7810

BM SCANNER

USER'S MANUAL

AUTOPHIX® 7810

BM+OBDII

ENTER   EXIT

I/M

SAFETY PRECAUTIONS

To avoid body hurt and damage to the device or your car, please read this manual carefully before using 7810.

The general testing process described in this manual is got by technologist's experience. Safety precaution is required in most of the process to avoid body hurt and damage to the device or your car. Prior to your using this device, please read vehicle maintenance code and follow the safety precautions. Keep mention to the following general safety precautions.

- It generates CO and other poisonous air when engine run. To avoid this kind of hurt, please repair the car in a well-air-ventilated location.
- When an engine is running, many parts (such as the coolant fan, pulleys, fan belt etc.) turn at high speed. To avoid serious injury, always be aware of moving parts. Keep a safe distance from these parts as well as other potentially moving objects.
- Engine parts become very hot when the engine is running. To prevent severe burns, avoid contact with hot engine parts.
- Connecting or disconnecting test equipment when the ignition is ON can damage test equipment and the vehicle's electronic components. Turn the ignition OFF before connecting the 7810 or disconnecting the 7810 from the vehicle's Data Link Connector (DLC).
- Fuel and battery vapors are highly flammable. To prevent an explosion, keep all sparks, heated items and open flames away from the battery and fuel/ fuel vapors. DO NOT SMOKE NEAR THE VEHICLE DURING TESTING.

7810 is a handy professional Scanner for BM vehicles. It supports all of OBD 16PIN vehicles, including BM brands vehicles, fastly detects Engine, ABS, Airbags, Auto Transmission, Instrument and other control systems.

1. Coverage

1)   7810 supports all of OBD 16PIN vehicles.

2. Other Features & Benefits

· 2.8'LCD,320 X 240 easy-to-read backlit LCD display with adjustable contrast .

· Operating Voltage: 8V-18V.

· Operating Temperature: 0°C-60°C(32-140°F).

· Storage Temperature: -20°C-70°C(4-158°F).

· Easy to use seven-button operation (UP, DOWN, LEFT, RIGHT, ENTER, EXIT,IM).

· CE、FCC、RoHS certification.

3. Appearance and Key Descriptions
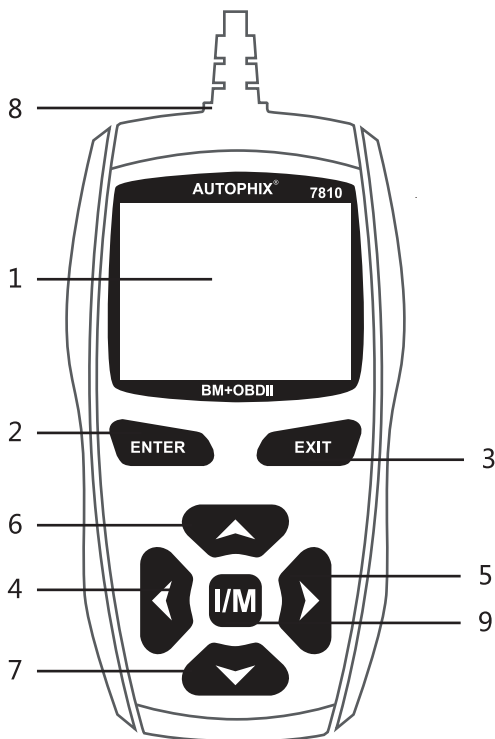
1. LCD DISPLAY – Indicates test results. Backlit, 320 x 240 pixel display with contrast adjustment.

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.

4. LEFT SCROLL BUTTON –in the menu mode through the menu and sub menu move to the left, when rolling in a data interface, use the left button can be moved to the last screen.

5. RIGHT SCROLL BUTTON –In the menu mode through the menu and sub menu item move to the right, when rolling in the data interface, use the right button can be moved to the next screen.

6. UP SCROLL BUTTON –in the menu mode through the menu and sub menu item moving up. When retrieving data for more than a screen by moving up the screen to the previous screen for more data.

7. DOWN SCROLL BUTTON –In the menu mode through the menu and sub menu item moves down. When retrieving data more than one screen, by moving down the screen to the next screen for more data.

