

# GPS Tracking Device

Model NO.: M528

User Manual

Version : Rope-E17021301

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**Notes:**

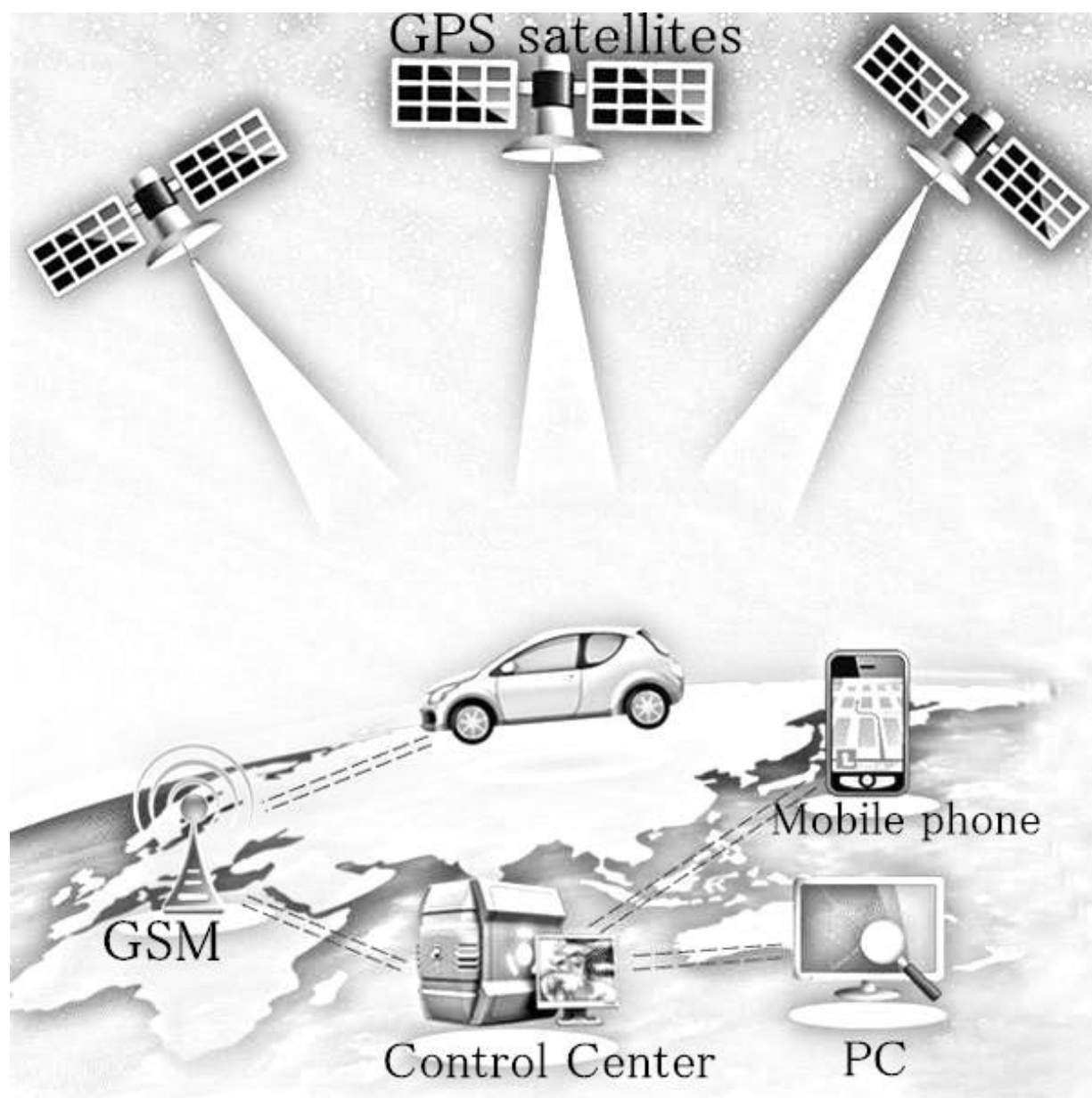
- Please mount the device steadily on the flat place before using;
- Please make sure the voltage value is right before connecting with battery, and placing the wires to where shouldn't be trodden;
- Please power off when plugging or taking out of any module or connector;
- Please keep the device dry and don't let any liquid fall into the device in case any damage caused in the device or circuit;

If any problem caused as follows, please turn to professional technician:

- When power wire, keyboard, or socket are damaged;
- When liquid infiltrating into the device;
- When the device work unusually or cannot resume to normal even operated according to the instruction;
- When the device cannot work as usual after falling, throwing or breaking;
- When there is obvious damage in the device.

