

## **FIFOTRACK 4G MOTORCYCLE/VEHICLE GPS TRACKER**



Model: R18

Version: V1.1

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

## Copyright and Disclaimer

- ⦿ All copyrights belong to Shenzhen fifotrack Solution Co., Ltd. You are not allowed to revise, copy or spread this file in any form without consent of fifotrack.
- ⦿ **fifotrack** is trademark of fifotrack, protected by law.
- ⦿ Please read this user guide carefully before installation to avoid any possible personal injury or property loss.

## Revision History

Version	Author	Revision Date	Details
V1.1	Cici Wu	Aug 13, 2024	Initial revision

## Related Files

Version	File	Remarks
V1.1	<fifotrack R18 Command List>	Command details of GPRS/SMS/COM
V1.1	<fifotrack A01 GPRS Protocol>	GPRS communication protocol between tracker and server
V1.1	<fifotrack Parameter Tool User Guide>	PC software tool for parameters configuration
V1.1	<USB Cable Driver Installation Guide>	How to install USB cable driver
V1.1	<Firmware Upgrade Guide>	How to upgrade firmware
Download link: <a href="http://www.fifotrack.com">www.fifotrack.com</a>		

## Related Software

Version	Software	Remarks
V1.0	< Parameter Tool >	Parameter configuration tool on PC
V1.11.0	< PL2303_Prolific_DriverInstaller >	Driver for USB cable
V1.0	< Firmware Upgrade Suite>	Tool for firmware upgrade
Download link: <a href="http://www.fifotrack.com">www.fifotrack.com</a>		

## Contents

<b>1 Product Overview</b> .....	<b>6</b>
<b>2 Product Functions</b> .....	<b>6</b>
2.1 Tracking Functions .....	6
2.2 Alarms and Functions .....	6
<b>3 Product and Accessories</b> .....	<b>7</b>
3.1 Standard Packing Box.....	7
3.2 Optional Accessories.....	7
<b>4 Product Appearance</b> .....	<b>7</b>
<b>5 PCB Overview</b> .....	<b>8</b>
<b>6 LED Light</b> .....	<b>8</b>
<b>7 Specification</b> .....	<b>9</b>
<b>8 First Use</b> .....	<b>10</b>
8.1 Installing the SIM Card.....	10
8.2 GPS Antenna .....	11
8.3 SMS Reply Content Example .....	12
8.4 Tracking by SMS Command - C01 .....	13
8.5 Configuration on PC.....	13
8.6 Platform Tracking .....	14
<b>9 Device Installation</b> .....	<b>15</b>
9.1 I/O Installation .....	15
9.2 Power/Ground Cable .....	16
9.3 Positive/Negative Digital Input (IN1/IN2) .....	16
9.4 Output control (OUT1).....	17

## 1 Product Overview

R18 is a light model which is suitable for motorcycle, vehicle, boat and asset tracking, etc.

Power input range is 8-90V with industrial design.

The core features of R18 include internal GPS/GSM antennas, 2 digital input, 1 analog input and 1 output. R18 is being offered 2 years warranty to customers.

R18 uses own FIFOTRACK A01 GPRS PROTOCOL which is simple and practical, this enables the customers to integrate protocol into their own platform efficiently.

## 2 Product Functions

### 2.1 Tracking Functions

- GPS+GSM Base Station Dual Tracking
- Real Time Tracking
- Time Interval Tracking
- Distance Tracking
- Direction Change Tracking
- Mobile Phone Tracking

### 2.2 Alarms and Functions

- SOS Alarm
- External Power Cut Alarm
- Engine/Door Status Alarm
- GEO-Fence Alarm
- Speeding Alarm
- Idling Alarm
- Fatigue Driving Alarm
- Harsh Acceleration Alarm
- Harsh Braking Alarm
- Parking Overtime Alarm
- Mileage
- OTA
- Stop Car Remotely (optional, with relay)

