OBD Smart PC Tool User Manual

V1.1

2024-03-20

Catalogue

I 、Installation

Copy” USB Driver “and “OBD Smart PCTool” to your PC

“OBD Smart PCTool is free installation, double Click on “ OBD Smart PCTools ”

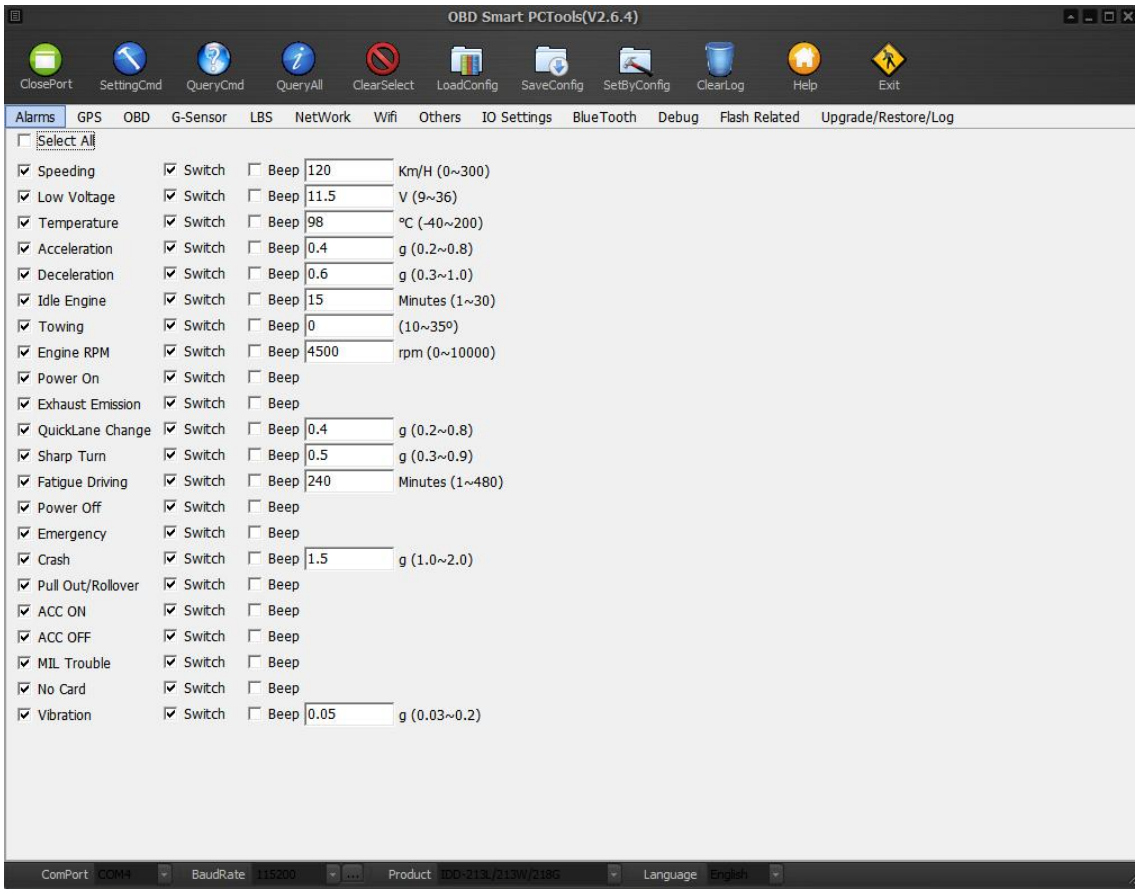
to run directly after the file is decompressed

Note: USB driver should be installed before installing “OBD Smart PCTool”

II 、Configuration

Connect the device to PC through USB configuration cable

Double click on “ OBDSmart_PCTools ”, it will show below main interface

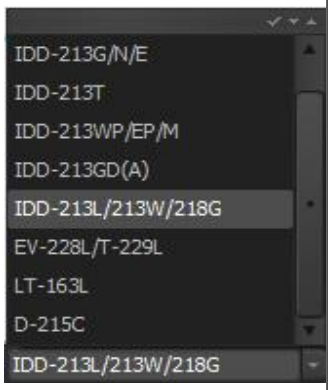


Note: The software can be run under Windows XP, Windows 7, Windows 8 ,Windows 10 operation systems. The COM port depends on your PC (check which COM port from the route: “My computer-Manage-Device manage-Port-Prolific USB- to-Serial Comm. port”) the baud rate is fixed as 115200.

2.1 Main interface

Select the correct serial port and baud rate (default is 115200), and then click on “open” button in the Tool bar to open the selected serial port.

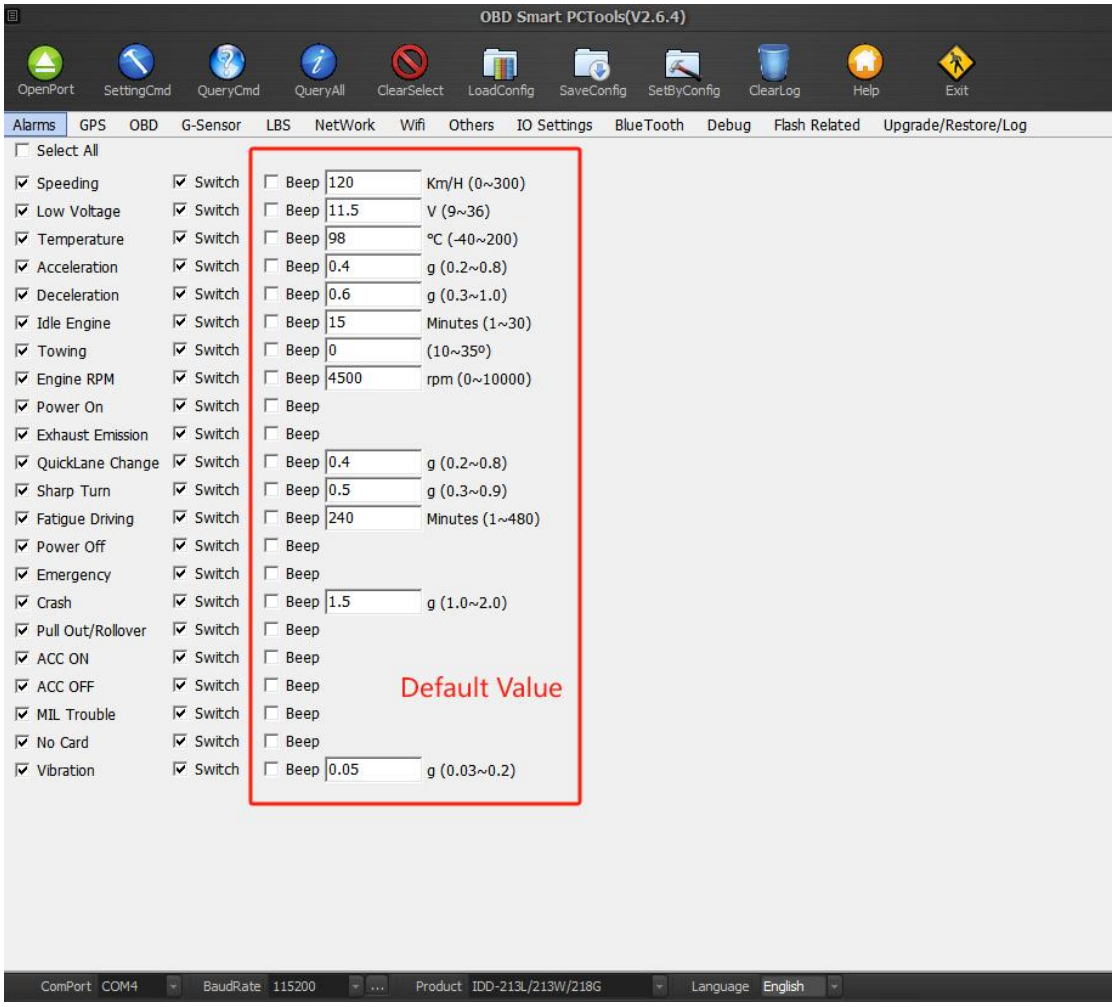
Item	Parameter(e.g.)	Explain	Note
OpenPort		To open or close the COM port	The port should be close before setting or querying
SettingCmd		Set the parameters	Click on “SettingCmd” after modify the parameters
QueryCmd		Query the parameters which have been set in the current page	Need to select the parameters items before clicking on “QueryCmd” to read current parameters
QueryAll		Query all the parameters which have been set in all pages	No need to select the parameters items before clicking on “QueryCmd” to read all the current parameters
ClearSelect		Clear selected parameters	
LoadConfig		Load current configuration parameters	Device ID and vehicle plate can’t be loaded
SaveConfig		Save loaded configuration parameters	Device ID and vehicle plate can’t be saved
SetByConfig		Set the parameters according to the imported parameter files.	Device ID and vehicle plate can’t be imported
ClearLog		Clear sending or received data via serial port	
Help		Click on “help” to get the user manual	Including English and Chinese
Exit		Exit New OBD Smart PCTool	

