GPS Tracker

For Vehicle

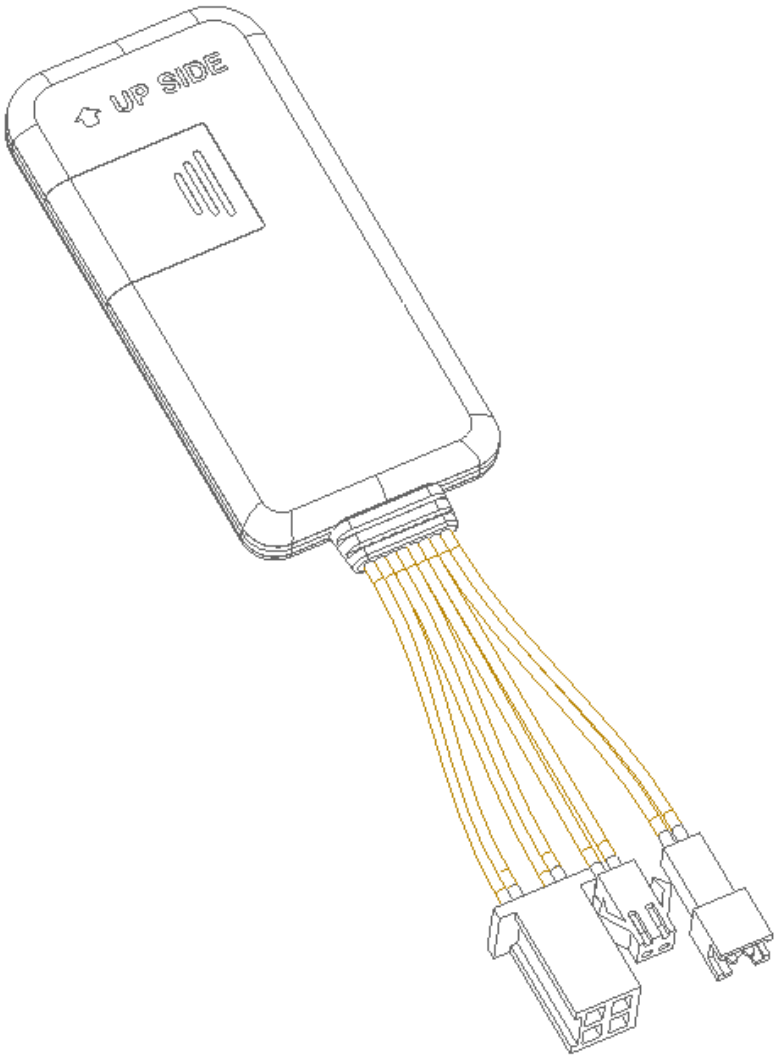
<GPS+GSM+SMS/GPRS>

User Manual

V1.0

By www.moralwinhk.com

Model: P168



Appearance

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Welcome to use our terminal， please read this manual carefully to install and operate the terminal exactly. This user manual is for reference only. If some contents and operation steps are inconsistent with those for the actual product, the latter will prevail.

Using TK116 GPS tracker, we can position、 monitor and control the vehicle on the position server via GPRS、 GPS and Internet. It can help customers to manage transparently、 reduce cost、 maintain security and raise efficiency. Now it is widely used in business traffic、 logistics distribution、 sautomobile lease、 intelligent transportation、 shipping market、 army and police、 rescuing、 Safety Supervision 、 Intelligent city...

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Ⅰ. Product Features

- Supports quad bands, i.e. 850/900/1800/1900MHz, universal in the world.

- Wide Input Voltage: 6-36V DC.

- Supports single positioning and feedbacks position via GPRS at setting times.

- Supports vehicle positioning and tracking.

- Supports ACC status checking and vehicle status notifying.

- Use relay to remote control the vehicle..

- Use SOS button for SOS call.

- Use external MIC to monitor remotely.

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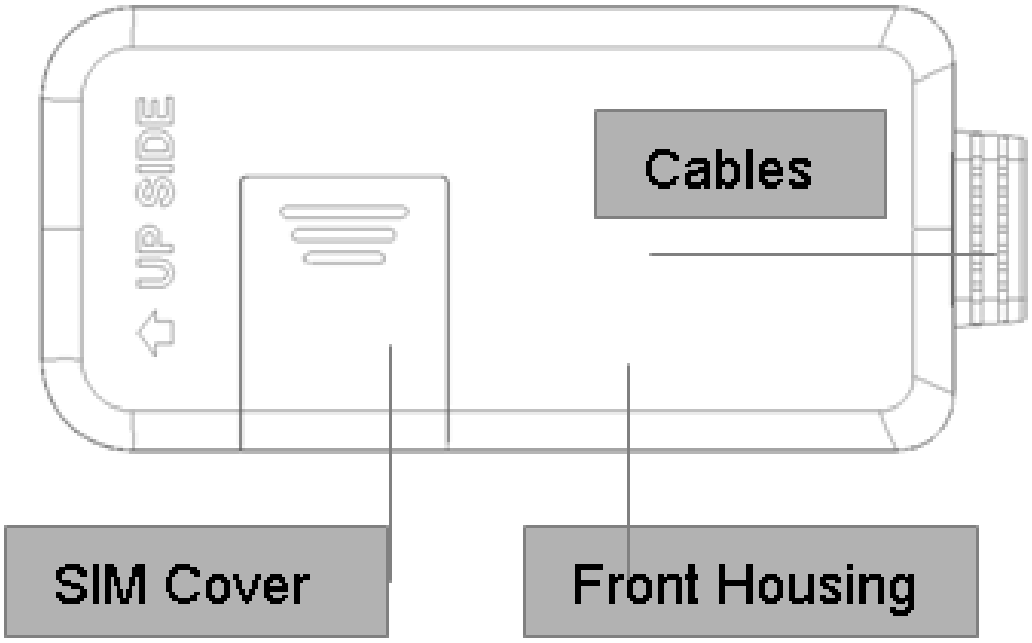
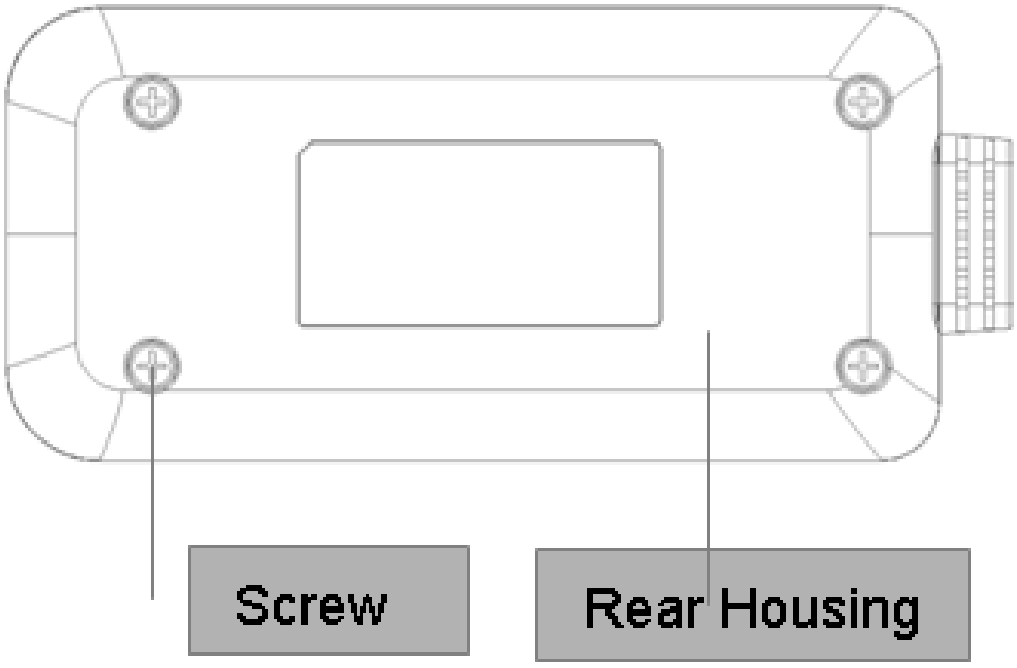
Ⅱ. Components and Accessories

