

Motorcycle/ Vehicle Tracker

Quick Start Guide (GSM/DCS/WCDMA)



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1. Introduction

1.1 Introduction

The tracker is designed as a durable and multi-functional 3G GPS tracker. It integrates highly sensitive GPS module and 3G communication module with a powerful microcontroller that fits into a compact enclosure. The device is capable of being waterproof and ideal for use in a motorcycle, golf carts and vehicles. It provides real-time GPS positions anytime and anywhere with an open view to the sky, and offers precise positioning, and reports vehicle status to the server with necessary information shown on the map. Benefits such as enhanced fleet management, improved vehicle safety, emergency response, are all accomplished through the implementation of the tracker system. Also built-in 3G and GPS antennas are for easy installation without hassle.

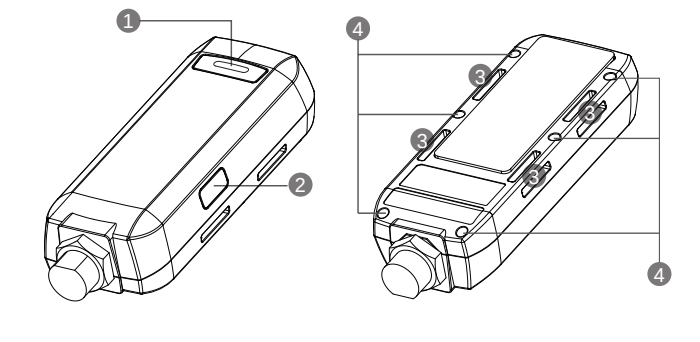
1.2 Features

- AGPS support
- Support communication protocols- SMS/TCP/UDP.
- Multiple I/Os support: 1 Digital Input for custom function, 1 Digital input for optional Emergency button, 1 Analog Input for fuel sensor, 1 Digital Output for Relay, 1 Digital Input for ACC detection.
- Firmware update via Over-The-Air
- Alert functions including Power low/ Over speed/ Movement alarms
- Tracking by preferred interval, scheduling and Geo-fence
- Multiple power solution
- IPX7 design

1.3 Hardware specification

Item	Description		
Model	US	Europe	Global
Back-up Battery	Li-Polymer 820mAh		
Temperature	Operation	-30°C ~ + 60°C (0°C ~ + 45°C for charging)	
	Storage	-40°C to +60 °C	
Dimension	107.5 mm X 38.7 mm X 23.5 mm		
GPS Receiver	high performance GPS chipset		
Communication	GSM/GPRS/EDGE: 850/1900MHz UMTS/HSPA+: 850/1900MHz	GSM/GPRS/EDGE: 900/1800MHz UMTS/HSPA+: 900/2100MHz	GSM/GPRS/EDGE: 850/900/1800/1900MHz UMTS/HSPA+: 800/850/900/1900/ 2100MHz
GPS Antenna	Built-in patch ceramics antenna		
GSM Antenna	Built-in Monopole Antenna		
Protocol	SMS/GPRS (TCP/UDP)		
Power	9V~36V		
Built-in Memory	32 Mb		
Emergency 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)		
Fuel sensor Input Port	Analog Input x 1(0~28V), 12 bits resolution		
Sensor	Motion sensor		
Humidity	5% to 95% Non-Condensing		
Weight	66.5g		

1.4 Appearance



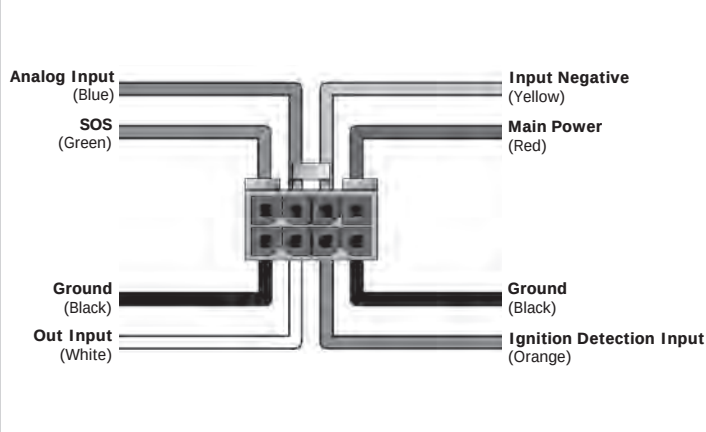
1	LED
2	Reset button
3	For fixing device with Velcro tape
4	Screws of back cover

