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# 1. Safety Precautions and Warnings

**To prevent personal injury or damage to vehicles and/or the Scan Tool, read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:**

- Always perform automotive testing in a safe environment.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc, away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area; Exhaust gases are poisonous.
- Put blocks on drive wheels and never leave vehicle unattended while running tests.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Put transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
- Don't connect or disconnect any test equipment with ignition on or engine running.
- Keep the Scan Tool dry, clean and free from oil, water and grease. Use a mild detergent on a clean cloth to clean the outside of the Scan Tool, when necessary.

## 2. General Information

### 2.1 On-Board-Diagnostics (OBD) II

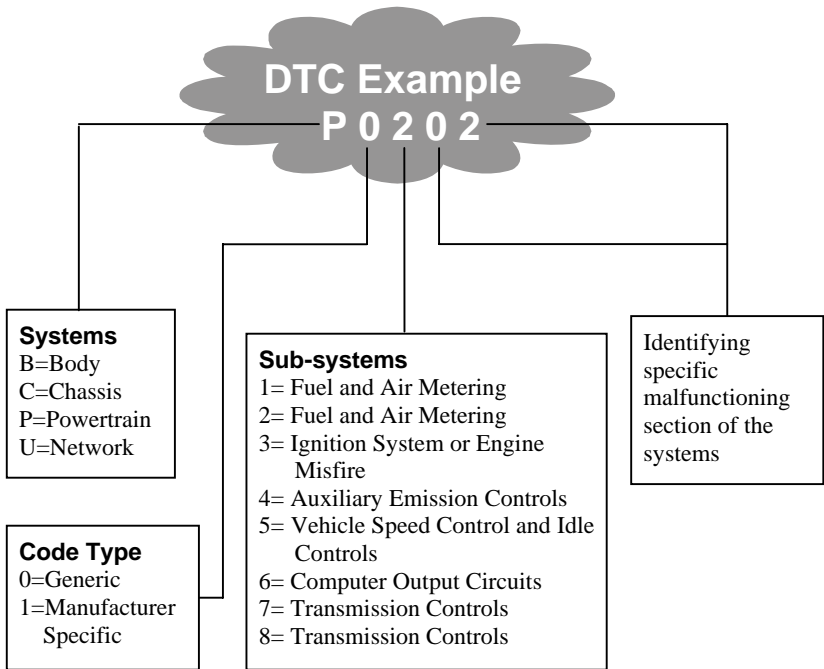
The first generation of On-Board Diagnostic (called OBD I), was developed by the California Air Resources Board (ARB) and implemented in 1988 to monitor some of the emission control components on vehicles. As technology evolved and the desire to improve the OBD I system increased, a new generation of On-Board Diagnostics system was developed. This second generation of On-Board Diagnostic regulations is called "OBD II".

The OBD II system is designed to monitor emission control systems and key engine components by performing either continuous or periodic tests of specific components and vehicle conditions. When a problem is detected, the OBD II system turns on a warning lamp (MIL) on the vehicle instrument panel to alert the driver typically by the phrase of "Check Engine" or "Service Engine Soon". The system will also store important information about the detected malfunction so that a technician can accurately find and fix the problem. Here below follow three pieces of such valuable information:

- Whether the Malfunction Indicator Light (MIL) is commanded 'on' or 'off';
- Which, if any, Diagnostic Trouble Codes (DTCs) are stored;
- Readiness Monitor status.

### 2.2 Diagnostic Trouble Codes (DTCs)

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



## 2.3 Location of the Data Link Connector (DLC)

The DLC (Data Link Connector or Diagnostic Link Connector) is the standardized 16-cavity connector where diagnostic scan tools interface with the vehicle's on-board computer. The DLC is usually located 12 inches from the center of the instrument panel (dash), under or around the driver's side for most vehicles. For some Asian and European vehicles, the DLC is located behind the ashtray and the ashtray must be removed to access the connector. Refer to the vehicle's service manual for the location if the DLC cannot be found.

## 2.4 OBD II Readiness Monitors

An important part of a vehicle's OBDII system is the Readiness monitors, which are indicators used to find out if all of the emissions components have been evaluated by the OBD II system.

They are running periodic tests on specific systems and components to ensure that they are performing within allowable limits.

Currently, there are eleven OBD II Readiness Monitors (or I/M Monitors) defined by the U.S. Environmental Protection Agency (EPA). Not all monitors are supported by all vehicles and the exact number of monitors in any vehicle depends on the motor vehicle manufacturer's emissions control strategy.

**Continuous Monitors** -- Some of the vehicle components or systems are continuously tested by the vehicle's OBDII system, while others are tested only under specific vehicle operating conditions. The continuously monitored components listed below are always ready:

- 1. Misfire**
- 2. Fuel System**
- 3. Comprehensive Components (CCM)**

Once the vehicle is running, the OBDII system is continuously checking the above components, monitoring key engine sensors, watching for engine misfire, and monitoring fuel demands.

**Non--Continuous Monitors** -- Unlike the continuous monitors, many emissions and engine system components require the vehicle to be operated under specific conditions before the monitor is ready. These monitors are termed non-continuous monitors and are listed below:

- 1. EGR System**
- 2. O2 Sensors**
- 3. Catalyst**
- 4. Evaporative System**
- 5. O2 Sensor Heater**
- 6. Secondary air**
- 7. Heated Catalyst**
- 8. A/C system**

## 2.5 OBD II Monitor Readiness Status

OBDII systems must indicate whether or not the vehicle's PCM's monitor system has completed testing on each component. Components that have been tested will be reported as "Ready", or "Complete", meaning they have been tested by the OBDII system. The purpose of recording readiness status is to allow inspectors to determine if the vehicle's OBDII system has tested all the components and/or systems.

The powertrain control module (PCM) sets a monitor to "Ready" or "Complete" after an appropriate drive cycle has been performed. The drive cycle that enables a monitor and sets readiness codes to "ready" varies for each individual monitor. Once a monitor is set as "Ready" or "Complete", it will remain in this state. A number of factors, including erasing of diagnostic trouble codes (DTCs) with a scan tool or a disconnected battery, can result in Readiness Monitors being set to "not ready". Since the three continuous monitors are constantly evaluating, they will be reported as "Ready" all of the time. If testing of a particular supported non-continuous monitor has not been completed, the monitor status will be reported as "Not Complete" or "Not Ready."

In order for the OBD monitor system to become ready, the vehicle should be driven under a variety of normal operating conditions. These operating conditions may include a mix of highway driving and stop and go, city type driving, and at least one overnight-off period. For specific information on getting your vehicle's OBD monitor system ready, please consult your vehicle owner's manual.