■ Components



-Top Front-



-Top Back-

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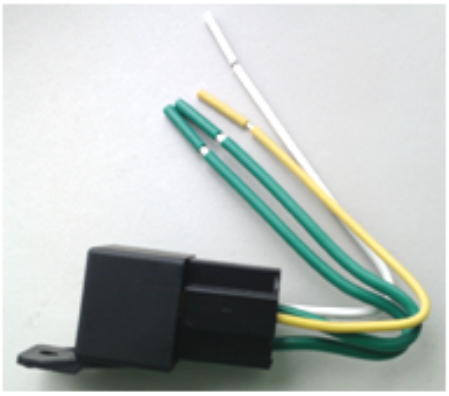
Accessories （reference pictures）

Power Cables （Fault）

Micphone （Optional）



Relay （Optional）

SOS Cables （Optional）

III. Environment for use

1. Limited working temperature： -20℃~80℃
2. Storage temperature： -45℃~90℃
3. Humidity： <95%
4. Make sure the terminal is installed in rainproof and snow-proof places.

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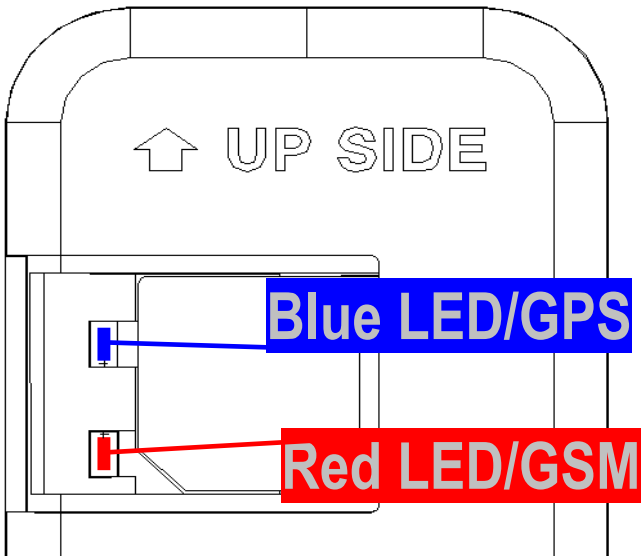
Ⅳ. Technical Specifications

4.1 Basic Specifications:

Voltage	12VDC/24VDC
Standby Current	<3mA
Work current	<30mA
GPS positioning accuracy	15m
GSM positioning accuracy	100m
GPS Frequency	1575MHz
GSM Frequency	850/900/1800/1900MHz
Hot/warm/cold start time	<3s，<15s，<60s
Dimensions (mm)	L*W*H：79.5X38.5X10.5
Net Weight	45 g

4.2 LED Indicators



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4.2.1 Red LED(indicates GSM working state)

fast flicker	Searching for GSM network
intermittently flicker	GSM/GPRS works normally

4.2.2 Blue LED(indicates GPS signal state)

fast flicker	Searching GPS Satellites
intermittently flicker	GPS works normally

Ⅴ. Installation

5.1 Before Installation

5.1.1 Open the packing case, then check if the terminal is Ok and the accessories are intact, or please contact your dealer;

5.1.2 Choosing a SIM card: You need a suitable SIM card for using the terminal, please contact your dealer if you have any question;

5.1.3 Install the SIM card: First use your thumb to press the SIM card cover, then push it outside to pull down the SIM card cover. Now you can insert your SIM card to the SIM card connector until you cannot move the card inside anymore.

