M601D

Handheld OBD2 Scanner

Drove West

Vehicle Diagnostics Solutions

User Manual

v1.0 • Updated: 2026-02-19

Safety Warning

- Always perform automotive testing in a safe environment
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged
- Be extra cautious when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running
- Do not connect or disconnect any test equipment while the ignition is on or the engine is running
- Do not drive the vehicle and operate the test equipment at the same time. Any distraction may cause an accident
- To avoid damaging the test equipment or generating false data, make sure the vehicle battery is fully charged and the connection to the vehicle DLC is clean and secure
- Wear safety eye protection that meets ANSI standards
- Operate the vehicle in a well-ventilated work area, for exhaust gases are poisonous
- Put blocks in front of the drive wheels and never leave the vehicle unattended while testing
- Keep a fire extinguisher suitable for gasoline, chemical, and electrical fires nearby
- Keep the test equipment dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the equipment as necessary
- Refer to the service manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Failure to do so may result in personal injury or damage to the test equipment
- Do not place the test equipment on the distributor of the vehicle. Strong electro-magnetic interference can damage the equipment

1. General Introduction

The M601D scanner is the handheld model combing 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 M601 Diagnostic Scanner

Device front view with key indicators

Key definitions:

1. I/M Key: One click reading of vehicle I/M value

2. DTC Key: One click reading of vehicle fault codes

3. Direction Keys: Used for scrolling menu options up, down, left, or right, or for paging

4. OK Key: Executes a selected option and generally goes to the next screen

5. Exit Key: Exits a screen and generally returns to previous screen

6. USB Port: Provides power to the device and setup connection for data transmission between the device and PC

1.2 Technical Specifications

Screen Display	2.8" TFT color display
Operating Temperature	-20 to 60°C (-4 to 140°F)
Storage Temperature	-20 to 60°C (-4 to 140°F)
Power	9 to 16 Volts provided via vehicle battery

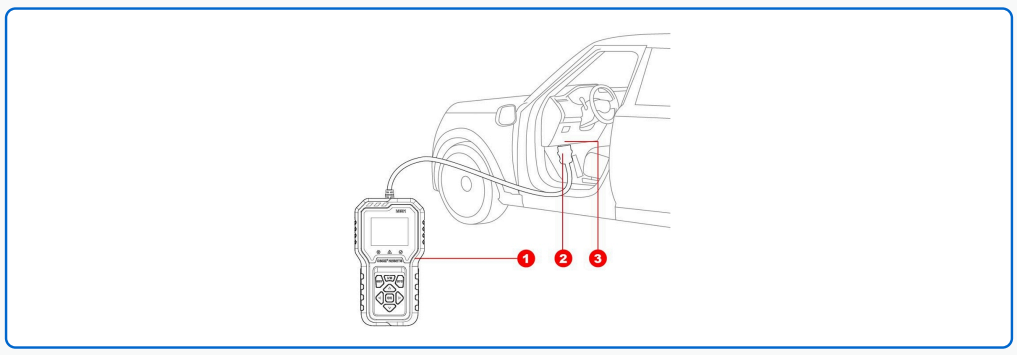
1.3 Standard Accessory Kits

- Main Unit
- OBD Main Cable
- User Manual

2. Get Ready before Diagnosis

2.1 Cable Connection for On-Board Diagnosis

Make sure the M601D diagnostic scanner is well connected for vehicle diagnosis.



Connection: Main unit + OBD cable + Vehicle diagnostic socket

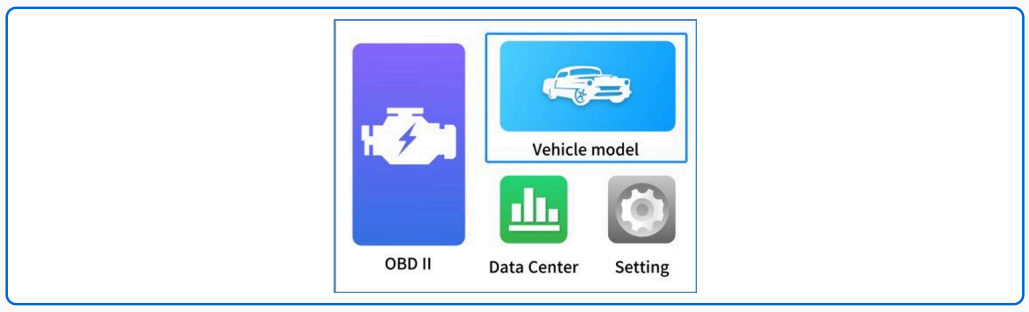
Connection Description:

1. Diagnostic Scanner Main Unit: To communicate with vehicle and display the diagnostic result

2. Main Cable: To connect the connector and the vehicle

3. Diagnostic Socket on car: Socket location varies based on different car makes/models

The system boots up and shows the screen with the M601D diagnostic scanner Job Menu as below:



Main menu interface

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 series 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 M601 Diagnostic Scanner for the type of operation or activity to be performed.

