GPS Tracker

GB100MG Lite User Manual

TRACGB100MGLSUM001

Version:R1.00

GB100MG Lite

International Telematics Solutions Innovator

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Contents

Table Index

Figure Index

0. Revision History

Revision	Date	Author	Description of change
1.00	2019-12-04	Young.Chen	Initial

1. Introduction

The GB100MG Lite is a device designed for self-installation by a customer. It simply mounts directly onto the vehicle's battery with only two wires to attach. This approach allows for either a very low cost installation or for the insurance customer to self-install. Its built-in GNSS receiver has very high sensitivity, a fast time to first fix and supports 10 Hz location sampling during vehicle motion. Their multiband LTE Cat-M1 and Cat-NB1 allow the GB100MG Lite location to be monitored in real time or periodically tracked by a backend server and mobile devices. Its built-in 3-axis accelerometer allows motion detection, 100 Hz* pre/post incident data collection. System integration is straightforward as complete documentation is provided for the full featured @Track protocol. The @Track protocol supports a wide variety of reports including emergency, geo-fence boundary crossings, and scheduled and compressed GPS position.

1.1. Reference

Table 1. GB100MG lite Protocol Reference

SN	Document name	Remark
[1]	GB100MGL @Tracker Air Interface Protocol	The air protocol interface between GB100MG Lite and backend server.

2. Product Overview

2.1. Check Part List

Before starting, check all the following items have been included with your GB100MG Lite. If anything is missing, please contact your supplier.

Figure 1. Appearance of GB100MG Lite

2.2. **Part List**

Table 2. Part list

Name	Picture
GB100MG Lite Locator	

2.3. **Interface Definition**

The GB100MG Lite has a 2 PIN power cable. The pin definition of the 2 pin power cable as below：

Figure 2. GB100MG Lite 2 Pin power cable

Table 3. Description of 2 PIN Power Cable

Index	Description	Comment
1	VIN	Extend DC power input，8-32V
2	GND	GND

3. Getting Started

3.1. Opening the Case

Take out the 6pcs screws from the device and push the opener up until the case unsnapped.
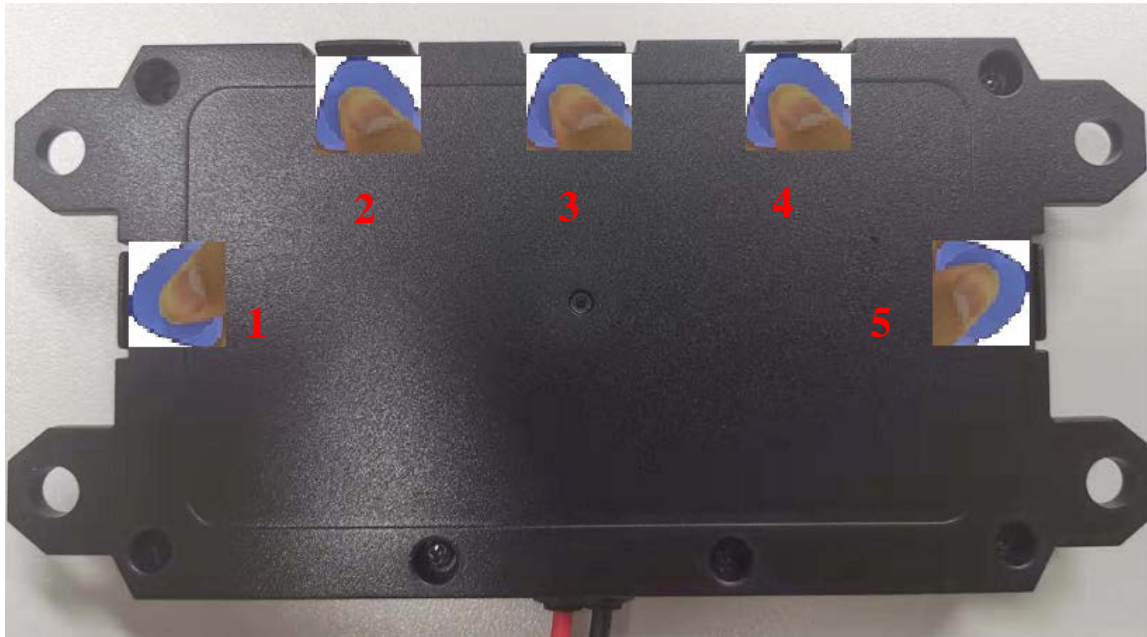
Figure 3. Opening the case

3.2. **Closing the case**

1st, make sure the silicon rubber seal ring is in the gap of front case.

