

FIFOTRACK MOTORCYCLE/VEHICLE GPS TRACKER



Model: S20

Version: V1.2

www.fifotrack.com

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Revision History

Version	Author	Revision Date	Details
V1.1	Cici Wu	Sep 25, 2017	Initial revision
V1.2	Cici Wu	Dec 9, 2019	<ol style="list-style-type: none">1. Quectel L70-R GPS module replacing U-blox 7q.2. Input 1 wire color changed to green color.3. Cable sticker removed4. Internal battery life longer.

Related Files

Version	File	Remarks
V1.1	<fifotrack S20 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: http://www.fifotrack.com/Support/Userguide/		

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
V1.0	< GPRS Command Generator>	Generating GPRS commands for FIMS tracking software
Download link: http://www.fifotrack.com/Support/Userguide/		

Video Guide Link

<http://www.fifotrack.com/Support/video.html>

Marketing Materials Download Link

<http://www.fifotrack.com/Support/marketing.html>

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1 Product Overview

S20 is a light model which is suitable for motorcycle, vehicle, boat, asset tracking, etc.

Power input range is 8-92V with industrial design.

The Core features of S20 include internal GPS/GSM antennas, IP66 waterproof, 2 digital input, 1 analog input and 1 output. S20 is being offered 2 years warranty to customers.

S20 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

- SOS Alarm
- External Power Cut Alarm
- Engine/Door Status Alarm
- Maintenance remind
- GEO-Fence Alarm
- Speeding Alarm
- Vibration Alarm
- Idling Alarm
- Fatigue Driving Alarm
- Harsh Acceleration Alarm
- Harsh Braking Alarm
- Parking Overtime Alarm
- Internal Battery Low Alarm

- External Battery Low Alarm
- Fuel Theft Alarm
- Fuel Filling Alarm
- Low Fuel Level Alarm
- High Fuel Level Alarm

2.3 Other Functions

- Waterproof IP66
- 8 MB Flash Memory
- Custom Digital Input (input1)
- Time interval modes under ACC ON/ACC OFF/Roaming
- Mileage
- Vehicle Battery Protection
- OTA
- Remind driver over speeding by warning sound (optional, with buzzer)
- Stop Car Remotely (optional, with relay)
- Fuel monitoring and Fuel Consumption Statistics (optional, with AS10 fuel sensor)

3 Product and Accessories

3.1 Standard Packing Box



Main Unit

3.2 Optional Accessories



USB Cable



Relay



Buzzer



AS10 Fuel sensor

4 Product Appearance



Front View



Overview

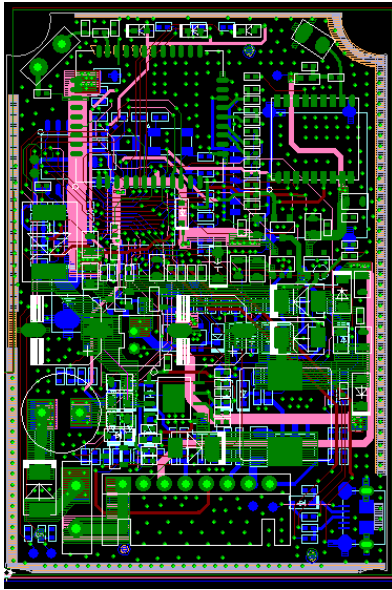


Rear View



Side View

5 PCB Overview



6 LED Light

GPS Light (Green)	
Off	Power off or sleep
Flash 0.1s on and 3S off	GPS valid
Flash every 0.1s	GPS antenna cut
Flash 2s on and 2s off	No GPS signal
Solid On	GPS module power problem
GSM Light (Orange)	
Off	Power off or sleep
Flash 0.1s on and 3s off	GSM available
Flash every 0.1s	Device is initialing
Flash 2s on and 2s off	No GSM
External Power Light (Red)	
Off	External power cut
Flash every 0.1s	External power low
Solid On	External power normal

