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1. One-Year Limited Warranty

Subject to the conditions of this limited warranty, Shenzhen Foxwell Technology Co., Ltd (“FOXWELL”) warrants its customer that this product is free of defects in material and workmanship at the time of its original purchase for a subsequent period of one (1) year.

In the event this product fails to operate under normal use, during the warranty period, due to defects in materials and workmanship, FOXWELL will, at its sole option, either repair or replace the product in accordance with the terms and conditions stipulated herein.

Terms and Conditions

1. If FOXWELL repairs or replaces the product, the repaired or replaced product shall be warranted for the remaining time of the original warranty period. No charge will be made to the customer for replacement parts or labor charges incurred by FOXWELL in repairing or replacing the defective parts.
2. The customer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:
 - a) The product has been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of FOXWELL, including damage caused by shipping.
 - b) The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, improper use of any electrical source, or the product was used in combination or connection with other product, attachments, supplies or consumables not manufactured or distributed by FOXWELL.
3. The customer shall bear the cost of shipping the product to FOXWELL. And FOXWELL shall bear the cost of shipping the product back to the customer after the completion of service under this limited warranty.
4. FOXWELL does not warrant uninterrupted or error-free operation of the product. If a problem develops during the limited warranty period, the consumer shall take the following step-by-step procedure:

- a) The customer shall return the product to the place of purchase for repair or replacement processing, contact your local FOXWELL distributor or visit our website www.foxwelltech.com to get further information.
- b) The customer shall include a return address, daytime phone number and/or fax number, complete description of the problem and original invoice specifying date of purchase and serial number.
- c) The customer will be billed for any parts or labor charges not covered by this limited warranty.
- d) FOXWELL will repair the Product under the limited warranty within 30 days after receipt of the product. If FOXWELL cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, FOXWELL at its option, will provide a replacement product or refund the purchase price of the product less a reasonable amount for usage.
- e) If the product is returned during the limited warranty period, but the problem with the product is not covered under the terms and conditions of this limited warranty, the customer will be notified and given an estimate of the charges the customer must pay to have the product repaired, with all shipping charges billed to the customer. If the estimate is refused, the product will be returned freight collect. If the product is returned after the expiration of the limited warranty period, FOXWELL' normal service policies shall apply and the customer will be responsible for all shipping charges.

5. ANY IMPLIED WARRANTY OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OR USE, SHALL BE LIMITED TO THE DURATION OF THE FOREGOING LIMITED WRITTEN WARRANTY. OTHERWISE, THE FOREGOING LIMITED WARRANTY IS THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. FOXWELL SHALL NOT BE LIABLE FOR SPECIAL, INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED BENEFITS OR PROFITS, LOSS OF SAVINGS OR REVENUE, LOSS OF DATA, PUNITIVE DAMAGES, LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT, COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT OR FACILITIES, DOWNTIME, THE CLAIMS OF ANY THIRD PARTIES, INCLUDING CUSTOMERS, AND

INJURY TO PROPERTY, RESULTING FROM THE PURCHASE OR USE OF THE PRODUCT OR ARISING FROM BREACH OF THE WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL OR EQUITABLE THEORY, EVEN IF FOXWELL KNEW OF THE LIKELIHOOD OF SUCH DAMAGES. FOXWELL SHALL NOT BE LIABLE FOR DELAY IN RENDERING SERVICE UNDER THE LIMITED WARRANTY, OR LOSS OF USE DURING THE PERIOD THAT THE PRODUCT IS BEING REPAIRED.

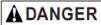

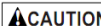
6. Some states do not allow limitation of how long an implied warranty lasts, so the one-year warranty limitation may not apply to you (the Consumer). Some states do not allow the exclusion or limitation of incidental and consequential damages, so certain of the above limitations or exclusions may not apply to you (the Consumer). This limited warranty gives the Consumer specific legal rights and the Consumer may also have other rights which vary from state to state.

2. Safety Information

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

2.1 Conventions Used

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

No.	Signal Word	Hazard Level
1		Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.
2		Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.
3		Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

2.2 Important Safety Instructions

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

▲WARNING Do not route the test cable in a manner that would interfere with driving controls.

▲WARNING Do not exceed voltage limits between inputs specified in this user's manual.

▲WARNING Always wear ANSI approved goggles to protect your eyes from propelled objects as well as hot or caustic liquids.

▲WARNING Fuel, oil vapors, hot steam, hot toxic exhaust gases, acid, refrigerant and other debris produced by a malfunction engine can cause serious injury or death. Do not use the scanner in areas where explosive vapor may collect, such as in below-ground pits, confined areas, or areas that are less than 18 inches (45 cm) above the floor.

▲WARNING Do not smoke, strike a match, or cause a spark near the vehicle while testing and keep all sparks, heated items and open flames away from the battery and fuel / fuel vapors as they are highly flammable.

▲WARNING Keep a dry chemical fire extinguisher suitable for gasoline, chemical and electrical fires in work area.

▲WARNING Always be aware of rotating parts that move at high speed when an engine is running and keep a safe distance from these parts as well as other potentially moving objects to avoid serious injury.

▲WARNING Do not touch engine components that get very hot when an engine is running to avoid severe burns.

▲WARNING Block drive wheels before testing with engine running. Put the transmission in park (for automatic transmission) or neutral (for manual transmission). And never leave a running engine unattended.

▲WARNING Do not wear jewelry or loose fitting clothing when working on engine.

▲CAUTION Make sure to turn off ignition before connecting or disconnecting the scanner.

3. Using This Manual

We provide instructions for the usage of your scanner in this manual. Below is a list of conventions we used in the manual.

Safety Information

See *Safety Information* on page 8.

Bold Text

Bold emphasis is used in procedures to highlight selectable items such as buttons and menu options.

Example:

Use **UP/DOWN** to select the desired measurement unit.

Bold-Italic Text

Bold-italic text is used in the procedures to highlight the menus on the scanner screen.

Example:

Use **UP/DOWN** to select **Language** from *System Setup* screen.

Symbols and Icons

√ Check Note

Additional information about the subject in the preceding paragraph is introduced by a √ Check Note.

Example:

√ The scanner is set to display English menus by default.

● Solid Spot

Operation tips and lists that apply to specific tool are introduced by a solid spot ●.

Example:

System Setup allows you to:

- Select menu languages.
- Change measurement unit.
- Adjust display contrast.

IMPORTANT

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

IMPORTANT Do not soak keypad as water might find its way into the scanner.

NOTE

NOTE provides helpful information such as additional explanations,

tips, and comments.

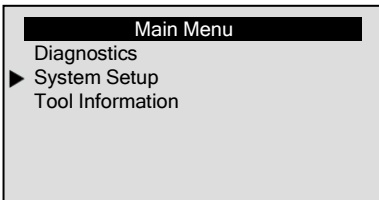
Example:

NOTE Not all data are supported by all vehicles.

Screens

Some help messages, information, and data displayed on the scanner are also shown in graphical text boxes. The screens presented are examples only and actual test screen may vary for each vehicle being tested.

Example:



Arrow Icon

 An arrow icon indicates a procedure.

Example:

To change menu language:

-  1. Use **UP/DOWN** to select **Language** from *System Setup* screen.
2. Press **ENTER** to confirm.

4. Introduction

NT600 is a multifunctional scan tool delicately designed for DIYers, pros and enthusiasts to pinpoint engine, transmission, ABS and airbag faults.

4.1 About OBDII/EOBD

4.1.1 What is OBD?

The first generation of On-Board Diagnostics or OBD I was introduced in early 1980's to control engine functions and diagnose engine problems by vehicle manufacturers. As the OBDI lacked standardization of protocols and interface, it allowed different interpretations among vehicle manufacturers.

OBDII, the second generation On-Board Diagnostics, improved in both capability and standardization, is a system developed in mid 1990's by the Society Automotive Engineers (SAE) to standardize automotive

electronic diagnosis. EOBD is European version of OBDII required in Europe since 2001.