### 3 Product and Accessories

#### 3.1 Standard Packing Box



Main Unit with cable

#### 3.2 Optional Accessories

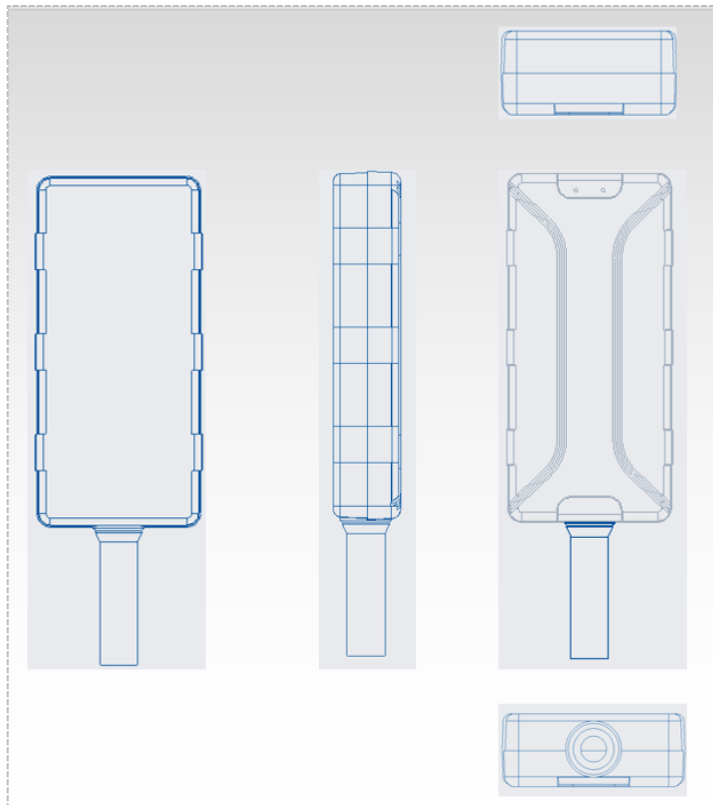


USB Cable

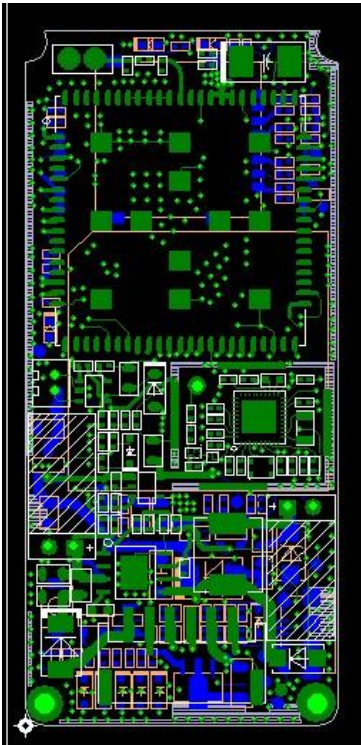


Relay

### 4 Product Appearance



## 5 PCB Overview



## 6 LED Light

GPS Light (Green)	
Off	Power off
Flash 0.1s on and 3S off	GPS valid
Flash 2s on and 2s off	No GPS signal
GSM Light (Orange)	
Off	Power off
Flash 0.1s on and 3s off	GSM valid
Flash 2s on and 2s off	No GSM
<b>Note:</b>	
1. After power on, LED lights wait for 6 seconds before flashing	



