

AVAPOW

AV-D600

USER MANUAL



Catalogue

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Safety Information

For your own safety and the safety of others, and to prevent damage to the equipment and vehicles, read this manual thoroughly before operating your scanner. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise extreme care when using this device. Always refer to and follow safety messages and test procedures provided by vehicle manufacturer. Read, understand and follow all safety messages and instructions in this manual.

Safety Message Conventions Used

We provide safety messages to help prevent personal injury and equipment damage. Below are signal words we used to indicate the hazard level in a condition.



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

Important Safety Instructions

And always use your scanner as described in the user's manual, and follow all safety messages.

WARNING

- Do not route the test cable in a manner that would interfere with driving controls.
- Do not exceed voltage limits between inputs specified in this user's manual.
- Always wear ANSI approved goggles to protect your eyes from propelled objects as well as hot or caustic liquids.
- Fuel, oil vapors, hot steam, hot toxic exhaust gases, acid, refrigerant and other debris produced by a malfunction engine can cause serious injury or death. Do not use the scanner in areas where explosive vapor may collect, such as in below-ground pits, confined areas, or areas that are less than 18 inches (45 cm) above the floor.
- Do not smoke, strike a match, or cause a spark near the vehicle while testing and keep all sparks, heated items and open flames away from the battery and fuel / fuel vapors as they are highly flammable.
- Keep a dry chemical fire extinguisher suitable for gasoline, chemical and electrical fires in work area.

- Always be aware of rotating parts that move at high speed when an engine is running and keep a safe distance from these parts as well as other potentially moving objects to avoid serious injury.
- Do not touch engine components that get very hot when an engine is running to avoid severe burns.
- Block drive wheels before testing with engine running. Put the transmission in park (for automatic transmission) or neutral (for manual transmission). And never leave a running engine unattended.
- Do not wear jewelry or loose fitting clothing when working on engine.
- Don't connect or disconnect the equipment while the ignition is on or the engine is running.

1. General Introduction

The AV-D600 scanner is the handheld model combining with the best possible coverage of OE-level to help you diagnose symptoms, codes, customer complaints easily, quickly and efficiently. This manual describes the construction and operation of the device and how it works.

1.1 Layout for AV-D600 Diagnostic Scanner



No.	Name	Definition
1	Screen	4.3-inch color display screen
2	OBD Cable	Connection line between equipment and car
3	Select button	Used for selecting up, down, left, right during use
4	OK button	Executes a selected option and generally goes to the next screen
5	Exit button	Exits a screen and generally returns to previous screen
6	FN button	Cursor switching between multiple buttons
7	USB Port	Provides power to the device and setup connection for data transmission between the device and PC.

1.2 Technical Specifications

1	Operating Temperature	-20 to 60°C (-4 to 140 F°)
2	Storage Temperature	-20 to 60°C (-4 to 140 F°)
3	Power	9 to 16 Volts provided via vehicle battery

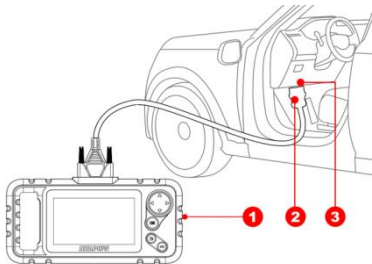
1.3 Standard Accessory Kits

1	Main Unit
2	OBD Main Cable
3	User Manual
4	USB-C to USB-C Cable
5	Zipper Carrying Case

2. Get Ready before Diagnostic

2.1. Cable Connection for On-Board Diagnostic

Make sure the AV-D600 diagnostic scanner is well connected for vehicle Diagnostic.



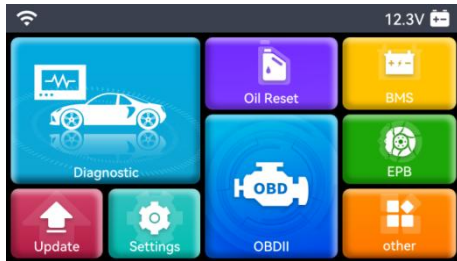
Connection:

To connect the main unit with the OBD main cable to get power supply.

No.	Description	Features and Functions
①	Diagnostic Scanner Main Unit	To communicate with vehicle and display the diagnostic result
②	OBD Cable	To connect the connector and the vehicle
③	Diagnostic Socket on car	Socket location varies of different car makes/models

The system boots up and shows the screen with the AV-D600 diagnostic scanner Job Menu as below:

Almost all operations on the display are controlled by menu driven, which allows you to quickly locate the test procedure, or data that you need, through a of choices and questions. Detailed descriptions of the menu structures are found in the chapters for the various applications.



2.2. Application Icon Introduction

The Application buttons configure the AV-D600 Diagnostic Scanner for the type of operation or activity to be performed.

Name	Pictures	Description
Diagnostic		Manually select or automatically match the vehicle to perform a full-system scan, covering major modules such as the engine, transmission, SRS, ABS, and more.
		Auto Match Automatically obtain vehicle information and locate the vehicle model.
		Manual Select Car Manually select vehicle information and chassis number
		European Includes 11 car manufacturer brands: Including Audi, Mercedes-Benz, Bentley, BMW, Jaguar, LandRover, Mini, Volkswagen, Porsche, Rollsroyce, Skoda, etc.
		American Includes 7 car manufacturer brands: Buick, Cadillac, Chevrolet, Ford, GM, GMC, Scion, etc.