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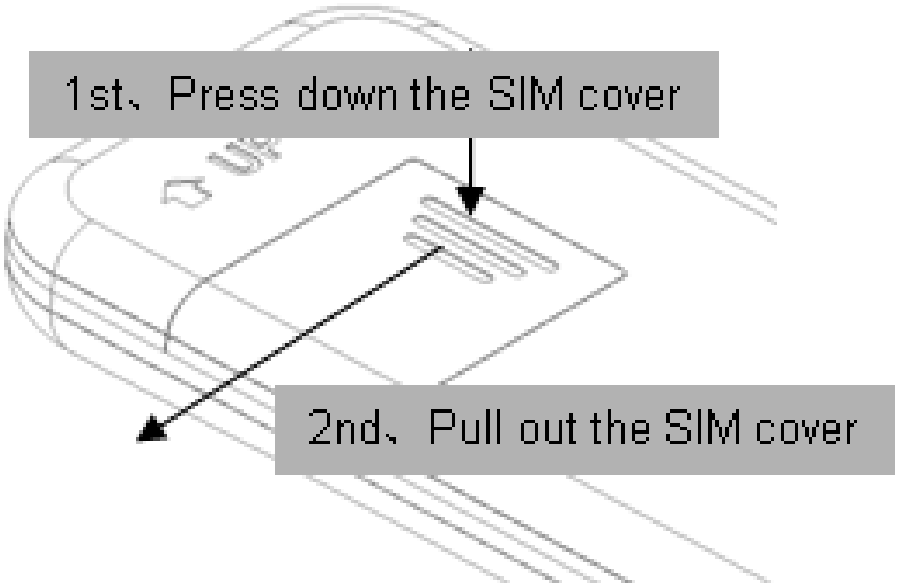
5.1.4 Uninstall the SIM card： Lift up the edge of the SIM card, next pull it out.



- Pull down the SIM cover(three steps)

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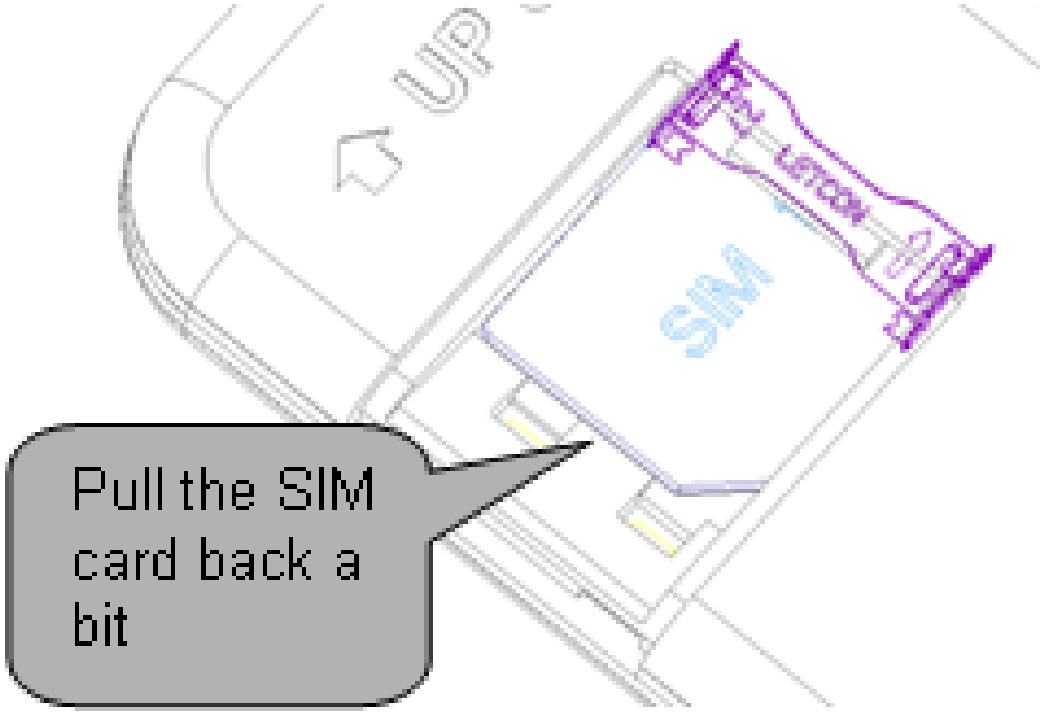
- Install SIM Card （two steps）

First. Insert the SIM card until cannot move it inside anymore;

Second. Pull the SIM card back a bit;



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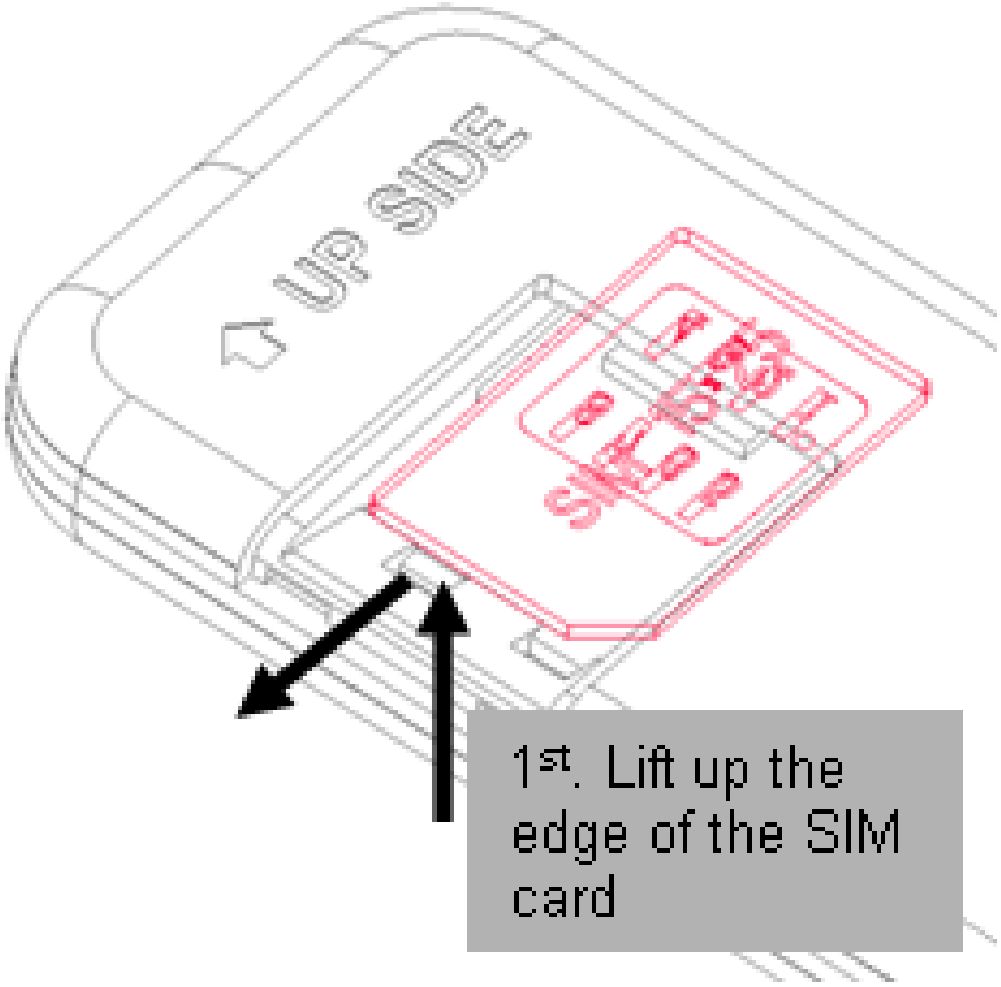

