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Safety Precautions and Warnings

To prevent personal injury or damage to vehicles and/or the tool, please read this user's manual first carefully and observe the following safety precautions at a minimum whenever working on a vehicle:

- There are no user serviceable parts. Have the device serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the device is maintained. Disassembling the device will void the warranty right.
- Caution: This tool contains an internal Lithium Polymer battery. The battery can burst or explode, releasing hazardous chemicals. To reduce the risk of fire or burns, do not disassemble, crush, pierce or dispose of the battery in fire or water.
- This product is not a toy. Do not allow children to play with or near this item.
- Do not expose the device to rain or wet conditions.

- Do not place the device on any unstable surface.

- Never leave the device unattended during charging process. The device must be placed on a non-flammable surface during charging.

- Handle the device with care. If the device is dropped, check for breakage and any other conditions that my affect its operation.

- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.

- Keep the tool dry, clean, free from oil, water or grease. Use a mild detergent on a clean cloth to clean the outside of the device when necessary.

- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.

- Always perform automotive testing in a safe environment.

- Do not attempt to operate or observe the tool while driving a vehicle. Operating or observing the tool will cause driver distraction and could cause a fatal accident.

- Wear safety eye protection that meets ANSI standards.

- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.

- Operate the vehicle in a well-ventilated work area: Exhaust gases are poisonous.

- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.

- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.

- Put the transmission in P (for A/T) or N (for M/T) and make sure the parking brake is engaged.

- Keep a fire extinguisher suitable for gasoline/chemical/ electrical fires nearby.

- Don't connect or disconnect any test equipment while the ignition is on or the engine is running.

FCC Statement

FCC ID: XUJCRP12X

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the 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.
Note: 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.
The device has been evaluated to meet general RF exposure requirement. The highest reported SAR for stand-alone and simultaneous transmission exposure conditions are below the maximum value. End-users must be informed of the operating requirements for satisfying RF exposure compliance.
This device is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive 2014/53/EU. The RF frequencies can be used in Europe without restriction.

Table of Contents

1. Introduction

1.1 Vehicle Coverage

This tool is specially designed to work with all OBD II compliant vehicles, including Controller Area Network (CAN). It is required by EPA that all 1996 and newer vehicles (cars and light trucks) sold in the United States must be OBD II compliant and this includes all American, Asian and European vehicles.

A small number of 1994 and 1995 model year gasoline vehicles are OBD II compliant. To verify if a 1994 or 1995 vehicle is OBD II compliant, check the following:

1. **Vehicle Emissions Control Information (VECI) Label**. It is located under the hood or by the radiator of most vehicles. If the vehicle is OBD II compliant, the label will designate **OBD II Certified**.
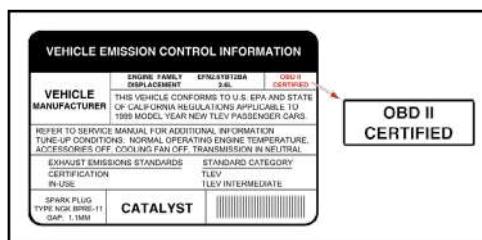
2. Government regulations mandate that all OBD II compliant vehicles **must** have a "common" 16-pin **Data Link Connector (DLC)**.
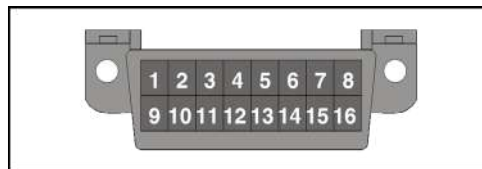
Note: Some 1994 and 1995 vehicles have 16-pin connectors but are not OBD II compliant. Only those vehicles with a Vehicle Emissions Control Label stating **OBD II Certified** are OBD II compliant.

1.2 On-Board Diagnostics (OBD) II

The OBD II system is designed to monitor emission control systems and key engine components by performing either continuous or periodic tests of specific components and vehicle conditions, which will offer three pieces of such valuable information:

• Whether the Malfunction Indicator Light (MIL) is commanded "on" or "off";

• Which, if any, Diagnostic Trouble Codes (DTCs) are stored;

• Readiness Monitor status.

1.3 OBD II Definitions

The following terms and their definitions are related to OBD II systems. Read and reference this list as needed to aid in the understanding of OBD II systems.

EOBD - European On-Board Diagnostics. Essentially the same as OBD II, with the same Data Link Connector and Communication Protocols.

Communication Protocols - Allows different systems and sensors in a vehicle to communicate. There are currently five protocols:

• CAN Bus

• J1850 VPW

• ISO 9141-2

• J1850 PWM

• ISO 14230 KWP

Powertrain Control Module (PCM) -- The PCM is the OBD II accepted term for the vehicle's "on-board computer." In addition to controlling the engine management and emissions systems, the PCM also participates in controlling the powertrain (transmission) operation. Most PCMs also have the ability to communicate with other computers on the vehicle (ABS, ride control, body, etc.).

DLC -- Data Link Connector. The 16-cavity connector on the vehicle that allows communication between the computer system and the diagnostic tool.

MIL -- Malfunction Indicator Light. The vehicle's "Check Engine" warning light that activates when a DTC is stored.

DTC -- Diagnostic Trouble Code. A code stored in the computer system's memory, which helps to identify the fault condition that is causing the MIL to activate.

Freeze Frame Data -- Operating conditions that are stored when a DTC is stored.

PID -- Parameter Identification Data. Data returned by the vehicle's control

modules to the diagnostic tool.

Monitors -- Monitors are "diagnostic routines" programmed into the PCM. The PCM utilizes these programs to run diagnostic tests, and to monitor operation of the vehicle's emissions-related components or systems to ensure they are operating correctly and within the vehicle's manufacturer specifications.

Enabling Criteria -- Also termed Enabling Conditions. They are the vehicle-specific events or conditions that must occur within the engine before the various monitors will set, or run. Some monitors require the vehicle to follow a prescribed "drive cycle" routine as part of the enabling criteria. Drive cycles vary among vehicles and for each monitor in any particular vehicle. Please refer to the vehicle's factory service manual for specific enabling procedures.

