ZENDA GPS Tracker ZD-VT2 User Guide

Change History

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Contents

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2 Product Overview

The ZD-VT2 is a newly-released vehicle GPS tracker that features compact size, stable performance, precise positioning, and IP66 water resistance rating. It can be installed into taxies, freight cars, buses, private cars, and official cars for real-time tracking and vehicle management.

In addition to real-time tracking and vehicle management functions, it is equipped with the anti-theft function (optional). With the device, you can control the vehicle fuel/power remotely via anti-theft alarms and fuel/power control ports to achieve anti-theft.

3 Product Function and Specifications

3.1 Product Function

3.1.1 Position Tracking

- GPS + GSM dual-module tracking
- Real-time location query
- Track by time interval/distance
- Heartbeat report
- Real-time status query
- Resend cached data when the GPS signal recovers
- Heading change report
- Speeding alarm
- Geo-fence (1 geo-fence supported)

3.1.2 Anti-Theft

- Vehicle stealing alarm
- Vibration alarm
- Arming/disarming
- Remote fuel/power cut-off (optional)
- Engine status detection

3.1.3 Other Functions

- SMS/GPRS (TCP) communication (ZENDA protocol)
- External power cut-off alarm

- Low battery alarm
- IP66 water resistance rating
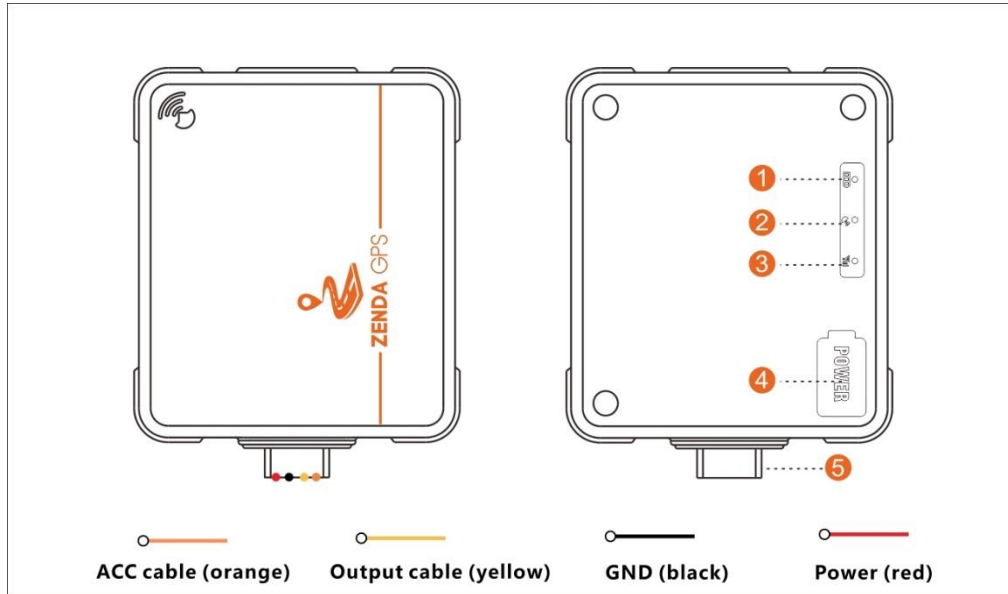- Built-in 4 MB buffer

3.2 Specification

Item	Specifications	Remarks
Dimension	64.2 mm x 55.6 mm x 15.0 mm	
Weight	75g	
Working voltage	9–90 V DC	
Standby battery	95 mAh/3.7 V	Working hour: 2–3 hours
Power consumption	Current in standby mode: ≤ 50 mA	Connect to the 12 V external power supply.
	Current in sleep mode: 3.5 mA (≤ 5 mA)	Connect to the 12 V external power supply.
Operating temperature	-10°C to 70°C	
Operating humidity	5%–95%	
LED indicator	3 indicators, showing GSM, GPS, and power status	For details, see section 5.2 "LED Indicator."
Switch	1 slide switch	For details, see section 5.1 "Appearance."
Memory	4 MB buffer (Store up to 2,000 GPRS cache records)	Resend data when the GPS signal recovers.
Sensor	3D acceleration sensor	Used to determine movement, vibration and non-movement.
GSM frequency band	GSM 850/900/1800/1900 MHz	
Positioning accuracy	10m	