- Uninstall the SIM card

First. Lift up the edge of the SIM card;
Second. Pull out the SIM card.

5.1.4 Notice

- Please cut off the power before installing or uninstalling the SIM card.

- The SIM card should support GPRS and the GPRS should be opening.

- Inquiry by call needs the SIM card supporting the calling line identification presentation.

- If you enable the PIN code of the SIM card,

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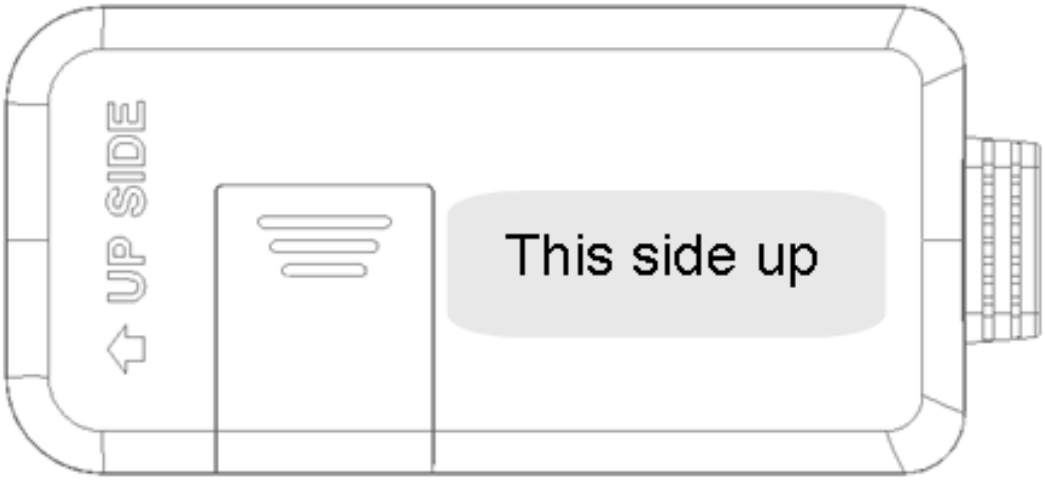
please use your mobile phone to disable the PIN code.

- Please make sure that the SIM card has sufficient balance.

5.2 Install the terminal

5.2.1 Suggest to install the terminal concealed by the dealer designated professional body.



Please make sure to install the terminal with this side upward, and use wide strong double-sided adhesive sponge to fix it.

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Please make sure to install the terminal with this side towards the ground, and use wide strong double-sided adhesive sponge to fix it.

5.2.2 Notice

- Hide the terminal properly inside the car body in order to avoid damages.

- Keep the terminal away from RF emission sources such as backing radar、car burglar alarm and other vehicle mounted communication devices.

- Suggest to use wide strong double-sided adhesive sponge to fix it, or use cable ties and other liable methods to fix it.

- Make sure the face upward as the terminal has internal GPS and GSM antenna and without metal blocks. Suggest to install the terminal in the following places:

1） The hiding place below the front windshield trim panel;

2） The hiding place around the front dash(if the surface is not made of metal);

3） The place under the rear windshield;

Notice: The GSM and GPS signal may be

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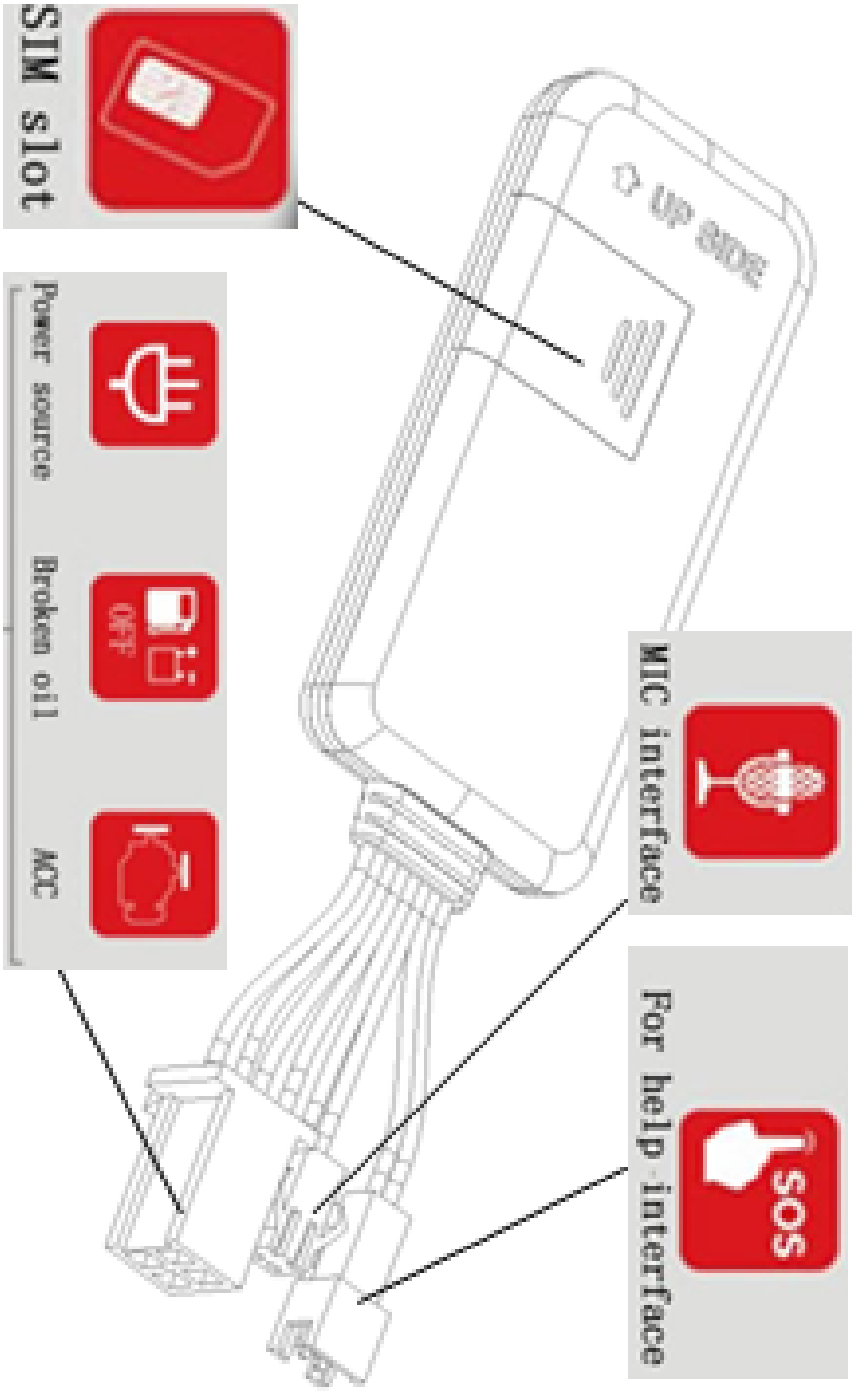
weakened if there is metal thermal insulation layer or heating layer on the front windshield, the terminal may work abnormally, so please change the place to install the terminal.

