GTR-388NB

Motorcycle / Vehicle Tracker

Quick Start Guide (NB-IoT)

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CONTENT

1. Introduction

1.1 General Description

GTR-388NB is designed as durable and multi-functional NB-IoT connectivity tracker. Compact, robust and waterproof design for motorcycle, electric scooter and vehicle small size for easy installation.

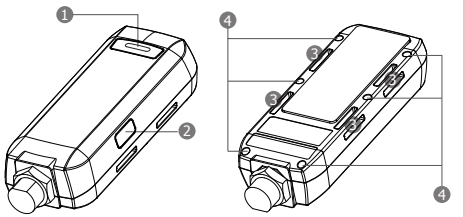
1.2 Features

- 820mAh rechargeable battery
- High sensitivity GPS receiver
- Compact size and waterproof IPX7 design
- Built-in high sensitivity GPS/GSM antennas
- Built-in motion sensor
- AGPS support
- Support communication protocols- UDP
- Multiple I/Os support：
  - ▲ 1 Digital Input for custom function
  - ▲ 1 Digital Input for optional emergency button
  - ▲ 1 Analog Input
  - ▲ 1 Digital Output for relay
  - ▲ 1 Digital Input for ACC detection
- Small size for easy installation
- Perfect power management control
- Thermal solution with IPX7 design and waterproof cable connector

1.3 Hardware specification

Electrical and Mechanical Parameters General	
CPU	High performance line ARM-base 32-bit MCU
Operating Temperature	-30°C ~ + 60°C (0°C ~ + 45°C for charging)
Storage Temperature	-40°C to +60 °C
GPS Antenna	Built-in patch ceramics antenna
GSM Antenna	Built-in Pi-Fa antenna
Communication	B3, B8, B20, B28
Protocol	UDP
Built-in Memory	32Mb
Power Input	+12V~+30V
Emergency Button Input	Negative trigger x 1
Ignition (ACC) Input	Positive trigger x 1
Digital Input Port	Negative trigger x 1
Digital Output Port	Negative trigger x 1 (300mA)
Analog Input Port	Analog input x 1 (0~28V)
Back-up Battery	820mAh rechargeable
Sensor	Motion detect (G sensor)
SIM Type	Micro SIM
Reset Button	Yes
Unit Weight	66.5g
Unit Size	L107.5mm x W38.7mm xH22.8mm
Humidity	5% to 95% Non-condensing

1.4 Appearance



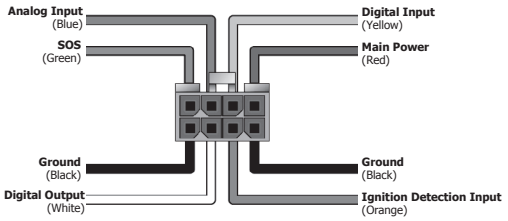
❶	LED
❷	Reset button
❸	For fixing device with Velcro tape
❹	Screws of back cover

1.5 LED indicator

LED status	Description
Red blinking	Device is being boot but SIM card isn't ready
Red solid	SIM card is ready, but not register to network
Yellow solid	Registered to network, but not connected to server
Green solid	Registered to network, and connected to server

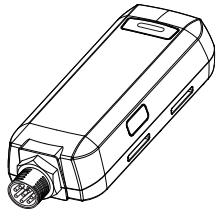
Hiding mode: Device would blink red light while it is booting up. After completing the boot, the LED would go off.

1.6 Cable description



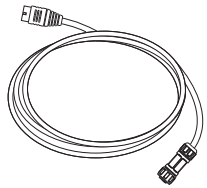
Wire Color	Description
Green	SOS (Negative Trigger)
Blue	Fuel sensor input (Analog Input, 0~28V, 12bits resolution)
Yellow	Digital Input (Negative Trigger)
Red	Main Power, 9V~36V
Black	Ground
White	Digital Output (Negative Trigger), 300mA
Orange	Ignition Detection Input (Positive Trigger)

