# JM-VL04
## LTE GNSS TRACKER

User Manual
V2.2

Read this manual carefully prior to use. No prior notice will be given for any changes made to the appearance, color, or accessories of the product.

# Introduction

### Features

- Audio broadcast of alerts
- Driving behavior analysis
- Remote Listen-in
- Multi-GNSS
- Location data re-upload
- Smart power saving
- ACC detection
- Anomaly alerts (speeding, fatigue driving, geofence, plug-in and -out, etc.)

### Operating Environment

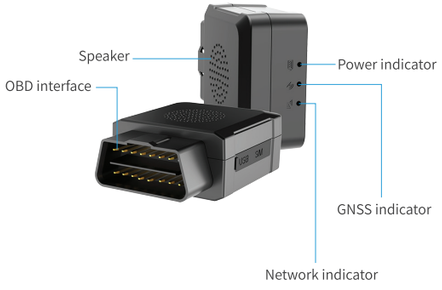
Operating voltage: 9–36VDC
Internal backup battery: 3.7V/50mAH LiCoO2 battery
Operating current: <300mA @12V
Standby current: <10mA @12V
Operating temperature: –20°C to 70°C
Storage temperature: –40°C to 85°C
Positioning accuracy: <10m
Location modes: GPS, GLONASS, BDS, AGPS, and LBS

### Frequency Bands

| | |
|---|---|
| **VL04A** | CAT M1: B2/B4/B5/B12/B13<br>CAT NB2: B2/B4/B5/B12/B13 |

# Overview

### Appearance




### Connotations of Indicators

**Power indicator(Red)**

| | |
|---|---|
| Fast blink [0.1s–0.1s (on–off)] | The battery is low. |
| Slow blink [2s–2s (on-off)] | The device is charging. |
| Solid on | The charging is complete. |
| Slow blink [0.1s–2s (on–off)] | The device operates correctly. |
| Off | The battery is under voltage or encounters an internal failure. |

**GNSS indicator(Blue)**

| | |
|---|---|
| Fast blink [0.3s–0.3s (on–off)] | The device is searching for satellite signals. |
| Solid on | The GNSS module is already fixed a position. |
| Off | Device is in sleep mode or not operating. |

**Network indicator(Green)**

| | |
|---|---|
| Fast blink [0.1s–0.1s (on–off) | The GMS is initializing |
| Slow blink [0.1s–2s (on–off)] | The GSM works correctly |
| Solid on | The device is in a call/online |
| Off | Network error or no SIM card |

# Installation

### Inserting the SIM Card

- Step 1 Prepare a proper SIM card;

Standard ✗ Micro ✗ Nano ✓

- Step 2 Insert the SIM.

Flip the slot cover open and insert the SIM in correctly.

**Note**

- After the SIM card is inserted, the device powers on using the backup battery. If the device fails to power on due to low battery, you can connect the device to the OBD port of the vehicle to obtain power.
- Note: The SIM card must be inserted correctly, has GPRS services activated, and is not in arrears. If the SIM is identified and requires a PIN, please disable the PIN request.

### Installing the Device

**Connect the device to the OBD port when the vehicle is ignition off.**

Observe the indicators against 2.2 to ensure that the device enters work mode correctly.

A: Most car models of General Motors, Volkswagen, Ford, Toyota, Hyundai, Citroën, BMW, etc.
B: Honda, Volkswagen Touran, Lexus, etc.
C: Dongfeng Citroën, Dongfeng Peugeot, etc.
D: Dongfeng Citroën, etc.
E: Others

# Description

The following functions can be configured via the platform or app provided by your dealer. If the configuration via the platform or app fails, you can configure via SMS. You will receive reply messages indicating whether a function is configured successfully.

### Plug-out Alert

If the device is unplugged from the vehicle, it will send an alert notification to the platform or app, or send an SMS carrying the alert reason and location to the SOS number.

### Power Cut Alert

If the power to the device is cut, the device will send an alert notification to the platform or app, or send an SMS carrying the alert reason and location to the SOS number.

### Installation Alert

If the device detects the charger is connected or powers on using an external power source, it will determine that it has been connected with the OBD port of the vehicle and send an installation alert notification if no plug-out action is detected for 10s.

### Low External Power Alert

If the voltage of the external power is under the preset threshold, the device will send a low external power alert notification to the platform or app.

### Low Backup Battery Alert

If the state of charge (SoC) of the backup battery of the device is lower than 10%, the device will send a low battery alert notification to the platform or app.

### Geofence Alert

You can draw a circular or rectangular area via the platform or app and set it as a geofence. If your vehicle is detected to enter or leave a preset geofence, the device with the related alert feature enabled will send an alert notification to the platform or app. The device will also give out an audio reminder indicating that your vehicle has entered or left the monitored range.

### Speed Alert

After a speed threshold is set, the device will send an alert notification to the platform or app and give out an audio reminder of slowing down if it detects that your vehicle keeps moving at speeds above the threshold for a preset duration.

