

# GPS Vehicle Tracker (GPS+GSM+GPRS)

## User Manual

( Version 1.0 )



Please read this manual carefully before attempting installation and online activation. Pictures are for indication and illustration purposes only.

Accessories picture



### 1.Functions

- Quad-band frequency system
- Wide for voltage input range:9-36vDC
- GPS continuous positioning, GPRS timing interval
- Check location via SMS
- Built-in vibration sensor, theft-proof
- ACC ignition detection
- Tele-cutoff (petrol/ electricity) function
- SOS alarm and burglar alarm
- voice monitor function

- Alarm when the power supply is disconnected intentionally (with backup battery)

## **2. Specifications**

GSM: 850/900/1800/1900MHz

GPRS: Class 12, TCP/ IP

Voltage: 9-70VDC

Current: 22mA (12vDC)

12mA (24vDC)

GPS positioning time: Cold start 38sec (open sky)

Warm start 32sec (open sky)

Hot start 2sec (open sky)

GPS positioning precision: 10-15m

Temperature: -20℃ ~ +70℃

Humidity: 5% ~ 95% RH

Dimension: 90.0(L)×45.0(W)×13.5(H)mm

Weight: 80g

## **3. Function settings**

### **3.1 Preparation before installation**

3.1.1 Choose SIM card: each device needs to insert a GSM SIM card. Please refer to the distributor's suggestions to choose the SIM card.

#### **3.1.2**

Installing SIM card: The SIM card slot is on the right of device.

Open the SIM card silicon seal, then insert the SIM card to the slot (do not insert the SIM card backwards). When the SIM card is ready you will hear a click. Or else please insert again and then replace the silicon seal.

Note:

Please use the GSM SIM card.

Power off before install or remove the SIM card.

The SIM card used should be enabled for GPRS.

The SIM card used should be enabled for called ID.

### **3.2 Installation**

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

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

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;

