



USER MANUAL

ASD60 Smart Diagnostic kit



This user manual is applicable to ASD60_VW, ASD60_BENZ, ASD60_BMW

Please read this user manual carefully before using the ASD60 Smart Diagnostic Kit. When reading the manual, please pay attention to the words “Note” or “Caution” and read them carefully for appropriate operation.

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All information, specifications, and illustrations in this manual are based on the latest configurations and functions available at the time of printing. XTOOL reserves the right to make changes at any time without notice.

OPERATION INSTRUCTIONS

For safe operation, please follow the instructions below:


- Keep the device away from heat or fumes when you are using it.
- If the vehicle battery contains acid, please keep your hands and skin or fire sources away from the battery during testing.
- The exhaust gas of the vehicle contains harmful chemicals, please ensure adequate ventilation.
- Do not touch the cooling system components or exhaust manifolds when the engine is running due to the high temperatures reached.
- Make sure the car is securely parked, Neutral is selected or the selector is at P or N position to prevent the vehicle from moving when the engine starts.
- Make sure the (DLC) diagnostic link connector is functioning properly before starting the test to avoid damage to the Diagnostic Tablet.
- Do not switch off the power or unplug the connectors during testing, otherwise, you may damage the ECU and/or the Diagnostic Tablet.


CAUTIONS


- Avoid shaking or dismantling the unit as it may damage the internal components.
- Do not use hard or sharp objects to touch the LCD screen;
- Do not use excessive force;
- Do not expose the screen to strong sunlight for a long period.
- Please keep it away from water, moisture, high temperature, or very low temperature.
- If necessary, calibrate the screen before testing to ensure the accuracy of LCD performance.
- Keep the main unit away from strong magnetic fields.
- Please keep your device always connected to the Internet. When the device is off the Internet for 30 days, The diagnosis APP may be locked and you need to synchronize data with the Internet to activate it.

AFTERSALES-SERVICES

 E-Mail: supporting@xtooltech.com

 Tel: +86 755 21670995 or +86 755 86267858 (China)

 Official Website: www.xtooltech.com

 Please provide your device serial number, VIN code, vehicle model, software version, and other details when seeking technical support.

If there are screenshots or videos, it will better help us locate your problem.

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1 GENERAL INTRODUCTION

ASD60 is a professional diagnostic tool for BMW, VW and BENZ series cars. With a combo of a small ASD60, you can diagnose all the compatible electronic control systems of your BMW, VW and BENZ series cars without buying the expensive diagnostic equipment. The ASD60 package includes a Bluetooth OBDII connector and an ASD60 application. Both iOS and Android platforms are supported. It is a perfect DIY tool for customers to get a quick scan of all systems and it also includes numerous special functions, such as service light reset, DPF regeneration, and EPB reset.

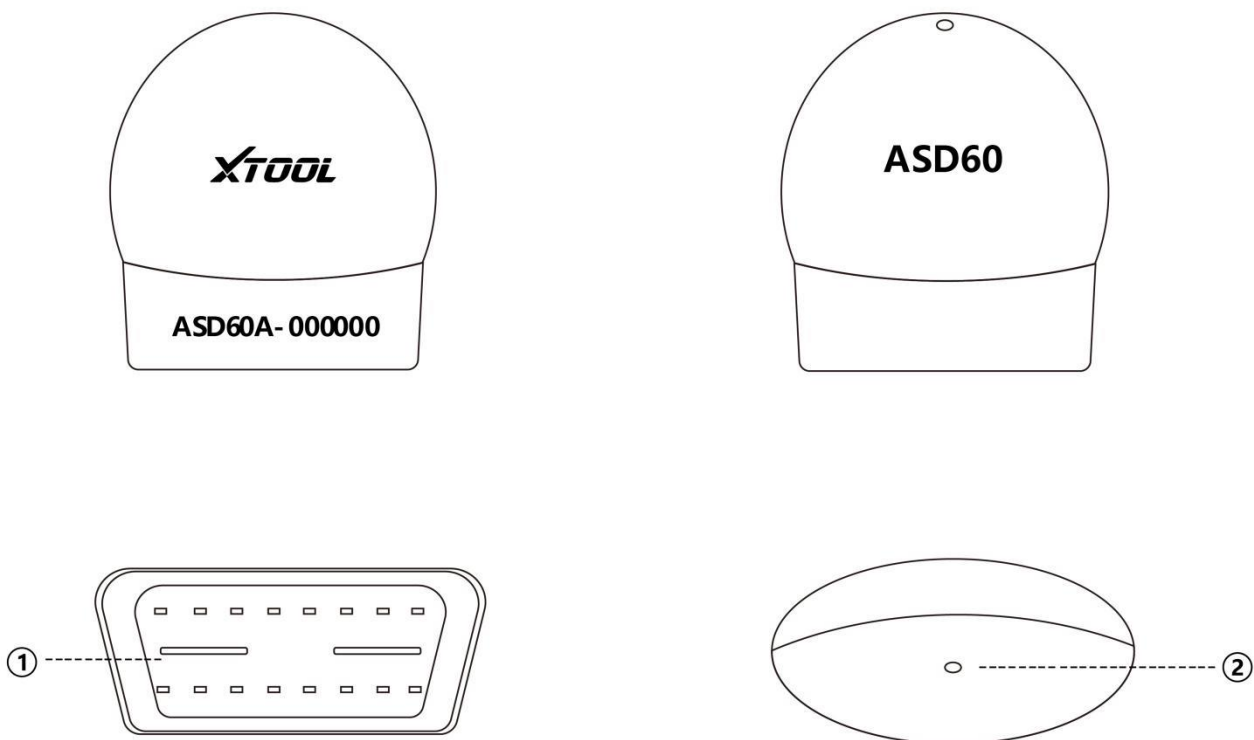


Figure 1-1 Product View

1.1 FUNCTION DESCRIPTION

- ① **Vehicle Data Connector (OBD-16 pin)** - connect the ASD60 to the vehicle's 16-pin DLC directly
- ② **LED Indicator** - Showing the operating status of the ASD60
 - Flashing: Connected to power/vehicle OBD port, but Bluetooth is disconnected
 - Solid light: Connected to power/vehicle OBD port & Bluetooth is connected
 - Light Off: Device is in sleep mode OR disconnected to power/vehicle OBD port

1.2 Diagnosis Menu

Here shows the page every time when you open the ASD60 app, which shows the special function menu and vehicle menu for diagnosis.



Figure 1-2 Sample of the vehicle menu

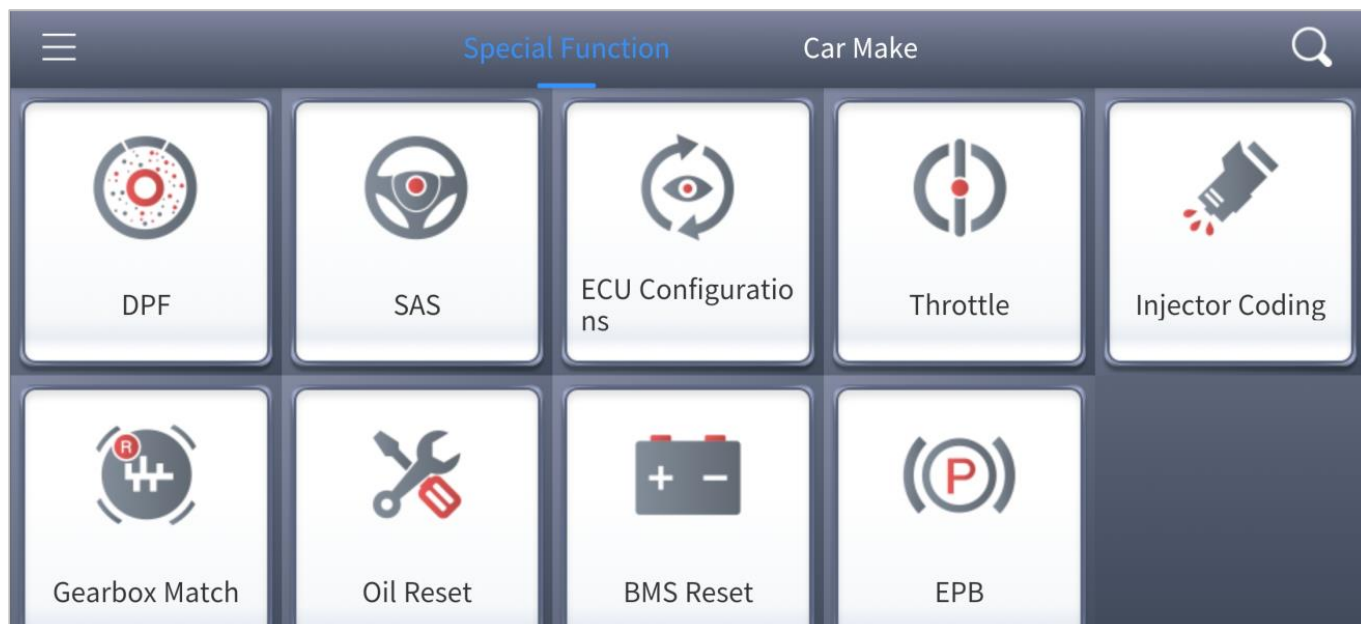


Figure 1-3 Sample of the special function menu

1.3 FUNCTION BUTTONS

The following table briefly describes each function button which can be found in the menu.





Icon	Description
 Diagnosis	Enter vehicle diagnosis menu (special functions included)
 Setting	Select the language and unit shown in the app, and check the Bluetooth status, device info, and workshop info
 Updates	Update the diagnosis software through the Internet
 Report	Check the diagnosis report that recorded on your device, prints it as PDF files, or share it with other devices

Table 1-1 Description of function button

1.4 TECHNICAL SPECIFICATIONS

Item	Description
CPU	STM32
Interface	OBD interface
Bluetooth	4.0
LED lights	LED indicator
Dimensions	50.5*47.7*22.5mm (1.99*1.87*0.89 inches)
Operating current	<70mA DC12V
Sleep current	≤1mA DC12V

Table 1-2 Specifications

1.5 WIRELESS COMMUNICATION

ASD60 uses Bluetooth communication. It can transmit vehicle data to your Android or IOS device without a physical connection. The working range for Bluetooth is around 10 m (32.81 ft.). Signal lost due to moving out of the range will automatically be restored once the device is brought within transmission range to the ASD60 connector.

2 GETTING START

2.1 DOWNLOAD & INSTALL APP

Search for **ASD60** Download in the Google Play or App Store to download and install the app to your device.

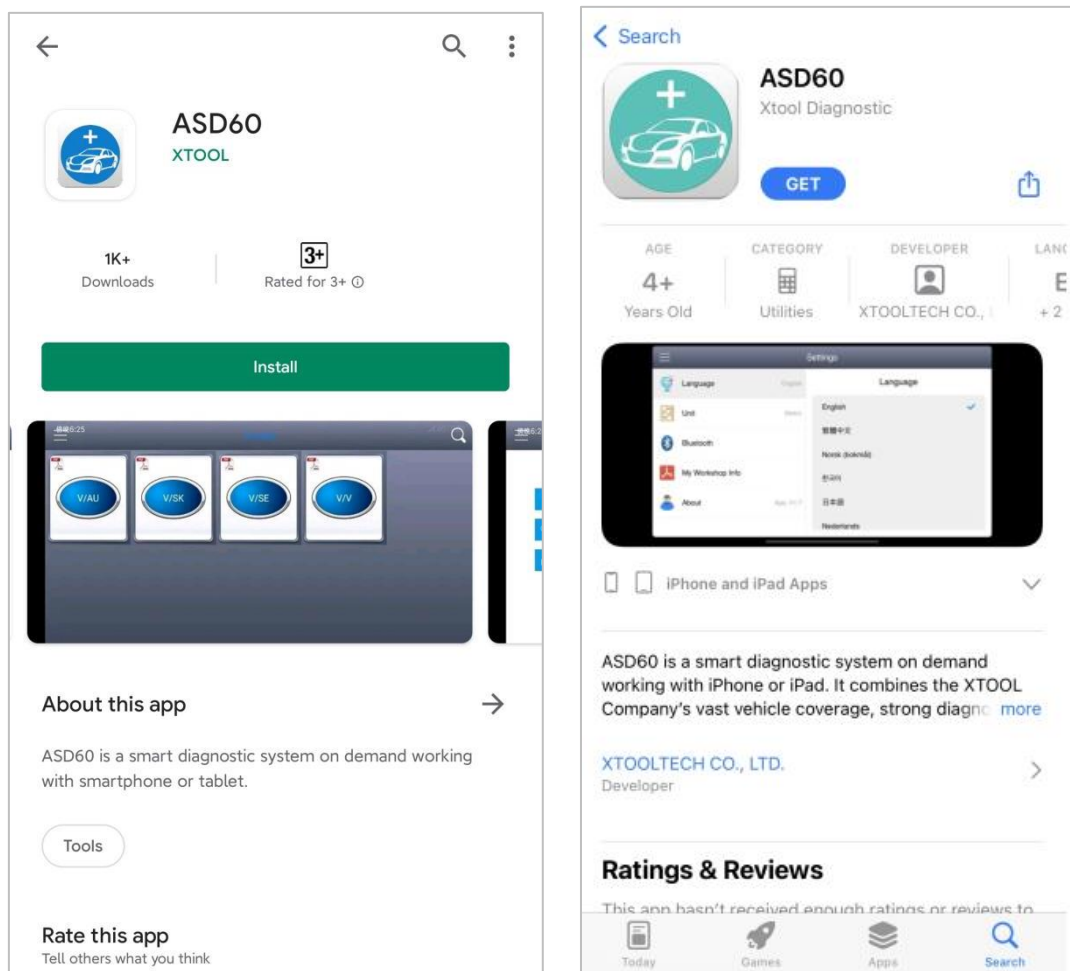


Figure 2-1 Sample of APP downloading screens

2.2 REGISTRATION & ACTIVATION

Enter the serial number, activation code, username, Email address, and password into the corresponding input box. And press the **Activation** button to activate the app.

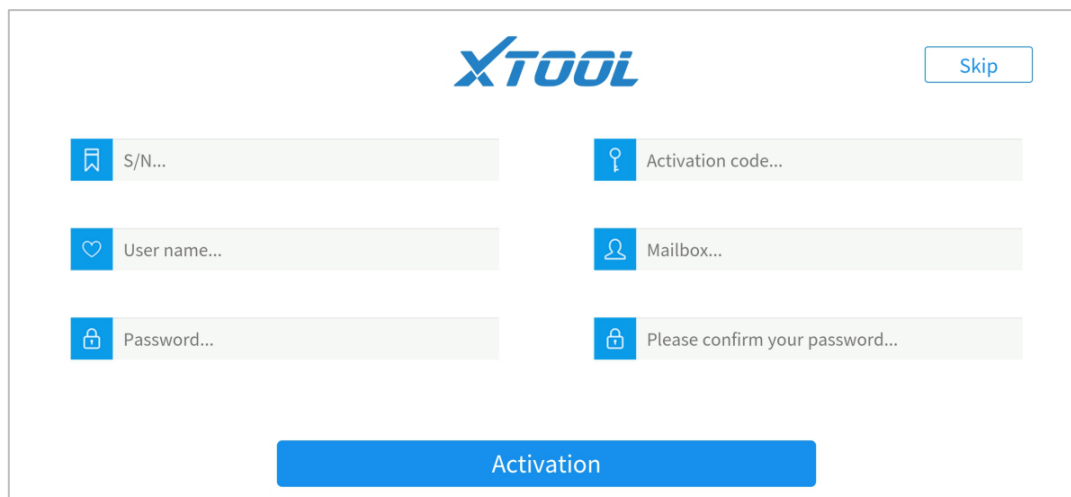
The image shows a registration and activation screen for XTOOL. At the top center is the XTOOL logo. In the top right corner is a 'Skip' button. Below the logo are six input fields arranged in two columns. The left column contains fields for 'S/N...', 'User name...', and 'Password...'. The right column contains fields for 'Activation code...', 'Mailbox...', and 'Please confirm your password...'. Each field has a small icon to its left: a document for S/N, a heart for User name, a padlock for Password, a key for Activation code, a person for Mailbox, and a padlock for the confirmation password. At the bottom center is a large blue button labeled 'Activation'.

Figure 2-2 Sample of activation screen

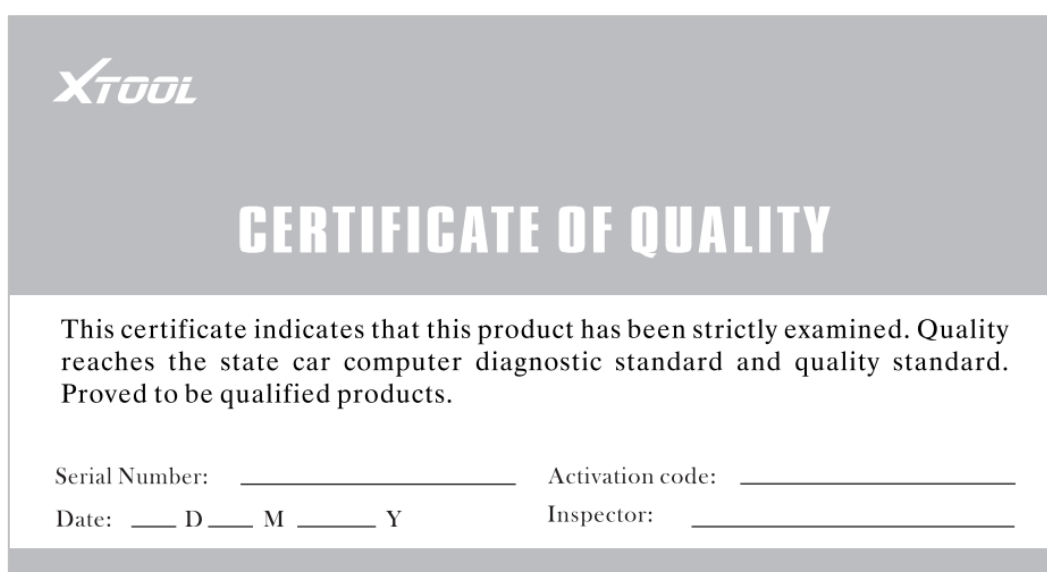
The image shows a 'Certificate of Quality' from XTOOL. The top section has a grey background with the XTOOL logo on the left and the title 'CERTIFICATE OF QUALITY' in large white letters. Below this, on a white background, is a paragraph: 'This certificate indicates that this product has been strictly examined. Quality reaches the state car computer diagnostic standard and quality standard. Proved to be qualified products.' At the bottom, there are four fields for information: 'Serial Number:', 'Activation code:', 'Date: ____ D ____ M ____ Y', and 'Inspector: _____'.

Figure 2-3 Sample of Certificate of Quality

Serial number - Can be found in the Certificate of Quality, back of the device, and the outer packaging

Activation code - Can be found in the Certificate of Quality

①Each account can be logged in with more than one mobile device, however, the ASD60 can only connect to one mobile device at one time.

2.3 DOWNLOAD & UPDATE SOFTWARE

Click the **Updates** button to enter the updates interface.

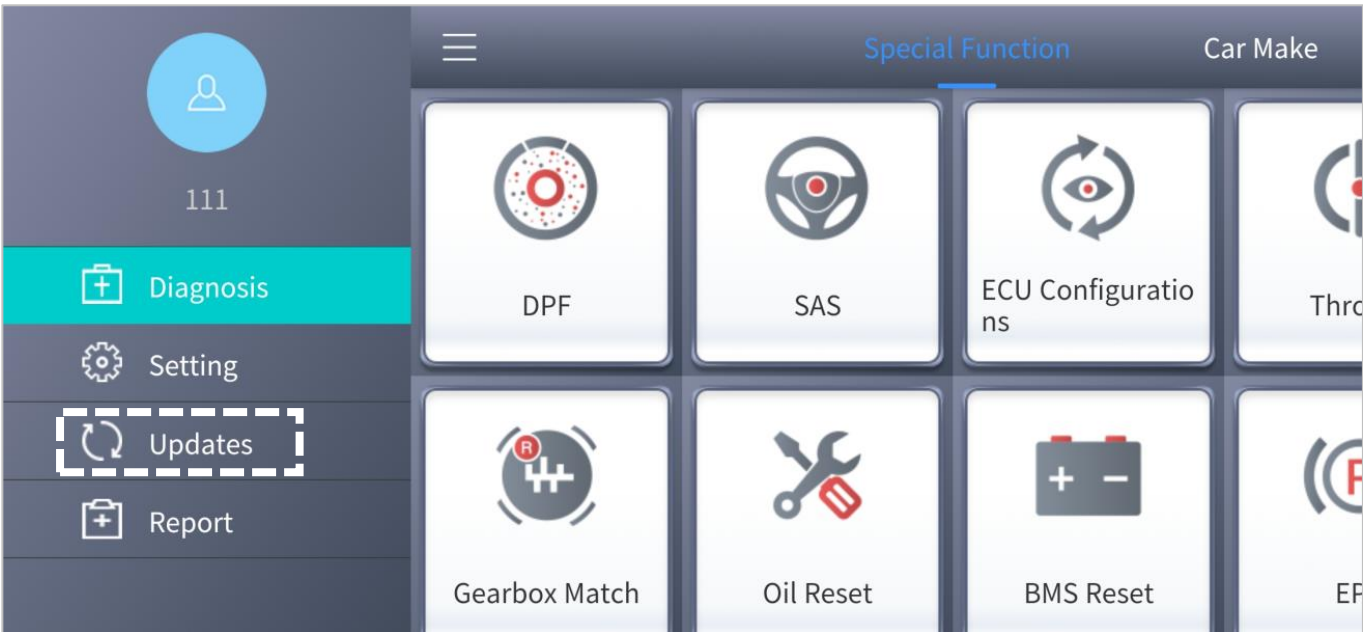


Figure 2-4 Sample of the main menu screen

All the available software is shown on this page. You can choose to download the specific software individually by pressing the **arrow** button next to the required software or choose to update all available software at once by pressing **Updates All**.







	Updates				
1	DIAGNOSIS--VW	V12.40	2022-01-13 06:06:54	<div></div>	
2	SAS--EUROPEANS CARS	V7.77	2021-09-28 08:20:38	<div></div>	
3	SPECIAL FUNCTION-- GEARBOX MATCH	V16.52	2021-12-24 09:22:19	<div></div>	
4	OIL RESET--EUROPE	V28.47	2021-12-24 09:23:42	<div></div>	
5	DIAGNOSIS--AUDI	V12.40	2022-01-13 06:26:05	<div></div>	
					

Figure 2-5 Sample of updates interface

2.4 VEHICLE CONNECTION

Insert the ASD60 to the **OBD port** on the testing vehicle, diagram below shows the common locations where the OBD port at. The flashlight equipped may help to locate the OBD port. The LED indicator will be **flashing** if the device is properly connected.