1.7 Accessories 1.7.1 Standard items



Main Unit

Hardwire Cable

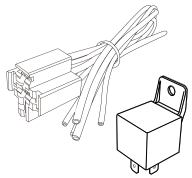


Main Cable

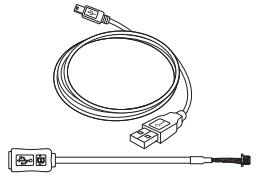
Velcro Tape X2

1.7.2 Optional items

External Emergency Button



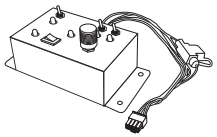
12V/24V Relay



Configuration Cables

OBDII Power Cable

Cigar Lighter Power Cable

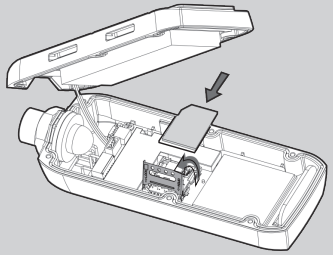


Test Box

2. Operation

For first time users, please follow the steps below to complete the pre-installation.

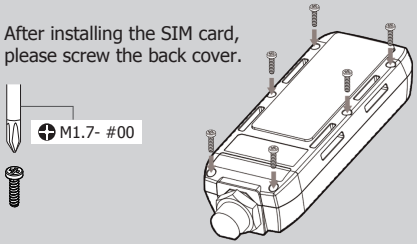
2.1 Install the SIM card



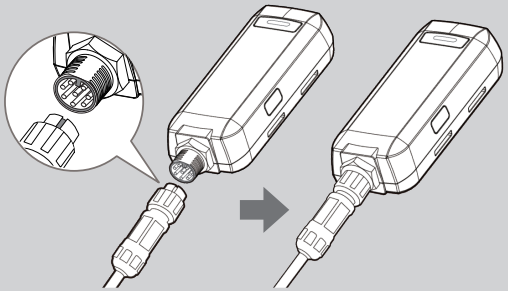
Unscrew the cover of device. Insert SIM card with the copper contacts face-down and the notch on the SIM card at the left side of the SIM slot.

Note: Make sure to disable the SIM PIN entry function on the SIM card before inserting your SIM card.

After installing the SIM card, please screw the back cover.

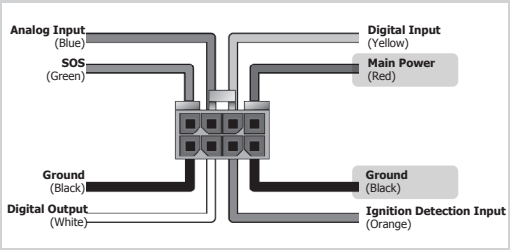


2.2 Connect the main cable



Please pay attention to hand-tighten the fool-proof connector of the cable with tracker.

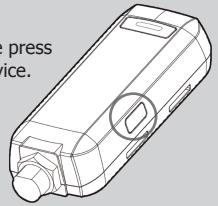
2.3 Connect the main power



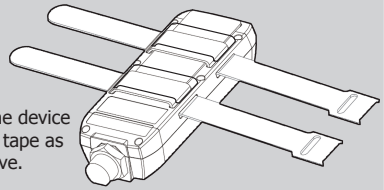
Connect the red wire from the cable to a power source of 9V~36V. Connect the black wire to ground.

2.4 Turn on tracker

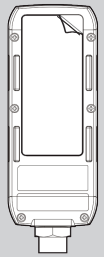
After connecting the power, please press the reset button to turn on the device.



2.5 Fix the device



You could fix the device with the Velcro tape as the picture above.



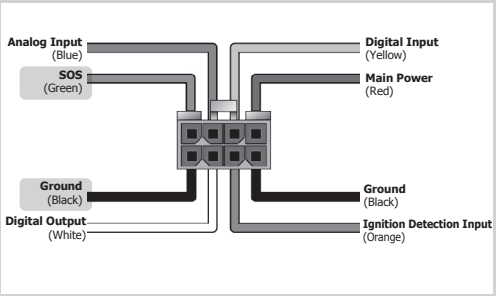
You could tear down the cover of double side tape and stick to the installation position.

