ToolPRO

OBDII & EOBD CODE READER
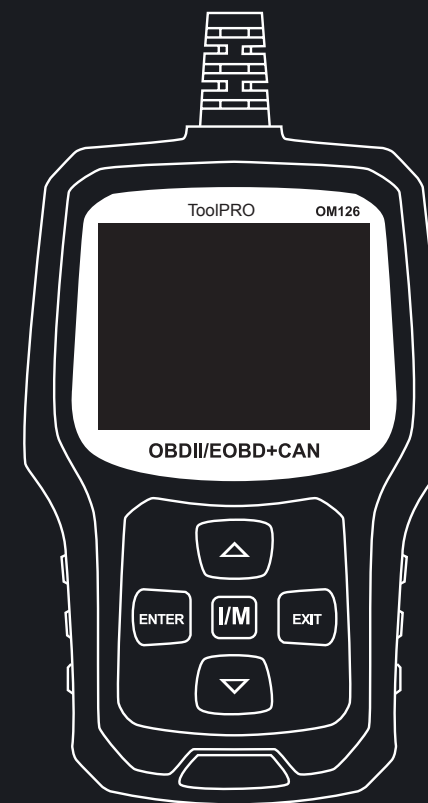## Instruction Manual

ToolPRO   OM126

OBDII/EOBD+CAN

ENTER   I/M   EXIT

WARRANTY

Our product is guaranteed to be free from quality and manufacturing defects for a period of 12 months.

If your product becomes defective during this period, SRGS PTY LTD will offer you either a replacement, credit or refund where a product is faulty; wrongly described; different from the sample shown to you or do not do what they are supposed to do.

This warranty will not cover substantially modified product; misuse or abuse of the product contrary to user instructions or packaging label; change of mind and normal wear and tear.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and failure does not amount to a major failure.

To claim the warranty, take the product to the front Service Desk of your nearest store of purchase. You will need to show receipt or other proof of purchase. Additional information may be required to process your claim. Should you not be able to provide proof of purchase with a receipt or bank statement, identification showing name, address and signature may be required to process your claim.

Any expenses relating to the return of your product to the store will normally have to be paid by you. For online store purchases, SRGS PTY LTD will pay for the return freight for any product assessed as having a major failure.

The benefits to the customer given by this warranty are in addition to other rights and remedies of the Australian Consumer Law in relation to the goods or services to which this warranty relates.

This warranty is provided by SRGS PTY LTD, 6 Coulthards Avenue, Strathpine QLD 4500, Australia. Phone: 1300 175 010.

1. SAFETY PRECAUTIONS AND WARNINGS

To prevent personal injury or damage to vehicles and/or the scan tool, Read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:
• 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 standards.
• Operate the vehicle in a well ventilated work area: Exhaust gases are poisonous.
• Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged
• Keep the scan tool dry, clean, free from oil/water or grease. Use a mild detergent on a clean cloth to clean the outside of the scan tool, when necessary.

2. GENERAL INFORMATION

2.1 On-Board Diagnostics (OBD) II
The first generation of On-Board Diagnostics (called OBD I) was developed by the California Air Resources Board (GARB) and implemented in 1988 to monitor some of the emission control components on vehicles. As technology evolved and the desire to improve the On-Board Diagnostic system increased, a new generation of On-Board Diagnostic system was developed. This second generation of On-Board Diagnostic regulations is called "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. When a problem is detected, the OBD II system turns on a warning lamp (MIL) on the vehicle instrument panel to alert the driver typically by the phrase "Check Engine" or "Service Engine Soon". The system will also store important information about the detected malfunction so that a technician can accurately find and fix the problem. Here below follow three pieces of such valuable Information:
1) Whether the Malfunction Indicator Light (MIL) is commanded 'ON' or 'OFF';
2) Which, if any, Diagnostic Trouble Codes (DTCs) are stored;
3) Readiness Monitor States