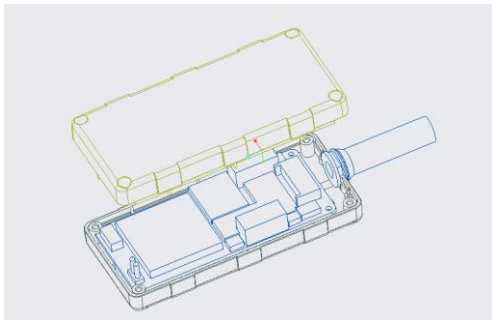
## 7 Specification

Item	Specification	
Dimension	77*36.5*14.5mm	
Weight (main unit)	43g	
GSM Module	SIMCOM A7670 (LTE Cat 1)	
GPS Module	ZKW AT6558R	
Input Voltage	DC 8~90V/1.5A	
Power Consumption	Standby current: 5.3mA Working average current: 40mA	
Internal Battery	120mAh/3.7V	
Internal Battery Working Time	2 hours	
Operating Temperature	-20°C~70°C	
Humidity	5%~95%	
LED Light	2 LED lights indicating GPS/GSM/Power status	
Button/ Switch	1 power switch (inside case, on the PCB)	
Flash Memory	Store GPRS data 400 units, SMS data 0 unit.	
Frequency Band (4G+2G)	<b>E version:</b> for Asia, Europe, Middle East, Africa countries	<b>2G</b> GSM: B3/B8
		<b>4G</b> FDD-LTE: B1/B3/B5/B7/B8/B20
	<b>SA version:</b> for Australia, Latin America countries	<b>2G</b> GSM: B2/B3/B5/B8
		<b>4G</b> FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B28/B66
GPS Sensitivity	-167dBm	
GPS Start Speed	Cold start 30s Hot start 1s	
Position Accuracy	10m	
I/O Port	2 Digital inputs – input1 is negative, Input2 is positive input for ACC. 1 Analog input, voltage range is 0-26V 1 Output 1 USB port (inside case, on the PCB)	

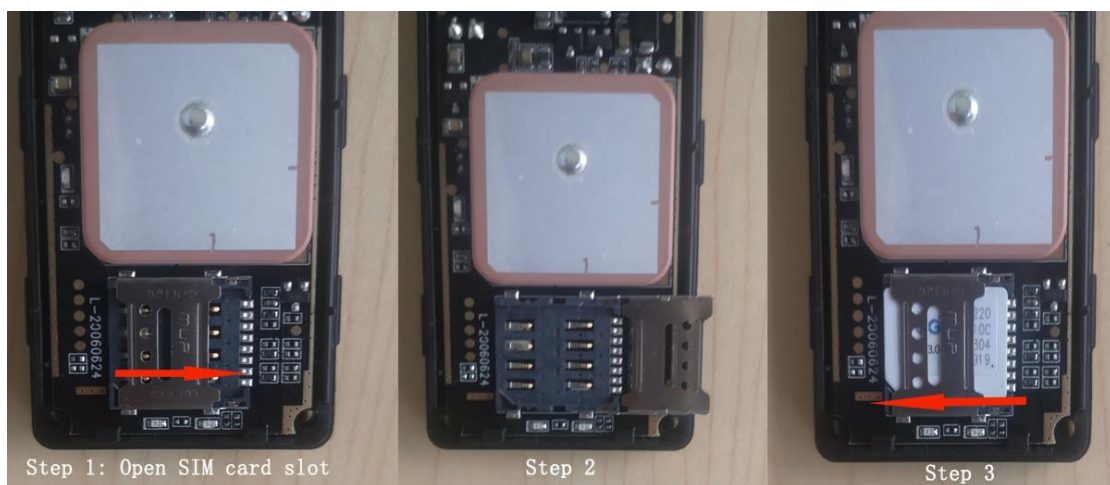
## 8 First Use

### 8.1 Installing the SIM Card

- R18 is 4G+2G tracker. Make sure the SIM card is compatible with 4G/2G.
- SIM card is Micro type, 15\*12mm.
- Ensure the SIM card has enough balance.
- SIM card should have GPRS data plan for platform tracking.
- Ensure PIN code has been closed.
- Authorization SOS numbers can't work well if SIM card doesn't have caller ID service. E.g.: device can't reply SMS to authorization SOS number because SIM card can't identify incoming call.
- Turn off device before SIM card installation.