2nd, put the power cable wire holder in the rubber groove of rear case.

3rd, place the cover on the bottom in the position as shown in the following figure.

Then, press the cover until it snapped (press the LTE antenna side firstly as the arrow shows).

4th, tighten the screws.

Figure 4. Closing the case

3.3. **Installing SIM card**

open the case and ensure the unit is not powered.   and slide the holder left to open the SIM card holder. put the SIM card on the holder as shown below with the gold-colored contact area facing down taking care to align the cut mark.   slide the holder right to close the SIM card holder. close the case.
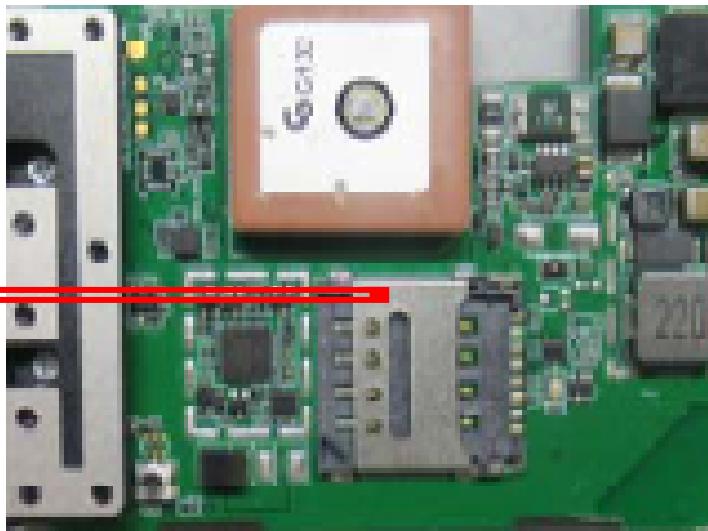
SIM Card

Figure 5. Installing SIM card

3.4. **Power Connection**

PWR (PIN1) / GND (PIN2) are the power input pins. The input voltage range for this device is from 8V to 32V. The device is designed to be installed in vehicles that operate on 12V/24V vehicle without the need for external transformers.

Figure 6. Typical Power Connection

Note:

1. Do not connect any external cable on GB100MG Lite device.

2. The GB100MG Lite is simply mounts directly onto the vehicle's battery with only two wires to attach. It must more than 20cm from the human body.

3.5. **LED Status**

Table 4. **Definition of Device status and LED**

LED	Device status	LED status
LED	Working Normally	Continuous on
	PDP not activated	One flashing: 100ms On, 2s 0f
	Network not registered or SIM card not inserted	Two flashing: 100ms On, 500ms Off, 100ms On, 2s Off...
	GNSS not fixed	Three flashing: 100ms On, 500ms off, 100ms On, 500ms Off, 100ms On, 2s off..
	PDP not activated and GNSS not fixed	One flashing + Three flashing: 100ms On, 2s off, 100ms On, 500ms off, 100ms On, 500ms off, 100ms On, 2s off...
	Network not registered or SIM card not inserted and GNSS not fixed	Two flashing + Three flashing: 100ms On, 500ms Off, 100ms On, 2s Off 100ms On, 500ms off, 100ms On, 500ms off, 100ms On, 2s off...
	Device power off or sleep mode	Extinguished

Figure 7. **GB100MG Lite LED on the case**

3.6. **Motion Sensor Direction**

GB100MG Lite has an internal 3-axis accelerometer supporting driving behavior monitoring and motion detection. The following shows the direction of the motion sensor. The Z axis faces outwards vertically.

Figure 8. Motion Sensor Direction

FCC Waring:

Any Changes or modifications not expressly approved by the party responsible for compliance could avoid the user's authority to operate the equipment.open

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.

FCC Radiation Exposure 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 20cm between the radiator& your body.

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:cor

—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.