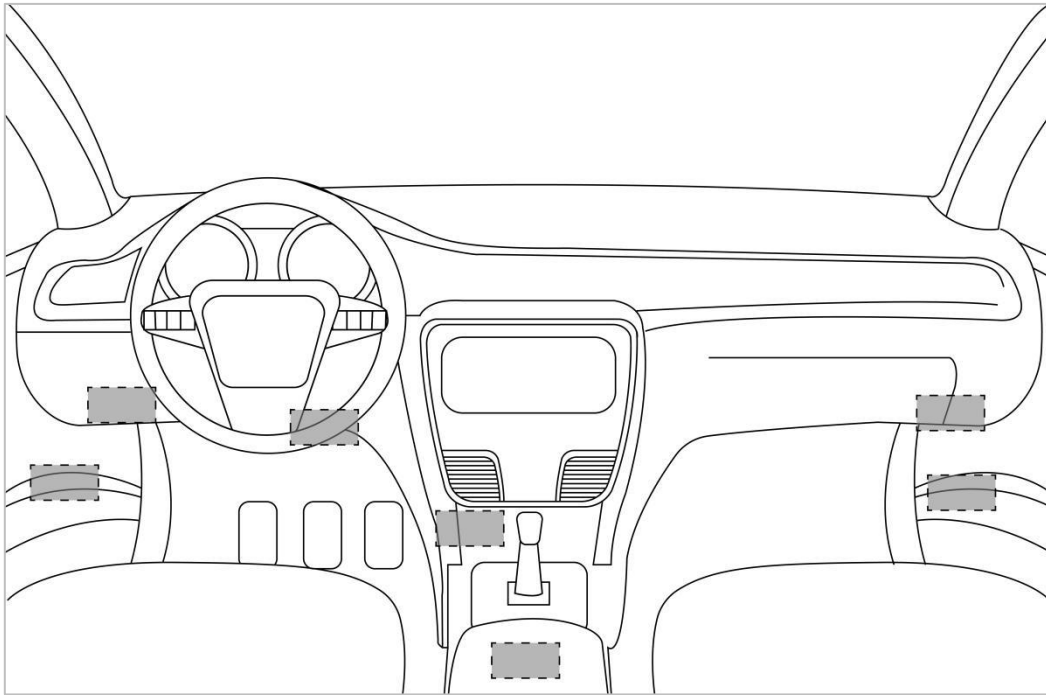


Figure 2-6 Locations of OBD port

2.5 BLUETOOTH CONNECTION

Make sure the indicator is flashing, then open the Bluetooth setting on your mobile devices, the ASD60 will be discovered as 'ASD60'. Turn on the ASD60 app, and the app will automatically connect with it. Once the ASD60 is connected to any of the mobile devices, it will be remembered by that device and automatically connected to it when next time the ASD60 is connected to the vehicle/power supply. Solid light will show on the LED indicator after the Bluetooth is successfully connected.

① You are only able to connect the Bluetooth after connecting the ASD60 to the vehicle/power supply.

2.6 OPERATING STATUS

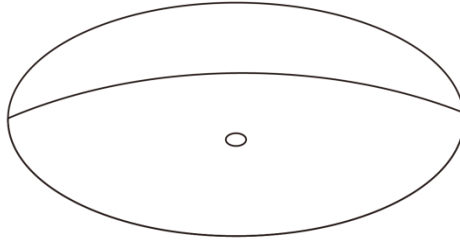


Figure 2-7 LED indicator

- ① **Flashing** - the ASD60 is properly connected to the vehicle/power supply but not connected with Bluetooth
- ② **Solid** - the ASD60 is connected to the vehicle/power supply and also the mobile device through Bluetooth
- ③ **Off** - the ASD60 is in sleep mode OR disconnected to power/vehicle OBD port

① After the ASD60 is powered on for the first time or re-plugged, it starts to work (Bluetooth can be connected and can be diagnosed, and enters the sleep mode after 30 minutes);

① After the ASD60 detects the ignition of the vehicle is ON, it starts to work within 5s (Bluetooth can be connected, can be diagnosed, enter sleep mode after 30 minutes)

2.7 DELETE SOFTWARE

Long-press the unwanted software until it has been selected, then click the **Delete** button shown on the upper part of the screen. And you can select and delete multiple software at once.

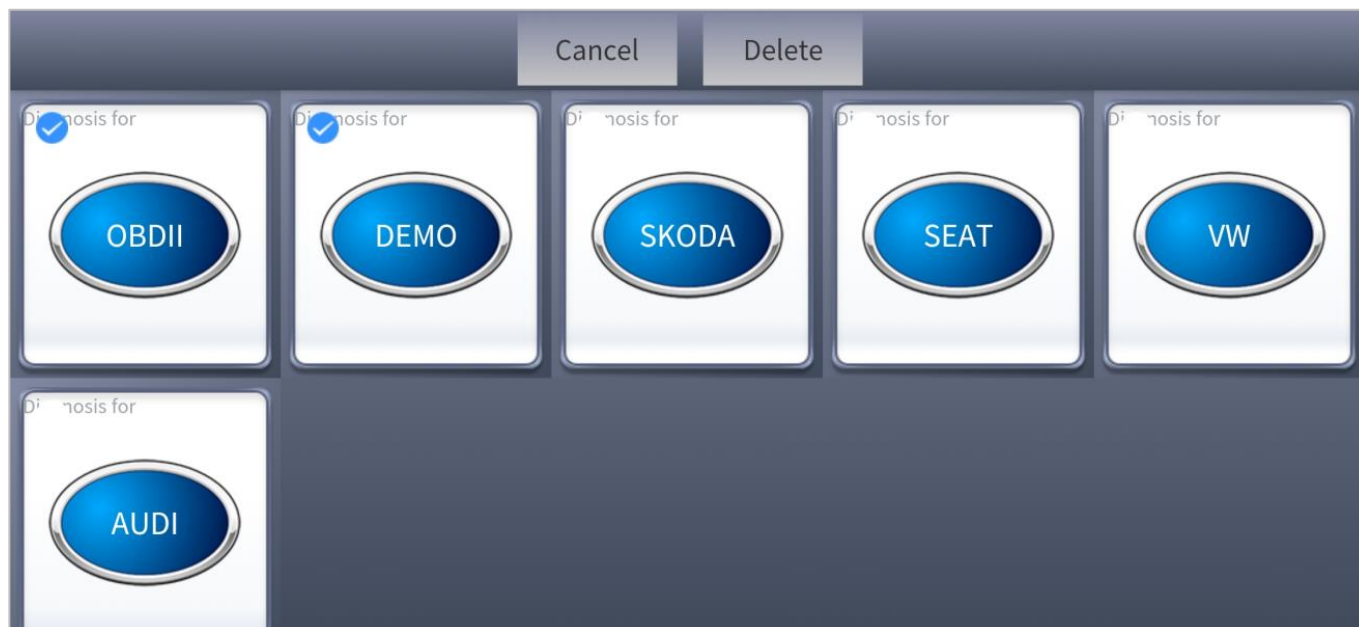


Figure 2-8 Sample of software deleting screen

3 DIAGNOSIS

The diagnosis function can read ECU information, read and clear DTC and display live data and freeze frame. The diagnosis function can also access the electronic control unit (ECU) of all available vehicle control systems, including the engine, transmission, anti-lock braking system (ABS), airbag system (SRS), body control module (BCM), battery management system (BMS), tire pressure monitoring system (TPMS), steering and suspension system (SAS) and perform various actuation tests.

① Diagnosis can only be performed when the ASD60 is connected to a mobile device through Bluetooth successfully and the LED indicator lights solid.

3.1 DIAGNOSIS

Click the **Car Make** menu on top of the screen, all the brands will be shown and you can click the corresponding brand, and start the diagnosis process.



Figure 3-1 Sample of the main menu screen

For some of the vehicle brands (like Volkswagen), when you click on the software, there are several ways to select the model or system you want to run a diagnosis, including **Automatic Detection**, **Manual Selection**, and **System Selection**.

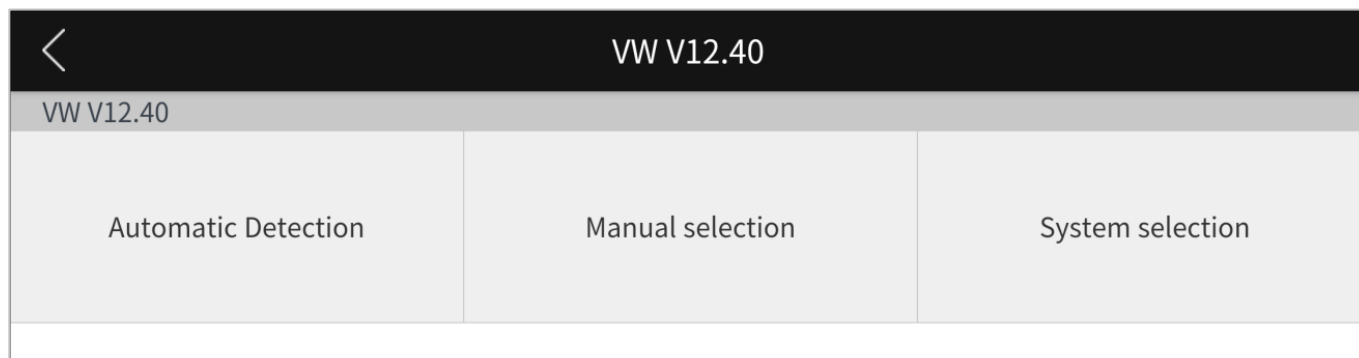


Figure 3-2 Sample of VW menu screen

Automatic Detection will automatically identify the vehicle's VIN code, and then read the information of your target diagnostic vehicle. If you choose **Manual Selection**, then you can continue to select the vehicle brand, year, and model of the vehicle in the sub-menu to diagnose the vehicle. Enter **System Selection**, you can also diagnose the vehicle according to the system or your needs after selecting the models.

① Automatic Detection does not work on all cars. If 'Automatic Detection' fails, it does not necessarily mean that your vehicle or the function is not supported, please navigate manually and try again.

① OBDII menu supports reading the common fault codes in the PCM. The DTCs may not be the same when compared with using common diagnosis software.

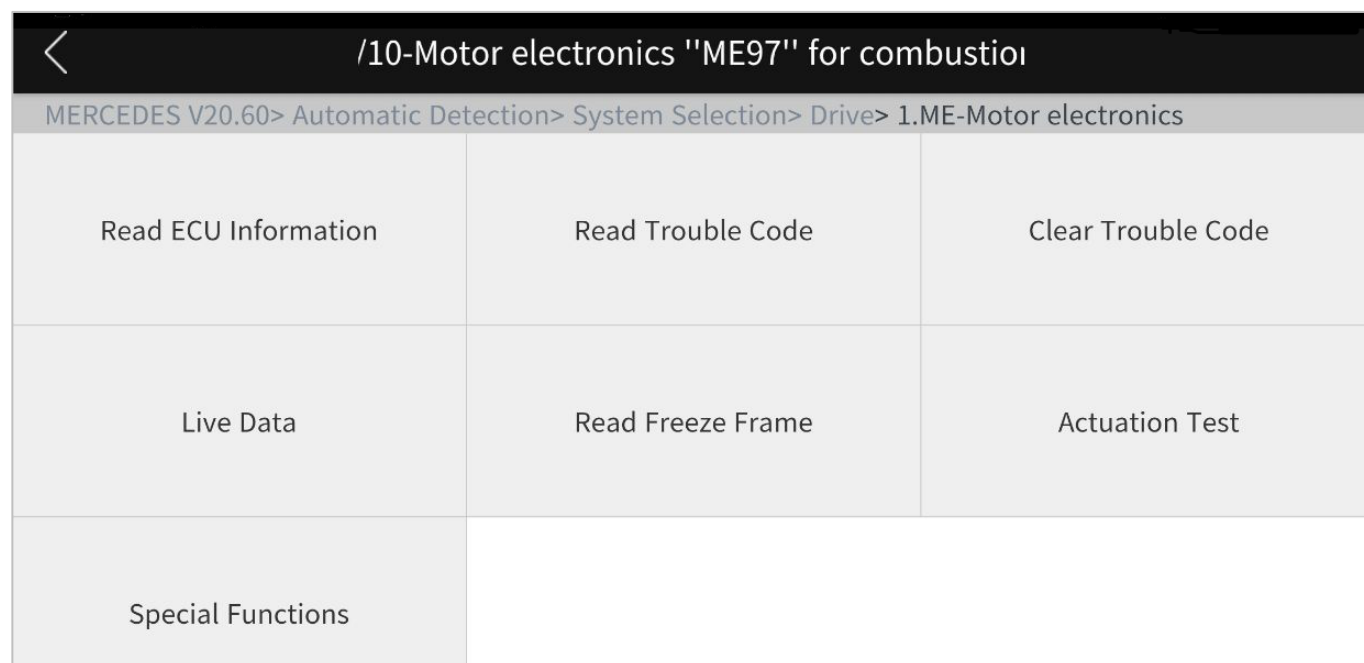
① DEMO is a demonstration program. You can perform basic diagnosis functions without connecting to the car.

① DEMO is only for demonstration purposes, the functions and interface are not necessarily the same as the actual version of the software/App. Please activate and update your device to use the latest version of software.

3.2 DIAGNOSIS FUNCTIONS

The Diagnosis System supports 6 diagnosis functions:

- **Read ECU Information**
- **Read & Clear Trouble Code**
- **Live Data**
- **Actuation Test (Bi-Directional Control)**
- **Freeze Frame**
- **Special Functions**



< /10-Motor electronics "ME97" for combustion		
MERCEDES V20.60> Automatic Detection> System Selection> Drive> 1.ME-Motor electronics		
Read ECU Information	Read Trouble Code	Clear Trouble Code
Live Data	Read Freeze Frame	Actuation Test
Special Functions		

Figure 3-3 Diagnosis functions

Read ECU Information

This function is to read ECU version information, which is the equivalent of **System Identification** or **System Information** in some electronic control systems, which means to read ECU-related software and hardware versions, models, and production date of the diesel engine, part number, etc.

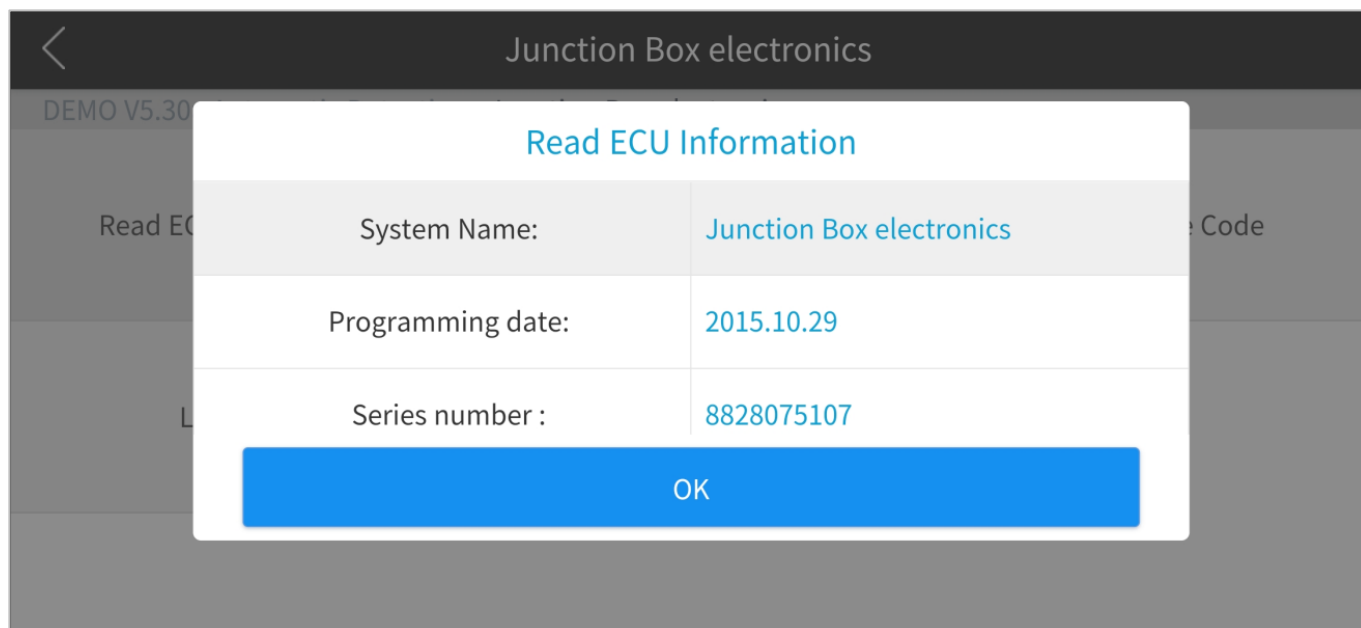


Figure 3-4 Sample of read ECU information screen

Read Trouble Code

Read trouble codes (DTCs) that are stored in ECU. For the trouble code, the diagnostic instrument will give specific detailed definitions and explanations to help you locate and eliminate the car fault.

■ Stored Code

Stored codes are the current emission-related DTCs from the ECM of the vehicle. OBDII Codes have a priority according to their emission severity, with higher priority codes overwriting lower priority codes. The priority of the code determines the illumination of the MIL and the codes erase procedure. Manufacturers rank codes differently, so expect to see differences between makes.

■ Pending Code

These are codes whose setting conditions were met during the last drive cycle, but need to be met two or more consecutive drive cycles before the DTC actually sets.

The intended use of this service is to assist the service technician after a vehicle repair and after clearing diagnostic information, by reporting test results after a driving cycle.

- a. If a test failed during the driving cycle, the DTC associated with that test is reported. If the pending fault codes do not occur again within 40 to 80 warm-up cycles, the fault is automatically cleared from memory.
- b. Test results reported by this service do not necessarily indicate a faulty component or system. If test results indicate another failure after additional driving, then a DTC is set to indicate a faulty component or system, and the MIL is illuminated.

Stored Codes		
OBDII V21.05> AUTO SCAN> Read Trouble Code> Stored Codes		
Stored Codes	Pending Codes	

Figure 3-5 Sample of read trouble code screen






DTCs Report		
DEMO V5.30> Automatic Detection		
Trouble Code	Trouble Code Descriptions	Trouble Code status
8020B8 	Tank fill-level sensor, left: short circuit to positive or open circuit	
8020B9 	Tank fill-level sensor, left: signal invalid	
E71464 	Signal (fuel tank level left, 0x330) invalid, transmitter KOMBI	
80118B 	Air conditioning compressor: Shut-down due to excess pressure in refrigerant circuit	
E12C01 	Left fuel level sensor: Short circuit to B+	

Figure 3-6 Sample of DTCs Report

① In the process of diagnosis, if the device shows “System is OK” or “No Trouble Code”, it means there is no related trouble code stored in ECU. OR some troubles are not under the control of ECU, most of these troubles are mechanical system troubles or executive circuit troubles, it is also possible that the signal of the sensor may bias within limits, which can be determined by Live Data.

Clear Trouble Code

It allows clearing current and historical trouble codes (DTCs) memory in ECU, under the premise that all the troubles are eliminated. There are two types of trouble codes, one is permanent trouble code and the other is non-permanent trouble code. The former requires manual troubleshooting of the car before it can be cleared with a diagnostic tool. Non-permanent trouble codes can be cleared directly with the diagnostic tool.

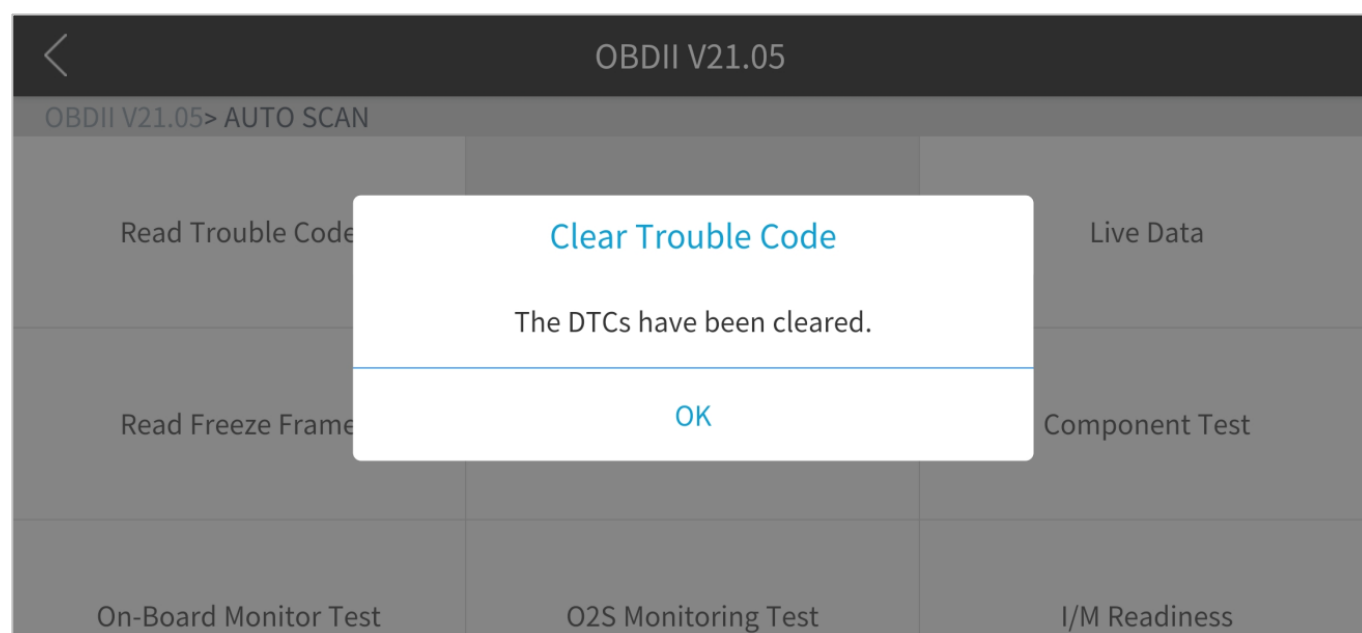


Figure 3-7 Sample of clear trouble code screen

① The trouble codes cannot be cleared without eliminating all the troubles, the diagnostic tool can always read those codes as those codes are saved in ECU.

Live Data

This function displays the real-time parameters of the ECU, take the engine as an example, parameters such as engine oil temperature, engine speed, ambient pressure, coolant temperature, etc. can be read. The Scope of maintenance can be narrowed down as we can determine the faulty component based on these parameters. And the data can be displayed in various modes.

<

Live Data

OBDII V21.05> AUTO SCAN

NO.	Name	Value	Unit
1	Number of DTCs	0	
2	Malfunction Indicator Lamp (MIL) Status	MIL OFF	
3	Fuel system 1 status	OL	
4	Fuel system 2 status	Not Used	

Data recording

Pause

Graph

Figure 3-8 Sample of live data screen (table)

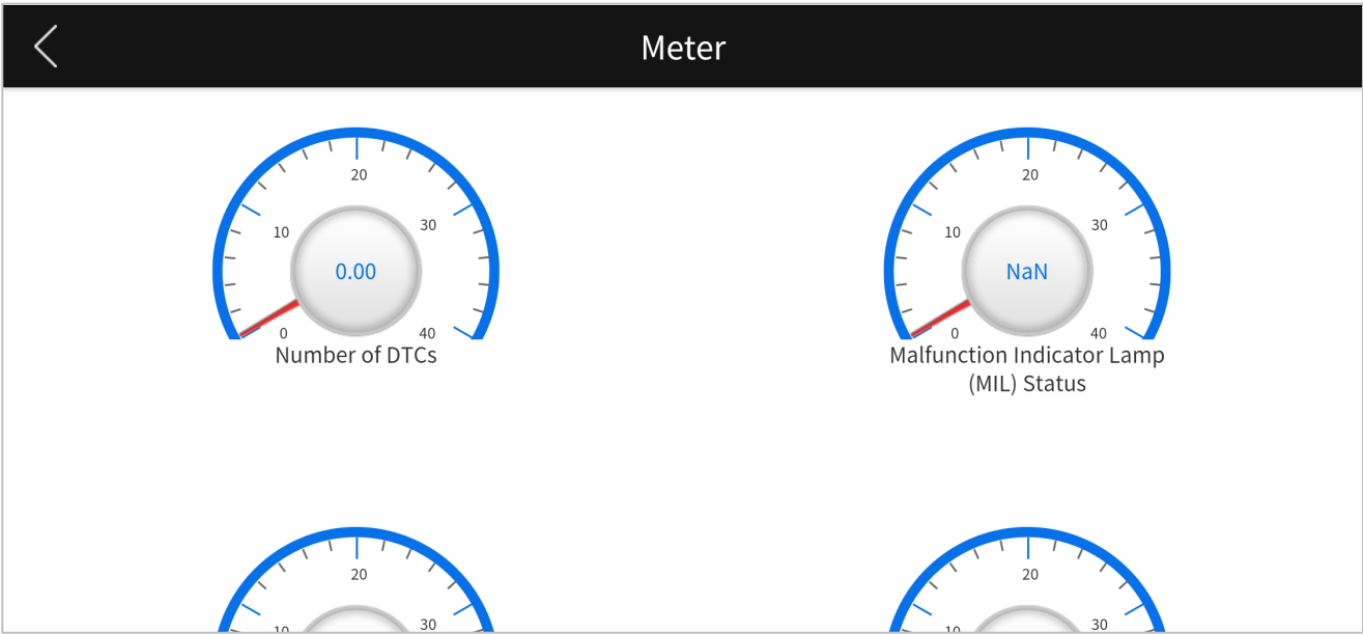


Figure 3-9 Sample of live data screen (graph)

Read Freeze Frame

In most cases, the stored frame is the last DTC that occurred. Certain DTCs, which have a greater impact on vehicle emission, have a higher priority. In these cases, the freeze frame will record the top prioritized DTC. Freeze frame provides a snapshot of critical parameters at the moment DTC is set.