There is a magnet behind the double side tape. You could install the device to a metal surface. The magnet on the device would attract the metal surface.

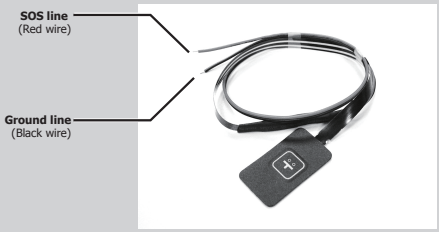
3. Installation

3.1 Installing the emergency button

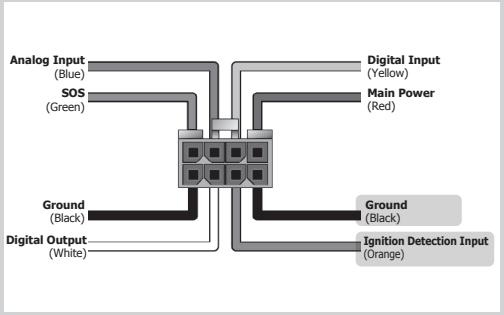
There is a line of cable for connecting a push button for emergency help.

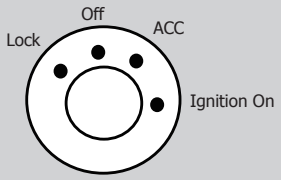


One end of the button must be connected to the SOS line and the other end must be connected to the ground line.



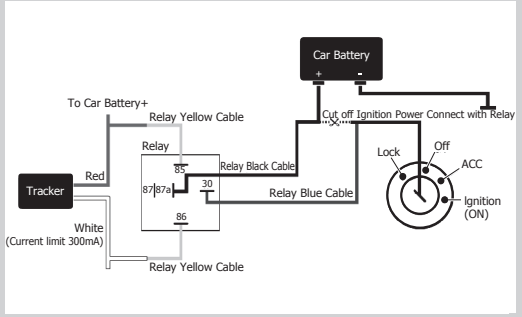
3.2 Connecting ignition detection line on vehicle





Connect the orange wire from the cable to ACC position of vehicle. Connect the black wire to ground.

3.3 Connecting relay

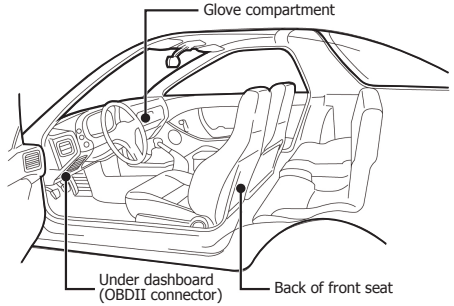


Connect the white wire from device's cable to the yellow wire of relay.
For the other connections, please refer to the diagram above.

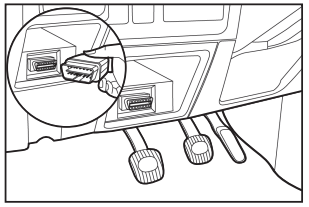
3.4 Installation reminder

WARNING:
In a confined space of the car, there is a big different temperature between inside and outside of the car. In addition, it is also considerable temperature difference between tracker's interior and exterior. Therefore, if you put a tracker in the car, please make sure to place it with good ventilation.

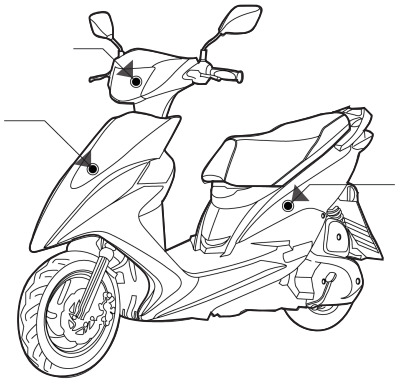
For Vehicle:
The device could be placed or installed on the marked position as the pictures below.



If you'd like to install to the OBDII connector of vehicles, please connect device with the OBDII power cable firstly, then you could connect the OBDII power cable to the OBDII connector of vehicle as the picture below.



For Motorcycle:
For motorcycle rider, the device could be installed at the marked position as the picture as below.