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

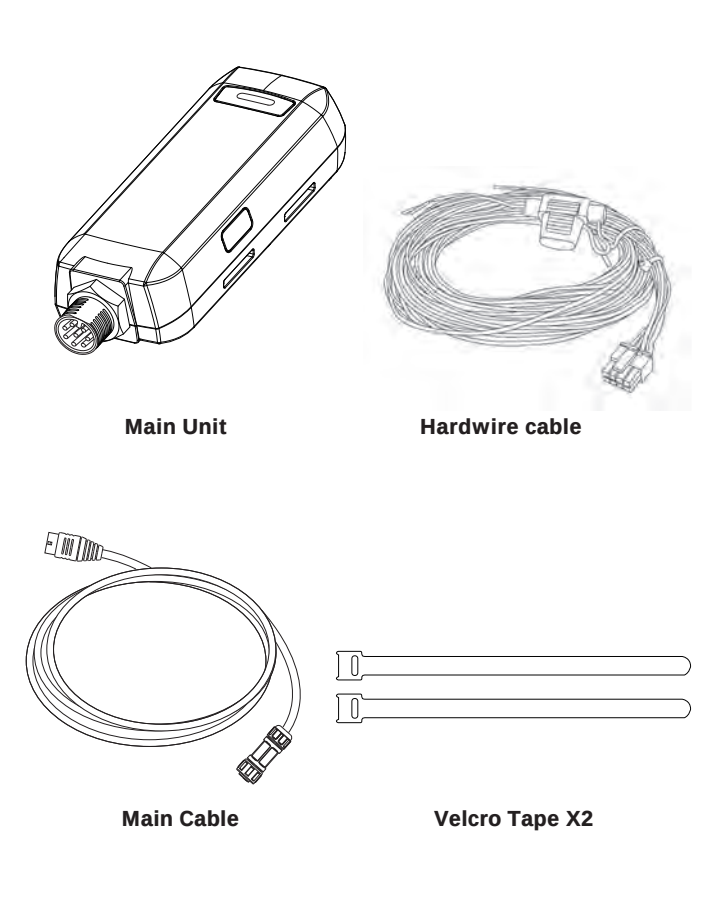
Hiding mode: Device would blink red light while it is booting up. After completing the boot, the LED would go off.

1.6 Cable description

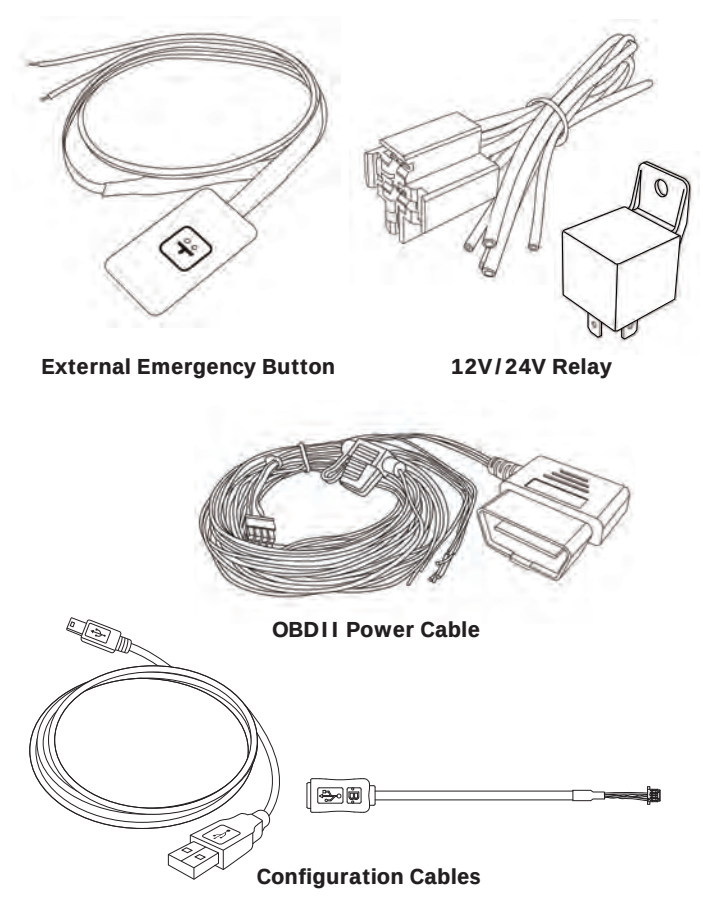


Wire Color	Description
Green	SOS (Negative Trigger)
Blue	Fuel sensor input (Analog Input, 0~28 V, 12 bits resolution)
Yellow	Digital Input (Negative Trigger)
Red	Main Power, 9~36 V
Black	Ground
White	Digital Output (Negative Trigger), 300 mA
Orange	Ignition Detection Input (Positive Trigger)
Black	Ground

