

## Statement

### HD208 Code Reader User Manual Guide

- Before using HD208 code readers, please read the Guide carefully.
- The Guide is prepared according to the current functions and configurations of the product. If new ones are added, there will be corresponding changes to the Guide.

**Please read the "Notes" and "Precautions" in the Guide carefully so that you can use the products properly and safely.**

### Notes for Maintenance of Main Unit

- Dis-assembly is not allowed without authorization;
- Intense collision should be avoided;
- Stay away from magnetic fields;
- Do not place it in high-temperature environment for a long time;
- Do not put it in low-temperature environment for a long time;
- Screen collision must be avoided and buttons should be always clean.
- Please use soft clean cloth and neutral detergent instead of water or chemical solvents to clean the machine.

## Notes before Diagnosis

- The code reader must be operated according to safety rules for auto repair industry. Special attentions should be paid to prevent it from being affected or damaged by ambient factors such as the pH, poison gas, high pressure, heavy objects, etc.;
- The battery fluid of vehicles contains sulfuric acid which is corrosive to the skin. Please avoid any direct contact with your skin, especially the eyes, while operating the product. And please keep away from fire;
- There are various kinds of toxic compounds in exhaust gases. You should protect yourself from inhaling them. The vehicle should be parked in a well-ventilated place during the operating period;
- Do not touch high-temperature components such as water tank and exhaust pipes because the temperature of a working engine is high;
- Before starting the engine, you should hold the handbrake and place the gear lever at “N” (Manual transmission) or “P” (automatic transmission), to prevent the vehicle from rushing out, causing accidents when starting it;
- Before performing the diagnosis, you should hold the parking brake, shift the transmission at “N” or “P”, and then lower the glass doors and windows on driver's seat side;

- If the engine can be started, you should firstly warm it up to a normal temperature (water temperature at about 80 °C), and close the auxiliary electrical devices (such as air conditioner, lights, loudspeakers, etc.);
- Find the diagnostic socket of the car, check and make sure whether the circuits are in good condition, and then connect the main unit for diagnosis. Otherwise, there is no need to perform the test, in a bid to avoid damage to the main unit. If necessary, you can measure the voltage of diagnostic socket with a multimeter.

### **Precautions while diagnosing**

- When operating a HD208 code reader, you must handle it with care and keep it away from heat sources and electromagnetic field to avoid interference to the main unit.
- When electrical components are energized, you cannot break the circuit for the self-inductance and mutual-inductance currents might do damage to the sensors and ECUs.
- When the electrical equipment are working normally, please do not bring magnetic objects close to the electronic control units, otherwise they may be damaged.
- ECUs or electrical components can be disassembled or assembled only one minute after turning the ignition switch to “OFF”.

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## 1. Introduction

HD208 is a portable OBD code reader, with which users can read out the DTCs in automotive electric control system quickly and efficiently and then learn about where trouble occurs and how they happen. HD208 code reader is applicable to most auto repair shops.

Car owner can also take it to anywhere so that they can have their cars tested at any time. Meanwhile, it features easy operations and strong practicality.

HD208 code reader, integrating all the basic diagnostic functions of two standard protocols J1939 and J1708 for heavy duty vehicles, adopts a 2.8" color screen with clear and beautiful interfaces, paired with 6pin, 9pin and 16pin diagnostic connectors, to provide customers with the best, quickest and most professional services.

## 2. Basic Functions

- 1) Read DTCs;
- 2) Clear DTCs;
- 3) Read data stream;
- 4) Available for a variety of automotive electronic control systems (engine, transmission, instrument panel, drivetrain, braking system, suspension, ABS, ESP, EPS, fuel system and etc.);

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- 5) Support 6pin, 9pin, 16pin diagnostic connectors;
- 6) Compatible with J1708 and J1939 communication protocols
- 7) Online upgrade available (UBS2.0); new functions can be added on requirement.

### 3.Parameters

1. Screen: 2.8" 256K true color screen 320x240 LCD
2. Input voltage: 8~36V
3. Operating current: typical value <100mA
4. Typical power consumption: <1W
5. Connector: 6pin, 9pin, 16pin diagnostic interfaces
6. Operating temperature: 0~50°C
7. Storage temperature: -20°C ~70°C
8. Relative humidity: <90%
9. Dimension: 37\*85\*21
10. Weight of main unit: 350g

## 4.Appearance



- 1) Left button;
- 2) Right button;
- 3) Up button;
- 4) Down button;
- 5) Enter button 1;
- 6) Enter button 2;
- 7) Exit button;
- 8) Diagnosis communication line, which connects the main unit with the OBD II diagnostic socket on the vehicle;
- 9) Diagnosis communication indicator. The Blue indicator is ON for stressful communication. The orange indicator is ON if the communication fails;
- 10) Voltage indicator: The indicator remains ON since the machine is connected to OBD II diagnostic socket;
- 11) USB data line interface: Backup interface for data connecting;