4 ZD-VT2 and Accessories

Item	Description	Quantity
Standard accessory	ZD-VT2 (including a power cable)	1
	ZD-VT2 Quick Installation Guide	1
Optional accessory	Relay	1

5 About the ZD-VT2

5.1 Appearance

| No.	Item	Description
1	Power indicator (red)	Indicates the device charging state. For details, see section 5.2 "LED Indicator."
2	GPS indicator (blue)	Indicates GPS status. For details, see section 5.2 "LED Indicator."
3	GSM indicator (green)	Indicates GSM status. For details, see section 5.2 "LED Indicator."
4	Power switch	● When the device is off, turn the slide switch to the ON position to turn on the device, then the power indicator will be on. ● When the device is on, turn the slide switch to the OFF position to turn off the device, then the power indicator will be off.
5	I/O cable	Includes the power cable, GND wire, ACC cable, and output cable.

5.2 LED Indicator

Power Indicator (Red)	
Status	**Description**
Steady on	The device is charging after it is connected to an external power supply.
Blink every 4 seconds	The device is disconnected from an external power supply.
Off	When the device is disconnected from an external power supply, the switch is turned to the OFF position or the device battery has run down.
GPS Indicator (Blue)	
Status	**Description**
Blink every 1 second	The GPS is invalid.
Blink every 2 seconds	The GPS is valid.
Off	The GPS module is in sleep mode or is not working.

| GSM Indicator (Green)	
Status	**Description**
Blink every 1 second	The device is not connected to the GSM network.
Blink every 2 seconds	The device is connected to the GSM network.
Off	The device is not connected to the GSM network or no SIM card is inserted into the device.
Working Status of the Device	
Status	**Description**
Standby mode	The blue GPS indicator and green GSM indicator blink every 2 seconds respectively. When the device is connected to an external power supply, the red power indicator is steady on; when the device is not connected to an external power supply, the red power indicator blinks every 4 seconds.
Arming mode	All the three indicators blink twice alternately.
Sleep mode	All the three indicators are off.

6 First Use

6.1 Installing the SIM Card

1. In the corner of the device, loosen the rubber covers and four screws to open the back cover.
2. Insert the SIM card into the card slot and close the back cover.
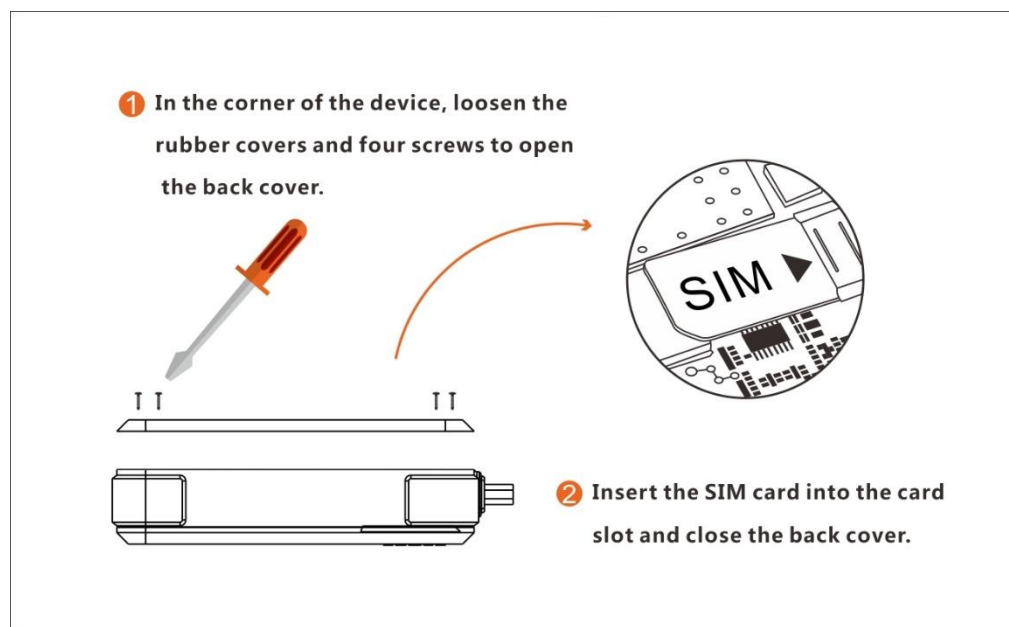
6.2 Starting the Device