### Fatigue Driving Alert

If the device detects the vehicle has been moving for more than the preset duration (4 hours by default) continually with rest intervals less than the minimum rest time required (20 minutes by default), it will send a fatigue driving alert notification to the platform or app and give out an audio reminder of taking a proper rest 30 minutes before the fatigue driving alert is generated.

### UBI-related Event Alert

If the device detects that the driver has stepped on the brake or gas pedal hard, cornered rapidly, or that the vehicle has collided, it will send an alert notification to the platform or app and give out an audio reminder as well.

### Vibrating alert

When the device in manual defense mode has its defense on and has enabled with the vibrating alert feature, if the device detects the vehicle vibrates for 5 times in 10s (the trigger condition is configurable), it will send an alert notification to the platform or app .

When the device in auto defense mode has its defense on and has enabled with the vibrating alert feature, if the device detects the vehicle vibrates for 5 times in 10s (the trigger condition is configurable) and the vehicle is not ACC on in 30s, it will send an alert notification to the platform or app . If the vehicle has its ACC on in 30s, no vibrating alert will be triggered.

### Defense On and Off Alerts

If the device is in manual defense mode, you can enable or disable the defense with the following methods:

**Enable and disable defense via SMS**

Send the SMS "111" via an SOS number to the device, the device will enable defense after receiving the command and reply with a message indicating the execution result.

To disable the defense, send the SMS "000" via any preset SOS number to the device, the device will disable the defense after receiving the command and reply with a message indicating the execution result.

**Enable and disable defense via the platform or app. Whether the command is executed successfully or not, the device will reply with a message indicating the result.**

**Note:** This feature is disabled by default. You can enable it via the platform or app.

## Platform Operations

By logging in to the mobile app or location services platform designated by your dealer and correctly binding your device, you can query and set related parameters.

**Logging In to Service Platform**

Log in to the location services platform designated by your dealer and configure accordingly.

**Downloading Mobile App**

Log in to the URL designated by your dealer to download the mobile app.

iOS Android

## Troubleshooting

When any of the following faults occurs, please troubleshoot it by the solution. If the fault persists, please contact your dealer or service provider.

| Issue | Description | Solution |
|---|---|---|
| Poor satellite signal | The device is blocked by metal objects. | Remove the metal objects away from the device. |
| Power-on failure | The battery is low. | Connect the device to an external power source. |
| | The SIM card slot is damaged. | Contact your dealer for a replacement. |
| Failed to access the network | The SIM card is attached incorrectly. | Re-attach it. |
| | The metal side of the SIM card is stained. | Wipe it with a clean cloth. Replace it. |
| | The SIM card is damaged or invalid. | Try it in a service area. |
| | The device is out of GSM service areas. | Try it in an area with strong signals. |
| | The signal is poor. | Check if the device is securely connected with the OBD port of the vehicle. |
| LED off | The contact is poor. | Check if the device is securely connected with the OBD port of the vehicle. |
| Failed to query a location | Your SIM card has no GPRS services activated. | Please contact the network operator and activate GPRS services. |
| | The SIM is in arrears. | Recharge the SIM. |
| | The device does not respond to a command. | Check the device and make sure that the device can access the network and the SIM card has text services activated. |

## Warranty Instructions and Service

### Disclaimer

- No prior notice will be given if the product is upgraded due to technological reasons.
- The appearance or color of the product is subject to the actual.
- The warranty card applies to the services of repair, replacement, and refund of the product with the following IMEI.
- Please keep this warranty card and the original purchase receipt together in a safe place, as these will be needed at time of services.

### Warranty Terms

- For damages not caused by human factors, this warranty lasts for 2 (two) years (including one year replacement service) from the date of purchase.
- You can choose to pay for the repair services in any of the following cases:

**Warranty Instructions and Service**

① The warranty card expires;

② No warranty card or valid proof of purchase;

③ The product, including its accessories, is not in the warranty period;

④ Damage caused by unauthorized repairs, crash, liquid spillage, accident, modifications, or incorrect voltage input; or the label, IMEI, or counterfeit mark of the device is broken or scribbled;

⑤ Damages caused by installation or use not in accordance with the user manual;

⑥ Damage caused by force majeure such as fire, flood, or lightening;

⑦ The product model is inconsistent with the warranty card or the warranty card is altered;

⑧ Other damages caused by force majeure.

### Reminder

As of January 1, 2016, the warranty lasts for 2 (two) years for repair from the date of purchase, including one year for replacement.

**The specific terms are:**

A full replacement, including accessories, if the product is found defective during unpacking check;

If a defect occurs within one year after installation, then:

- Replace only the mainboard if the housing is intact and doesn't affect normal use;
- Replace the housing and the mainboard if the housing is defective and affects normal use. Please be noted that man-made damages will void the replacement service for the housing.

Free repair services will be given to the device if a defect is found during the second year under proper use.

## RF Exposure Information and Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**NOTE:** Unauthorized modifications could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help
- This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules.Operation is subject to the following two conditions:(1) this device may not cause harmful interference,and (2) this device must accept any interference received,including interference that may cause undesired operation.

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