Diagnostic		Asia Includes 9 car manufacturer brands: Acura, Honda, Hyundai, Infiniti, Kia, Lexus, Mazda, Nissan, Toyota, etc.
Oil Reset		Quickly performs a reset of maintenance reminder messages after service - also known as an information reset. This helps clear dashboard alerts and ensures accurate tracking of the next service interval.
Battery Match		Suitable for battery matching operations after battery replacement in most common vehicle models. Ensures proper communication between the new battery and the vehicle's Battery Management System (BMS).
EPB Reset		Supports the release and retraction of electronic brake pads during brake service or replacement. Ensures safe and efficient maintenance on vehicles equipped with EPB (Electronic Parking Brake) systems.
Other		It contains more functions inside: Cloud print, Performance testing, Battery, History.

OBDII			Read Code The DTCs provide valuable information about potential faults or malfunctions in various components and systems of the vehicle, such as the engine, transmission, emissions control, and more.
			Erase Code The process of clearing OBDII fault codes is typically done using a compatible scan tool or diagnostic equipment connected to the vehicle's OBDII port. Once connected, the tool provides an option to clear the codes.
			Data List This data provides a detailed snapshot of how the vehicle is operating at any given moment. The parameters included in the data stream can range from engine RPM, vehicle speed, fuel pressure, oxygen sensor readings, coolant temperature, and much more.
			Freeze It provides valuable information to technicians during the vehicle Diagnostic and repair process. The freeze frame data includes various parameters such as engine

OBDII			speed, vehicle speed, throttle position, coolant temperature, and intake air temperature, among others.
			I/M Including read/erase codes, view live data, view freeze frame data, view I/M readiness, O2 monitor test, on-board monitor test etc.
			Vehicle Info Can read car manufacturer information and VIN
			Mode 6 Mode 6 is primarily used for obtaining detailed information related to the performance and health of various vehicle components and systems. It provides data that goes beyond the standard fault codes and basic parameters.
			Mode 8 Mode 8 is designed to provide additional detailed and specialized information related to the vehicle's systems and components.

OBDII			O2 Sensor It measures the amount of oxygen in the exhaust gases. Based on this measurement, the vehicle's computer can adjust the fuel injection to maintain the optimal air-fuel ratio for efficient combustion and to minimize emissions.
			DTC Look To provide you with the latest definition of PCBU fault codes.
Other			Cloud Print This function is very convenient when you need to view the electronic file or print it using your mobile phone.
			Performance Test Test the acceleration, braking, distance, Meter data of the vehicle.
			Battery Measurable battery voltage waveform and vehicle starting waveform..

Other		History The History Report function automatically stores previous diagnostic sessions, making it easy to track vehicle conditions over time.
Settings		Adjusts and views system settings, including the measurement unit for the diagnostic system, the display language for the device, sound settings.
		WIFI Connect the device, open wifi settings, select wifi name, enter password to connect.
		Language English/ German/ French/ Spanish/ Italian/ Russian/ Japanese/ Portuguese/ Chinese/ Polish/ Dutch
		Buzzer Sets the sound on or off.
		Self Test To provide the LCD Test, Key test, Buzzer Test options.

Settings		Tool Information To Provide device related information.
		Unit To provide two options for the unit of live data: Metric Unit and British Unit.
		Restore factory settings Restore default language, unit, buzzer, delete cloud printing records and history records.
Update Software		Update Software Connect to WIFI and upgrade software directly.

3. Operation Guide

To start a new test, you need to establish the proper vehicle communication to the AV-D600 diagnostic scanner; you need to follow the screen instructions step by step for the car testing.

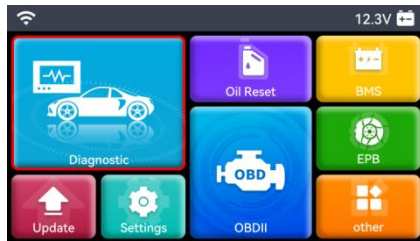
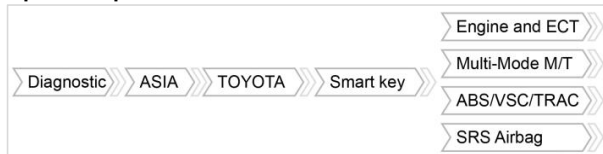
3.1. Diagnostic

When the main unit is properly connected to the vehicle, click the Diagnostic icon button on the AV-D600 **diagnostic** scanner.

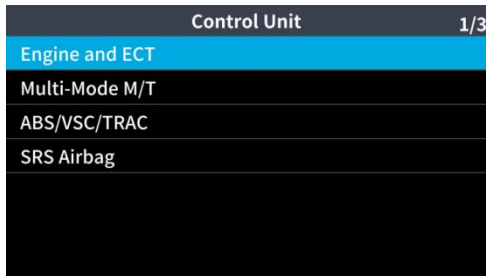
(1) The following will take TOYOTA models as an example:

The vehicle will be identified in a few seconds, and once the matching is successful, the system will guide you the diagnostics screen directly.