## 1. Product Introduction

GPS Tracking device mainly consists of two parts such as GPS module and GSM module. GPS module is for getting location data from satellite, and GSM module is for transferring data to server so that people can check the information via PC or mobile phone. Our GPS Tracking device, with the best quality, stable performance and versatile functions, can be applied to various kind of fleet management like construction trucks, rental cars, logistics vehicles and public transportation, anti-theft system and security purpose.



## 2. Characteristics

- 1) Metal cover;
- 2) External antenna;
- 3) Track by SMS or GPRS;
- 4) Real time tracking at intervals;
- 5) Resend data from signal dead zone;
- 6) Voice monitoring;
- 7) SOS alarm;
- 8) Low power alarm;
- 9) Over speed alarm;
- 10) Geo-fence alarm;
- 11) Illegal start alarm;
- 12) Parking alarm;
- 13) Idling alarm;
- 14) Tired driving alarm;
- 15) Fuel or temperature monitoring;
- 16) History playback;
- 17) Mileage statistics;
- 18) Reports statistics;
- 19) Remotely update firmware
- 20) cut off engine remotely (Engine immobilization)

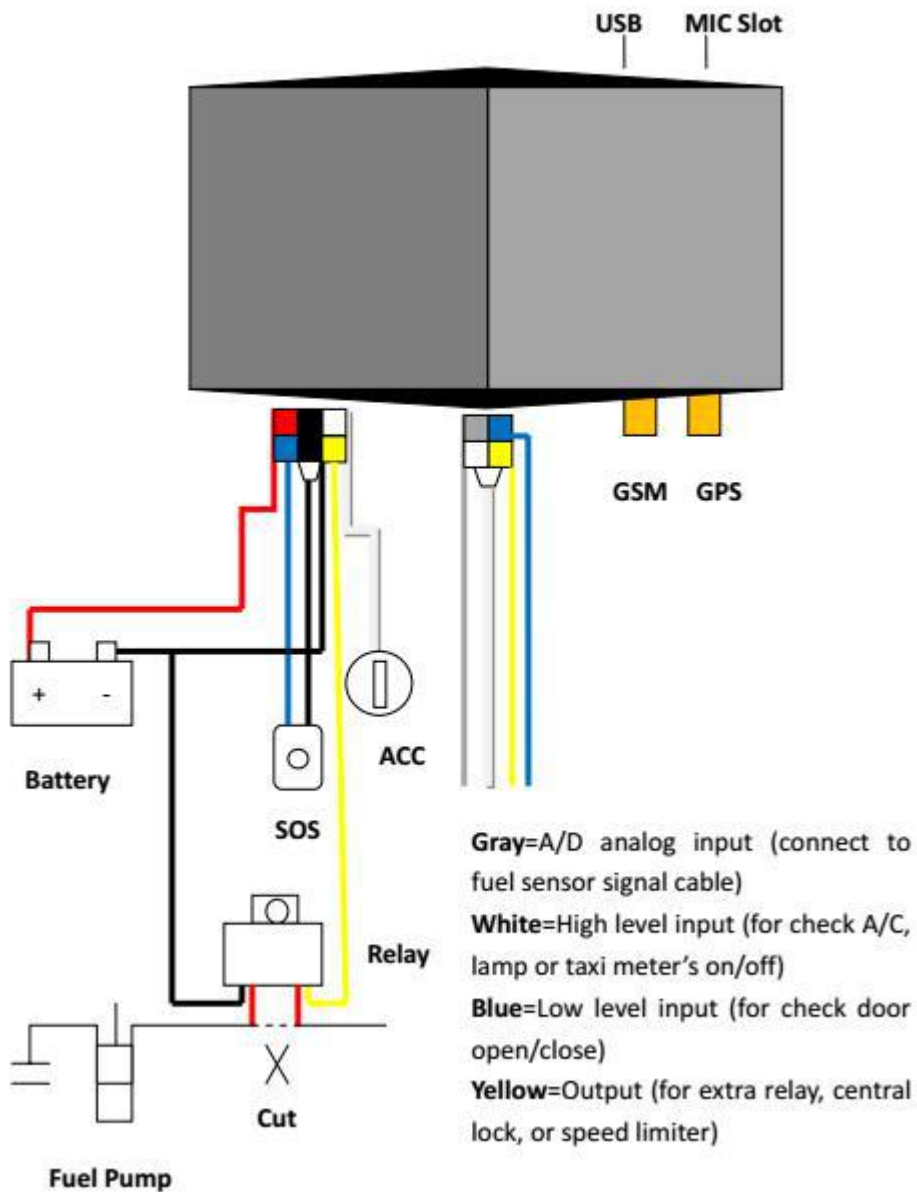
### 2.1 LED Status

LED Color	LED Status	Meaning
Red	Always on	Working normally
	Flash at interval 0.2S	Registering to the GPRS network
	Flash at interval 1S	Registered to GPRS network already while not connect to server
	Continuously in dark status	Power off/Faulty
Yellow	Always keep on	Working normally
	Continuously flash	Cannot receive GPS signal
	Continuously in dark status	Power off/Faulty