8. OBD-16PIN CONNECTOR – Connects the scan tool to the vehicle's Data Link Connector (DLC).

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

I/M Readiness

IGN	Spark	DTC	0
MIL	🚗	PdDTC	0

MIS	⊘	EVAP	⊘
FUE	✔	AIR	⊘
CCM	✔	O2S	✖
CAT	✔	HRT	✖
HCAT	⊘	EGR	⊘

Remarks:

MIL Yellow- Dashboard MIL ON

MIL Gray-Dashboard MIL OFF

⊘ -not support
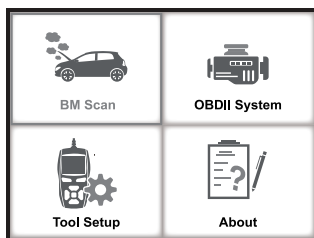
✔ -complete

✖ -not complete

1. Connect 7810

1.1 Turn the ignition on.
1.2 Locate the vehicle's 16-pin Data Link Connector (DLC).

(The main interface)

(Main Menu)

1.3 Main menu function：

[BM Scan] : Test BM brand vehicles all system .
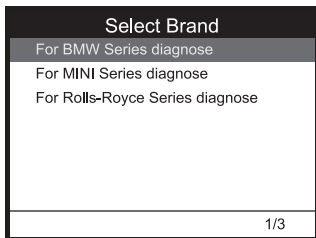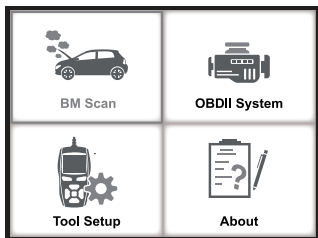
[OBDII System]: Test OBDII function.

[Tool Setup] : Language / Beeper/Instructions/Feedback.

[About] : Read the device information.

2. 7810 Features

2.1 Basic Functions

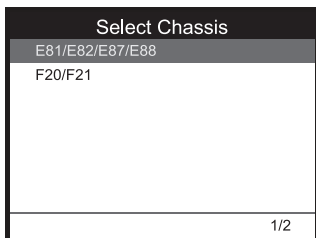Choose [BM Scan] and it displays as follow：

BM Scan	**OBDII System**
Tool Setup	**About**

Select Brand
For BMW Series diagnose
For MINI Series diagnose
For Rolls-Royce Series diagnose
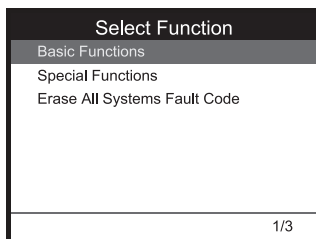
1/3

7810 system is divided into three parts, each separated from each other. Click [For BMW Series diagnose], and then press the [Enter] button. The screen will show all BM car series. As follows.

Select Series
1 Series
2 Series
3 Series
4 Series
5 Series
6 Series
7 Series

1/10
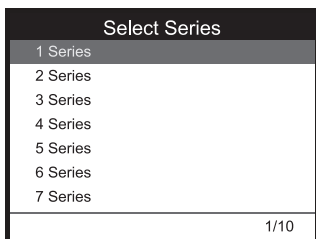
For example: Choose [1-Series] and it displays as follow:

Select Chassis
E81/E82/E87/E88
F20/F21

1/2

For example: Choose [E81/E82/E87/E88] and it displays as follow:

```
            Select Function
  Basic Functions
  Special Functions
  Erase All Systems Fault Code


                                    1/3
```

2.2 Basic Functions

Choose [Basic Functions] and it displays as follow:

```
            Select Function
  System Scan
  Manual Select




                                    1/2
```
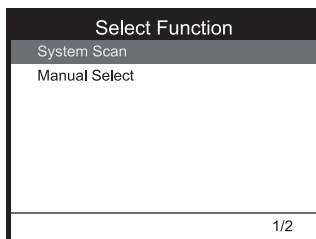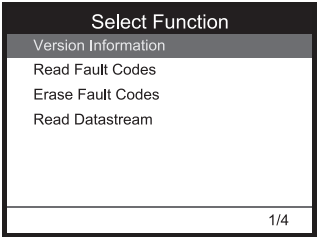
System scan is to scan all vehicle systems.

Manual selection is to display all possible systems, select one of the systems to diagnosis.
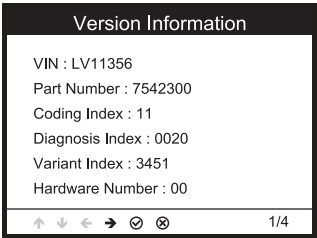
Choose [Manual Select] and it displays as follow :
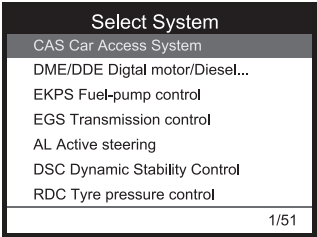
```
┌─────────────────────────────────┐
│         Select System           │
├─────────────────────────────────┤
│ CAS Car Access System           │
│ DME/DDE Digtal motor/Diesel...   │
│ EKPS Fuel-pump control           │
│ EGS Transmission control         │
│ AL Active steering               │
│ DSC Dynamic Stability Control    │
│ RDC Tyre pressure control        │
│                          1/51    │
└─────────────────────────────────┘
```

