

Cat M1 & NB-IoT Vehicle GPS Tracker

User Manual V1.0



Preface

Congratulations on choosing the 4G CAT M1/NB-IoT GPS tracker. This manual shows how to easily program and setup the tracker for the best results. Make sure to read this manual carefully before using this product, so as to avoid delays or confusion with its operation. Please note that specifications and instructions are subject to change without notice to facilitate product improvement. Updates and changes will be integrated into the latest release. The manufacturer assumes no responsibility for any errors or omissions in outdated documents.

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1. Overview

The MT6000-NB is a vehicle GPS tracker, supporting 4G LTE Cat M1/NB-IoT/GSM networks. This device can be used to locate, track and monitor any remote target via PC Computer or Mobile APP. It is commonly used to track and locate individual vehicles, motorbikes or boats, and is a valuable tool for enhanced fleet management. The user also can remotely check the historical route traveled and other vehicle data.

The MT600-NB has an excellent track record for stable performance and possesses a wide variety of features.

2. Application

- **CAT M1 & NB-IoT & GSM network support**
- Real-time tracking
- History record check
- ACC switch status report
- Geo-Fence alarm
- Over-speed alert
- SOS Report (optional)
- Remote cut off fuel / ignition (optional)
- External power cut off alarm
- Low battery alarm
- Power saving mode
- PC & Mobile App tracking
- Compatible most of third party platform
- Open Protocol

3. Specifications

Item	Specifications
Dimension	90(L) x 70(W) x 24(H) mm
Weight	138g
Input Voltage	12-36 VDC
Backup battery	3.7 V 500 mAh
Power consumption	20mA standby current
Working temperature	-20°C to 60°C
Humidity	5%~95% non-concretion
Working Hours	10 hours in power-saving mode, 4 hours in normal mode

Item	Specifications
LED Indicator	4G(blue), GPS(green), Power(red)
Sensor	3D acceleration/movement sensor/
Antennas	External Cat M1 & NB-IoT & GPS antennas
GPS Sensitivity	-162dBm
Positioning Accuracy	2.5m
Frequency bands	<p>Cat M1 (LTE-M, eMTC)</p> <p>LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28</p> <p>LTE TDD: B39</p> <p>NB-IoT (CAT NB1):</p> <p>LTE FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B26/B28</p> <p>GSM: 850/900/1800/1900Mhz</p>

4. MT600-NB and Accessories

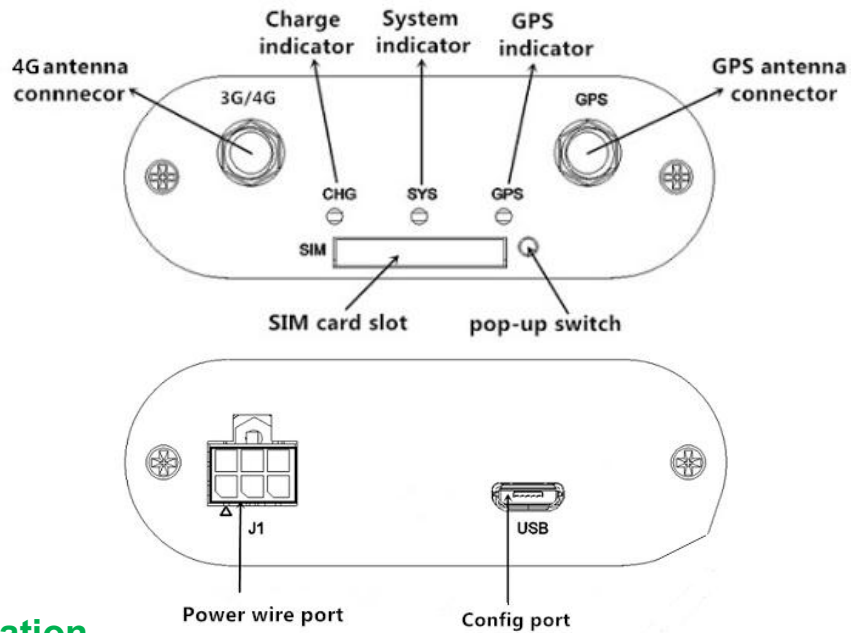
Standard accessories:



Optional accessories:



5. Unit Diagram



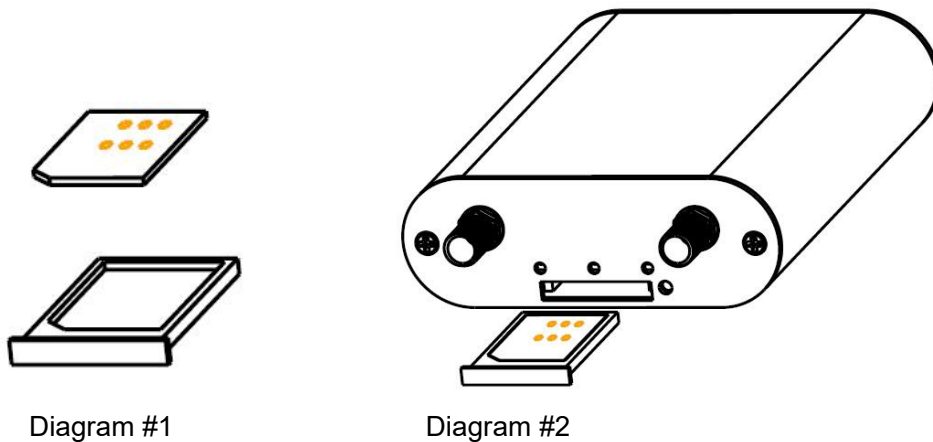
6. Installation

6.1 SIM Card installation

1. Get ready a **Standard size SIM Card** with **10-15MB** data a month.
2. Insert the SIM card into the SIM card plastic tray.
3. Ensure the SIM card has metal contacts facing up (Diagram #1).
4. Gently slide the SIM Tray into the SIM Slot (Diagram #2).

Note:

- The device only supports **Standard Size SIM card**;
- To remove the SIM card, use a paperclip to press the SIM card pop-out button to eject the SIM card tray.
- Make sure **insert the sim card first** and **then connect the external 12V power**.



6.2 LED Indications

6.2.1 CHG-Charge indicator (RED)

Status	Description
Constant ON	Currently Charging
OFF	Charging Complete or sufficient battery. (Note: LED will no light if backup battery is not low power.)

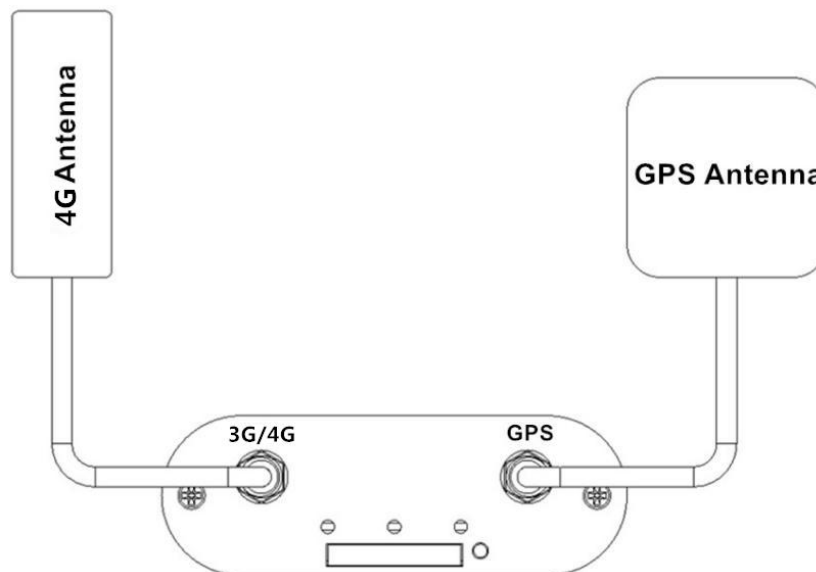
6.2.2 SYS-System indicator (BLUE)

Status	Description
Constant ON	No SIM Card (or) No Network Reception
OFF	Vehicle Parked – ACC Power OFF
Quick flash	Normal Working Mode