7 Specification

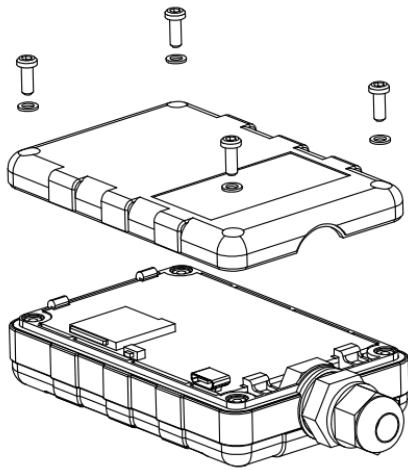
Item	Specification
Dimension	80*53*21mm
Weight	157g
GSM Module	SIMCOM800C
GPS Module	Quectel L70-R
Input Voltage	DC 8~92V/1.5A
Internal Battery	300mAh/3.7V
Power Consumption	30-35mA standby current
Internal Battery Life	2.4 hours at 30 seconds time interval 3.6 hours at 600 seconds time interval
Operating Temperature	-20°C~70°C
Humidity	5%~95%
LED Light	3 LED lights indicating GPS/GSM/External power status
Button/ Switch	1 power switch (inside case)
Flash Memory	8MB (GPRS data 20400 units, SMS data 320 units)
Sensor	3D Acceleration Sensor
GSM Frequency Band	GSM 850/900/1800/1900MHz
GPS Sensitivity	-161dBm
GPS Start Speed	Cold start 35s Hot start 1s
Position Accuracy	10m
I/O Port	2 Digital inputs – input1 is smart input, can be configured to negative or positive input, default is negative. Input2 is positive input for ACC. 1 Analog input, voltage range is 0-12V 1 Output 1 USB port (inside case)

8 First Use

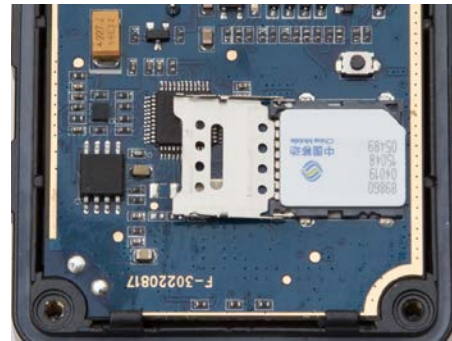
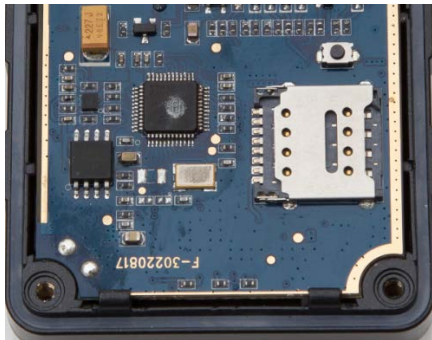
8.1 Installing the SIM Card

- S20 is 2G tracker. Make sure the SIM card is compatible with 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.