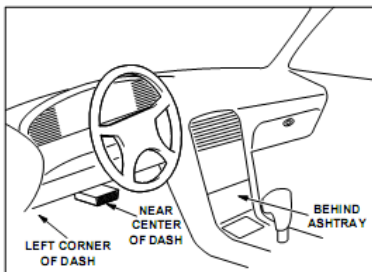
The OBDII standard specifies:

- A generic diagnostic port (Data Link Connector) and its pinout;
- The protocols and the messaging format;
- A standard list of vehicle parameters identifications;
- A standard list of diagnostic trouble codes (DTCs);

4.1.2 Data Link Connector

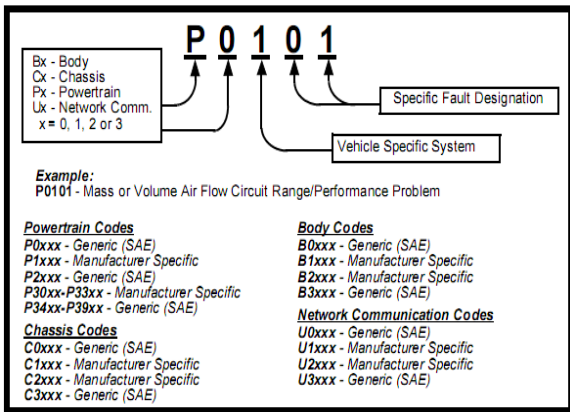
The Data Link Connector (DLC) is a standard 16-pin interface located under the dashboard on the driver's side of the passenger compartment. If the DLC is not located under the dashboard as stated, a decal describing its location should be attached to the dashboard in the area the DLC should have been located.

NOTE On some Asian and European vehicles the DLC is located behind the “ashtray”, which must be removed to access it, or on the far left corner of the dash. If the DLC cannot be found, consult the vehicle’s service manual for the location.



4.1.3 Diagnostic Trouble Codes (DTCs)

Diagnostic Trouble Codes (DTCs) are faults stored by vehicle computers when problems that affect engine performance and emissions are detected. DTCs are used to help identify the cause of a trouble or troubles with a vehicle, and determine the fault location(s). DTCs consist of a five-digit alphanumeric code. Please see below for the DTCs format and code types.



4.2 About the Scanner

4.2.1 Scanner Controls



- A. **Diagnostic Port** - provides communication for vehicle DLC.
- B. **LCD Display** - shows menus, test results and operation tips.
- C. **UP Key** - moves selection up. When a DTC has more than one screen of information, moves up through the current screen to previous screens for additional data. When looking up DTC, it is used to change value of selected character.
- D. **DOWN Key** - moves selection down. When a DTC has more than one screen of information, moves down through the current screen

to next screens for additional data. When looking up DTC, it is used to change value of selected character.


- E. **LEFT SCROLL KEY** - goes to previous character when looking up DTCs. Scrolls back and forth through codes found and through different screens of data. Also it is used to make selection of PIDs when viewing custom PID list, and to view PID graphs.
- F. **RIGHT SCROLL KEY** - goes to next character when looking up DTCs. Scrolls back and forth through codes found and through different screens of data. Also it is used to cancel all selections of PIDs when viewing custom PID list.
- G. **ENTER Key** - confirms an action or movement and goes to next level, and saves test data.
- H. **BACK Key** - cancels an action and returns to previous screen or level.
- I. **HELP Key** - accesses to the Help function.
- J. **Power Switch** - Turns on/off the scanner to the update tool FoxLink pro to do upgrades and reboots the scanner when powered by vehicle battery.

IMPORTANT Do not use solvents such as alcohol to clean keypad or display. Use a mild nonabrasive detergent and a soft cotton cloth.

IMPORTANT Do not soak keypad as water might find its way into the scanner.

4.2.2 Display Indicators

Below is a list indicators used to help navigate through menus.

No.	Indicator	Description
1	\$	Indicates the control module number.
2		Indicates more than one screen of information is available.

4.2.3 Accessories

No.	Part	Description
1	User's Manual	Provides operation instructions for the usage of the scanner.
2	USB Cable	Provides connection between the scanner and a computer to update programs and DTCs and to load test data to the computer.
3	Connection Cable	Connects the scanner with diagnostic connector.
4	Diagnostic Connector	Provides connection between the scanner and vehicle.

4.2.4 Specifications

No.	Item	Specification
1	Display	Backlit, 160 x 105 pixel display with contrast adjustment.
2	Working Temperature	0 to 60 °C (32 to 140°F)
3	Storage Temperature	-20 to 70°C (-4 to 158°F)
4	External Power	8-18 Volts powered by vehicle battery
5	Internal Power	9V
6	Dimensions (L*W*H)	185mm*85mm*35mm (7.28*3.35*1.38in)
7	Weight	1.0Kg

4.3 System Setup

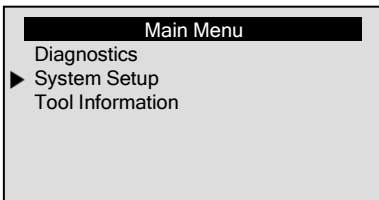
System Setup allows you to program the scanner to meet your specific needs:

- Select system languages.
- Change measurement unit.
- Adjust display contrast.
- Change automatic power-off time.
- Resets the scanner to factory defaults.

√ **System Setup** settings remain until changes to the existing setups are made.

To do system setups:

1. Use **UP/DOWN** to select **System Setup** from *Main Menu* screen.

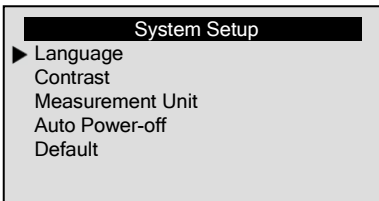


4.3.1 Change Language

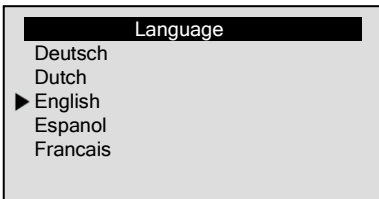
√ The scanner is set to display English menus by default.

To change system language:

1. Use **UP/DOWN** to select **Language** from *System Setup* screen.
2. Press **ENTER** to confirm.



3. Use **UP/DOWN** to select a language.

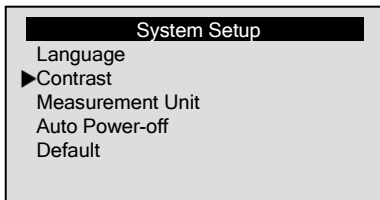


4. Press **ENTER** to save language setting and return.

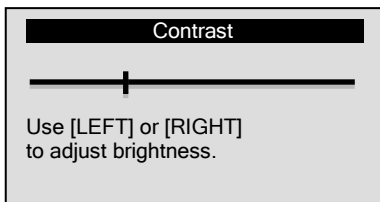
4.3.2 Adjust Display Contrast

To adjust display brightness:

1. Use **UP/DOWN** to select **Contrast** from **System Setup** screen.
2. Press **ENTER** to confirm.



3. Use the **LEFT/RIGHT** key to adjust contrast.



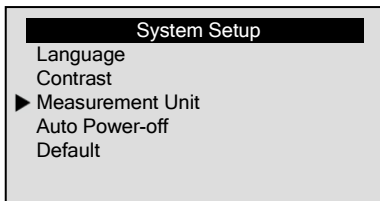
4. Press **ENTER** to save contrast setting and return.

4.3.3 Change Measurement Unit

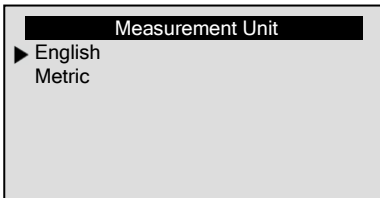
√ Metric is the default measurement unit.