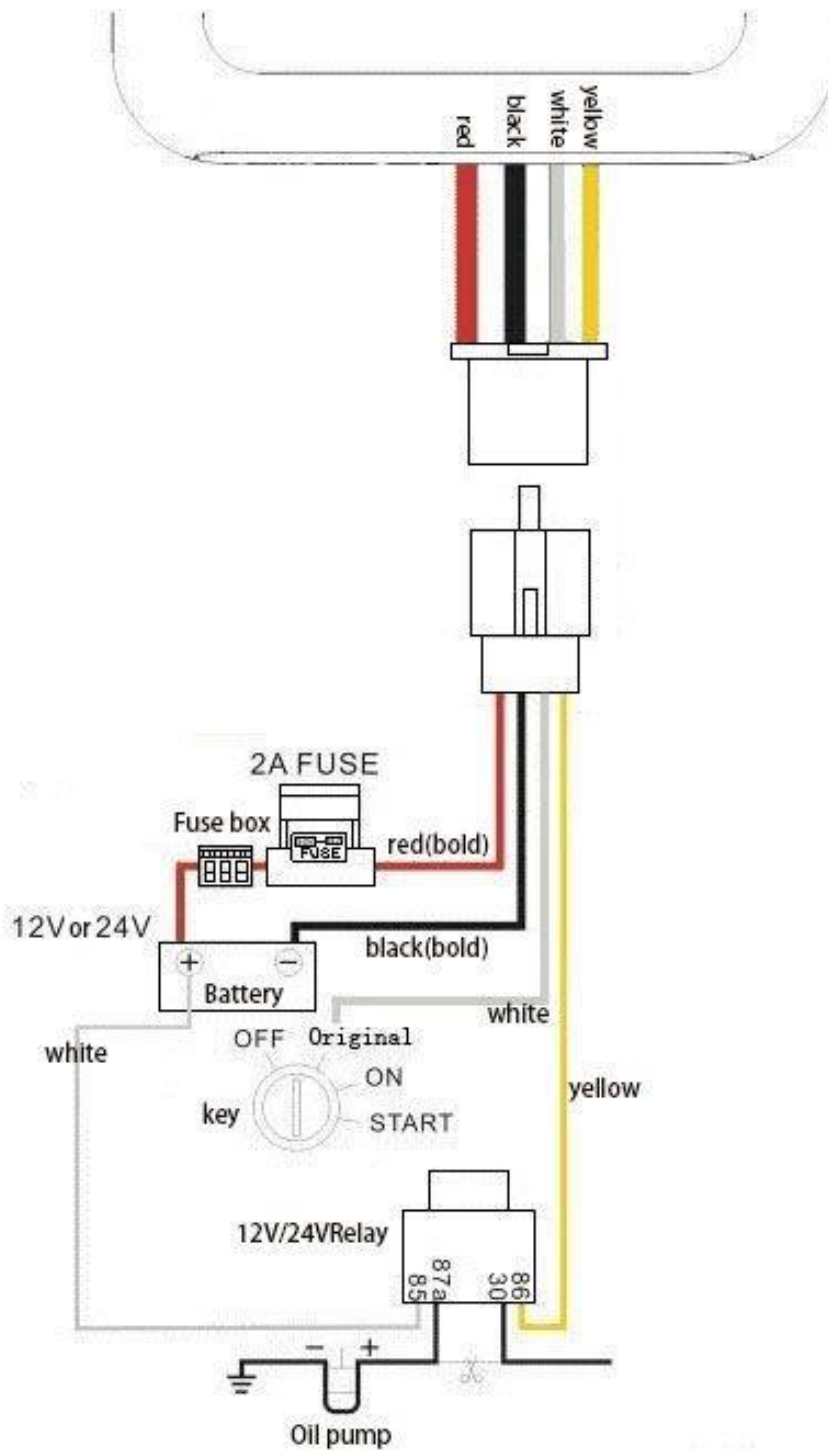
### 3.3 Notes of the relay wiring

The relay wiring of pump: Coil connectors of both ends are a thin white line (85) and a thin yellow line (86). The thin white line (85) is connected to vehicle positive power (+12V). The thin yellow line(86) is connected to the device relay control line.

Cut off the positive connection line of the pump; then connect in series to the relay N.C. contact (thick green line 87a) and the other end to relay

COM contact ((thick green line 30). 3.4 device

wiring diagram



#### 4 Parameter settings

4.1 Use the platform set parameter, please visit the web:

[www.tjungstech.com](http://www.tjungstech.com)

4.2 The SMS command format should be in lowercase and it is divided by comma. There is a reply SMS after sending the command. If set successfully, there is a “success” reply SMS; or else please set again. The device will reply the corresponding information after sending the SMS command.

4.2.1 Set the number of service center

If Users want to set the parameters or control operates by messages, please set the service center number first. The Device only can accept the oil & power cut of message from the center service number. (Users could set the phone number as the center service number)

To protect the safety of users, set of service center number needs to input password, default password is 123456, modified.

SMS adding service center number: pw, 123456, center, 00000000000#

e.g.: pw, 123456, center, 13524258458#

If the service center number set successful, please reply message “Service center number set succeed!”.

#### 4.2.2 Delete the service center number

Delete service center number: pw, 123456, center,d# Reply message “ Service center number has deleted!” after set successful.

PS: Service center number could only set one.

#### 4.2.3 Modification of password.

Instruction: pw,6digitals#

The default password is “123456”, modified(6 digitals).

e.g.: pw,888888#

If the password set successful, please reply message “Password reset succeed! Password: 888888”.

#### 4.2.4 Check Parameter settings

When users need to check the parameter settings of the device, could send a message to the number of SIM, device will reply the message about the parameter settings. Checking

Parameter instruction: check# or test# e.g.: check# or test# Reply message:

SN: 1234567890

URL:tjungstech.com

PORT: 3031

Interval,

Upload:10,sleep:10,alarm:10

SN:1234567890--- Device serial number

IP:IP:52.26.172.133 PORT:3031---Platform server address and port.

Upload---GPRS date update interval, set range: 10-18000 seconds, default 30 seconds.

Sleep--- sleep interval, set range: 1-65535mins, 0 mean never sleep, default 10mins.