## 2.6 OBD II Terminology

**Powertrain Control Module (PCM)**--OBDII terminology for the on-board computer that controls engine and drive train.

**Malfunction Indicator Light (MIL)**--Malfunction Indicator Light (Service Engine Soon, Check Engine) is a term used for the light on the instrument panel. It is to alert the driver and/or the repair technician that there is a problem with one or more of vehicle's systems and may cause emissions to exceed federal standards. If the MIL illuminates with a steady light, it indicates that a problem has been detected and the vehicle should be serviced as soon as possible.

Under certain conditions, the dashboard light will blink or flash. This indicates a severe problem and flashing is intended to discourage vehicle operation. The vehicle onboard diagnostic system can not turn the MIL off until the necessary repairs are completed or the condition no longer exists.

**DTC**--Diagnostic Trouble Codes (DTC) that identify which section of the emission control system has malfunctioned.

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

**OBDII Drive Cycle**-- A specific mode of vehicle operation that provides conditions required to set all the readiness monitors applicable to the vehicle to the “Ready” condition. The purpose of completing an OBD II drive cycle is to force the vehicle to run its onboard diagnostics. Some form of a drive cycle needs to be performed after DTCs have been erased from the PCM’s memory or after the battery has been disconnected. Running through a vehicle’s complete drive cycle will “set” the readiness monitors so that future faults can be detected. Drive cycles vary depending on the vehicle and the monitor that needs to be reset. For vehicle specific drive cycle, consult the vehicle’s Owner’s Manual.

# 3. Product Information

## 3.1 Tool Description



1. **LCD DISPLAY**--Indicates test results. It is a backlit 2-line display with 8 characters on each line.
2. **ENTER BUTTON**--Confirms a selection (or action) from a menu list, or returns to the main menu.
3. **SCROLL BUTTON**-- Scrolls through menu items or cancel an operation.
4. **OBD II CONNECTOR**--Connects the Code Scanner to the vehicle's Data Link Connector (DLC).

## 3.2 Product Specifications

- **Display**--Backlit LCD, 2 lines, 8 characters each
- **Operating Temperature**--0 to 50°C (32 to 122 F°)

- **Storage Temperature--** -20 to 70°C (-4 to 158 F°)

- **Power--**DC12V provided via the vehicle's battery

- **Dimensions:**

| Length         | Width         | Height       |
|----------------|---------------|--------------|
| 113 mm ( 4.5") | 74 mm ( 3.0") | 21mm (0.84") |

- **Weight--**250g (8.9 oz)

### 3.3 Product Features

- Works with all 1996 and newer cars & light trucks that are OBD II compliant (including the CAN, VPW, PWM, ISO and KWP 2000 protocols)
- Reads and clears generic and manufacturer specific Diagnostic Trouble Codes (DTCs) and turns off check engine light
- Supports multiple trouble code requests: generic codes, pending codes and manufacturer's specific codes
- Reviews the emission readiness status of OBD monitors
- Retrieves VIN (Vehicle Identification No.) on 2002 and newer vehicles that support Mode 9
- Determines the malfunction indicator lamp (MIL) status
- Easy to use with one plug-in; Highly reliable and accurate
- Easy-to-read crystal-clear backlit 2-line LCD display
- Stand-alone unit with no need for an additional laptop computer to operate
- Small in size and conveniently fits in your palm
- Safely communicates with the on-board computer
- No batteries needed--powered via detachable OBD II cable

### 3.4 Vehicle Coverage

The MaxiScan OBD II Scan Tool is specially designed to work with all OBD II compliant vehicles, including those equipped with

the next-generation protocol-Control Area Network (CAN). It is required by EPA that All 1996 and newer vehicles (cars and light trucks) sold in the United States must be OBD II compliant and this includes all Domestic, Asian and European vehicles.

A small number of 1994 and 1995 model year gasoline vehicles are OBD II compliant. To verify if a 1994 or 1995 vehicle is OBD II compliant, check the Vehicle Emissions Control Information (VECI) Label which is located under the hood or by the radiator of most vehicles. If the vehicle is OBD II compliant, the label will designate “OBD II Certified”. Additionally, Government regulations mandate that all OBD II compliant vehicles must have a “common” sixteen-pin Data Link Connector (DLC).

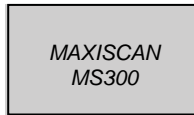
For your vehicle to be OBD II compliant, it must have a 16-pin DLC (Data Link Connector) under the dash and the Vehicle Emission Control Information Label must state that the vehicle is OBD II compliant.

# 4. Operating Instructions

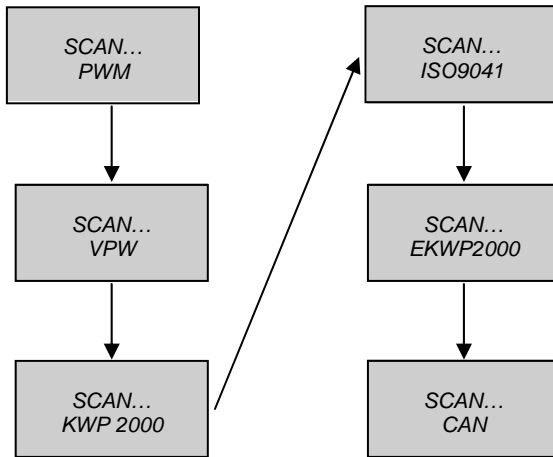
## 4.1 Reading Codes:

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

1. Turn the ignition off.
2. Locate the 16-pin Data Link Connector (DLC) and plug into the Scan Tool cable connector to the DLC.
3. Wait for the LCD display to read “**MAXISCAN MS300**”.



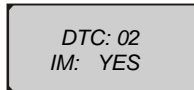
4. Turn the ignition on. But do not start the engine.
5. Press the **ENTER** button. A sequence of messages showing the OBD2 protocols will be observed on the display until the vehicle protocol is detected.



- Not all the above messages will be displayed unless protocol of the vehicle being tested is the last one—the CAN protocol.

They will stop appearing after the vehicle protocol is detected and a confirmation message of “XXX Protocol” is displayed.

- If a “**LINK ERROR!**” message shows up, turn the ignition off for about 10 seconds, check if the Scan Tool’s OBDII connector is securely connected to the vehicle’s DLC, and then turn the ignition back to on. Repeat the procedure from step 5. If the “**LINK ERROR**” message does not go away, then there may be problems for the Scan Tool to communicate with the vehicle.
6. Wait for the main menu to come up after a brief overview displaying the scanning results with the total number of DTCs and the overall I/M Monitor Status.



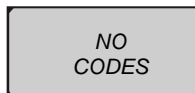
*DTC: 02*  
*IM: YES*

7. Select “**DTC**” from the main menu by pressing the **ENTER** button.



*MENU:*  
*1.DTC*

- If there are no Diagnostic Trouble Codes retrieved, the display will indicate “**NO CODES**”.



*NO*  
*CODES*

- If there are any Diagnostic Trouble Codes, then the total number of the Fault Codes followed by that of the Pending Codes will be reported on the display.