Item	Parameter(e.g.)	Explain	Note
ComPort	COM4	Get the COM port number after plugging the configuration cable	Which Com port is used can be checked under-“My computer”-“Manage”-“Device manage”-“Port”-“Prolific USB to-Serial Comm. port”
BaudRate	115200	Baud rate is 115200	Baud rate is fixed
Product		Including IDD-213G/N/W IDD-213T IDD-213WP/EP/M IDD-213GD(A) IDD-213l/213W/218G EV-228L/T-229L LT-163L	Products mode should be selected before configuration
Language		PC Tool language	Support English、Chinese、German currently

Note: Below function modules is taken an example of IDD-213L

2.2 Alarms

Click on “Alarms” to select required items and click on “QueryCmd” to get parameters values
first. For example: sound indication, enable/disable and threshold. Modify those values and click on “SettingCmd” to save new parameters into the device.



Item	Parameter(e.g.)	Explain	Note
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying
All Alarms Enable	Enable/Disable	Enable/Disable	Alarm will be valid if it's set as enable
All Beep Enable	Enable/Disable	Enable/Disable	Device will send out beep when there is alarm if it's set as enable
Alarm Enable	Enable/Disable	Enable/Disable	Alarm will be valid if it's set as enable
Beep Enable	Enable/Disable	Enable/Disable	Device will send out beep when there is

			alarm if it's set as enable
Speeding	120	Speeding alarm will be sent when the speed up to 120Km/H	Range: [0,300KM/H], default is 120KM/H
Low voltage	10.5	Low voltage alarm will be sent when the voltage drop to 10.5V	Range:[9,36V], default is 10.5V, unit is 0.1V
Temperature	98℃	Temperature alarm will be sent when the temperature up to 98℃	Range:[-40-200℃], default is 98℃
Acceleration	0.4g	Acceleration alarm will be sent when accelerated speed up to 0.4g	Range:[0.2,0.8g], default is 0.4g, unit is 0.1g
Deceleration	0.6g	Deceleration alarm will be sent when accelerated speed up to 0.6g	Range:[0.3,1g], default is 0.6g, unit is 0.1g
Idle Engine	Enable	Towing alarm will be sent when the vehicle is towed	Default is enable
Engine RPM	4500	RPM alarm will be sent when the RPM up to 4500rpm	Range:[0,10000rpm], default is 4500rpm
Power On	Enable	Power-on alarm will be sent when it's power on	Default is enable
Exhaust Emission	Enable	Exhaust Emission alarm will be sent when engine emesis	Default is enable
QuickLane Change	0.4g	Quick Lane Change alarm will be sent when accelerated speed up to 0.4g	Range:[0.2,0.8g], default is 0.4g, unit is 0.1g, supported by HT-196 connected
Sharp Turn	0.5	Sharp Turn alarm will be sent when accelerated speed up to 0.5g	Range: [0.3,0.9g], default is 0.5g, unit is 0.1g , supported by HT-196 connected
Fatigue Driving	240	Fatigue Driving alarm will be sent when	Range:[1,480min], default is

		drive last for 240min Range:[1,480min],	240min
Power Off	Enable	Power-off alarm will be sent when it's power-off	Default is enable
Emergency	Enable		
Crash	1.5	Crash alarm will be sent when accelerated speed up to 1.5g	Range:[1.0,2.0g], default is 1.5g, unit is 0.1g, supported by HT-196 connected
Pull Out/Rollover			Default is enable
ACC ON	Enable		Default is enable
ACC OFF	Enable		Default is enable
MIL Trouble	Enable		Default is enable
No Card	Enable		Default is enable
Vibration	0.05		Range:[0.03,2.0g], default is 0.05g, unit is 0.01g,

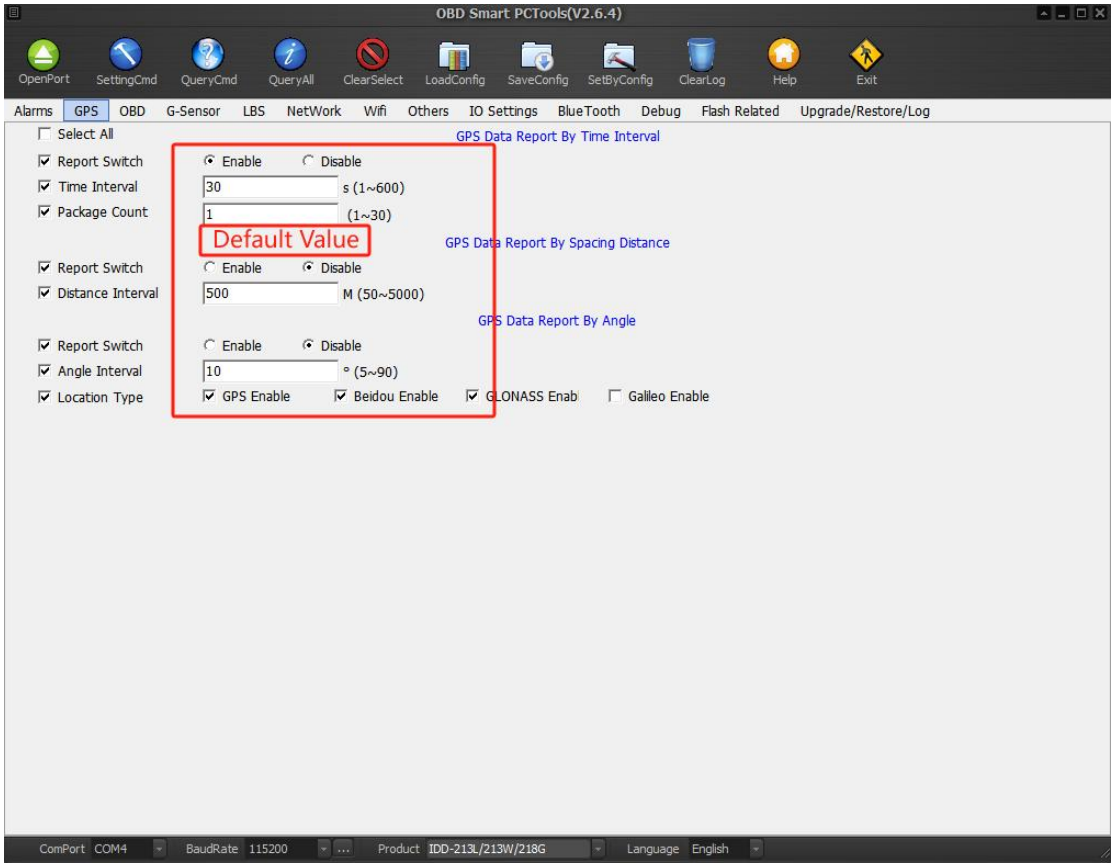
2.2.1 Alarm trigger conditions

1. Speeding: When there is OBD speed, use OBD speed to judge, and when there is no OBD speed, use GPS speed to judge.
2. Low voltage: According to the voltage value detected by the equipment, there will be an error, about 0.1-0.3V.
3. Water temperature: According to PID data, it is actually a coolant temperature alarm.
4.Rapid acceleration, rapid deceleration: according to the built-in acceleration sensor detected by the size and direction of the acceleration.
5. Stop the engine (idle) : the latest firmware is based on the speed PID and speed PID comprehensive judgment, not meet at the same time, do not judge.
6. Towing: When the device is in sleep mode and the Angle change detected by the built-in acceleration sensor is greater than 30°, it will trigger.
7. Speed: Determine according to the speed PID.
8. Power on: A report is generated when a new device is installed.
9. Excessive exhaust gas: Judging according to PID data.
10. Rapid lane change: according to the acceleration detected by the built-in acceleration sensor and the Angle change in a short time.
11. Sharp turn: according to the size and Angle of acceleration detected by the built-in acceleration sensor.
12. Fatigue driving: The vehicle ignition time exceeds the set threshold will be triggered, until the vehicle is turned off (equipment sleep) 15 minutes later, the alarm is canceled.