5.3 Terminal wiring definition



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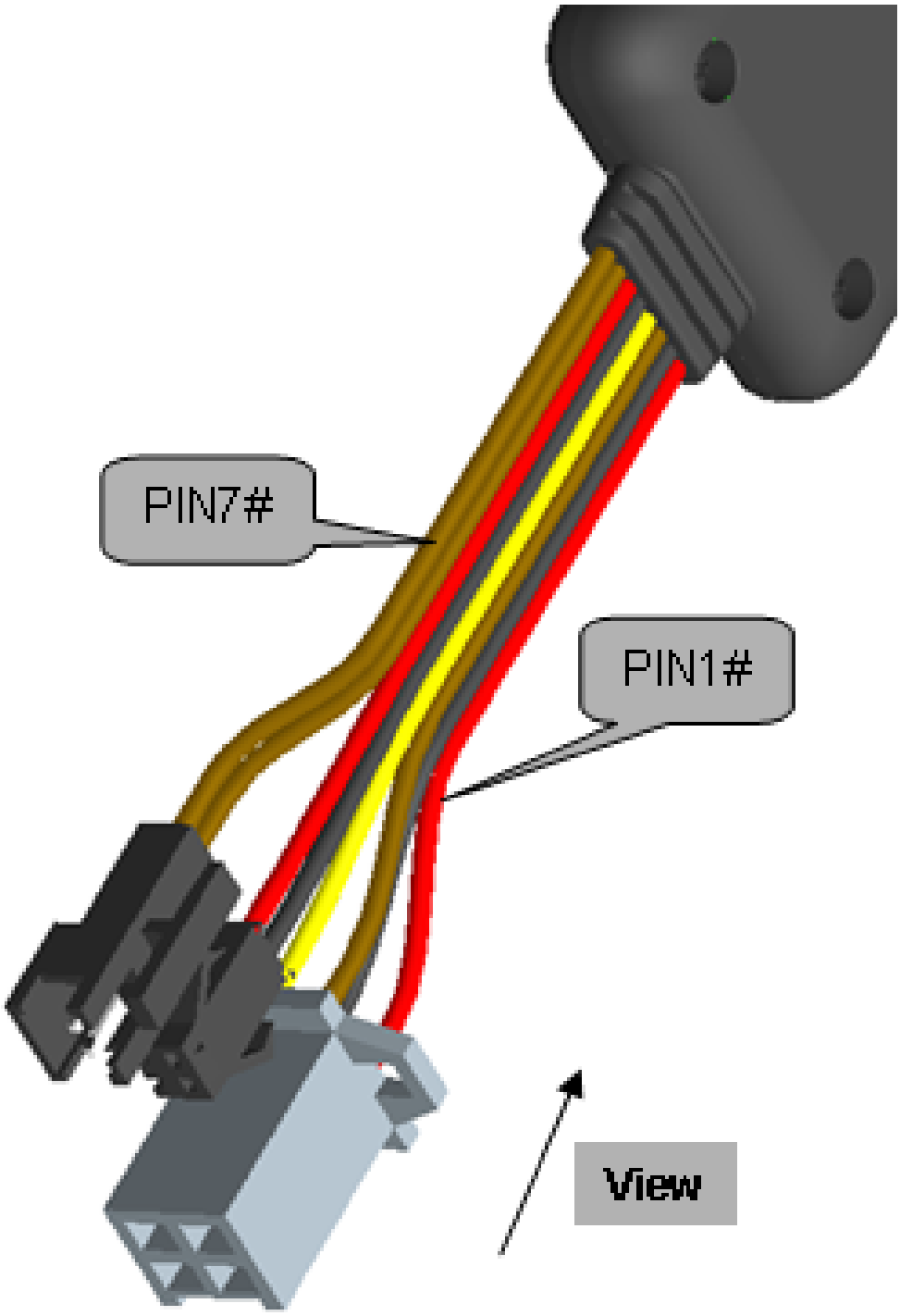