OBDII
All modes of OBDII test for cars after 1996 and newer

Read Code
The DTCs provide valuable information about potential faults or malfunctions in various components and systems of the vehicle

Erase Code
The process of clearing OBDII fault codes using a compatible scan tool or diagnostic equipment

Freeze
Provides valuable information to technicians during the vehicle diagnosis and repair process

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

Data List
Provides a detailed snapshot of how the vehicle is operating at any given moment

Mode 6
Used for obtaining detailed information related to the performance and health of various vehicle components and systems

O2 Sensor
Measures the amount of oxygen in the exhaust gases

Mode 8
Designed to provide additional detailed and specialized information related to the vehicle's systems and components

2.2 Application Icon Introduction (Continued)

Battery
Measurable battery voltage waveform and vehicle starting waveform

Data Center - Cloud Print
This function is very convenient when you need to view the electronic file or print it using your mobile phone

Data Center - DTC Look
To provide you with the latest definition of PCBU fault codes

Settings Menu:

Language: English, German, French, Spanish, Italian, Russian, Polish, Portuguese, Chinese, Japanese, Korean

Buzzer: Sets the sound on or off

Self Test: To provide the key test, LCD Test, LED Test, Buzzer Test options

Tool Information: To provide device related information

Unit: To provide two options for the unit of live data: Metric Unit and Imperial Unit

Update Software: Use USB Update Software via PC client

Log: Two options for Logging On and OFF with the slide button

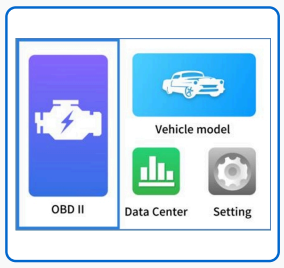
Clear Log: Clear logs from the device

3. Use OBDII To Start A New Test

To start a new test, you need to establish the proper vehicle communication to the M601 diagnostic scanner; you need to follow the screen instruction step by step for the car testing. The operations require connecting the M601 diagnostic scanner main unit to the test vehicle through the main cable.

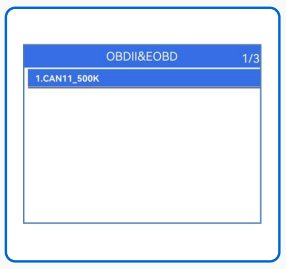
3.1 Diagnose the Vehicle

When the main unit is properly connected to the vehicle, click the OBDII icon button on the M601 Diagnostic Scanner.



Step 1: Select OBDII

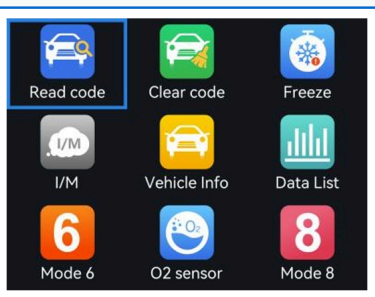
Step 2: Load OBDII software



Step 3: Communicate with vehicle

3.2 Function Selection

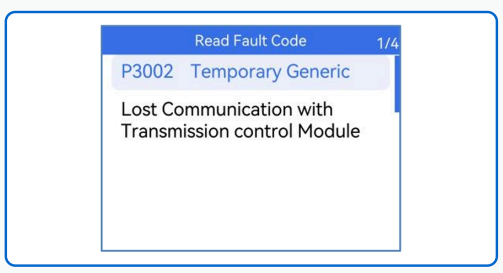
The OBDII software provides nine functions, and professional software features ensure the resolution of power system faults in your vehicle.



