

MT550 Cat M1/NB1 GPS Tracker

User Manual V2.0



Preface

Congratulations on choosing the Mictrack MT550 Cat M1/NB1 GPS tracker. This manual shows how to easily program and setup the tracker for best results. Make sure to read this manual carefully before using this product, so as to avoid delays or confusion with it's 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 The manufacturer assumes no responsibility for any errors or omissions in outdated documents.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 MT550 is the world's first LTE Cat M1/NB1 GPS tracker, supporting LTE Cat.M1/Cat.NB1/EGPRS networks. This device can be used 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 travelled and other vehicle data.

The MT550 has an excellent track record for stable performance and possesses a wide variety of features.

2. Application

- **LTE Cat.M1/Cat.NB1/EGPRS Support**
- Real-time traffic
- Vehicle trip history and mileage data on web tracking platform
- SOS alarm button and real time reporting (optional)
- ACC switch status alarm
- Geo-Fence alarm and reporting
- External power cut off alarm
- Remote cut off fuel / ignition (optional)
- Vehicle towing / Movement alarm
- Over-Speed alarm and reporting
- Backup battery low power alarm
- Car battery low power alarm
- High temperature alarm
- Power saving / sleep mode

3. Specifications

Item	Specifications
Dimension	94(L)*51(W)*17(H)mm
Weight	61g
Input Voltage	12V-24V
Backup battery	130mAh/3.7v
Power consumption	60mA standby current
Working temperature	-20°C to 70°C
GPS Chip	U-BLOX7
GPS Sensitivity	-162dBm

Item	Specifications
Frequency bands	FDD LTE: B1/ B2/ B3/ B4/ B5/ B8/ B12/ B13/ B18/ B19/B20/ B26/ B28 TDD LTE: B39 (for Cat.M1 only) GSM: 850/900/1800/1900Mhz
Positioning Accuracy	10m
Channel	56 Channel
Hot start	1s on average
Warm start	15s on average
Cold start	30s on average
Humidity	5%~95% non-concretion
Antennas	Internal LTE CAT M1/NB1 & GPS antennas
Sensor	3D acceleration/movement sensor/ temperature sensor
LED	CHG/GPS/SYS
SIM Card interface	Micro Size SIM

4. MT550 and Accessories



Optional Accessories

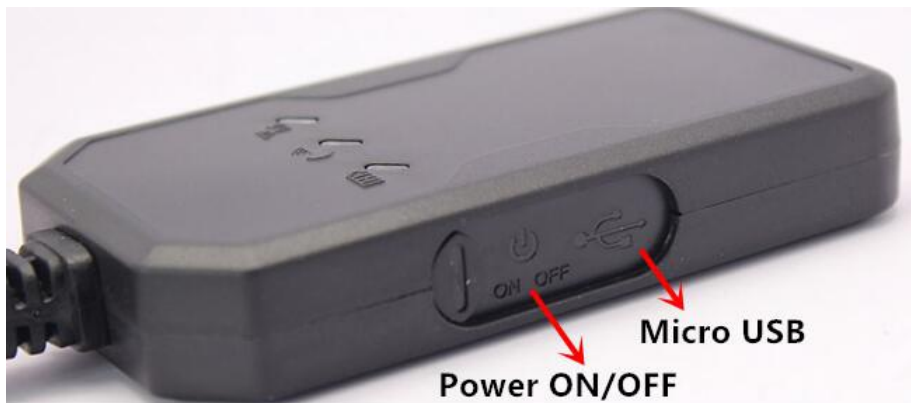


Relay



SOS Button

5. Unit Diagram



6. Installation

6.1 SIM Card installation

Please read the following before installing the SIM card:

- Ensure the SIM card has minimum balance
- Ensure the SIM card has caller ID and HSPA functions enabled

- Ensure the SIM card PIN is disabled, and call forwarding not active
- Power off the device before installing the SIM card

To install the SIM card, perform the following operations:

1. Ensure the SIM card has metal contacts facing down.
2. Insert the SIM card into the SIM card slot.

6.2 Power ON:

Make the Power button to **ON**, and the device will turn on.

Note:

- The device only supports **Micro Size SIM card**;
- To remove SIM card, use paperclip to press the SIM card to eject the SIM card .

6.3 LED Indications

6.3.1 CHG-Charge indicator (RED)

Status	Description
Constant ON	Currently Charging
OFF	Charging Complete or Battery Voltage is high (Note: it will auto-charging when backup battery voltage is low and LED light, or LED will no light.)