Trip - A Trip for a particular Monitor requires that the vehicle is being driven in such a way that all the required "Enabling Criteria" for the Monitor to run and complete its diagnostic testing are met. The "Trip Drive Cycle" for a particular Monitor begins when the ignition key is turned "On." It is successfully completed when all the "Enabling Criteria" for the Monitor to run and complete its diagnostic testing are met by the time the ignition key is turned "Off." Since each of the fifteen monitors is designed to run diagnostics and testing on a different part of the engine or emissions system, the "Trip Drive Cycle" needed for each individual Monitor to run and complete varies.

Drive Cycle -- A specific mode of vehicle operation that provides conditions required to set all the readiness monitors applicable to the vehicle to the "ready" condition. The purpose of completing an OBD II drive cycle is to force the vehicle to run its onboard diagnostics. Some form of a drive cycle needs to be performed after DTCs have been erased from the PCM's memory or after the battery has been disconnected. Running through a vehicle's complete drive cycle will "set" the readiness monitors so that future faults can be detected. Drive cycles vary depending on the vehicle and the monitor that needs to be reset. For vehicle specific drive cycle, consult the service manual.
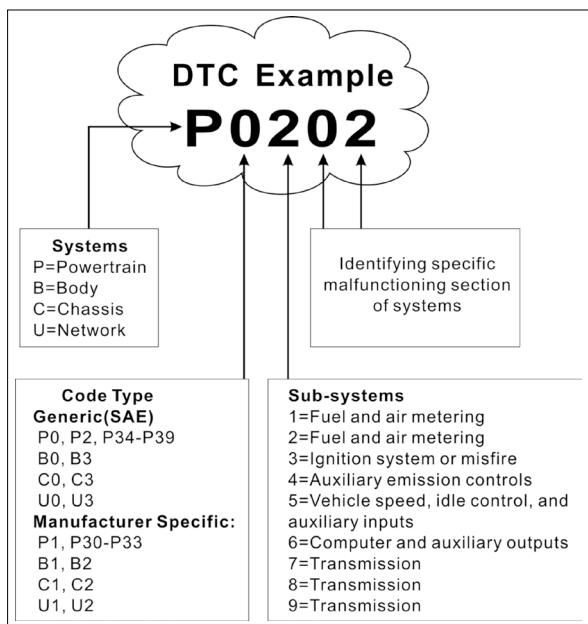
*Note: Do not confuse a "Trip" Drive Cycle with an OBD II Drive Cycle. A "Trip" Drive Cycle provides the "Enabling Criteria" for one specific Monitor to run and complete its diagnostic testing. An OBD II Drive Cycle must meet the "Enabling Criteria" for all Monitors on a particular vehicle to run and complete their diagnostic testing.

Warm-up Cycle - Vehicle operation after an engine off period where engine temperature rises at least 40°F (22°C) from its temperature before starting, and reaches at least 160°F (70°C). The PCM uses warm-up cycles as a counter to automatically erase a specific code and related data from its memory. When no faults related to the original problem are detected within a specified number of warm-up cycles, the code is erased automatically.

Fuel Trim (FT) - Feedback adjustments to the base fuel schedule. Short-term fuel trim refers to dynamic or instantaneous adjustments. Long-term fuel trim refers to much more gradual adjustments to the fuel calibration schedule than short-term trim adjustments. These long-term adjustments compensate for vehicle differences and gradual changes that occur over time.

1.4 Diagnostic Trouble Codes (DTCs)

OBD II Diagnostic Trouble Codes are codes that are stored by the on-board computer diagnostic system in response to a problem found in the vehicle. These codes identify a particular problem area and are intended to provide you with a guide as to where a fault might be occurring within a vehicle. OBD II Diagnostic Trouble Codes consist of a five-digit alphanumeric code. The first character, a letter, identifies which control system sets the code. The second character, a number, 0-3; other three characters, a hex character, 0-9 or A-F provide additional information on where the DTC originated and the operating conditions that caused it to set. Here below is an example to illustrate the structure of the digits:

DTC Example

P0202

Systems
P=Powertrain
B=Body
C=Chassis
U=Network

Identifying specific malfunctioning section of systems

Code Type
Generic(SAE)
P0, P2, P34-P39
B0, B3
C0, C3
U0, U3
Manufacturer Specific:
P1, P30-P33
B1, B2
C1, C2
U1, U2

Sub-systems
1=Fuel and air metering
2=Fuel and air metering
3=Ignition system or misfire
4=Auxiliary emission controls
5=Vehicle speed, idle control, and auxiliary inputs
6=Computer and auxiliary outputs
7=Transmission
8=Transmission
9=Transmission

P0201 - Injector circuit malfunction, Cylinder 1

1.5 Location of the Data Link Connector (DLC)

The DLC (Data Link Connector or Diagnostic Link Connector) is typically a 16-pin connector where diagnostic code readers interface with the vehicle's on-board computer. It is usually located 12 inches from the center of the instrument panel, under or around the driver's side for most vehicles. For some vehicles with special designs, the DLC location may vary.

Refer to the following figure for location.
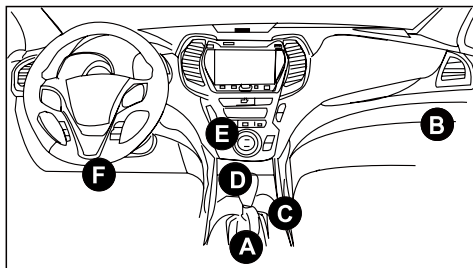
A- Opel, Volkswagen, Audi

B- Honda

C- Volkswagen
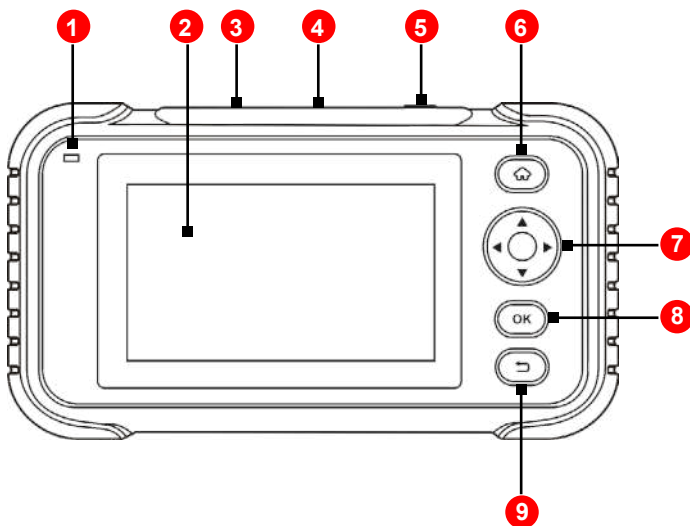
D- Opel, Volkswagen, Citroen

E- Changan

F- Hyundai, Daewoo, Kia, Honda, Toyota, Nissan, Mitsubishi, Renault, Opel, BMW, Mercedes-Benz, Mazda, Volkswagen, Audi, GM, Chrysler, Peugeot, Regal, Beijing Jeep, Citroen and other most popular models

If the DLC cannot be found, refer to the vehicle's service manual for the location.