OBDII function selection menu

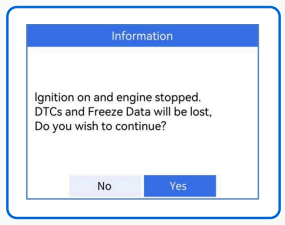
3.2.1 Read Code

Step 1: Select Read Code and Press OK to Read

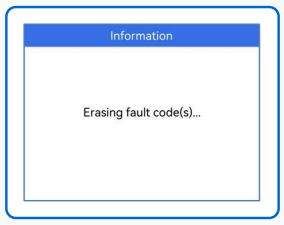


Step 2: Display results

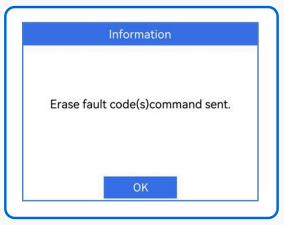
3.2.2 Erase Code



Step 1 Select the Erasecode icon, press OK

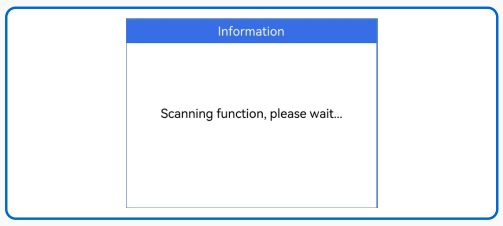


Step 2: Select Yes and Press OK

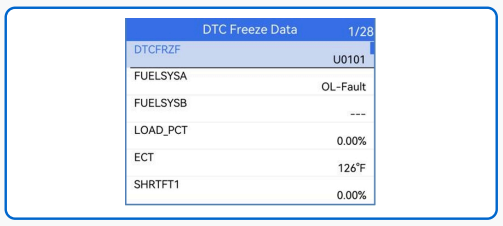


Step 3: Display result

3.2.3 Freeze

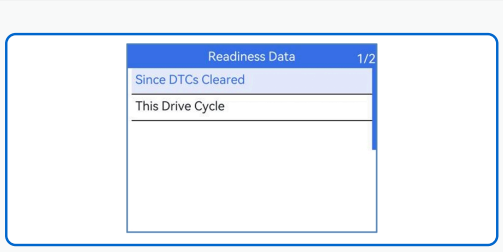


Step 1 Select the Freeze icon, press OK



Step 2 Freeze Frame Results

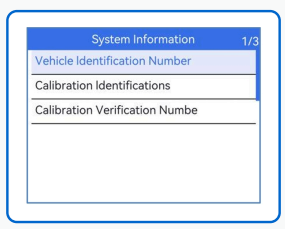
3.2.4 I/M



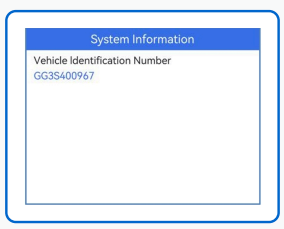
Step 1: Select I/M icon and "Since DTCs Cleared"