FAULT:02  
PEND:02

8. Read the Diagnostic Trouble Codes by pressing the **SCROLL** button.
  - The first code number will appear on the first line of the LCD display, the numerical sequence of the code and the total number of the codes stored will appear on the second line. To view additional codes, press the **SCROLL** button to scroll, as necessary, until all the codes have been shown up.

P0101  
01/04

- If the code retrieved is a pending code, a “**PD**” will show on the LCD display in the end.

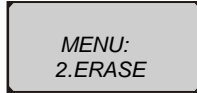
P0005 PD  
01/05

- To view previous codes, press the **SCROLL** button to scroll through to the end, and then start from the first of the list.
9. Look up part 5 for Diagnostic Trouble Code Definitions. Match the retrieved DTC(S) with those listed and read the definitions.

## 4.2 Erasing Codes:

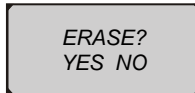
**CAUTION:** Erasing the Diagnostic Trouble Codes allows the Scan Tool to delete not only the codes from the vehicle's on-board computer, but also “Freeze Frame” data and manufacturer specific enhanced data. Further, the I/M Readiness Monitor Status for all vehicle Monitors is reset to Not Ready or Not Complete status. Do not erase the codes before the system has been checked completely by a technician.

1. If you decide to erase the DTCs, Select “**2. ERASE**” from the main menu by pressing the ENTER button.



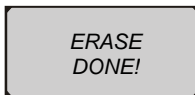
MENU:  
2.ERASE

- If the Scan Tool is not connected or no communication is established with the vehicle yet, then refer to “**Reading Codes**” from 1 to 6. at Paragraph 4.1.
2. A message of “**ERASE? YES NO**” comes up asking for your confirmation.



ERASE?  
YES NO

3. If you do not want to proceed with erasing the codes, press the **SCROLL** button to exit.
4. If you do wish to proceed to erase the codes, then press the **ENTER** button.
5. If the codes are cleared successfully, an “**ERASE DONE!**” message will show on the display. Press the **ENTER** button to Return to the main Menu list.



ERASE  
DONE!

6. If the codes are not cleared, then an “**ERASE FAIL!**” message will appear. Press the **ENTER** button to Return to the main Menu list.

ERASE  
FAIL!

***HOT KEY:*** Pressing and Holding the **SCROLL** button for about 3 seconds will allow you to erase the DTCs more quickly than through the main menu.

### 4.3 Retrieving I/M Readiness Status:

***IMPORTANT:*** I/M Readiness function is used to check the operations of the Emission System on OBD2 compliant vehicles. It is an excellent function to use prior to having a vehicle inspected for compliance to a state emissions program.

An I/M Readiness Status result of “NO” does not necessarily indicate that the vehicle being tested will fail the state I/M inspection. For some states, one or more such monitors may be allowed to be “Not Ready” to pass the emissions inspection.

- “YES”--All monitors supported on the vehicle have completed their diagnostic testing and the MIL light is not on
- “NO”--At least one monitor supported on the vehicle has not completed its diagnostic testing, and (or) the “Check Engine”( MIL) light is on
- “READY”—Indicates that a particular monitor being checked has completed its diagnostic testing
- “Not RDY(NOT READY)”—Indicates that a particular monitor being checked has not completed its diagnostic testing
- “N/A”—The monitor is not supported on that vehicle
- “→”-- A flashing Right Arrow indicates additional information is available on the next screen
- “←”-- A flashing Left Arrow indicates additional information is available on the previous screen

1. Select “**3. I/M**” from the main menu by pressing the **ENTER** button.

MENU:  
3./M

- If the Scan Tool is not connected yet, then refer to “**Reading Codes**” from 1 to 6. at Paragraph 4.1.
2. Use the **SCROLL** button to view the status of the **MIL** light (“**ON**” or “**OFF**”) and the following monitors:
  - **MISFIRE**--Misfire monitor
  - **FUEL**--Fuel System Monitor
  - **CCM**--Comprehensive Components Monitor
  - **EGR**-- EGR System Monitor
  - **O2S**-- O2 Sensors Monitor
  - **CAT**-- Catalyst Monitor
  - **EVAP**-- Evaporative System Monitor
  - **HO2S**--O2 Sensor Heater Monitor
  - **2AIR**-- Secondary Air Monitor
  - **HCM**--Heated Catalyst Monitor
  - **A/C**--A/C system Monitor
3. Press the **ENTER** button to return to the main Menu.

#### **4.4 Viewing VIN Number**

***The View VIN function allows you to retrieve the Vehicle Identification No. on 2002 and newer vehicles that support Mode 9.***

1. Select “**4. VIN**” from the main menu by pressing the **ENTER** button.

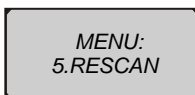
MENU:  
4.VIN

- If the Scan Tool is not connected yet, then refer to “**Reading Codes**” from 1 to 6. at Paragraph 4.1.
2. Use the **SCROLL** button to view additional digits of the 17-digit string.
    - “→” -- A flashing Right Arrow indicates additional digits of VIN string are available on the next screen.
    - “←” -- A flashing Left Arrow indicates additional digits of VIN string are available on the previous screen
  3. Press the **ENTER** button to return to the main Menu.

## 4.5 Rescanning Data

*The **RESCAN** function allows you to retrieve the most current data stored in the ECM or to re-link to the vehicle if communication is disconnected.*

1. Select “**5. RESCAN**” from the main menu by pressing the **ENTER** button.



- If the Scan Tool is not connected yet, then refer to “**Reading Codes**” from 1 to 6. at Paragraph 4.1.
2. Use either the **SCROLL** or **ENTER** button to return to the main menu.

# 5. Diagnostic Trouble Code (DTC) Definitions

The following Diagnostic Trouble Code Definitions lists provide only Generic Diagnostic Trouble Codes. For Manufacturer Specific Diagnostic Trouble Code Definitions, consult the vehicle’s service manual or the enclosed CD software.