2. Product Descriptions

2.1 Components & Controls

No.	Name	Descriptions
1	**Charging LED**	Red means Charging and Green means Fully charged.
2	**LCD**	Indicates test results.
3	**5V Charging port**	To connect to external DC power for charging the tool.
4	**DB-15 diagnostic connector**	To connect to vehicle's DLC (Data Link Connector) via diagnostic cable.
5	**Power**	Turn the tool on/off.
6	**HOME**	Press to the home(Job menu) screen.

7	▲/▼	Move cursor up and down for selection.
	◀/▶	Move cursor left or right for selection; Or turn page up and down when more than one page is displayed.
8	**OK**	Confirms a selection (or action) from a menu list.
9	⤺ **Return**	Exit the current program or return to the previous screen.

2.2 Technical Specifications

- Screen: 5″ touch screen
- RAM: 2G
- ROM: 16GB
- OBDII input voltage range: 9~18V
- Touch & Keypad input
- Charging via:
  - DC 5V charging cable
  - Diagnostic cable through connection to vehicle's DLC
- Dimension: 228mm x 125mm x 34.5mm
- Net weight: <565g
- Working temperature: -10 to 50°C (14 to 122 F°)
- Storage temperature: -20 to 70°C (-4 to 158 F°)

2.3 Accessories Checklist

For detailed accessory items, please consult from the seller or local agency.

1. Creader Professional IMMO tool
2. OBD II diagnostic cable
3. DC 5V charging cable
4. User manual
5. Carrying bag

3. Initial Use

3.1 Charging

There are two charging methods available:

Via Charging Cable: Plug one end of the included charging cable into the DC-IN port of the tool, and the other end to the external DC power.

Via Diagnostic Cable: Insert one end of the diagnostic cable into the DB-15 connector of the tool, and the other end to the vehicle's DLC.

Once the charging LED illuminates solid green, it indicates that the battery is fully charged.

3.2 Getting Started

If it is the first time you have used this tool, you need to make some system settings.

1. Press the [Power] button to power it on.
2. The screen displays a welcome page. Tap "Start" to go to next step.
3. Choose the desired system language, and tap "Next".

4. Choose the desired time zone, and tap "Next" to enter the WLAN setup page.
5. Slide the switch to ON, the system starts searching for all available wireless LANs. Choose the desired WLAN access point / network,

- • If the network you chose is open, you can connect directly;
- • If the selected network is encrypted, you have to enter the right security key (network password).

Note: If you choose "Ignore" in WLAN setup, it will go into the date setting page. If the tool has been properly connected to the Internet, the system will automatically obtain the correct network date and time and navigate to step 6.

6. After the network connection is done, tap "Next Step" to configure email address. Input the email address, and tap "Next Step" to go to next step.

Note: You are strongly recommended to fill in the valid email address. Once you configured this option, the system will automatically send the diagnostic report to your email box every time a complete Auto-Detect process is successfully finished.

7. Carefully read all terms and conditions of the user agreement, check the box before the "Agree to all the above terms", and tap "OK" finish the sign-up process and navigate to Job Menu.

3.3 Job Menu

It mainly includes the following function modules.

|	
IMMO	Enables you to perform the anti-theft key matching function, so that the immobilizer control system on the car identifies and authorizes remote control keys to normally use the car.
Diagnose	Configure the tool to operate as a professional diagnostic tool.
Reset	Offers coding, reset, relearn and more service functions, to help vehicles get back to functional status after repair or replacement.
OBD II	This option presents a quick way to check for DTCs, isolate the cause of the illuminated Malfunction Indicator Lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emission-related.
I/M	A quick access to the I/M Readiness function of OBD II Diagnosis. Note: This function also can be done by performing "OBD II (Diagnosis)" -> "I/M Readiness". For detailed operations, please refer to Chapter 4.3.
Battery Voltage	Measures the current voltage of the vehicle's battery.
Data	Includes Diagnostic report, Diagnostic record, Feedback and DTC library etc.
Mall	To subscribe extra vehicle diagnostic software or reset software that is not included within the tool.
Upgrade	Update vehicle diagnostic software and APK. Note: This function requires a stable network connection.
Settings	Make some system settings, including Network setup, Email and Brightness etc.

4. Key Immobilizer

This function enables you to perform the anti-theft key matching function, so that the immobilizer control system on the car identifies and authorizes remote control keys to normally use the car.

It needs to be performed in the following cases:

When the ignition switch key, ignition switch, combined instrument panel, ECU, BCM, or remote control battery is replaced.

4.1 Connection

1. Turn the ignition off.
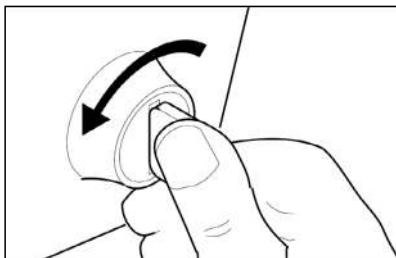
2. Locate the vehicle's 16-pin Data Link Connector (DLC). Refer to Chapter 1.5.
3. Plug one end of the diagnostic cable into the vehicle's DLC(Data Link Connector) port, and the other end to the DB-15 diagnostic connector of the tool, and then tighten the captive screws.
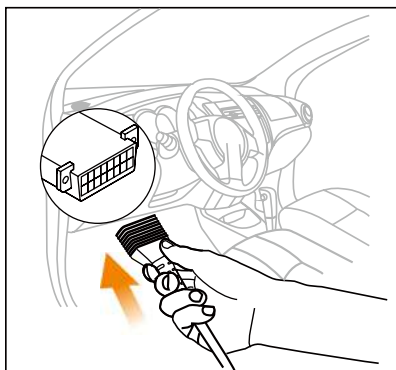
Notes:

• A plastic DLC cover may be found for some vehicles and you need to remove it before plugging the diagnostic cable.