2.2 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 other four characters, all numbers, provide additional information on where the DTC originated and the operating conditions that caused it to be set. Below is an example to illustrate the structure of the digits:
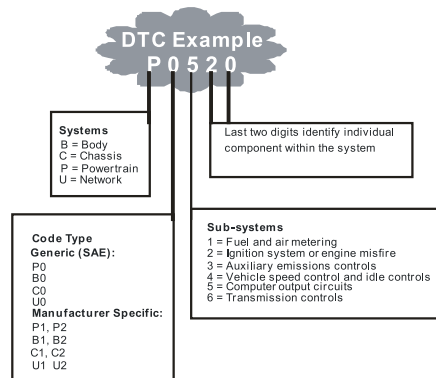

DTC Example
P 0 5 2 0

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

Last two digits identify individual component within the system

Code Type
Generic (SAE):
P0
B0
C0
U0
Manufacturer Specific:
P1, P2
B1, B2
C1, C2
U1 U2

Sub-systems
1 = Fuel and air metering
2 = Ignition system or engine misfire
3 = Auxiliary emissions controls
4 = Vehicle speed control and idle controls
5 = Computer output circuits
6 = Transmission controls

Figure 1-2: Explanation of a diagnostic trouble code.

2.3 Location of the Data Link Connector (DLC)

The DLC (Data Link Connector or Diagnostic Link Connector) is the standardized 16-pin connector where diagnostic scan tools interface with the vehicle's on-board computer. The DLC is usually located approximately within 300mm from the center of the instrument panel (dash), under or around the driver's side for most vehicles. If the Data Link Connector is not located under the dashboard, a label should be there revealing its location. For some Asian and European vehicles, the DLC is located behind the ashtray and the ashtray must be removed to access the connector. If the DLC cannot be found, refer to the vehicle's service manual for the location.
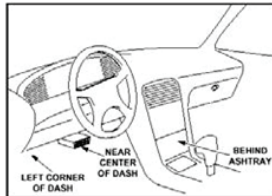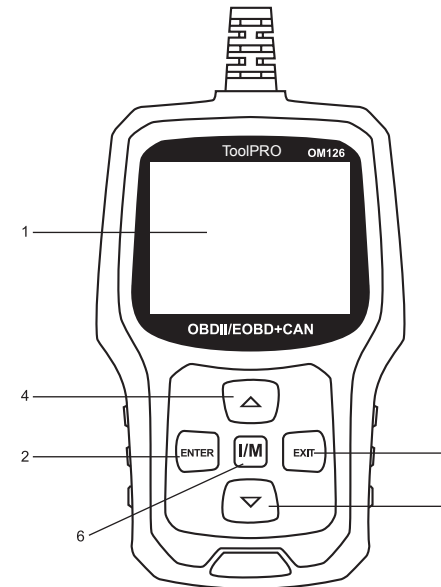

Figure 1-3: The DLC connector (left) can be found in the area of the car interior seen at night (black arrow).

3. USING THE SCAN TOOL

3.1 ToolPRO Auto Diagnostic Scanner

1. **OBD II CONNECTOR** - Connects the scan tool to the vehicle's Data Link Connector (DLC).

2. **ENTER BUTTON** - Confirms a selection (or action) from a menu.

3. **EXIT BUTTON** - Cancels a selection (or action) from a menu or returns to the menu. It is also used to exit DTC Lookup screen.

4. **UP SCROLL BUTTON** - Moves up through menu and submenu items in menu mode. When more than one screen of data is retrieved, moves up through the current screen to the previous screens for additional data.

5. **DOWN SCROLL BUTTON** - Moves down through menu and submenu items in menu mode. When more than one screen of data is retrieved, moves down through the current screen to next screens for additional data.

6. **"I/M"BUTTON** - Quick State Emissions readiness check and drive cycle verification.