To change measurement unit:

1. Use **UP/DOWN** to select **Measurement Unit** from **System Setup** screen.
2. Press **ENTER** to confirm.



3. Use **UP/DOWN** to select a measurement unit.



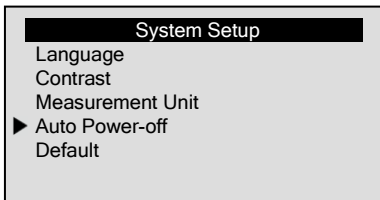
4. Press **ENTER** to save measurement setting and return.

4.3.4 Change Auto Power-Off

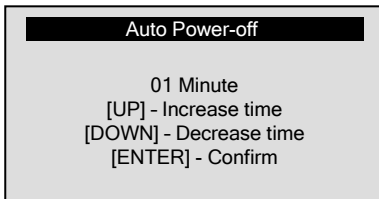
- √ The minimum auto power-off time is 1 minute, and the maximum is 30 minutes.
- √ The **Auto Power-Off** function is available only when the scanner is powered by internal battery.

To change automatic power off time:

- ▶ 1. Use **UP/DOWN** to select **Auto Power-Off** from **System Setup** screen.
2. Press **ENTER** to confirm.



3. Use **UP/DOWN** to increase or decrease time.

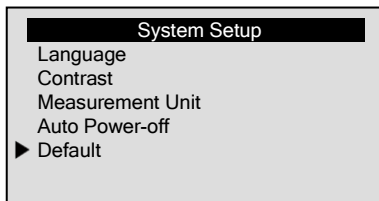


4. Use **ENTER** to save.

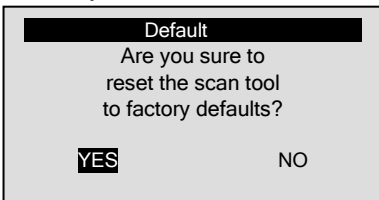
4.3.5 Default Setting

To reset the scanner to factory defaults:

- ▶ 1. Use **UP/DOWN** to select **Default** from **System Setup** screen.
2. Press **ENTER** to confirm.



3. To reset the scanner to factory defaults, use **UP/DOWN** to select **YES** and press **ENTER**; if the scanner not to set to factory defaults, just select **NO**.



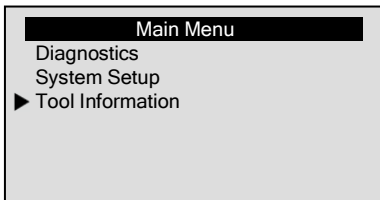
4.4 Tool Information

The **Tool Information** function is used to view tool information such as software version that may be needed when contacting customer

service.

To view tool information:

1. Use **UP/DOWN** to select **Tool Information** from **Main Menu** screen.



2. Press **ENTER** to view information.



5 Diagnosis

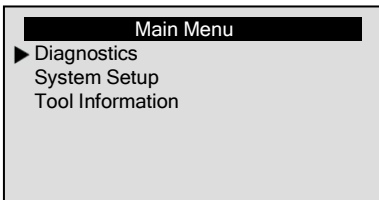
5.1 OBDII/EOBD Diagnosis

OBDII/EOBD diagnostic menu allows you to:

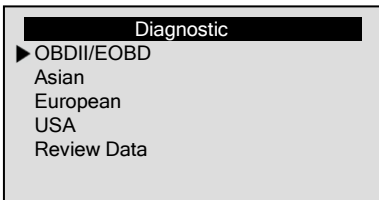
- Read DTCs.
- Clear DTCs.
- View live datastream.
- View freeze data.
- View I/M Readiness data.
- O2 sensor test information.
- View on-board monitor test results.
- Perform component tests.
- Retrieve vehicle information.
- Read modules ID and protocol information.
- Lookup code definitions.

To perform diagnosis on vehicles:

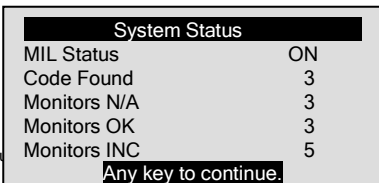
1. Use **UP/DOWN** to select **Diagnostics** from *Main Menu* screen.



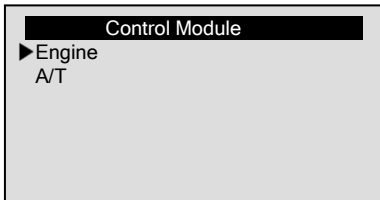
2. Use **UP/DOWN** to select **OBDII/EOBD** from *Diagnostic* menu screen, and press **ENTER** to confirm



- √ The scanner detects the communication protocol when it is connected to the vehicle and uses the protocol throughout the testing till another vehicle is diagnosed.
- √ If the scanner fails to communicate with the vehicle the message "Communication Error!" is displays. Make sure the OBDII connector is securely attached, and the ignition key is on. Turn vehicle key to off for 10 seconds, then on.
- √ When the scanner links to vehicle, it checks the status of I/M Monitors, and gives a summary report on the display as illustrated below.



- √ If vehicle is equipped with more than one computer module (for example a powertrain control module [PCM] and a transmission control module [TCM]), the scanner identifies them by their identification names (ID) assigned by manufacturer (i.e. Engine or Module \$A4)



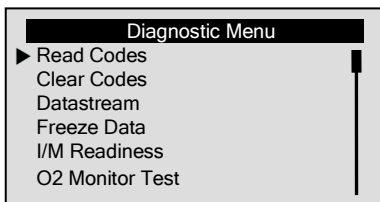
5.1.1 Read DTCs

The **Read Codes** function is used to read DTCs (stored codes), which are used to help identify the cause of a trouble or troubles with a vehicle, and pending codes from the vehicle's control modules.

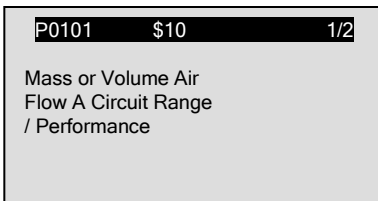
- √ When emission-related or drivability fault occurs the control module illuminates the malfunction indicator lamp (MIL).
- √ Pending Codes are also referred to as continuous monitor or maturing codes that indicate intermittent faults. If the fault does not occur within a certain number of drive cycles (depending on vehicle), the code clears from memory. If fault occurs a specific number of times, the code matures into a DTC and the MIL illuminates or blinks.
- √ This function can be performed with KOEO or KOER.

To read codes from vehicle control modules:

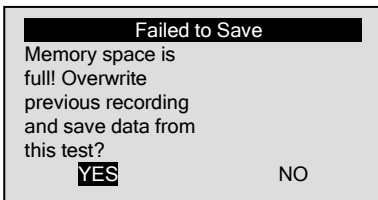
- ▶ 1. Use **UP/DOWN** to select **Read Codes** from **Diagnostic** menu screen.



2. Press **ENTER** to confirm.
3. View DTCs and their definitions.



- √ If no DTCs are present the message "No (Pending) Codes Found!" is displayed.
 - √ If any manufacturer specific or enhanced codes detected, select vehicle a make before viewing DTC information.
 - √ If manufacturer of the vehicle being tested is not list, select **Other**.
4. Use the **UP/DPWN** key to move to next screen when the code has more than one screen information. Use **LEFT/RIGHT** to move back and forth through codes when more than one code is detected.
 5. To save the fault data, press **ENTER** and the message "Data Saved" is displayed.
- √ If there is not enough memory space following screen shows:



- √ To empty the memory space, use **LIGHT/RIGHT** to select **YES** otherwise select **NO** and press **ENTER** to quit.

NOTE Whenever you wish to save test results just press **ENTER** when viewing them.