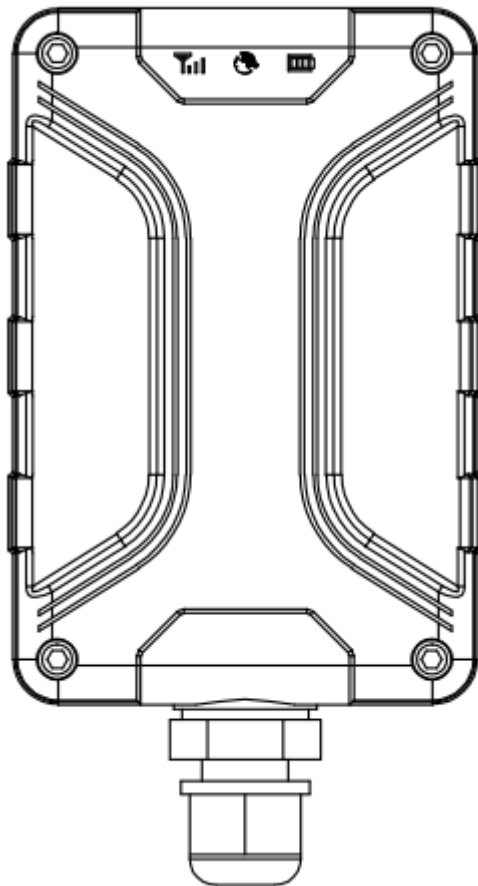
Unscrew and open the rear cover case



8.2 GPS Antenna

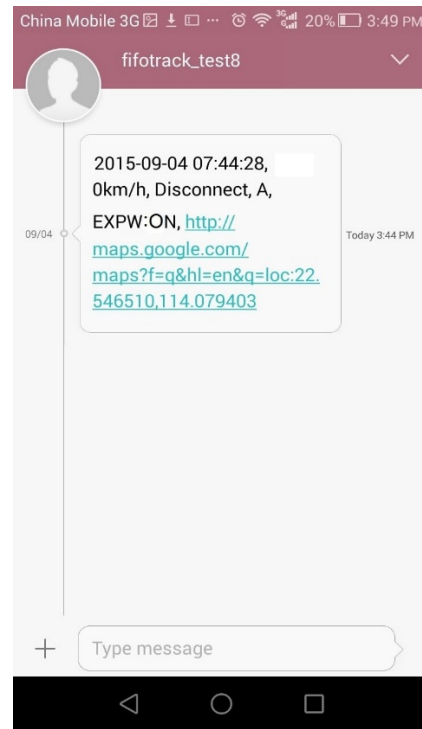
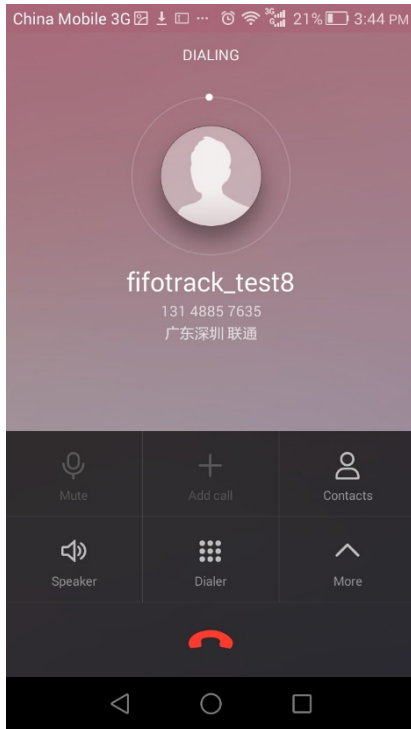
Top side of S20 should face Sky for better GPS signal.

⚠ Don't install the Device where shielded by metal. For example, inside a metal can.



8.3 Tracking by Calling

Call the SIM card number inside S20, you will get a SMS reply with Google map link. Click it for specific map location.



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

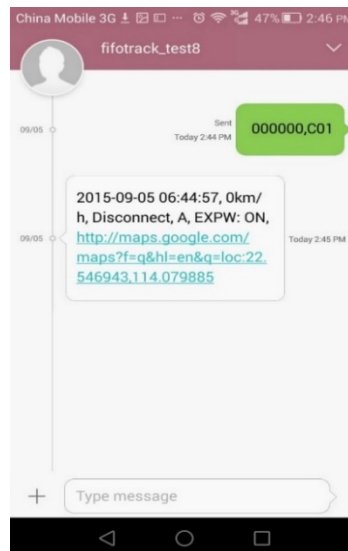
SMS Reply Format:

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 ?f=q&hl=en&q=loc: 22.546510,114.079 403	Google map link, latitude in the front of longitude after "Loc". Unit degree Latitude=22.546510° Longitude=114.079403°	Google map link with latitude and longitude, which can be opened directly on smart phone.

8.5 Tracking by SMS Command - C01

SMS Command: 000000,C01

SMS Reply: Current location

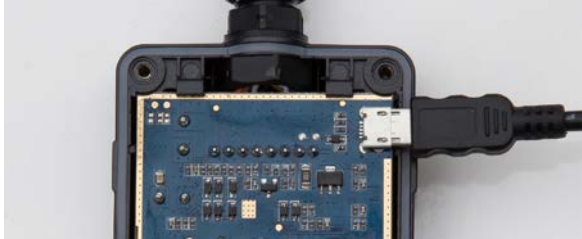


Note: Default SMS password is "000000", set new SMS password with B10 command.