6.2.3 GPS-GPS indicator (GREEN)

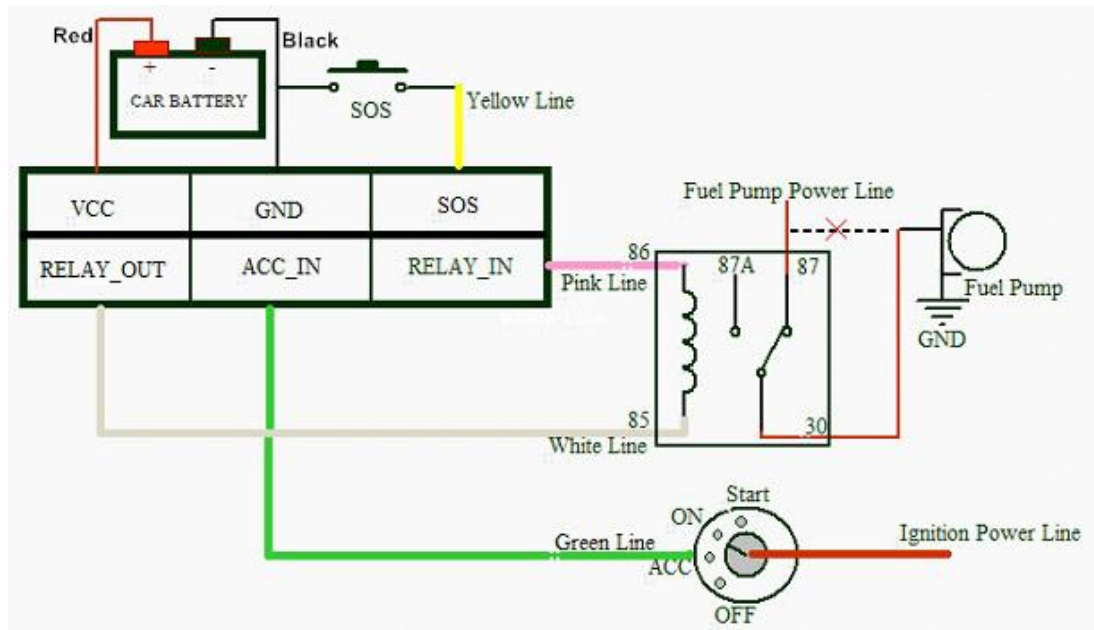
Status	Description
OFF	GPS / Satellites Unavailable – Out of Range
Quick flash	GPS/Satellite Locked – Normal Mode

6.3 Install 4G & GPS Antenna



- Connect the 4G Antenna firmly to "3G/4G" Socket
- Connect the GPS Antenna firmly to "GPS" socket

6.4 Connection of the supplied wiring loom



When installing the device, please connect supplied wiring loom as follows: (or contact us for help)

- **Red:** Connect to constant 12V Car Battery(+)
- **Black:** Connect to Earth (Chassis) Car battery(-)
- **Green:** Connect to ACC switched 12V Power
- **Yellow:** Connect to the **red** wire of supplied SOS switch
- **White:** Connect to Relay terminal (85)
- **Pink:** Connect to Relay terminal (86)

Note: Relay is optional for remote fuel / ignition shut-off.

7. Setup and Configuration

- If you use NB-IoT SIM card, ONLY can setup the device via USB Config cable(because NB-IoT SIM do not support SMS)
- If you use Cat M1 SIM card, you can setup the unit via following SMS commands (7.1-8.10) or via USB Config cable.
- Download the USB Config tool and guide/video from the link:<http://bit.ly/2PWbxBN>

7.1 Setting Authorized Mobile Phone Numbers

SMS Command format: mobile number+password+[command parameter]

Note: Command Parameter here is the sequence of the mobile number

i.e. [1=Admin] or [2=SOS call number]

For example: *13424392330*0000*1**

Unit Reply: SET USER NUMBER 1 OK.

Note:

- The defaulted password is 0000.
- It can authorize up to 3 phone numbers.