6. Use the **BACK** key to exit.

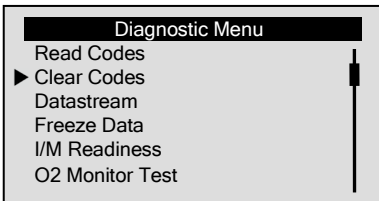
5.1.2 Clear DTCs

The **Clear Codes** function is used to delete DTCs and I/M Readiness data from vehicle's control module(s). It may also erase freeze data, and set monitors to incomplete or not ready.

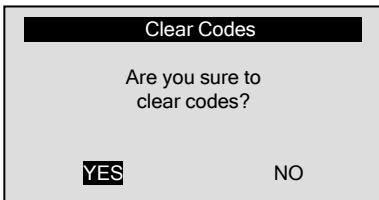
- √ Perform **Clear Codes** function only after systems have been checked completely.
- √ After servicing the vehicle, erase stored DTCs and verify no codes have been reset. If a DTC returns, problem has not been fixed or other faults are present.
- √ Depending on which monitor sets a code the vehicle may need to be driven and the monitor ran before concluding that the fault is repaired.
- √ This function is performed with KOEO. Do not start the engine.

To erase codes from vehicle control modules:

1. Use **UP/DOWN** to select **Clear Codes** from **Diagnostic Menu** screen.



2. Press **ENTER** to confirm.
3. If codes and diagnostic results are to be cleared, use the **LIGHT/RIGHT** key to select **YES** and press **ENTER**.



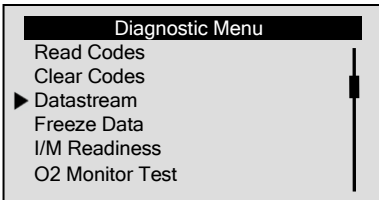
- ✓ If codes and test data not to be deleted, select **NO**, and the message “Command Cancelled!” is displayed. Wait a few seconds or press any key to return to **Diagnostic Menu**.
4. Wait a few seconds until the message “Codes Cleared!” appears, indicating codes are cleared successfully.
- ✓ If the scanner fails to clear the codes, the message “Clear Error! Turn Key on with Engine off!” is displayed.
5. Wait a few seconds or press any key to return to **Diagnostic Menu**.

5.1.3 Live Datastream

The **Datastream** function allows real time viewing of the vehicle’s electronic control unit’s PID data, including sensor data, operation of switches, solenoids and relays.

To view live datastream:

- ▶ 1. Use **UP/DOWN** to select **Datastream** from **Diagnostic Menu** screen.



2. Press **ENTER** to confirm.

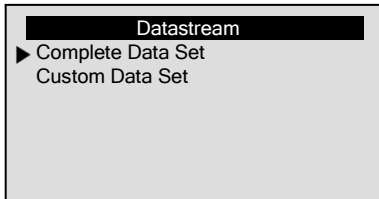
√ If a vehicle does not have this function, the message “Not Support This Function!” is displayed.

View Complete PIDs

Complete Data Set displays all supported PIDs of the vehicle being tested.

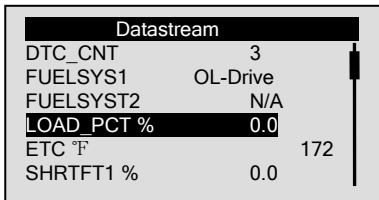
To view entire data list:

1. Use **UP/DOWN** to select **Complete Data Set** from **View Data** screen.

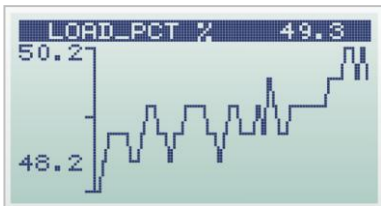


2. Press **ENTER** to confirm your selection.

3. View PIDs on scanner. Use the **LEFT** key when more than one screen of information is available.



4. Use the **RIGHT** key to view PID graph.



5. Use **ENTER** to save data.

Recording...	5/60
DTC_CNT	3
FUELSYS1	OL-Drive
FUELSYST2	N/A
LOAD_PCT %	0.0
ETC °F	172
SHRTFT1 %	0.0

√ The scanner stops saving live data once the memory space is full or the **BACK** key is pressed.

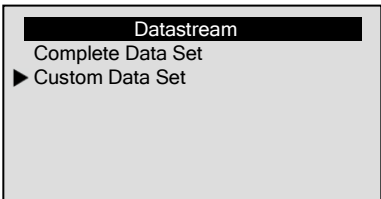
6. Press the **BACK** key to return to previous level.

View a Customized List of PIDs

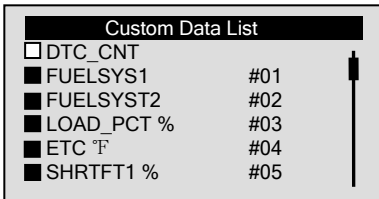
Custom Data Set allows certain PIDs from **Complete Data Set** to be selected.

To view custom data list:

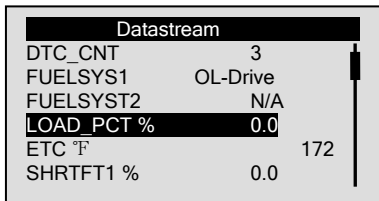
1. Use **UP/DOWN** to select **Custom Data List** from **View Data** screen.



2. Press **ENTER**.
3. Use **UP/DOWN** to move up or down, and press the **RIGHT** key to select or deselect PIDs to view. To cancel all your selection, use the **LEFT** key. Selected parameters are marked with solid squares.



4. Press **ENTER** to view selected PIDs.



5. Use the **BACK** key to return.

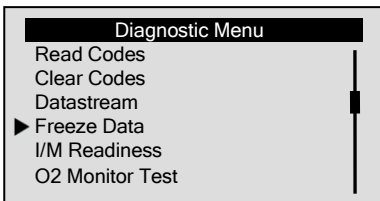
5.1.4 View Freeze Data

The **Freeze Data** function is used to view freeze frame data, a snapshot of vehicle operating conditions recorded by the on-board computer at the time of an emission-related fault.

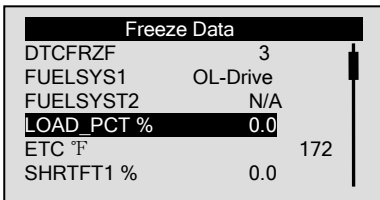
√ If codes were cleared, freeze data may not be stored in vehicle memory depending on vehicle.

To view freeze frame data:

1. Use **UP/DOWN** to select **Freeze Data** from **Diagnostic Menu** screen.



2. Press **ENTER** to confirm.
3. View freeze frame data on screen.



- √ If more than one screen of information is available, use the **LEFT/RIGHT** key.
 - √ If no freeze frame detected, the message “No Freeze Data Found!” is displayed.
 - √ If a vehicle does not have this function, the message “Not Support This Function!” is displayed.
4. Press the **BACK** key to return to *Diagnostic Menu*.

5.1.5 Read I/M Readiness Status Data

The *I/M Readiness* function is used to view a snapshot of the operations for the emission system on OBDII/EOBD vehicles.

- √ I/M Readiness is a useful function used to check if all monitors are OK or N/A.
- √ The vehicle’s computer performs tests on the emission system during normal driving conditions. After a specific amount of drive time (each monitor has specific driving conditions and time required), the computer’s monitors decide if the vehicles emission system is working correctly. When the monitor’s status is:
 - OK - vehicle was driven enough to complete the monitor.

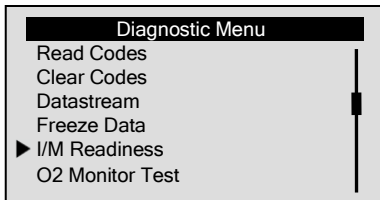
- INC (Incomplete) - vehicle was not driven enough to complete the monitor.
 - N/A (Not Applicable) - vehicle does not support that monitor.
- √ **I/M Readiness** function is performed with the KOER or KOEO.
- √ There are two types of I/M Readiness tests:
- Since DTCs Cleared - shows status of the monitors since the DTCs were last cleared.
 - This Drive Cycle - shows status of monitors since the start of the current drive cycle.
- √ Below is a list of abbreviations and names of OBD II monitors supported by the scanner.