This function is not supported by all models, and the option of freeze frame is not available in these cases. Also, data recorded varies across brands and models.

Read Freeze Frame	
OBDII V21.05> AUTO SCAN	
<input checked="" type="checkbox"/>	DTC that caused required freeze frame data storage
<input checked="" type="checkbox"/>	Fuel system 1 status
<input checked="" type="checkbox"/>	Fuel system 2 status
<input checked="" type="checkbox"/>	Calculated Load Value
<input type="checkbox"/>	Engine Coolant Temperature
<div>Select All Select None OK</div>	

Figure 3-10 Sample of freeze frame screen

Actuation Test

Actuation test, also known as bidirectional control, is a generic term used to describe sending and receiving information between one device and another. The scan tool can request information or command a module to perform specific tests or functions. Some manufacturers refer to the bidirectional controls as function tests, actuation tests, inspection tests, system tests. Most enhanced scan tools also can actuate relays, injectors, and coils, perform system tests, etc. Users could check the individual part to see which part is working properly by actuation test.


<div>  Language, compass, interior mirror (only if fitted) </div>		
DEMO V5.30> Automatic Detection> Junction Box electronics> Actuation Test> Interior rearview mirror		
Execute function:	Language, compass, interior mirror (only if fitted)	
Test process:	Performing voice changeover	
		<div>Continue</div> <div>Disable</div>

Figure 3-11 Sample of actuation test screen

Special Functions

Special functions allow you to quickly access your vehicle system for various scheduled services, maintenance and reset performance, eliminating the need to reset after resolving common problems. Special functions supported vary from brands and models. Some of the special functions not linked to the independent special functions menu (section 5, figure 5-1) can be found in the vehicle diagnosis menu.


<div>  Teach-in processes </div>		
MERCEDES V20.60> Automatic Detection> Special Functions> ME-Motor electronics> Teach-in processes		
Teach in of throttle valve stop	Activation of fuel pump	Teach-in of drive authorization system
Resetting of adaptation values	Reset of cold start adaptation values	Sensor rotor adaptation
Teach-in process after replacement of the combustion engine		

Figure 3-11 Sample of special functions screen

4 OBD II

You can perform the OBDII diagnosis by clicking the OBDII button after entering the **Car Make** menu.



Figure 4-1 Sample of diagnosis menu screen

The OBDII (On-board diagnostics) refers to the vehicle's self-diagnostic and reporting ability. When the malfunction of any sub-systems is detected, relevant MIL is illuminated and notice the vehicle owner or repair technician the status of the vehicle. OBDII implements the standardized digital communications port and diagnostic trouble codes (DTCs) which allows scan tools to communicate with the PCM of the vehicle. And the ASD60 is able to access the OBDII diagnostic functions as follows:

- **Read & Clear Trouble Codes**
- **Live Data**
- **Read Freeze Frame**
- **Read ECU Information**
- **Component Test**
- **On-Board Monitor Test**
- **O2 Sensor Monitoring Test**
- **I/M Readiness**

Read Trouble Code

Read trouble codes (DTCs) that are stored in ECU. For the trouble code, the diagnostic tool will give specific detailed definitions and explanations to help you locate and eliminate the car fault.

■ Stored Code

Stored codes are the current emission-related DTCs from the ECM of the vehicle. OBDII Codes have a priority according to their emission severity, with higher priority codes overwriting lower priority codes. The priority of the code determines the illumination of the MIL and the codes erase procedure. Manufacturers rank codes differently, so expect to see differences between makes.

■ Pending Code

These are codes whose setting conditions were met during the last drive cycle, but need to be met two or more consecutive drive cycles before the DTC actually sets. The intended use of this service is to assist the service technician after a vehicle repair and after clearing diagnostic information, by reporting test results after a driving cycle.

- c. If a test failed during the driving cycle, the DTC associated with that test is reported. If the pending fault codes do not occur again within 40 to 80 warm-up cycles, the fault is automatically cleared from memory.
- d. Test results reported by this service do not necessarily indicate a faulty component or system. If test results indicate another failure after additional driving, then a DTC is set to indicate a faulty component or system, and the MIL is illuminated.

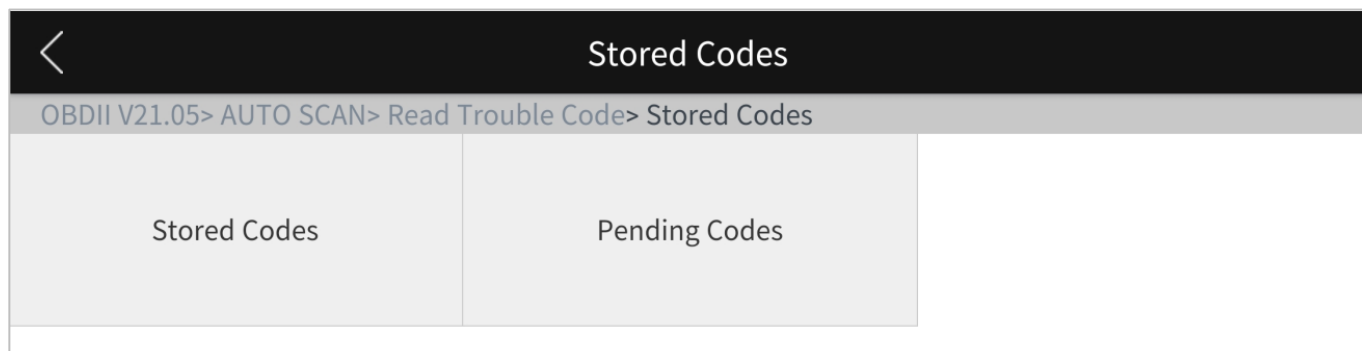


Figure 4-2 Sample of read trouble code screen

Clear Trouble Code

This option is used to clear all emission related diagnostic data such as DTCs, freeze frame data, and manufacturer specific enhanced data from the vehicle's PCM. A confirmation screen displays when the clear codes option is selected to prevent accidental loss of data. Select Yes on the confirmation screen to continue or No to exit.

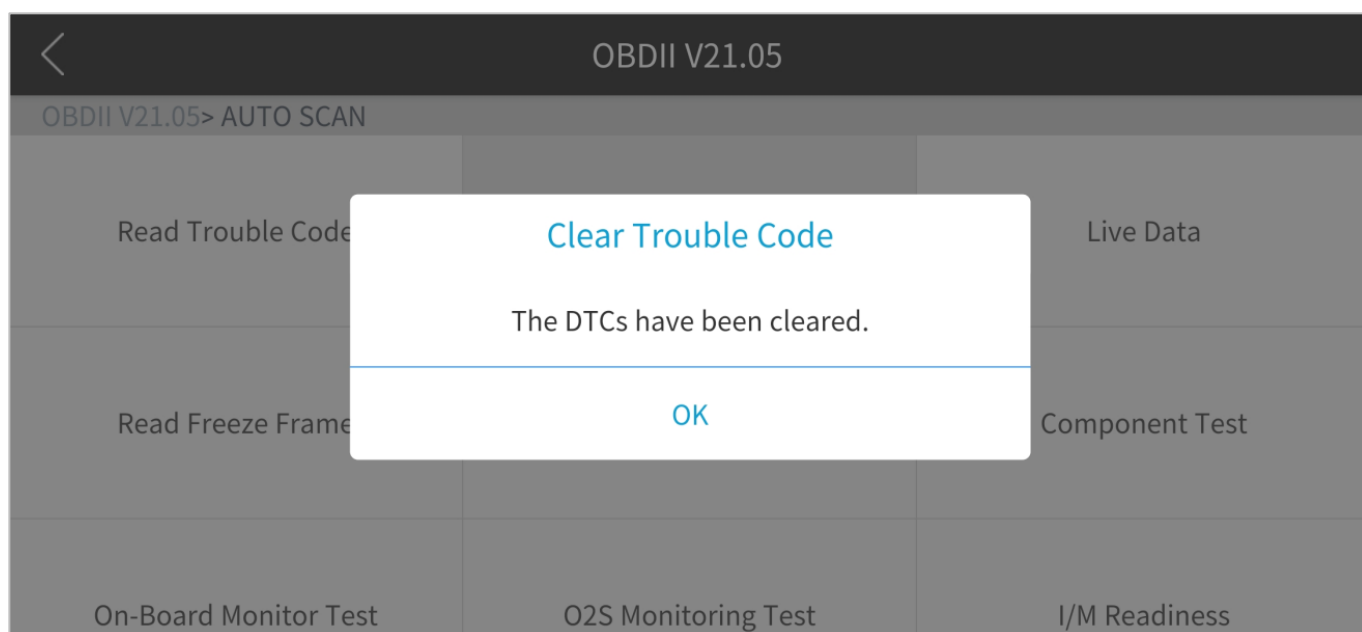


Figure 4-3 Sample of clear trouble code screen

Live Data

This function displays the real-time PID data from ECU. Displayed data includes analog inputs and outputs, digital inputs and outputs, and system status information broadcast on the vehicle data stream. Live data can be displayed in various modes.

<

Live Data

OBDII V21.05> AUTO SCAN

NO.	Name	Value	Unit
1	Number of DTCs	0	
2	Malfunction Indicator Lamp (MIL) Status	MIL OFF	
3	Fuel system 1 status	OL	
4	Fuel system 2 status	Not Used	

Data recording

Pause

Graph

Figure 4-4 Sample of live data screen (table)

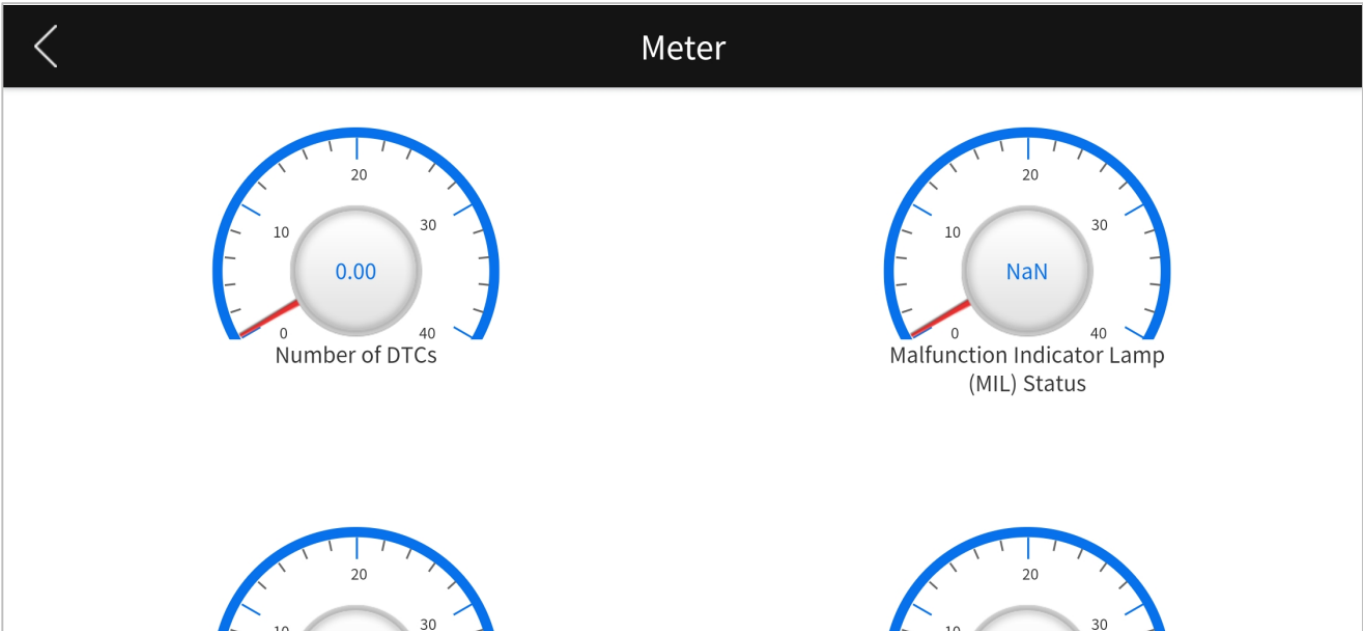
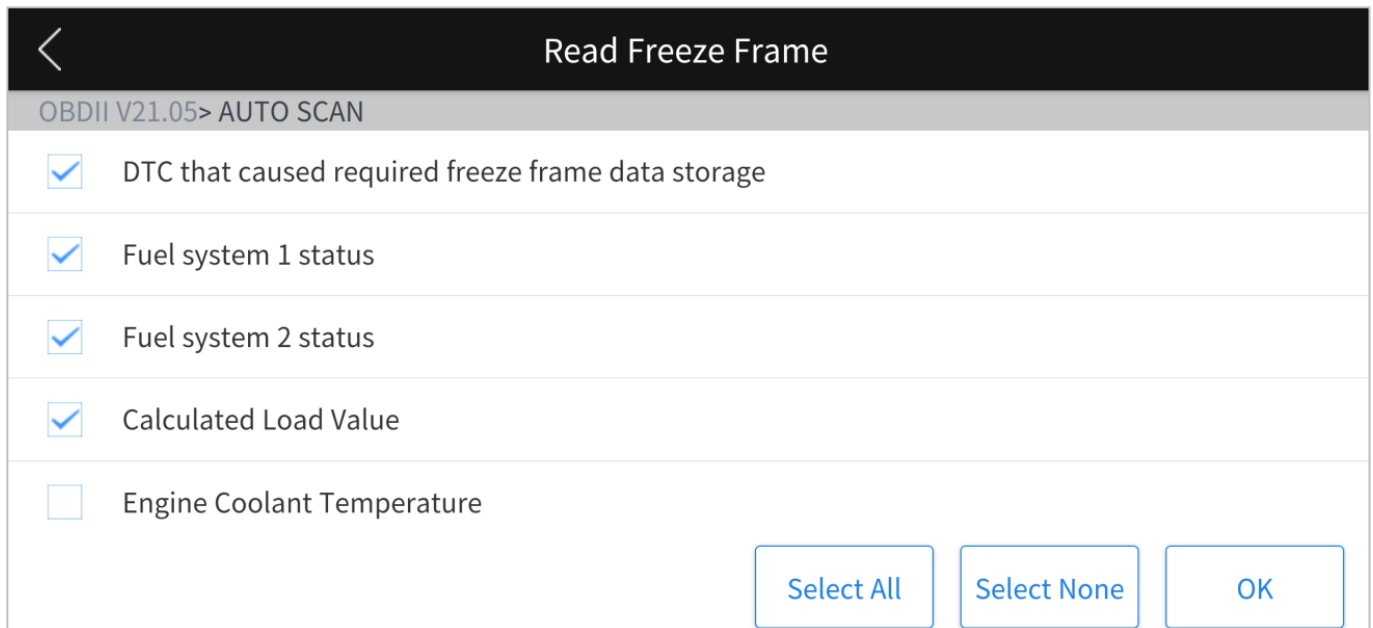


Figure 4-5 Sample of live data screen (graph)

Freeze Frame

In most cases, the stored frame is the last DTC that occurred. Certain DTCs, which have a greater impact on vehicle emission, have a higher priority. In these cases, the top prioritized DTC is the one for which the freeze frame records are retained. Freeze frame data includes a “snapshot” of critical parameter values at the time the DTC is set.



Read Freeze Frame	
OBDII V21.05> AUTO SCAN	
<input checked="" type="checkbox"/>	DTC that caused required freeze frame data storage
<input checked="" type="checkbox"/>	Fuel system 1 status
<input checked="" type="checkbox"/>	Fuel system 2 status
<input checked="" type="checkbox"/>	Calculated Load Value
<input type="checkbox"/>	Engine Coolant Temperature
<div>Select All Select None OK</div>	

Figure 4-6 Sample of freeze frame screen

Read ECU Information

The option displays the vehicle identification number (VIN), the calibration identification, and the calibration verification number (CVN), and other information of the test vehicle.

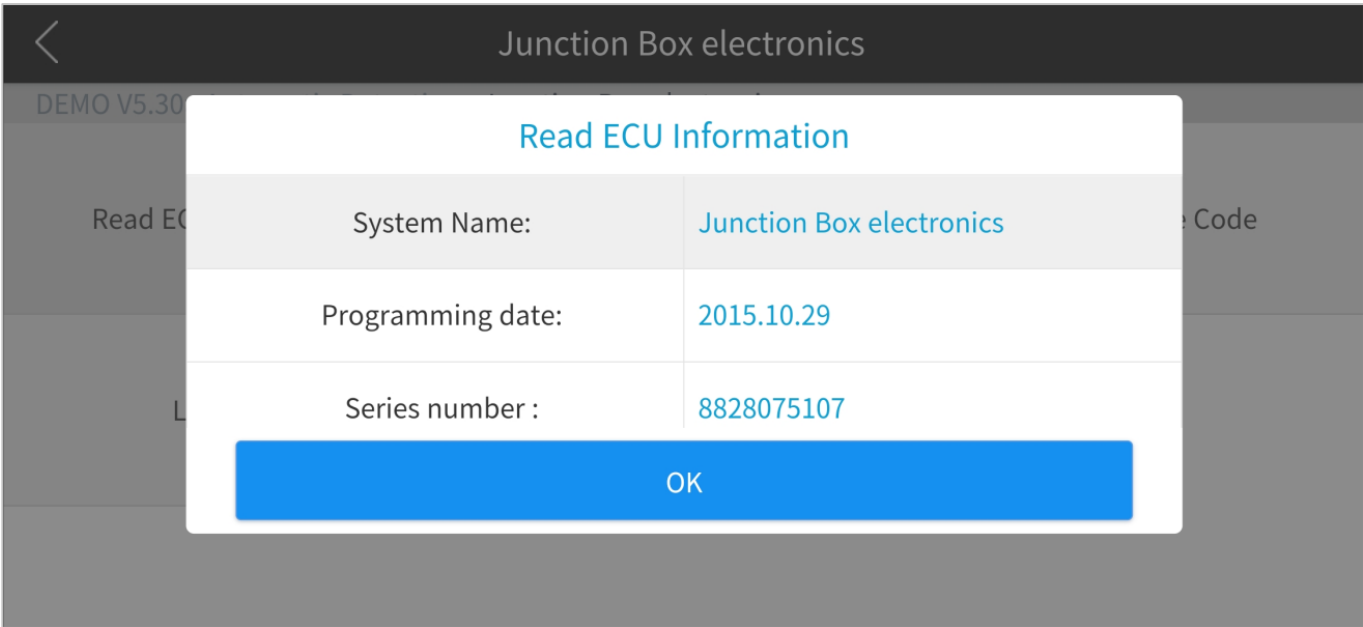


Figure 4-7 Sample of read ECU information screen

Component Test

This service enables bi-directional control of the ECM so that the diagnostic tool is able to transmit control commands to operate the vehicle systems. This function is useful in determining whether the ECM responds to command well.

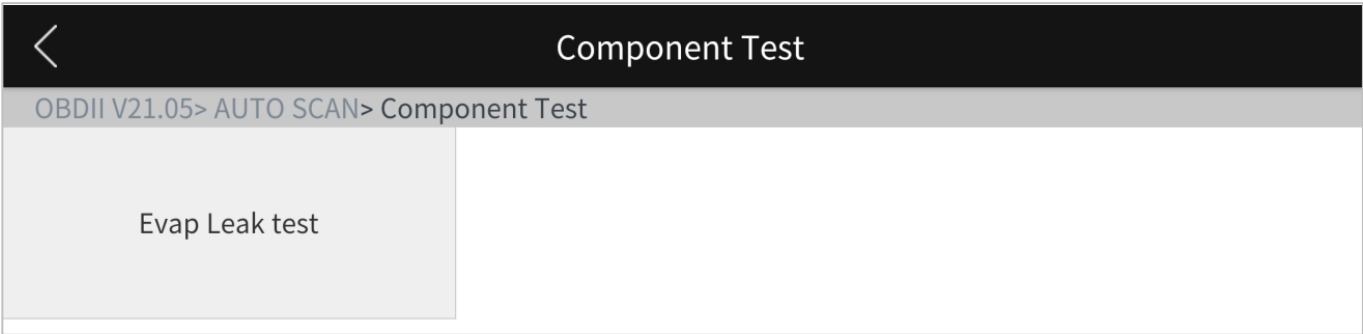


Figure 4-8 Sample of component test screen

On-Board Monitor Test

This option allows you to view the results of On-Board Monitor tests. The tests are useful after servicing or after erasing a vehicle's control module memory.

On-Board Monitor Test		
OBDII V21.05> AUTO SCAN> On-Board Monitor Test		
Test ID:\$01 Data	Test ID:\$02 Data	Test ID:\$05 Data
Test ID:\$06 Data		

Figure 4-9 Sample of on-board monitor screen

O2 Sensor Monitoring Test

The oxygen sensor monitor allows the PCM to verify that the O2 sensors are properly calibrated and functioning without noticeable deterioration under normal engine operating conditions.

O2S Monitoring Test		
OBDII V21.05> AUTO SCAN> O2S Monitoring Test		
Bank 1-Sensor 1	Bank 1-Sensor 2	Bank 2-Sensor 1
Bank 2-Sensor 2		

Figure 4-10 Sample of O2 Sensor monitoring test screen

I/M Readiness

This function is used to check the readiness of the monitoring system. It is an excellent function to use prior to having a vehicle inspected for compliance with a state emissions program. Selecting I/M Readiness opens a submenu with two choices:

- **Since DTCs Cleared** – displays the status of monitors since the last time the DTCs are erased.
- **This Driving Cycle** – displays the status of monitors since the beginning of the current drive cycle.




Monitor status since DTCs cleared			
OBDII V21.05> AUTO SCAN			
NO.	Name	Value	Unit
1	Malfunction Indicator Lamp (MIL) Status	MIL OFF	
2	Misfire monitoring	OK	
3	Fuel system monitoring	OK	
4	Comprehensive component monitoring	OK	
<div> Data recording  Pause  Graph</div>			

Figure 4-11 Sample of I/M readiness screen

5 SPECIAL FUNCTIONS

Special functions supported by ASD60 are various from model, table below shows all the special functions supported by ASD60_VW, ASD60_BENZ, ASD60_BMW respectively.

Special Functions		ASD60_VW	ASD60_BENZ	ASD60_BMW
1	Oil Reset	✓	✓	✓
2	EPB	✓	✓	✓
3	SAS	✓	✓	✓
4	DPF	✓	✓	✓
5	Throttle	✓	✓	✓
6	BMS Reset	✓	✓	✓
7	Injector Coding	✓	✓	✓
8	Gearbox Match	✓	✓	✓
9	ECU Configuration	✓	✓	✓

Figure 5-1 Table of special functions

Special functions allow you to quickly access your vehicle system for various scheduled services, maintenance and reset performance, eliminating the need to reset after resolving common problems. This user manual lists some commonly used special reset services for your reference. The special function interface is shown as below:



Figure 5-1 Sample of special function screen

① All software screens shown in this manual are examples, actual test screens may vary for each vehicle being tested. Observe the menu titles and on-screen instructions to make correct option selections.

5.1 OIL RESET

Reset the Engine Oil Life System, which calculates the optimum oil life change interval based on the vehicle's driving conditions and climate. The oil life reminder must be reset each time the oil is changed so that the system can calculate when the next oil change is required.

This function can be performed in the following cases:

- If the service lamp is on, you must provide service for the car. After service, you need to reset the driving mileage or driving time so that the service lamp turns off and the system enables the new service cycle.
- After changing engine oil or electric appliances that monitor oil life, you need to reset the service lamp.

The operation guidelines of the Oil Reset function are shown as below:

1. Enter the **Oil Reset** menu and choose relevant models according to the vehicle being tested.
2. Follow the instructions displayed and press **OK** after completing the instructions shown.