1. Open the rubber cover.
2. To turn on the device, turn the slide switch to the ON position, then the LED indicators will blink.
3. Tighten the rubber cover to protect the device from water.

Step 1: Open the rubber cover.

Step 2: Turn the slide switch to the ON position. Then the LED indicators will blink.

Step 3: Tighten the rubber cover to protect the device from water.
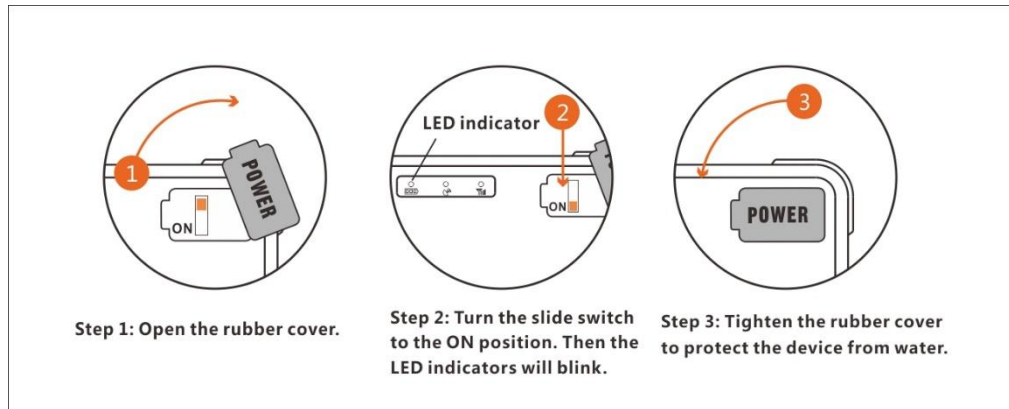
6.3 Common SMS Commands

6.3.1 Querying a Location in Real Time

SMS Sending	DW,*Password*#
SMS Reply	*<Date & time> Map link*
Description	The default password is **0000**.
Example	
SMS Sending	DW,0000#
SMS Reply	<2016-04-11 15:39:22> http://ditu.google.cn/maps?q=N22.513538,E114.057248

6.3.2 Querying Device Status in Real Time

SMS Sending	STATUS,*Password*#
SMS Reply	*Charging state;GPRS;GSM signal strength;GPS status;GPS signal strength;ACC status;Anti-theft status*
Description	The default password is **0000**.
Example	
SMS Sending	STATUS,0000#
SMS Reply	external charge;GPRS:Link Up;GSM Signal Level:Strong;GPS Fix;GPS Signal Level:35,0,0,0,27,35,0;ACC Off;defence off

6.3.3 Setting Phone Numbers

SMS Sending	SOS,*Password*,<A>,<Phone number 1>,<Phone number 2>,<Phone number 3>#
SMS Reply	OK!
Description	The default password is **0000**. After an alarm is generated, the tracker will call the phone numbers or send SMSs with alarm information to the phone numbers.
Example	
SMS Sending	SOS,0000,A,13911111111,13922222222#

| SMS Reply	OK!SOS1:13911111111 SOS2: 13922222222 SOS3:

6.3.4 Setting Arming/Disarming

SMS Sending	ACCALM,*Password*,ON/OFF#
SMS Reply	OK!
Description	The default password is **0000**.
Example	
SMS Sending	ACCALM,0000,ON#
SMS Reply	OK,ACCALM:ON

6.4 Tracking by Mobile Phone

Call or send the **DW,0000#** command by SMS to the device's SIM card number. The device will reply an SMS with a map link. Click the SMS link. The location will be displayed on Google Maps on your mobile phone.

Note: Ensure that the device's SIM card number has subscribed the caller ID service. Otherwise, the tracking function by mobile phone will be unavailable.
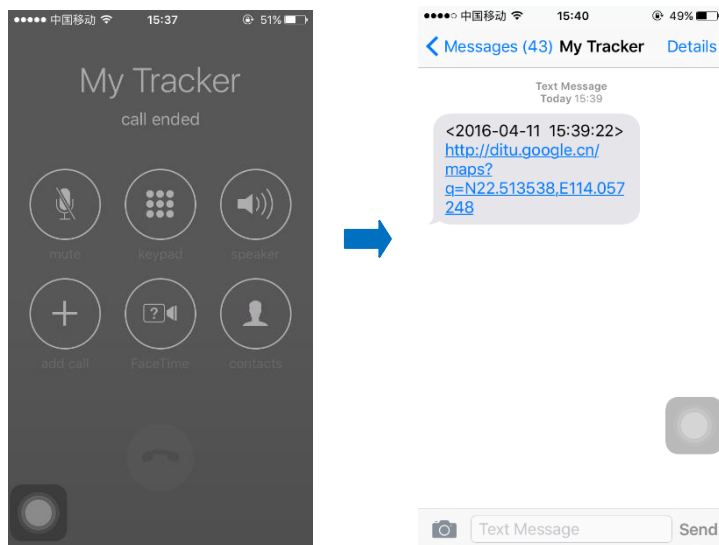

SMS example:

<2016-04-11 15:39:22> http://ditu.google.cn/maps?q=N22.513538,E114.057248

The following table describes the SMS format:

Parameter	Description	Remarks
<2016-04-11 15:39:22>	Indicates the date and time.	None
http://ditu.google.cn/maps?q=N22.513538,E114.057248	Indicates the map link. **N22.513538**: indicates the latitude. **E114.057248**: indicates the longitude.	If your mobile phone does not support HTTP, enter the latitude and longitude on Google Maps to query a location.
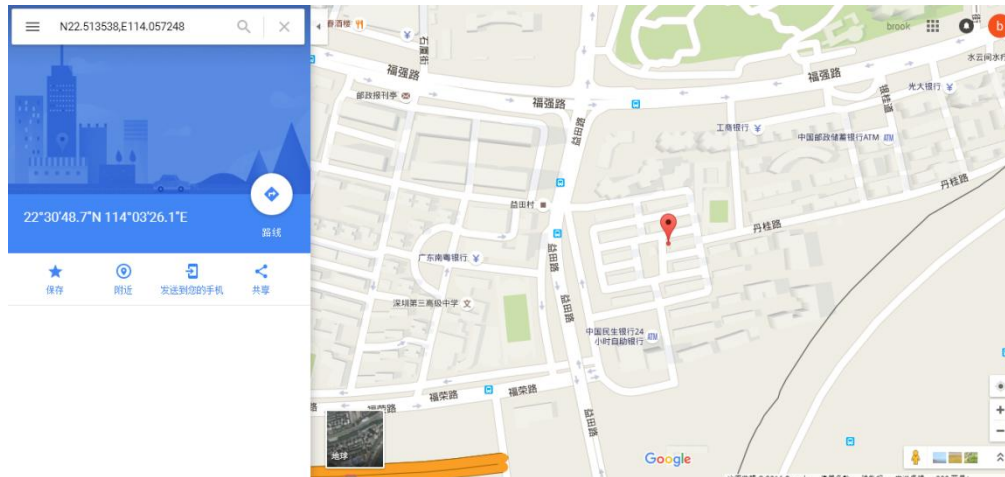
6.5 Platform Tracking