## 2.2. Specifications

Items	Parameters
GSM Module	Quectel M50
GSM Frequency	850/900/1800/1900 MHZ
LBS Positioning Accuracy	100-500m
GSM Antenna	External
GPS Chipset	U-blox 7020
GPS Sensitivity	-159 dBm
GPS Frequency	L1, 1575.42 MHZ
Channels	20 channels examine track
GPS Positioning Accuracy	5-10m, 2D RMS
GPS Antenna	External
Speed Accuracy	0.1m/s
Time Accuracy	Synchronize with GPS
GPS Data	WGS-84
Hot Start	<1s
Warm Start	<38s
Max Altitude	18000m
Max Speed	515m/s
Gravity Acceleration	<4g
Working Voltage	8VDC~50VDC
Working Current	50Ma~160Ma
Operating Temperature	-20℃—70℃
Humidity	5%—95%
Size	96mm × 55mm × 26mm
Simcard	Normal simcard
Battery	Rechargeable lithium polymer battery 380mAh
Internal battery Standby	>4h
Input	3pcs (including ACC detection)
Output	2pcs
A/D input	1pc

### 2.3 Device wiring diagram



### 3. Method of installation

#### 3.1. Preparation before installation

3.1.1 Open the packing box to check whether the type of device is correct and whether the accessories are included, or else please contact your distributor.

3.1.2 Choose SIM card: each device needs to insert a GSM SIM card.

Please refer to the distributor's suggestions to choose the SIM card.

3.1.3 Installing SIM card into the tracker, open the device with screwdriver and put the SIM card into the tracker (do not insert the SIM card backwards).

Note:

Power off before installing or removing the SIM card

The SIM card should have GPRS credit

Ensure the SIM card is able to send and receive SMS

#### 3.2 Installation

The device installation is covert. Please refer installation to an auto electrical contractor.

NOTE:

3.2.1 To prevent theft of the device, it should be installed as covertly as possible. Covertly installation is suggested.

3.2.2 Avoid placing the device close to higher power electrical devices, such as reversing radar, anti-theft device or other vehicle communication equipment;

3.2.3 The device should be fixed into position with cable ties or wide double-side tape.

3.2.4 The device has built-in GSM antenna and GPS antenna. During installation, please make sure the receiving side face is up, with no metal object above the device to interfere with GPS reception. The following places are suggested for installation:

-shelter in the decorated board below the front windshield;

-shelter around the front instrument panel (non-metallic material face);

-in the decorated board below back windshield;

### 3 Web based tracking online activation

The GPRS web based tracking platform allows real time tracking with the latest Google maps.

Service platform login website : <http://211.154.139.208:8000/webgps/>

Vehicle management platform website : <http://211.154.139.208:8000/vms/>

After you added device successfully on the VMS platform , you can send the SMS Commands to activate device

1. Set IP and PORT

SMS command format :

**ss,apn,user\_name,user\_code,ip,port,system number,password**

**E.g.:**

**ss,cmnet, , ,211.154.139.208,7000, 13862626201,123456**

**Notes:**

If no username and password, please leave it blank without space,  
e.g: ss, apn,, ,IP,Port ,system number,Password  
the system number on the platform should be the 11digital number ,start from 13  
eg: 13862626201  
Default password :123456

### 5. SMS Configuration

Function	Command	Notes
Change Password	pwd,old_pwd,new_pwd Eg : pwd,123456,666666	Default password is 123456 Replied SMS: Config OK=Set successfully Config failed=fail to set
Set SOS Alert Numbers	service,phone1,phone2,phone3,password Eg: service ,13512345001,13512345002,13512345003,123456,	If configured OK, when press SOS button, the device will sent notification SMS to the preset 3 numbers. SOS alert content: Your vehicle triggered emergency alarm, now the location of the car is http://maps.google.com/maps?q= Latitude, longitude
Delete SOS Alert Numbers	service, , ,password If you want to delete any one of the three numbers, please leave it in command blank without space. Eg: (Delete All) service, , ,123456	You can choose to delete some or all the SOS alert numbers.
Checking Parameters	param,password Eg: param,123456	Replied SMS: TCP, APN, APN user name, APN password, port, system number if the password is wrong, it will reply: Get status failed.
Remotely Restart	Restart,password Eg: restart,123456	The device will restart after 1min after receiving this command,
Recover Default Password	ResetPwd Eg: resetpwd	Password will be recovered to default password if set successfully.
Check GPS Location	tgoogle,password Eg: tgoogle,123456	The device will reply with Google link after receiving the command