**CAUTION: Parts or components should not be replaced based on only a DTC without first consulting the vehicle service manual for more information on possible causes of the fault as well as required testing procedures.**

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0001 | Fuel Volume Regulator Control Circuit Open                 |
| P0002 | Fuel Volume Regulator Control Circuit Range/Performance    |
| P0003 | Fuel Volume Regulator Control Circuit Low                  |
| P0004 | Fuel Volume Regulator Control Circuit High                 |
| P0005 | Fuel Shutoff Valve. A Control Circuit Open                 |
| P0006 | Fuel Shutoff Valve. A Control Circuit Low                  |
| P0007 | Fuel Shutoff Valve. A Control Circuit High                 |
| P0008 | Engine Position System Performance (Bank 1)                |
| P0009 | Engine Position System Performance (Bank 2)                |
| P0010 | Camshaft Position Actuator A -Bank 1 Circuit Malfunction   |
| P0011 | Camshaft Position Actuator A -Bank 1 Timing Over-Advanced  |
| P0012 | Camshaft Position Actuator A - Bank 1 Timing Over-Retarded |
| P0013 | Camshaft Position Actuator B - Bank 1 Circuit Malfunction  |
| P0014 | Camshaft Position Actuator B - Bank 1 Timing Over-Advanced |
| P0015 | Camshaft Position Actuator B - Bank 1 Timing Over-Retarded |
| P0016 | Cam/Crankshaft Pos. Correlation Sensor A - Bank 1          |
| P0017 | Cam/Crankshaft Pos. Correlation Sensor B - Bank 1          |
| P0018 | Cam/Crankshaft Pos. Correlation Sensor A - Bank 2          |
| P0019 | Cam/Crankshaft Pos. Correlation Sensor B - Bank 2          |
| P0020 | Camshaft Position Actuator A - Bank 2 Circuit Malfunction  |
| P0021 | Camshaft Position Actuator A - Bank 2 Timing Over-Advanced |
| P0022 | Camshaft Position Actuator A - Bank 2 Timing Over-Retarded |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0023 | Camshaft Position Actuator B - Bank 2 Circuit Malfunction           |
| P0024 | Camshaft Position Actuator B - Bank 2 Timing Over-Advanced          |
| P0025 | Camshaft Position Actuator B - Bank 2 Timing Over-Retarded          |
| P0026 | Intake Valve-Bank 1 Control Solenoid CKT Range/Performance          |
| P0027 | Exhaust Valve-Bank1 Control Solenoid CKT Range/Performance          |
| P0028 | Intake Valve-Bank 2 Control Solenoid CKT Range/Performance          |
| P0029 | Exhaust Valve-Bank2 Control Solenoid CKT Range/Performance          |
| P0030 | HO2S Bank 1 Sensor 1 Heater Circuit                                 |
| P0031 | HO2S Bank 1 Sensor 1 Heater Circuit Low                             |
| P0032 | HO2S Bank 1 Sensor 1 Heater Circuit High                            |
| P0033 | Turbo/Sup Wastegate Control Circuit                                 |
| P0034 | Turbo/Sup Wastegate Control Circuit Low                             |
| P0035 | Turbo/Sup Wastegate Control Circuit High                            |
| P0036 | HO2S Bank 1 Sensor 2 Heater Circuit                                 |
| P0037 | HO2S Bank 1 Sensor 2 Heater Circuit Low                             |
| P0038 | HO2S Bank 1 Sensor 2 Heater Circuit High                            |
| P0039 | Turbo/Super Charger Bypass Control CKT Performance                  |
| P0040 | O2 Bank 1 Sensor 1 Signals Swapped w/ O2 Bank 2 Sensor 1            |
| P0041 | O2 Bank 1 Sensor 2 Signals Swapped w/ O2 Bank 2 Sensor 2            |
| P0042 | HO2S Bank 1 Sensor 3 Heater Circuit                                 |
| P0043 | HO2S Bank 1 Sensor 3 Heater Circuit Low                             |
| P0044 | HO2S Bank 1 Sensor 3 Heater Circuit High                            |
| P0045 | Turbo/Super Charger Boost Control Solenoid A Circuit Open           |
| P0046 | Turbo/Super Charger Boost Control Solenoid A Circuit Range/ Perform |
| P0047 | Turbo/Super Charger Boost Control Solenoid A Circuit Low            |
| P0048 | Turbo/Super Charger Boost Control Solenoid A Circuit High           |
| P0049 | Turbo/Super Charger Boost Input/Turbine Speed Overspeed             |
| P0050 | HO2S Bank 2 Sensor 1 Heater Circuit                                 |
| P0051 | HO2S Bank 2 Sensor 1 Heater Circuit Low                             |
| P0052 | HO2S Bank 2 Sensor 1 Heater Circuit High                            |
| P0053 | HO2S Bank 1 Sensor 1 Heater Resistance                              |
| P0054 | HO2S Bank 1 Sensor 2 Heater Resistance                              |
| P0055 | HO2S Bank 1 Sensor 3 Heater Resistance                              |
| P0056 | HO2S Bank 2 Sensor 2 Heater Circuit                                 |
| P0057 | HO2S Bank 2 Sensor 2 Heater Circuit Low                             |
| P0058 | HO2S Bank 2 Sensor 2 Heater Circuit High                            |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0059 | HO2S Bank 2 Sensor 1 Heater Resistance           |
| P0060 | HO2S Bank 2 Sensor 2 Heater Resistance           |
| P0061 | HO2S Bank 2 Sensor 3 Heater Resistance           |
| P0062 | HO2S Bank 2 Sensor 3 Heater Circuit              |
| P0063 | HO2S Bank 2 Sensor 3 Heater Circuit Low          |
| P0064 | HO2S Bank 2 Sensor 3 Heater Circuit High         |
| P0065 | Air Assisted Injector. Control Range/Performance |
| P0066 | Air Assisted Injector. Control Circuit Low       |
| P0067 | Air Assisted Injector. Control Circuit High      |
| P0068 | MAF/MAP Sensor Throttle Position Correlation     |
| P0069 | MAP/BARO Correlation                             |
| P0070 | Ambient Air Temp. Sensor Circuit                 |
| P0071 | Ambient Air Temp. Sensor Range/Performance       |
| P0072 | Ambient Air Temp. Sensor Circuit Low             |
| P0073 | Ambient Air Temp. Sensor Circuit High            |
| P0074 | Ambient Air Temp. Sensor CKT Intermittent        |
| P0075 | Intake Valve-Bank 1 Control Circuit              |
| P0076 | Intake Valve-Bank 1 Control Circuit Low          |
| P0077 | Intake Valve-Bank 1 Control Circuit High         |
| P0078 | Exhaust Valve-Bank1 Control Circuit              |
| P0079 | Exhaust Valve-Bank1 Control Circuit Low          |
| P0080 | Exhaust Valve-Bank1 Control Circuit High         |
| P0081 | Intake Valve-Bank 2 Control Circuit              |
| P0082 | Intake Valve-Bank 2 Control Circuit Low          |
| P0083 | Intake Valve-Bank 2 Control Circuit High         |