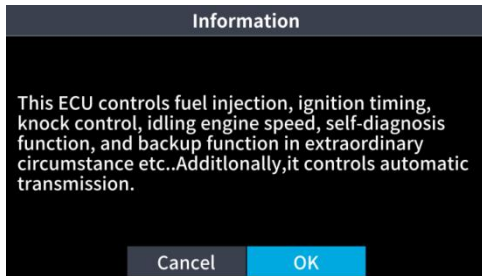
Operation process:



- (2) Measure all system functions of each vehicle, such as engine module, transmission module, SRS module, ABS module, etc. Select engine module:



- (3) Display the following list of instructions on how to perform Engine and ECT steps and methods:



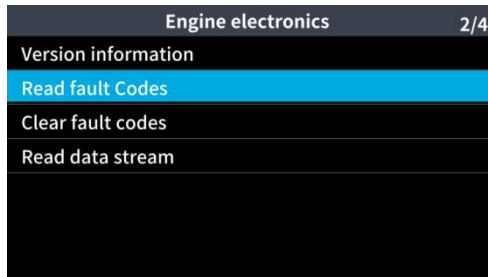
(4) Select Version information from the following list and press OK to continue.

Engine electronics	1/4
Version information	
Read fault Codes	
Clear fault codes	
Read data stream	

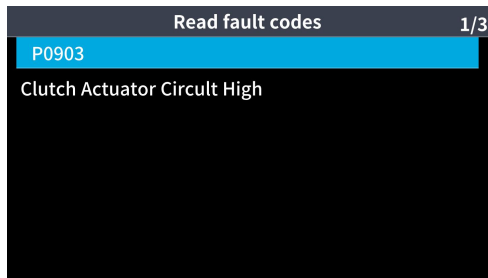
(5) Display the vehicle identification number result as follows:

Version information	1/2
VAG Number	
3453B28R5E3069321	
System Identification Number	
1233B28R5E3069321	
Control Unit Model	
EV_ECM40TFS0114G0906560	
Diagnostic software number	
001000	
SOFTWARE CODE	
443535303030	

(6) Select Read fault codes from the following list and press OK to continue.



(7) Display the fault code reading result.



(8) Select Read data stream from the following list and press OK to continue.

Engine electronics	4/4
Version information	
Read fault Codes	
Clear fault codes	
Read data stream	

(9) Display the data flow list, press OK to continue.

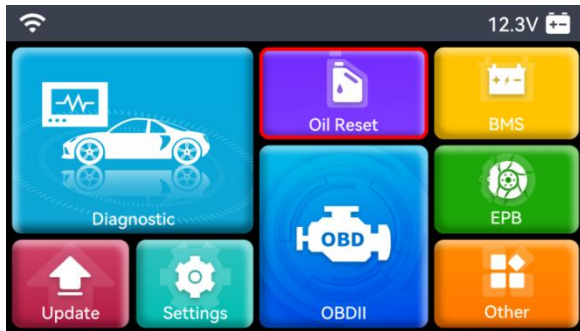
Read data stream	1/4
Calculate load	
Vehicle Load	
MAF	
Intake Air	
Atmosphere Pressure	
coolant Temp	
Engine Speed	

(10) Display the data flow results.

Read data stream		1/4
Calculate load		0.0 %
Vehicle Load		0.0 %
MAF		0.45 gm/s
Intake Air		59 °C
Atmosphere Pressure		97 kPa
Coolant Temp		91 °C
Engine Speed		0 rpm

3.2. Oil reset

The Oil Reset function offers broad compatibility, supporting 27 mainstream car manufacturers and continuously expanding via updates. It covers both automatic and manual oil reset modes, making it suitable for a wide range of OBD2-compliant vehicles. If you're using this function for the first time and are unsure whether your vehicle supports automatic or manual reset, you can try locating your vehicle under both reset modes to determine compatibility.



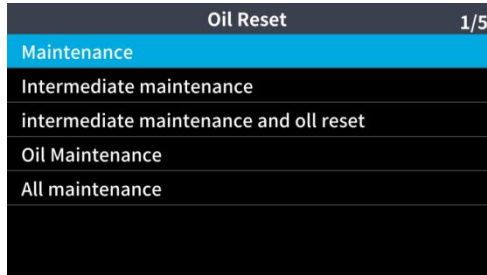
(1) The following will take TOYOTA models as an example:

The vehicle will be identified in a few seconds, and once the matching is successful, the system will guide you the diagnostics screen directly.

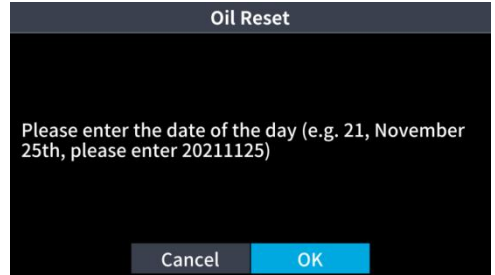
Operation process:



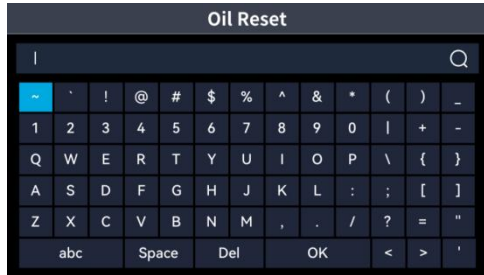
(2) Measure all OIL Reset functions of each vehicle,
select one function and press OK to continue:



(3) Display instructions on how to perform OIL Reset
steps and methods in the following list, press OK
to continue:



(4) Enter the current date according to the prompt and press the OK key to continue.