6.5.1 Setting the APN

Please set your SIM card's APN in advance using an SMS command before using the ZENDA tracking system, so that the device can be connected to the GPRS network successfully.

SMS Sending	APN,*Password*,*APN name*,*APN user name*,*APN password*#
SMS Reply	OK!
Description	Password: indicates the device's SMS password. The default password is **0000**.
	APN password: indicates the SIM card's APN password. Please obtain the APN user name and password from the provider of your SIM card.
Example	
SMS Sending	APN,0000, isp.cingular,isdpa@cingulargprs.com, CINGULAR#
SMS Reply	OK

6.5.2 Setting the IP Address and Port Number

The device is connected to the ZENDA tracking system by default. If you want to use other tracking platform, please send the **SERVER** command to the device's SIM card number and change the IP address and port number.

SMS Sending	SERVER,*Password*,1,*Domain name*,*Port number*,0#
	Or SERVER,*Password*,0,*IP address*,*Port number*,0#
SMS Reply	OK
Description	Password: The default password is **0000**.
	0 (the fifth parameter): indicates the TCP connection.
Example	
SMS Sending	SERVER,0000,0,67.103.15.7,10003,0#
SMS Reply	OK

6.5.3 Enabling the GPRS Network

The device's GPRS network is enabled by default. Once your SIM card's APN is set, the device can be connected to the GPRS network successfully. If the device is offline on the ZENDA tracking system, send the **GPRSON** command to enable the GPRS network.

SMS Sending	GPRSON,*Password*,<X>#
SMS Reply	OK
Description	Password: The default password is **0000**. X: Its value is **0** or **1**. The default value is **1**. ● 0: Disable the GPRS network. ● 1: Enable the GPRS network.
Example	
SMS Sending	GPRSON,0000,1#
SMS Reply	OK

6.6 Logging In to the ZENDA Tracking System

Visit www.zendatracking.com, enter the user name and password, and log in to the ZENDA tracking system. (Purchase the login account from your provider.)

For more information about how to add a tracker, see the *ZENDA GPS Tracking System User Guide*.

The ZENDA tracking system supports the following functions:

●   Track by time interval or distance.

●   Query historical traces.

●   Bind driver and vehicle information.

●   View various reports.

●   Send commands in batches.

For details, see the *ZENDA GPS Tracking System User Guide*.