1.7 Accessories 1.7.1 Standard Items



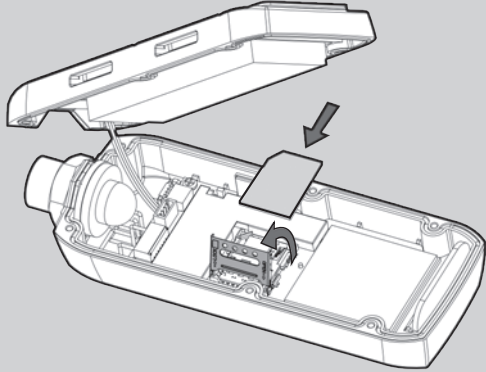
1.7.2 Optional Items



2 Operation

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

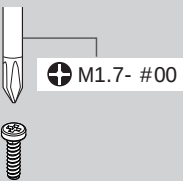
2.1 Install the SIM card



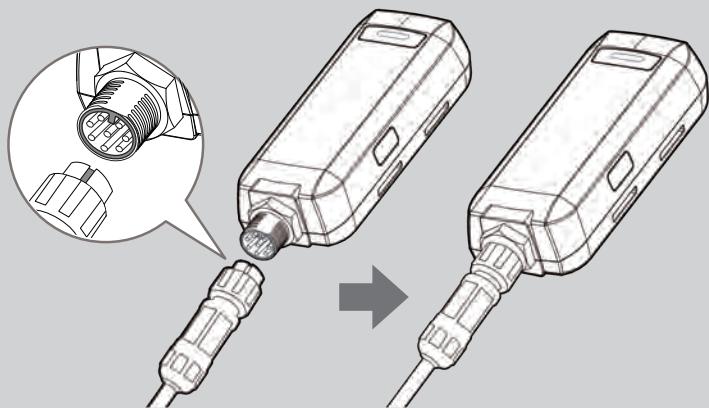
Unscrew the cover of device. Insert SIM card with the copper contacts face-down and the notch on the SIM card at the left side of the SIM slot.

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..

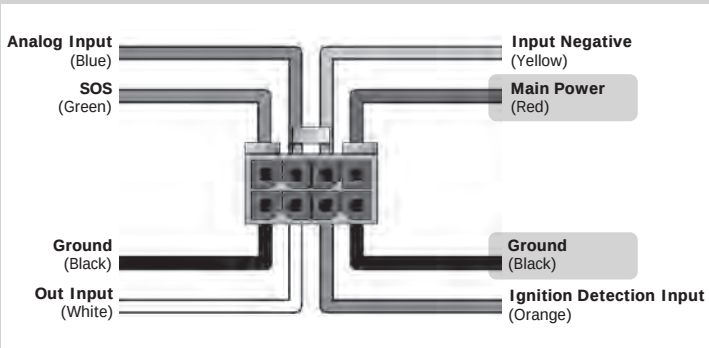


2.2 Connect the Main Cable



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

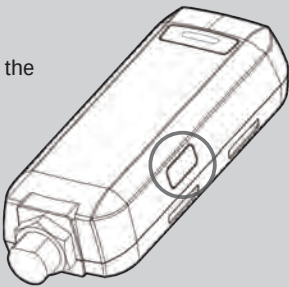
2.3 Connect the Main Power



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

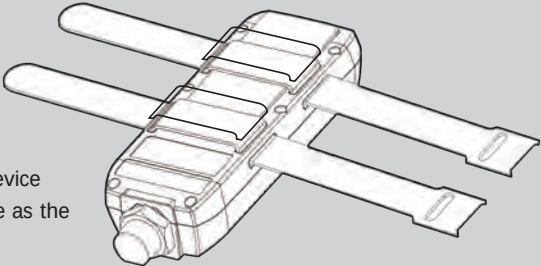
2.4 Turn on Tracker

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.

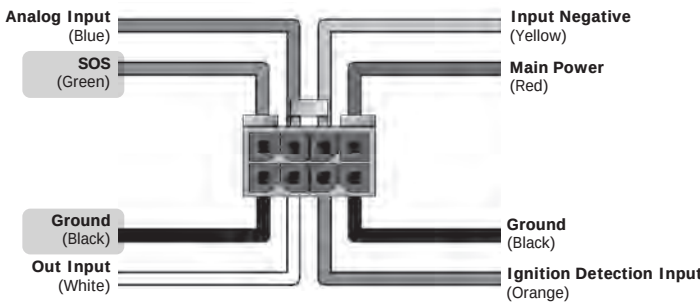
There is a magnet behind the double side tape. You could install the device to a metal surface. The magnet on the device would attract the metal surface.