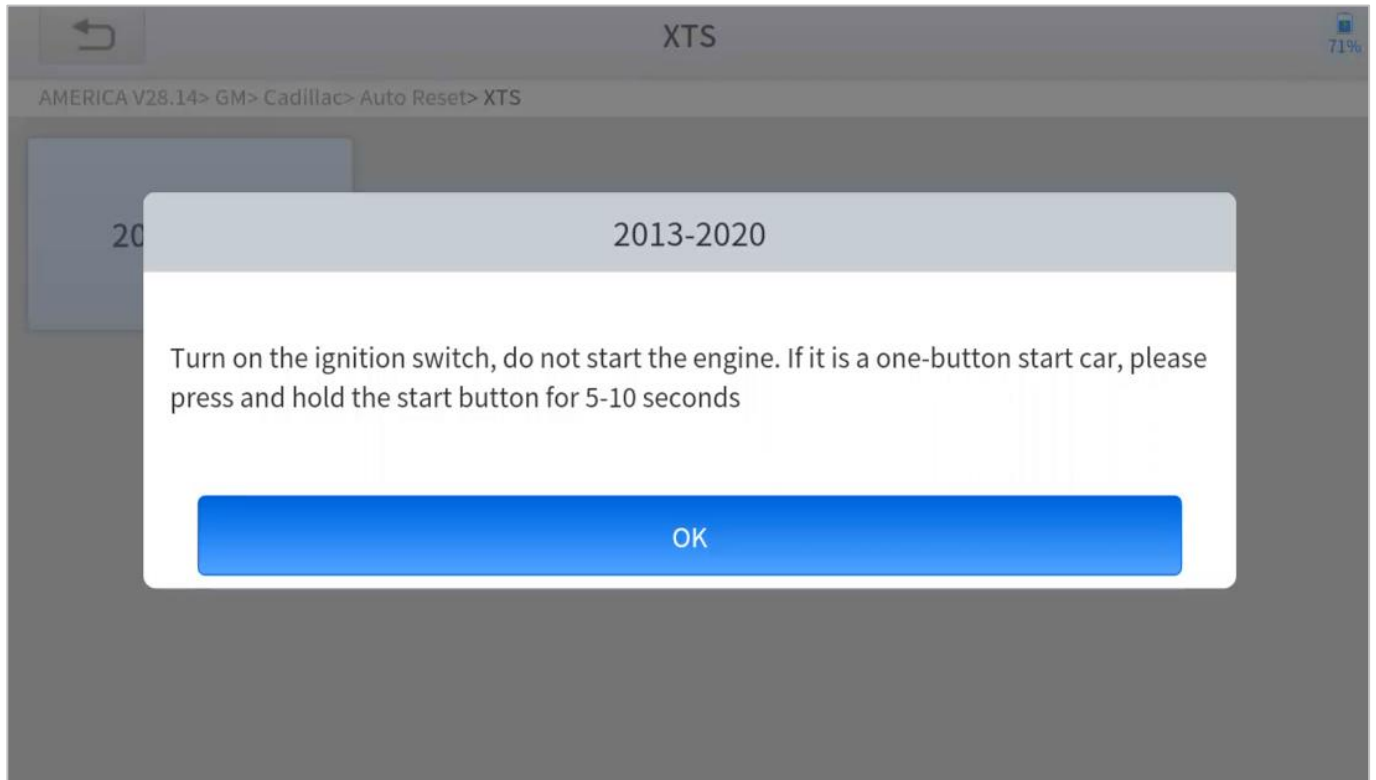


Figure 5-2 Sample of oil reset function (screen 1)

3. Enter **Maintenance mileage reset** menu.
4. Input reasonable value of mileage and press **OK**.

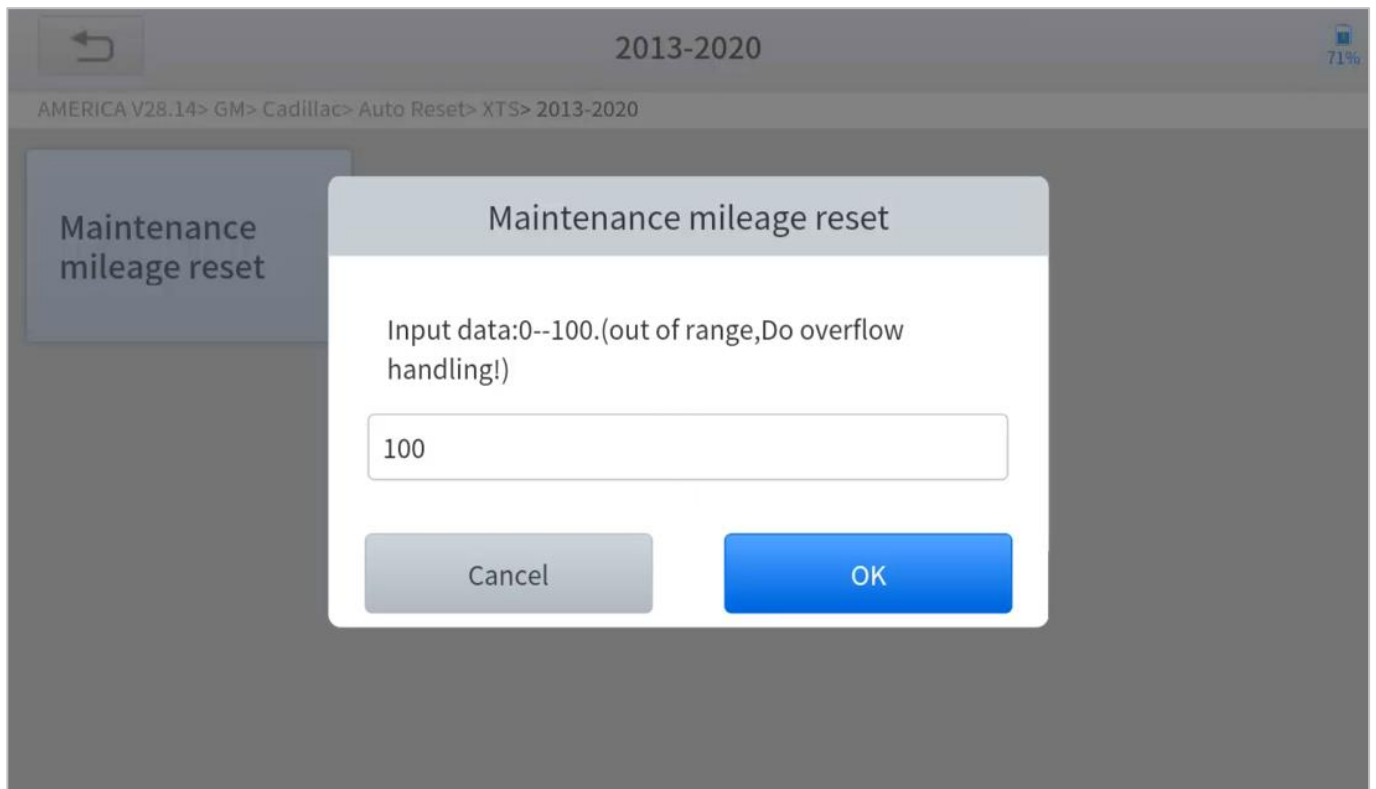


Figure 5-3 Sample of oil reset function (screen 2)

5. Message of '**Reset success**' displayed when oil reset has successfully performed.

5.2 EPB

Electronic Parking Brake (EPB) System reset is a popular special function. You can use this function to reset the electronic parking brake system and brake pads, which also supports the brake pad replacement (retraction, release of the brake pump), G-sensor, and body angle calibration. This function has multiple uses and can safely and effectively maintain the electronic brake system. These applications include deactivating and activating brake control systems, assisting in controlling brake fluid, opening and closing brake pads, and setting brakes after replacing brake discs or brake pads, etc.

1. If the brake pad wears the brake pad sense line, the brake pad sense line will send a signal to the onboard tablet asking for replacing the brake pad. After replacing the brake pad, you must reset the brake pad. Otherwise, the car alarms.
2. Reset must be performed in the following cases:
 - The brake pad and brake pad wear sensor are replaced.
 - The brake pad indicator lamp is on.
 - The brake pad sensor circuit is short, which is recovered.
 - The servo motor is replaced.

The operation guidelines of the EPB function are shown as below:

1. Enter the **EPB** menu and choose relevant models according to the vehicle being tested.
2. Follow the instructions displayed and press **YES** after completing the instructions shown.

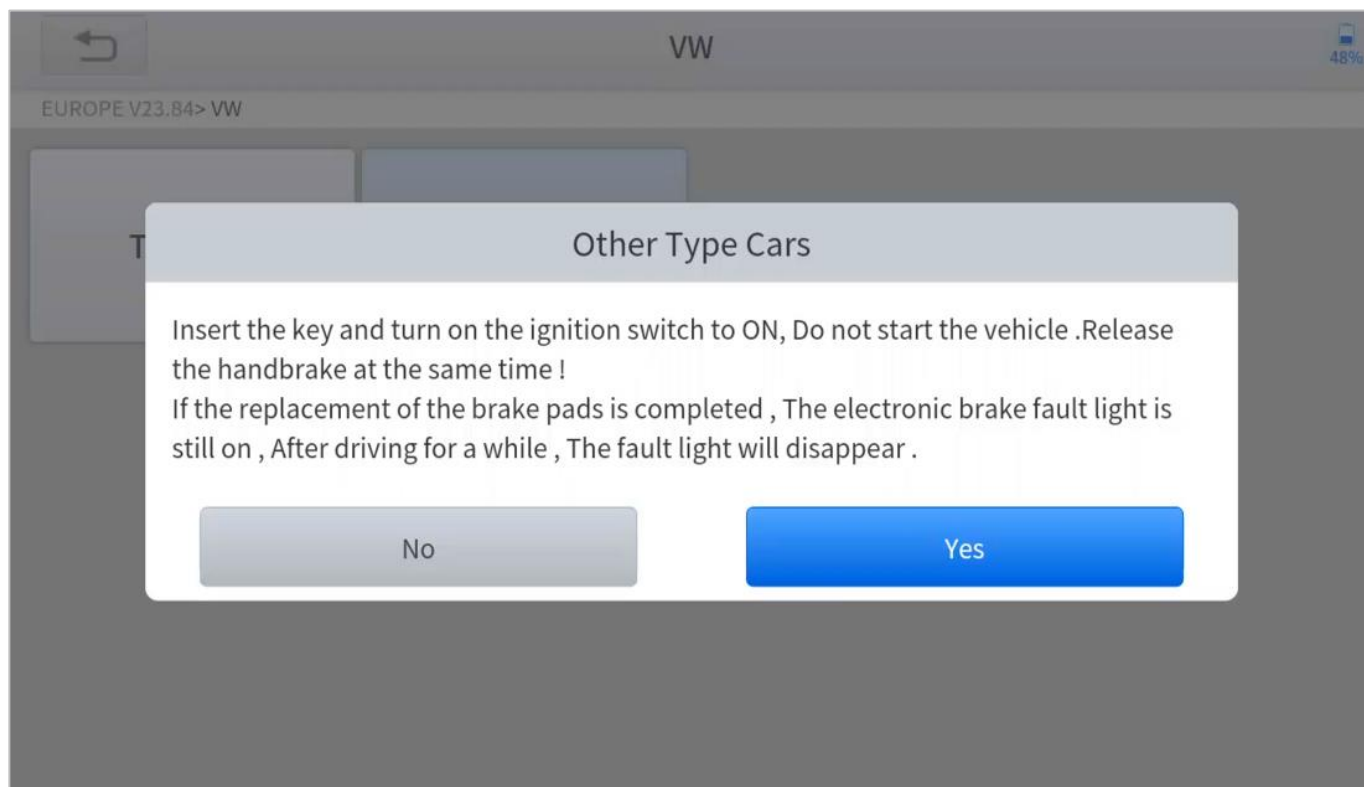


Figure 5-4 Sample of EPB function (screen 1)

3. Enter the **Enter maintenance mode** menu and release the handbrake brake. And press **OK** after completing the instructions shown.

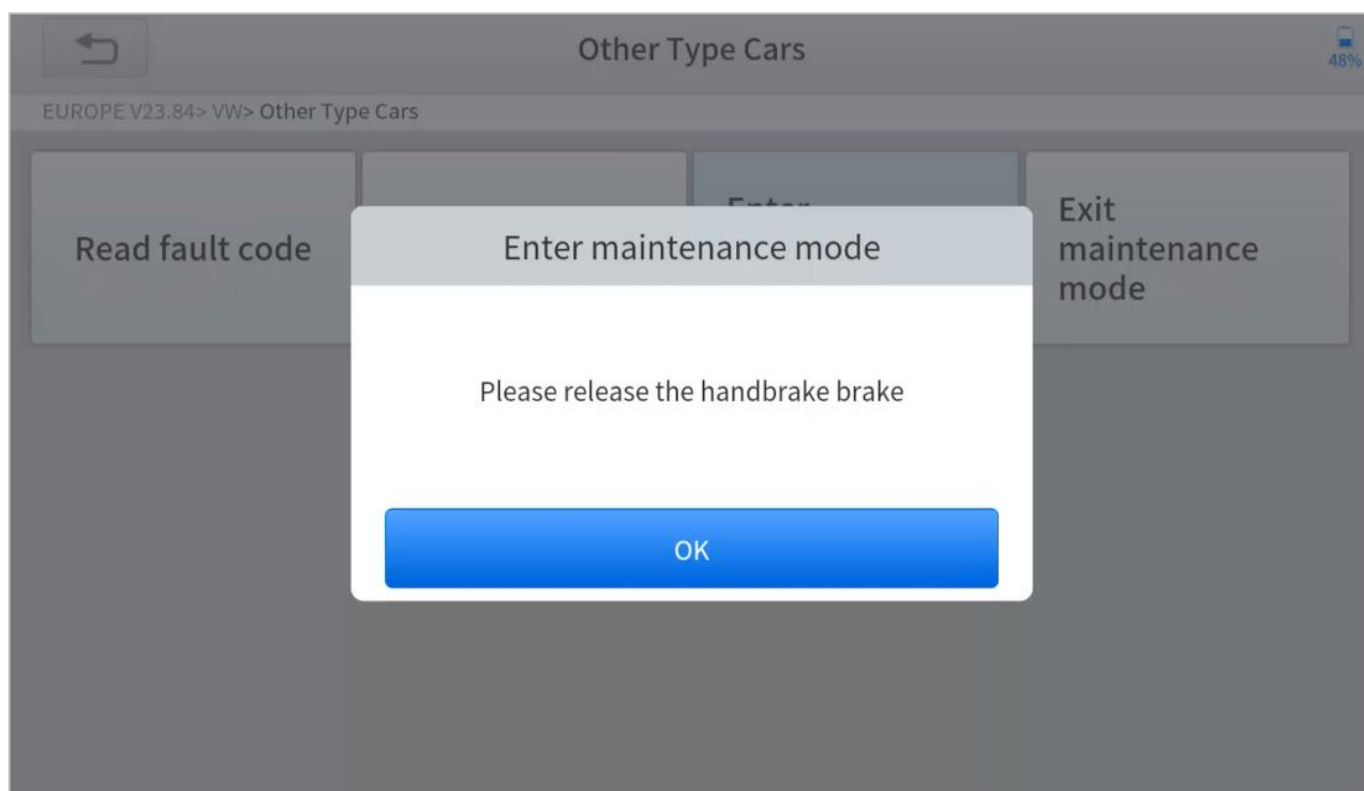


Figure 5-5 Sample of EPB function (screen 2)

4. Wait until the message of '**Successful operation**' pops up. And press **OK** to exit the menu.
5. Enter the **Exit maintenance mode** menu and wait until the message of "**Successful operation**" pops up.

5.3 SAS

Steering Angle Sensors (SAS) System Calibration permanently stores the current steering wheel position as the straight-ahead position in the SAS EEPROM. Therefore, the front wheels and the steering wheel must be set exactly to the straight-ahead position before calibration. In addition, the VIN is also read from the instrument cluster and stored permanently in the SAS EEPROM. On successful completion of calibration, the SAS fault codes will be automatically cleared.

To reset the steering angle, you need to first find the relative zero point position for the car to drive in a straight line. Taking this position as a reference, the ECU can calculate the accurate angle for left and right steering.

After replacing the steering angle position sensor, replacing steering mechanical parts (such as steering gearbox, steering column, end tie rod, steering knuckle), performing four-wheel alignment, or recovering the car body, you must reset the steering angle.

The operation guidelines of the SAS function are shown as below:

1. Enter the **SAS** menu and choose relevant models according to the vehicle being tested.
2. Enter the **Set steering angle sensor** menu and follow the instructions displayed.

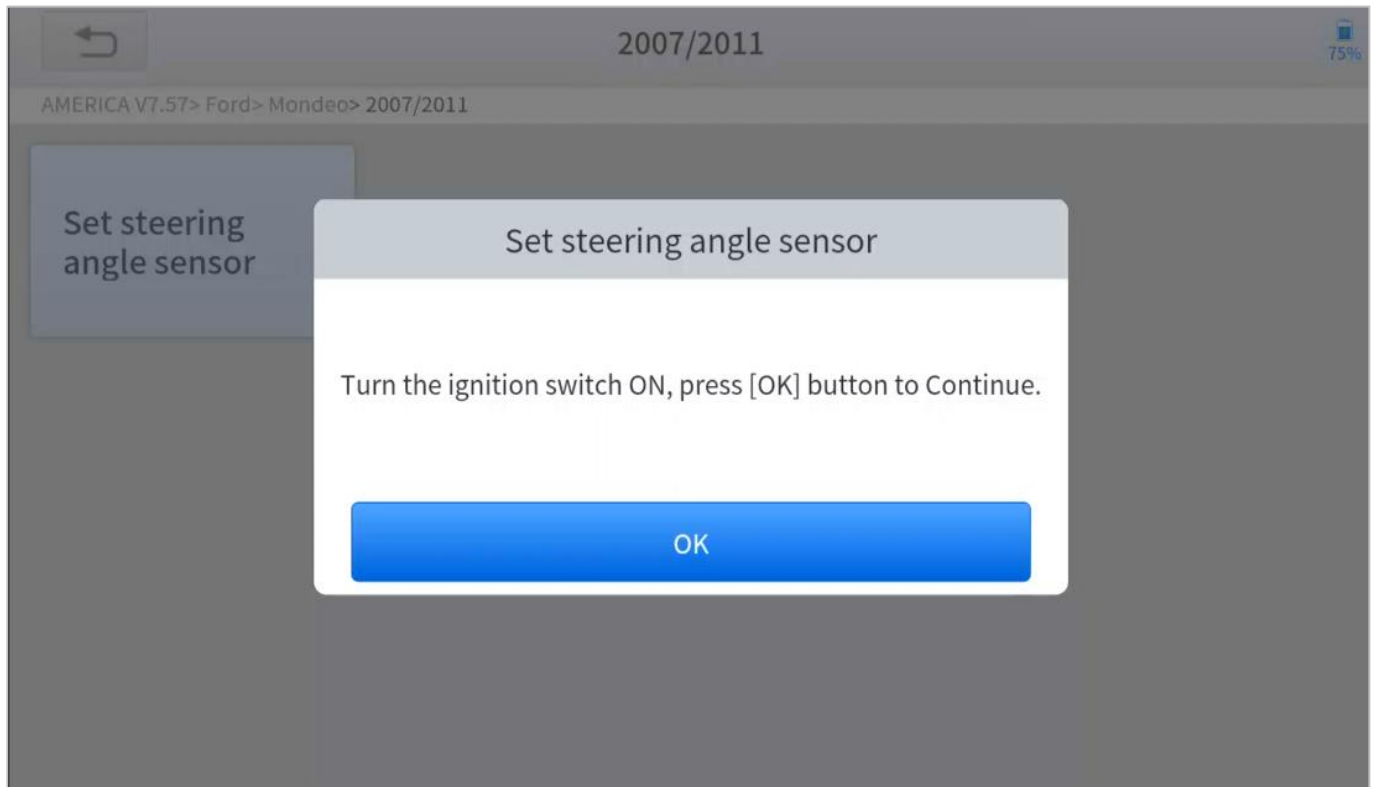


Figure 5-6 Sample of SAS function (screen 1)

3. Wait until the following instruction displayed and press **Yes** after completing the instructions shown.

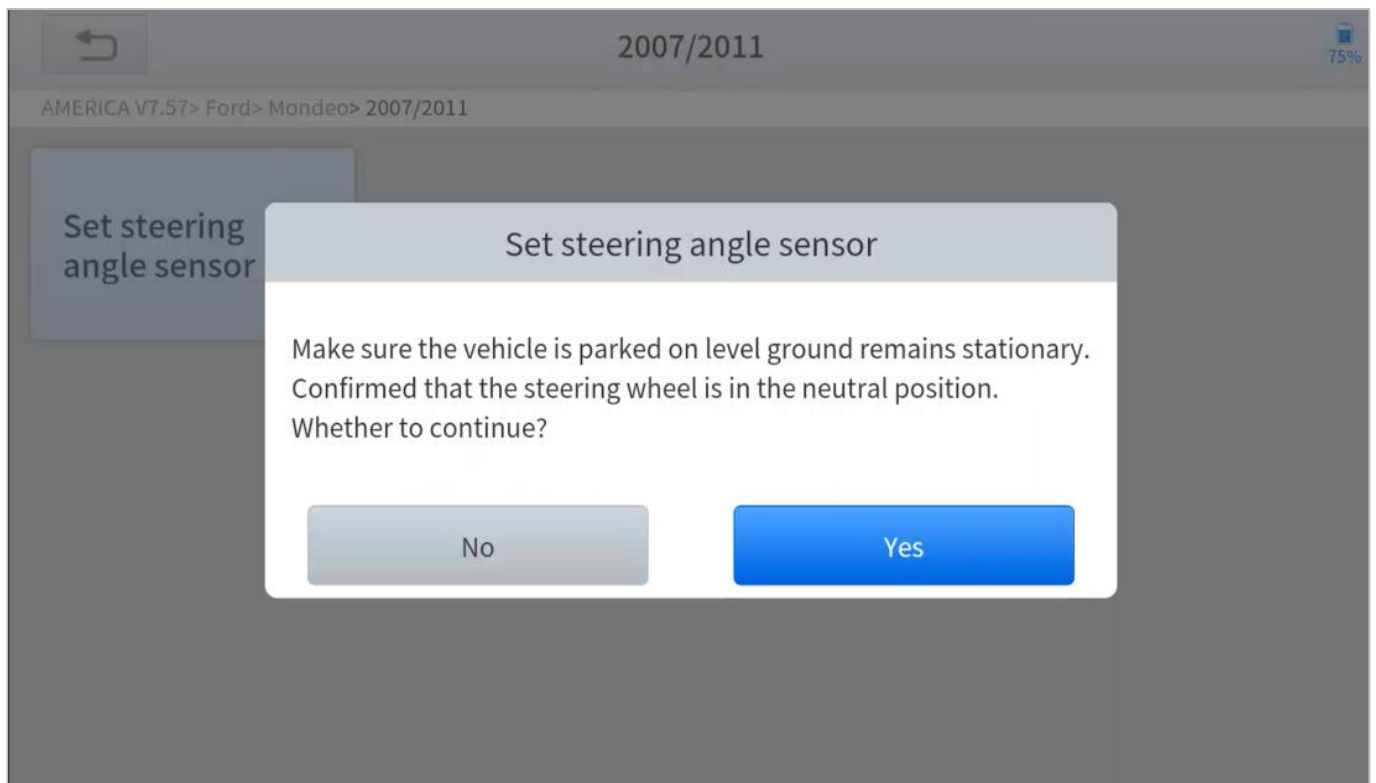


Figure 5-7 Sample of SAS function (screen 2)