No.	Abbreviation	Name
1	Misfire Monitor	Misfire Monitor
2	Fuel System Mon	Fuel System Monitor
3	Comp. Component	Comprehensive Components Monitor
4	Catalyst Mon	Catalyst Monitor
5	Htd Catalyst	Heated Catalyst Monitor
6	Evap System Mon	Evaporative System Monitor
7	Sec Air System	Secondary Air System Monitor
8	A/C Refrig Mon	Air Conditioning Refrigerant Monitor
9	Oxygen Sens Mon	Oxygen Sensor Monitor
10	Oxygen Sens Htr	Oxygen Sensor Heater Monitor
11	EGR System Mon	Exhaust Gas Recirculation System Monitor

NOTE Not all monitors are supported by all vehicles.

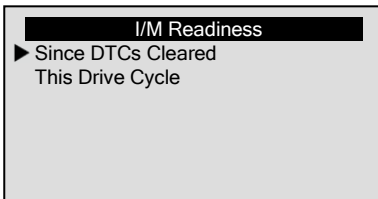
To retrieve I/M Readiness Status data:

- ▶ 1. Use **UP/DOWN** to select **I/M Readiness** from **Diagnostic Menu** screen.



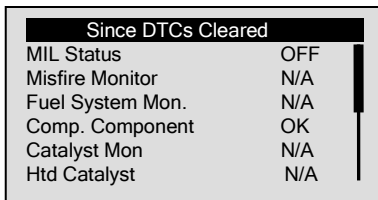
2. Press **ENTER** to confirm.

√ If vehicle supports both types of monitors, following screen displays:

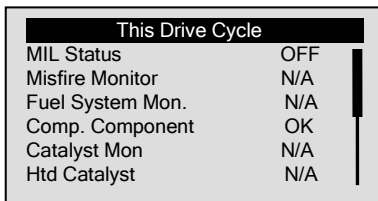


√ Use **UP/DOWN** to select a monitor type and press **ENTER** to confirm.

3. Depending on readiness test, one of these 2 screens will be present.



Or



√ If more than one screen of information is available, use the **LEFT/RIGHT** key.

√ If a vehicle does not have this function, the message "Not Support This Function!" is displayed.

4. Press the **BACK** key to return to *Diagnostic Menu*.

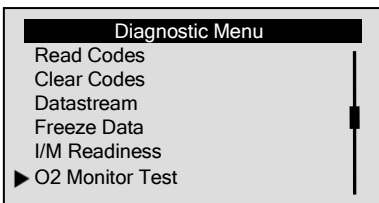
5.1.6 O2 Monitor Test

OBID II regulations require certain vehicles monitor and test oxygen (O2) sensors to isolate fuel and emissions related faults. The O2 Monitor Test function is used to retrieve completed O2 sensors monitor test results.

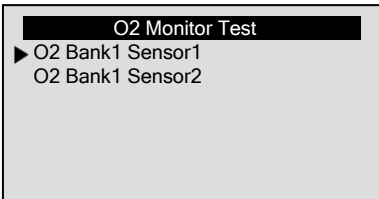
- √ The **O2 Monitor Test** is not an on-demand test. O2 sensors are not tested when selected via the menu but tested when engine operating conditions are within specified limits.
- √ If the vehicle uses a controller area network (CAN) protocol to communicate, this function is not supported by vehicle. Refer to “**On-Board Monitor Tests**” on page 34-35 for O2 monitor data of CAN-equipped vehicles.

To retrieve O2 monitor data:

- ▶ 1. Use **UP/DOWN** to select **O2 Monitor Test** from *Diagnostic Menu* screen.

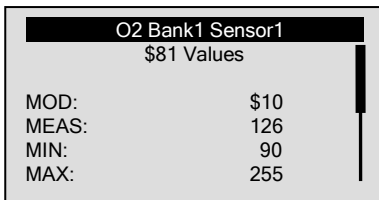


2. Press **ENTER** to confirm.
3. Use **UP/DOWN** to pick a O2 sensor.



- √ If a vehicle does not have this function, the scanner displays the message “Not Support This Function!”

4. Press **ENTER** to view data of selection.



A screenshot of a diagnostic tool screen. At the top, a black header bar contains the text "O2 Bank1 Sensor1" in white. Below the header, the text "\$81 Values" is centered. The main area of the screen displays four rows of data: "MOD: \$10", "MEAS: 126", "MIN: 90", and "MAX: 255". A vertical scrollbar is visible on the right side of the screen.

O2 Bank1 Sensor1	
\$81 Values	
MOD:	\$10
MEAS:	126
MIN:	90
MAX:	255

- √ When more than one screen of data is available, use the **LEFT/RIGHT** key.

5. Press the **BACK** key to return to *O2 Monitor Test* screen.

5.1.7 On-Board Monitor Test

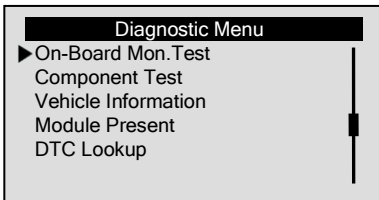
The *On-Board Monitor Test* function is useful after servicing or after clearing a vehicle ECU's memory. It receives test results for emission-related powertrain components and systems that are not continuously monitored for Non-CAN vehicles. And for CAN vehicles, it receives test data for emission-related powertrain components and systems that are and are not continuously monitored.

It is vehicle manufacturer who is responsible for assigning test and component IDs.

NOTE Test results do not necessarily indicate a faulty component or system.

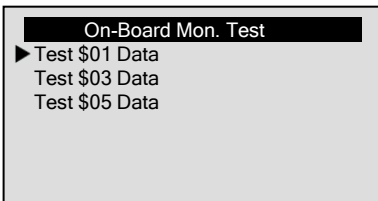
To request on-board monitor test results:

- ▶ 1. Use **UP/DOWN** to select **On-Board Mon. Test** from *Diagnostic Menu* screen.

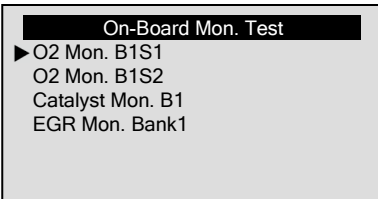


2. Use **ENTER** to confirm.
3. Use **UP/DOWN** to pick desired test results.

√ For non-CAN vehicles, test screen is illustrated as below:



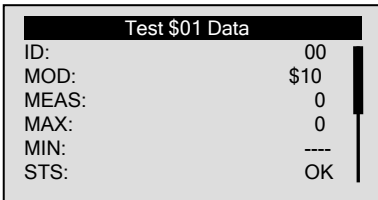
√ For CAN vehicles, test screen is illustrated as below:



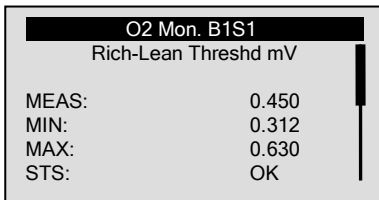
√ If a vehicle does not have this function the scanner displays a "Not Support This Function!"

4. Use **ENTER** to view details of selected test results. When more than one screen of data is available, use **LEFT/RIGHT**.

√ For non-CAN vehicles, test screen is illustrated as below:



√ For CAN vehicles, test screen is illustrated as below:



5. Press the **BACK** key to return to *On-Board Mon. Test*.

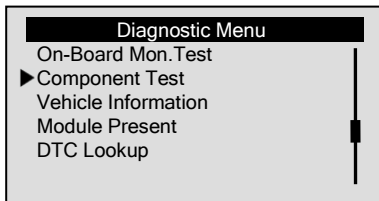
5.1.8 Component Test

The *Component Test* allows the scanner to control operation of vehicle components, tests or systems.