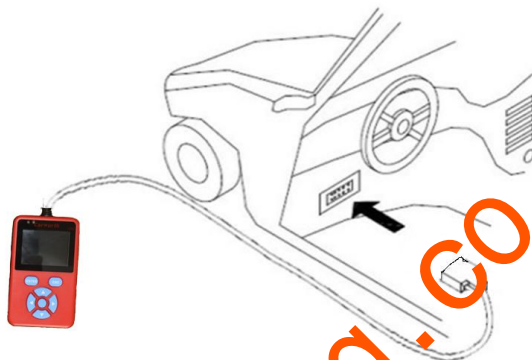
## **5. Operating Methods**

- 1) When the MIL of the engine is ON, the vehicle must be stopped with handbrake pulled. Turn the key ignition to ON and then connect the HD208 code with the 16pin diagnostic socket of the

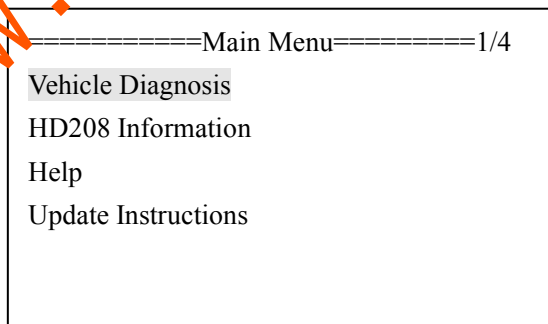


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car which is usually under the steering wheel on the driver's seat side.



- 2) After having it connected, HD208 code reader will start automatically and display the logo. A few seconds later, it will enter Note interface. Click [Enter] button to enter diagnostic interface and then select a function. If you want to diagnose troubles, please choose "Vehicle Diagnosis" and click "Enter".



- 3) **Vehicle Diagnosis:** Select [Vehicle Diagnosis] and then press [ENTER]. HD208 code reader will detect all the systems automatically. After the detection, all the systems available will be listed. Take a Volvo vehicle for example, the systems detected are as follows:

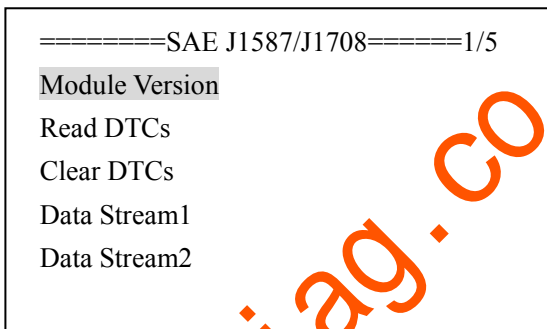
```
=====Vehicle Module=====1/11
0 Engine #1
3 Transmission #1
128 Engine #1
136 Brakes Power Unit
144 Cruise Control
150 Suspension Power Unit
216 Lighting Control Administrator Unit
```

In the menu displayed, “Vehicle Module” refers to the attribute of all the items listed. The 1 and 11 of “1/11” represent the highlighted item and the total number of items respectively. We can see that a total of 11 systems, supporting J1708 or J1939 protocols, are detected this time, of which seven are listed in the current page and the remaining four are displayed in the next page. The [0 Engine #1] and [128 Engine #1] support J1708 and J1939 protocols respectively. The

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number before each system like 0, 3, 128 is the PID number of the system and the text after the number stands for the name of systems.

Select the system to be diagnosed and press [ENTER]. For example, the interface will be shown as follows if you choose [128 Engine #1]:



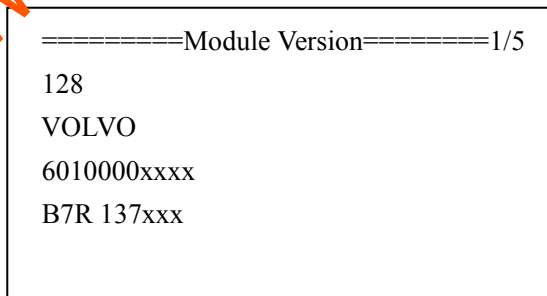
[Module Version]: To scan system version information

[Read DTCs]: To read diagnostic trouble codes

[Clear DTCs]: To clear diagnostic trouble codes

[Data Stream1] & [Data Stream2]: To read data stream

A. Select [Module Version] and then press [ENTER]. It will enter the following menu:

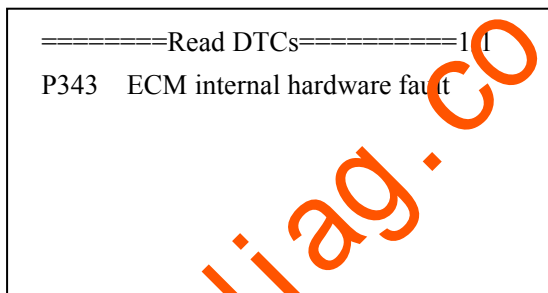


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Here, you can see parameters of all software versions. Press any button to go back to the last menu:

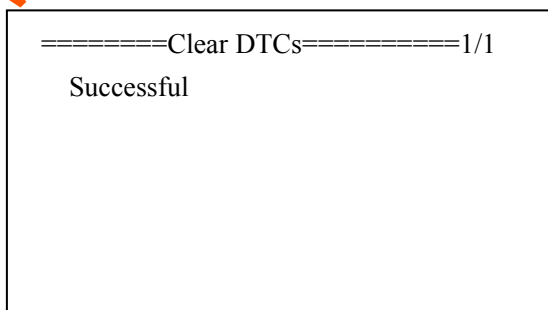
B. Choose [Read DTCs] and press [ENTER]. The following interface will be shown:



From the above figure, you can get a DTC and find out the where the malfunction is according to it.