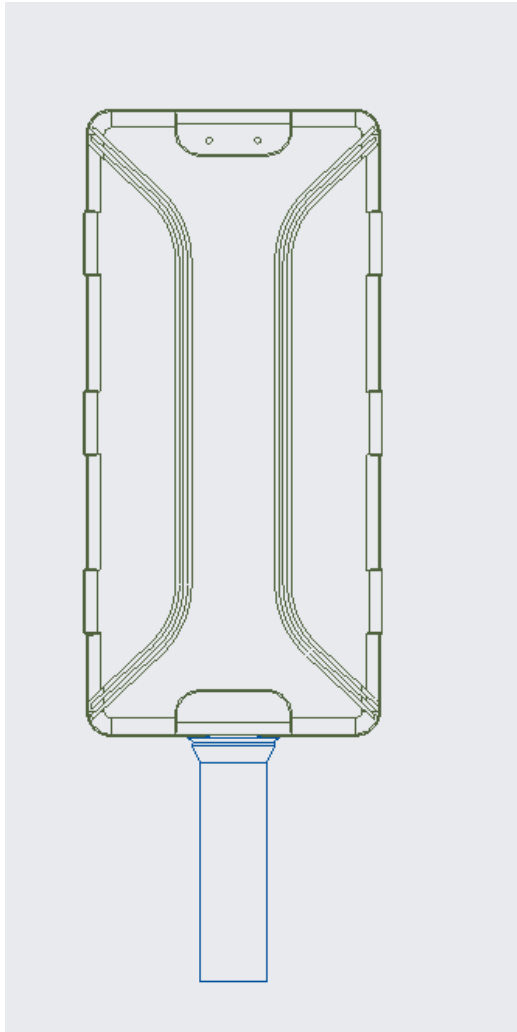
Unscrew and open the back cover case



## 8.2 GPS Antenna

**Top side of R18 should face Sky direction for better GPS signal.**

**⚠** Don't install the device where is shielded by metal. For example, inside a metal container can't receive the GPS signal.



### 8.3 Tracking by SMS Command- C01

SMS Command: 000000,C01

SMS Reply: Current location



Note: Default SMS password is "000000", set new SMS password with B10 command.

Please refer to < fifotrack R18 Command List > for more details.

### 8.4 SMS Reply Content Example

2015-09-04 07:44:28, 0km/h, Disconnect, A, EXPW:ON,http://maps.google.com/maps?f=q&hl=en&q=loc:22.546510,114.079403

SMS Reply Format:

Field	Detail	Remarks
2015-09-04 07:44:28	Date and time, format YYMMDD hh:mm:ss	Date and time
0Km/h	Speed is 0km/h	Speed
Disconnect	GPRS disconnect	GPRS connection status, "disconnect" or "connect".
A	GPS fixed	GPS Status, "A" means GPS valid, "V" means GPS invalid.
EXPW:ON	External power on	External power status. "ON" means external power normal, "OFF" means external power cut.
http://maps.google.com/maps	Google map link, latitude in the front of longitude after "Loc".	Google map link with latitude and longitude, which can be opened directly

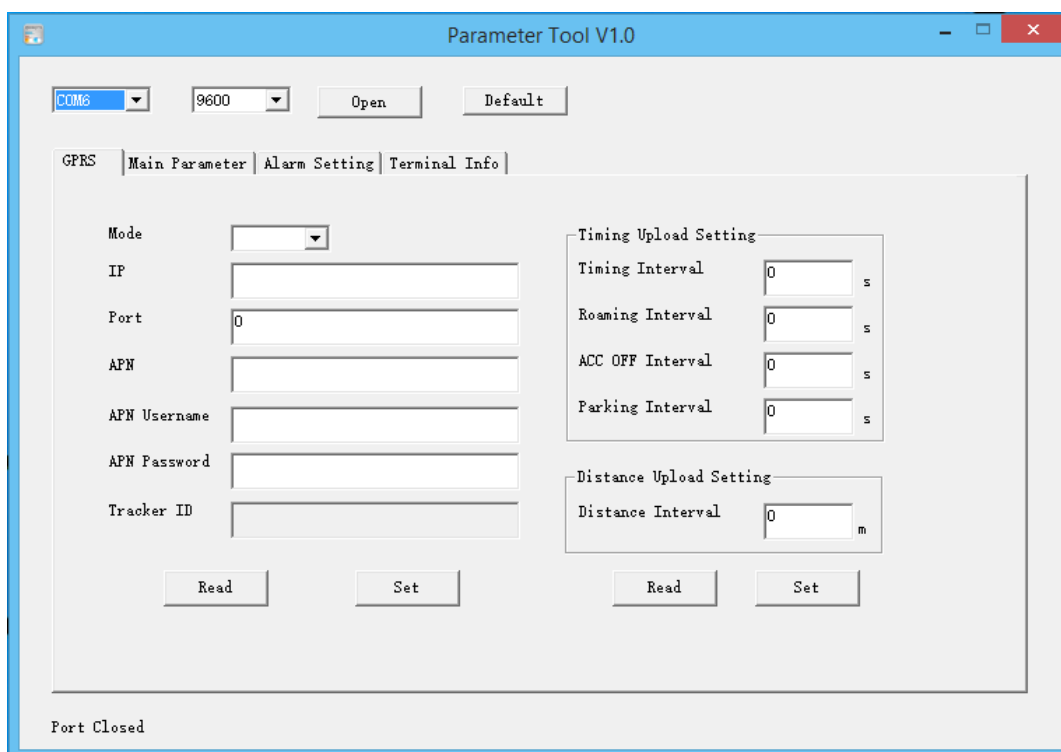
?f=q&hl=en&q=loc: 22.546510,114.079 403	Unit degree Latitude=22.546510° Longitude=114.079403°	on smart phone.
---	---	-----------------