6.3.2 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

6.3.3 GPS-GPS indicator (GREEN)

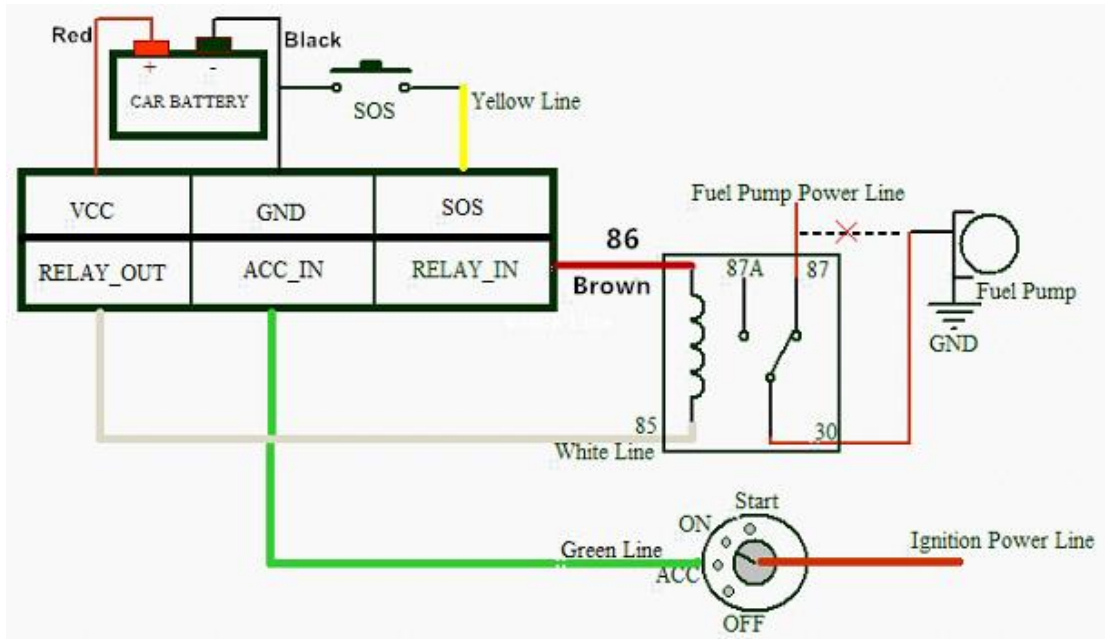
Status	Description
OFF	GPS / Satellites Unavailable – Out of Range
Quick flash	GPS/Satellite Locked – Normal Mode

6.4 Device Button Instruction

Button	Description
Power ON/OFF	<ul style="list-style-type: none"> ● Make button to ON to POWER ON ● Make button to OFF to POWER OFF

<p>SOS Button (Optional)</p>	<ul style="list-style-type: none"> ● Press and hold the button for 3x seconds, the unit will send position data to authorized phone numbers and Web Tracking Platform.
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6.5 Connection of supplied wiring loom



When installing the device, please connect supplied wiring loom as follows: (or contact our sales team 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 red wire of supplied SOS switch
- **White:** Connect to Relay terminal (85)
- **Brown:** Connect to Relay terminal (86)

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

6.6 Install the SOS switch

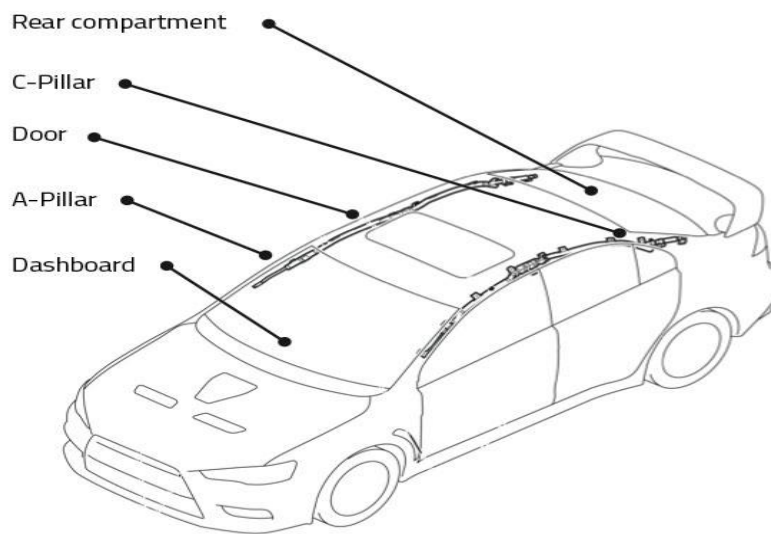
- **Red:** connect to Yellow wire from the wiring loom
- **Black:** connect to Earth (Chassis) Car battery(-)

Note: SOS button is optional.