• The cable connector is keyed and will only fit one way. If you have problems connecting the cable connector to the DLC, rotate the connector 180° and try again.

4. Turn the ignition on. Engine can be off or running.

Caution: Don't connect or disconnect any test equipment with ignition on or engine running.

4.2 Immobilizer Operations

Here we take "Chevrolet" for example to demonstrate how to perform the functions of anti-theft key matching.

1. Connect the tool to the vehicle's DLC port.

2. Tap "IMMO" on the job menu screen.

3. Tap "GM".

*Note: Make sure that GM IMMO software version is V10.05 or above.
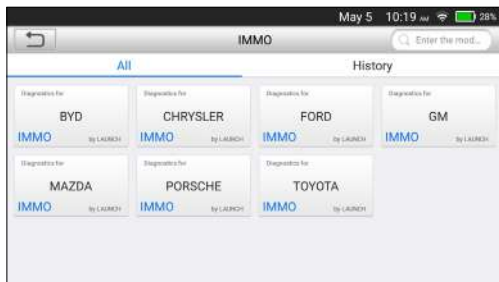
4. Tap "Anti-Theft Key Matching".

5. If the ignition is turned on, tap "Automatically Search", the system will automatically decode the vehicle information.
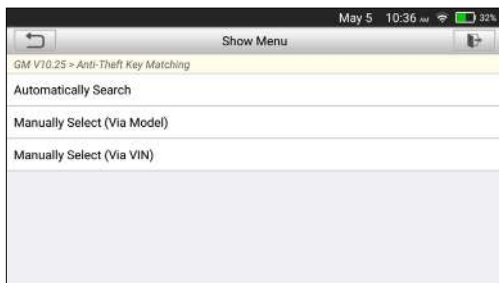
6. Tap "Yes" on the popup window to go to the next step.
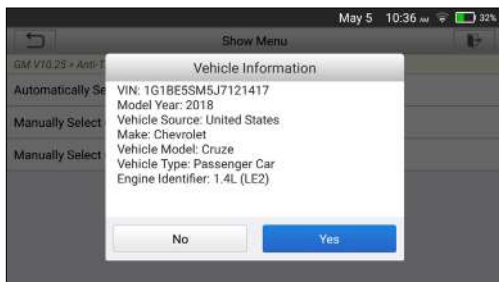
7. Tap "Anti-Theft Key Matching" -> "Mechnical Key".

8. Choose the desired function to perform the corresponding function. Tap "Add Key" (take it for example).

9. Strictly follow the onscreen instructions to proceed. Close all vehicle doors and ensure that the ignition is turned on and then tap "OK".
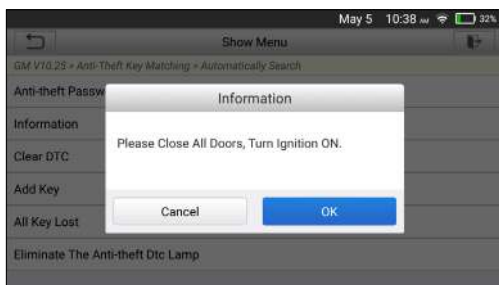
10. Enter the 4-digit anti-theft key pin, tap "OK" to continue.
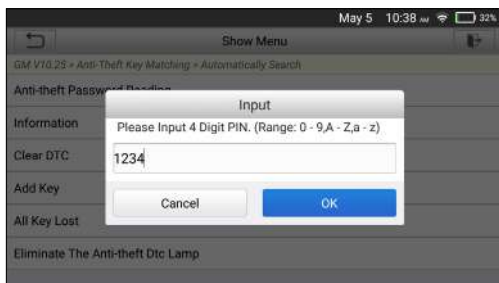
11. Double check if the entered value is correct, tap "OK".
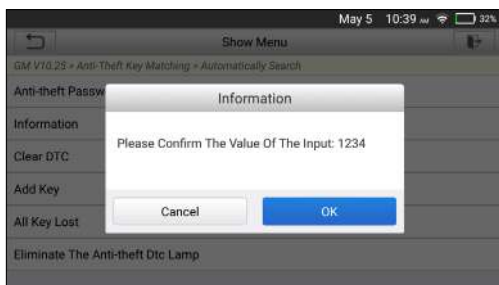
12. Please be patient to wait until the procees is complete.
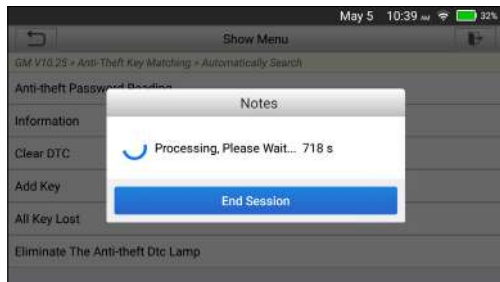
13. Wait for 5 seconds again.
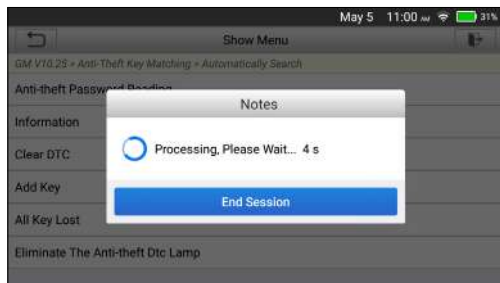
14. The following screen will appear. Turn the ignition off and pull out the key.
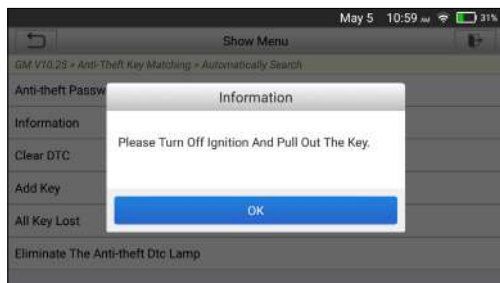
15. Ensure that all electrical equipment are off. Open the door and then close it.
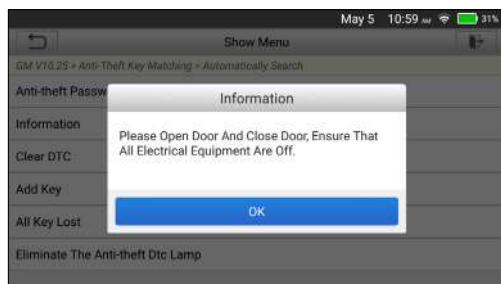
16. Insert the key that needs to be programmed. Turn the ignition on and tap "OK" to start programming.
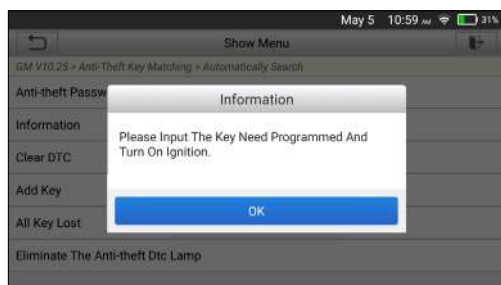
17. After the key is successfully programmed, the following screen will appear.
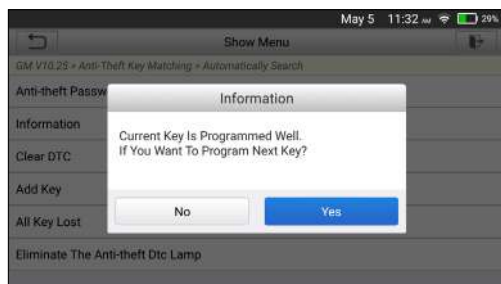
To program next key, tap "Yes" and repeat Steps 13~17. Otherwise tap "No" to go to the next step.