## 8.5 Configuration on PC

fifotrack company provide <FIFOTRACK PARAMETER TOOL> for configuration. Please download USB cable driver and install it before using parameter tool. Refer to <USB CABLE DRIVER INSTALLATION GUIDE> if need.



Connect R18 to PC with USB cable. Run “fifotrack Parameter Tool” software and choose correct port to read or set up parameters.



Please read <FIFOTRACK PARAMETER TOOL USER GUIDE> for more details.

## 8.6 Platform Tracking

You can use SMS commands B00, B01, B02, B03 to set server IP, port, APN and GPRS uploading interval. You can also configure those parameters via parameter tool software on PC.

Below are the SMS command examples:

### 1) SMS Command to set server type, IP and port

**000000,B00,<Type>,<net\_addr>,<net\_port>**

Example: **000000,B00,1,47.88.35.165,10502**

**000000** is device SMS command password, default 000000

**B00** is command

**1** is enable GPRS

**47.88.35.165** is server IP

**10502** is port

Between fields is comma without any space.

### 2) SMS command to set APN

**000000,B01,<apn\_name>,<apn\_usr>,<apn\_pwd>**

Example: **000000,B01,cmnet**

Set APN name as cmnet, no APN user and APN password

**Note:** APN name "cmnet" is for China mobile, don't copy, just as example.

Please contact your Sim card operator or Google to get APN information. Some of the APN only has APN name, just leave the APN user and APN password blank.