Alarm:10- delay automatic fortification , set range: 1-60mins, default 10minutes.

#### 4.2.5 GPRS transmission interval

The default GPRS transmission interval is 30s which means the device will upload positioning data to the platform server every 30s. Users can modify GPRS time transmission by SMS. The time ranges from 10-18000s.

Instruction: upload, interval time(second) #

e.g.: upload, 15 #

Reply: put interval time success! Interval time is 15 seconds

#### 4.2.6 GPSOFF time

The device will upload data to the server during the GPSOFF time (default as 10mins).

Instruction: sleep,time(minutes)#

Setting range: 1-1800mins e.g.:

sleep, 10#

Reply: Sleep time set succeed! Interval time is 10minutes.

#### 4.2.7 Language and time zone set

Device provides Chinese and English those 2 languages, different time according to the different time zone.

Instruction: lang,x,zone,n# x means language, 0 = English, 1=Chinese, n means time zone, east eight= +8, west three= -3.

Default language x=1, time zone n=+8.

#### 4.2.8 Check the software version number

Check the device software version information.

Instruction: verno#

The device will reply a message which include version number and date & time.

#### 4.2.9 Constantly shock when sleep will wake up the device: Interval time set

Set constantly shock of alarm of time, default 5 seconds, modified.

Instruction: motion,5#

Device reply: Shocking time set succeed! Time is 5 seconds.

#### 4.2.10 Wake up time set

When the vehicle power off reached the sleep time, device will enter the sleep mode, not send the location information to sever anymore. User could set the wake up interval time to avoid that although the vehicle was power off for a long time could still get the location information. Default time 0 minutes, will not wake up.

Instructions: sleepout, 5#

Device reply: sleepout time set succeed! Time is 5 minutes.

#### 4.2.11 Reset device

When the device GPRS works unusual, such as: device parameter set correct, but can not connect the device, user could send message instruction to the device. So that device could remotely reset, then device will work normally.

Reset factory set instruction: reset#

The device will reset after received the instruction.

#### 4.2.12 Reset to factory settings

The device parameter set incorrect resulted in device can not work as usual, users could send the message to rest the factory set as default, try to make the device work normally.

Reset instruction: factory#

The device set of the parameter will be reset after received the instruction.

#### 4.2.13 Set of platform server IP address and port

4.2.13.1 The platform operators will provide the IP address and port number, the product already set as “OK” when you brought it, if users need to set by themselves, please ask for the platform operators.

Instruction: ip,52.26.172.133,port,3031#

The device will rely: Center instructions set succeed!

4.2.13.2 Use the set of domain name also could communicate with the server.

Instruction: surl,tjungstech.com,port,3031#

Device ID set: imei,00001234560#

Device rely ID set succeed! ID: 123456

## 5. Operation of device



### 5.1 Power on/off

Power on: Put a workable SIM card into the device, connect the wires, device will power on when the outside power connected, or also could push the power button 5 seconds above, the lights turn on, means power on.

Power off: When power on, push the power button 5 seconds above, light turn off, means device power off. But if outside power still is connected, device will power on again. Power off only works outside power disconnected.

LED work instructions

PS: Quick flick: light on 0.1seconds, off 2 seconds

Slow flick: light on 1 second, off 2 seconds

Instruction lights	Status	Means
Red	Quick flick	Work normally
Power LED	Slow flick	Low battery
	No light	Power of/ error
Blue GPS LED	Quick flick	GPS location
	Slow flick	Searching GPS signal
	No light	GPS not location
Yellow GSM LED	Quick flick	GMS/GPRS begin communicate
	Slow flick	GSM initialization
	No light	No GSM signal

## 5.2 Check location

### 5.2.1 Message checks Chinese address.

When users need to check the Chinese address of the device, could send a message of check Chinese address to the SIM card that users put in the device before, it will reply a message to you show the Chinese address, if device can not search the location information, then will reply:” Can not get the correct GPS data, please try again!”

Instructions: where#

PS: This function needs the support of platform.

### 5.2.2 Message checks the internet location link.

When users need to check the information of internet location link, could send a message to the device to check it, device will send the last information of the located internet link to users.