6.7 Optimum locations for unit Installation

Below are the recommended areas available within a vehicle for unit installation. These are suggestions only, as depending on the vehicle type, there may be many

possible locations to hide/install the unit.



6.7.1 Caution

- Avoid placing GPS Antenna (or units with internal GPS antenna) under any metal surfaces, as this may affect satellite lock and functionality.
- Do not install unit right next to stereo, CB radio, heater, speakers or alarm systems.
- Unit must be firmly mounted or cable tied to a surface, not hanging by wiring loom etc.
- Do not place the unit next to steering column or any moving parts.
- It is recommended to place the GPS Antenna (or units with internal GPS antenna) in locations that are exposed to the sky (i.e. under plastic dashboard, under rear parcel shelf, at base of rear windscreen, inside C-Pillar areas or doors, etc)
- Device can be placed in other areas or storage compartments of the vehicle (internally or externally) depending on the vehicle, truck, boat or motorcycle, as long as there is access to power and a clear signal from satellites.

7. Configuration & Functions

The LTE CAT M1/NB1 device **DO not support SMS and voice function**. It only can be config by USB Cable. All the USB configuration instruction please refer to **Appendix**

7.1 SOS Alarm

When the SOS/Duress switch is pressed for 3 seconds, the unit will automatically upload location data to the Web Tracking Platform server along with the status description "SOS"

7.2 Geo-fence Alarm

When the device out of the specified Geo-fence the unit will upload location data to the Web Tracking Platform server along with the status description "OG_G1"

7.3 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 upload location data to the Web Tracking Platform server along with the status description "DEF"

7.4 Towing alarm

If the vehicle was be moved or towed when ACC is turned OFF, it will upload location data to the Web Tracking Platform server along with the status description "TOWED"

7.5 Low battery Alarm (internal backup battery)

When the unit's internal backup battery is low, it will upload location data to the Web Tracking Platform server along with the status description "BLP"

7.6 Low battery Alarm (Vehicle Battery)

When the vehicle 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 "CLP"

7.7 High Temperature Alarm

When the devices internal temperature is high [preset value] it will upload location data to the Web Tracking Platform server along with the status description "HT"

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

When the vehicle speed is high [preset value] it will upload location data to the Web Tracking Platform server along with the status description "OVERSPEED"