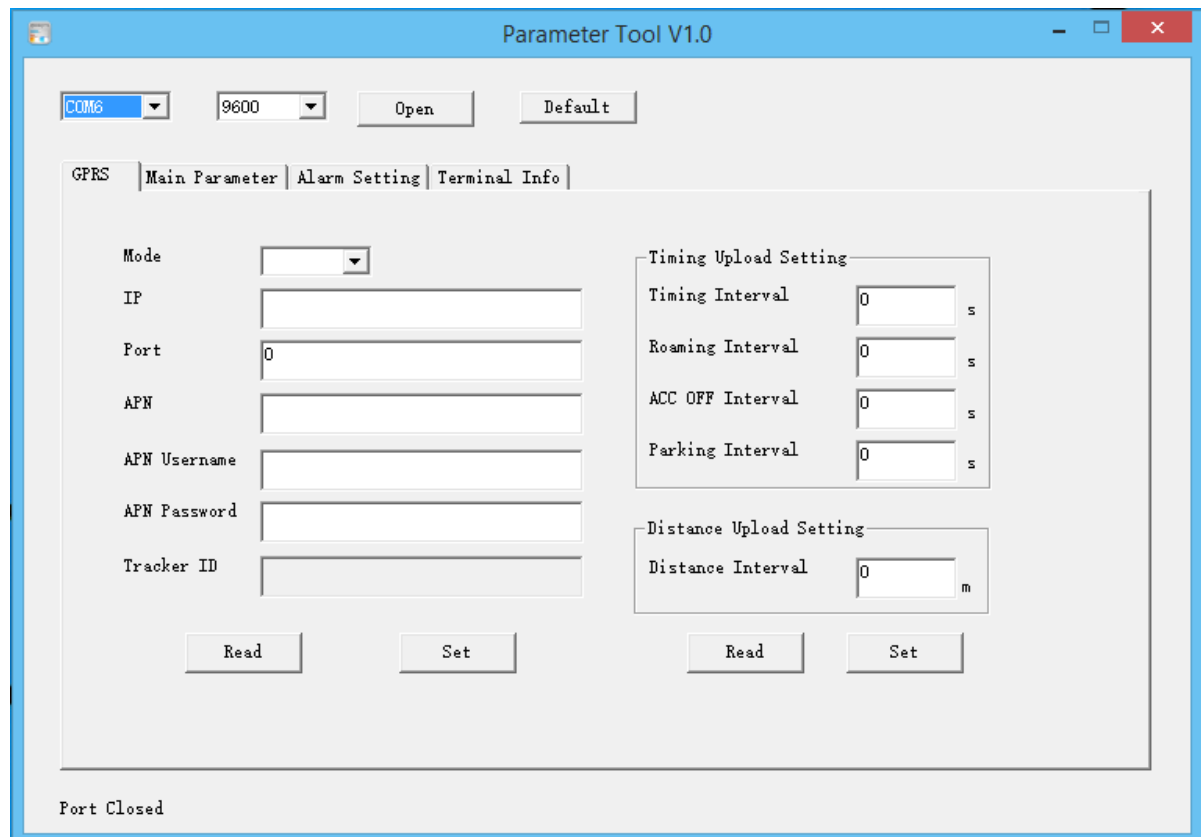
Please refer to < fifotrack S20 Command List > for more details.

8.6 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 S20 to PC with USB cable. Run “fifotrack Parameter Tool” software which will identify port automatically and read all of the current parameters.