# 7 Installation Instructions

7.1 Defining the I/O Cable
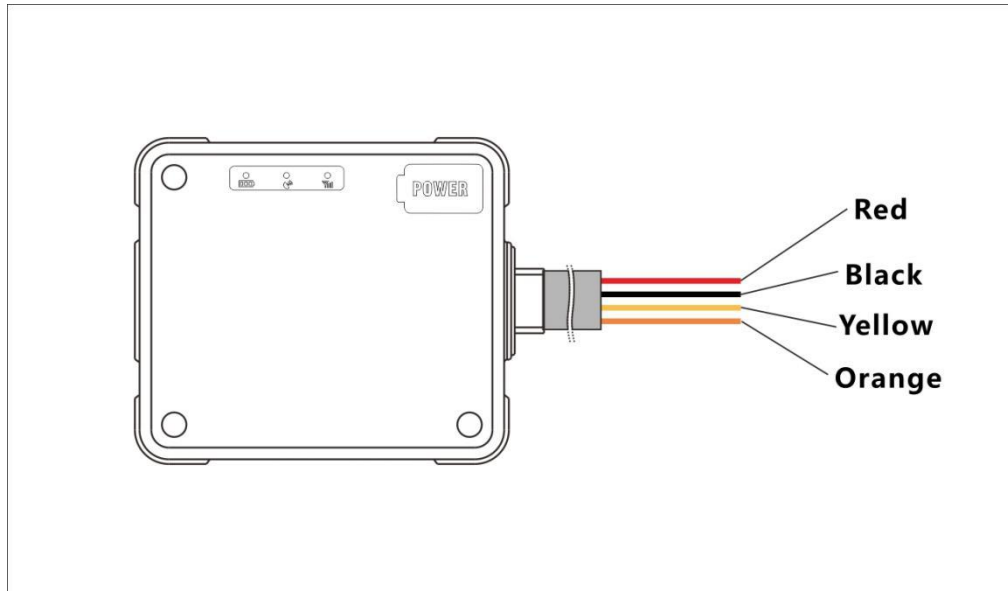
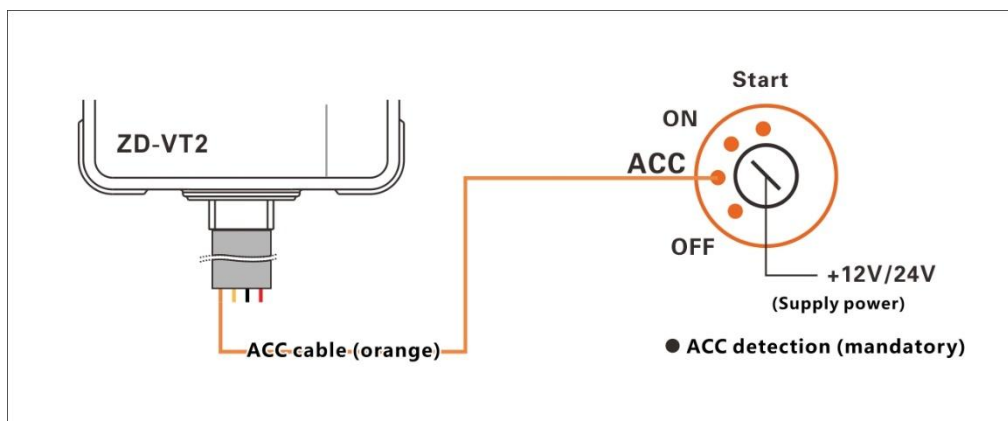| Color	Description
Red	Power + (9–90 V DC)
Black	Power -
Yellow	Output cable; connected to the relay to remotely control fuel/power.
Orange	ACC cable

