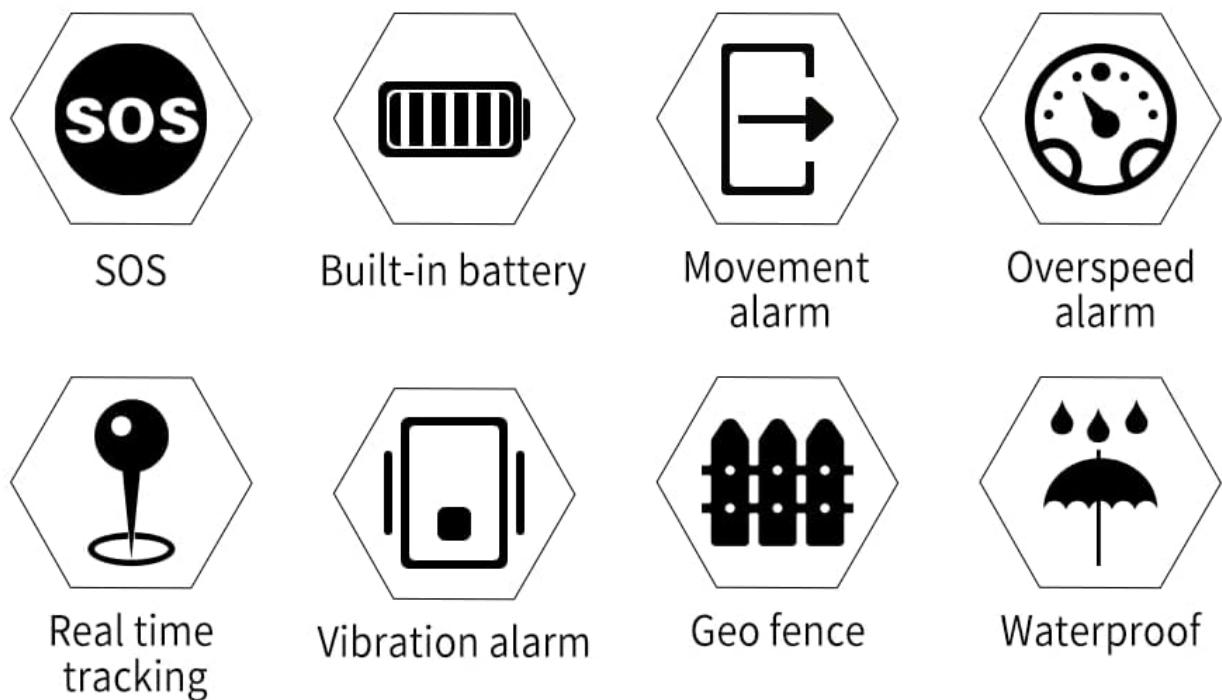
Figure 6.1: Key Features of the BN-401A-N GPS Tracker.

7. ALARM FUNCTIONS

The BN-401A-N is equipped with several alarm functions to enhance vehicle security and monitoring:

- **ACC Alarm:** Triggers when the vehicle's ignition (ACC) is turned on or off unexpectedly.
- **Shock Alarm:** Alerts you to sudden impacts or vibrations detected by the device.
- **Low Battery Alarm:** Notifies you when the device's internal backup battery is running low.
- **External Power Disconnection Alarm:** Informs you if the main power supply to the device is cut.
- **SOS Alarm:** Can be triggered manually (if an SOS button is connected or via specific command) to send an

emergency alert.

- **Movement Alarm:** Alerts if the vehicle moves from its parked location without authorization.
- **Over Speed Alarm:** Notifies you if the vehicle exceeds a pre-set speed limit.

These alarms can typically be configured via the BAANOOL IOT app or web platform, allowing you to set thresholds and notification methods (e.g., app push, SMS, email).

8. MAINTENANCE

To ensure the longevity and reliable performance of your BAANOOL GPS tracker, consider the following maintenance tips:

- **Regular Checks:** Periodically check the device's physical connections to ensure they are secure and free from corrosion.
- **Software Updates:** Keep the BAANOOL IOT app updated to the latest version to benefit from new features and bug fixes.
- **Cleanliness:** Keep the device free from dust and debris. Wipe with a soft, dry cloth if necessary.
- **Battery Health:** While the device is primarily powered by the vehicle, its internal battery provides backup. Avoid prolonged periods of vehicle inactivity if relying solely on the internal battery.

9. TROUBLESHOOTING

If you encounter issues with your BN-401A-N GPS tracker, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device offline on platform	No SIM card, inactive SIM, no data, incorrect APN, poor cellular signal, power disconnected.	Ensure SIM is inserted correctly and active with data. Verify APN settings. Check power connections. Move vehicle to area with better cellular coverage.
Inaccurate GPS location	Poor GPS signal (e.g., underground parking, dense urban area), device obstructed.	Move vehicle to an open area. Ensure device has a clear view of the sky. Avoid placing it under metal objects.
No alarms received	Alarm settings not configured, notification settings off, app not running in background.	Check alarm settings in the app/platform. Ensure notification permissions are granted for the app. Verify SMS/email settings if applicable.
Device not powering on	No power supply, incorrect wiring, blown fuse.	Check vehicle's power source. Verify wiring connections. Inspect vehicle's fuse box for blown fuses.

If the problem persists after attempting these solutions, please contact BAANOOL customer support for further assistance.

10. WARRANTY AND SUPPORT

BAANOOL GPS trackers come with a **15-month warranty**. As an original manufacturer, BAANOOL provides comprehensive after-sales service.
If you experience any issues with your device or require technical assistance, please do not hesitate to contact BAANOOL

customer support. Provide your device's IMEI number and a detailed description of the problem to receive prompt and satisfied solutions.

For more information, visit the official BAANOOL store on Amazon:BAANOOL Store