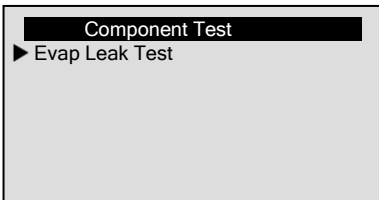
- √ Some manufacturers do not allow tools to control vehicle systems.
- √ The manufacturer sets the criteria to automatically stop test. Refer to appropriate vehicle service manual before using this function.

To do component test:

1. Use **UP/DOWN** to select **Component Test** from *Diagnostic Menu* screen.



2. Press **ENTER** to confirm.
3. Use **UP/DOWN** to pick an available system or component.



4. Press **ENTER** to start testing, and the scanner displays the message "Command Sent!".
- √ If a vehicle does not have this function the scanner displays the prompt "Not Support This Function!"
5. Press the **BACK** key to return to **Diagnostic Menu**.

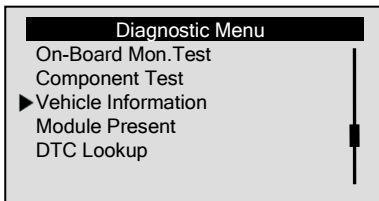
5.1.9 Request Vehicle Information

The **Vehicle Information** function is used to request the vehicle's VIN number, calibration ID(s) which identifies software version in vehicle control module(s), calibration verification numbers (CVN(s)) and in-use performance tracking on model year 2000 and newer OBD II compliant vehicles.

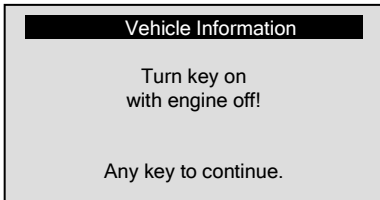
- √ CVNs are calculated values required by OBD II regulations. They are reported to check if emission-related calibrations have been changed. Multiple CVNs may be reported for a control module. It may take several minutes to do the CVN calculation.
- √ In-use performance tracking tracks performance of key readiness monitors.

To request vehicle information:

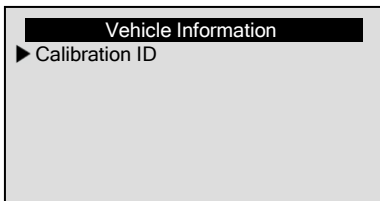
1. Use **UP/DOWN** to select **Vehicle Information** from **Diagnostic Menu** screen.



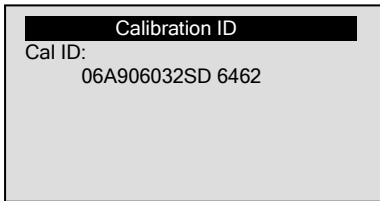
2. Press **ENTER** to confirm.
3. Observe on-screen instruction and wait a few seconds or press any key to continue.



- √ If a vehicle does not have this function, the message "Not Support This Function!" is displayed.
4. Press **ENTER** to confirm.
 5. Use **UP/DOWN** to select an available item from **Vehicle Information** screen.



6. Press **ENTER** to view test information.



7. Press **ENTER** return.

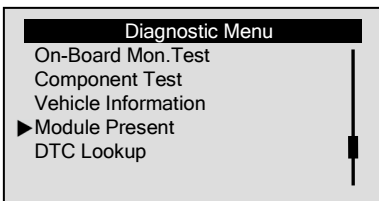
NOTE Information can be requested may be different depending on vehicle tested.

5.1.10 Modules Present

The scanner identifies module IDs and communication protocols for OBD2 modules in the vehicle.

To view module IDs and communication types:

1. Use **UP/DOWN** to select **Modules Present** from *Diagnostic Menu* screen.



2. Press **ENTER** to view information.

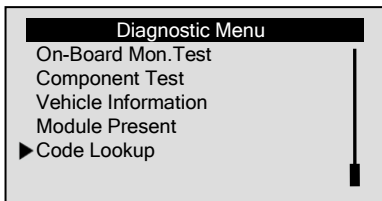
ID	Protocol
\$10	ISO 9141-2
\$1A	ISO 9141-2

5.1.11 Code Lookup

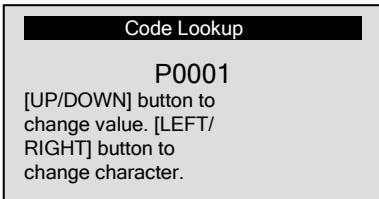
This function is used to request DTC definitions stored in the scanner.

To look up DTCs:

1. Use **UP/DOWN** to select **Code Lookup** from *Main Menu* screen.



2. Use **ENTER** to confirm.
3. Use the **LEFT/RIGHT** key to change highlighted character, use the **UP/DOWN** button to change value.



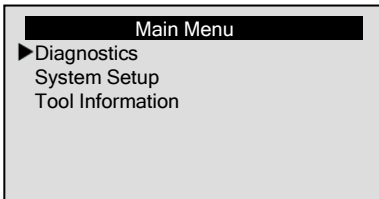
4. Press **ENTER** to view the DTC definition. Use the **LEFT/RIGHT** key to scroll back and forth through DTCs.
 - √ If definition could not be found (SAE or Manufacturer Specific), the scanner displays "DTC definition not found! Please refer to vehicle service manual!"
 - √ For manufacturer specific codes, select a vehicle make to look for DTC definitions.
5. To quit *Code Lookup*, press the **BACK** key.

5.2 Non-OBDII Diagnosis

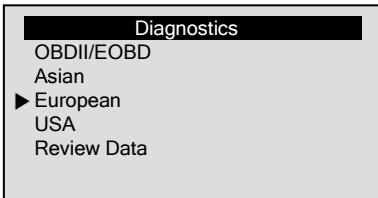
Non-OBDII diagnosis function of this scanner is used to read and clear engine, transmission, ABS and airbag codes and view ECU information on major Asian, American and European vehicles.

To perform diagnosis on vehicles:

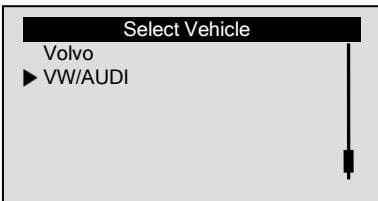
- ▶ 1. Use **UP/DOWN** to select **Diagnostics** from *Main Menu* screen.



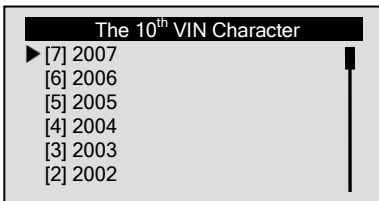
2. Use **UP/DOWN** to select a market area from *Diagnostic* menu screen, and press **ENTER** to confirm.



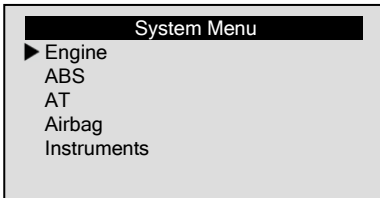
3. Use **UP/DOWN** to select a vehicle manufacturer from the *Select Vehicle* menu.



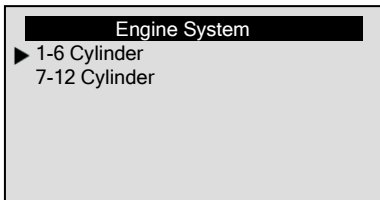
- √ For vehicles such as GM and Mercedes, you need to observe the menu title to make a series of menu selections to identify vehicle.



4. When vehicle identified, use **UP/DOWN** to select a system to test.



- √ If more than one type of computer modules is detected, use **UP/DOWN** to select the module equipped on your vehicle and press **ENTER** to confirm.