C. After repairing the car, select [Clear DTCs] and press [ENTER].

The menu is as below:



DTCs are cleared successfully.

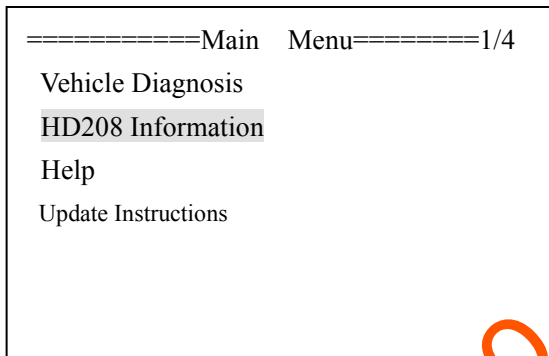
D、 Choose [Data Stream1] or [Data Stream2] to read data stream;

=====Data Stream=====1/21	
Engine Speed	0.0rpm
Engine Coolant Temperature	3 (deg)
Percent Accelerator	
Pedal position	0.0%
Percent Engine Load	0.0%
Engine oil Pressure	0.00KPa
Boost Pressure	0.00KPa
Coolant Level	100.0%

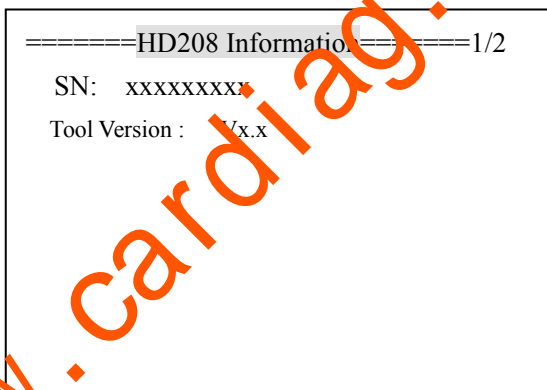
Press[Up] or [Down] to turn pages

4) **H1208 Information:** Details about S/N and etc.

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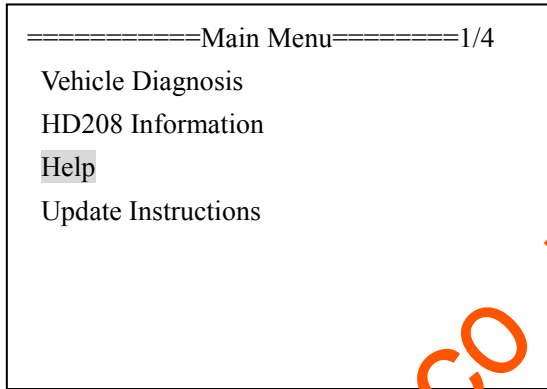
Select [HD208 Information],



**Help:** Information of the manufacturer is offered

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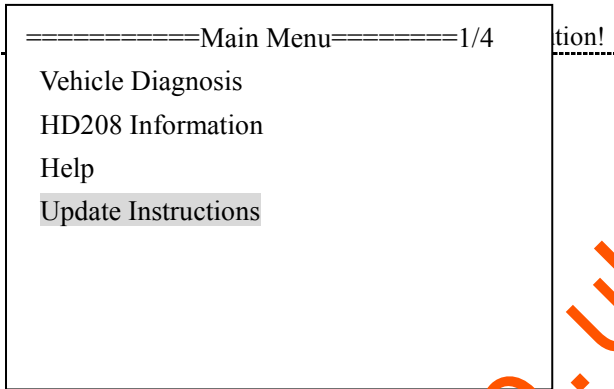
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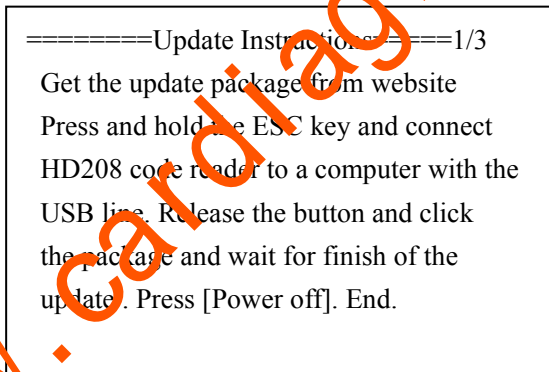
Choose [Help]; Website and telephone of the manufacturer are listed.



6) **Update Instructions:** Steps about how to update the software



Select [Update Instructions]





## 6.Listing of accessories

Main unit	1pc
Min USB data cable	1pc
OBDII connector ( 16p to 9p &6p )	1pc
User manual	1pc
Warranty card	1pc