7.9 ACC ON (Upload default status is AUTO)

Interval time maximum [10,65535]seconds

7.10 Vehicle Towed Alarm (vehicle moves whilst ACC is OFF)

Interval time maximum [10,65535]seconds

7.11 ACC OFF & Vehicle Stationary (Upload status is AUTOWLOW)

interval time maximum [2,1440] minutes

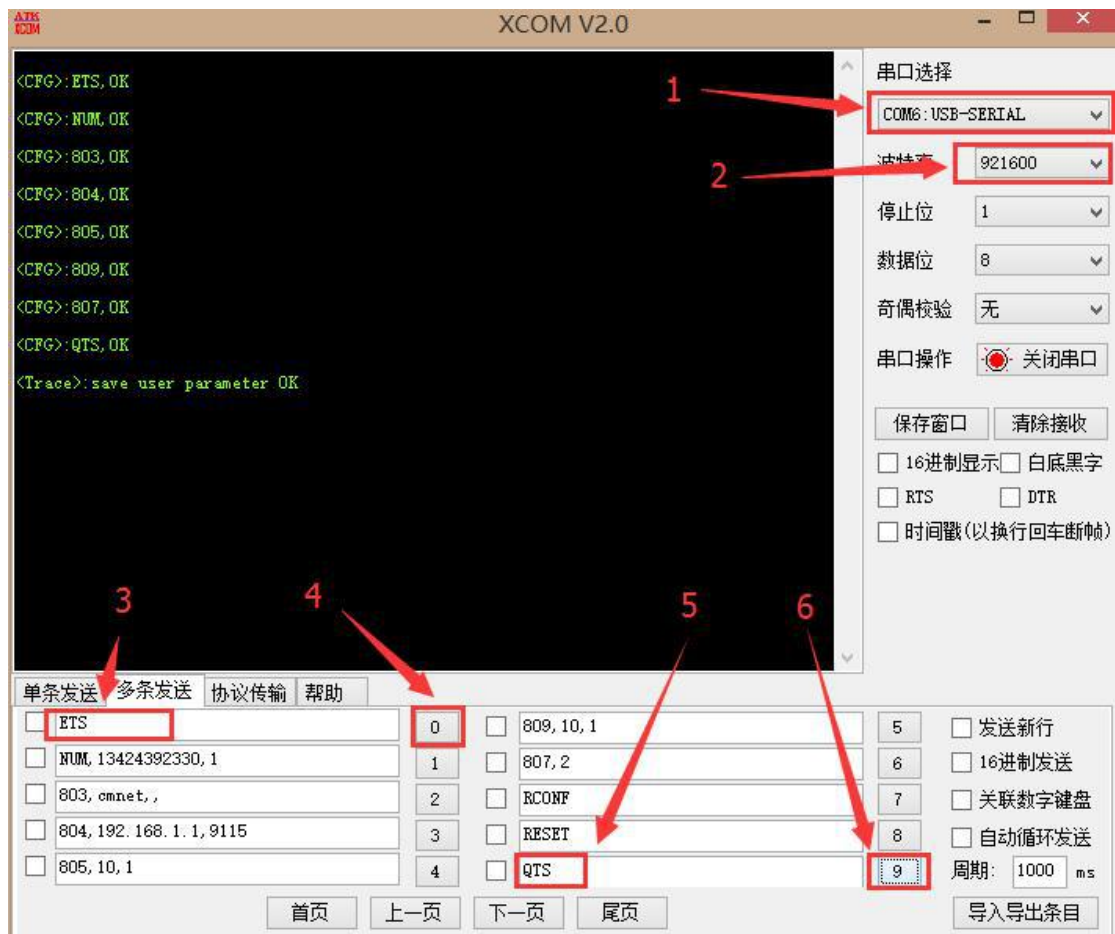
8. Appendix

Mictrack Config Tool

User Guide V2.0

The guide is only show how to to Config the Mictrack devices with the tools, the process are:

1. Download the Config Tools and USB Driver:
<https://drive.google.com/drive/folders/0B32J3VHnO7UOcHRHbm1LU3p2RIE>
2. Install the USB Driver "PL-2303 Vista_Win7 Driver Installer";
3. Connect the "USB CABLE" between PC and Tracker;
4. Open the Tool "XCOM V2.0" and operate it as follow:
5. Select the correct COM PORT (step 1 in follow picture);
6. Select the correct Baud rate as "921600" (Step 2 in picture);
7. Ensure Tracker "POWER ON";
8. Input "ETS" (step 3 in picture) and then click "0"(step 4 in picture) to Start the Config;
9. Input any other commands and then click the number on the right(1-8).
10. Input "QTS"(step 5 in picture) and then click "9" (step 6 in picture) to Save the configuration and Exit.



Commands list:

Item	Command format	Example
Start	ETS	ETS
Pre-set number	NUM,cell number,1~3	NUM,13424392330,1
Delete pre-set number	NUM,,1~3	NUM,,1
Change password	777,new password	777,1234
Call OFF	150	150
Call ON	151	151
SMS OFF	160	160
SMS ON	161	161
Invalid upload OFF	080	080
Invalid upload ON	081	081
GPRS user name	801,gprs user name	801,mictrack
GPRS user password	802, gprs user password	802,2017
APN	803,apn,apn user, apn password	803,telstra.internet,,
804	804,IP,Port	804,112.95.164.248,7700
805	805,interval time, 1,	805,10,1
809	809,interval time,1	809,1800,1
Read Config	RCONF	RCONF
RESET	RESET	RESET
Save and Exit	QTS	QTS

Tips:

- How to setup APN: <https://www.mictrack.com/apn-settings-for-mictrack-gps-trackers>
- How to use Mictrack Server: <https://www.mictrack.com/how-to-use-mictrack-server>
- Global Frequency bands check: <https://www.mictrack.com/4g-lte-frequency-bands-list>

Note: Please remember to monitor the credit balance of your SIM card, to avoid confusion or delays in setting up your new unit. This can be a common issue, especially when initially setting up a new unit, and the unit fails to reply to a correct SMS command sequence.

If you have any questions please do not hesitate to contact us info@mictrack.com.