4. Follow the instructions displayed and press **OK** after completing the instructions shown.

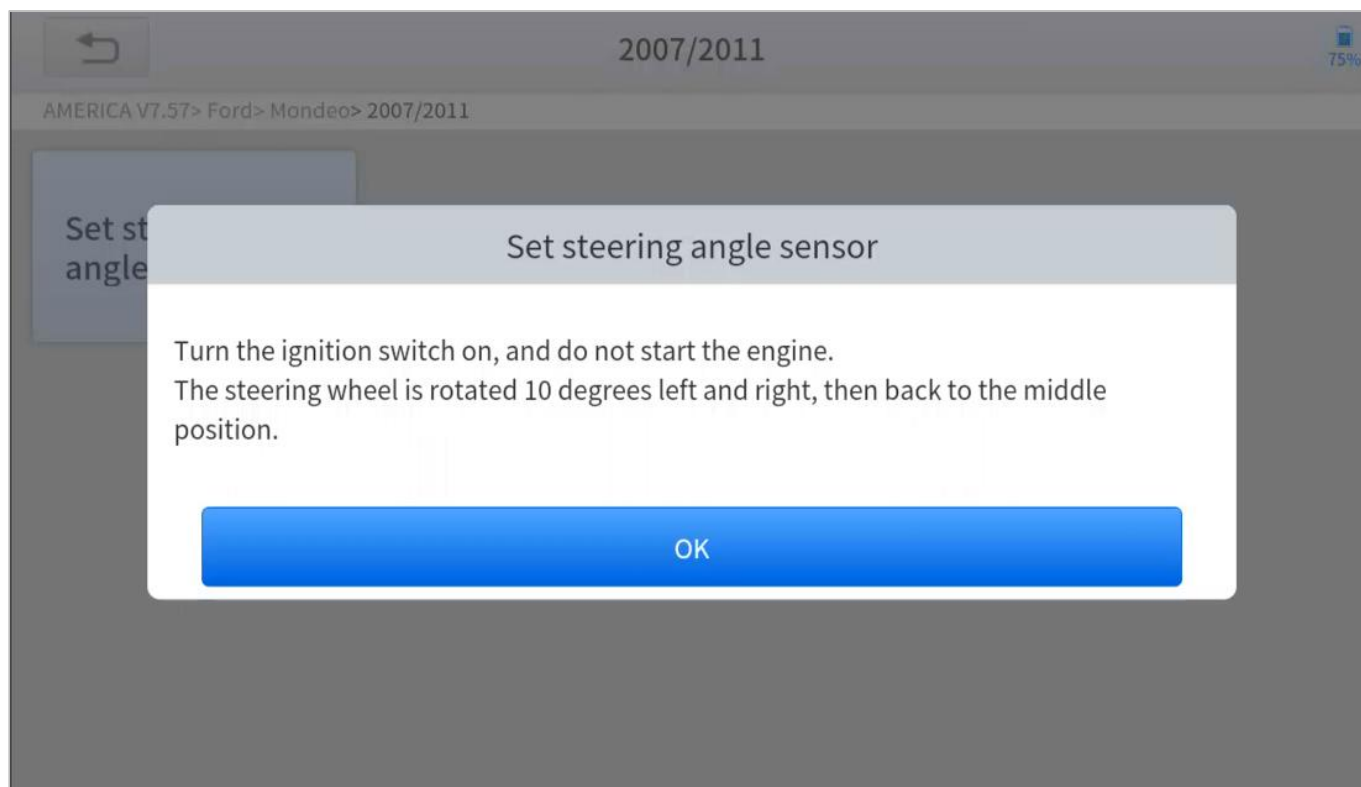


Figure 5-8 Sample of SAS function (screen 3)

5. Wait until the following instruction displayed and press **OK** after completing the instructions shown.

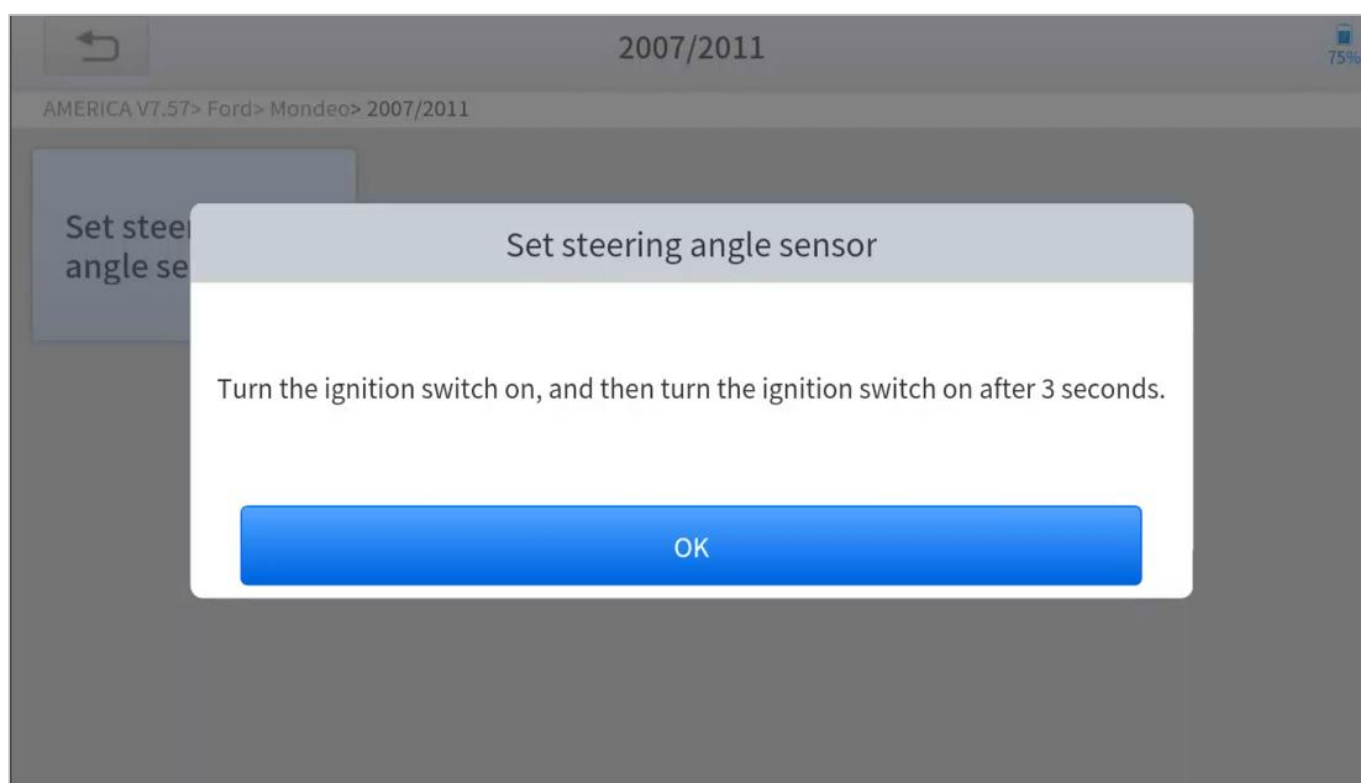


Figure 5-9 Sample of SAS function (screen 4)

6. Message of **'Function execution is completed'** displayed when SAS function has successfully performed.

5.4 DPF

The Diesel Particle Filter (DPF) function manages DPF regeneration, DPF component replacement teach-in, and DPF teach-in after replacing the engine control module (ECM).

The ECM monitors driving style and selects a suitable time to employ regeneration. Vehicles driven a lot at idling speed and low load will attempt to regenerate earlier than vehicles driven more with higher load and speed. For regeneration to take place, a prolonged high exhaust temperature must be obtained.

In the event of the car being driven in such ways that regeneration is not possible, i.e., frequent short journeys, a diagnostic trouble code will eventually be registered in addition to the DPF light and “Check Engine” indicators displaying. A service regeneration can be requested in the workshop using the diagnostic tool.

DPF regeneration is used to clear PM (Particulate Matter) from the DPF filter through continuous combustion oxidation mode (such as high-temperature heating combustion, fuel additive or catalyst reduce PM ignition combustion) to stabilize the filter performance.

DPF regeneration may be performed in the following cases:

- The exhaust back pressure sensor is replaced.
- The PM trap is removed or replaced.
- The fuel additive nozzle is removed or replaced.
- The catalytic oxidizer is removed or replaced.
- The DPF regeneration MIL is on and maintenance is performed.
- The DPF regeneration control module is replaced.

The operation guidelines of the DPF function are shown as below:

1. Enter the **DPF** menu and choose relevant models according to the vehicle being tested.
2. Enter the **DPF regeneration** menu.
3. Read carefully and complete the **requisites** listed before performing the DPF regeneration function. And press **OK** after completing the instructions shown.

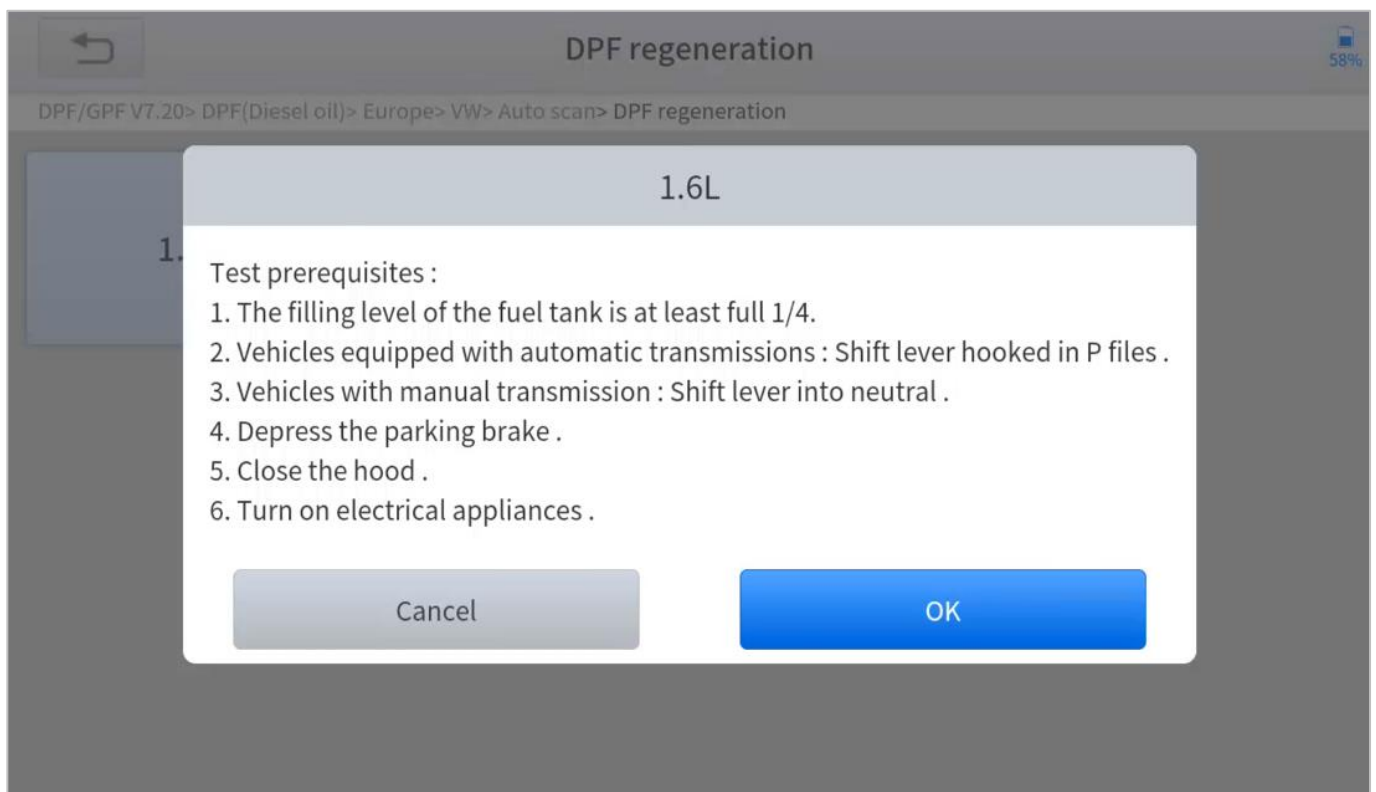


Figure 5-10 Sample of DPF function (screen 1)

4. Read the fuel tank level and make sure that it fulfills the requirement displayed.
5. Read the carbon deposit load.

6. Choose drive to warm up and follow the instructions listed below. And press **OK** after completing the instructions shown.

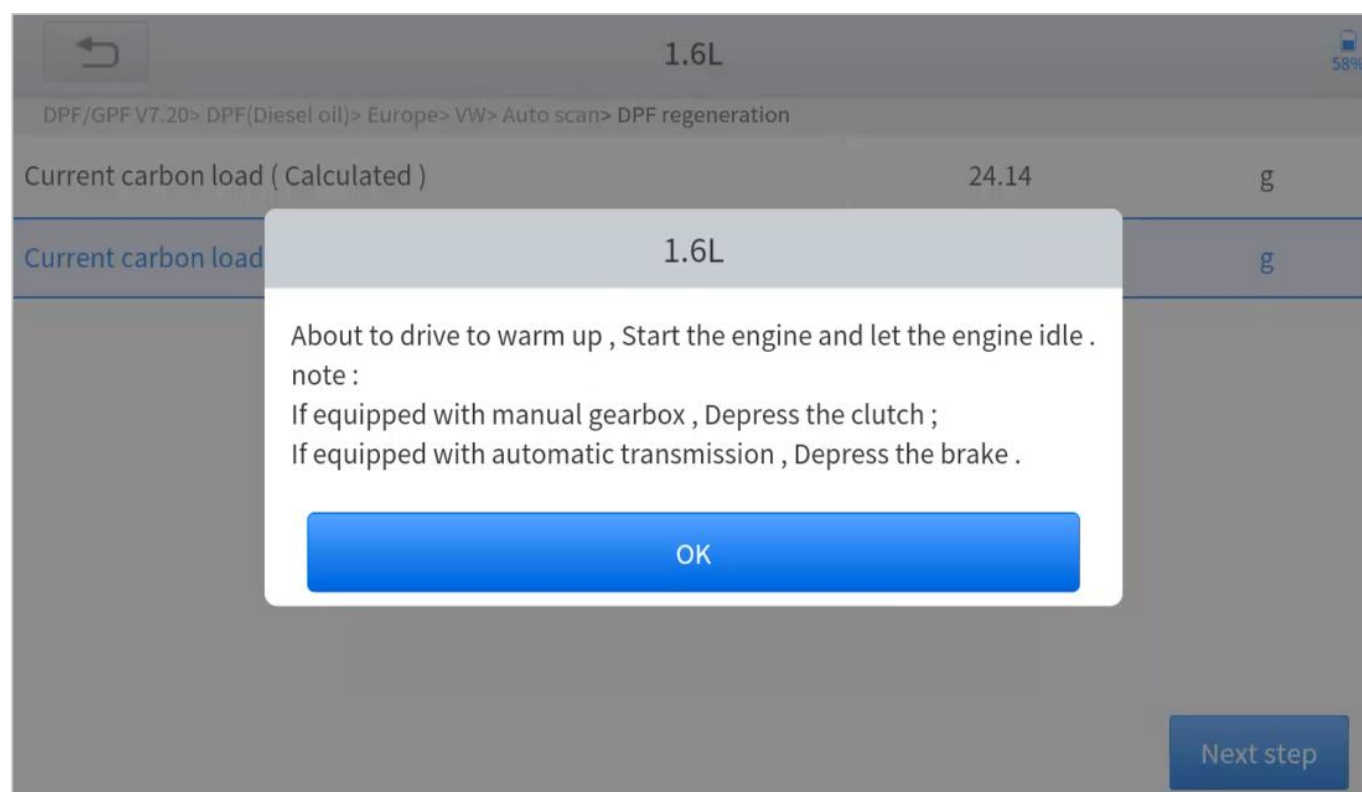


Figure 5-11 Sample of DPF function (screen 2)

7. Read the note carefully and follow the instructions shown on the screen. And press **OK** after completing the instructions shown.

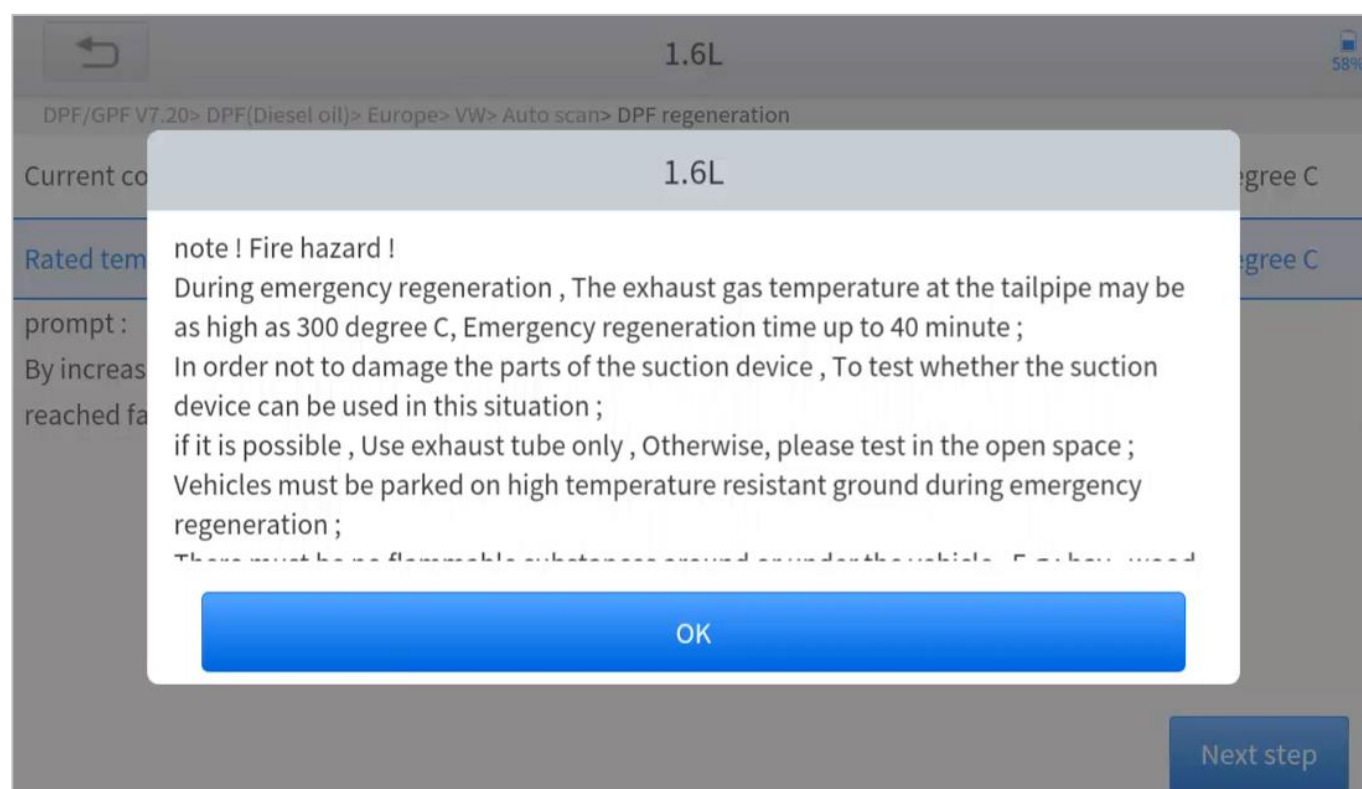


Figure 5-12 Sample of DPF function (screen 3)

8. Follow the instructions displayed and press **OK** after completing the instructions shown. Please pay attention to the Note.

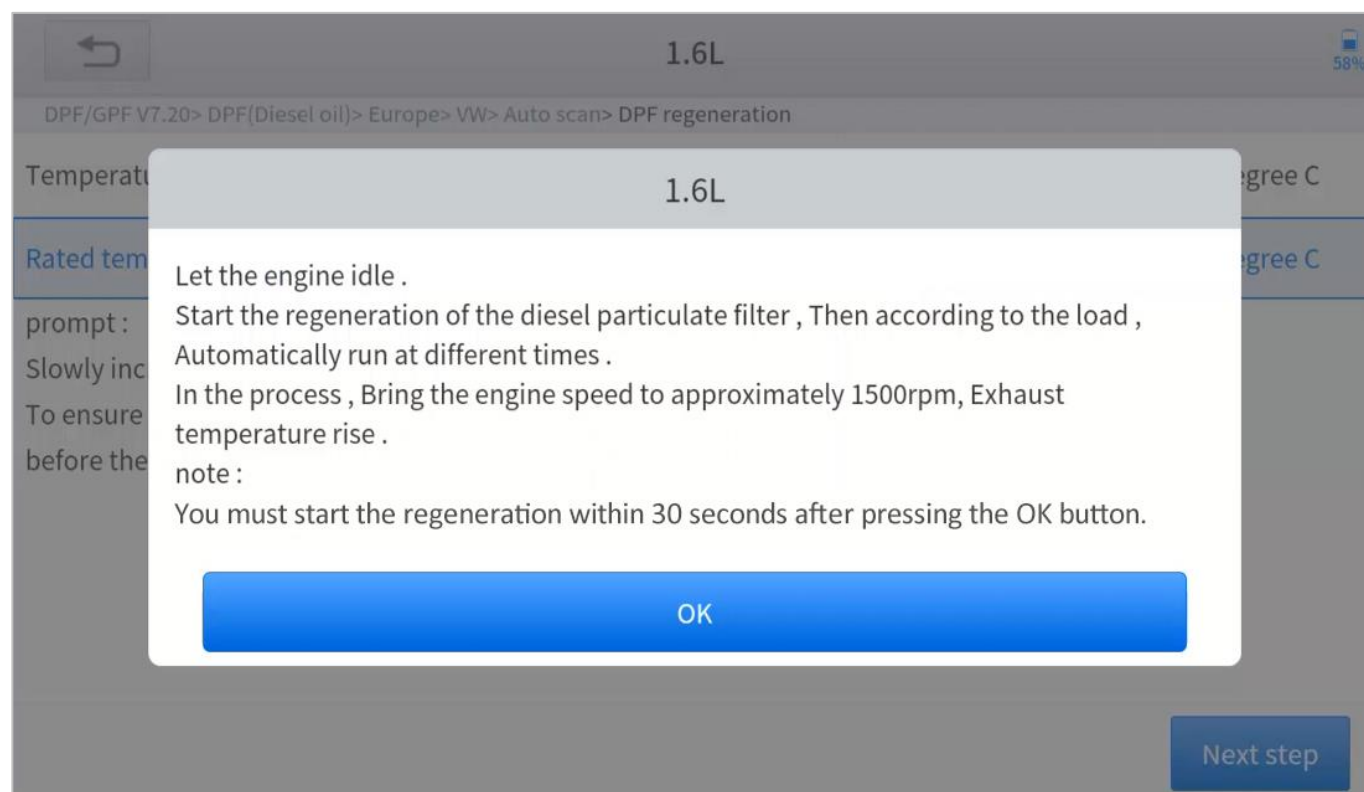


Figure 5-13 Sample of DPF function (screen 4)

9. Press the **OK** button to start the regeneration.

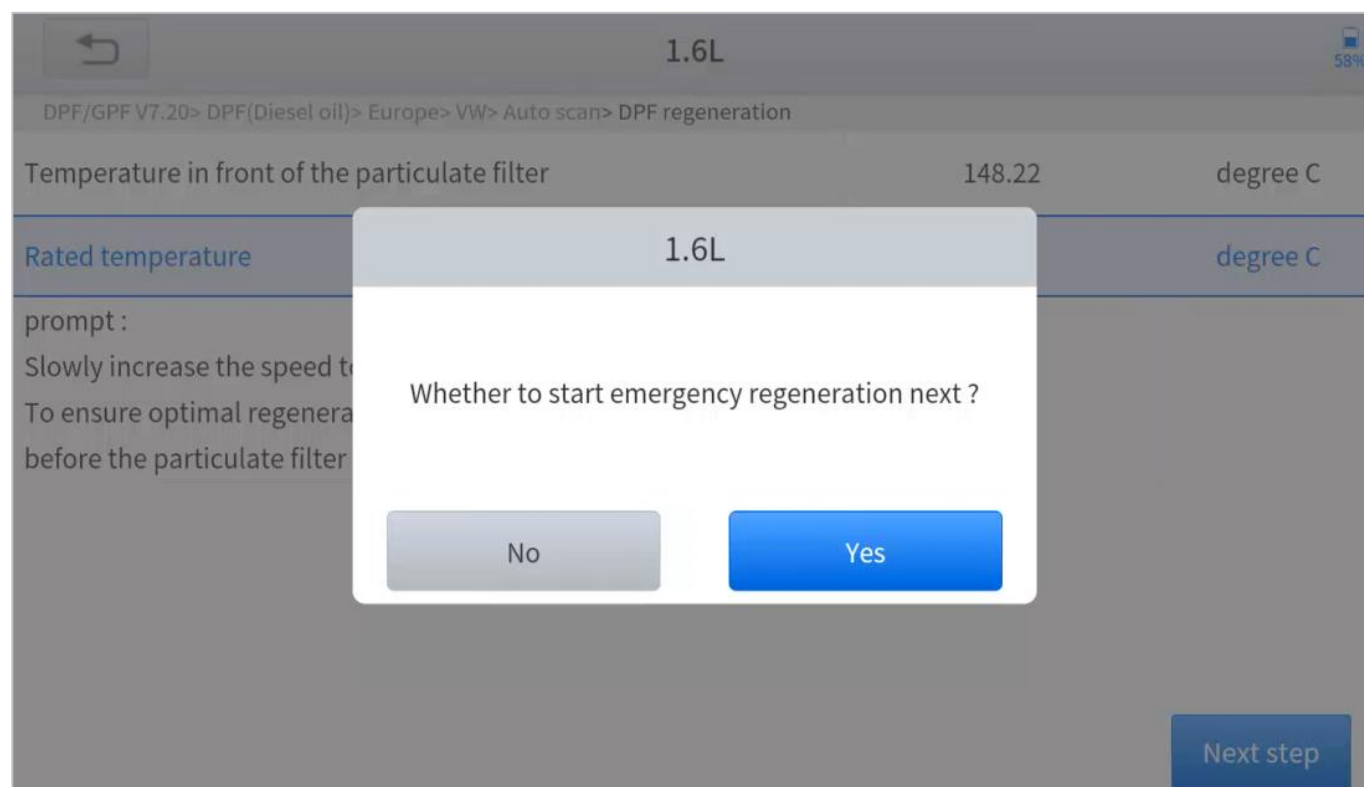


Figure 5-14 Sample of DPF function (screen 5)

10. Wait for the value of carbon deposit to decrease until a message of 'Emergency regeneration has been **successfully completed**' pops up, this process may take up to 40 minutes.