Choose [DME/DDE Digtal motor/Diesel electronics] and it displays as follow :

```
┌─────────────────────────────────┐
│        Select Function          │
├─────────────────────────────────┤
│ Version Information              │
│ Read Fault Codes                 │
│ Erase Fault Codes                │
│ Read Datastream                  │
│                                  │
│                                  │
│                          1/4     │
└─────────────────────────────────┘
```

2.2.1 Version Information

Choose [Version Information] and it displays as follow :

```
┌─────────────────────────────────┐
│       Version Information        │
├─────────────────────────────────┤
│ VIN : LV11356                    │
│ Part Number : 7542300            │
│ Coding Index : 11                │
│ Diagnosis Index : 0020           │
│ Variant Index : 3451             │
│ Hardware Number : 00             │
├─────────────────────────────────┤
│ ↑  ↓  ←  →  ⊘  ⊗        1/4      │
└─────────────────────────────────┘
```

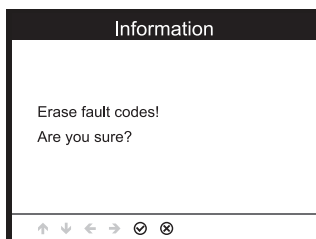### 2.2.2 Read Fault Codes

Choose [Read Fault Codes]. Press up or down button to check each fault code as follow.

```
                 Read Fault Codes

                                            1/20

        29CF Combustion misfires
        Cylinder 3


         ↑  ↓  ←  →  ⊗  ⊘
```
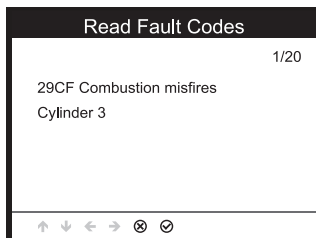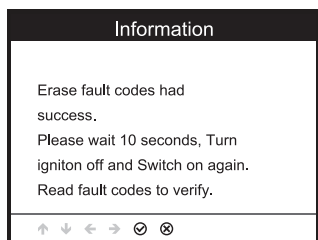
2.2.3 Erase Fault Codes

Choose [Erase Fault Codes] then press [ENTER] button as follow.

```
                    Information

         Erase fault codes!
         Are you sure?


         ↑  ↓  ←  →  ⊘  ⊗
```
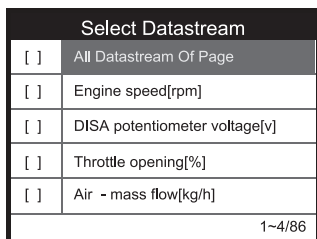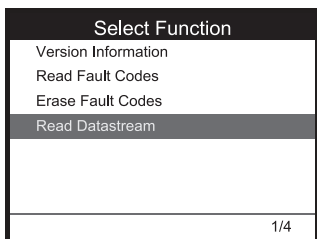
You need to press [ENTER] again to clear the fault codes. Or you can press [EXIT] button to give up clearing fault codes. It shows as follow after clearing the fault codes.

Information

Erase fault codes had
success.
Please wait 10 seconds, Turn
igniton off and Switch on again.
Read fault codes to verify.

↑ ↓ ← → ⊘ ⊗

2.2.4 Read Datastream

Choose [Read Datastream] then press [ENTER] button as follow.

Select Function

Version Information
Read Fault Codes
Erase Fault Codes
Read Datastream

1/4

Select Datastream

[ ]	All Datastream Of Page
[ ]	Engine speed[rpm]
[ ]	DISA potentiometer voltage[v]
[ ]	Throttle opening[%]
[ ]	Air - mass flow[kg/h]

1~4/86

Press [LEFT] and [RIGHT] buttons to page,

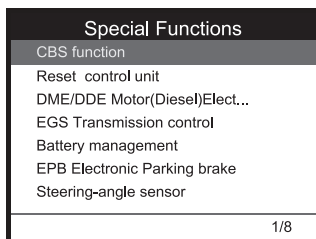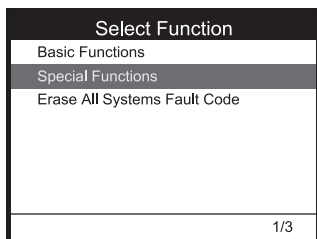**press [UP] and [DOWN] buttons to select one by one,**

Press [ENTER] button to select the Datastream,
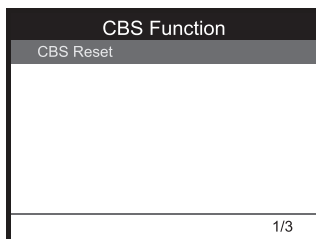
Press [EXIT] button to read Datastream.