Step 2: Display frozen frame results

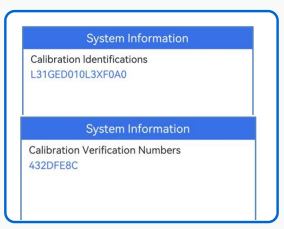
3.2.5 Vehicle Info



Step 1 Select Vehicle Info

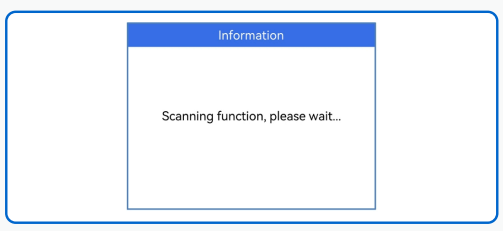


Step 2 Select Vehicle Identification Number

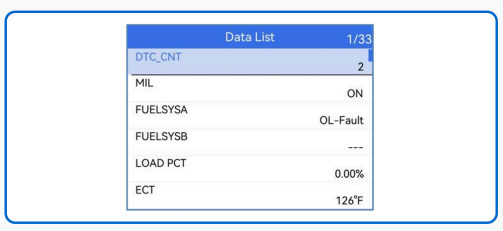


Step 3 Select Calibration IDs & CVN

3.2.6 Data List

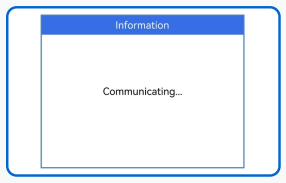


Step 1 Select Data List

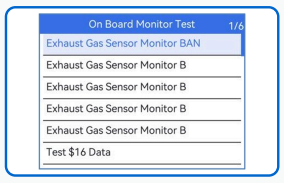


Step 2: Display real-time data

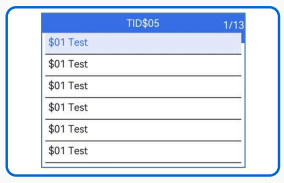
3.2.7 Mode 6



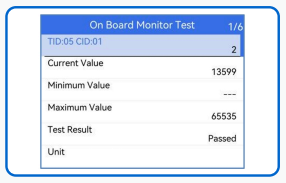
Step 1 Select Mode 6



Step 2:Select Test Item

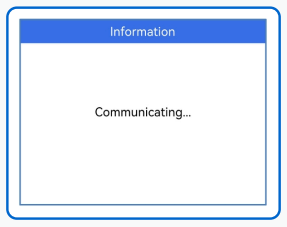


Step 3: Select Parameter

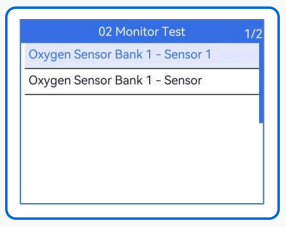


Step 4: View test data

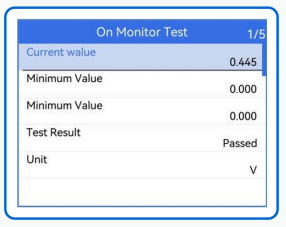
3.2.8 02 Sensor



Step 1 Select 02 Sensor

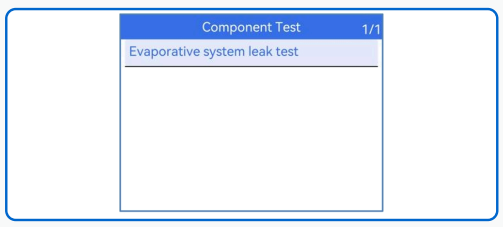


Step 2: Select Sensor

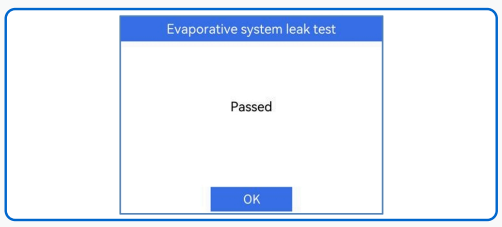


Step 3: View sensor data

3.2.9 Mode 8



Step 1 Select Mode 8



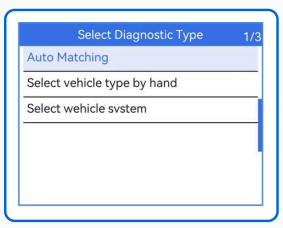
Step 2: View specialized data

4. Vehicle Model

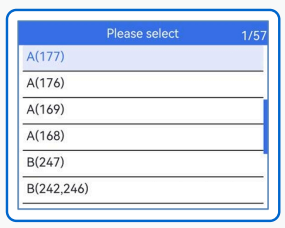
4.1 Vehicle Model (Example: Nissan)

After selecting Nissan, you will receive two options:

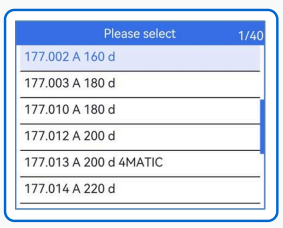
- Automatically help you locate vehicle information directly
- Manual Select Car, you will need to follow the prompts step by step