13. Power failure: The device will report from installation to non-installation (only devices with built-in battery support, except T229L devices, built-in battery is only used to report power failure alarm).
14. Emergency: SOS, an external SOS button is required.
15.OBD wire cutting/rollover: Only 163L support.
16. Ignition: OBD equipment (213 series, 168W, 229L) there are two ways, one is that when the voltage is greater than the starting threshold, the device is judged as ignition; Second, when the voltage is insufficient, the continuous vibration is more than 30 seconds, and the equipment is judged as ignition,
163L: Can only be judged by the state detected by the ACC line.
17. Flameout: When the voltage is lower than the starting threshold or the vibration is not sustained, the equipment judges flameout, and the 163L equipment is still judged according to the ACC line status.
18.MIL: Based on the OBD data, the ECU sends an MIL fault flag.
19. No credit card swiped: Function of 229L device.
20. Vibration: When the device is asleep, the detected vibration exceeds the threshold, the device will wake up and upload the alarm.

2.3 GPS Report

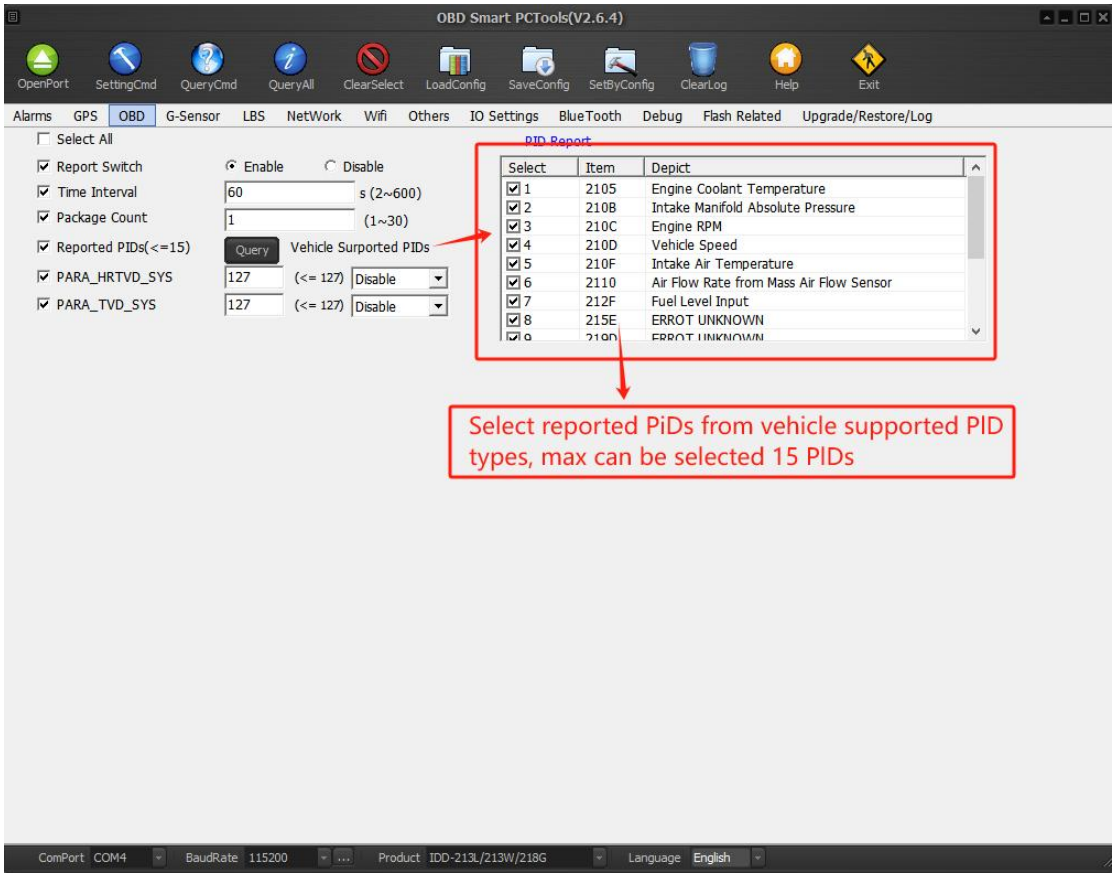
Click on “GPS Report” to select required items and click on “QueryCmd” to get parameters values first. Modify those values and click on “SettingCmd” to save new parameters into the Device.



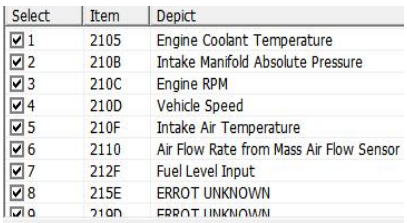
Item	Parameter(e.g.)	Explain	Note
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying
Report Switch	Enable/Disable	Enable or Disable this function	GPS data will upload if the switch is enable
Time Interval	30	GPS data is sampled per 30S	Range:[1,600], default is 30S, unit is second
Package Count	1	It will sample one package of GPS data	Range:[1,30], default is 1, unit is package
Report Switch	Enable/Disable	Enable or Disable this function	GPS data will upload if the switch is enable
Distance Interval	500	GPS data is sampled per 500M	Range:[50,5000], default is 500, unit is M
Report Switch	Enable/Disable	Enable or Disable this function	GPS data will upload if the switch is enable
Angle Interval	10	GPS data is sampled per 10°	Range:[5,90], default is 500, unit is °
Location Model	GPS Enable Beidou Enable GLONASS Enable	Select to enable this function	

2.4 OBD Report

Click on “OBD Report” to select required items and click on “QueryCmd” to get parameters values first. Modify those values and click on “SettingCmd” to save new parameters into the device.