2.3 Special Functions

Choose [Special Function] and it displays as follow:

Select Function	
Basic Functions	
Special Functions	
Erase All Systems Fault Code	
	1/3

Special Functions	
CBS function	
Reset control unit	
DME/DDE Motor(Diesel)Elect...	
EGS Transmission control	
Battery management	
EPB Electronic Parking brake	
Steering-angle sensor	
	1/8

2.3.1 CBS Functions

Choose [CBS function] and it displays as follow:

CBS Function	
CBS Reset	
	1/3

[CBS reset 1]: Engine oil, Spark plugs, Front brakes, Rear brakes, Coolant, Diesel particle filter, Brake fluid, Microfilter, Vehicle inspection, Exhaust emission inspection, Vehicle check.

[CBS reset 2]: Oil service,Inspection,Time interval,Correct follow-on service,Display service interval status.

[CBS correction]: Engine oil, Spark plugs, Front brakes, Rear brakes, Coolant, Diesel particle filter, Brake fluid, Microfilter, Vehicle inspection, Exhaust emission inspection, Vehicle check.

2.3.2 DME/DDE Motor(Diesel)Electronics

Choose [DME/DDE Motor(Diesel)Electronics] and it displays as follow:

Special Functions	
CBS function	
Reset control unit	
DME/DDE Motor(Diesel)Elect...	
EGS Transmission control	
Battery management	
EPB Electronic Parking brake	
Steering-angle sensor	
	1/8

Special Functions	
Clear adaptations	
Register battery replacement	
Learning Valvetronic limit positions	
	1/5

DME/DDE Motor(Diesel)Electronics: Clear adaptations/ Register battery replacement/ Leaming Valvetronic limit positions...
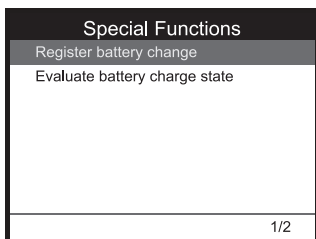
Different engine functions are some difference.

2.3.3 Battery management

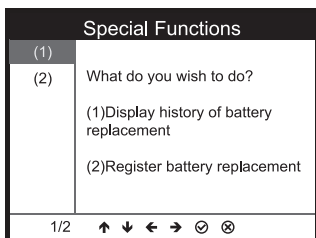Choose [Battery management] and it displays as follow:

Special Functions	
CBS function	
Reset control unit	
DME/DDE Motor(Diesel)Elect...	
EGS Transmission control	
Battery management	
EPB Electronic Parking brake	
Steering-angle sensor	
	1/8

Special Functions	
Battery Functions	
	1/1

Choose [Battery Functions] and it displays as follow:

```
        Special Functions
  Register battery change
  Evaluate battery charge state




                              1/2
```

For example: Choose [Register battery change] and it displays as follow:

```
        Special Functions
  (1)
  (2)     What do you wish to do?

          (1)Display history of battery
          replacement

          (2)Register battery replacement

    1/2    ↑  ↓  ←  →  ⊘  ⊗
```

Press left button to scroll left part,

Press right button to scroll right part.

### 2.3.4 EPB Electronic Parking brake

Choose [EPB Electronic Parking brake] and it displays as follow:

| Special Functions		EPB Parking brake
CBS function		Workshop mode
Reset control unit		Startup
DME/DDE Motor(Diesel)Elect...		Parking brake: Bedding-in pro...
EGS Transmission control		
Battery management		
EPB Electronic Parking brake		
Steering-angle sensor		
1/8		1/3
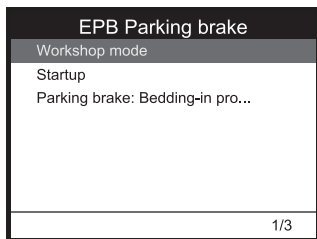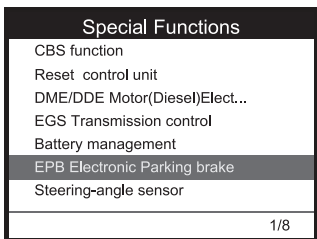
2.3.5 Steering-angle sensor

Choose [Steering-angle sensor] and it displays as follow :