7.2 Instant Location Request (used to receive unit location via SMS)

SMS Command format: 666+password

For example: 6660000

When sent, this command will result in a Unit Reply SMS as follows:

ID:865662000409210

Date:05:36:59 11/11/2016

Fix:A State:SMS

<http://maps.google.com/maps?q=+22.63146%2c1+14.03701>

Note: This link can be opened on any Smart Phone to reveal the Google Maps Location of the unit at the time of the request

7.3 SOS Alarm (optional)

When the SOS button is pressed for 3 seconds, the unit will automatically send its location to the authorized phone number via SMS, and also upload location data to the Web Tracking Platform server along with the status description “**SOS**”

7.4 Remote cut off fuel and ignition (optional)

To remotely Cut-Off fuel or power

SMS Command format: 940+password

For example: 9400000

Unit Reply: SET OILWAY DISCONNECT.

To remotely Resume fuel or power

SMS Command format: 941+password

For example: 9410000

Unit Reply: SET OILWAY RECOVERY CONNECT.

Note: The default setting for the Cut-Off feature is OFF

7.5 External power cut off alarm

If the external power to the unit is disconnected, [i.e. unit tampering or vehicle battery removal] the unit will call the authorized phone numbers, and then send location data to the authorized phone number and upload location data to the Web Tracking Platform server along with the status description “**DEF**”

7.6 Towing alarm

If the vehicle was moved or towed when ACC is turned OFF, it will SMS location data to the authorized phone number, and upload location data to the Web Tracking Platform server along with the status description “**TOWED**”

7.7 Low battery Alarm (internal backup battery)

When the unit's internal backup battery is low, it will SMS the authorized phone number, and upload location data to the Web Tracking Platform server along with the status description “**BLP**”

7.8 Over-Speed alarm (Alerts that the unit is exceeding a preset speed)

SMS Command format: #122#user password#[Command Parameter]##

Note: Command Parameter here is [Km/Hour]

Example: #122#0000#100###

Unit Reply: SET SPEED LIMIT:ON

To disable the Over-Speed Alarm

SMS Command format: #122#0000#0###

Note: Command Parameter here is [0=OFF]

Unit Reply: SET SPEED LIMIT:OFF.

Note: Speed is in KM/H, Maximum setting = [999].

7.9 Set time zone

SMS Command format: 896+password+ [+/-]HH:MM

Note: Command Parameter here is [Plus or Minus GMT]&[Hours/Minutes]

For example: 8960000+10:00

Reply: SET TIME ZONE:+08:00

Note: The default is Greenwich Time (UTC). [i.e. Melbourne Australia = +10:00]

7.10 Set APN (Access Point Name)

SMS Command format 1: #803#password#APN###

For example : #803#0000#telstra.m2m###

SMS Command format 2: #803#password#APN#APN user name#APN password###

For example: #803#0000#CMNET#INTERNET#INTERNET###

Reply: SET GPRS APN OK.

Note: Please **CALL** your SIM Card provider to get the correct APN info.

7.11 Set Tracking Server IP and PORT

SMS Command format: #804#password#IP address(or domain) #port###

Example: #804#0000#113.98.254.180#7700###

Reply: SET SERVER IP AND PORT OK.

7.12 Set GPRS Upload Interval Time

This sets how often [in seconds] the unit sends location data back to the Tracking Platform whilst the ACC is switched on. This will affect accuracy and data usage.

7.12.1 ACC ON (Upload default status is AUTO)

SMS Command format: #805#password#interval time#[command parameter]###

Note: Command Parameter here [1=ON] & [0=OFF]

For example: #805#0000#10#1###

Unit Reply: SET GPS PERIODIC UPLOAD ON.

Note: interval time maximum [10,65535]seconds

Unit Reply: SET GPS PERIODIC UPLOAD OFF.

7.12.2 Vehicle Towed Alarm (vehicle moves whilst ACC is turned OFF)

SMS Command format: #809#password#interval time#[command parameter]###

Note: Command Parameter here [1=ON] & [0=OFF]

For example: #809#0000#10#1###

Unit Reply: SET GPS TOWED UPLOAD ON.