1.6L		
DPF/GPF V7.20> DPF(Diesel oil)> Europe> VW> Auto scan> DPF regeneration		
Regeneration duration	0.00	min
Carbon deposit	22.78	g
Rotating speed	781	rpm
Waste temperature upstream of turbocharger	143.41	degree C
Upstream of particulate filter	143.21	degree C
Downstream of particulate filter	112.38	degree C
Next step		

Figure 5-15 Sample of DPF function (screen 5)

11. Wait for **2 minutes** to let the particulate filter cool down.

1.6L		
DPF/GPF V7.20> DPF(Diesel oil)> Europe> VW> Auto scan> DPF regeneration		
Current carbon load (Calculated)	24.14	g
Current carbon load (Measurements)	1.32	g
Let the engine run at idle again 2 Minutes to cool down the hot particulate filter	120	s
drop out		

Figure 5-16 Sample of DPF function (screen 6)

12. Press **drop out** to exit the DPF function.

5.5 BMS RESET

The Battery Management System (BMS) allows the scan tool to evaluate the battery charge state, monitor the close-circuit current, register the battery replacement, and activate the rest state of the vehicle.

This function enables you to perform a resetting operation on the monitoring unit of the vehicle battery, in which the original low battery fault information will be cleared and battery matching will be done.

Battery matching must be performed in the following cases:

- The main battery is replaced. Battery matching must be performed to clear original low battery information and prevent the related control module from detecting false information. If the related control module detects false information, it will invalidate some electric auxiliary functions, such as automatic start & stop function, sunroof without one-key trigger function, power window without automatic function.
- Battery matching is performed to re-match the control module and motoring sensor to detect battery power usage more accurately, which can avoid an error message displayed on the instrument cluster.

The operation guidelines of the BMS Reset function are shown as below:

1. Enter the **BMS Reset** menu and choose relevant models according to the vehicle being tested.
2. Turn on the ignition switch.
3. Press **OK** to continue the BMS function.
4. Enter **battery capacity** (within the given range) and press **OK** after the input.

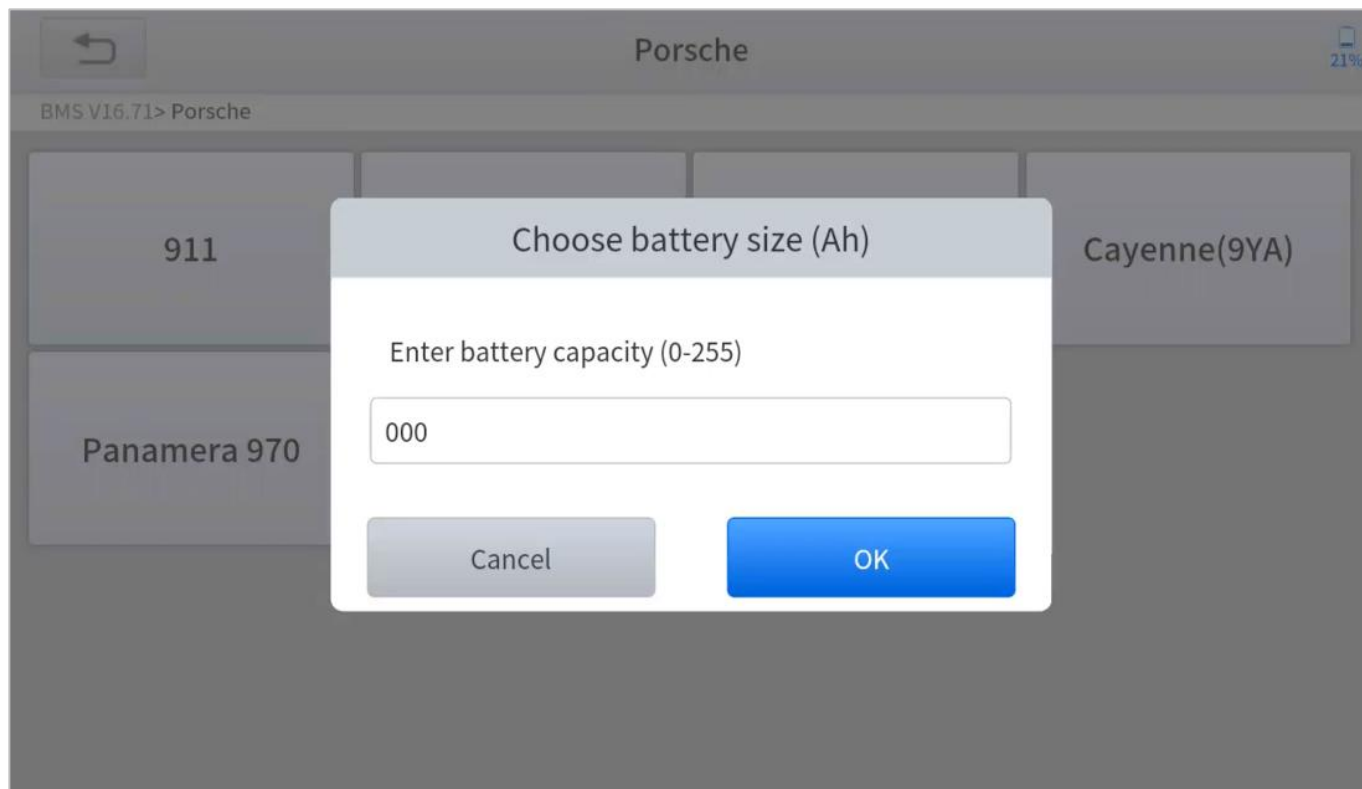


Figure 5-17 Sample of BMS function (screen 1)

5. Enter the **battery manufacturer** and press **OK** after the input.

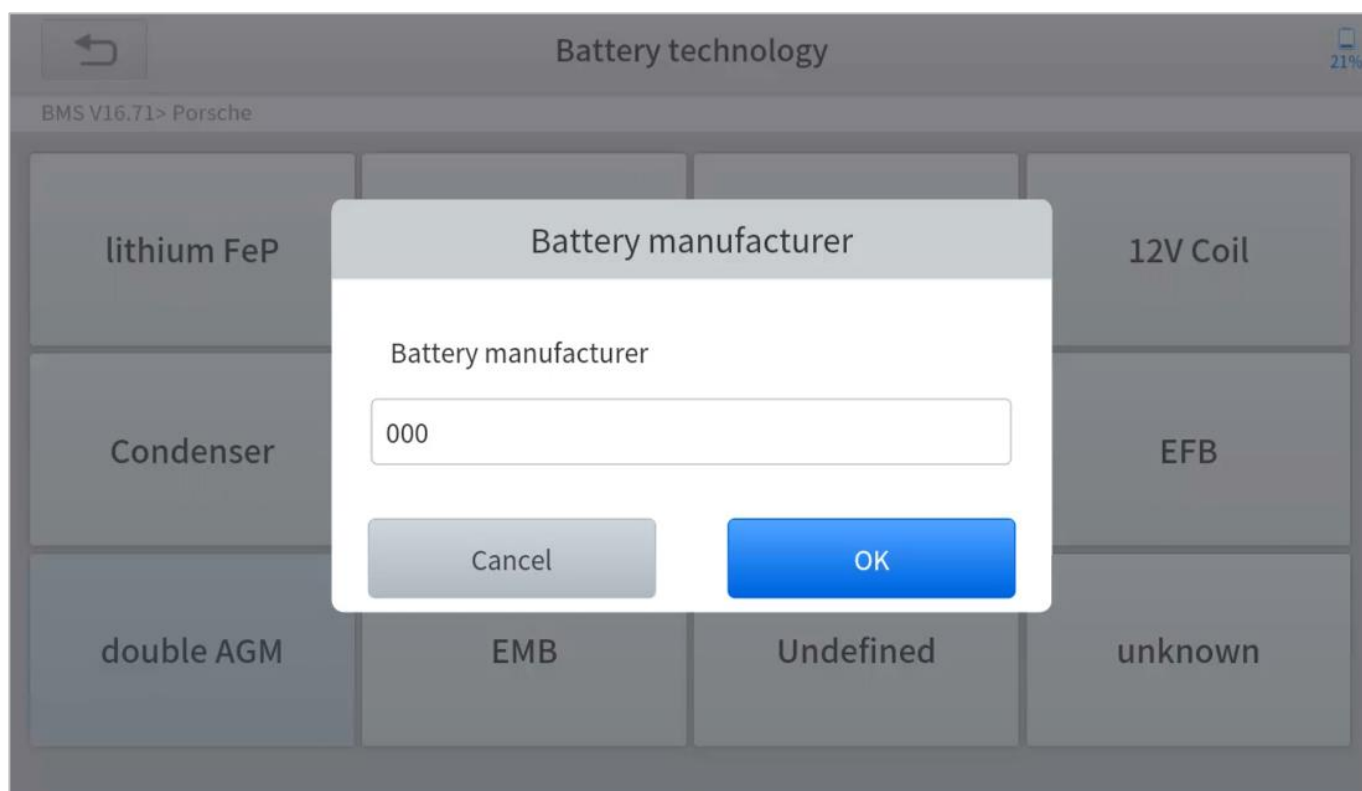


Figure 5-18 Sample of BMS function (screen 2)

6. Enter the **10-digit battery serial number** and press **OK** after the input.

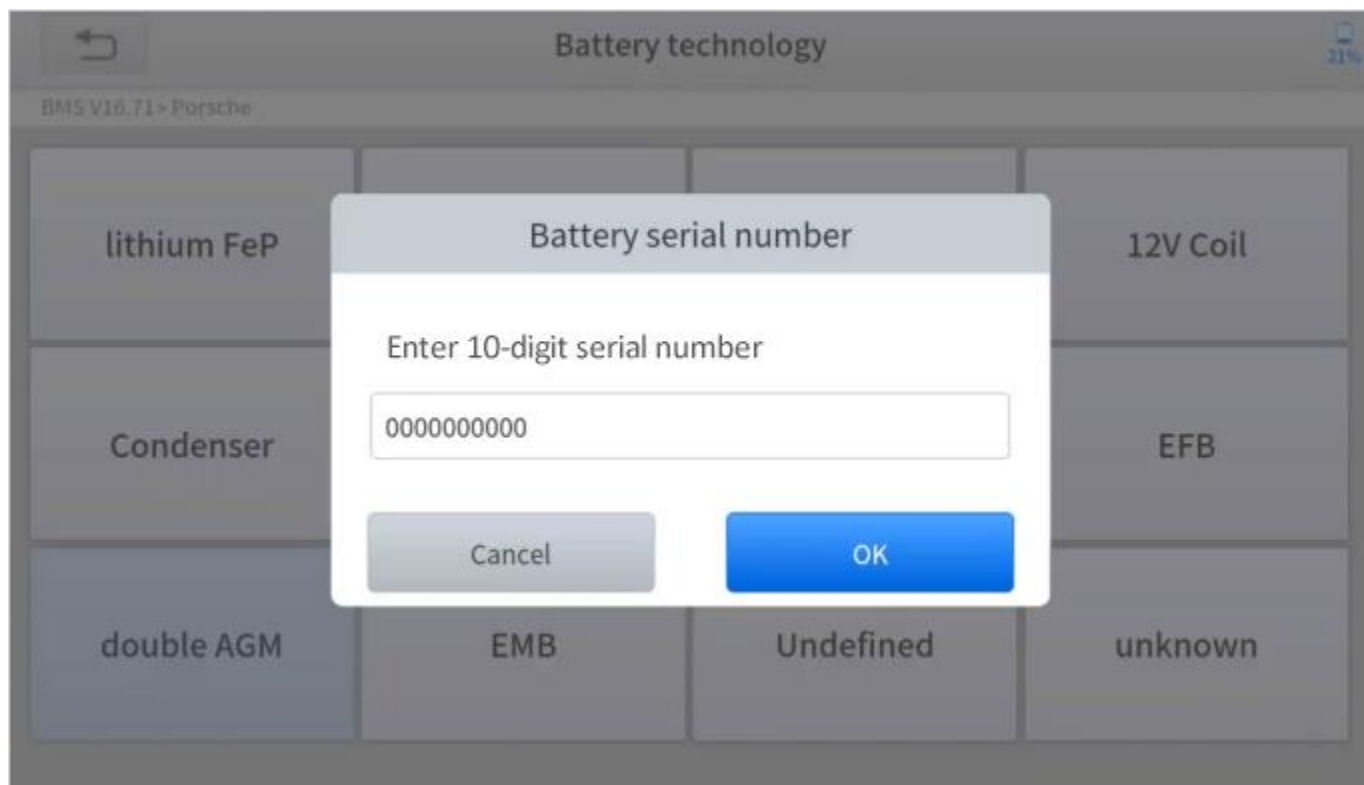


Figure 5-19 Sample of BMS function (screen 3)

5.6 THROTTLE

Throttle Position Sensor (TPS) Match, this function enables you to make initial settings to throttle actuators and returns the “learned” values stored on ECU to the default state. Doing so can accurately control the actions of regulating throttle (or idle engine) to adjust the amount of air intake.

The operation guidelines of the Throttle function are shown as below:

1. Enter the **Throttle** menu and choose relevant models according to the vehicle being tested.
2. Enter the **Auto Recognition** menu and turn on the ignition switch.
3. Read carefully and complete the **requisites** listed before performing the throttle regeneration function. And press **OK** after completing the instructions shown.

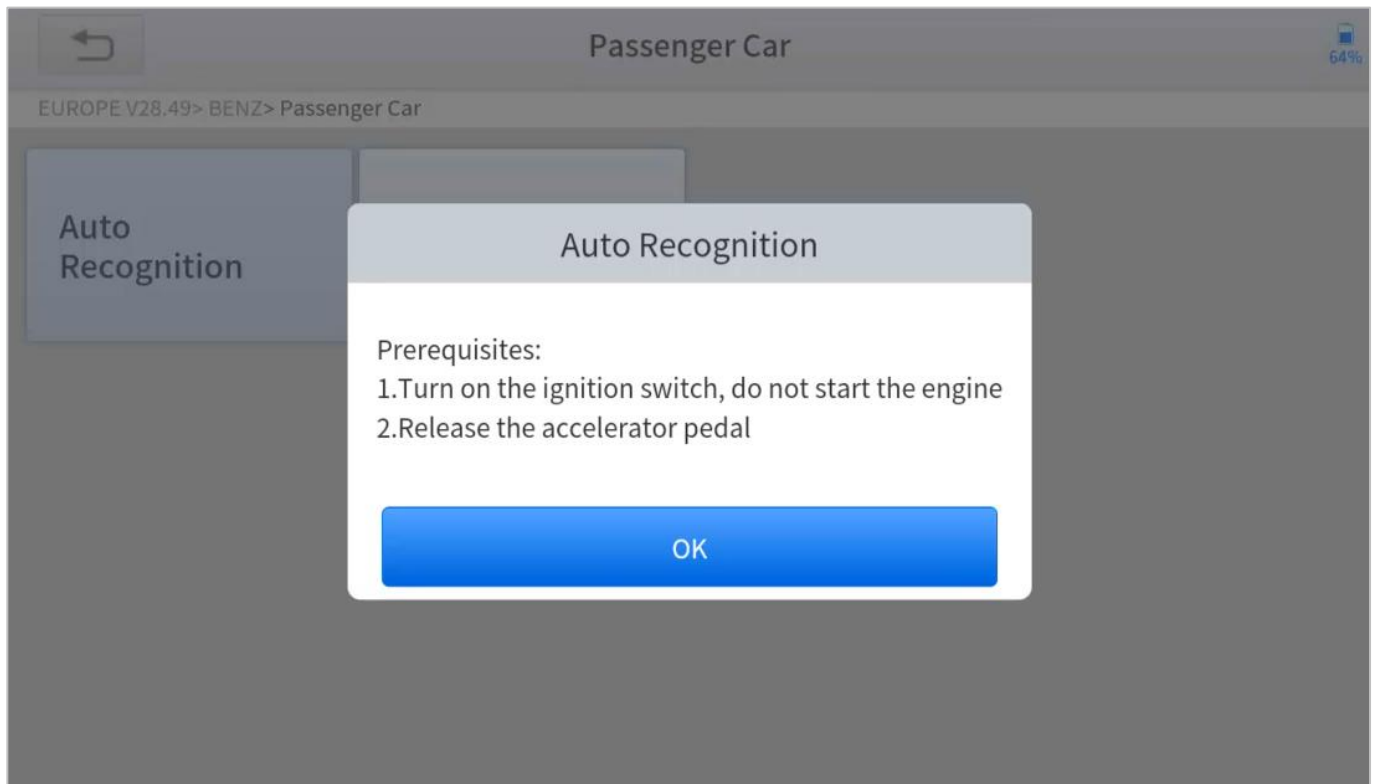


Figure 5-20 Sample of throttle function (screen 1)

5.7 INJECTOR CODING

This function can write the identification code of the fuel injector into the ECU so that the ECU can recognize and work normally. Write actual injector code or rewrite code in the ECU to the injector code of the corresponding cylinder for controlling accurately and correcting cylinder injection quantity.

After the ECU or injector is replaced, the injector code of each cylinder must be confirmed or re-coded so that the cylinder can better identify injectors to accurately control fuel injection.

① In general cases, there is no need to do the coding matching function after cleaning.

① The identification of the fuel injector includes its working accuracy value and type value. When replacing it, you need to find the corresponding model for replacement.

① At present, mainstream cars support injector coding function.

The operation guidelines of the Injector Coding function are shown as below:

1. Enter the **Injector coding** menu and choose relevant chassis models according to the vehicle being tested.
2. Enter the **Fuel injection nozzle injection volume adjustment** menu.

3. Read the note displayed carefully and press **OK** after the reading.

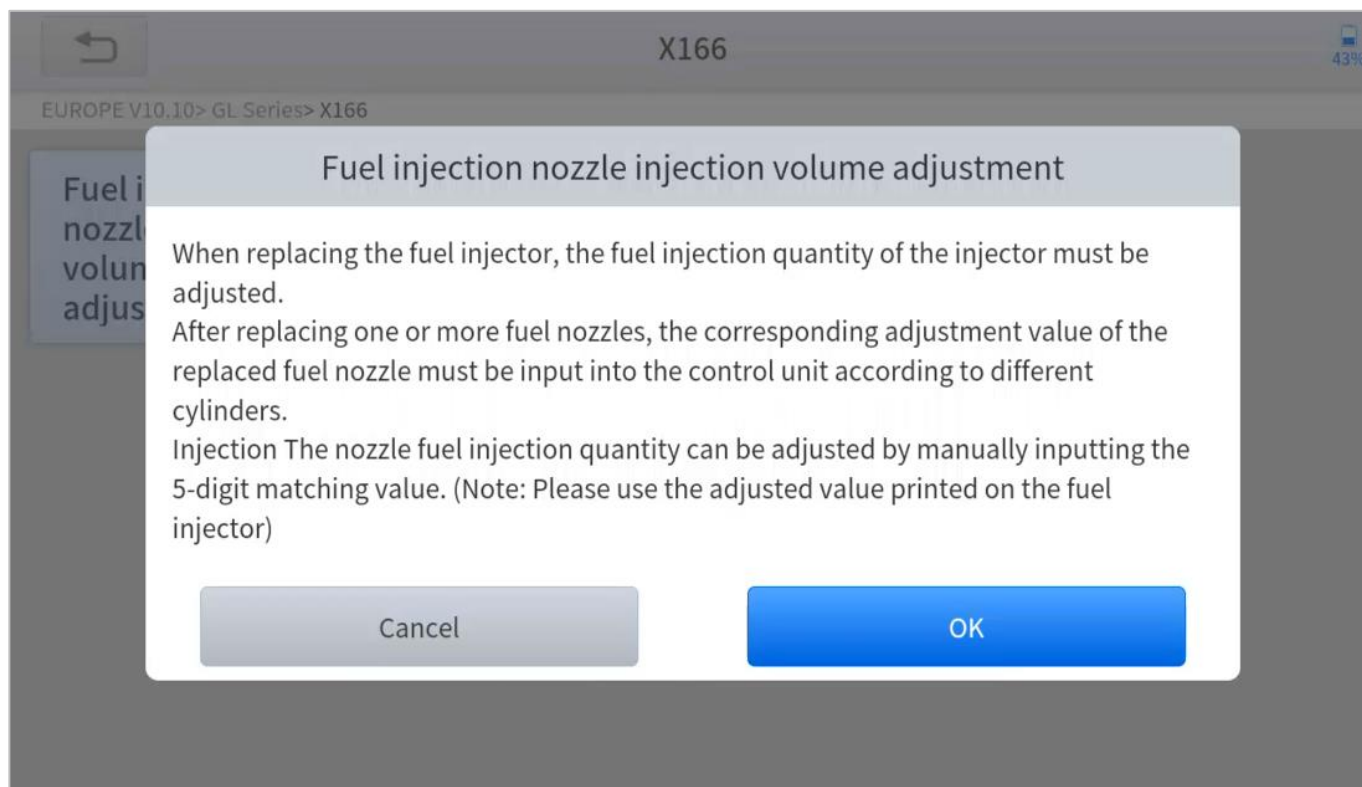


Figure 5-22 Sample of injector coding function (screen 1)

4. Read and confirm the value stored in the cylinders.

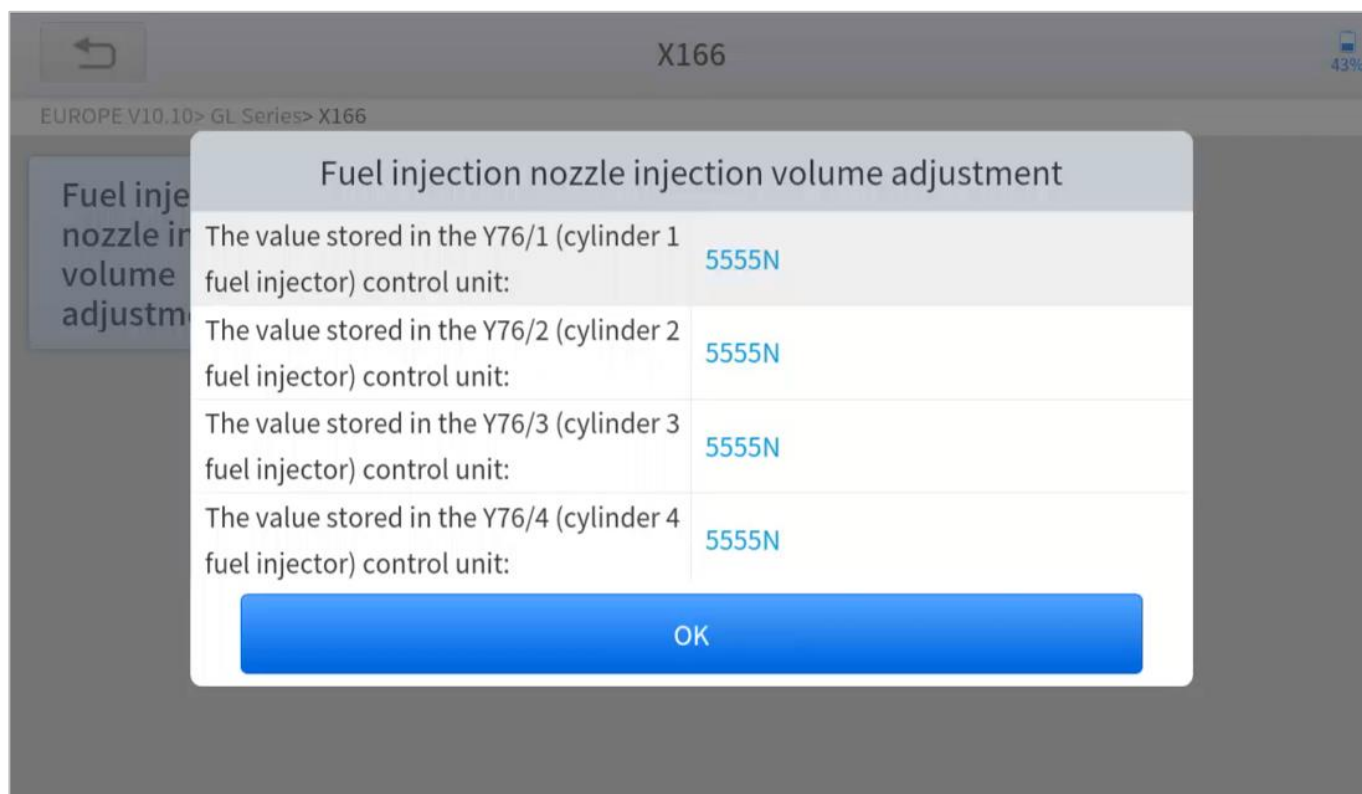


Figure 5-23 Sample of injector coding function (screen 2)

5. Enter the **Change the value of cylinder** menu of the replaced injector(s), and enter the **new 5-digit value** and then press **OK**.