Special Functions		Special Functions
CBS function		Adjustment, steering-angle sensor
Reset control unit		
DME/DDE Motor(Diesel)Elect...		
EGS Transmission control		
Battery management		
EPB Electronic Parking brake		
Steering-angle sensor		
1/8		1/1
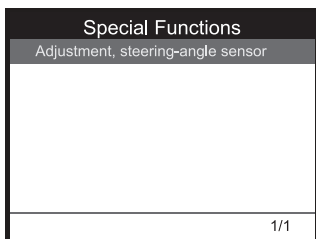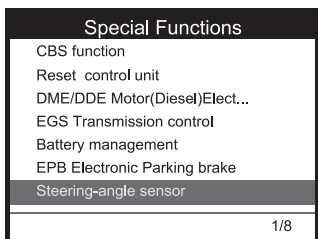
Note: The special features of each model are different, please according to the actual operation.

2.3.6 Special case

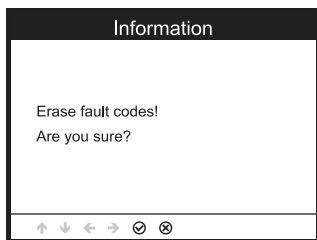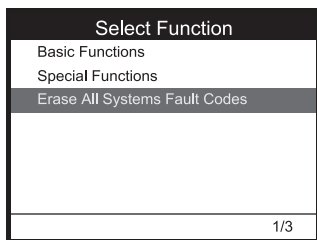In special cases, you will need to enter values manually and it displays as follow :

Special Functions

OK	
Delete	
+	
-	Previously
.	programmed value: 40
0	
1	

1/15
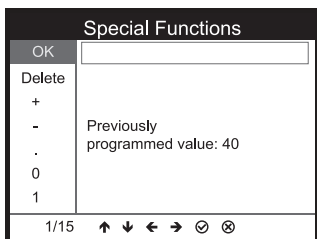
Press left button to scroll up and down,
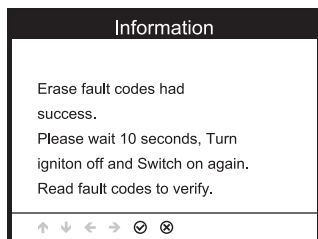
Press enter button to selection.

* Rolls-Royce only supports [CBS function].

2.4 Erase All Systems Fault Codes

Choose [Erase All Systems Fault Codes] and it displays as follow:

Select Function

Basic Functions

Special Functions

Erase All Systems Fault Codes

1/3

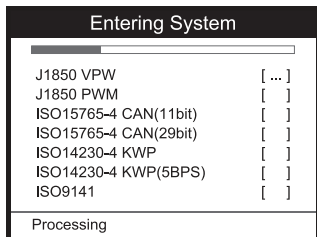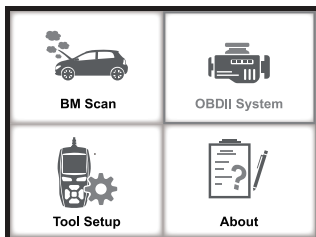**Information**

Erase fault codes!
Are you sure?

You need to press [ENTER] again to clear the fault codes. Or you can press [EXIT] button to give up clearing fault codes. It shows as the follow after clearing the fault codes.

```
                    Information
        Erase fault codes had
        success.
        Please wait 10 seconds, Turn
        igniton off and Switch on again.
        Read fault codes to verify.
        ↟  ↡  ↞  ↠  ⊘  ⊗
```

Note: It works on all BMWs after 2003.

3. OBDII System

Choose [OBDII System] and it displays as follow:

```
   [ BM Scan ]      [ OBDII System ]

   [ Tool Setup ]   [ About ]
```

```
                 Entering System
   J1850 VPW                   [ ... ]
   J1850 PWM                   [    ]
   ISO15765-4 CAN(11bit)       [    ]
   ISO15765-4 CAN(29bit)       [    ]
   ISO14230-4 KWP              [    ]
   ISO14230-4 KWP(5BPS)        [    ]
   ISO9141                     [    ]
   Processing
```
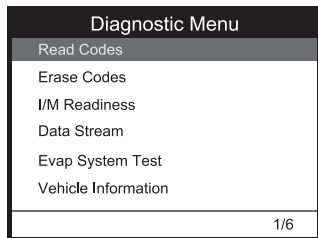
3.1 Read Codes