Instruction: url#

If user’s phone could surfing online, user could open the location link of the message, through GPRS/WIFI or 3G to download the map picture with device location information.

Users also could input the link into the browser of computer to check the location information of the device.

### 5.2.3 Check from the platform

Users could sign in the global location service platform to get the location information of the cars. The dealer could provide the website to the buyers.

## 5.3 Fortified/ unfortified and oil & Power off

### 5.3.1 Fortified/ unfortified



Send instructions to the device, let the device enter fortified and unfortified mode, under the fortified mode, constantly flick will touch off the alarm, then the device will send the alarm information to the platform and service center, send the coordinates info and calling to the service center. If no one pick up, it will recall for 6 times, interval 6mins/time. Device will send the newest location information to the service center number. Instruction: fortify,x#

X=1 means device reply: fortified succeed!

X=0 means device reply: unfortified succeed!

#### 5.3.2 Alarm disarm

When the alarm call not successful (have not pick up the phone), then users could send the message to the device, touch off the alarm. To remove the alarm of the device, enter fortified mode.

Instruction: alarm#

Device reply: "Alarm disarmed!"

#### 5.3.3 Oil & power cut off

When the vehicle has been robbed, users could send an instruction to the device to cut off the power and Oil, so that the vehicle can not be powered on anymore.

Instructions: relay,x#

X=1 device reply: Oil & power cut off succeed!

X=2 device reply: Restore Oil & power off succeed!

#### 5.3.4 Outside power disconnected alarm

When the device has been powered off, will touch off the power off alarm, device will send alarm information to the service platform, also with the coordinate information. Platform will analyze the information to get the Chinese address, and resent to the device. Device will send one alarm message with the Chinese address information to the center number, and recalling the center number, if no one pick up, it will recalling only 6 times, 6mins/ time.

### 6 Fault resolutions

6.1 Device can not connect with the platform after initial install, platform shows not online.

Please check device install:

- 1) Main power cable is connected correct or not. Please mind does not connect with the vehicle inside control cables.
- 2) SIM is installed connect or not, please reference the User Manual.
- 3) ACC cable is connected or not. Inset the car key after connected to turn on the ACC.
- 4) Check the status LED lights. Normally red power LED, light on 0.1 seconds, off 2 seconds, yellow GSM LED, light on 0.1 seconds, off 2 seconds, blue GPS LED, light on 0.1 seconds, off 2 seconds.
- 5) Check GPS could locate or not. If can not please go outside/ or open area for GPS initial locate.

6.2 Device shows off line on the service platform.

First check three LED work normally or not, but if you can not check it, then please check the SIM card. Steps as follow:

- 1) Calling the number of the card, check that if you can hear the voice.

- 2) Whether the vehicle under the basement, cannot receive the GPRS signal.
- 3) Observe the off line areas, is the partial areas off line or all areas are off line. To check whether is the net problems of the operators.
- 4) Check SIM still have charges or not.
- 5) GPRS business whether has been removed. (the last day of the month)
- 6) Check the parameter settings, the device serial number and GPRS transmission interval time is correct or not.

6.3 If the GPS function of the device is normal, but can not locate for a long time, please check whether the installation setup of device is correct:

- 1) Please make sure the GPS antenna face is up.
- 2) Please make sure there is no electromagnetic wave- absorbent object (metal) above the device, especially the thermal-protective coating on the windshield, it may affect the GPS reception of the device.

6.4 If GPS can not receive the signals normally (there is high building around to interfere with GPS reception), please drive to the open areas for positioning.

Generally, it needs 1-2 minutes to receive the first coordinates.

6.5 If GSM can not receive the signals normally, please check whether SIM card is installed correctly or there is no GSM signal at the location you are, such as basement parking, please drive to a place covered by GSM signal reception. 6.6 When cellphone with special number receives tele-cutoff alarm SMS, please make sure whether it is illegal wire cutoff, or the FUSE on power line is blown. If the FUSE in it is blown, please contact your distributor to exchange with the same model FUSE, after the internal trouble is shoot, it can be power on to work again.