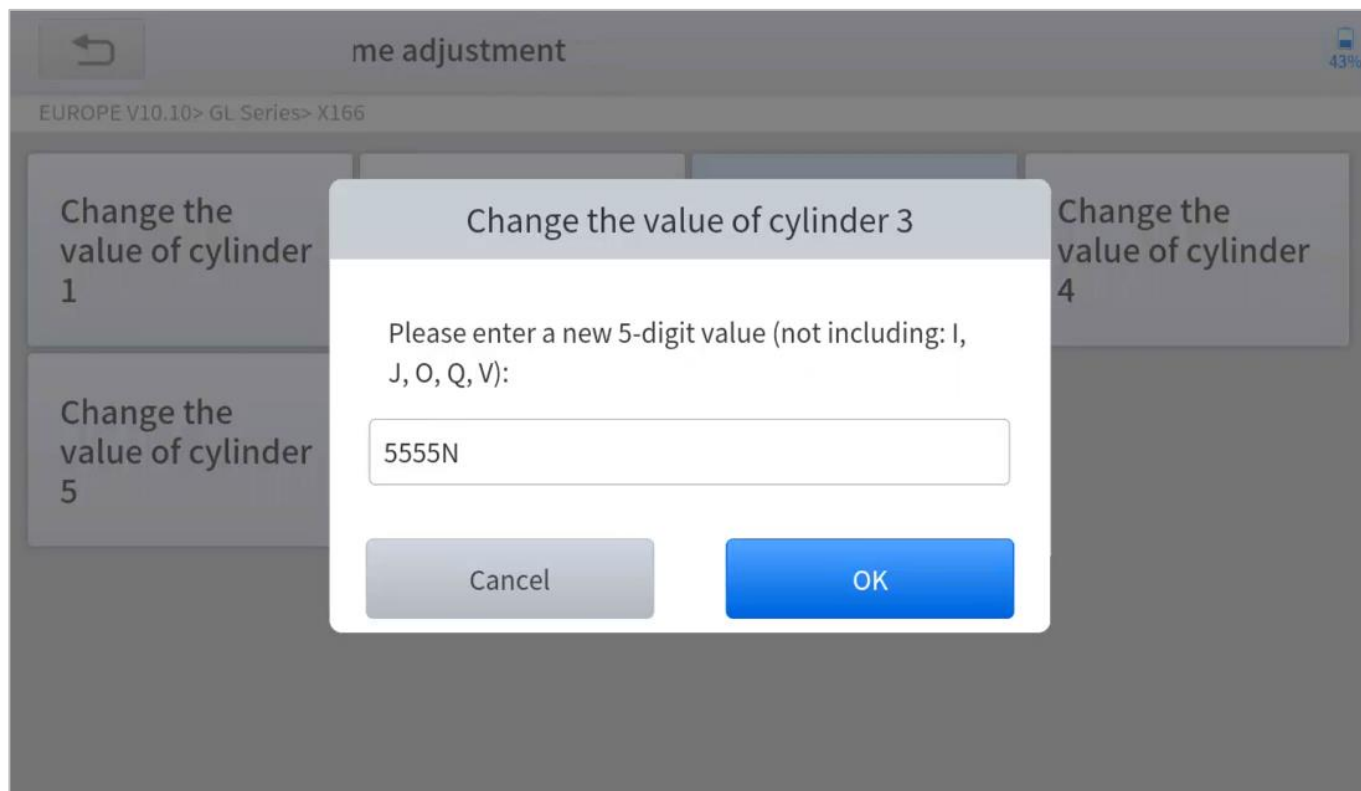


Figure 5-24 Sample of injector coding function (screen 3)

6. Wait until the message of '**Write successfully**' pops up.
7. Turn off the ignition switch.
8. Wait until the message asked you to turn on the ignition switch.

9. Re-enter the **Fuel injection nozzle injection volume adjustment** menu to check whether the new value(s) are shown.

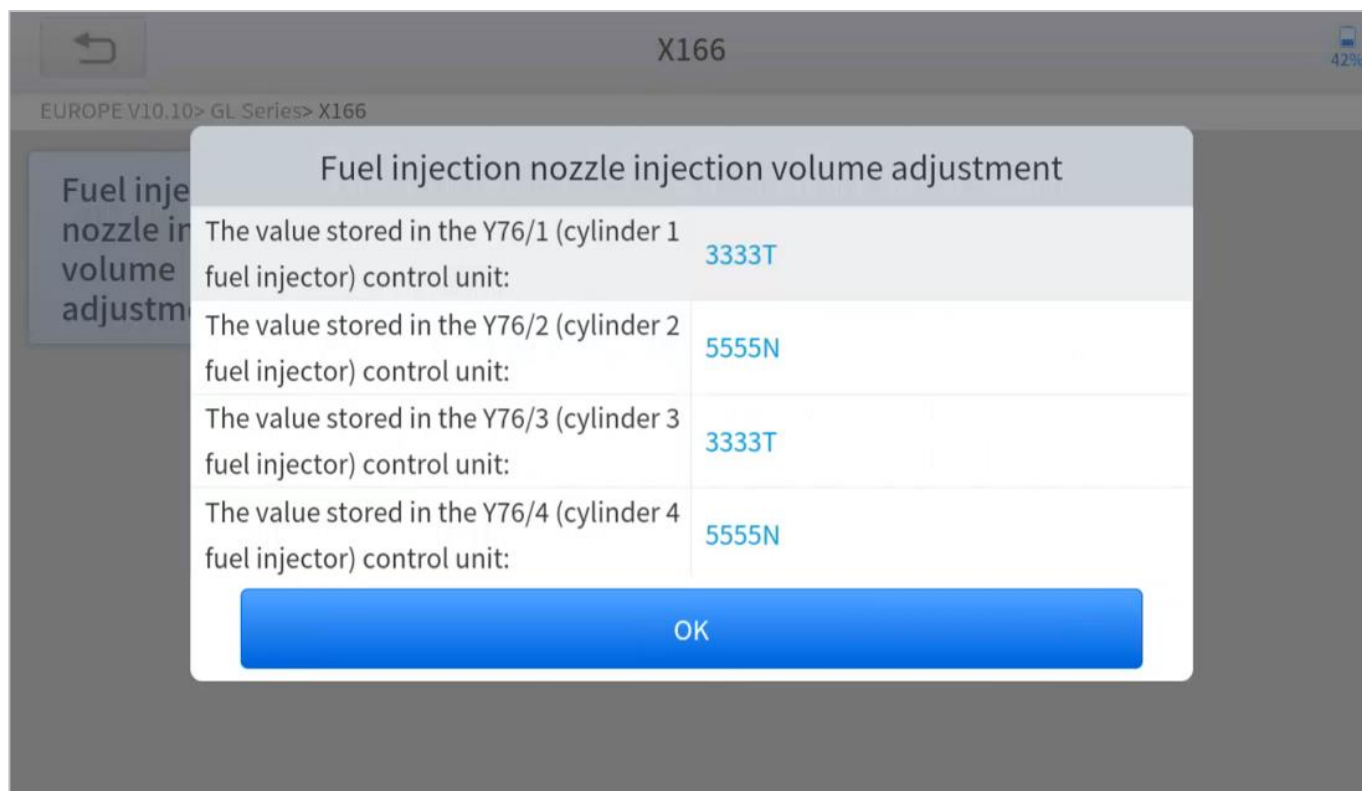


Figure 5-25 Sample of injector coding function (screen 4)

5.8 GEARBOX MATCH

After changing the gearbox or changing the gearbox ECU, you need to use the gearbox matching function to re-match the engine and the gearbox.

① Before resetting the gearbox, please check the gearbox control unit to ensure that there is no fault code. If there is a fault code, the gearbox memory function cannot be reset. Please road test after reset.

The operation guidelines of the Gearbox Matching function are shown as below:

1. Enter the **Gearbox matching** menu and choose relevant models according to the vehicle being tested.
2. Enter the **Reset adaptive value** menu.
3. Turn on the ignition without starting the engine.
4. Read the note and press **OK** to continue the Gearbox Matching function.

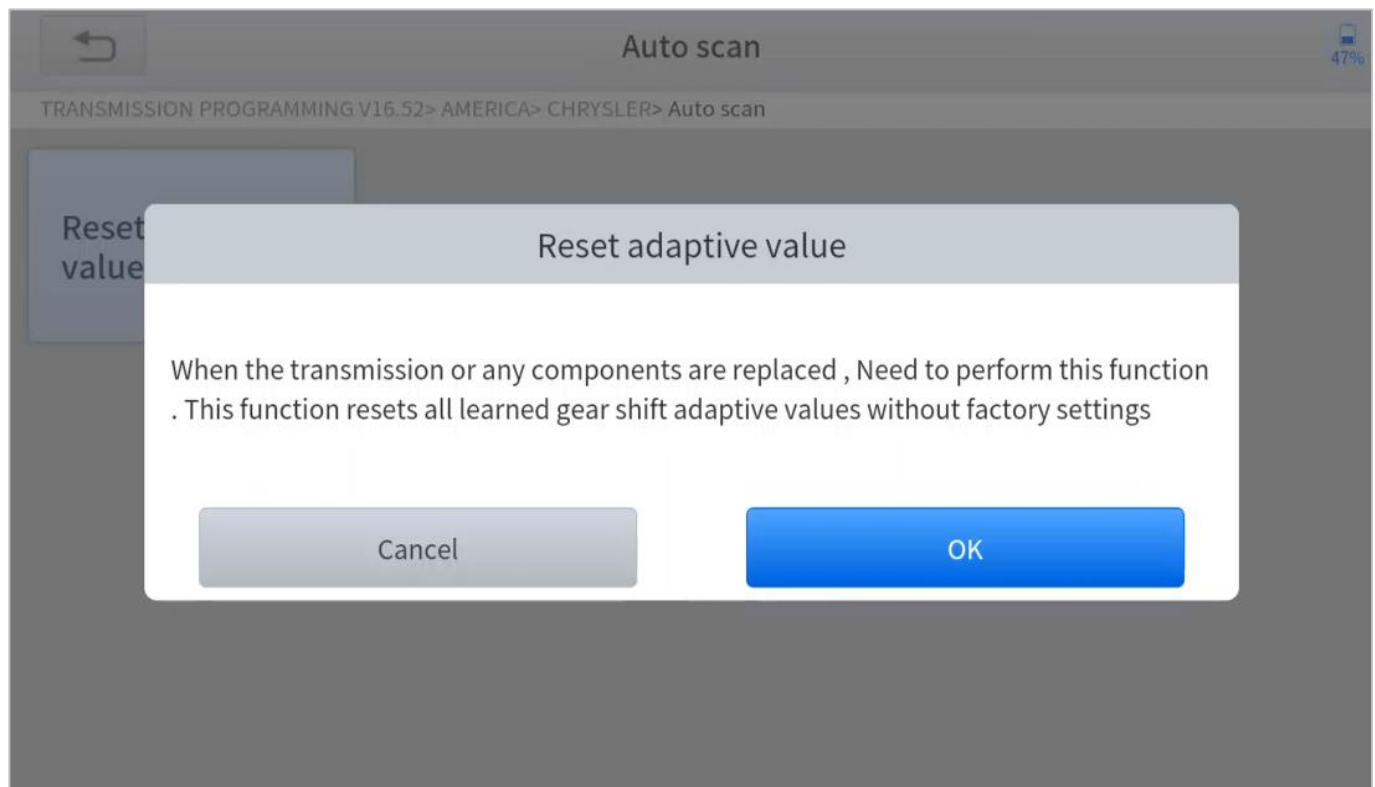


Figure 5-26 Sample of gearbox matching function (screen 1)

5. Wait until the message '**Successful operation**' pops up.

6 REPORTS

Diagnosis Reports are used for viewing and printing the saved files, such as Live Data, Trouble Codes, or pictures generated in the process of diagnosis, users also can view a record of which vehicles have been previously tested. It includes 2 parts:

- **Diagnosis Report**
- **Data Playback**



Figure 6-1 Sample of reports screen

6.1 DIAGNOSIS REPORT

Diagnosis reports will be automatically generated when the diagnosis is performed, such as auto-diagnosis, read ECU information, read trouble codes, live data. And all the reports generated can be found under the Diagnosis Report, you can view and delete the reports according to your needs.

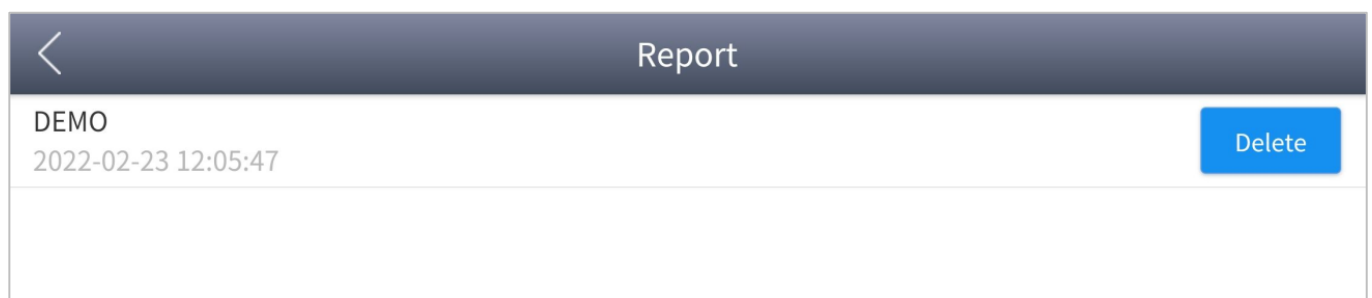


Figure 6-2 Diagnosis report list

Press the **Print PDF Report** button to generate the PDF file and open it with the installed app on your mobile device. You can easily view, share and print the reports.

Diagnosis Report
SN:ASD60D-000120

Workshop Information

Company :	Address :
Website :	Telephone :
Mailbox :	Contact Person :

Time:2022-03-16 15:19:13	VIN: WBAWX3102G0L60271
Mileage: 0 km	Vehicle Name: X'F25
Diagnosis Route:	Exit Print PDF Report

Figure 6-3 Sample of diagnosis report (PDF)

①The detailed information of Workshop Information can be filled in in the Setting.

6.2 DATA PLAYBACK

This function allows you to replay the Live Data recorded during the diagnosis process. The data will only be recorded when you have pressed the **Data Recording** button and valid data were shown when performing the Live Data function.

< Data Playback	
DEMO_1647415080192.cds 2022-03-16 15:18:07	Delete
OBDII_1645779169118.cds 2022-02-25 16:53:52	Delete
OBDII_1645779163426.cds 2022-02-25 16:52:46	Delete

Figure 6-4 Data playback list

You can play/pause the video and swipe to view all the data recorded.

Data Playback			
NO.	Name	Value	Unit
1	Engine speed	N/A	1/min
2	Coolant temperature	-48.00	degree C
3	Engine oil temperature	-14.25	degree C
4	Emissions warning light: Status	on	
<div> <div></div> <div> <div></div> <div>Pause</div> </div> <div> <div></div> <div>Stop</div> </div> </div>			

Figure 6-5 Sample of data playback

①The Data Playback videos cannot be extracted, and you can only play them within the App.

7 SETTING

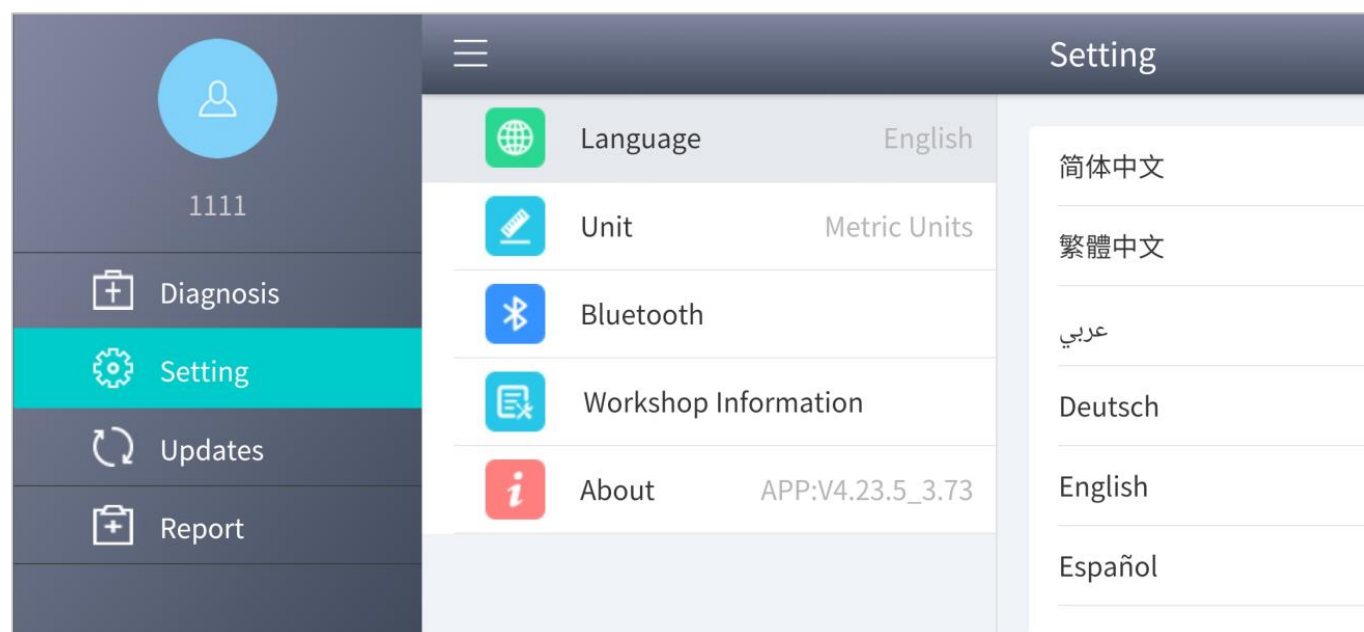


Figure 7-1 Sample of the main menu screen

Click the **Setting** button to adjust the default settings and view the information of the ASD60 Smart Diagnostic Kit. There are several options available in the system setting:

- **Language**
- **Units**
- **Bluetooth**
- **Workshop Information**
- **About**

7.1 LANGUAGE

The app languages supported by the device are listed in Setting. The default language is set as English, if you need to switch to other languages, you simply switch the target language.



Figure 7-2 Language of setting

■ How to change the language of your software?

Step1: Settings -> Language -> Choose language

Step2: Back to **Updates** to update all the software again

①9 languages are supported (software): English, French, German, Spanish, Russian, Turkish, Italian, Polish and Portuguese.

7.2 UNITS

You can switch the units shown in the system on your preference. ASD60 provides you with Metric, Imperial, and U.S. units. You can directly click on the preferred units, after it switches successfully, a blue tick symbol will be shown behind that unit's name.

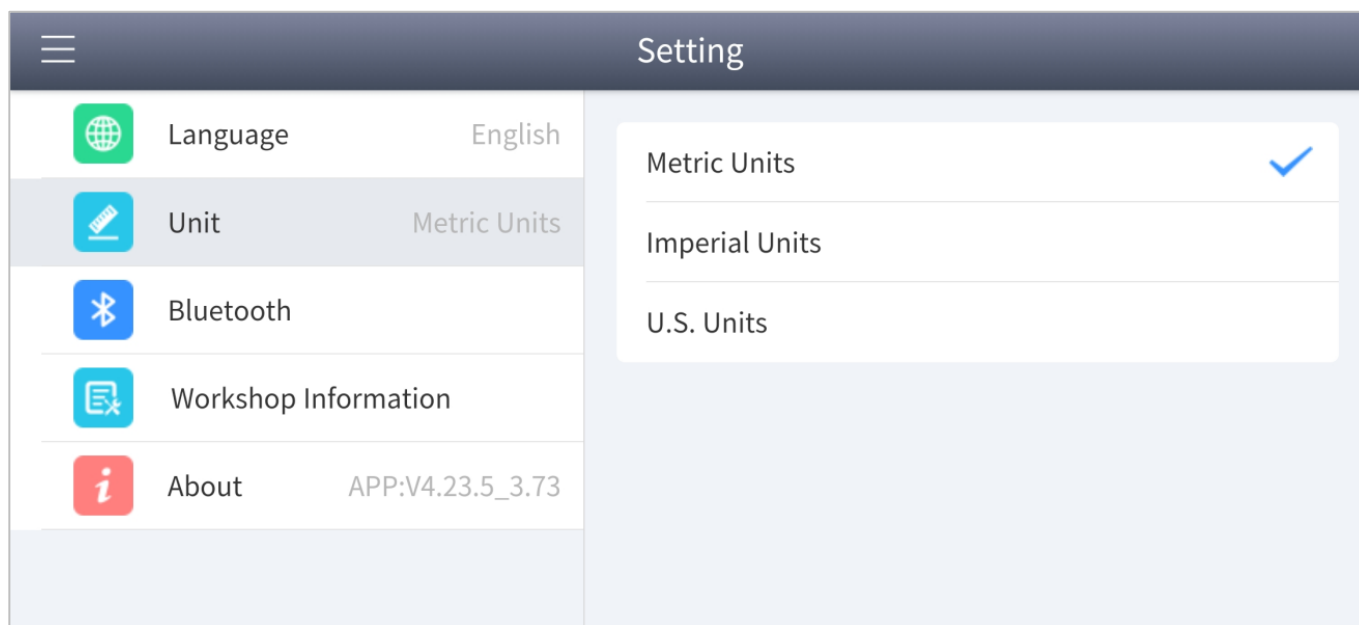


Figure 7-3 Units of setting

7.3 BLUETOOTH

You can check the Bluetooth connection status here. If you encounter any communication issues, please first check the Bluetooth status.