(5) Display the successful reset result.



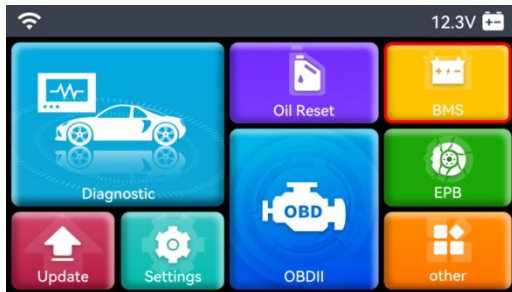
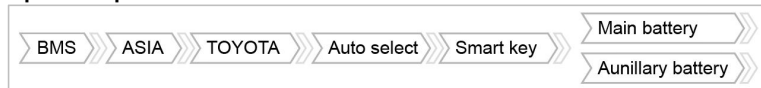
3.3. Battery Match

Suitable for battery matching operations after battery replacement in most common vehicle models.

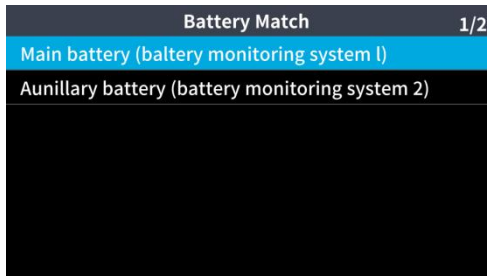
(1) The following will take TOYOTA models as an example:

The vehicle will be identified in a few seconds, and once the matching is successful, the system will guide you the diagnostics screen directly.

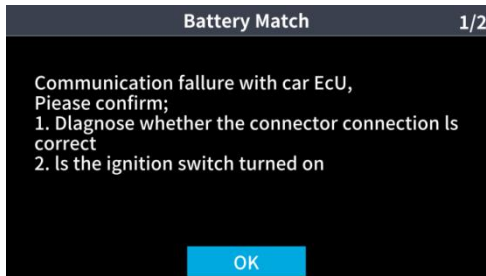
Operation process:



(2) Measure all Battery Match functions of each vehicle, select one function and press the OK button to continue:



(3) Display instructions on how to perform the **EPB Reset** steps and methods in the following list, press the OK key to continue:



(4) Display successful operation results.

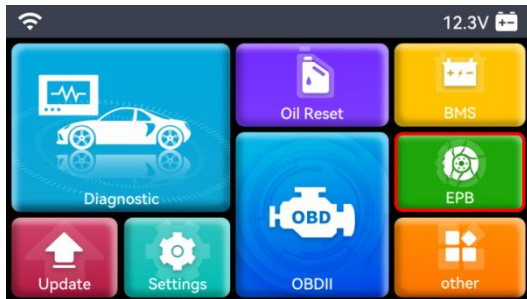


3.4. EPB Reset

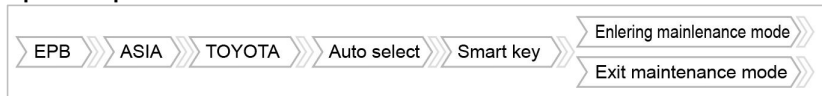
Supports the release and retraction of electronic brake pads during brake service or replacement.

(1) The following will take TOYOTA models as an example:

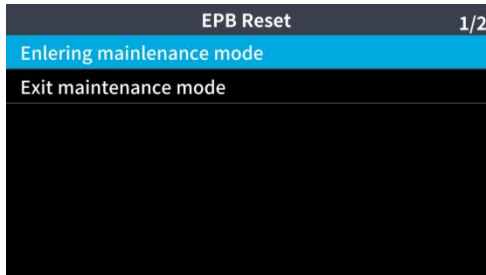
The vehicle will be identified in a few seconds, and once the matching is successful, the system will guide you the diagnostics screen directly.



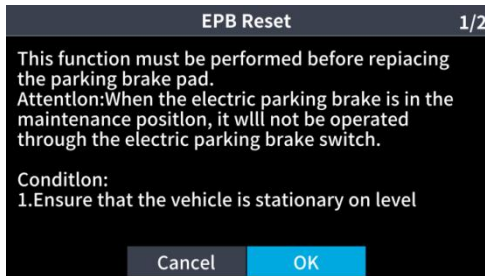
Operation process:



(2) Measure all **EPB Reset** functions of each vehicle,
select one function and press OK to continue:



(3) Display instructions on how to perform the **EPB Reset** steps and methods in the following list,
press the OK key to continue:

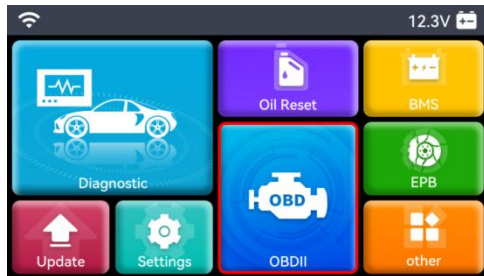


(4) Display successful operation results.