| P0084 | Exhaust Valve-Bank2 Control Circuit              |
| P0085 | Exhaust Valve-Bank2 Control Circuit Low          |
| P0086 | Exhaust Valve-Bank2 Control Circuit High         |
| P0087 | Fuel Rail Pressure Too Low                       |
| P0088 | Fuel Rail Pressure Too High                      |
| P0089 | Fuel Pressure Regulator 1 Performance            |
| P0090 | Fuel Pressure Regulator 1 Control Circuit        |
| P0091 | Fuel Pressure Regulator 1 Control Circuit Low    |
| P0092 | Fuel Pressure Regulator 1 Control Circuit High   |
| P0093 | Fuel System Leak (Large)                         |
| P0094 | Fuel System Leak (Small)                         |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0095 | IAT Sensor 2 Circuit                              |
| P0096 | IAT Sensor 2 CKT Range/Performance                |
| P0097 | IAT Sensor 2 Circuit Low                          |
| P0098 | IAT Sensor 2 Circuit High                         |
| P0099 | IAT Sensor 2 CKT Intermittent                     |
| P0100 | MAF or VAF A Circuit Malfunction                  |
| P0101 | MAF or VAF A Circuit Range/Performance            |
| P0102 | MAF or VAF A Circuit Low Input                    |
| P0103 | MAF or VAF A Circuit High Input                   |
| P0104 | MAF or VAF A Circuit Intermittent                 |
| P0105 | MAP/BARO Circuit Malfunction                      |
| P0106 | MAP/BARO CKT Range/Performance                    |
| P0107 | MAP/BARO Circuit Low Input                        |
| P0108 | MAP/BARO Circuit High Input                       |
| P0109 | MAP/BARO CKT Intermittent                         |
| P0110 | IAT Sensor Circuit Malfunction                    |
| P0111 | IAT Sensor 1 CKT Range/Performance                |
| P0112 | IAT Sensor 1 Circuit Low Input                    |
| P0113 | IAT Sensor 1 Circuit High Input                   |
| P0114 | IAT Sensor 1 CKT Intermittent                     |
| P0115 | Engine Coolant Temp Circuit Malfunction           |
| P0116 | Engine Coolant Temp CKT Range/Performance         |
| P0117 | Engine Coolant Temp Circuit Low Input             |
| P0118 | Engine Coolant Temp Circuit High Input            |
| P0119 | Engine Coolant Temp CKT Intermittent              |
| P0120 | TPS/Pedal Position Sensor A Circuit Malfunction   |
| P0121 | TPS/Pedal Position Sensor A CKT Range/Performance |
| P0122 | TPS/Pedal Position Sensor A Circuit Low Input     |
| P0123 | TPS/Pedal Position Sensor A Circuit High Input    |
| P0124 | TPS/Pedal Position Sensor A CKT Intermittent      |
| P0125 | Closed Loop Fuel Ctrl Insufficient Coolant Temp   |
| P0126 | Coolant Temp Insufficient Stable Operation        |
| P0127 | IAT Sensor Too High                               |
| P0128 | Coolant Temp Below Thermostat Regulating Temp     |
| P0129 | Barometric Pressure Too Low                       |
| P0130 | O2 Sensor Circuit Malfunction (Bank 1 Sensor 1)   |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0131 | O2 Sensor Circuit Low Volts (Bank 1 Sensor 1)          |
| P0132 | O2 Sensor Circuit High Volts (Bank 1 Sensor 1)         |
| P0133 | O2 Sensor CKT Slow Response (Bank 1 Sensor 1)          |
| P0134 | O2 Sensor CKT No Activity (Bank 1 Sensor 1)            |
| P0135 | O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 1) |
| P0136 | O2 Sensor Circuit Malfunction (Bank 1 Sensor 2)        |
| P0137 | O2 Sensor Circuit Low Volts (Bank 1 Sensor 2)          |
| P0138 | O2 Sensor Circuit High Volts (Bank 1 Sensor 2)         |
| P0139 | O2 Sensor CKT Slow Response (Bank 1 Sensor 2)          |
| P0140 | O2 Sensor CKT No Activity (Bank 1 Sensor 2)            |
| P0141 | O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 2) |
| P0142 | O2 Sensor Circuit Malfunction (Bank 1 Sensor 3)        |
| P0143 | O2 Sensor Circuit Low Volts (Bank 1 Sensor 3)          |
| P0144 | O2 Sensor Circuit High Volts (Bank 1 Sensor 3)         |
| P0145 | O2 Sensor CKT Slow Response (Bank 1 Sensor 3)          |
| P0146 | O2 Sensor CKT No Activity (Bank 1 Sensor 3)            |
| P0147 | O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 3) |
| P0148 | Fuel Delivery Malfunction                              |
| P0149 | Fuel Timing Malfunction                                |
| P0150 | O2 Sensor Circuit Malfunction (Bank 2 Sensor 1)        |
| P0151 | O2 Sensor Circuit Low Volts (Bank 2 Sensor 1)          |
| P0152 | O2 Sensor Circuit High Volts (Bank 2 Sensor 1)         |
| P0153 | O2 Sensor CKT Slow Response (Bank 2 Sensor 1)          |
| P0154 | O2 Sensor CKT No Activity (Bank 2 Sensor 1)            |
| P0155 | O2 Sensor Heater Circuit Malfunction (Bank 2 Sensor 1) |
| P0156 | O2 Sensor Circuit Malfunction (Bank 2 Sensor 2)        |
| P0157 | O2 Sensor Circuit Low Volts (Bank 2 Sensor 2)          |
| P0158 | O2 Sensor Circuit High Volts (Bank 2 Sensor 2)         |
| P0159 | O2 Sensor CKT Slow Response (Bank 2 Sensor 2)          |
| P0160 | O2 Sensor CKT No Activity (Bank 2 Sensor 2)            |
| P0161 | O2 Sensor Heater Circuit Malfunction (Bank 2 Sensor 2) |
| P0162 | O2 Sensor Circuit Malfunction (Bank 2 Sensor 3)        |
| P0163 | O2 Sensor Circuit Low Volts (Bank 2 Sensor 3)          |
| P0164 | O2 Sensor Circuit High Volts (Bank 2 Sensor 3)         |
| P0165 | O2 Sensor CKT Slow Response (Bank 2 Sensor 3)          |
| P0166 | O2 Sensor CKT No Activity (Bank 2 Sensor 3)            |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0167 | O2 Sensor Heater Circuit Malfunction (Bank 2 Sensor 3) |
| P0168 | Engine Fuel Temperature Too High                       |
| P0169 | Fuel Composition Incorrect                             |
| P0170 | Fuel Trim Malfunction (Bank 1)                         |
| P0171 | System Too Lean (Bank 1)                               |
| P0172 | System Too Rich (Bank 1)                               |
| P0173 | Fuel Trim Malfunction (Bank 2)                         |
| P0174 | System Too Lean (Bank 2)                               |
| P0175 | System Too Rich (Bank 2)                               |
| P0176 | Fuel Compensation Sensor Circuit Malfunction           |
| P0177 | Fuel Compensation Sensor CKT Range/Performance         |
| P0178 | Fuel Compensation Sensor Circuit Low Input             |
| P0179 | Fuel Compensation Sensor Circuit High Input            |