• **Stored codes are also known as "hard codes" or "permanent codes". These codes cause the control module to illuminate the malfunction indicator lamp (MIL) when an emission-related fault occurs.**
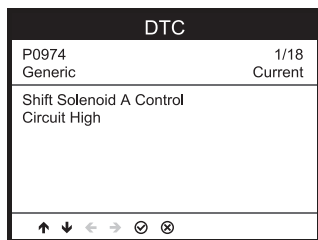
- **Pending Codes are also referred to as "maturing codes" or "continuous monitor codes". They indicate problems that the control module has detected during the current or last driving cycle, but are not considered serious, yet. Pending Codes will not turn on the malfunction indicator serious, yet. Pending Codes will not turn on the malfunction indicator up cycles, the code clears from memory.**

1) Use the UP/DOWN scroll button to select Read Codes from the Diagnostic Menu and press ENTER.

```
┌─────────────────────────────────────┐
│           Diagnostic Menu            │
├─────────────────────────────────────┤
│  Read Codes                          │
│  Erase Codes                         │
│  I/M Readiness                       │
│  Data Stream                         │
│  Evap System Test                    │
│  Vehicle Information                 │
├─────────────────────────────────────┤
│                              1/6     │
└─────────────────────────────────────┘
```

If there are no Diagnostic Trouble Codes present, the display indicates "No (pending) codes are stored in the module!" Wait a few seconds or press any key to return to the Diagnostic Menu.

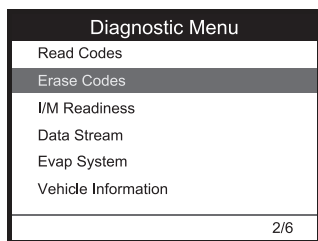2) View DTCs and their definitions on screen.

```
┌─────────────────────────────────────┐
│                DTC                   │
├─────────────────────────────────────┤
│ P0974                        1/18    │
│ Generic                   Current    │
│                                      │
│ Shift Solenoid A Control             │
│ Circuit High                         │
│                                      │
│                                      │
│                                      │
│   ↑  ↓  ←  →  ⊘  ⊗                  │
└─────────────────────────────────────┘
```

The control module number, sequence of the DTCs, total number of codes detected and type of codes (Generic of Manufacturer specific) will be observed on the upper right hand corner of the display.
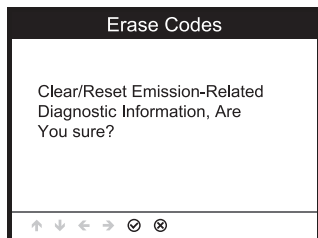
3.2 Erase Codes

Notes:

- This function is performed with key on engine off . Do not start the engine.

- 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 is still some trouble codes for hard troubles, please find the reason caused the trouble code firstly, and then solve the problem. Now, the trouble codes can be erased.
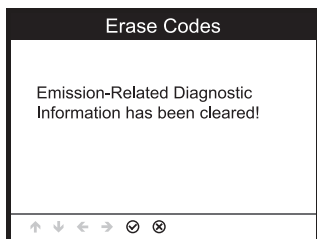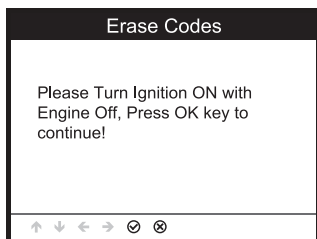
1) Use the UP/DOWN scroll buttons to select Erase Codes from the Diagnostic Menu and press ENTER.

Diagnostic Menu
Read Codes
Erase Codes
I/M Readiness
Data Stream
Evap System
Vehicle Information
2/6

2) A warning message comes up asking for your confirmation.

Erase Codes
Clear/Reset Emission-Related Diagnostic Information, Are You sure?
⇡ ⇣ ⇠ ⇢ ⊘ ⊗

3) Press ENTER to confirm.

Erase Codes
Please Turn Ignition ON with Engine Off, Press OK key to continue!
↑ ↓ ← → ⊘ ⊗

Erase Codes
Emission-Related Diagnostic Information has been cleared!
↑ ↓ ← → ⊘ ⊗

3.3 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
1/2
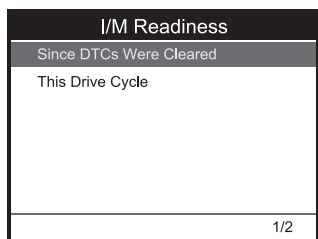
I/M readiness is to test Misfire / Fuel system / Comprehensive component, You can use UP or DOWN button to select and press ENTER, shown as follow :

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
1~5/10	

N/A means not available on this vehicle, INC means incomplete or not ready, OK means Completed or Monitor Ok.