5. Wait a few seconds till the scanner establishes communication with the vehicle.
- √ If the scanner fails to establish connection with the vehicle, make sure the scanner is securely attached to vehicle's DLC, and the ignition key is on.

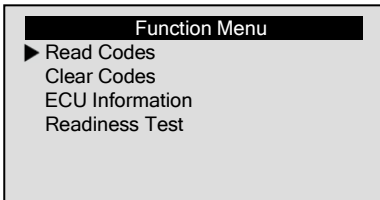
5.2.1 Read Codes

The **Read Codes** function is used to read DTCs, which are used to help identify the cause of a trouble or troubles with a vehicle.

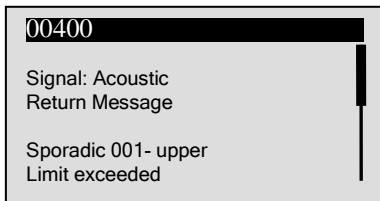
- √ This function can be performed with KOEO or KOER.

To read DTCs stored in the control module:

-  1. Use **UP/DOWN** to select **Read Codes** from **Function Menu** screen, and press **ENTER** to confirm.



2. View code definitions on screen, use **UP/DOWN** to view additional information and use **LEFT/RIGHT** to scroll back and forth through different codes.



- √ If no codes detected in the control module, the message “System pass. No fault found.” appears.

3. Use **ENTER** to save code definitions.

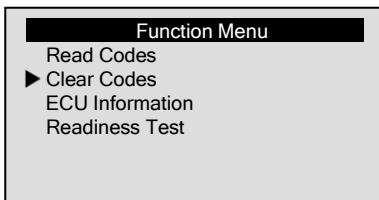
5.2.2 Clear Codes

The **Clear Codes** function is used to delete DTCs, freeze data, and manufacturer enhanced data from vehicle’s on-board computer module.

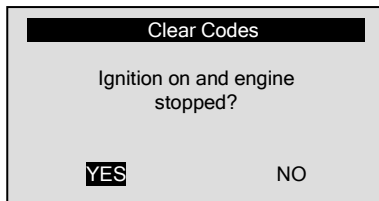
- √ Perform **Clear Codes** function only after systems have been checked completely.
- √ After servicing the vehicle, erase stored DTCs and verify no codes have been reset. If a DTC returns, problem has not been fixed or other faults are present.
- √ This function is performed with KOEO. Do not start the engine.

To clear DTCs stored in the control module:

- ▶ 1. Use **UP/DOWN** to select **Clear Codes** from **Function Menu** screen, and press **ENTER** to confirm.

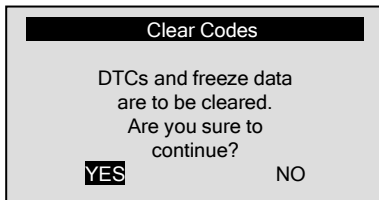


2. Answer **YES** to continue if the key is in the KOEO position.



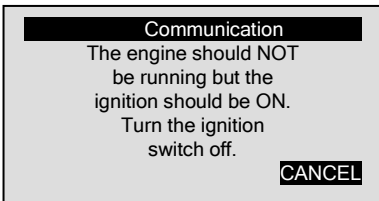
√ If the key is not in the KOEO position, use **LEFT/RIGHT** to select **NO** and return to the *Mode Menu* screen.

3. Answer **YES** to continue if codes are to be cleared.



√ If test data are not to be deleted, answer **NO** to return.

√ On Honda vehicles you are asked to turn the ignition off for 10s and turn it back on to proceed to erase codes.



- √ If codes and freeze data are not to be erased, turn ignition off and then back on 10s later as instructed; if they are not to be deleted, use **CANCEL** to return.
- 4. Use the **Read Codes** function to verify if codes are cleared.
- √ If codes are not cleared, make sure the scanner is securely attached to vehicle's DLC, and the ignition key is on.

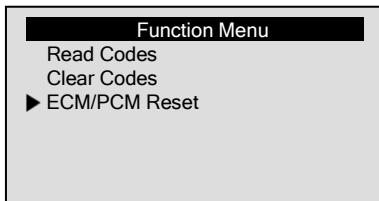
5.2.3 Reset ECM/PCM

The **ECM/PCM Reset** is a Honda specific function. It allows the scanner to delete DTCs, freeze data, and manufacturer enhanced data from vehicle's on-board computer module.

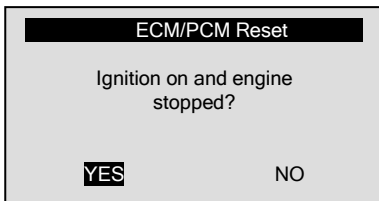
- √ Perform this function only after systems have been checked completely.
- √ This function is performed with KOEO. Do not start the engine.

To reset the engine/powertrain control module:

- ▶ 1. Use **UP/DOWN** to select **ECM/PCM Reset** from **Function Menu** screen, and press **ENTER** to confirm.

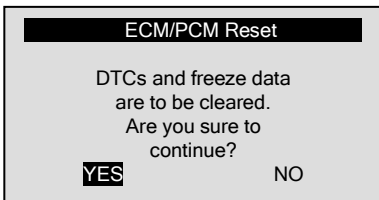


2. Answer **YES** to continue if the key is in the KOEO position.



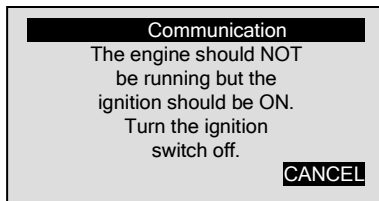
√ If the key is not in the KOEO position, use **LEFT/RIGHT** to select **NO** and return to the *Mode Menu* screen.

3. Answer **YES** to continue if ECM/PCM is to be reset.



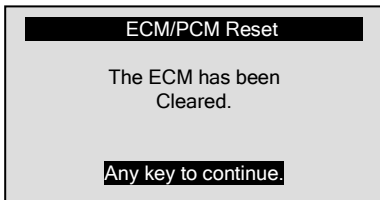
√ If ECM/PCM is not to be reset, answer **NO** to return.

4. Turn the ignition off for 10s and turn it back on to reset the control module.



√ If control module is not to be reset, use **CANCEL** to return.

5. When the control module is reset, following screen shows:



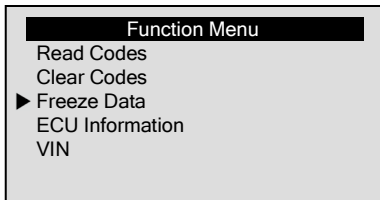
- √ If ECM/PCM is not reset, make sure the scanner is securely attached to vehicle's DLC, and the ignition key is on.

5.2.4 View Freeze Data

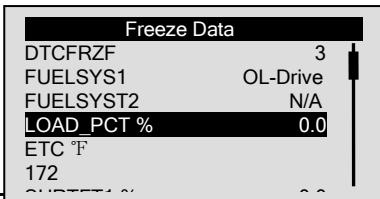
The **Freeze Data** function is used to view freeze frame data, a snapshot of vehicle operating conditions recorded by the on-board computer at the time of a fault. Some vehicles may not support this function.

To view freeze frame data:

- ▶ 1. Use **UP/DOWN** to select **Freeze Data** from **Function Menu** screen.



2. Press **ENTER** to confirm.
3. View freeze frame data on screen. If more than one screen of information is available, use the **LEFT/RIGHT** key.



4. Press **ENTER** to save the data and use **BACK** to return.

5.2.5 Read Readiness Test Data

The **Readiness Test** function is used to view a snapshot of the operations for vehicle emission system. It is a VW/AUDI specific function.