N3PM2388NB0000

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- Support communication protocols- UDP
- Multiple I/Os support :
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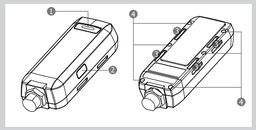
Sensor	Motion detect (G sensor)
SIM Type	Micro SIM
Reset Button	Yes
Unit Weight	66.5g
Unit Size	L107.5mm x W38.7mm xH22.8mm
Humidity	5% to 95% Non-condensing

1.4 Appearance



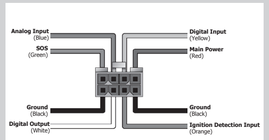
❶	LED
❷	Reset button
❸	For fixing device with Velcro tape
❹	Screws of back cover

1.5 LED indicator

LED status	Description
Red blinking	Device is being boot but SIM card isn't ready
Red solid	SIM card is ready, but not register to network
Yellow solid	Registered to network, but not connected to server
Green solid	Registered to network, and connected to server

Hiding mode: Device would blink red light while it is booting up. After completing the boot, the LED would go off.

1.6 Cable description



Wire Color	Description
Green	SOS (Negative Trigger)
Blue	Fuel sensor input (Analog Input, 0~28V, 12bits resolution)
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Orange	Ignition Detection Input (Positive Trigger)

1.7 Accessories 1.7.1 Standard items

Main Unit

Hardwire Cable

Main Cable

Velcro Tape X2

1.7.2 Optional items

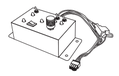
External Emergency Button

12V/24V Relay

Configuration Cables

OBDII Power Cable

Cigar Lighter Power Cable



Test Box

2. Operation

For first time users, please follow the steps below to complete the pre-installation.

2.1 Install the SIM card

Unscrew the cover of device. Insert SIM card with the copper contacts face-down and the notch on the SIM card at the left side of the SIM slot.

Note: Make sure to disable the SIM PIN entry function on the SIM card before inserting your SIM card.

After installing the SIM card, please screw the back cover.

2.2 Connect the main cable

Please pay attention to hand-tighten the fool-proof connector of the cable with tracker.

2.3 Connect the main power

Connect the red wire from the cable to a power source of 9V~36V. Connect the black wire to ground.

2.4 Turn on tracker

After connecting the power, please press the reset button to turn on the device.

2.5 Fix the device

You could fix the device with the Velcro tape as the picture above.

You could tear down the cover of double side tape and stick to the installation position.

There is a magnet behind the double side tape. You could install the device to a metal surface. The magnet on the device would attract the metal surface.

3. Installation

3.1 Installing the emergency button

There is a line of cable for connecting a push button for emergency help.

One end of the button must be connected to the SOS line and the other end must be connected to the ground line.

3.2 Connecting ignition detection line on vehicle

Connect the orange wire from the cable to ACC position of vehicle. Connect the black wire to ground.

3.3 Connecting relay

Connect the white wire from device's cable to the yellow wire of relay.
For the other connections, please refer to the diagram above.

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For Motorcycle:
For motorcycle rider, the device could be installed at the marked position as the picture as below.

打樣圖面
供打樣與試產用途

本材料不應該違反RoHS&WEEE裡指令的任何禁/限用物質
This part should not contain any substances which are Specified in RoHS&WEEE's Directive.

PRINTING SPEICFICATION			
料 號 / Part Number	N3PM2388NB0000	版 本 / Version	V1.0
品 名 / Description	GTR-388NB Series QSG	日 期 / Date	2018.12.21
材 質 / Material	80p模造紙	設 計 / Designer	Mandy Hsieh
尺 寸 / Dimensions	297 X 210mm(A4)	核准 / Approved	
印 刷 / Printing	雙面單色	備 註 / Note :	
加 工 / Process	N3摺再對摺		

This is a GENERIC ARTWORK intended for the purpose of providing necessary graphics.
The colors shown on this Artwork do NOT reflect the actual printing colors. Please see Aesthetic Specifications for color information.

版 本 Version	ECN	設計描述 Design Description	日 期 Date	設 計 Designer
5				
4				
3				
2				
1				