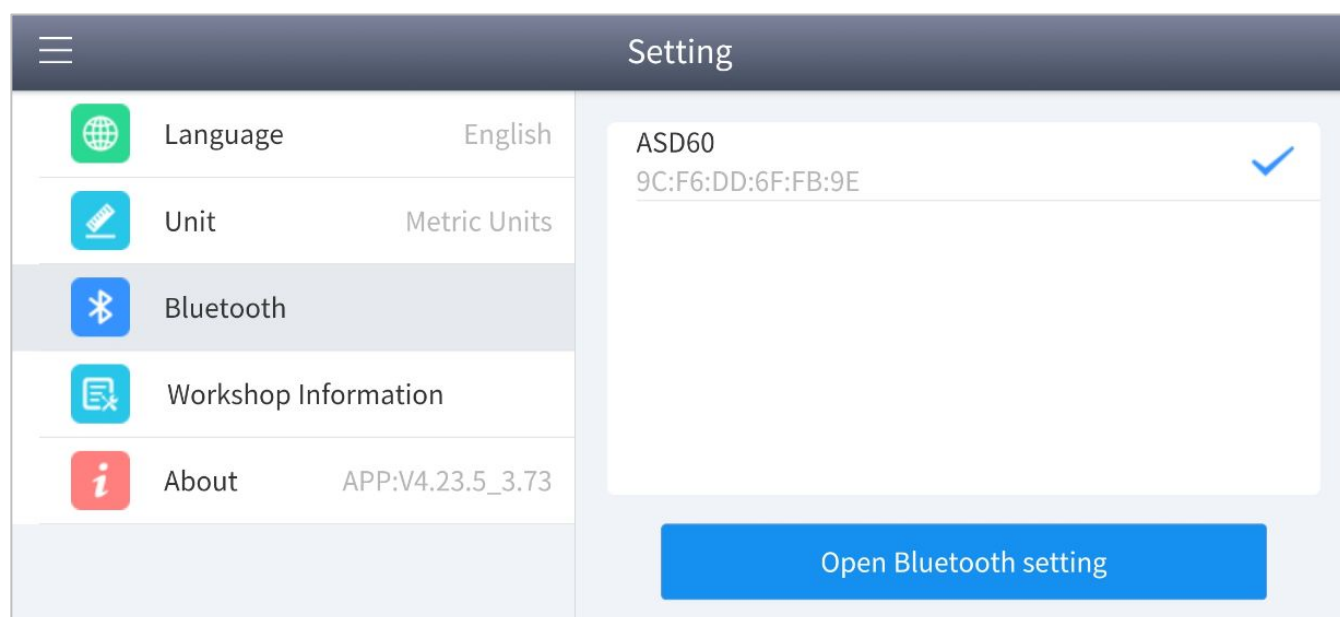


Figure 7-4 Bluetooth of setting

7.4 WORKSHOP INFORMATION

Click on **Workshop Information**, you can input your workshop information here. As shown in the figure below, you can fill in the valid information in the corresponding input boxes and click the **Submit** button. And then it will show your workshop information in the diagnosis report, including your company name, address, website, telephone, mailbox, and contact person.

LanguageEnglish

UnitMetric Units

Bluetooth

Workshop Information

AboutAPP:V4.23.5_3.73

Setting

Please fill in the following information, which will be displayed in the diagnosis report

Company

Address

Website

Telephone

Submit

Figure 7-5 Workshop information of setting

7.5 ABOUT

You can check the serial number and APP version here.

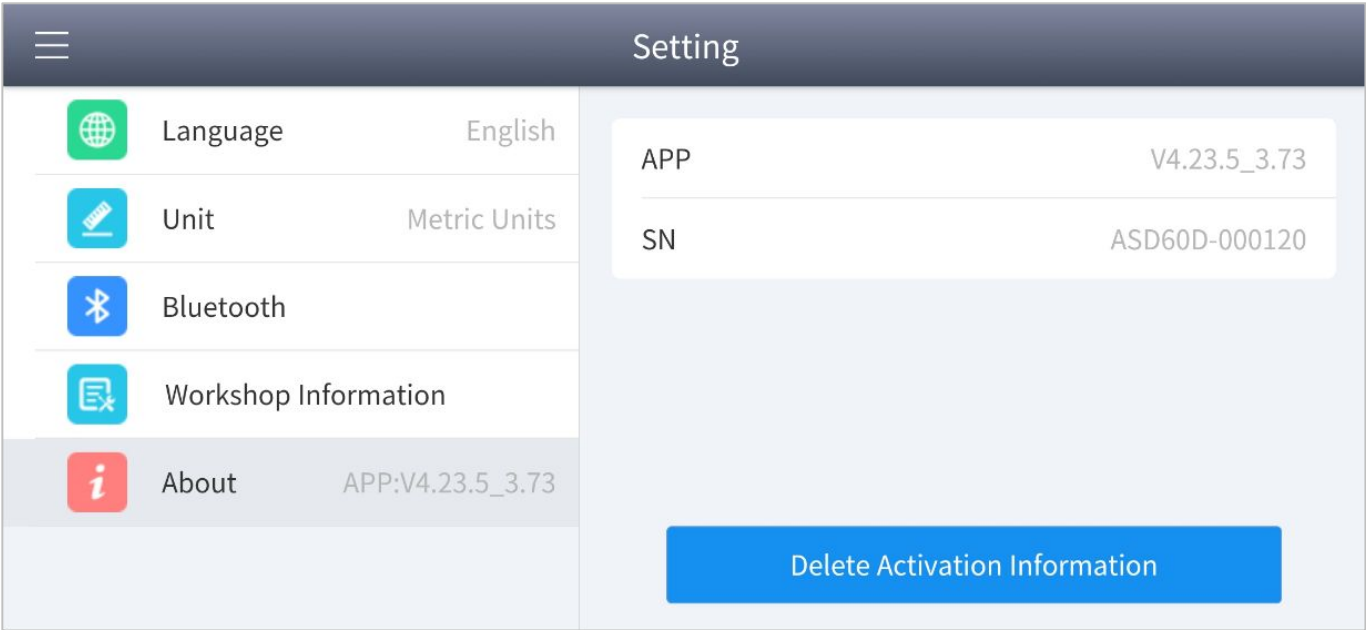


Figure 7-6 About of setting

8 FAQ

Q1: BLUETOOTH PAIRING FAILED

1. Please check whether the LED indicator of the ASD60 is working properly.
2. The LED indicator lights solid when the Bluetooth has successfully connected; the LED indicator flash when the ASD60 is connected to the vehicle or power supply properly.
If the indicator does not light up, it means that there are hardware defects.
3. ASD60 can log in on multiple mobile devices at the same time, but only one device can be connected via Bluetooth at one time. If your device lights solid, but you fail to connect your device, please check whether your ASD60 is automatically paired with other mobile devices.

Q2: FAILED TO GENERATE DIAGNOSIS REPORT

1. Currently, only the diagnosis function supports the generation of diagnosis reports. No diagnosis reports will be generated after performing the special functions.
2. After entering the diagnosis menu, you need to perform specific functions before the system can generate a diagnosis report normally.
3. After executing the specific diagnosis function, you need to click the return button step by step to return to the main menu in order to generate the diagnosis report successfully.

Q3: FAILED TO EXTRACT FILES

- For Diagnosis Report

Click the **Print PDF Report** button in the diagnosis report, select the PDF reader to open the file, and the reader can send and save the PDF report. The diagnosis report is saved in

the 'Diagnosis' folder on your mobile devices.

- For Data Playback video

The Data Playback videos are encrypted files and the extraction function is temporarily not supported.

Q4: HOW TO GENERATE AND UPLOAD DIAGNOSTIC LOG FILES

The ASD60 will automatically generate and store the diagnostic logs. When the device is connected to the Internet, it will automatically upload all the stored diagnostic logs to the backend system.

Q5: FAILED TO DIAGNOSE VEHICLE

1. Contact your dealer to confirm whether the vehicle model is supported by the scan tool you owned.
2. Check whether the vehicle is properly connected. (The requirements may vary from brand or model, please follow the instructions displayed)
3. Confirm whether you have entered the correct diagnosis menu
4. Try whether the **Automatic Detection** function can assist you to enter the correct diagnosis menu
5. Check whether the software is the latest version, if not, please update to the latest version first.

Q6: FAILED TO ACTIVATE OR REGISTER

- For 'Activation Failed'

Generally caused by network instability, please switch to a more stable network and try to activate again.

- For 'Registration Failed'

Generally, it is caused by the connection timeout or the sending timeout, please check whether you have blocked the outgoing network traffic to non-US regions like China. We recommend that you unblock and try to register again.

9 WARRANTY & SERVICES

LIMITED ONE YEAR WARRANTY

Shenzhen Xtooltech Intelligent Co., LTD.(the Company) warrants to the original retail purchaser of this XTOOL device that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship that results in product failure within one year from the date of purchase, such defect(s) will be repaired, or replaced (with new or rebuilt parts) with Proof of Purchase, at the Company's option, without charge for parts or labor directly related to the defect(s).

The Company shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the device.

This warranty does not apply to:

1. Products subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation/repair or, improper storage;
2. Products whose mechanical serial number or electronic serial number has been removed, altered, or defaced;
3. Damage from exposure to excessive temperature or extreme environmental conditions;
4. Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;
5. Defects in appearance, cosmetic, decorative, or structural items such as framing and non-operating parts;

6. Products damaged from external causes such as fire, dirt, sand, battery leakage, blown fuse, theft, or improper usage of any electrical source.

APPENDIX

The ASD60 App (from version v4.23.5) will not access the photos, contacts, messages on the mobile devices. Therefore, no related privacy issues will be involved. The access warning pop-up message is generated automatically by the mobile devices when ASD60 requests permission to access the storage. The access warning text and content may vary across the brands of the mobile devices. For example, Samsung devices will prompt as “Allow ASD60 to access photos, media, and files on your device?”.

Legal Statement and Privacy Right Policy

Reminders

Your trust is of great importance to us. We deeply understand the importance of user information security and will take security measures in accordance with laws and regulations to protect your user information to keep it secure and under control.

Therefore, Shenzhen Xtooltech Intelligent Technology Co., Ltd.

(“we”) formulates this Legal Statement and Privacy Right Policy (this “Statement and Policy”) and reminds you that: Before using our services, please carefully read and thoroughly understand this Legal Statement and Privacy Right Policy and confirm that you have fully understood and agreed to this Statement and Policy before using relevant products or services. By using our services, you acknowledge that you accept and recognize the contents hereof.

If you have any questions, comments, or suggestions on the contents of this Statement and Policy, you may contact us via the online channel.

Definition

Personal Information: means all kinds of information, recorded electronically or otherwise, that is sufficient to identify a natural person on its own or in combination with other information, including but not limited to name, birth date, identification certificate number, personal biometric information, address, and telephone number of a natural person. The Personal Information referred to herein is your personal information that we collect, transmit, store, use and share for the purpose of providing services to you.

Business Data: means the data you upload, download, store, or process using your services that is different from Personal Information.

Legal Statement

1. Ownership of Rights

1.1. Our logo, 'XTOOL', 'ASD60' and other texts, graphs and combination thereof, other marks and symbols of ours and our service names are the registered trademarks of ours and our Affiliates' in China and other countries. Without our written authorization, no one may display, use or otherwise process (including without limitation reproduce, disseminate, show, mirror, upload and download) any of the said trademarks in any way

or represent to others that you have the right to display, use or otherwise process any of the said trademarks.

1.2. The intellectual property rights in all of our products, services, technologies and all applications (“Technical Services”) shall vest in us or their right owners.

1.3. Unless otherwise stated by us, all rights (including but not limited to the copyright, trademark right, patent right, trade secret and any other related rights) in, of and to all documents and other information (including but not limited to texts, graphs, pictures, photos, audios, videos, icons, colors, layout and electronic documents) published by us on our website are vested in us. Without our permission, no one may use the said information (including but not limited to monitoring, reproducing, rebroadcasting, displaying, mirroring, upload, and downloading any contents in our website via programs or devices). Where any person is authorized to browse, reproduce, print or disseminate any information on our website, such information shall not be used for commercial purposes and this statement of rights must be included when using all or any portion of the information.

2. Limitation on Liability

2.1. We hereby remind you that you shall abide by laws of the People’s Republic of China in using our services, and you shall not endanger cyber security or utilize our services to engage in activities that infringe upon others’ reputation right, privacy, intellectual property rights or other legitimate interests. Notwithstanding the aforesaid reminder, we

will assume no liability for your purposes of using our services.

3. Protection of Intellectual Property Rights

We respect intellectual property rights and oppose and combat any infringement upon intellectual property rights. If any organization or individual believes that the contents of our client pages may infringe upon its/his/her legitimate interests, such organization or individual may issue a written notice of claims to us and we will deal with the same bylaw as soon as possible after receipt of applicable notice from the intellectual property right owner.

Privacy Right Policy

We respect and protect user information and will treat the same with the great duty of care. When you use our services, we will collect, process and disclose your personal information in accordance with this Privacy Right Policy. With this Privacy Right Policy, we intend to clearly introduce to you how we deal with your Personal Information.

Therefore, we advise you to read this Privacy Right Policy completely to understand the means of protecting your privacy right.

If you have any questions, comments or suggestions, please contact us via the contact information we provide.

This Policy will help you understand the following:

1. Scope of Application
2. Collection and Use of User Information
3. Sharing, Transfer and Disclosure of User Information
4. User Information Management
5. Use of Cookie and Similar Technologies
6. Personal Information Security
7. Protection of Minors
8. Update of This Privacy Right Policy
9. How to Contact Us

1. Scope of Application

1.1. This Privacy Right Policy shall apply only to your use of our services, including the provision of network distribution, control and management of smart devices to you.

1.2. This Privacy Right Policy shall not apply to services provided by third parties to you. For example, this Privacy Right Policy shall not apply to the information you provide to a third party who relies upon our platform to provide services to you.

1.3 The Legal Statement and Privacy Right Policy is the general privacy right policy for Shenzhen Xtooltech Intelligent Technology Co., Ltd, and all the user rights and information security measures therein apply to our users. In case there is any discrepancy or conflict between the Legal Statement and Privacy Right Policy and this Privacy Right Policy, this Privacy Right Policy shall prevail.

2. Collection and Use of User Information

2.1. Member information

2.1.1. If you have registered any XTOOL account, you may log in to our services using that account. If so, the real-name information (name, phone number/email) you provide for the registration of XTOOL account will be synchronized with us.

2.2. Provision of Technical Services to you

Information provided by you to us includes:

2.2.1. The information you are requested to provide is subject to that listed on our web

page. If you do not intend to use certain services, you are not required to provide relevant information.

Information collected by us during your use of the services

2.2.2. Device information: we will receive and record the information relating to the smart device you use in accordance with the authority you grant in the installation and use of the application (such as the information of the smart device the network distribution is completed by us, including device model, operating system version, device setting, unique device identifier and other Software and hardware characteristic information).

2.2.3. Log information: When you use the services provided by our website or client, we will automatically collect detailed information relating to your use of our services and save them as network logs, such as your searches, IP addresses, types of browsers, telecommunication service providers, languages, visit dates and times, and web pages visited by you.

Information provided by the service provider of the smart device when you use our services:

2.2.4. Smart device operating information (such as the information of operating mode, current temperature, current fan speed and current relative humidity of a smart air-conditioner).

2.2.5. Location information: When you turn on the positioning function and use services that are based on it, we will collect your location info, so that you do not need to manually enter your own geographic coordinates to obtain related services. We use various technologies for positioning, including IP addresses, GPS, and other sensors that can provide location info (including info of WLAN access points and base stations). You can turn off the positioning permission through system settings. You may not be able to use the related services or functions, or you may not be able to achieve the intended effects of the related services.

2.2.6. Please note that the device information or operating information alone is not sufficient to identify a certain natural person. If we combine such non-Personal Information with other information to identify a certain natural person or use the same in combination with Personal Information, then such non-Personal Information will be deemed as Personal Information during such combination, and we will anonymize and de-identify such Personal Information unless with your authorization or it is otherwise provided by laws and regulations.

2.3. We use the user information provided by you or collected by us for the following purposes:

2.3.1. To provide you with services and maintain and improve such services;

2.3.2. To promote and introduce products to you to the extent permitted by laws and regulations;

2.3.3. We may use your Personal Information to prevent, identify and investigate fraud, any act endangering security, illegal activity, or any other act which breaches or violates any agreement, policy or rule with or of us or any of our Affiliates so as to protect the legitimate rights and interests of you, any of our other users, us or any of our Affiliates;

2.3.4. We may combine your information obtained from a certain service with information from any other service so as to provide you with services, personalized content and advice;

2.3.5. For any other purpose as permitted by you.

3. Sharing, Transfer and Disclosure of User Information

3.1 Sharing

We will not share your user information with any other organization or individual, except in the following circumstances:

3.1.1. Sharing with express consent: We will share your user information with other parties with your express consent;

3.1.2. Sharing as required by laws: We may share your user information as required by laws, regulations, litigation or arbitration, or by an administrative or judicial authority in

accordance with laws;

3.1.3. Sharing with authorized partners: As we may engage our trusted partners to provide services, we might share certain Personal Information with such partners in order to provide better customer service and optimize the user experience. We will only share your user information for the lawful, proper, necessary, specific and express purpose to the extent required for providing the services. Our partners have no right to use the shared user information for any other purpose.

Currently, the type of our authorized partners includes suppliers, service providers and others. We send the information to the suppliers, service providers and other partners who support our business by providing underlying Technical Services, consultation, analysis and other professional services.

We will conclude a strict confidentiality agreement and information protection agreement with the companies, organizations and individuals with whom we share user information to require them to treat user information in accordance with our instruction, this Privacy Right Policy and any other relevant confidentiality and security measures.

3.2. Transfer

We will not transfer your user information to any company, organization or individual, except in the following circumstances:

3.2.1. Transfer with express consent: We will transfer your user information to other parties upon obtaining your express consent;

3.2.2. In case of any acquisition, merger or insolvency liquidation, or other circumstances involving merger, acquisition or insolvency liquidation, of us with any other legal entity, if the transfer of user information is involved, we will require the new company, organization or individual in possession of your user information to continue to be bound by this Policy, or we will require such company, organization and individual to obtain your authorization and consent again.

3.3 Disclosure

We will disclose your user information only under the following circumstances:

3.3.1 . We may disclose your user information with your express consent or at your voluntary option;

3.3.2. In order to protect the personal and property safety of our platform, our Affiliates or the public, we may disclose your user information in accordance with applicable laws or your relevant agreements or rules.

3.4. Exceptions to obtaining prior authorization and consent for sharing, transfer and disclosure of user information Your user information may be shared, transferred or disclosed without your prior authorization and consent under any of the following

circumstances:

3.4.1. National security and national defense security are involved;

3.4.2. Public security, public health or major public interests are involved;

3.4.3. Criminal investigation, prosecution, judgment and enforcement are involved;

3.4.4. For the purpose of protecting your or other individual's life, property and other major lawful rights and interests, where it is hard to obtain your prior consent;

3.4.5. The Personal Information is disclosed voluntarily by you to the public;

3.4.6. The Personal Information is collected from the information disclosed through lawful public channels, such as lawful news reports or information disclosure by the government.

4. User Information Management

4.1. You may log in to the "administrator page" of our client to inquire and administrate (change or delete) the basic business information (house area, family status, and house address) and family member information submitted by you for the use of our services.

4.2. You may submit a request for deletion of user information to us under any of the

following circumstances:

4.2.1. Our user information processing violates any law or regulation;

4.2.2. We collect or use your user information without your express consent;

4.2.3. Our Personal Information processing materially breaches the agreement with you.

For the purpose of security, you may be required to provide a written request or to otherwise identify yourself. We may ask you to identify yourself before processing your request.

5. Use of Cookie and Similar Technologies

5.1. In order to ensure the normal operation, provide you with a more convenient visit experience and recommend contents that may be of interest to you, we will store small data files named “cookie” on your client. Cookies usually contain identifiers, site names and certain numbers and characters. We can only read the cookies provided by us.

5.2. Cookies are able to store your preference. When you visit our website next time, we will be able to display the information you need.

5.3. You may manage cookies according to your preference or clear all cookies stored on your mobile device. However, if you do so, you need to change the user setting each time

you visit our website.

5.4. In addition to cookies, we will use beacon, pixel tag and other similar technologies on our website.

6. User Information Security

6.1. We attach great importance to the security of your information. We endeavor to take all kinds of physical, electronic and administrative security measures to protect your use information from unauthorized access, disclosure, use, manipulation, damage or loss. We will use encryption techniques to improve the security of user information, use trusted protection mechanisms to protect user-information from malicious attacks, deploy access control mechanism to ensure the user-information is accessible only to authorized personnel to the maximum extent possible, and hold training sessions about security and privacy protection to enhance our employee's awareness of the importance of user information protection.

6.2. We will take reasonable and practical measures to avoid collecting irrelevant and unnecessary user information to the maximum extent possible. We will retain your user information only for the period as is necessary to achieve the purposes outlined in this Policy unless it is agreed by you and us to prolong the retention period or permitted by law. Upon the expiration of such retention period, we will delete or anonymize your Personal Information.

6.3. Upon the occurrence of any user information security incident (such as disclosure or loss), we will, in accordance with the requirements of laws and regulations, notify you of the following matters: basic information and possible influence of such security incident, handling measures we have taken or will take, suggestions on how you may prevent or reduce risks on your own, and remedies to be taken for you. We will notify you of the relevant information of such incidents through email, letter, phone, and push notification. If it is difficult to notify each user information subject one by one, we will publish the announcement reasonably and effectively.

6.4. In addition, we will also report the handling of user information security incidents according to the requirements of regulatory authorities.

6.5. If the operation of our products or services stops, we will take reasonable measures to protect your user information security, including timely stop further collection of your user information, sending you a notice thereof on a personal basis or in the form of an announcement, and deleting or anonymizing your Personal Information held by us.

6.6. If we intend to use your user information for any purpose other than those specified when we collect the same or beyond the scope that is directly or reasonably relevant, we will inform of you the same again and obtain your express consent.

7. Protection of Minors

We attach importance to the protection of the Personal Information of minors. If you are

a minor, we suggest that you ask your guardian to read this Privacy Right Policy carefully, and you may use our services and/or provide us with information subject to the consent of your guardian.

8. Update of This Privacy Right Policy

8.1. There might be modifications of this Privacy Right Policy.

8.2. Without your express consent, we will not restrict the rights you are entitled to under this Policy. We will publish any modification of this Policy on a specific web page.

8.3. With respect to material modifications, we will also provide a more noticeable notice (with respect to certain services, we will give notice in the form of an announcement to specify the modifications of this Policy in detail).

8.4. Material change herein includes but is not limited to:

8.4.1. Material change of our service mode, such as the purpose of processing user information, the type of user information we process and the way in which we use user information;

8.4.2. Material change of control and organizational structure, such as the change of owner due to business adjustment or bankruptcy buyout;

8.4.3. Change of the main subject to whom the sharing, transfer or disclosure of user information is made;

8.4.4. Material change of your rights relating to the participation of user information processing or the exercise manner thereof;

8.4.5. Change of our department responsible for the security of user information processing, its contact information or complaint channel;

8.4.6. High risk is indicated in the user information security impact assessment report.

9. How to Contact Us

If you have any questions or comments on the contents of this Statement and Policy or the practice of this Privacy Right Policy, you may contact us via the online channel.

Shenzhen Xtooltech Intelligent Co., Ltd

Company address: 17&18/F, Building A2, Creativity City, Liuxian Avenue, Nanshan District,
Shenzhen, China

Factory address: 2/F, Building 12, Tangtou Third Industrial Zone, Shiyan Street, Baoan District,
Shenzhen, China

Service-Hotline: 0086-755-21670995/86267858

Email: marketing@xtooltech.com

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Fax: 0755-83461644

Website: www.Xtooltech.com