3.5. Diagnose the Vehicle

Click the **OBDII** icon button on the AV-D600 diagnostic scanner.



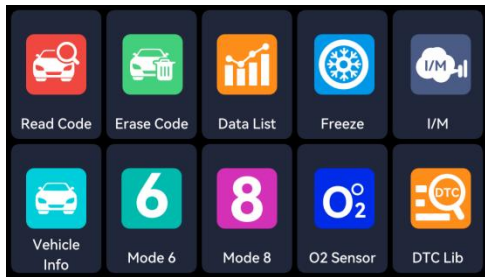
Step 1: Display the communication protocol with the vehicle.

OBDII&EOBD
1.CAN11_500K

Step 2: Display System Status.

System status	
Number of fault codes stored in this ECU	9
Malfunction Indicator lamp (MIL) status	ON
Number of monitors not supported	0
Number of monitors completed	9
Number of monitors not completed	0
ignition type	Compression ignition

Step 3: Enter the diagnostic function interface



3.5.1. Read Code

Step 1: Select the **Read code** icon, press OK to continue, the device is communicating with the vehicle, and the following interface appears.



Step 2: Choose a car brand

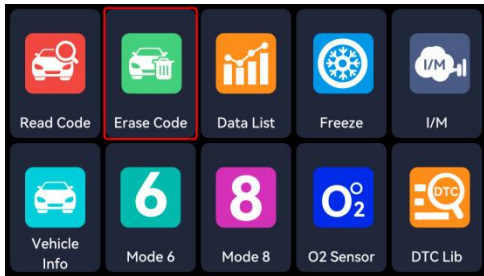
Please select
TOYOTA
HONDA
NISSAN
BENZ
BWM
FORD
GM

Step 3: After communication with the car is completed, the fault code reading result will be displayed.

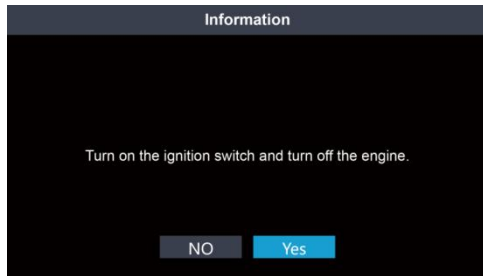
Read fault codes	1/3
P0903	
Clutch Actuator Circuit High	

3.5.2. Erase Code

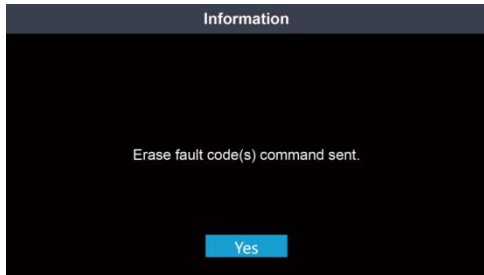
Step 1: Select the **Erase code** icon, press OK to continue, and the following prompt interface appears.



Step 2: Select **Yes** and Press OK Button to continue. the device is communicating with the vehicle, and the following prompt interface appears.

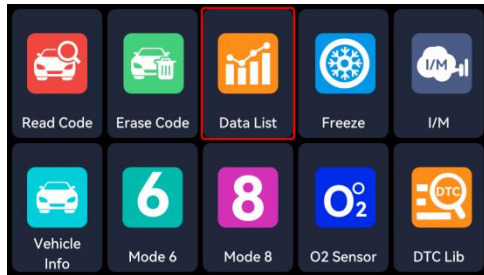


Step 3: After communication with the car is completed, the Erase code function will display the following results.



3.5.3. Data List

Step 1: Select the **Data List** icon, press OK to continue.



Step 2: After the device communicates with the vehicle, the following data stream result interface appears.

Read data stream		1/169
Number of fault codes stored in this ECU		
Malfunction Indicator lamp(MI) status		
DTC that caused required freeze frame data storage		
Fuel system A status		
Fuel system B status		
Calculated LOAD Value		
Engine coolant temperature		

3.5.4. Freeze

Step 1: Select the **Freeze** icon, press OK to continue, and the following prompt interface appears.



Step 2: After the device is communicating with the vehicle, and the following prompt interface appears.

DTC Freeze Data	
Number of fault codes stored in this ECU	9
Malfunction Indicator lamp (MIL) status	ON
DTC that caused required freeze frame data storage	P0212
Calculated LOAD Value	27.6%
Engine coolant temperature	82.4 °F
Intake Manifold Absolute Pressure	9.860 psi
Engine RPM	11347 r/min

3.5.5. I/M

Step 1: Select the **I/M** icon, press OK to continue, Select **[Since DTCs Cleared]** from the list as below:



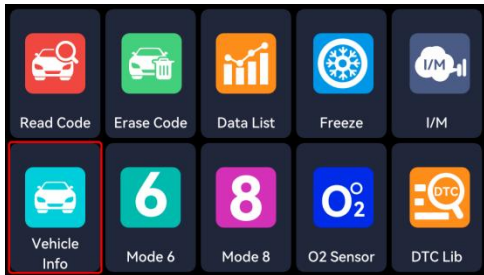
The result of displaying frozen frames is as follows