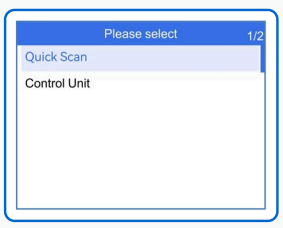
Select Manual Select Car



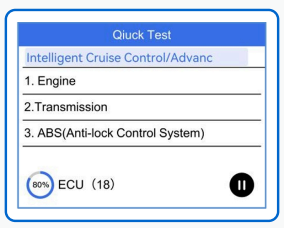
Choose the correct vehicle model



Choose the chassis number

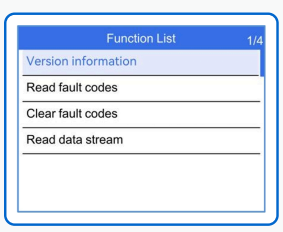


Use Quick Scan

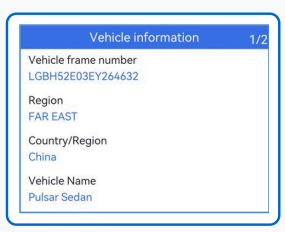


Select the System to scan

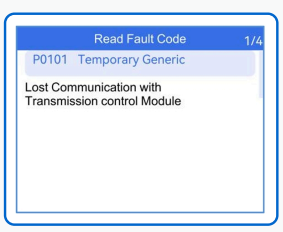
After selecting the system, the functional interface is as follows:



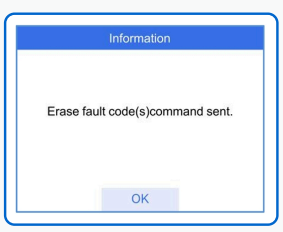
View Function List



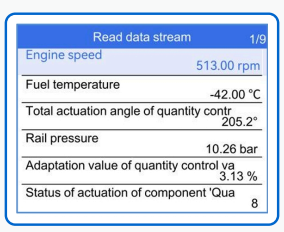
1. View "Version information"



2. Enter "Read Fault Code" to read



3. Enter "Clear Fault Codes" to clear



4. Enter "Read data stream" to view

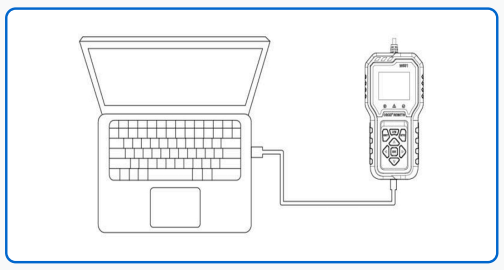
6. Software Update

6.1 Update via USB

Providing the USB update procedures for software as below:

Step 1: Request the USB upgrade client from your Drove West account manager or via email at info@drovewest.com

Step 2: Connect the main unit to PC with the USB cable

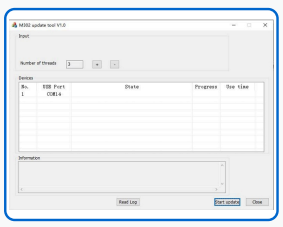


Connect the main unit to PC with the USB cable.

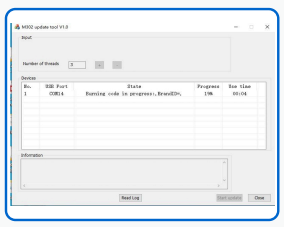
The device will reboot and access the USB mode

Step 3: Double click the icon of “Update Tool.exe” Client

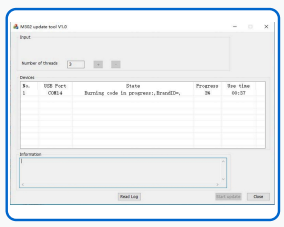
Step 4: One click on ”Start update” and the software will be running automatically



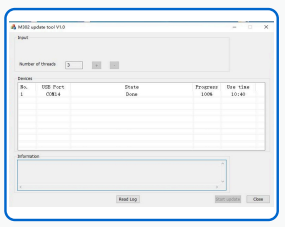
One click on [Start update]



Software downloading upgrade package



Software Copying upgrade package to device



Upgrade completed

7. Troubleshooting

Why the vehicle linking error?

Follow the steps if the scanner fails to communicate with the ECU:

1. Verify the ignition is ON
2. Check cable or connector securely connected to the vehicle DLC
3. Turn the ignition off and wait for about 10 seconds and turn the ignition back to ON
4. Verify the control module is not defective

Why the device doesn’t power up?

If the auto scanner won’t power up or operate correctly in any other way, follow the steps to check the connections:

1. Check the connector properly inserted to the socket seat
2. Check the DLC pins bent or broken
3. Clean the DLC pins if necessary

Why the devices have no permission to update?

Please contact the local distributor to get authorization.

When the display does not work properly:

- Make sure the machine has been registered online
- Make sure the system software and diagnostic application software are properly updated
- Check all cables, connections, and indicators to see if the signal is being received

For Technical Support:

Please contact Drove West technical support team or visit www.drovewest.com for additional resources, software updates, and troubleshooting guides.