| P0180 | Fuel Temperature Sensor A Circuit Malfunction          |
| P0181 | Fuel Temperature Sensor A CKT Range/Performance        |
| P0182 | Fuel Temperature Sensor A Circuit Low Input            |
| P0183 | Fuel Temperature Sensor A Circuit High Input           |
| P0184 | Fuel Temperature Sensor A CKT Intermittent             |
| P0185 | Fuel Temperature Sensor B Circuit Malfunction          |
| P0186 | Fuel Temperature Sensor B CKT Range/Performance        |
| P0187 | Fuel Temperature Sensor B Circuit Low Input            |
| P0188 | Fuel Temperature Sensor B Circuit High Input           |
| P0189 | Fuel Temperature Sensor B CKT Intermittent             |
| P0190 | Fuel Rail Pressure Sensor Circuit Malfunction          |
| P0191 | Fuel Rail Pressure Sensor CKT Range/Performance        |
| P0192 | Fuel Rail Pressure Sensor Circuit Low Input            |
| P0193 | Fuel Rail Pressure Sensor Circuit High Input           |
| P0194 | Fuel Rail Pressure Sensor CKT Intermittent             |
| P0195 | Engine Oil Temp Sensor Circuit Malfunction             |
| P0196 | Engine Oil Temp Sensor CKT Range/Performance           |
| P0197 | Engine Oil Temp Sensor Circuit Low Input               |
| P0198 | Engine Oil Temp Sensor Circuit High Input              |
| P0199 | Engine Oil Temp Sensor CKT Intermittent                |
| P0200 | Injector Circuit Open                                  |
| P0201 | Injector Circuit Open Cylinder 1                       |
| P0202 | Injector Circuit Open Cylinder 2                       |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0203 | Injector Circuit Open Cylinder 3                         |
| P0204 | Injector Circuit Open Cylinder 4                         |
| P0205 | Injector Circuit Open Cylinder 5                         |
| P0206 | Injector Circuit Open Cylinder 6                         |
| P0207 | Injector Circuit Open Cylinder 7                         |
| P0208 | Injector Circuit Open Cylinder 8                         |
| P0209 | Injector Circuit Open Cylinder 9                         |
| P0210 | Injector Circuit Open Cylinder 10                        |
| P0211 | Injector Circuit Open Cylinder 11                        |
| P0212 | Injector Circuit Open Cylinder 12                        |
| P0213 | Cold Start Injector 1 Malfunction                        |
| P0214 | Cold Start Injector 2 Malfunction                        |
| P0215 | Engine Shutoff Solenoid Malfunction                      |
| P0216 | Injection Timing Control Circuit Malfunction             |
| P0217 | Engine Overtemp Condition                                |
| P0218 | Transmission Overtemp Condition                          |
| P0219 | Engine Overspeed Condition                               |
| P0220 | TPS/Pedal Position Sensor/Switch B Circuit Malfunction   |
| P0221 | TPS/Pedal Position Sensor/Switch B CKT Range/Performance |
| P0222 | TPS/Pedal Position Sensor/Switch B Circuit Low Input     |
| P0223 | TPS/Pedal Position Sensor/Switch B Circuit High Input    |
| P0224 | TPS/Pedal Position Sensor/Switch B CKT Intermittent      |
| P0225 | TPS/Pedal Position Sensor/Switch C Circuit Malfunction   |
| P0226 | TPS/Pedal Position Sensor/Switch C CKT Range/Performance |
| P0227 | TPS/Pedal Position Sensor/Switch C Circuit Low Input     |
| P0228 | TPS/Pedal Position Sensor/Switch C Circuit High Input    |
| P0229 | TPS/Pedal Position Sensor/Switch C CKT Intermittent      |
| P0230 | Fuel Pump Primary Circuit Malfunction                    |
| P0231 | Fuel Pump Secondary Circuit Low                          |
| P0232 | Fuel Pump Secondary Circuit High                         |
| P0233 | Fuel Pump Secondary Circuit Intermittent Ckt             |
| P0234 | Engine Overboost Condition                               |
| P0235 | Turbo/Super Boost Sensor A Circuit Malfunction           |
| P0236 | Turbo/Super Boost Sensor A CKT Range/Performance         |
| P0237 | Turbo/Super Boost Sensor A Circuit Low Input             |
| P0238 | Turbo/Super Boost Sensor A Circuit High Input            |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0239 | Turbo/Super Boost Sensor B Circuit Malfunction                              |
| P0240 | Turbo/Super Boost Sensor B CKT Range/Performance                            |
| P0241 | Turbo/Super Boost Sensor B Circuit Low Input                                |
| P0242 | Turbo/Super Boost Sensor B Circuit High Input                               |
| P0243 | Turbo/Sup Wastegate Solenoid A Malfunction                                  |
| P0244 | Turbo/Sup Wastegate Solenoid A Range/Performance                            |
| P0245 | Turbo/Sup Wastegate Solenoid A Low  |
| P0246 | Turbo/Sup Wastegate Solenoid A High   |
| P0247 | Turbo/Sup Wastegate Solenoid B Malfunction                                  |
| P0248 | Turbo /Sup Wastegate Solenoid B Range/Performance                           |
| P0249 | Turbo/Sup Wastegate Solenoid B Low  |
| P0250 | Turbo/Sup Wastegate Solenoid B High   |
| P0251 | Injection Pump Metering Control A   |
| P0252 | Injection Pump Metering Control A Range/Performance                         |
| P0253 | Injection Pump Metering Control A Low                                       |
| P0254 | Injection Pump Metering Control A High                                      |
| P0255 | Injection Pump Metering Control A Intermittent (Cam/Rotor/Injector)         |
| P0256 | Injection Pump Metering Control B Malfunction (Cam/Rotor/Injector)          |
| P0257 | Injection Pump Metering Control B Range/Performance<br>(Cam/Rotor/Injector) |
| P0258 | Injection Pump Metering Control B Low (Cam/Rotor/Injector)                  |
| P0259 | Injection Pump Metering Control B High (Cam/Rotor/Injector)                 |
| P0260 | Injection Pump Metering Control B Intermittent (Cam/Rotor/Injector)         |
| P0261 | Cylinder 1 Injector Control Circuit Low                                     |
| P0262 | Cylinder 1 Injector Control Circuit High                                    |
| P0263 | Cylinder 1 Contribution Balance Fault                                       |
| P0264 | Cylinder 2 Injector Control Circuit Low                                     |
| P0265 | Cylinder 2 Injector Control Circuit High                                    |