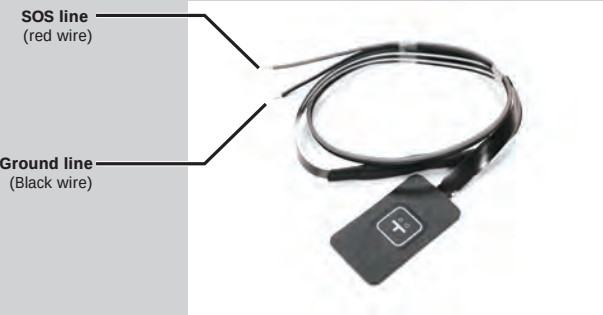
3 Installation

3.1 Installing the Emergency button

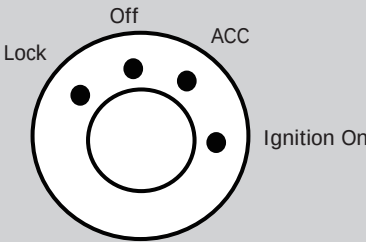
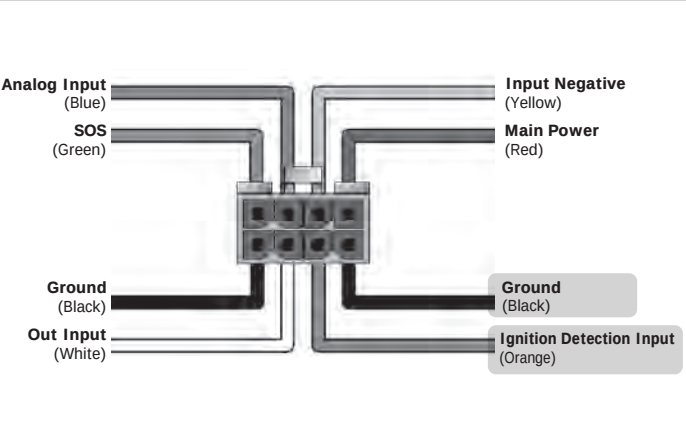
There is a line of cable for connecting a push button for emergency help.



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

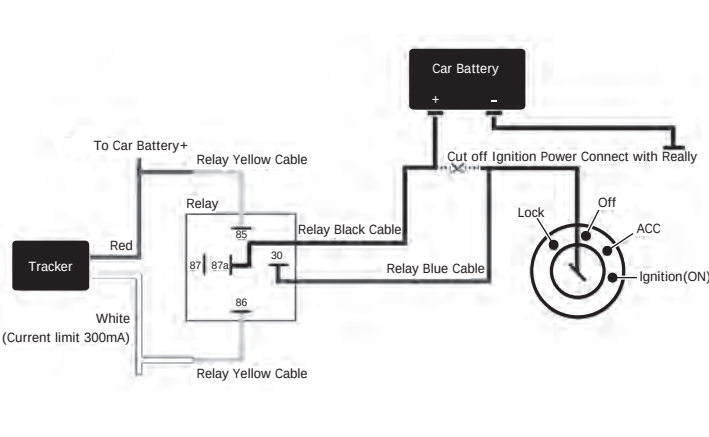


3.2 Connecting ignition detection line on Vehicle



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

3.3 Connecting Relay



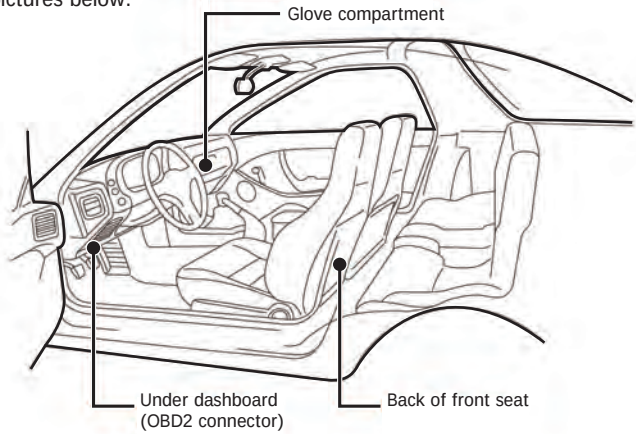
Connect the white wire from device's cable to the yellow wire of relay. For the other connections, please refer to the diagram above.

3.4 Installation reminder

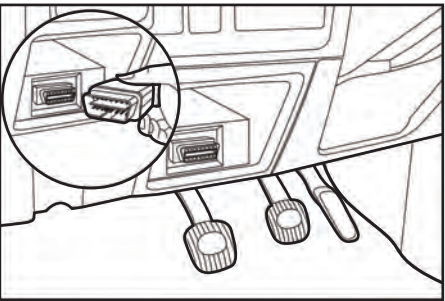
WARNING:
In a confined space of the car, there is a big different temperature between inside and outside of the car. In addition, it is also considerable temperature difference between tracker's interior and exterior. Therefore, if you put a tracker in the car, please make sure to place it with good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



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.

Notice:
Any changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment. The antenna(s) used for this transmitter must not be co-located of 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. FCC RF Radiation Exposure Statement 1. This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. 2. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body. 減少電磁波影響，請妥適使用 內建固定式電池：「消費者不可自行拆卸內建電池，如要拆卸需請專業人士/維修廠商拆卸」 N3PM2GTR388001