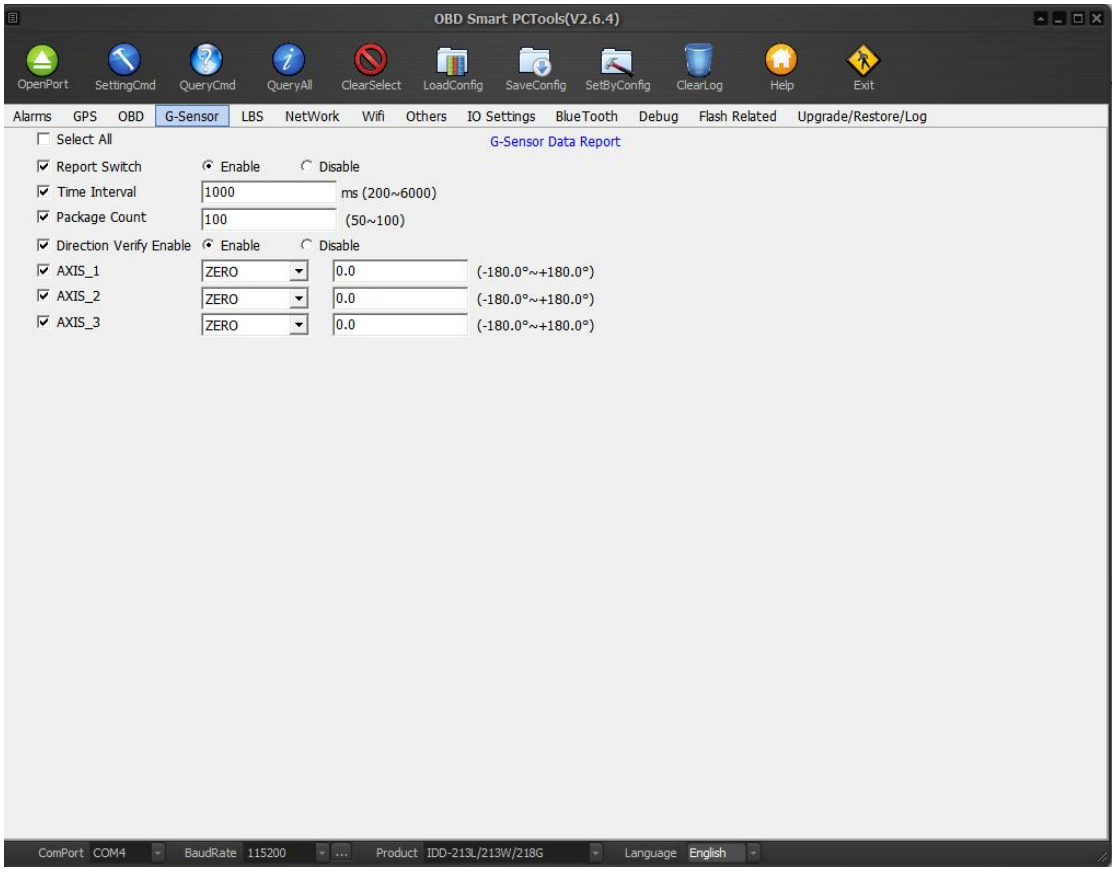


Item	Parameter(e.g.)	Explain	Note
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying
Report Switch	Enable/Disable	OBD data will upload if the switch is enable	Default is enable
Time Interval	120	OBD data is sampled per 120 seconds	Range:[2,600], default is 120S, unit is second
Package Count	1	It will sample one package of OBD data	Range:[1,30], default is 1, unit is package
Reported PIDs	Max can be set as 15 PIDs	Reported PID types selected from the vehicle supported PID types	Range:[1,15]

Vehicle Support PIDs	Query		Supported PIDs depends on the vehicle type, Generally speaking, more expensive car support more PID types
PARA_HRTVD_SYS	127		
PARA_TVD_SYS	127		

2.5 G-Sensor Report

Click on “G-Sensor Report” to select required items and click on “QueryCmd” to get parameters values first. Modify those values and click on “SettingCmd” to save new parameters into the device.

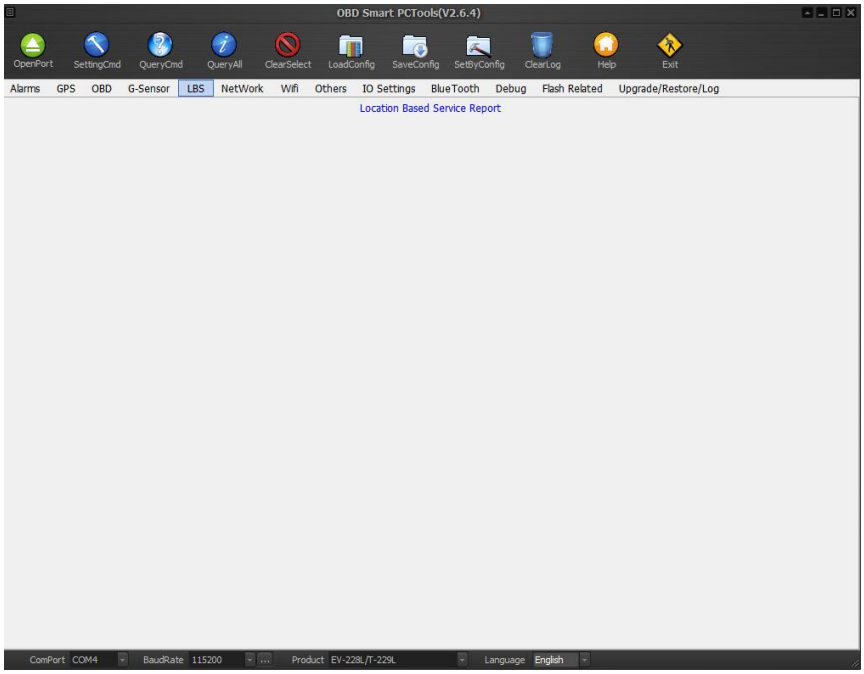


Item	Parameter(e.g.)	Explain	Note
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying

Report Switch	Enable/Disable	G-Sensor data will upload if the switch is enable	Default is Disable
Time Interval	1000	GPS data is sampled per 1000ms	Range:[2,600], default is 120S, unit is second
Package Count	100	It will sample 100 packages of G-Sensor data	Range:[50,100], default is 100, unit is package
Direction Verify Enable	Enable/Disable		
AXIS_1	0		Range:[-180° ,+180°], default is 0, unit is °
AXIS_2	0		Range:[-180° ,+180°], default is 0, unit is °
AXIS_3	0		Range:[-180° ,+180°], default is 0, unit is °

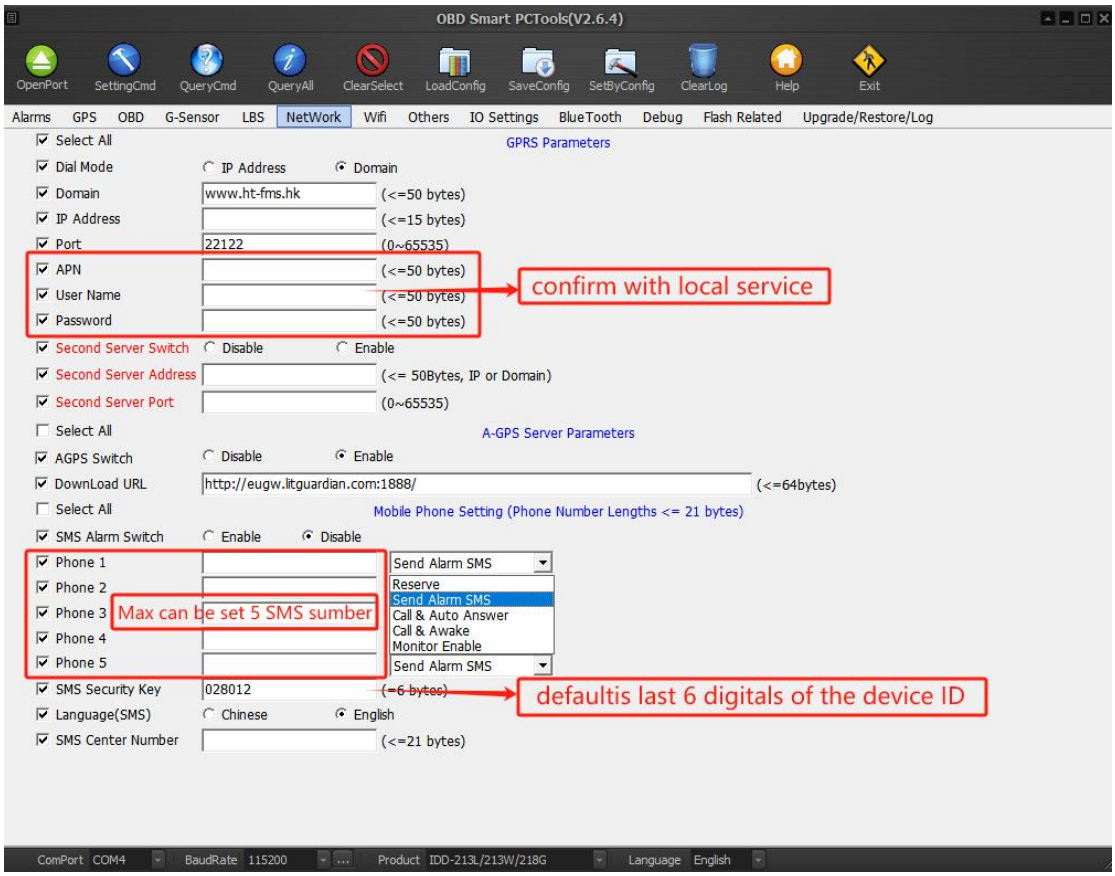
2.6 LBS Report

This parameter cannot be set currently.