3.4 Data Stream
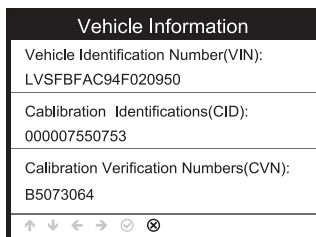
Choose [Data Stream] and it displays as follow:

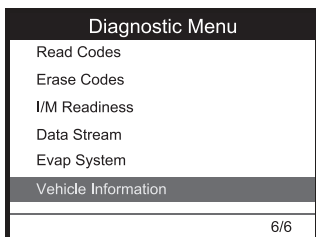| Diagnostic Menu		Datastream	
Read Codes		View All Items	
Erase Codes		Select Items	
I/M Readiness		View Graphic Items	
Data Stream			
Evap System			
Vehicle Information			
	4/6		1/3
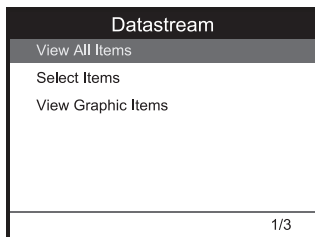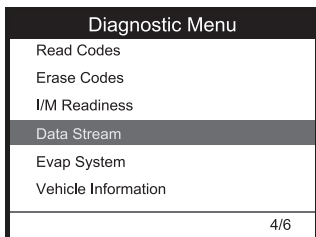
3.5 EVAP System Test

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 on-board 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 supports this function, it will display as below:
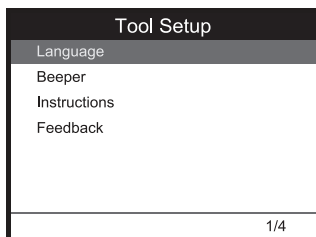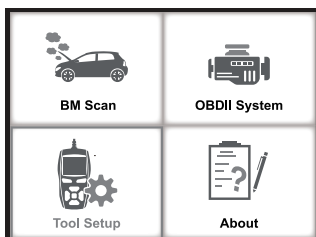
Diagnostic Menu		Evap System Test
Read Codes		
Erase Codes		
I/M Readiness		Evaportive system leak test
Data Stream		not supported
Evap System		
Vehicle Information		
	5/6	⬆ ⬇ ⬅ ➡ ⊘ ⊗
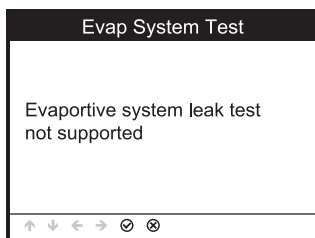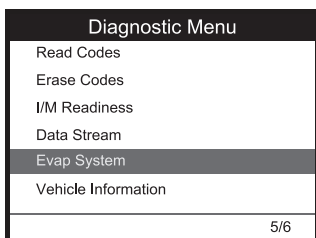
3.6 Vehicle Information

Choose [Vehicle Information] and it displays as follow:

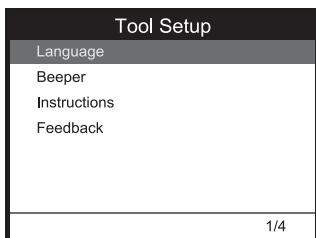| Diagnostic Menu	
Read Codes	
Erase Codes	
I/M Readiness	
Data Stream	
Evap System	
Vehicle Information	
	6/6

Vehicle Information
Vehicle Identification Number(VIN): LVSFBFAC94F020950
Cablibration Identifications(CID): 000007550753
Calibration Verification Numbers(CVN): B5073064
↑ ↓ ← → ⊘ ⊗

4. 7710 Tool Setup

Choose Tool Setup and it displays as follow:

BM Scan	OBDII System
Tool Setup	About

Tool Setup	
Language	
Beeper	
Instructions	
Feedback	
	1/4

4.1 Language

Choose Language and it displays as follow:

Tool Setup	
Language	
Beeper	
Instructions	
Feedback	
	1/4

Language	
English	
	1/1
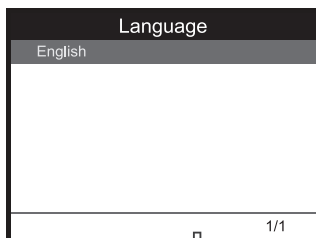
4.2 Beeper

Choose Beeper and it displays as follow:

Tool Setup	
Language	
Beeper	
Instructions	
Feedback	
	2/4

Beeper	
OFF	
ON	
	1/2

4.3 Instructions

Choose Instructions and it displays as follow:

Tool Setup	
Language	
Beeper	
Instructions	
Feedback	
	3/4

Instructions	
Display at startup	
	1/1

4.4 Feedback

NOTE: Must open the [start recording] fuction every time.