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

8.7 Platform Tracking

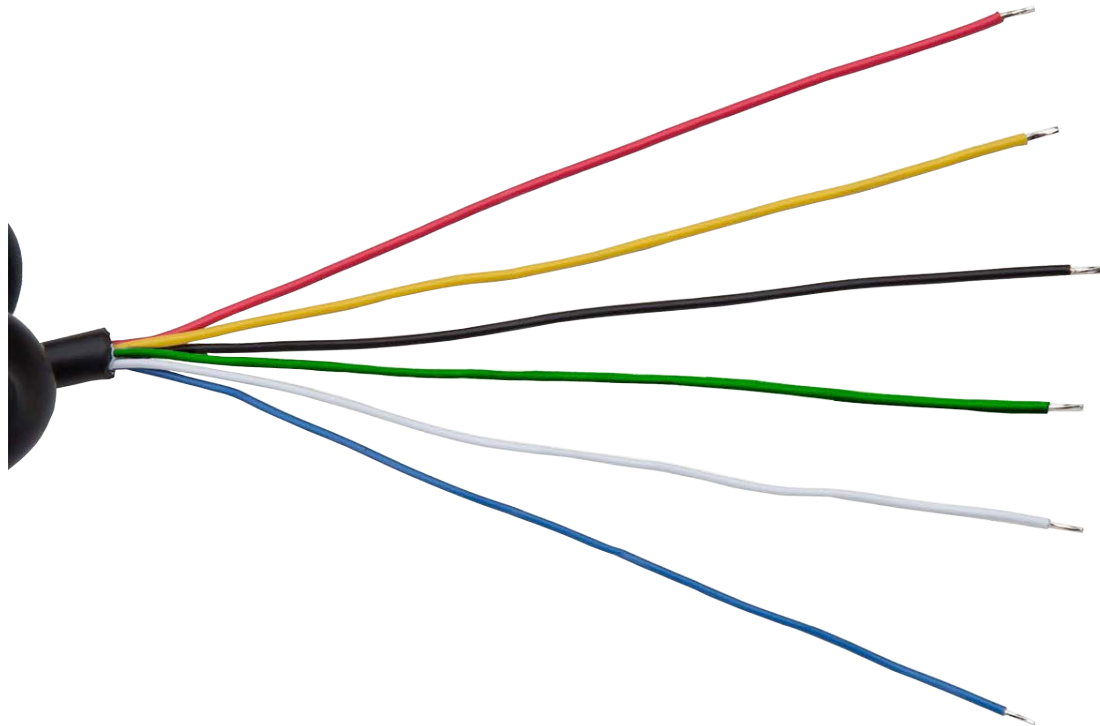
You can use SMS commands B00, B01, B02, B03 to set server IP, port, APN and GPRS uploading interval. Sales will send specific guide file to you for sample trial.

You can also configure those parameters via parameter tool software on PC.

9 Device Installation

9.1 I/O Installation

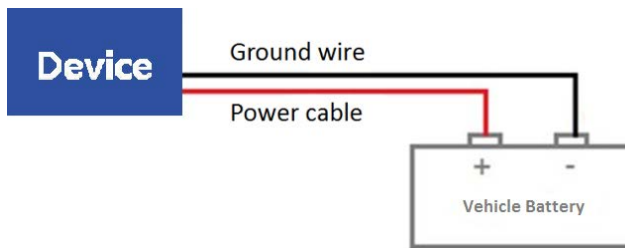
I/O wire has 6 pins, including power, digital positive and negative inputs, output and analog input.



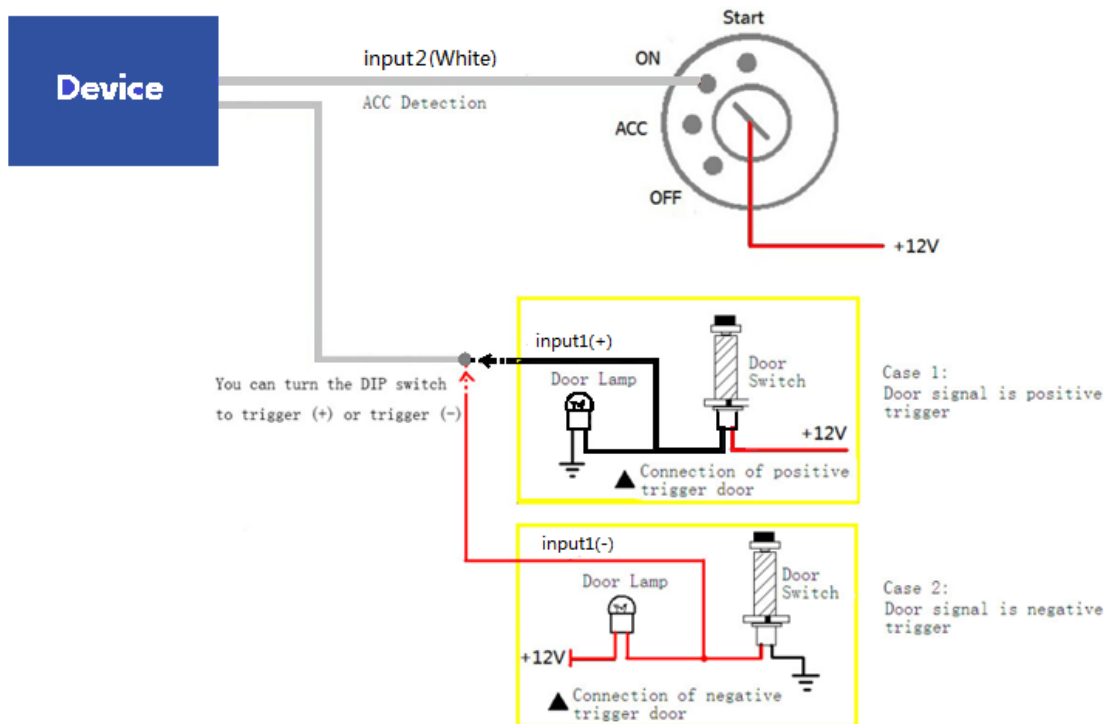
I/O	Color	Function
VCC	Red	Positive power, connect to positive of vehicle battery, input voltage range 8-92V
GND	Black	Ground, connect to negative of vehicle battery or the vehicle's iron part.
IN1	Green	Digital input1, custom input, can be configured to negative or positive. Default is negative input.
IN2	White	Digital input2, positive input, default connect to ACC for status