### 3) SMS command to set tracking time interval

**000000,B03,<basic\_tmr>,<accoff\_tmr>**

Example: **000000,B03,30,300**

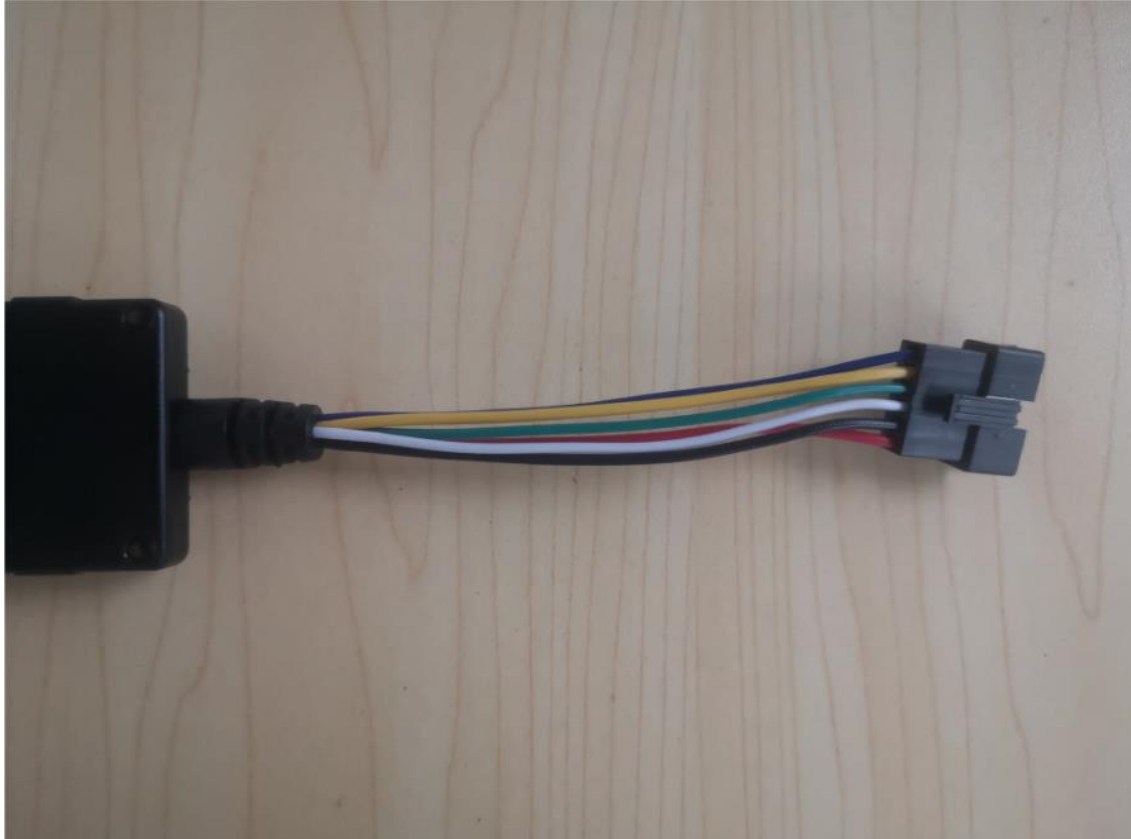
Set tracking time interval 30 seconds under ACC ON, 300 seconds interval under ACC OFF status.

Note: if the <accoff\_tmr> is 0, the device will use the <basic\_tmr> time interval always.

## 9 Device Installation

### 9.1 I/O Installation

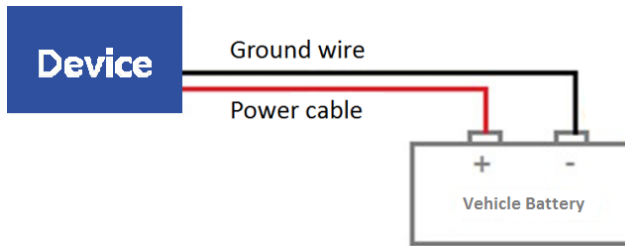
I/O wire has 6 pins, including power/ground, digital positive and negative inputs, analog and output.