Note: interval time maximum [10,65535]seconds

Unit Reply: SET GPS TOWED UPLOAD OFF.

7.12.3 ACC OFF & Vehicle Stationary (Upload status is AUTOLOW)

[Periodic upload of vehicle status to the Web Tracking Platform server whilst ACC off – variable to save SIM data costs when parked for long periods and Power Saving]

SMS Command format: #807#password#interval time##

For example: #807#0000#2##

Unit Reply: SET GPS POWER SAVING UPLOAD ON.

Note: interval time maximum [2,1440] minutes [If interval time = 0, it will stop upload]

Unit Reply: SET GPS POWER SAVING UPLOAD OFF.

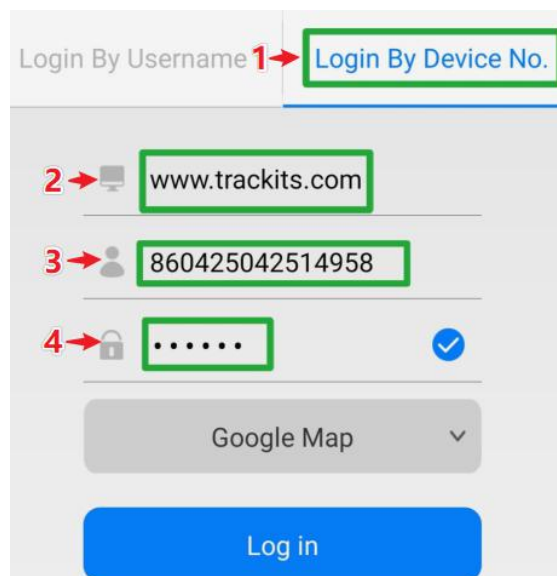
8. App & PC Tracking platform

8.1 App install & Login

- Search “**Yi tracker**” in Google Play or iOS store(or scan the following QR code) to download the Mobile APP(not Yi tracker2);

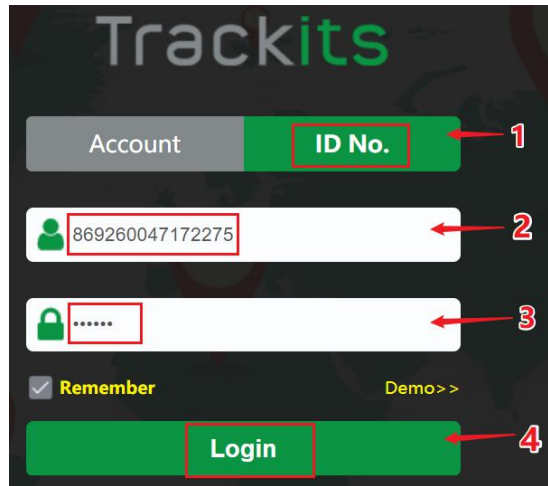


- Choose the” **Login by Device No.**, Input server www.trackits.com
- Input **your device's ID number** and password(default is 123456) to login.



8.2 PC login

- Web: www.trackits.com, Choose "ID No."
- Input **your device's ID number** and password(default is 123456) to login



9. Troubleshooting

Issues	Caused	Solutions
Send SMS to the device but no reply	1>Data only SIM card and don't support SMS service, 2>New SIM card have not active 3>Card balance is not enough 4>NB-IoT SIM Card	Please check the SIM card status and make sure it can work.
	Command is wrong	Please check the command format again
	Password is wrong	Please check the password again (default is 0000)
	4G antenna install wrong	Please check the 4G antenna if installed correctly.
Can not get the location	GPS antenna install wrong	Please check again
Can not power on	Backup battery is low voltage	Please try to connect 12V
Charge Led no light	Backup battery voltage is over 3.7V.	The device will auto-charge once detect to low voltage and then LED light, or LED will not night.
Device Can not online on the server	Device ID is wrong	Please check the ID
	Device has not active on server	Please contact your sales to

		active your device's ID
	The IP and port setup wrong	Check the IP and port again
	APN setup error	Check the APN setting again

Any questions please do not hesitate to contact us:

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