18. Turn the ignition off and pull out the key.
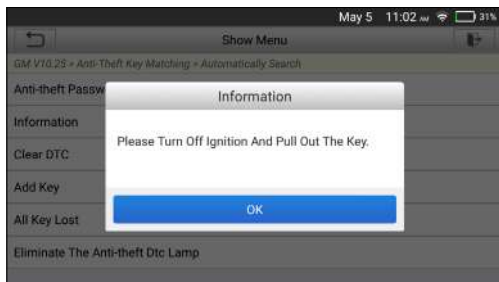
19. Follow the on-screen instructions to operate until the following screen appears.
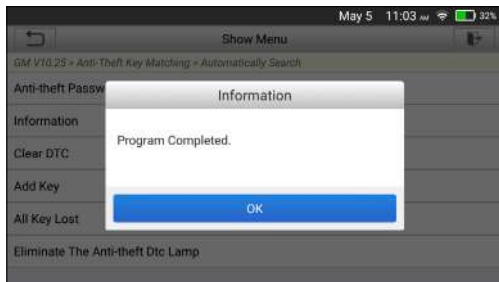
5. Diagnose

5.1 Connection

Refer to Chapter 4.1 to connect the tool and the vehicle.

5.2 System Diagnosis

This function is specially designed to diagnose electronic control systems of single vehicle model.

5.2.1 Smart Diagnosis (Auto-Detect)

This function allows you to quickly access the electronic control systems of the vehicle via decoding the VIN, without manual step-by-step menu selection.

After connection, turn the ignition key on and the system enters auto-detect mode.

Notes:

• Please make sure the "Automatic detection on connect" in "Settings" is set as ON.

• A highly stable and solid network connection is recommended for successful VIN access.

A. Once the system successfully obtains the VIN (Vehicle Identification Number) information of the currently identified vehicle, it will continue scanning the vehicle systems. After the scanning is complete, a diagnostic report will be automatically generated and sent to your email box (if bound).

B. If the tool failed to access the VIN information, the screen will display as below:

Input the VIN, and tap "OK", the system will decode the VIN data automatically, and continue the Smart Diagnosis procedure if success. Otherwise the system will enter the Manual Diagnosis mode.

Notes:

- The most recognizable location for this number is in the top left corner on the vehicle's dashboard. Other locations include the driver's door or post, and the firewall under the hood.
- In general, vehicle identification numbers are standardized - all contain 17 characters. VIN characters may be capital letters A through Z and numbers 1 through 0; however, the letters I, O and Q are never used in order to avoid mistakes of misreading. No signs or spaces are allowed in the VIN.

5.2.2 Manual Diagnosis

If the tool can not obtain the VIN information, you can also perform vehicle diagnosis manually. In this mode, you need to execute the menu-driven command and then follow the on-screen instruction to proceed.

Notes:

- Before diagnosing, please make sure the diagnostic program corresponding to certain vehicle model has been installed on your tool.

- The diagnostic menu may vary by the vehicle's make, model and year.

Refer to the flowchart illustrated as below to diagnose a vehicle manually:

```
┌─────────────────────┐
│  Select "Diagnose"  │
└─────────────────────┘
           │
           ▼
┌─────────────────────┐          ┌──────────────────────┐          ┌──────────────────────┐
│  Select Vehicle     │          │                      │────────→ │  Read version        │
│  Manufacturer       │          │  Select test function│          │  information         │
└─────────────────────┘          │                      │          └──────────────────────┘
           │                     └──────────────────────┘          ┌──────────────────────┐
           ▼                                 ▲                ────→ │  Read fault code     │
┌─────────────────────┐                      │                     └──────────────────────┘
│  Select Vehicle Model│                     │                     ┌──────────────────────┐
│ (Note: For different │          ┌──────────────────────┐    ───→ │  Clear fault code    │
│  vehicles, vehicle   │          │                      │         └──────────────────────┘
│  make selection may  │────────→ │  Select test system  │         ┌──────────────────────┐
│  differ...)          │          │                      │    ───→ │  Read data stream    │
└─────────────────────┘          └──────────────────────┘         └──────────────────────┘
```

Select "Diagnose"

Select Vehicle Manufacturer

Select Vehicle Model
(Note: For different vehicles, vehicle make selection may differ. Generally, we can choose a vehicle via make year. But for BENZ, we need to choose it via chassis.)