		detection.
AD1	Blue	12 bits analog input, voltage range 0-12V. Connect to external sensor. For example, fuel sensor.
OUT1	Yellow	Output1 Output active: low level (0V) Output inactive: open drain (OD) Max open-drain (inactive) voltage: 45V Max current for output low voltage (valid): 500mA

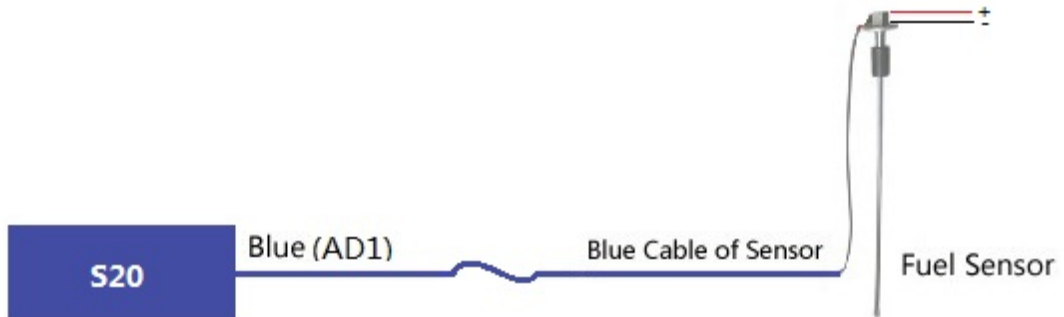
9.2 Power/Ground Cable



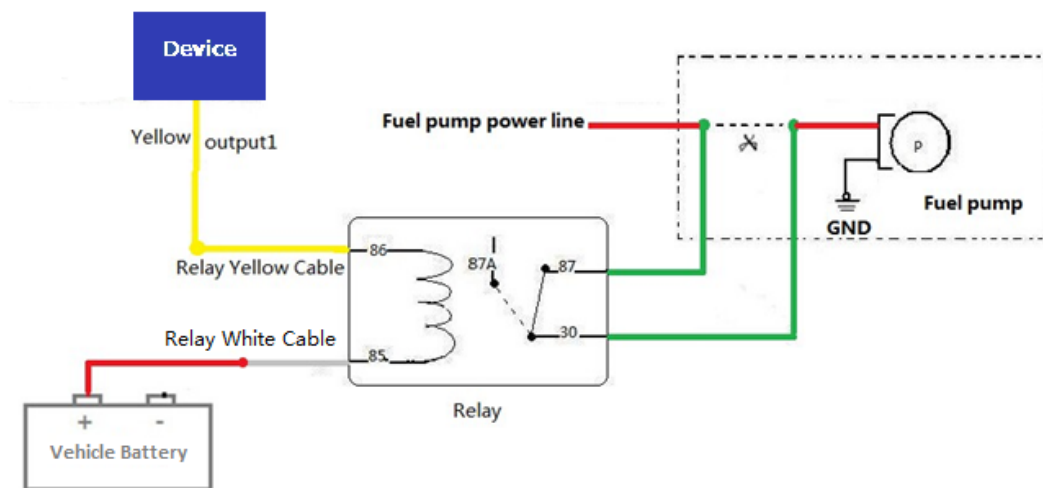
9.3 Positive/Negative Digital Input (IN1/IN2)



9.4 Analog Input(AD1)



9.5 Output control (OUT1)



Please e-mail us at info@fifotrack.com if any question or feedback.