Remarks:
MIL Yellow - Dashboard MIL ON
MIL Gray - Dashboard MIL OFF
∅ - not support
✓ - complete
✗ - not complete

3.2 Specifications
1) Display: 2.4" TFT 262K true color
2) Operating Temperature: 0 to 60°C (32 to 140 F°)
3) Storage Temperature: -20 to 70°C (-4 to 158 F°)
4) External Power: 8.0 to 18.0 V power provided via vehicle battery
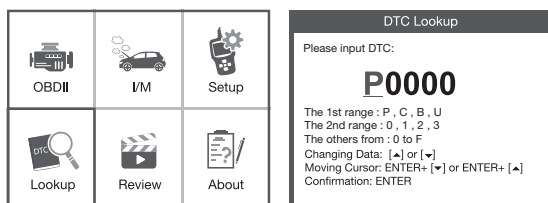5) Dimensions: 124x77.4x23.5mm
6) Weight: 0.35kg

3.3 Accessories Included
1) Instruction Manual -- Instructions on tool operations.
2) USB cable - Used to upgrade the scan tool.

3.4 DTC Lookup
The DTC Lookup function is used to search for definitions of Code stored in the built-in Code library.
1) From the Main Menu, use the UP/DOWN scroll button to select the Code Lookup and press the ENTER button.

DTC Lookup

Please input DTC:

P0000

The 1st range : P , C , B , U
The 2nd range : 0 , 1 , 2 , 3
The others from : 0 to F
Changing Data: [▲] or [▼]
Moving Cursor: ENTER+ [▼] or ENTER+ [▲]
Confirmation: ENTER

Query the fault code, press enter + up, the cursor to the left; press enter + down, the cursor to the right.
• For manufacturer specific codes , you'll need to select a vehicle make on an additional screen to look for DTC definitions.
• If definition could not be found (SAE or Manufacturer Specific), the scan tool displays "DTC definition not found! Please refer to vehicle service"manual!"
2) To exit to the Main Menu, press the EXIT button.
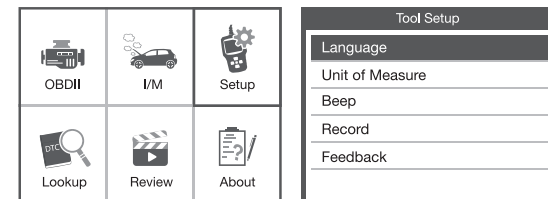
3.5 Review
This function is used to review the recorded DTC. Select Review in the Main Menu and press Enter and the screen will display the interface as shown below:

Review

Review DTC
Delete DTC Date
Delete All DTC Date
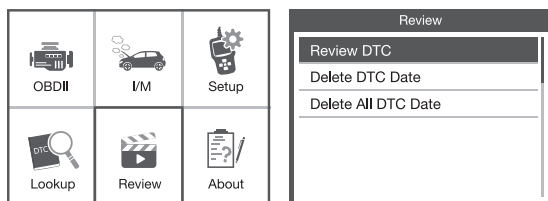
3.6 Tool /Setup
The scan tool allows you to make the following adjustments and settings:
1) Select Language: Selects the desired language.
2) Unit of Measure: Set measure to English or Metric.
3) Beep Set: Turns ON/OFF beep.
4) Record: ON/OFF the Record.
5) Feedback.

Tool Setup

Language
Unit of Measure
Beep
Record
Feedback

3.7 Review & Print Diagnostic Reports
1. Connect to a computer via USB .
2. Download upgrade files from Autophix website.
3. Install upgrade driver according to the "upgrade instruction" file.
4. Open the "update" application.

bin	2019/3/7 12:50	文件夹	
driver	2019/5/20 10:59	文件夹	
README.txt	2019/5/24 15:52	文本文档	1 KB
Update.exe	2019/5/21 11:49	应用程序	9,167 KB