Select test function

Read version information

Read fault code

Clear fault code

Read data stream

Select test system

Automatic
(Note: This mode allows your tool to scan the vehicle test system automatically)

Manual Select
(Note: In this case, you need to choose the desired system manually. Just follow the on-screen instructions to proceed.)

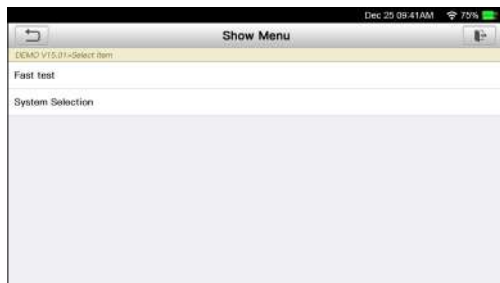Take Demo V15.01 as an example to demonstrate how to diagnose a vehicle.

1). Select diagnostic software version: Tap the "DEMO" to go to Step 2.

2). Select test item: Select the desired test item to proceed.

5.2.2.1 Health Report (Quick Test)

This function varies from vehicle to vehicle. It enables you to quickly access all the electronic control units of the vehicle and generate a detailed report about vehicle health.

Tap "Health Report" on the test item selection screen, the system starts scanning the ECUs. Once the scanning is complete, the following screen will appear:
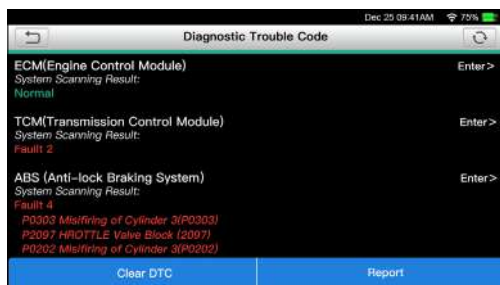
In above figure, the tested system with fault code appears in red and the system with OK displays in black (normally).

On-screen Buttons:

▼: Tap to display the details of DTCs existing in the current system. Tap ▲ to hide it.

Enter: Tap to select other test functions. For detailed operations, refer to Chapter 5.2.2.2 "System Selection".

Report: Tap to save the diagnostic result as a report.

Clear DTC: Tap to clear the existing diagnostic trouble codes.

5.2.2.2 System Selection

This option allows you manually select the test system and function step by step.

Tap "System Selection" on the test item selection screen, and tap the desired system (take "ECM" for example) to jump to the test function page.

Note: Different vehicle has different diagnostic menus.

A. Version Information

This function is used to read the version information of system mode, vehicle VIN, software and ECU.

B. Read Fault Code

This function displays the detailed information of DTC records retrieved from the vehicle's control system.

Tap "Read DTC" on the test function selection screen, the screen will display the diagnostic result.

Note: Retrieving and using DTCs for troubleshooting vehicle operation is only one part of an overall diagnostic strategy. Never replace a part based only on the DTC definition. Each DTC has a set of testing procedures, instructions and flow charts that must be followed to confirm the location of the problem. This information can be found in the vehicle's service manual.

On-screen Buttons:

Freeze Frame: When an emission-related fault occurs, certain vehicle conditions are recorded by the on-board computer. This information is referred to as freeze frame data. Freeze frame data includes a snapshot of critical parameter values at the time the DTC is set.

Help: Tap to view the help information.

Code Search: Tap it to search for more information about the current DTC online.

Report: To save the current data in text format. All diagnostic reports can be

accessed from "Data" -> "Diagnostic Report".

C. Clear Fault Code

After reading the retrieved codes from the vehicle and certain repairs have been carried out, you can use this function to erase the codes from the vehicle. Before performing this function, please be sure the vehicle's ignition key is in the ON position with the engine off.

Notes:

1. If you plan to take the vehicle to a Service Center for repair, DO NOT erase the codes from the vehicle's computer. If data is erased, valuable information that might help the technician troubleshoot the problem will also be erased.

2. Clearing DTCs does not fix the problem(s) that caused the code(s) to be set. If proper repairs to correct the problem that caused the code(s) to be set are not made, the code(s) will appear again and the check engine light will illuminate as soon as the problem that cause the DTC to set manifests itself.

D. Read Data Stream

This option retrieves and displays live data and parameters from the vehicle's ECU.

Tap "Read Data Stream" on the test function selection screen, the system will display data stream items.

On-screen Buttons:

Select All: Tap it to select all items of the current page. To select certain data stream item, just check the box before the item name.

Unselect: Tap it to deselect all data stream items.

OK: Tap it to confirm and jump to the next step.

After selecting the desired items, tap "OK" to enter the data stream reading page.

Notes:

1. If the value of the data stream item is out of the range of the standard (reference) value, the whole line will display in red. If it complies with the reference value, it displays in blue (normal mode).

2. The indicator 1/X shown on the bottom of the screen stands for the current page/ total page number. Swipe the screen from the right/left to advance/return to the next/ previous page.

There are 3 types of display modes available for data viewing, allowing you to view various types of parameters in the most suitable way.

• Value – this is the default mode which displays the parameters in texts and shows in list format.

• Graph – displays the parameters in waveform graphs.

• Combine – this option is mostly used in graph merge status for data comparison. In this case, different items are marked in different colors.

On-screen Buttons:

: Tap it to view the waveform graph of the current data stream item.

Combine: Tap it, a pull-down list of the data stream items appears on the screen. Select the necessary items and the screen will display the waveforms corresponding to these items immediately.

Report: Tap to save the current data as a diagnostic report. All diagnostic reports can be accessed from "Data" -> "Diagnostic Report". The tool logs the Date of Report (the date and time at which the report was created) and assigns a unique Report #.
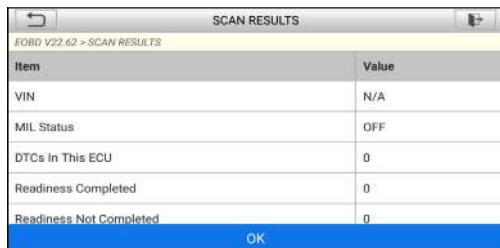
Record: Tap to record and save Live Data. Recorded Live Data can serve as valuable information to help you in troubleshooting and diagnosing vehicle problems. The saved file follows the naming rule: It begins with vehicle type, and then the record starting time and ends with .x431 (To differentiate between files, please configure the accurate system time). All diagnostic records can be viewed

by tapping "Data" -> "Diagnostic Record".