2.7 NetWork

Click on “Network” to select required items and click on “QueryCmd” to get parameters values first. Modify those values and click on “SettingCmd” to save new parameters into the device.

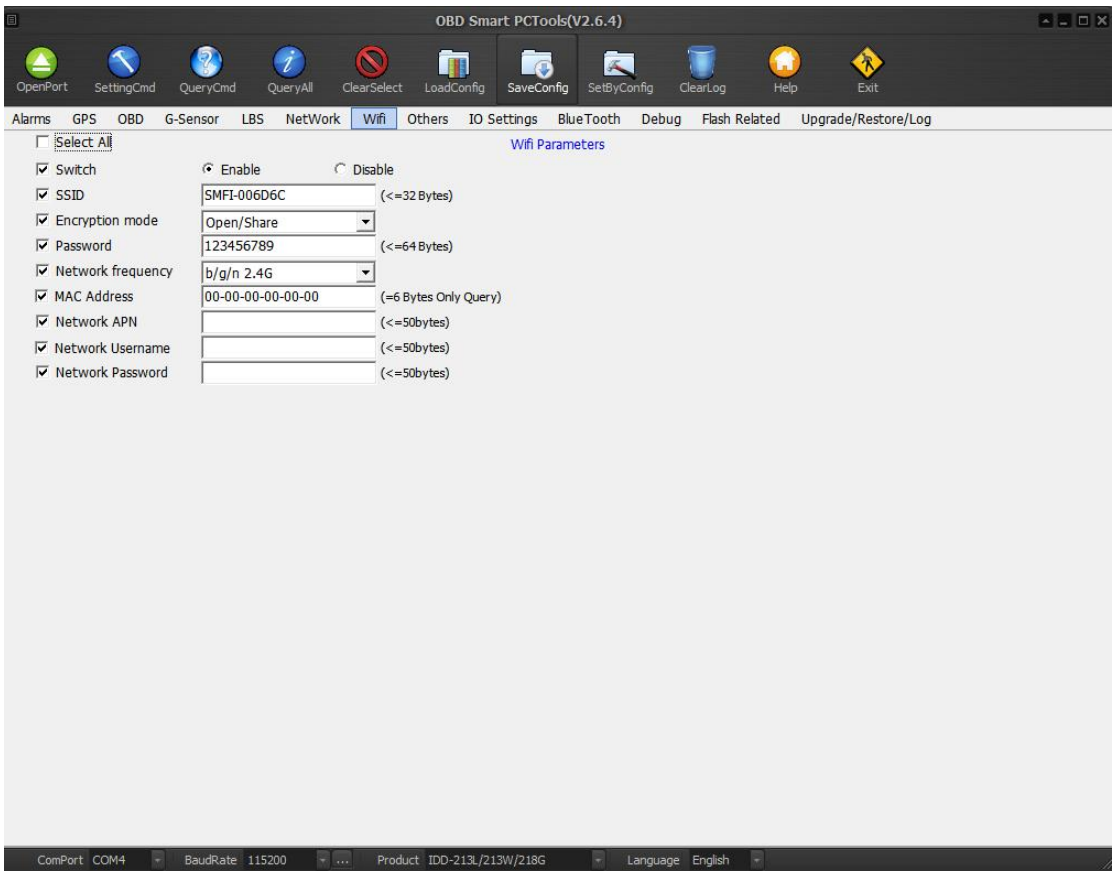


Item	Parameter(e.g.)	Explain	Note
GPRS Parameters			
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying
Dial Mode	Domain mode	Domain or IP mode can be selected	Default is domain mode
Domain	www.freelivetrack.com	Set the domain instead of IP address	Default domain is www.freelivetrack.com
IP Address	52.76.160.78	Server IP address	Default IP is 52.76.160.78
Port	10840	TCP port	Default is 11088
APN	CMNET	China mobile GPRS access point name	Please ask the GPRS service provider to get it

User Name		The user of APN	Please ask the GPRS service provider to get it
Password		The password of APN	Please ask the GPRS service provider to get it
Second server switch	Enable/Disable		Temporarily unavailable
Second server Address			Temporarily unavailable
Second server Port			Temporarily unavailable
A-GPS Server Parameters			
AGPS Switch	Enable/Disable	Enable or Disable this function	Default is Enable
Download URL	http://eugw.litguardian.com:1888/		Defaultdefault address http://eugw.litguardian.com:1888/
Mobile Phone Setting			
SMS Alarm Switch	Enable	Enable or Disable this function	Alarm will also be sent via SMS if it's enable
Phone		Set Alarm SMS call & auto answer or call & Awake monitor enable	Can be set max 5 SMS numbers, it's better to add country code
SMS Security Key	028012	SMS key for sending the commands via SMS	It adopts ASCII code, default is last six digitals of the device ID
SMS Center Number		Set SMS center number to receive location and command replied message	Support one SMS center number

2.8 WIFI

Click on "wifi" to select required items and click on "QueryCmd" to get parameters values first. Modify those values and click on "SettingCmd" to save new parameters into the device.

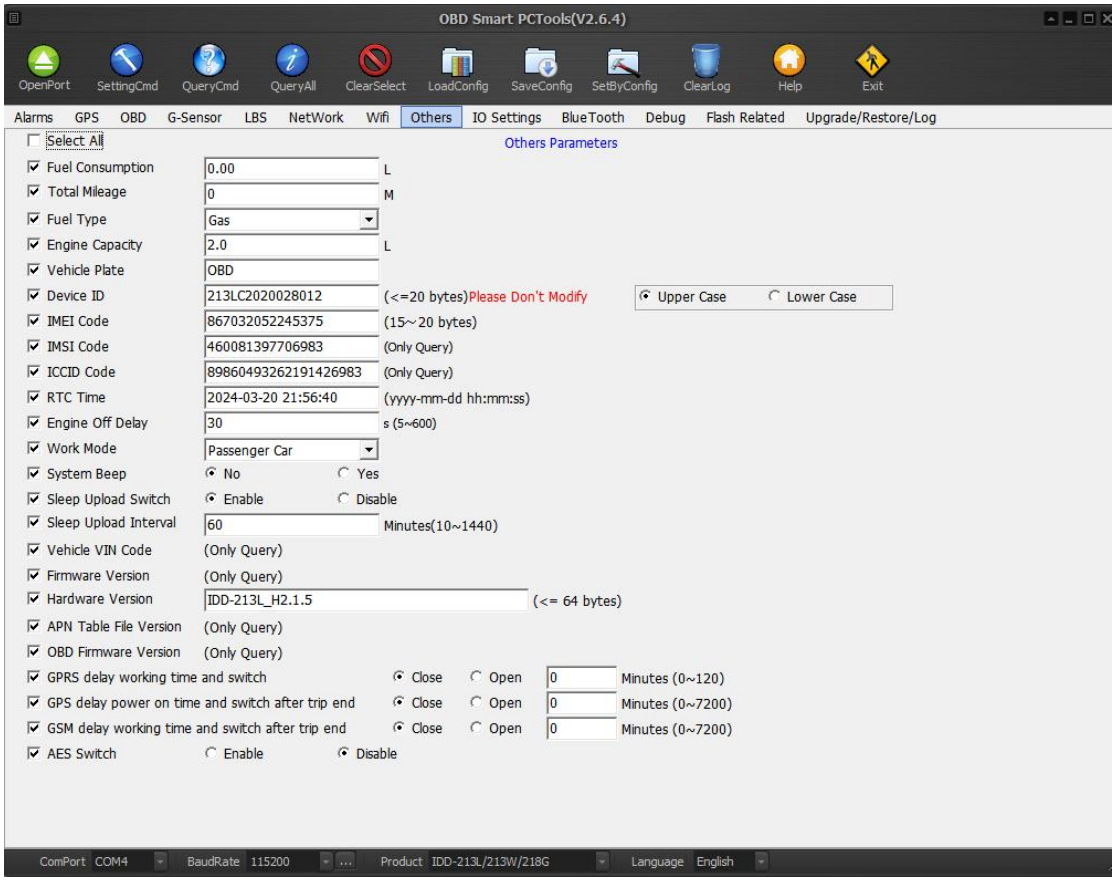


Item	Parameter(e.g.)	Explain	Note
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying
Switch	Enable/Disable		Default is Enable
SSID	SMFI-006D6C		Can be changed, maximum 32 bytes
Encryption mode	Open/Share	Open/Share Open、Share、WPA、WPA2 WPA\WPA2	default setting Open/Share
Password	123456789		Can be changed, maximum 32 bytes
Network frequency	B/g/n2.4	B/g/n2.4、a/n5g、b 2.4g、b/g 2.4、	default settingB/g/n2.4
MAC Address	54-65-03-8D-06-C5		Only Query
Network APN			The default value is null maximum 50 bytes
Network Username			The default value is null maximum 50 bytes
Network			The default value is null