5. Click "Review & print" option. You can then save or print the diagnostic report as needed.
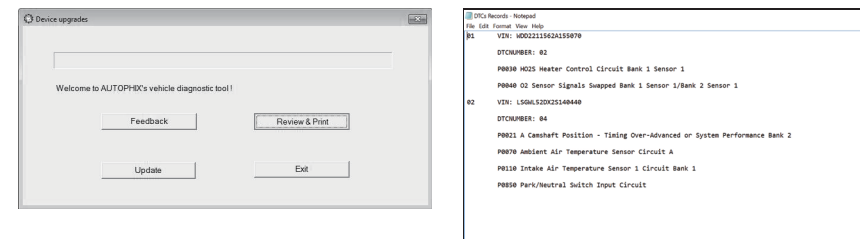
3.8 About
Choose [About] and it displays as follow:

Tool Information
Software Version:
01.62.000
Hardware Version:
01.10.000
Serial Number:
Autophix20170300000001
Supported:
OBD-II/EOBD

3.9 I/M
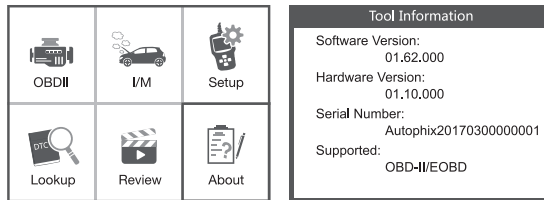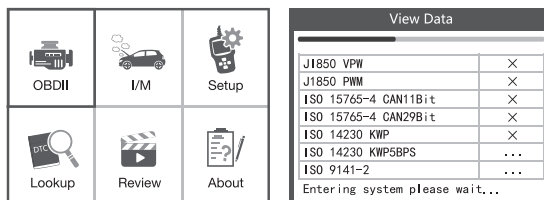Choose [I/M] and it displays as follow:

I/M Readiness	
IGN Spark	DTC 0
MIL	PdDTC 0
MIS ⊘	EVAP ⊘
FUE ✔	AIR ⊘
CCM ✔	O2S ✘
CAT ✔	HRT ✘
HCAT ⊘	EGR ⊘
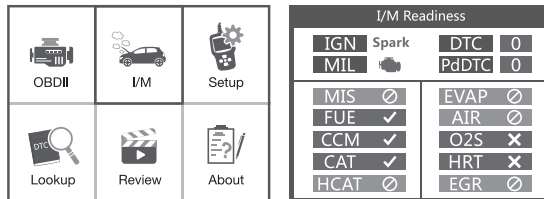
4. OBD II DIAGNOSTICS
CAUTION: Don't connect or disconnect any test equipment with ignition on or engine running.
1) Turn the ignition off.
2) Locate the vehicle's 16-pin Data Link Connector (DLC).
3) Plug the scan tool cable connector into the vehicle's DLC.
4) Turn the ignition on. Engine can be off or running.
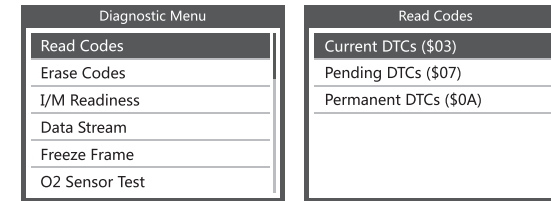5) Press ENTER to enter Main Menu - UP /DOWN button to select diagnostics from the menu.

View Data
J1850 VPW ✕
J1850 PWM ✕
ISO 15765-4 CAN11Bit ✕
ISO 15765-4 CAN29Bit ✕
ISO 14230 KWP ✕
ISO 14230 KWP5BPS ...
ISO 9141-2 ...
Entering system please wait...