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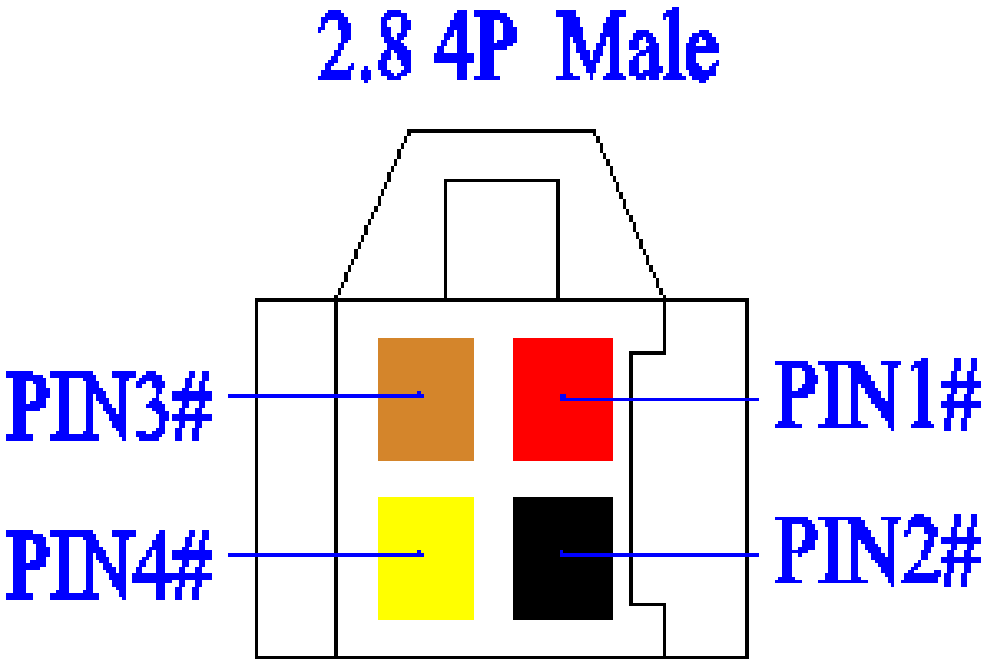
5.3.1 Power cables and other interface for remote control



1#	Power +, Red	
2#	Power −, Black	
3#	ACC, Orange	
4#	Relay, Yellow	

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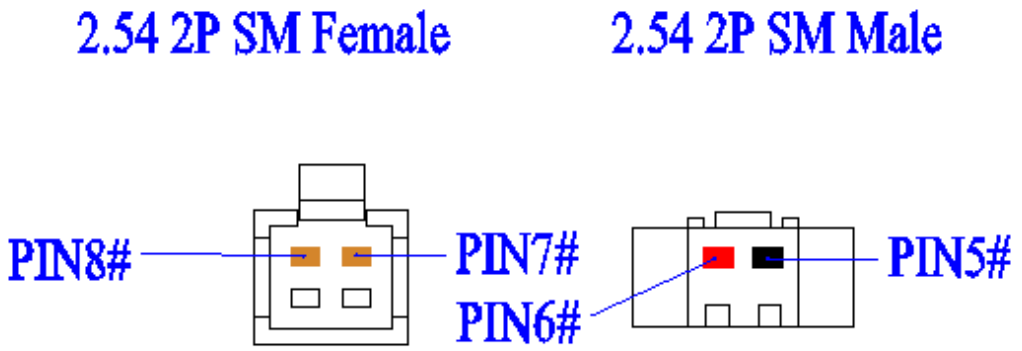
5.3.2 Other accessories' interfaces



5#	MIC-, Black	
6#	MIC+, Red	
7#	SOS, Orange	
8#	SOS, Orange	

5.4 Terminal wiring diagram

Relay wiring diagram shows how to wire the relay to control the fuel pump:

5.4.1 Connect the 85 terminal(with small white cable) to the positive pole of the vehicle power (+12V/+24V), connect the 86 terminal(with small yellow cable) to the 4# cable of the terminal.

5.4.2 Cut off the positive pole of the fuel pump, next serial connect the positive pole to the 87a

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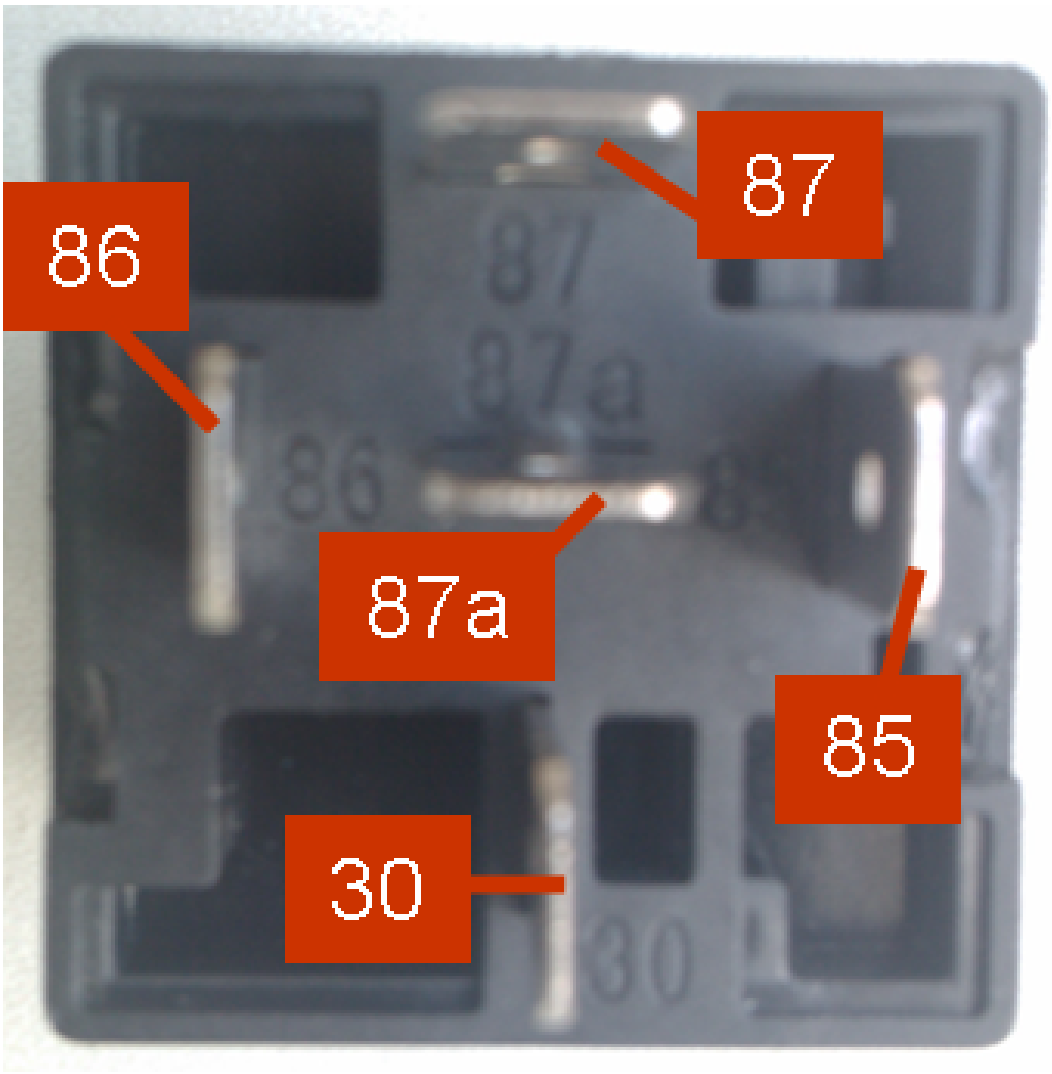
terminal(with think green cable) of the relay, and connect another pole to 30 terminal(with think green cable), showing as in the figure.