Password			maximum 50 bytes

2.9 Others

Click on “Others” to select required items and click on “QueryCmd” to get parameters values first. Modify those values and click on “SettingCmd” to save new parameters into the device



Item	Parameter(e.g.)	Explain	Note
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying
Fuel Consumption	0	Set the cumulative fuel consumption of current OBD vehicle	Unit is 0.01L
Total Mileage	0	Set the cumulative mileage of current OBD vehicle	Unit is 1M
Fuel Type	Gas	Fuel type is Gas	Includes Gas, LPG, Hybrid, Diesel a and Diesel b
Engine Capacity	2.0	Set engine capacity as 2.0L	Unit is 0.1L Please refer to Note 1

			when select Diesel B
Vehicle Plate	OBD	Vehicle Plate is OBD	Max length can be up to 50bytes
Device ID	213LC2020028012	Device ID is 213LC2020028012	Max length can be up to 20bytes
IMEI Code	867032052245375	Communication module identification number	Max length can be up to 20bytes
IMSI Code	867032052245375		Only query
ICCID Code	89860493262191426983		Only query
RTC Time	2024-03-028 02:42:23	Set the device time	To synch UTC time
Engine off Delay	30	The delay time of engine off is 30 seconds	Range:[5-600], default is 30S, unit is second
Work Mode	Passenger car	It supports passenger car, heavy duty, tracker	Default is passenger car mode, Please refer to Note 2 when select “tracker” mode
System Beep	Enable/Disable		Default is off
Sleep UPload Switch	Enable/Disable	Turn on and off the sleep function	On by default
Sleep UPload Interval	60		Range:[10-1440], default is 60min, unit is minutes
Vehicle VIN Code			Only Query
Firmware Version	IDD-213L_V3.2.9_2022-06-01		Only Query
Hardware Version	IDD-213L_H2.1.5		Max length can be up to 64bytes
APN Table File Version			Only Query
GPRS delay working time and switch	clsoe	open Set 0，to always open	Range:[0-120], default is close unit is minutes
GPS delay power on time and switch after trip end	Close/open	close	Range:[0-7200], default is close unit is minutes
GSM delay power on time and	Close/open	open Set 0，to always open	Range:[0-7200], default is close

switch after trip end			unit is minutes
AES Switch	Enable/Disable	Disable	default is close

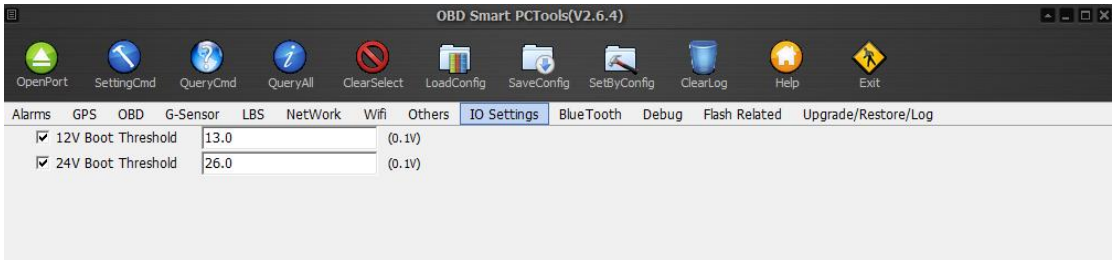
The formula: (1-(fuel consumption via OBD device – actual fuel consumption)/fuel consumption via OBD device)*10

e.g.: The fuel consumption is 128L counted via software platform, and the actual fuel consumption is 115L during the same period of time. Then the regulation factor is: (1-(128-115)/128)*10 = 8.985 take a decimal as 8.9, then the engine capacity should be filled as 8.9

Note 2: Temperature alarm, idle engine alarm, Engine RPM alarm, Exhaust Emission alarm,

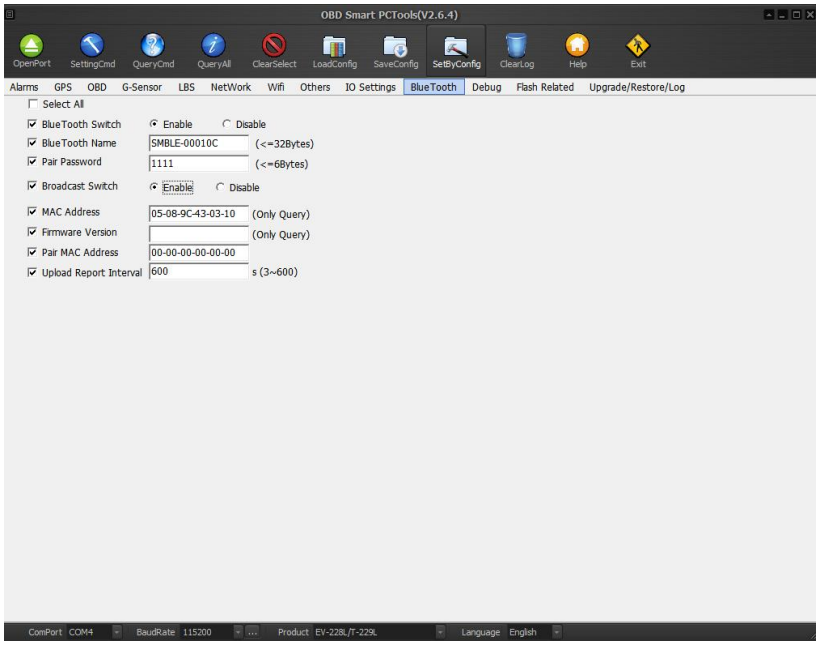
OBD reports, fuel consumption, engine off delay time, vehicle VIN code are not valid, speeding, Acceleration, Deceleration alarms judged by GPS speed, total mileage calculated by GPS mileage.

2.10 IO Settings



Item	Parameter(e.g.)	Explain	Note
12V Boot Threshold	13.0		The default value is 13V, unit V, error +-0.1v
24V Boot Threshold	26		The default value is 26V, unit V, error +-0.1v