6) Press ENTER to confirm.
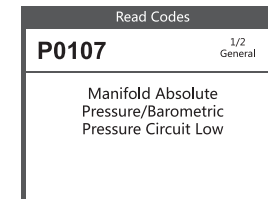**If "LINKING ERROR!" message shows on the display.**
- Verify that the ignition is ON;
- Check if the scan tool's OBD II connector is securely connected to the vehicle's DLC;
- Turn the ignition 'off' and wait for approximately 10 seconds. Turn the ignition back to 'on' and repeat the procedure from step 5.

4.1 Read Codes
1) Select Read Codes and press ENTER in Diagnostic Menu. If there are some codes, the screen will display the codes as shown below:
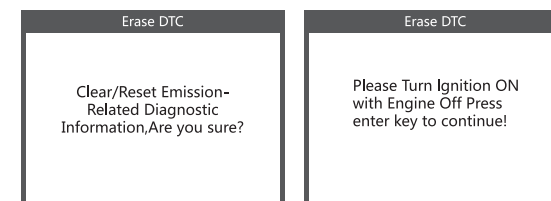
Diagnostic Menu	Read Codes
Read Codes	Current DTCs ($03)
Erase Codes	Pending DTCs ($07)
I/M Readiness	Permanent DTCs ($0A)
Data Stream	
Freeze Frame	
O2 Sensor Test	

2) As displayed above: To select different items press UP or DOWN and press ENTER to confirm.

Read Codes
P0107 1/2 General
Manifold Absolute Pressure/Barometric Pressure Circuit Low

3) After viewing all the codes, you can press EXIT to return to the previous menu.

4.2 Erase Codes
1) Select Erase Codes, the screen will display the interface as shown below. Press ENTER to erase DTC's, and the screen will display the interface as shown below

Erase DTC	Erase DTC
Clear/Reset Emission-Related Diagnostic Information,Are you sure?	Please Turn Ignition ON with Engine Off Press enter key to continue!

2) According to the above figure to press ENTER and the screen will display the interface as shown on the next page:

Erase DTC
Emission-Related Diagnostic Information has been Cleared!
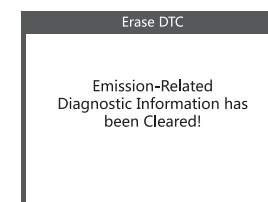
Notes:
• Before performing this function, make sure to retrieve and record the fault codes.
• After clearing, you should retrieve fault codes once more or turn ignition on and retrieve codes again. If there are still some fault codes in the system, please troubleshoot the codes using a factory diagnosis guide, then clear the codes and recheck.
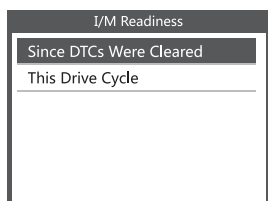
4.3 I/M Readiness
Select I/M Readiness and press ENTER, the screen will display the interface as shown below:

```
┌─────────────────────────┐
│      I/M Readiness       │
├─────────────────────────┤
│ Since DTCs Were Cleared  │
│ This Drive Cycle         │
│                          │
│                          │
│                          │
└─────────────────────────┘
```
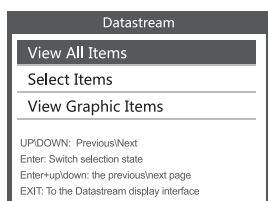
I/M readiness is to test Misfire / Fuel system / Comprehensive component, You can use UP or DOWN button to select and press ENTER, shown as follow:

```
┌──────────────────────────────────┐
│           I/M Readiness           │
├──────────────────────────────────┤
│ Misfire monitor              N/A  │
│ Fuel system monitor          N/A  │
│ Comprehensive component monitor OK│
│ Catalyst monitor             N/A  │
│ Heated catalyst monitor      N/A  │
│ Evaporative system monitor   N/A  │
│ Secondary air system monitor N/A  │
│ Oxygen sensor monitor        INC  │
│ Oxygen sensor heater monitor INC  │
│ EGR and/or VVT syetem monitor INC │
└──────────────────────────────────┘
```
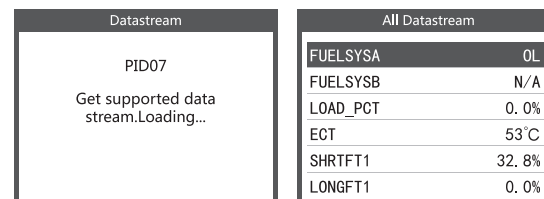
N/A means not available on this vehicle, INC means incomplete or not ready, OK means Completed or Monitor Ok.