5.3 OBDII Diagnosis

This option presents a quick way to check for DTCs, isolate the cause of the illuminated Malfunction Indicator Lamp (MIL), check monitor status prior to emissions certification testing, verify repairs, and perform a number of other services that are emission-related.

After the tool is properly connected to the vehicle's DLC, tap **OBD II** on the Job menu. The tool will automatically start a check of the vehicle's computer to determine which type of communication protocol it is using. When the tool identifies the computer's communication protocol, a communication link is established and then the screen will display the Monitor Status.

SCAN RESULTS	
EOBD V22.62 > SCAN RESULTS	
Item	Value
VIN	N/A
MIL Status	OFF
DTCs In This ECU	0
Readiness Completed	0
Readiness Not Completed	0
OK	

Tap **OK**, the following function list appears.

1. Read Codes

This function can identify which section of the emission control system has malfunctioned.

2. Erase Codes

This function erases the codes from the vehicle, after retrieving codes from the vehicle and certain repairs have been carried out.

Make sure the vehicle's ignition key is in the ON position with the engine off before the operation.

Notes:
• Before performing this function, make sure to retrieve and record the trouble codes.
• After clearing, you should retrieve trouble codes once more or turn ignition on and retrieve codes again. If there are still some trouble codes in the system, please troubleshoot the code using a factory diagnosis guide, then clear the code and recheck.

3. I/M Readiness

This function checks whether or not the various emissions-related systems on the vehicle are operating properly, and are ready for Inspection and Maintenance testing.

It can also be used to check the Monitor Run Status, and to confirm if the repair of a car fault has been performed correctly.

4. Data Stream

This function retrieves and displays live data and parameters from the vehicle's ECU.

5. View Freeze Frame

This function takes the snapshot of the operating conditions when an emission-related fault occurs.

Note: If DTCs were erased, Freeze Data may not be stored in vehicle memory depending on vehicle.

6. O$_2$ Sensor Test

This function retrieves O2 sensor monitor test results of the most recently completed tests from the vehicle's on-board computer.

7. On-Board Monitor Test

This function retrieves test results for emission-related powertrain components and systems that are not continuously monitored. The test's availability is determined by the vehicle manufacturer.

8. EVAP System Test

This function lets you initiate a leak test for the vehicle's EVAP system. Refer to the vehicle's service repair manual to determine the procedures necessary to stop the test.

9. Vehicle Info

This function retrieves a list of information (provided by the vehicle manufacturer) from the vehicle's on-board computer.

This information may include:

- **VIN** (Vehicle identification Number). It is applicable to model year 2000 and newer OBD II-compliant vehicles.
- **CID** (Calibration ID). These IDs uniquely identify the software version(s) for the vehicle's control module(s).
- **CVN** (Calibration Verification Number). CVNs are used to determine if emission-related calibrations for the vehicle under test have been changed. One or more CVNs may be returned by the vehicle's computer.

5.4 History

Generally once a vehicle diagnosis is performed, the tool will record the every details of diagnostic session. The History function provides direct access to the previously tested vehicles and users can resume from the last operation, without starting from scratch.

Tap "History" on the Manual Diagnosis main menu screen, all diagnostic records will be listed on the screen in date sequence.

- Tap certain vehicle model to view the details of the last diagnostic report.
- To delete certain diagnostic history, select it and then tap "Delete". To delete all historical records, tap "Select All" and then tap "Delete".
- Tap "Quick access" to directly navigate to the function selection page of last diagnostic operation. Choose the desired option to proceed.
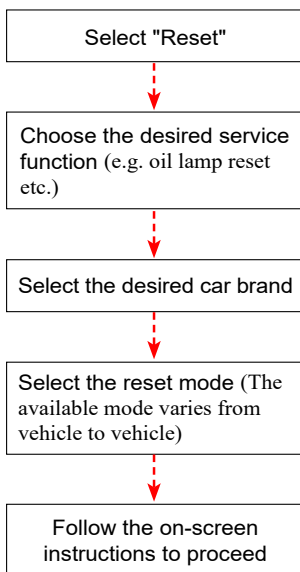
5.5 Reset

It offers coding, reset, relearn and more service functions, to help vehicles get back to functional status after repair or replacement.

Due to continuing improvements, available service functions are subject to change without prior written notice. To enjoy more service functions, you are suggested to check for updates on a regular basis.

There are two methods to reset service lamp: Manual reset or Auto reset. Auto reset follows the principle of sending command from the tool to vehicle's ECU to do resetting. While using manual reset, users just follow the on-screen instructions to select appropriate execution options, enter correct data or values, and perform necessary actions, the system will guide you through the complete performance for various service operations.

Follow the flowchart shown as below to perform resetting.

Select "Reset"

↓

Choose the desired service function (e.g. oil lamp reset etc.)

↓

Select the desired car brand

↓

Select the reset mode (The available mode varies from vehicle to vehicle)

↓

Follow the on-screen instructions to proceed

6. Upgrade

If some new software or APK can be updated, a numeric indicator will display on the "Upgrade" module on the Job menu. In this case, you may use this option to keep it synchronized with the latest version.

Notes:

• To enjoy more functions and better service, you are strongly suggested to update it on regular basis.

• This function requires a stable network connection.

Tap "Upgrade" on the Job menu to enter the update center.

By default, all diagnostic software is selected.

To deselect certain software, tap "Unselect", and then check the box next to vehicle model.

Tap "Update" to start downloading. It may take several minutes to finish it, please be patient to wait. To pause downloading, tap "Stop". To resume it, tap "Continue". If network connection failure occurs, tap "Retry" to try again.

Once download is finished, the software packages will be installed automatically.