Notice: Be sure that the voltage of the vehicle power should match up to the working voltage of the relay, or the relay will be damaged.

Relay Wiring :



Bottom of the relay

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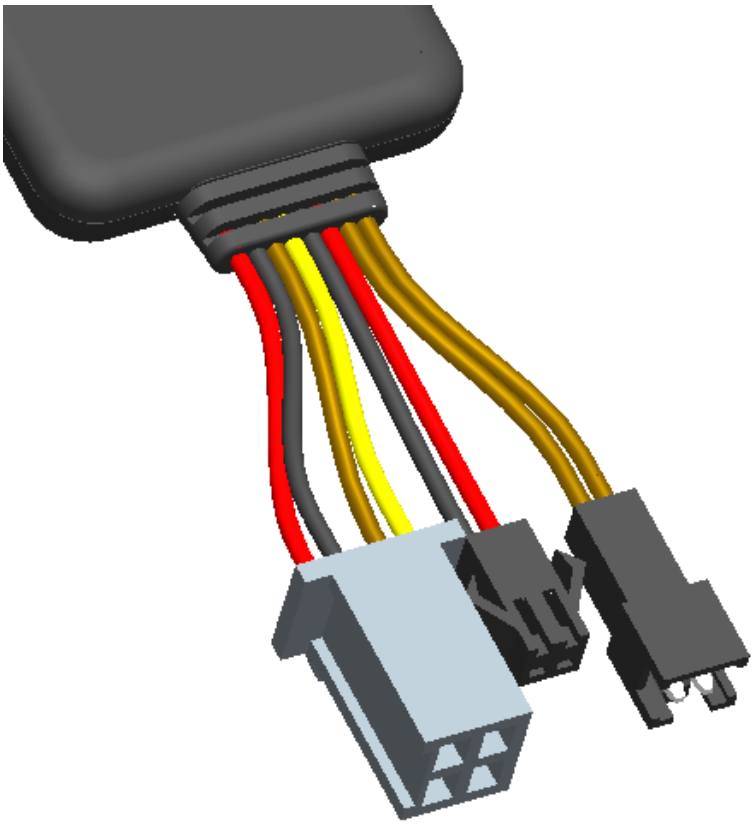
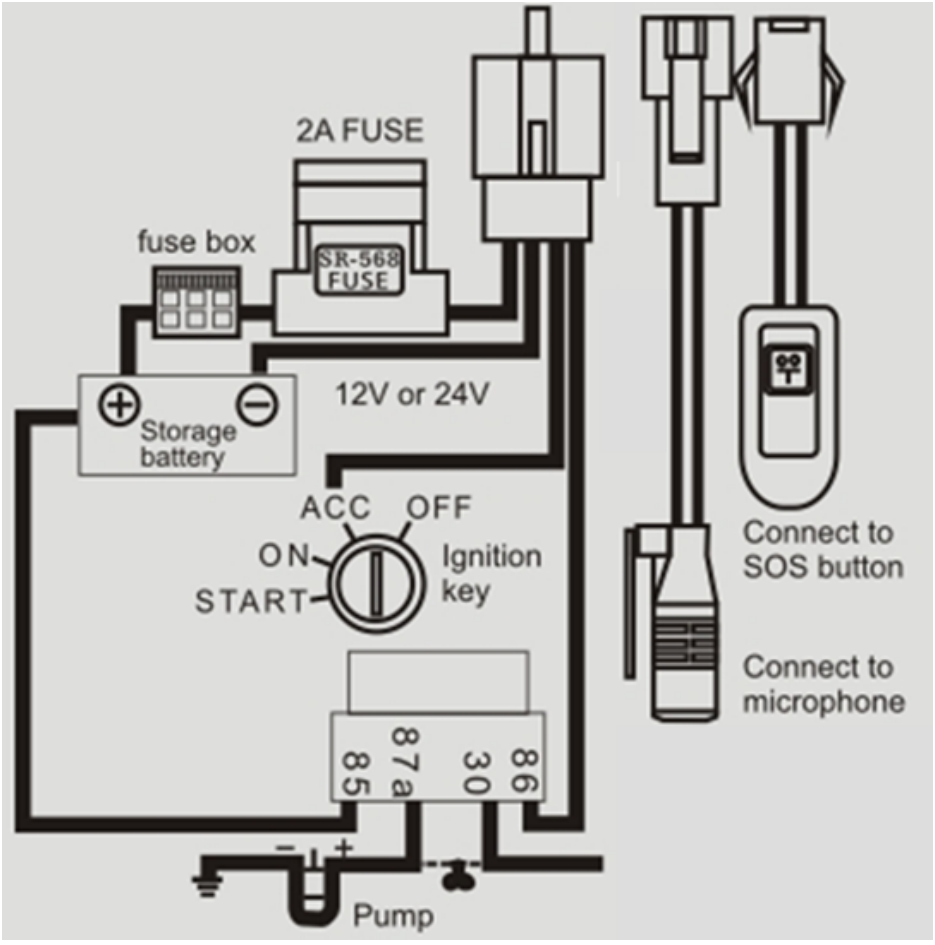
-Wiring Diagram





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Ⅵ. Attentions for wiring

6.1 Power cables

6.1.1The standard input voltage of the terminal is 6V-36VDC, so please choose the our original power cables, the red cable is positive and the black cable is negative; Please ground the positive pole separately or ground it to ground connection, not to any other ground.