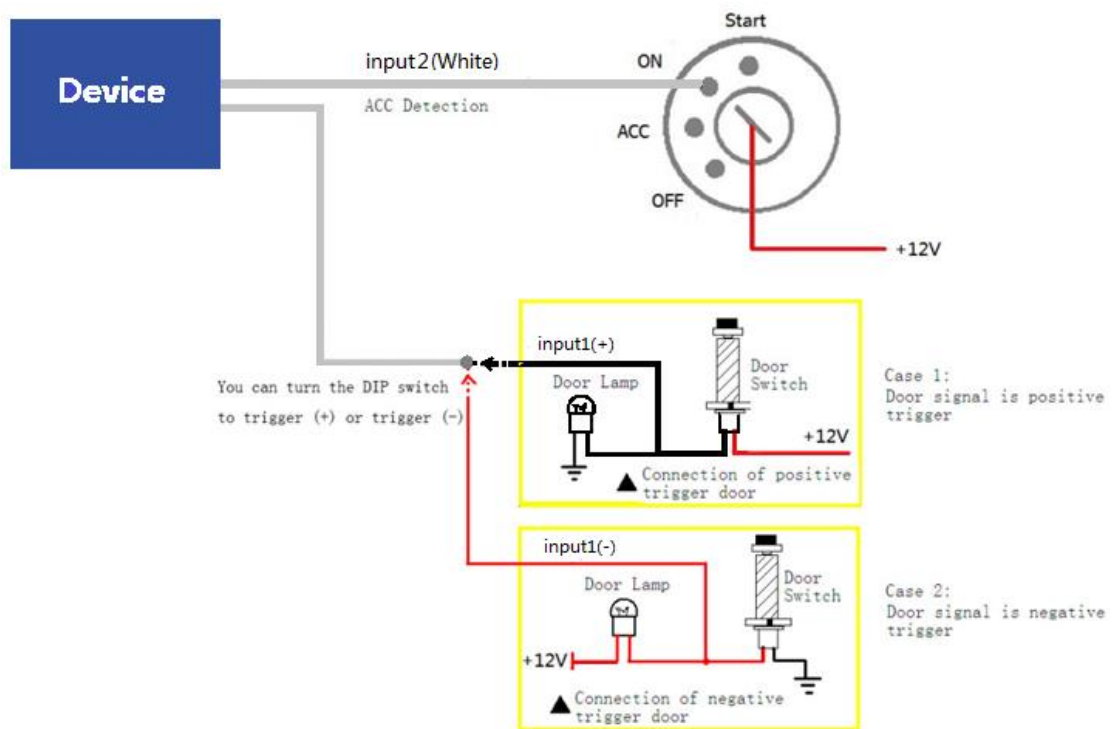
I/O	Color	Function
VCC	Red	Positive power, connect to positive of vehicle battery, input voltage range 8-90V
GND	Black	Ground, connect to negative of vehicle battery or the vehicle's iron part.
IN1	Green	Digital input1, negative input.
IN2	White	Digital input2, positive input, default connect to ACC for status detection.
AD1	Blue	12 bits analog input, voltage range 0-26V. Connect to external sensor.
OUT1	Yellow	Output1 Output active: low level (0V)

	<p>Output inactive: open drain (OD)</p> <p>Max open-drain (inactive) voltage: 45V</p> <p>Max current for output low voltage (valid): 500mA</p>
--	--

### 9.2 Power/Ground Cable

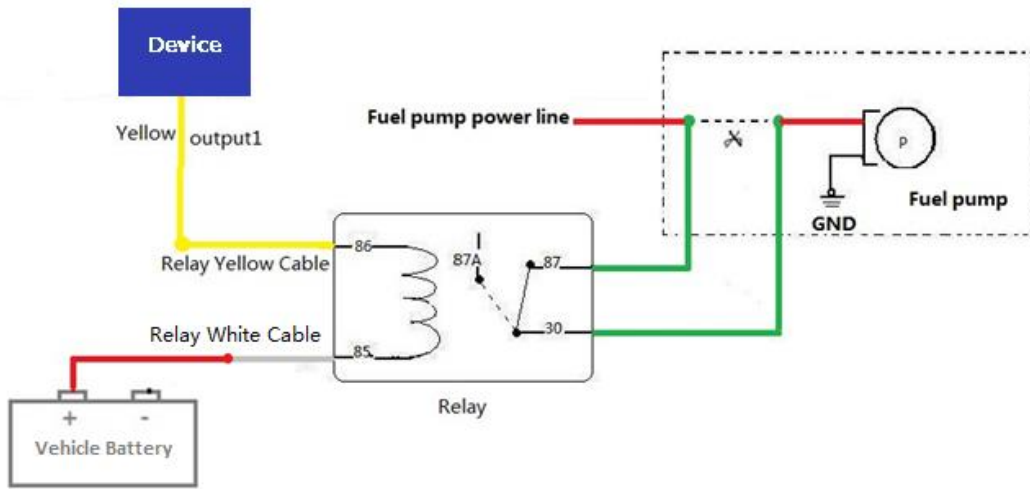


### 9.3 Positive/Negative Digital Input (IN1/IN2)





### 9.4 Output control (OUT1)



Please e-mail us at [info@fifotrack.com](mailto:info@fifotrack.com) if any question or feedback.