| P0266 | Cylinder 2 Contribution Balance Fault                                       |
| P0267 | Cylinder 3 Injector Control Circuit Low                                     |
| P0268 | Cylinder 3 Injector Control Circuit High                                    |
| P0269 | Cylinder 3 Contribution Balance Fault                                       |
| P0270 | Cylinder 4 Injector Control Circuit Low                                     |
| P0271 | Cylinder 4 Injector Control Circuit High                                    |
| P0272 | Cylinder 4 Contribution Balance Fault                                       |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0273 | Cylinder 5 Injector Control Circuit Low   |
| P0274 | Cylinder 5 Injector Control Circuit High  |
| P0275 | Cylinder 5 Contribution Balance Fault     |
| P0276 | Cylinder 6 Injector Control Circuit Low   |
| P0277 | Cylinder 6 Injector Control Circuit High  |
| P0278 | Cylinder 6 Contribution Balance Fault     |
| P0279 | Cylinder 7 Injector Control Circuit Low   |
| P0280 | Cylinder 7 Injector Control Circuit High  |
| P0281 | Cylinder 7 Contribution Balance Fault     |
| P0282 | Cylinder 8 Injector Control Circuit Low   |
| P0283 | Cylinder 8 Injector Control Circuit High  |
| P0284 | Cylinder 8 Contribution Balance Fault     |
| P0285 | Cylinder 9 Injector Control Circuit Low   |
| P0286 | Cylinder 9 Injector Control Circuit High  |
| P0287 | Cylinder 9 Contribution Balance Fault     |
| P0288 | Cylinder 10 Injector Control Circuit Low  |
| P0289 | Cylinder 10 Injector Control Circuit High |
| P0290 | Cylinder 10 Contribution Balance Fault    |
| P0291 | Cylinder 11 Injector Control Circuit Low  |
| P0292 | Cylinder 11 Injector Control Circuit High |
| P0293 | Cylinder 11 Contribution Balance Fault    |
| P0294 | Cylinder 12 Injector Control Circuit Low  |
| P0295 | Cylinder 12 Injector Control Circuit High |
| P0296 | Cylinder 12 Contribution Balance Fault    |
| P0297 | Vehicle Overspeed Error                   |
| P0298 | Engine Oil Temperature Too High           |
| P0299 | Turbo/Super Charger UnderBoost            |
| P0300 | Random/Multiple Cylinder Misfire Detected |
| P0301 | Cylinder 1 Misfire Detected               |
| P0302 | Cylinder 2 Misfire Detected               |
| P0303 | Cylinder 3 Misfire Detected               |
| P0304 | Cylinder 4 Misfire Detected               |
| P0305 | Cylinder 5 Misfire Detected               |
| P0306 | Cylinder 6 Misfire Detected               |
| P0307 | Cylinder 7 Misfire Detected               |
| P0308 | Cylinder 8 Misfire Detected               |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0309 | Cylinder 9 Misfire Detected                               |
| P0310 | Cylinder 10 Misfire Detected                              |
| P0311 | Cylinder 11 Misfire Detected                              |
| P0312 | Cylinder 12 Misfire Detected                              |
| P0313 | Misfire Detected Low Fuel Level                           |
| P0314 | Misfire Detected Cyl. not Specific                        |
| P0315 | Crankshaft Position System Variation Not Learned          |
| P0316 | Misfire Detected 1st 1000 Revs.                           |
| P0317 | Rough Road Hardware Not Present                           |
| P0318 | Rough Road Sensor A Signal Circuit                        |
| P0319 | Rough Road Sensor B                                       |
| P0320 | Ignition/Dist Engine Speed Input Circuit Malfunction      |
| P0321 | Ignition/Dist Engine Speed Input CKT Range/Performance    |
| P0322 | Ignition/Dist Engine Speed Input Circuit No Signal        |
| P0323 | Ignition/Dist Engine Speed Input CKT Intermittent         |
| P0324 | Knock Control System Malfunction                          |
| P0325 | Knock Sensor 1 Circuit Malfunction Bank 1 or 1 Sensor     |
| P0326 | Knock Sensor 1 CKT Range/Performance Bank 1 or 1 Sensor   |
| P0327 | Knock Sensor 1 Circuit Low Input Bank 1 or 1 Sensor       |
| P0328 | Knock Sensor 1 Circuit High Input Bank 1 or 1 Sensor      |
| P0329 | Knock Sensor 1 CKT Intermittent Bank 1 or 1 Sensor        |
| P0330 | Knock Sensor 2 Circuit Malfunction (Bank 2)               |
| P0331 | Knock Sensor 2 CKT Range/Performance (Bank 2)             |
| P0332 | Knock Sensor 2 Circuit Low Input (Bank 2)                 |
| P0333 | Knock Sensor 2 Circuit High Input (Bank 2)                |
| P0334 | Knock Sensor 2 CKT Intermittent (Bank 2)                  |
| P0335 | Crankshaft Position Sensor A Circuit Malfunction          |
| P0336 | Crankshaft Position Sensor A CKT Range/Performance        |
| P0337 | Crankshaft Position Sensor A Circuit Low Input            |
| P0338 | Crankshaft Position Sensor A Circuit High Input           |
| P0339 | Crankshaft Position Sensor A CKT Intermittent             |
| P0340 | Camshaft Position Sensor A - Bank 1 Circuit Malfunction   |
| P0341 | Camshaft Position Sensor A - Bank 1 CKT Range/Performance |
| P0342 | Camshaft Position Sensor A - Bank 1 Circuit Low Input     |
| P0343 | Camshaft Position Sensor A - Bank 1 Circuit High Input    |
| P0344 | Camshaft Position Sensor A - Bank 1 CKT Intermittent      |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0345 | Camshaft Position Sensor A - Bank 2 Circuit Malfunction   |
| P0346 | Camshaft Position Sensor A - Bank 2 CKT Range/Performance |
| P0347 | Camshaft Position Sensor A - Bank 2 Circuit Low Input     |
| P0348 | Camshaft Position Sensor A - Bank 2 Circuit High Input    |
| P0349 | Camshaft Position Sensor A - Bank 2 CKT Intermittent      |
| P0350 | Ignition Coil Primary/Secondary Circuit Malfunction       |
| P0351 | Ignition Coil A Primary/Secondary Circuit Malfunction     |
| P0352 | Ignition Coil B Primary/Secondary Circuit Malfunction     |
| P0353 | Ignition Coil C Primary/Secondary Circuit Malfunction     |
| P0354 | Ignition Coil D Primary/Secondary Circuit Malfunction     |
| P0355 | Ignition Coil E Primary/Secondary Circuit Malfunction     |
| P0356 | Ignition Coil F Primary/Secondary Circuit Malfunction     |
| P0357 | Ignition Coil G Primary/Secondary Circuit Malfunction     |
| P0358 | Ignition Coil H Primary/Secondary Circuit Malfunction     |
| P0359 | Ignition Coil I Primary/Secondary Circuit Malfunction     |
| P0360 | Ignition Coil J Primary/Secondary Circuit Malfunction     |