The previous record will be deleted when you open the feedback.
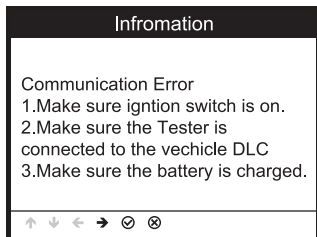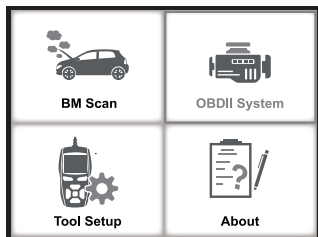
Choose Feedback and it displays as follow:

Tool Setup	
Language	
Beeper	
Instructions	
Feedback	
	4/4

Feedback	
Start recording	
	1/1
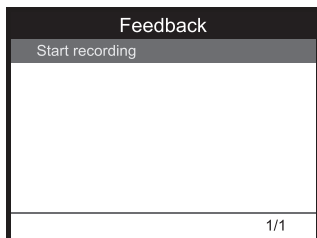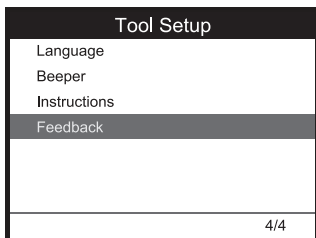
Choose [Strat recording] and it displays as follow :

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
↑ ↓ ← → ⊘ ⊗

Feedback
update exe tool. Send the related data that has been recorded to us.
↑ ↓ ← → ⊘ ⊗
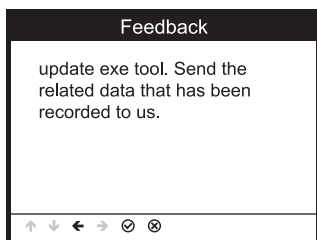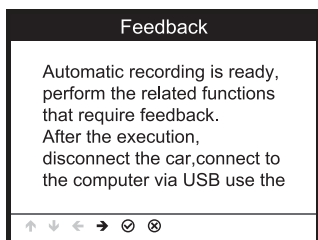
Press EXIT to exit to the main menu.

For example: OBDII System engine system connection failed. Please follow the steps below.

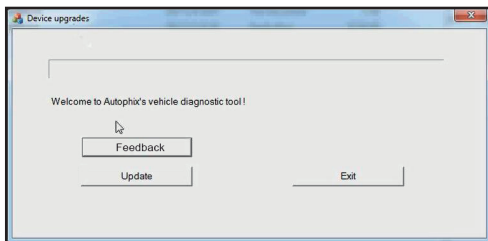| BM Scan	OBDII System
Tool Setup	About

Infromation
Communication Error 1.Make sure igntion switch is on. 2.Make sure the Tester is connected to the vechicle DLC 3.Make sure the battery is charged.
↑ ↓ ← → ⊘ ⊗

Remark: keep tool connect with car in above steps.
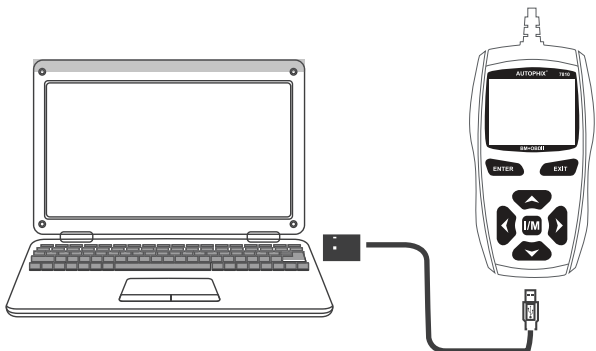
Connect tool with computer, Open the upgrade files ,choose
"Update".

Click "Feedback"

Choose the note file, send me the Feedback.bin text to support@autophix.com .

Remark: In the above steps, keep the tool connected to the computer.

5. About

Choose About and it displays as follow:
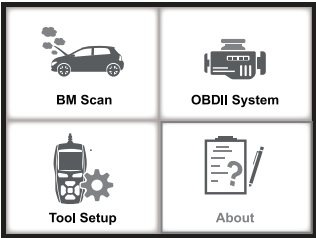
1. Limited One Year Warranty

This warranty is expressly limited to persons who purchase AUTOPHIX products for purposes of resale or use in the ordinary course of the buyer's business.

AUTOPHIX 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 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 AUTOPHIX shall not be liable for any consequential or incidental damages.

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

2. Service Procedures

If you have any questions, please contact your local store, distributor or visit our website at www.autophix.com .

If it becomes necessary to return the scan tool for repair, contact your local distributor for more information.