√ The vehicle's computer performs tests on the emission system during normal driving conditions. After a specific amount of drive time (each monitor has specific driving conditions and time required), the computer's monitors decide if the vehicles emission system is working correctly. When the monitor's status is:

- Pass - vehicle was driven enough to complete the monitor.
- Fail - vehicle was not driven enough to complete the monitor or vehicle does not support that monitor.

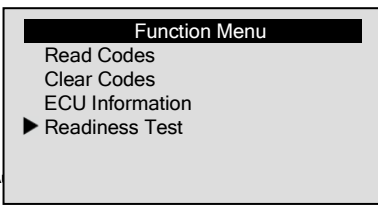
√ **Readiness Test** function is performed with the KOER or KOEO.

√ Below is a list of abbreviations and names of monitors:

No.	Abbreviation	Name
1	EGR Sys.	Exhaust Gas Recirculation System Monitor
2	O2 Sensor(s)	Oxygen Sensor Monitor
3	Catalyst	Catalyst Monitor
4	EVAP Sys.	Evaporative System Monitor
5	Sec. Air Inject	Secondary Air System Monitor
6	A/C	Air Conditioning Monitor
7	Catalytic Conv.	Catalytic Converter Monitor
8	Heated O2	Oxygen Sensor Heater Monitor

To retrieve Readiness test data:

- ▶ 1. Use **UP/DOWN** to select **Readiness Test** from **Function Menu** screen.



2. View readiness data and use **ENTER** to save the data.

Readiness Test	
EGR Sys.:	FAIL
Heated O2:	PASS
O2 Sensor(s):	FAIL
A/C:	PASS
Sec. Air Inject:	PASS
EVAP Sys.:	FAIL

5.2.6 Retrieve ECU Information

The **ECU Information** function is used to view ECU information such as ECU part number, hardware number and more. Some vehicles may not support this function.

To retrieve ECU information:

- ▶ 1. Use **UP/DOWN** to select **ECU Information** from **Function Menu** screen.

Function Menu	
Read Codes	
Clear Codes	
▶ ECU Information	
Readiness Test	

2. View ECU information and use **ENTER** to save the data.

ECU Information	
VAG Number:	03C906057C
Component:	MT/1 61-4V/77KW

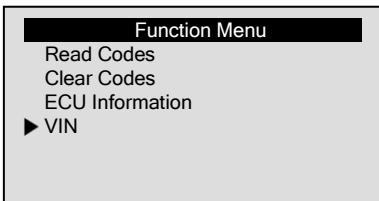
NT600 Au 00

5.2.7 Request VIN

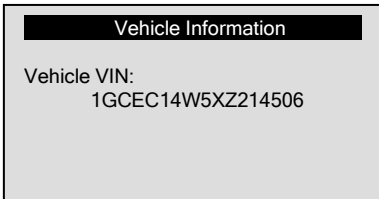
The **VIN** function is used to view vehicle identification number. Some vehicles may not support this function.

To request VIN:

1. Use **UP/DOWN** to select **VIN** from **Function Menu** screen.



2. View VIN information and use **ENTER** to save the data.



5.3 Review Data

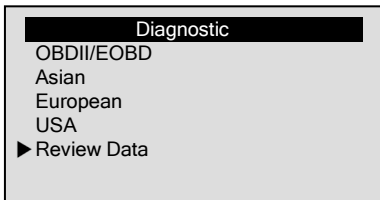
The **Review Data** function is used to review recorded test results.

- √ Depending on vehicle tested, the scanner may have different types of data to review.

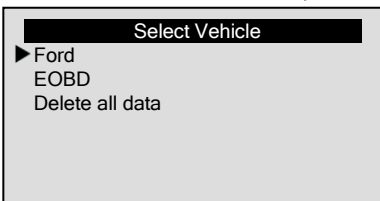
To review recorded data:

1. Use **UP/DOWN** to select **Review Data** from **Diagnostic** menu

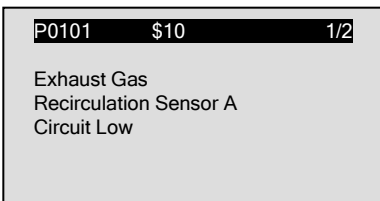
screen.



2. Press **ENTER** to confirm.
3. Use **UP/DOWN** to select a vehicle and press **ENTER**.

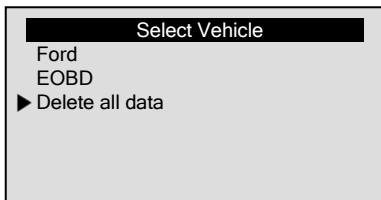


- √ If no data is recorded, the message "No Data available!" is displayed.
4. Observe the menu title to make selection till recorded data are identified and view the test records.



- √ "Record x" indicates how many tests you have performed and "Test x" indicates how many times you have recorded from the same test.

5. If all test records of test are to be cleared, use **UP/DOWN** to select **Delete all data**.



6. Use **LEFT/RIGHT** to select **YES** to delete all records; or select **NO** to cancel.

6. Update and Print

The scanner is able to be updated to keep you stay current with the latest development of diagnosis. Also, it allows you to upload recorded test results to your PC or laptop for analysis and printing.

6.1 Update the Scanner

- √ To update the scanner, you need following tools:
 - NT600 scanner
 - Update Tool FoxLink Pro
 - PC or laptop with USB ports and Internet explorer
 - USB cable
- √ To be able to use update tool, PC or laptop must meet the following minimum requirements:
 - Operation System: Win98/NT, Win ME, Win2000, Win XP, VISTA and Windows 7.
 - CPU: Intel PIII or better
 - RAM: 64MB or better
 - Hard Disk Space: 30MB or better
 - Display: 800*600 pixel, 16 byte true color display or better
 - Internet Explorer 4.0 or newer

IMPORTANT Do not disconnect the scanner from computer, or power off the computer during the process of updating.

To update the scanner:

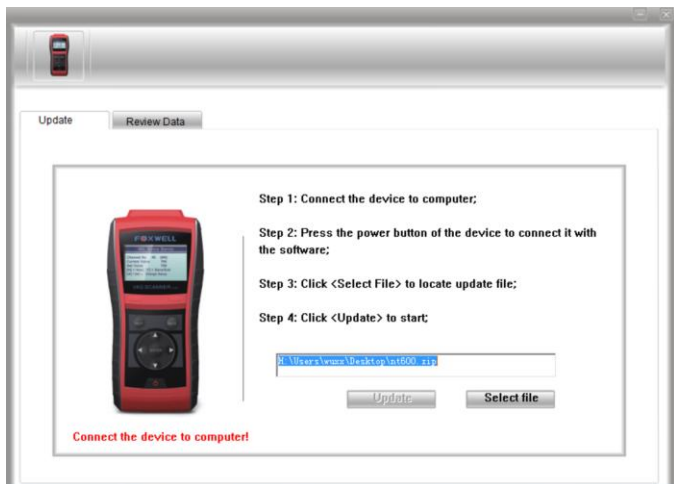
-  1. Download the update tool FoxLink Pro and update files from

our site www.foxwelltech.com by selecting Home>Updates>NT600 and save the applications and update file in computer disk.

- Unzip the update tool file. Follow instructions on computer screen to install the tool and driver.



- Double click the desktop icon to launch the application.
- Connect the scanner to computer with the USB cable provided.
- Turn on the scanner by pressing the power button.
- Start the update application by selecting **Update**.
- Use **Select file** to locate update file downloaded.
- Click **Update** to start updating.



6.2 Print Data

All test results are able to be printed through computer.


To print test results:


- ▶ Download and launch FoxLink Pro as instructed on page 51 of


6.1 Updating the Scanner.


2. Connect the scanner to computer with the USB cable supplied and power it on.
3. Start the application by selecting **Review Data** and all records will be loaded to your computer automatically.
4. Select a test record to view.



5. To copy the data to clipboard, use the  icon.

6. To edit the data in a text file, use the  icon.

7. If data to be cleared, use the  icon.

8. Click the  icon to print the data through computer.