4.4 Data Stream
Press UP or DOWN button to select Data Stream in Main Menu interface and then press ENTER button to confirm, the screen will display the interface as shown below:
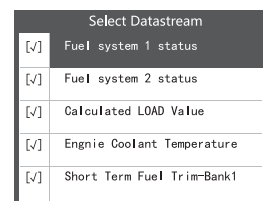
```
┌─────────────────────────────┐
│         Datastream          │
├─────────────────────────────┤
│ View All Items              │
│ Select Items                │
│ View Graphic Items          │
│                             │
│ UP\DOWN: Previous\Next      │
│ Enter: Switch selection state│
│ Enter+up\down: the previous\next page│
│ EXIT: To the Datastream display interface│
└─────────────────────────────┘
```

Select [View All Items] and press ENTER button, the screen will display the interface as shown below:

```
┌──────────────────┐  ┌────────────────────────┐
│    Datastream    │  │      All Datastream    │
├──────────────────┤  ├────────────────────────┤
│                  │  │ FUELSYSA          0L   │
│     PID07        │  │ FUELSYSB          N/A  │
│ Get supported data│  │ LOAD_PCT         0.0% │
│  stream.Loading...│  │ ECT              53℃  │
│                  │  │ SHRTFT1          32.8% │
│                  │  │ LONGFT1          0.0%  │
└──────────────────┘  └────────────────────────┘
```

Scroll page, press up to last page, or press down to next page. Select one, press [ENTER] to display the details.

Choose [select items] and press enter button. After that, press the enter button again, shown as follow:

```
┌────────────────────────────────┐
│       Select Datastream        │
├────────────────────────────────┤
│ [√]  Fuel system 1 status      │
│ [√]  Fuel system 2 status      │
│ [√]  Calculated LOAD Value     │
│ [√]  Engnie Coolant Temperature│
│ [√]  Short Term Fuel Trim-Bank1│
└────────────────────────────────┘
```
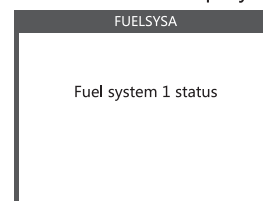
Scroll page, press enter + up, to previous page, press enter + down, the next page. After you have selected items and pressed exit, the screen will display as below:

```
┌────────────────────────────┐
│     Selected Datastream    │
├────────────────────────────┤
│ FUELSYSA           0L      │
│ FUELSYSB           N/A     │
│ LOAD_PCT          0.0%     │
│ ECT               53℃      │
│ SHRTFT1           32.8%    │
└────────────────────────────┘
```

Scroll page, press up to last page,or press down to next page.

If you want to know means of the abbreviation data,you can press the ENTER Button, the screen will display the interface as shown below:

```
┌────────────────────────────┐
│         FUELSYSA           │
├────────────────────────────┤
│                            │
│    Fuel system 1 status    │
│                            │
│                            │
│                            │
└────────────────────────────┘
```

Scroll page, press enter + up, to previous page, press enter + down, the next page. Press enter button again to choose.

Press EXIT to return to display:

Data Stream

max   0.0   95   0.0

min   0.0   95   0.0
■ LOAD_PCT=0.0%   ■ ECT=95°C
■ SHRTFT1=0.0%
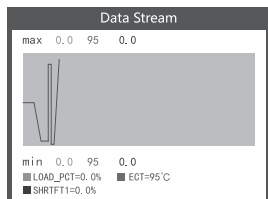
Max lines is 3.
Press EXIT to return to previous menu.
You can view all data stream items or select a certain item of live data with a graph.