2.11 Blue Tooth

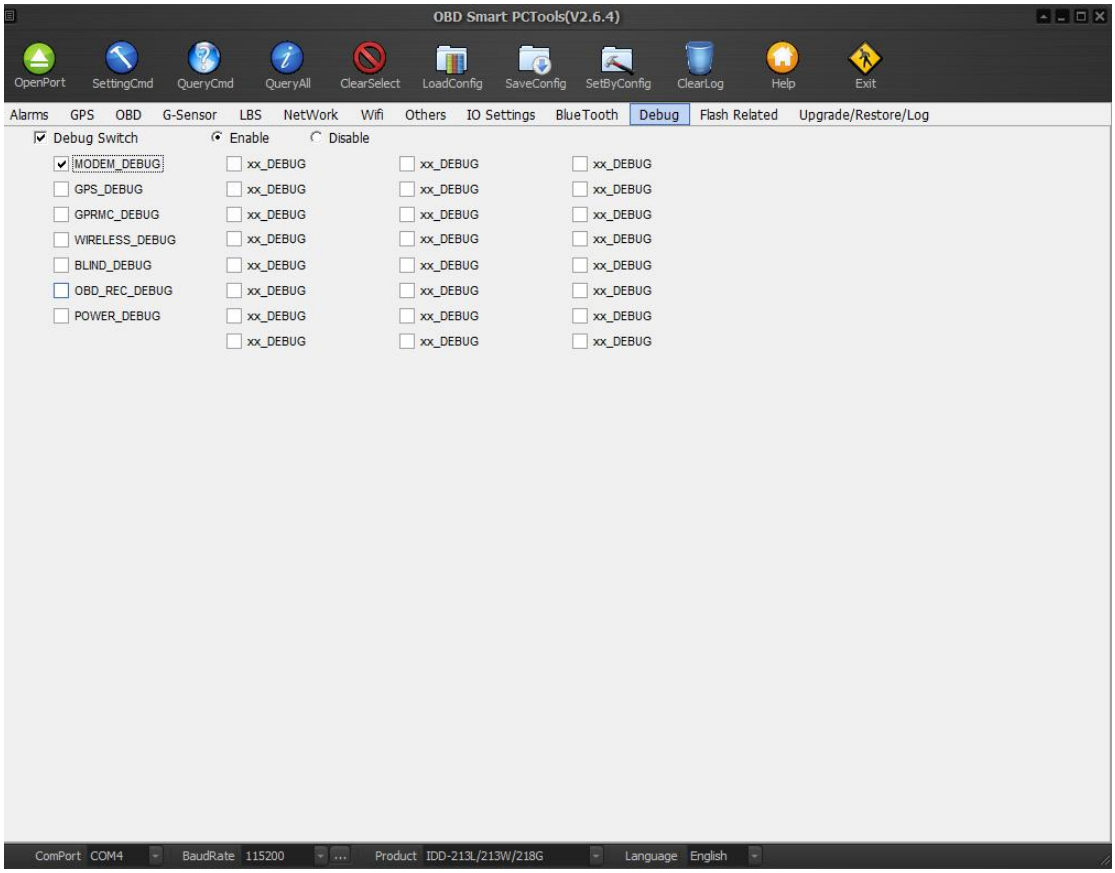


Item	Parameter(e.g.)	Explain	Note
Select All	Select All	Select the parameters items	The parameters Items should be selected before setting or querying
Blue Tooth Switch	Enable/Disable		default is Enable
Blue Tooth Name	SMBLE-00010C		default parameters
Pair Password	1111		default parameters
Broadcast Switch	Enable/Disable		
MAC Address	05-08-9C-43-03-10		Only Query
Firmware Version			Only Query
Pair MAC Address	00-00-00-00-00-00		
Upload Repore Inrerval	600		Range:[3-600], unit is s

Note: This function module uses IDD-229L as an example.

2.12 Debug

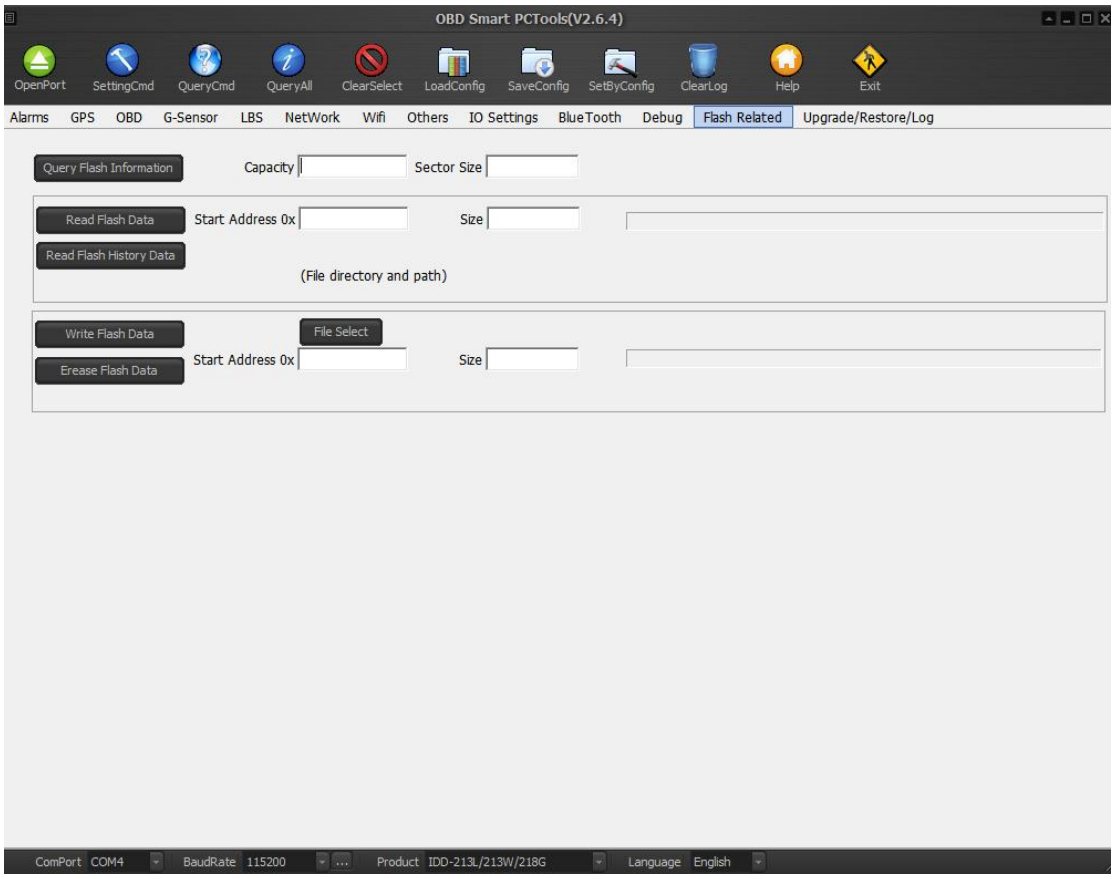
It is mainly used to obtain the functional data of OBD devices.



Item	Parameter(e.g.)	Explain	Note
Debug Switch	Enable/ Disable		Enable or disable the debugging function
MODEM_DEBUG			Obtain MODEM log data
GPS_DEBUG			Obtain GPS log data
GPRMC_DEBUG			Obtain GPRMC log data
WRELESS_DEBUG			Obtain WRELESS log data
BLIND_DEBUG			Obtain bLIND log data
OBD_REC_DEBUG			Obtain OBD_REC log data
POWER_DEBUG			Obtain power log data

Note: Used when the test needs to grab Debug logs.