Readiness Data	
Since DTCs Cleared	
This Drive Cycle	

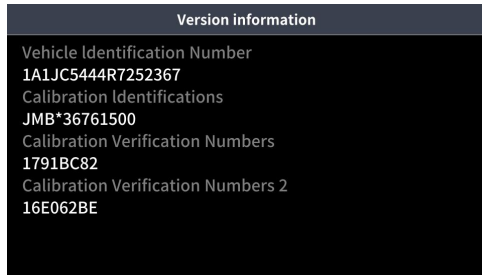
Readiness Data	
Misfire Monitor	Complete
Fuel system Monitor	Complete
Comprehensive component Monitor	Complete
NMHC catalyst Monitor	Complete
NOx aftertreatment Monitor	Complete
Boost pressure Monitor	Complete
Exhaust gas sensor Monitor	Complete

3.5.6. Vehicle Info

Step 1: Select the **Vehicle Info** icon, press OK to continue.



Select [**Vehicle Identification Number**] [**Calibration Identifications**] [**Calibration Verification Number**] from the list display result as below:



3.5.7. Mode 6

Step 1: Select the **Mode 6** icon, press OK to continue.



Step 2: After the device communicates with the vehicle, Select the first line from the list display result as below:

On Board Monitor Test	
Exhaust Gas Sensor Monitor Bank 1 - Sensor 1	
Exhaust Gas Sensor Monitor Bank 1 - Sensor 2	
Exhaust Gas Sensor Monitor Bank 1 - Sensor 3	
Exhaust Gas Sensor Monitor Bank 1 - Sensor 4	
Exhaust Gas Sensor Monitor Bank 2 - Sensor 1	
Exhaust Gas Sensor Monitor Bank 2 - Sensor 2	
Exhaust Gas Sensor Monitor Bank 2 - Sensor 3	

Step 3: Select the first line from the list display
result as below:

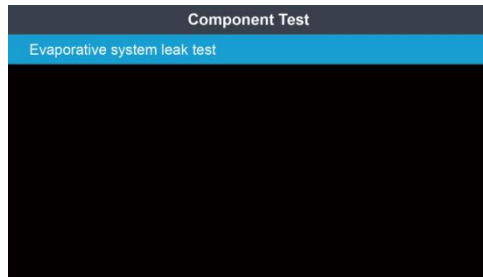
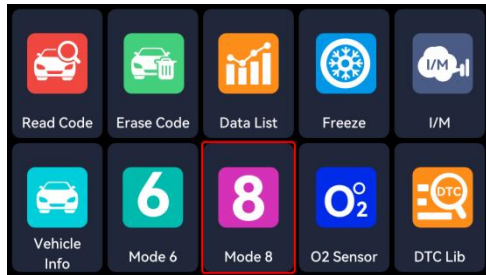
Sensor Monitor
NO support Test Id 129
NO support Test Id 255
Rich to lean sensor threshold Voltage (Constant)

Step 4: The result of presenting the selection is as
follows:

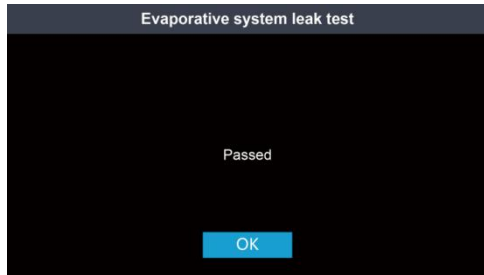
Sensor value	
Test value	34048
Min Limit	32838
Max Limit	257
Status	Fail
Unit	---

3.5.8. Mode 8

Step 1: Select the **Mode 8** icon, press OK to continue



Step 2: After the device communicates with the vehicle, Select the first line from the list display result as below:



3.5.9. O2 Sensor

Step 1: Select the **O2 Sensor** icon, press OK to continue



Step 2: After the device communicates with the vehicle, Select the first line from the list display result as below:

O2 Monitor Test
Oxygen Sensor Bank 1 - Sensor 1
Oxygen Sensor Bank 1 - Sensor 3
Oxygen Sensor Bank 2 - Sensor 1
Oxygen Sensor Bank 2 - Sensor 3
Oxygen Sensor Bank 2 - Sensor 4

Step 3: The result of presenting the selection is as follows:

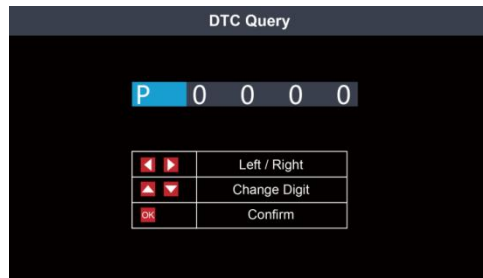


3.5.10. DTC Lib

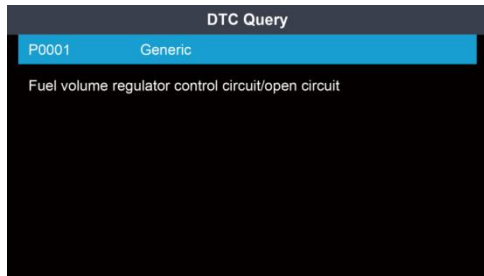
To provide you with the latest definition of PCBU fault codes.