7. Data
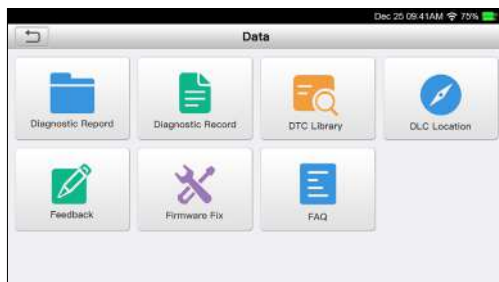
7.1 Diagnostic Record

This module stores the running parameters or waveform graphs the user records.

7.2 Diagnostic Report

This module stores all diagnostic reports generated in the process of vehicle diagnosis.

7.3 DTC Library

This function helps you to get the details of the DTC, which will greatly help simplify the diagnostic process.

7.4 DLC(Data Link Connector) Location

This function helps you to find the location of the vehicle's DLC.

7.5 IMMO Skills

This module allows you to check key immobilizer operation procedure and skills of certain vehicle models.

7.6 Feedback

This item allows you to send the feedback of your diagnostic problems to us for further analysis and troubleshooting.

7.7 Image

This option allows you to manage or share the screenshots.

7.8 Firmware Fix

Use this module to upgrade and fix diagnostic firmware. During fixing, please do not cut power or switch to other interfaces.

8. Mall

This function allows you to subscribe other vehicle diagnostic software and reset software that are not pre-installed on the tool.

All diagnostic software in the mall covers full systems and full functions (excluding online programming and coding etc). Different vehicle software is tagged with different price.

Tap "Mall" to open the online software store. Select the target software and follow the on-screen instructions to finish the transaction.

Note: The software service belongs to the virtual goods. It becomes immediately effective from the date of the successful transaction and it does not accept the refund. When making payment, please double check the order information.

The subscribed software can be free to use for one year. After it expires, it will become disabled and user needs to renew the subscription to activate it.

9. Settings

9.1 Units of measurement

This option can set the measurement unit. Metric System and English System are available.

9.2 Screen Capture

This option allows you to capture the current screen. All screenshots created during vehicle diagnosis are saved in "Data" -> "Image" module.

To enable the screenshot function, slide the Screen capture switch to ON. A screenshot icon will float on upper right corner of the screen. Tap it to capture the screen.

9.3 Automatic detection on connect

This option enables you to determine whether to start an automatic VIN detection once the tool is properly connected to the vehicle's DLC.

9.4 Display & Brightness

This option allows you to set the standby time and screen brightness.

Tips: Reducing the brightness of the screen is helpful to conserve the power of the handset.

9.5 Sound

This option lets you adjust the volume and other sound settings.

9.6 Network

The built-in WLAN module allows you to register the tool, update diagnostic software & APK, and send email on a wireless network.

9.7 Time Zone

This option allows you to set the system time zone.

Note: Since all diagnostic reports are sorted by Make and Date. To differentiate between files, please configure the accurate system time.

9.8 Language

The tool supports multiple languages. You can use this option to change the

target language.

9.9 Email

This option is used to set up the default email address for automatically receiving the diagnostic reports.

9.10 Recovery

This option can reset this tool to the default factory setting.

Warning: Resetting may cause data loss. Before doing so, please be careful to perform this operation.

9.11 Clean Up

This option allows user to clear some cache files and free up the storage space.

9.12 About

This option displays the hardware configuration information of the tool and license agreement.

10. FAQ

Here we list some frequently asked questions and answers related to this tool.

① System halts when reading data stream. What is the reason?

It may be caused by a slackened connector. Please turn this tool off, firmly connect the connector, and switch it on again.

② Screen of main unit flashes at engine ignition start.

Caused by electromagnetic disturbing, and this is normal phenomenon.

③ There is no response when communicating with on-board computer.

Please confirm the proper voltage of power supply and check if the throttle has been closed, the transmission is in the neutral position, and the water is in proper temperature.

④ What to do if the system fails to start auto VIN detection?

Please check the following possible reasons:

• Whether the tool is properly connected to the vehicle's DLC.
• Whether the "Automatic detection on Connect" switch is OFF. If yes, slide it to ON.

⑤ Why are there so many fault codes?

Usually, it's caused by poor connection or fault circuit grounding.

⑥ How to upgrade the system software?

1. Switch the tool on and ensure a stable internet connection.
2. Tap "Setting" on the Job Menu, select "About" -> "Version", and tap "Detect the System Version" to enter the system upgrading page.
3. Follow the on-screen instructions step by step to finish the process. It may take several minutes depending on the internet speed, please be patient. After upgrade is successfully finished, the tool will automatically restart and enters the Job menu.

⑦ What if the tool cannot be switched on even after a period of recharging?

Please recharge it for at least 3 hours until the power LED lights up, then it can be switched on.

Warranty

THIS WARRANTY IS EXPRESSLY LIMITED TO PERSONS WHO PURCHASE LAUNCH PRODUCTS FOR PURPOSES OF RESALE OR USE IN THE ORDINARY COURSE OF THE BUYER'S BUSINESS.

LAUNCH electronic product is warranted against defects in materials and workmanship for one year (12 months) from date of delivery to the user.

This warranty does not cover any part that has been abused, altered, used for a purpose other than for which it was intended, or used in a manner inconsistent with instructions regarding use. The exclusive remedy for any automotive meter found to be defective is repair or replacement, and LAUNCH shall not be liable for any consequential or incidental damages.

Final determination of defects shall be made by LAUNCH in accordance with procedures established by LAUNCH. No agent, employee, or representative of LAUNCH has any authority to bind LAUNCH to any affirmation, representation, or warranty concerning LAUNCH automotive meters, except as stated herein.

Order Information

Replaceable and optional parts can be ordered directly from your LAUNCH authorized tool supplier. Your order should include the following information:

1. Quantity
2. Part number
3. Item description

Customer Service

If you have any questions on the operation of the unit, please contact local dealer, or contact LAUNCH TECH CO., LTD:

Tel: 86-755-25938674

E-mail: DOD@cnlaunch.com

Statement: LAUNCH reserves the rights to make any change to this manual without notice. We have tried our best to make the descriptions and illustrations in the manual as accurate as possible, and defects are inevitable, if you have any question, please contact local dealer or LAUNCH TECH CO., LTD., LAUNCH does not bear any responsibility arising from misunderstandings.