4.5 View Freeze Frame
When an emission-related fault occurs, a snapshot of current vehicle parameter are recorded by the ECU.
Note: If DTCs were erased, Freeze Data may not be stored in the vehicle.
Select Freeze Frame in main menu interface, the screen will display the interface as shown below:

On-Board Monitoring

DTC that caused required freeze frame data storage	P2122
Fuel system 1 status	N/A
Fuel system 2 status	N/A
Calculated LOAD Value	0.0%
Engine Coolant Temperature	0°C

You can use UP/ DOWN button to view the data. Press EXIT to return to Diagnostic Menu.
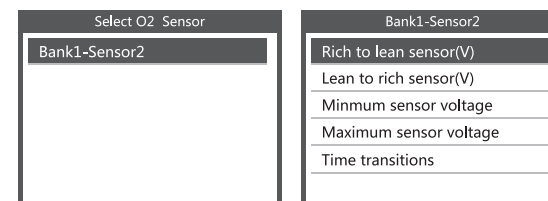
4.6 O2 Sensor Test
OBD II regulations set by the SAE require that relevant vehicles monitor and test the oxygen (O2) sensors to identify problems related to fuel efficiency and vehicle emissions. These tests are not on-demand tests and they are done automatically when engine operating conditions are within specified limits. These test results are saved in the on-board computer's memory.
The O2 Sensor Test function allows retrieval and viewing of O2 sensor monitor test results for the most recently performed tests from the vehicle's on-board computer.
The O2 Sensor Test function is not supported by vehicles which communicate using a controller area network (CAN). For O2 Sensor Test results of CAN-equipped vehicles, see chapter "On-Board Monitor Test".

Select O2 Sensor Test in Diagnostic menu and press ENTER and the Screen will display as shown below:
Press ENTER button, the screen will display as shown below (Data will be different everytime):

Select O2 Sensor

Bank1-Sensor2

Bank1-Sensor2

Rich to lean sensor(V)
Lean to rich sensor(V)
Minmum sensor voltage
Maximum sensor voltage
Time transitions

4.7 On-board Monitor Test
This function can be utilized to read the results of on-board diagnostic monitoring and tests for specific components/systems.
Select On-board Monitoring in Diagnostic Menu and press ENTER and the screen will display as shown below (Data will be different everytime):

On-Board Monitoring

Test $02 Data
Test $03 Data
Test $05 Data
Test $08 Data
Test $0B Data

You can use UP or DOWN button to select an item and press ENTER, the screen will display as shown below (Data will be different everytime):


On-Board Monitoring

Compnent ID	$5e
Limit Type	Max
Test Value	33733
Minimum Limit	-----
Status	Pass

Press EXIT to return to Diagnostic Menu.
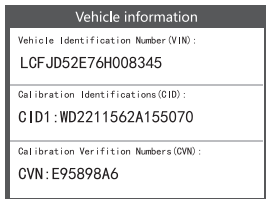
4.8 EVAP System Test

The EVAP test function lets you initiate a leak test for the vehicle's EVAP system. The CReaderVI does not perform the leak test, but signals to vehicle's reader Computer to initiate the test. Before using the system test function, refer To The vehicle's service repair manual to determine the procedures necessary to stop the test.