Disable Engine	disable eng, password Eg: disable eng,123456	The device will disable the engine of the car after receiving the command in the condition that the speed of car is under 15km/h
Enable Engine	enable eng,password Eg: enable eng,123456	The device will enable the engine after receiving the command
Voice Monitoring	tap,password Eg: tap,123456	The device will call back to the phone number who sent the command
Enable Defence	arm,password Eg: arm,123456	Config OK=Set successfully Config failed=fail to set If defence enabled, you are able to get illegal start alarm when ignition is on.
Disable Defence	disarm,password Eg: disarm,123456	Config OK=Set successfully Config failed=fail to set
Online Configuration	ss,apn,user_name,user_code,ip,port,id, password Eg: ss,cmnet,1,1,211.154.139.208,7000,131888888 88,123456	Config OK=Set successfully Config failed=fail to set
Check Status	status,password Eg: status,123456	Replied SMS: GSM=31 GPRS=1 GPS=10 ACC=N0 SPEED=120 ACCON=30S ACCOFF=120S VCC=12V IMEI=356823031234501 If the password is wrong, it will reply: Get status failed

Check Service Number	GetService,password Eg: getservice,123456	The device will reply with the service numbers
Enable Auto Answer Call (Voice Monitoring)	AUDIO-EN,password Eg: audio-en,123456	Config OK=Set successfully Config failed=fail to set
Disable Auto Answer Call	AUDIO-DIS,password Eg: audio-dis,123456	Config OK=Set successfully Config failed=fail to set
Recover to Default Settings	Reset,password Eg: Reset,123456	It will recover the IP to be 211.154.139.208, port to be 7000, APN to be cmnet
Set Interval	interval,x1,x2,password Eg: interval,30,100,123456 30=ACC ON 100=ACC OFF	X1=ACC ON interval (second), X2=ACC OFF interval (second).
Enable sleep mode	sleep enable,password Eg: sleep enable,123456	Config OK=Set successfully It's for save battery purpose
Disable sleep mode	sleep disable,password Eg: sleep disable,123456	Config OK=Set successfully
Enable Limit for Voice monitoring,	LisLimit,ON,password Eg: LisLimit,ON,123456	It will limit the voice monitoring phone number within the preset SOS alert number
Disable Limit for Voice monitoring	LisLimit,OFF,password Eg: LisLimit,OFF,123456	Default setting

## 6. Trouble shooting

6.1. After installing it in the first time, if device cannot get connected with platform server, at this time it is “logged off” status in platform.

Follow the instructions one by one as below:

1) Call the device to see what happens.

If ring: go to the next step.

If not ring:

a. check whether the SIM card installed correctly or not. Check whether the connection of power-line is correction or not . (Details: If the users are testing the device in office or at home, M528 has to connect with 12V DC external power supply. If it is tested in the car, make sure the installer connect all the cable correctly.)

b. Check the LEDs’ status. In normal working status, the red LED is in bright flash 0.1s dark 2s , yellow GSM LED bright flash 0.1s dark 2s and blue GPS LED bright flash 0.1s dark 2s

c. Check whether the vehicle is in no GSM area, such as basement;

2) Check whether the device reply after sending SMS command.

If reply:

a. Check whether the APN is correct or not,

b. Whether the port is correct or not,

c. check whether the SIM card support GPRS.

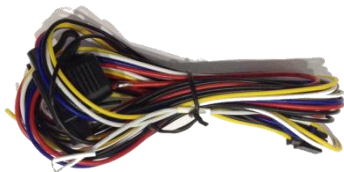
d. check the IMEI number is correct or not

If not reply, check the SMS command format, make ensure it is correction.

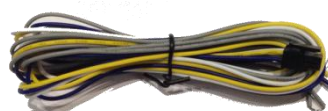
## 7. Standard Accessories



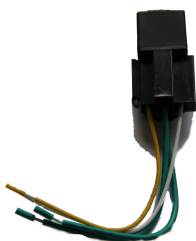
Device



6 PIN power cable



4 PIN I/O cable



Relay



Microphone



SOS button