7.2 Wiring Diagrams

7.2.1 Power Cable

Connect the power cable (red) and GND wire (black) to the positive and negative electrodes of the 12 V or 24 V vehicle battery respectively.
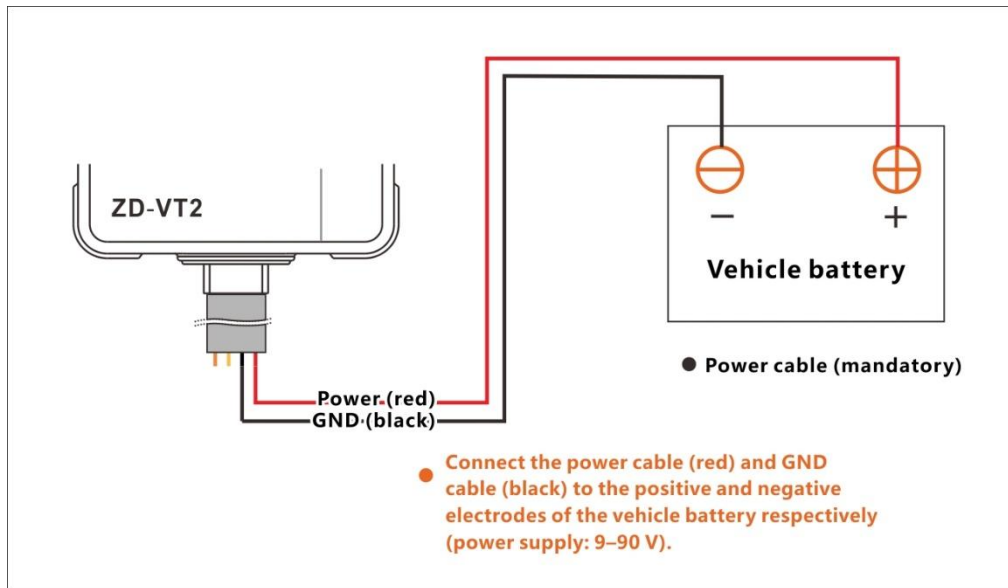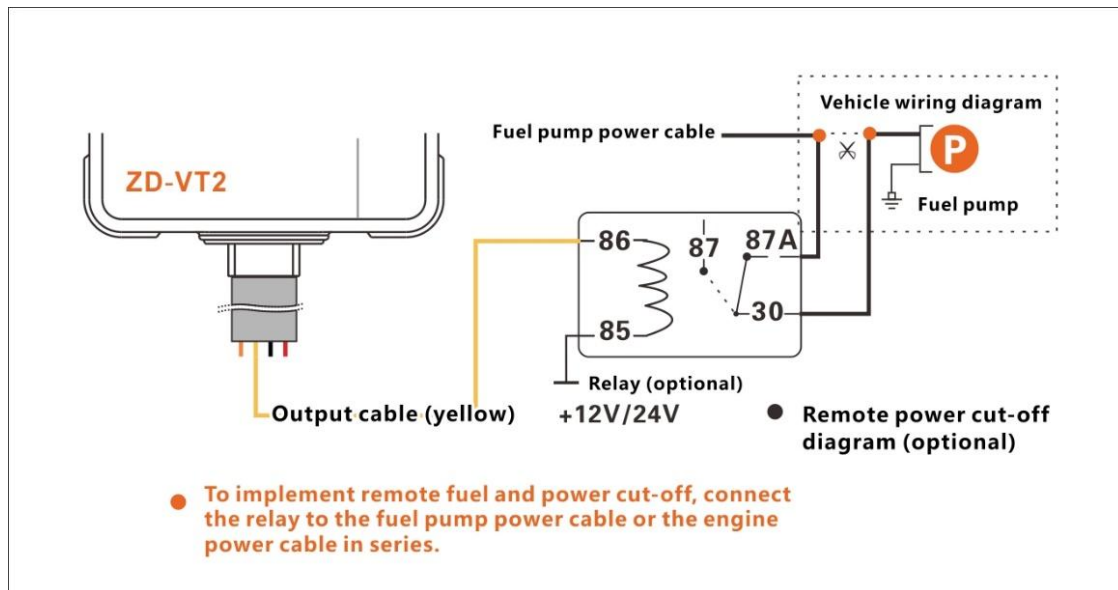
7.2.2 ACC Detection

7.2.3 Remote Fuel/Power Cut-off (Optional)

When the GPS is valid and the driving speed is less than 10 km/h, if a vehicle stealing alarm is generated in arming mode, the vehicle's fuel/power will be cut off.

After the device is disarmed, the vehicle's fuel/power will operate normally.

Note: To implement remote fuel/power cut-off, connect the relay to the fuel pump power cable or the engine power cable in series, and ensure that the ACC detection cable has been connected.

7.3 Caution

1. It is recommended that the device should be concealed and installed by professional personnel.
2. Mount the unit with logo pointed toward the sky or outwards. Ensure that there are no metal obstructions on the other side of the unit.
3. Fasten the unit tightly to prevent it from disconnecting.

If you have any questions, do not hesitate to email us at hello@zendagps.com.