Select EVAP System Test and press ENTER, the screen will display the relative information about EVAP system. Some vehicle manufacturers do not allow External devices to control vehicle system. If the car does not support this function, it will display as below:

```
Evap System Test

Evaporative system leak
test not supported
```
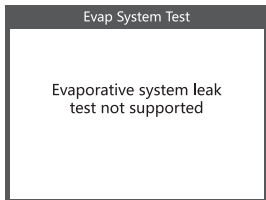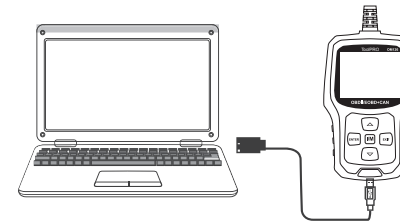
4.9 Vehicle Info

Select [Vehicle Info] and press ENTER, the screen will display the information, such as VIN (Vehicle identification Number), CID (Calibration ID) and CVN (Calibration verification number), as shown below (different cars will shown different data):

```
Vehicle information

Vehicle Identification Number(VIN):
LCFJD52E76H008345

Calibration Identifications(CID):
CID1:WD2211562A155070

Calibration Verifition Numbers(CVN):
CVN:E95898A6
```

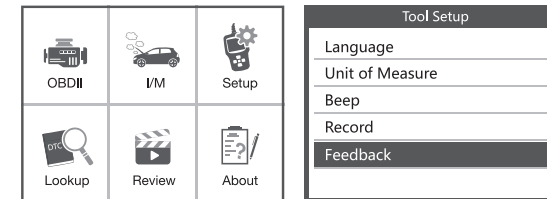Press EXIT to return to Diagnostic Menu.

5. UPDATE

1. Please connect device and computer with USB cable before updating.
2. The update software is only supported by windows 7/8/10. (Win8/10 can run update software directly, only windows 7 need to install the driver.)
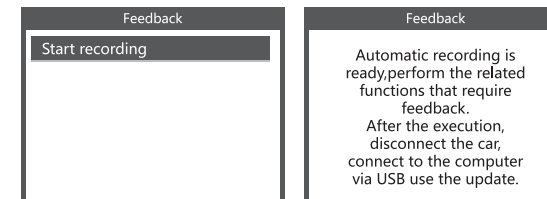3. Click "install driver.bat" in the driver file to install the driver.

6. FEEDBACK

1. When the [OBDII] function shows connected error with vehicle, please using the feedback function.
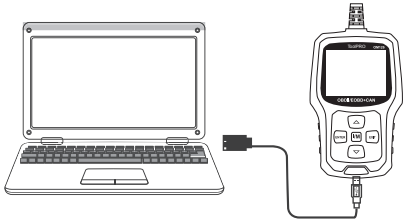
Choose [Feedback] and it displays as follow:

```
OBDII      I/M      Setup

Lookup    Review    About
```

```
Tool Setup

Language
Unit of Measure
Beep
Record
Feedback
```

Choose [Start recording] to open record function which will display as below:

```
Feedback

Start recording
```

```
Feedback

Automatic recording is
ready,perform the related
functions that require
feedback.
After the execution,
disconnect the car,
connect to the computer
via USB use the update.
```

Next : Press EXIT Button and return to the main menu.
Choose [OBDII] menu to detecting again and it will record the data.

2. Transfer data to your computer and generate feedback file.
   Download the upgrade file for your ToolPRO OM126 from the Autophix website.
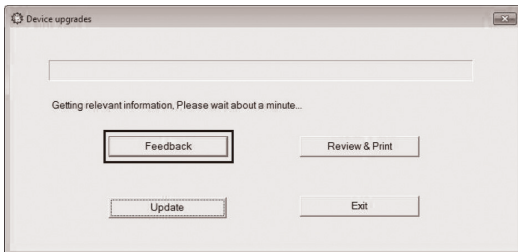   (www.autophix.com)

   The device is connected with computer through USB cable.

Choose "Update" file and it will display as below:

bin	2019/3/7 12:50	文件夹	
driver	2019/5/20 10:59	文件夹	
README.txt	2019/5/24 15:52	文本文档	1 KB
Update.exe	2019/5/21 11:49	应用程序	9,167 KB

Click "Feedback" and it displays as below:

Please send the feedback.bin file to support@autophix.com.