Adjust the position of the left and right buttons, and use the up and down buttons to change data or letters

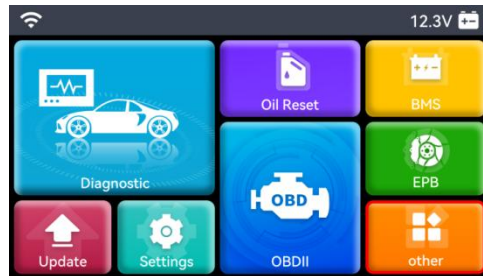


Press the OK button to confirm



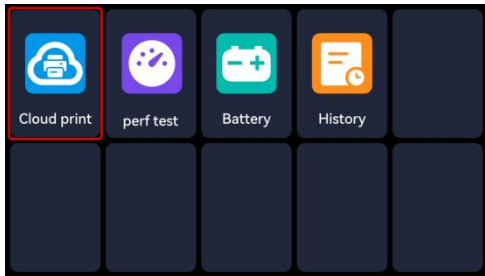
3.6. Other

It contains **More** functions inside: Cloud print/ performance testing/ battery/ History.

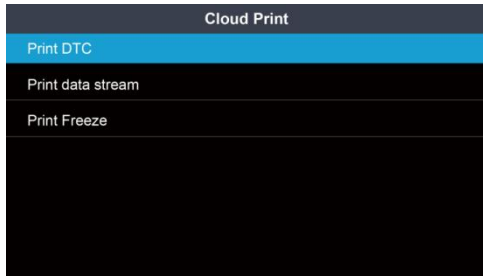


3.6.1. Cloud Print

This function is very convenient when you need to view the electronic file or print it using your mobile phone.



Here, fault codes, data streams, and freeze frames can be printed.

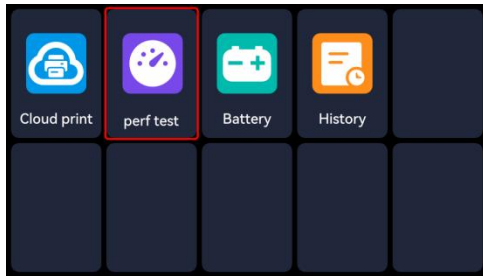


After entering, a QR code will be generated, which can be scanned, printed or shared through a mobile phone.



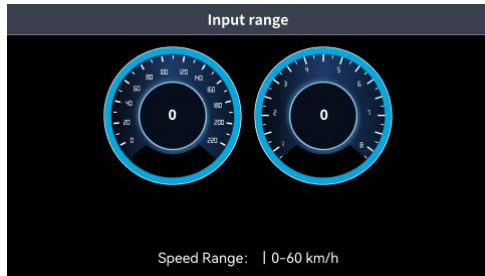
3.6.2. Performance test

Test the acceleration / braking / distance / Meter data of the vehicle.



Performance Test
Acceleration performance
Braking performance
Disance performance
Power performance

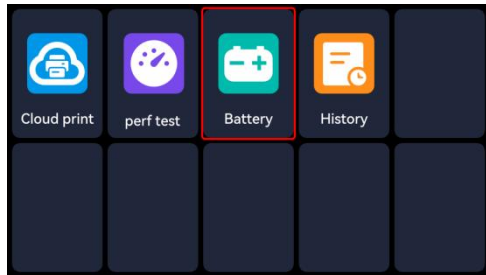
Select **Acceleration performance** from the list display result as below:



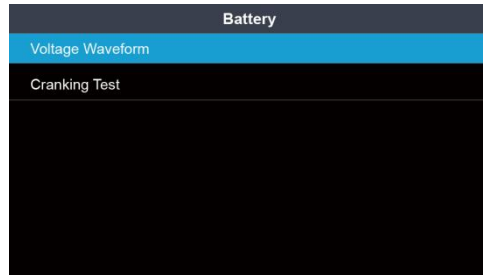
Can manually input the test distance.

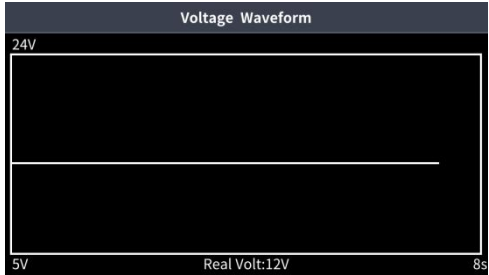
3.6.3. Battery

Supports measurement of battery voltage waveform and vehicle starting waveform.