6.1.2 Connect the ACC cable (orange cable) to ACC switch of the vehicle, then the position server can get the information about the vehicle power; the ACC cable can also be connected directly to the positive pole of the vehicle power, then the position server think that the vehicle is always ignited.

6.1.3 Connect the 4# cable (yellow cable) to the 86 terminal(with small yellow cable) of the relay. Use cable ties to fix the relay to waterproof place, or use plastic bags to cover the relay..

6.2 External MIC

Using the external MIC cables we can have remote voice monitoring; stick the MIC to some places where we can make a call.

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6.3 SOS cables

Using SOS cables we can make SOS call. Please stick the SOS switch to the place where the driver can touch.

Ⅶ. Set up the terminal

Please refer to the 《Operation Commands》

Ⅷ. Use the terminal

8.1 Power on

Power on: insert a valid SIM card and wire all the cables, then the terminal power on itself.

8.2 LED indicators

The red LED flickers fast when the terminal is searching for GSM network, it flickers intermittently when the terminal has registered the GSM network successfully.

The blue LED flickers fast when the terminal is searching for the GPS satellite signal, it flickers intermittently when the terminal when the terminal has searched the satellites and can be positioned.

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8.3 Inquiry position

8.2.1 Inquiry by SMS

You can write a positioning SMS sending to the terminal when inquiring position, the terminal will reply position SMS or map link. The SMS commands please refer to the《Operation Commands》。

8.2.2 Inquiry by position server

Customer can login the position server to check the position of the vehicle. Please ask your dealer for the WWW address of the position server.

8.4 SOS alarm

Press the SOS button for 3 seconds when an emergency situation need help, SOS alarm will be triggered. The terminal will call the preset manager numbers circularly until it is answered; and it will send alarm SMS to the preset manager numbers, it can also send alarm SMS to the position server.

Notice: SMS and SOS call need preset manager numbers.

8.5 Monitor

When the preset manager numbers call the terminal, the terminal will auto-answer after 8

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seconds ringing, then you can monitor the voice in the vehicle. When using the numbers which are not belong to the managers, the terminal will not auto-answer.

Notice: This function needs preset manager numbers.

8.6 Cut off the fuel pump connection

The position server or the managers can send cut-off fuel commands when needed. The fuel of the vehicle will be cut off on the premise of safety, and the vehicle will not be powered on.

To make sure the safety of the vehicle, the fuel of the vehicle will be cut off only if the terminal has positioned by GPS and the speed of the vehicle is less than 20KM/h or the vehicle is not moving.

8.7 Recover the fuel circuits

The position server or the managers can send recover-fuel-circuit commands to the terminal when needed, the terminal will recover the fuel circuits of the vehicle.

IX. Login the position server

If you have a legal ID on the position server, you can login the position server using browser. If not,

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please contact your dealer. Ask your dealer to provide an ID and the password.

Now open the web site, use your ID and password to enter the position server.

Notice: Please get the instructions about the position server from your dealers.

X. Trouble shooting

10.1 Cannot connect to the position server

The terminal is never online on the position server when installed at the first time. Please check the terminal:

1） If the power cables are wired correctly? Pay attention to not connect them to the controlling cables of the vehicle.

2） If the SIM card is installed correctly? Please refer to the installation instructions.

3） Check the status of the LED indicators. If the terminal is OK, the red LED and the blue LED will intermittently flick.

4） Inquiry the parameters of terminal via

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commands and check the accuracy of the parameters.

10.2 Show offline status on the position server

First check if the LED indicators are OK, if cannot check them, you can check the SIM card following next steps:

1） call the SIM card of the terminal and check if you can hear the connect ring.

2） Check if the vehicle is in the area where there is no GSM signal.

3） Check if one terminal or all terminals are offline in the area where terminal is offline. If all terminals are offline, you should ask the network operator. If the network is OK.

4） Check if the SIM card has enough balance.

5） If the terminal becomes offline on the last day of one month, please check if GPRS is close.

6） Inquiry the parameters of terminal via commands and check the accuracy of the parameters.

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10.3 Cannot position for a long time

If the GPS is active, but the terminal cannot be positioned for long time, please check the terminal:

1） If the vehicle is in the place where there is no GPS signal.

2） The upside of the terminal should be installed with face toward the sky.

3） The GSM and GPS signal may be weakened if the terminal is installed in the place with electromagnetic wave absorption material(such as metal blocks), special attention should be paid if there is metal thermal insulation layer or heating layer on the front windshield, so that the position accuracy will decline, and the severe ones will not be positioned.

10.4 Position drift is serious

Serious position drift will be found in places where GPS signal is poor. Please drive the vehicle to the open places.

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10.5 Instructions receiving abnormally

1） Check the instructions format.

2） Check if the vehicle is in the places where there is GSM signal.

3） Check if the SIM card is properly installed.

XI. Warranty rules

11.1 Special statement

1） Technology change, without notice.

2) If the color and appearance are inconsistent with those for the actual product, the latter will prevail.

3） Warranty card is only valid for the terminals with the following IMEI.

4） Please take care of the warranty card and show it with the original purchase receipts when enjoying the warranty service.

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11.2 Warranty period

Since the date of purchase, passive waste host has one year warranty.

11.3 After sales

Any of the following circumstances not covered by the warranty, but may be appropriate to pay repair:

1） More than the warranty period.

2） Unauthorized removal or repair damaged.

3） Damage caused by improper installation, use, maintenance, custody.

4） The IMEI label is torn or Obscure.

5） Warranty certificate and product models do not match or warranty certificate be altered.

6） Damage caused by force majeure.

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Customer's Information

Name:_____

Tel: _____

Add:_____

_____

Product Model:_____

IMEI Number:

Selling Unit: ____

Purchase Date:__YY__MM__DD

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