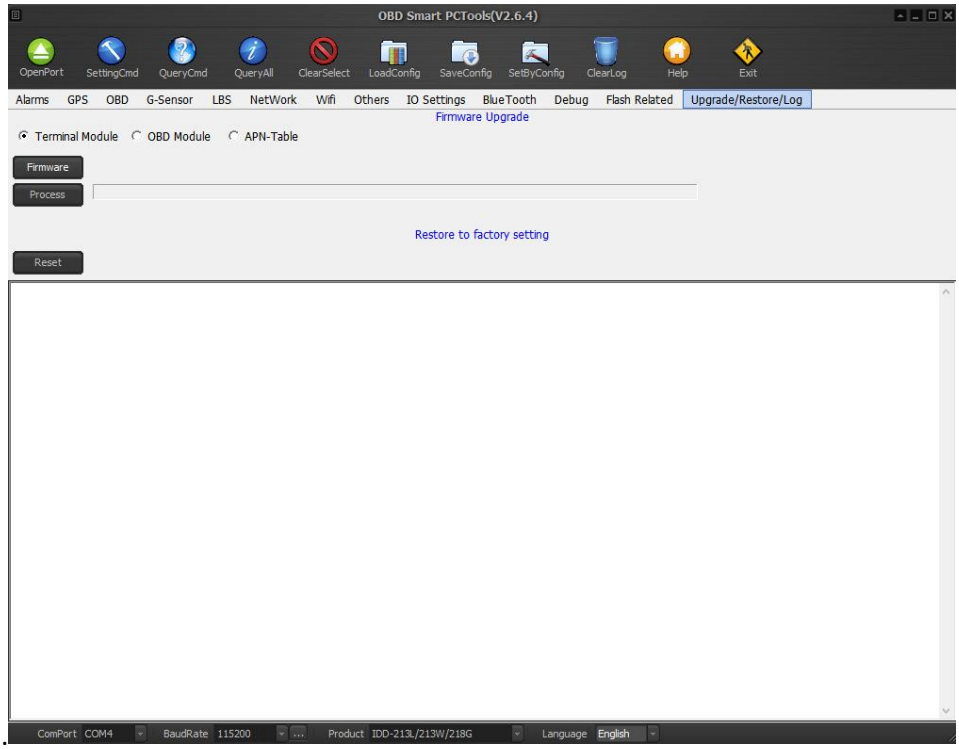
2.13 Flash Related

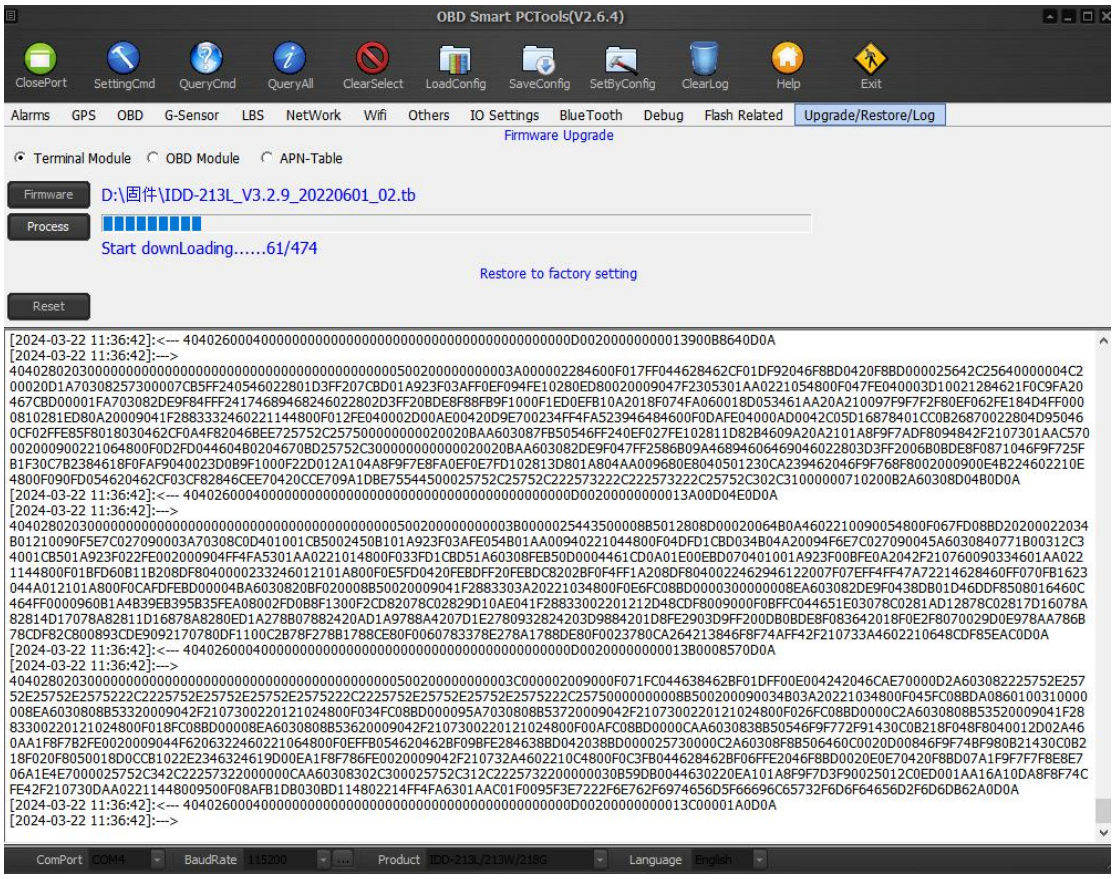


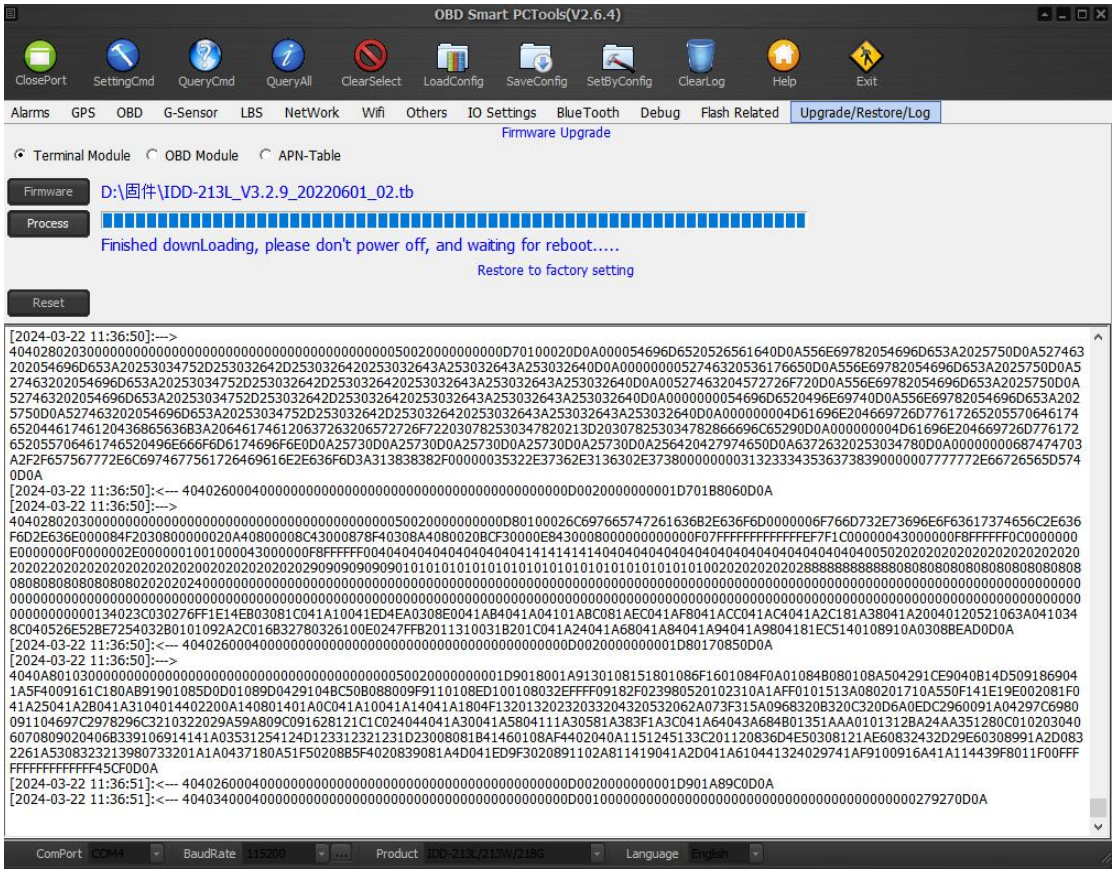
2.14 Upgrade/Restore/Log

Select the "Terminal Module" option and click "Firmware"

Select the bin file and click the "Open" button to upgrade the firmware to the new version







Note: Please ***don't power off*** when it's upgrading, or the program will be damaged. It will

reboot automatically after finish downloading then finish the upgrading.

III、 FAQ

Q: Why the New OBD Smart PCTool can't be installed

A: USB driver should be installed before installing New OBD Smart PCTool

Q: Why the terminal is no response when modify the parameters

A: configuration cable, Com port and baud should be selected correct

Q： What vehicles does each mode work for, and what protocols does each support?

A:There are three modes of operation: passenger car, commercial vehicle and tracker mode;

Passenger cars are mainly for small cars, such as cars, SUVs, pickups, light trucks, etc.

Supported protocols include SAE J1850-PWM, SAE J1850-VPW, ISO 9141-2, ISO 14230-4 (KWP2000), ISO 15765-4 (CAN);

Commercial vehicles are mainly for heavy trucks, buses, engineering machinery vehicles, etc., including J1939 and J1708 supported agreements;

Tracker mode does not support any protocol, only from the OBD interface to power, only support GPS package and part of the alarm information upload.

Q:Can I set the device ID? What does the upper and lower case option on device ID mean in PC-TOOL?

A:You can set this parameter, but it can only be set using pc-tool. Because the device ID is transmitted in ASCII code, the ASCII code is case-sensitive. If different types are selected, the ASCII code uploaded by the device is different.