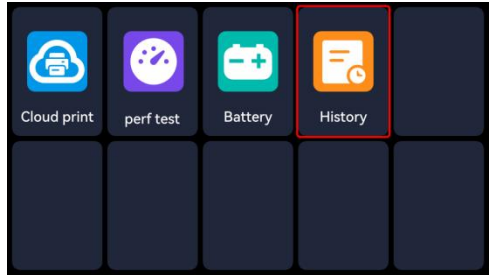
Select **Voltage waveform** from the list display result as below:





3.6.4. History

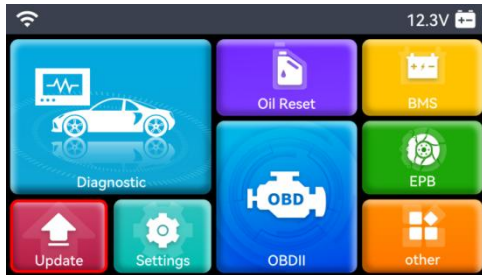
You can view **historical** operations inside



History
Audi Audi Q5 2017> 2020 (L)
Audi Audi A1 2011> 2011 (B)
Audi Audi A1 2011> 2011 (B)

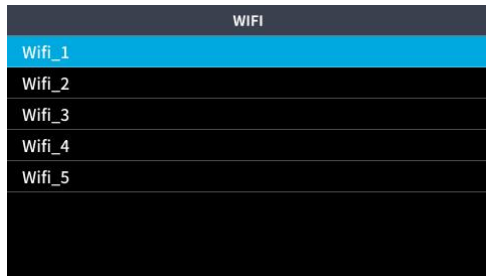
3.7. Update

Click the **Update** icon button on the AV-D600 diagnostic scanner.



3.7.1. Update

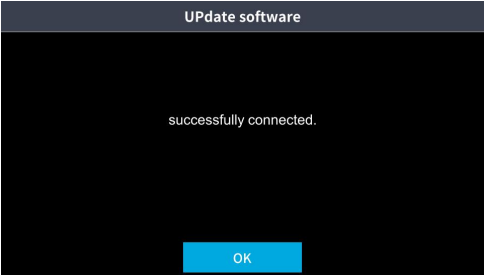
Step 1: Connect to **WiFi** first before upgrading, press **OK** to continue, and the following interface appears.



Step 2: Select the current **WiFi** connection, press the OK key to continue, and use the keyboard to enter the password.



Display successful connection, press the **OK** key to continue.



Step 3: Use the **FN** button to switch the cursor to the button below (**ALL** button selects all function, **None** cancels all selection), select the **Update** button to upgrade all, and then press **OK** to continue.

UPdate software				
☒	BENTLEY	V1.0	26.3M	
☒	Jaguar	V1.0	32.5M	
☒	EPB Reset	V1.0	644K	
☒	Oil Reset	V1.0	1.0M	
☒	Battery Match	V1.00	512K	
ALL		None		Update

UPdate software				
☒	BENTLEY	V1.0	26.3M	
☒	Jaguar	V1.0	32.5M	
☒	EPB Reset	V1.0	644K	
☒	Oil Reset	V1.0	1.0M	
☒	Battery Match	V1.00	512K	

ALL

None

UPdate

UPdate software				
☒	BENTLEY	V1.0	26.3M	
☒	Jaguar	V1.0	32.5M	
☒	EPB Reset	V1.0	644K	
☒	Oil Reset	V1.0	1.0M	
☒	Battery Match	V1.00	512K	

ALL

None

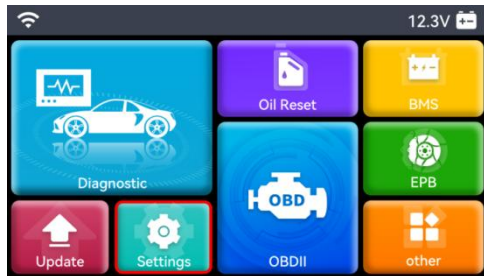
UPdate

Upgrade completed.

UPdate software	
Upgrade completed.	
OK	

3.8. Settings

Enter the **settings** option to connect to WIFI and adjust multiple parameters of the product, such as language and unit settings.



The displayed results are as follows:

Settings	1/7
WIFI	
Language	
Buzzer	
Self test	
Tool information	
Unit	
Restore factory settings	

4.Troubleshooting

- **Why does the scanner fail to connect to the vehicle?**

If the scanner fails to communicate with the vehicle's ECU, follow these steps:

- 1- Make sure the vehicle ignition is turned ON.
- 2- Check that the OBD cable is securely connected to the vehicle's DLC.
- 3- Turn the ignition OFF, wait for about 10 seconds, then turn it ON again and retry.
- 4- Verify that the vehicle's control module is functioning properly and is not damaged.

- **Why doesn't the device power on?**

If the scanner fails to turn on or operate

normally, check the following:

- 1- Ensure the OBD connector is fully inserted into the socket.
- 2- Inspect the DLC port pins for bending or damage.
- 3- Clean the DLC pins if necessary to ensure good contact.

- **When the display does not work properly?**

Check all cables, connections, and indicators to see if the signal is being received.

- **What should I do if there are some scratches on the screen?**

There is a tightly adhered screen protector film

on your device. If scratches are found, simply peel off the protective film from the top left or top right corner of the screen.

- **Will it perform operations such as resetting the oil indicator light or releasing pressure from the anti lock braking system?**

This product supports oil reset, battery match, and EPB reset.

- **Regarding Updates**

This diagnostic tool comes pre installed with the latest software from the factory, so there is no need to update it before first use. All diagnostic software is free to use for life.

FCC warning statements:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The device has been evaluated to meet general RF exposure requirement This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.