| P0361 | Ignition Coil K Primary/Secondary Circuit Malfunction     |
| P0362 | Ignition Coil L Primary/Secondary Circuit Malfunction     |
| P0363 | Misfire Detected Fueling Disabled                         |
| P0365 | Camshaft Position Sensor B - Bank 1 Circuit Malfunction   |
| P0366 | Camshaft Position Sensor B - Bank 1 CKT Range/Performance |
| P0367 | Camshaft Position Sensor B - Bank 1 Circuit Low Input     |
| P0368 | Camshaft Position Sensor B - Bank 1 Circuit High Input    |
| P0369 | Camshaft Position Sensor B - Bank 1 CKT Intermittent      |
| P0370 | Timing Reference High Resolution Signal A Malfunction     |
| P0371 | Timing Reference High Resolution Signal A Too Many Pulses |
| P0372 | Timing Reference High Resolution Signal A Too Few Pulses  |
| P0373 | Timing Reference High Resolution Signal A Erratic Pulses  |
| P0374 | Timing Reference High Resolution Signal A No Pulses       |
| P0375 | Timing Reference High Resolution Signal B Malfunction     |
| P0376 | Timing Reference High Resolution Signal B Too Many Pulses |
| P0377 | Timing Reference High Resolution Signal B Too Few Pulses  |
| P0378 | Timing Reference High Resolution Signal B Erratic Pulses  |
| P0379 | Timing Reference High Resolution Signal B No Pulses       |
| P0380 | Glow Plug/Heater CKT A Malfunction                        |
| P0381 | Glow Plug/Heater Indicator Circuit Malfunction            |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0382 | Glow Plug/Heater CKT B Malfunction                        |
| P0383 | Glow Plug Module Control Circuit Low                      |
| P0384 | Glow Plug Module Control Circuit High                     |
| P0385 | Crankshaft Position Sensor B Circuit Malfunction          |
| P0386 | Crankshaft Position Sensor B CKT Range/Performance        |
| P0387 | Crankshaft Position Sensor B Circuit Low Input            |
| P0388 | Crankshaft Position Sensor B Circuit High Input           |
| P0389 | Crankshaft Position Sensor B CKT Intermittent             |
| P0390 | Camshaft Position Sensor B - Bank 2 Circuit Malfunction   |
| P0391 | Camshaft Position Sensor B - Bank 2 CKT Range/Performance |
| P0392 | Camshaft Position Sensor B - Bank 2 Circuit Low Input     |
| P0393 | Camshaft Position Sensor B - Bank 2 Circuit High Input    |
| P0394 | Camshaft Position Sensor B - Bank 2 CKT Intermittent      |
| P0400 | EGR Flow Malfunction                                      |
| P0401 | EGR Flow Insufficient                                     |
| P0402 | EGR Flow Excessive  |
| P0403 | EGR Flow Circuit Malfunction                              |
| P0404 | EGR Flow CKT Range/Performance                            |
| P0405 | EGR Flow Sensor A Circuit Low Input                       |
| P0406 | EGR Flow Sensor A Circuit High Input                      |
| P0407 | EGR Flow Sensor B Circuit Low Input                       |
| P0408 | EGR Flow Sensor B Circuit High Input                      |
| P0409 | EGR Flow Sensor A Circuit                                 |
| P0410 | Secondary Air Injection System Malfunction                |
| P0411 | Secondary Air Injection System Incorrect Flow             |
| P0412 | Secondary Air Injection System Valve A Malfunction        |
| P0413 | Secondary Air Injection System Valve A CKT Open           |
| P0414 | Secondary Air Injection System Valve A CKT Short          |
| P0415 | Secondary Air Injection System Valve B Malfunction        |
| P0416 | Secondary Air Injection System Valve B CKT Open           |
| P0417 | Secondary Air Injection System Valve B CKT Short          |
| P0418 | Secondary Air Injection System Relay A Malfunction        |
| P0419 | Secondary Air Injection System Relay B Malfunction        |
| P0420 | Catalyst Efficiency Below Threshold (Bank 1)              |
| P0421 | Warm Up Catalyst Below Threshold (Bank 1)                 |
| P0422 | Main Catalyst Below Threshold (Bank 1)                    |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0423 | Heated Catalyst Below Threshold (Bank 1)             |
| P0424 | Heated Catalyst Temp Below Threshold (Bank 1)        |
| P0425 | Catalyst Temp. Sensor (Bank 1 Sensor 1)              |
| P0426 | Catalyst Temp. Sensor Performance (Bank 1 Sensor 1)  |
| P0427 | Catalyst Temp. Sensor Circuit Low (Bank 1 Sensor 1)  |
| P0428 | Catalyst Temp. Sensor Circuit High (Bank 1 Sensor 1) |
| P0429 | Catalyst Heater Control (Bank 1)                     |
| P0430 | Catalyst Efficiency Below Threshold (Bank 2)         |
| P0431 | Warm Up Catalyst Below Threshold (Bank 2)            |
| P0432 | Main Catalyst Below Threshold (Bank 2)               |
| P0433 | Heated Catalyst Below Threshold (Bank 2)             |
| P0434 | Heated Catalyst Temp Below Threshold (Bank 2)        |
| P0435 | Catalyst Temp. Sensor (Bank 2 Sensor 1)              |
| P0436 | Catalyst Temp. Sensor Performance (Bank 2 Sensor 1)  |
| P0437 | Catalyst Temp. Sensor Circuit Low (Bank 2 Sensor 1)  |
| P0438 | Catalyst Temp. Sensor Circuit High (Bank 2 Sensor 1) |
| P0439 | Catalyst Heater Control (Bank 2)                     |
| P0440 | EVAP Emission Control System Malfunction             |
| P0441 | EVAP Emission Control System Purge Flow Fault        |
| P0442 | EVAP Emission Control System Leak (Small)            |
| P0443 | EVAP Emission Control System Purge Valve C Fault     |
| P0444 | EVAP Emission Control System Purge Valve C Open      |
| P0445 | EVAP Emission Control System Purge Valve C Short     |
| P0446 | EVAP Emission Control System Vent Circuit Malf       |
| P0447 | EVAP Emission Control System Vent Circuit Open       |
| P0448 | EVAP Emission Control System Vent Circuit Short      |
| P0449 | EVAP Emission Control System Vent Vlv/Sol Malf       |
| P0450 | EVAP Emission Control System Pres Sensor Fault       |
| P0451 | EVAP Emission Control System Pres Sensor Range       |
| P0452 | EVAP Emission Control System Pres Sensor Low         |
| P0453 | EVAP Emission Control System Pres Sensor High        |
| P0454 | EVAP Emission Control System Pres Sensor Erratic     |
| P0455 | EVAP Emission Control System Leak (Large)            |
| P0456 | EVAP Emission Control System Leak Very Small         |
| P0457 | EVAP Emission Control System Leak Cap Loose/Off      |
| P0458 | EVAP System Canister Purge Sol Circuit Low           |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0459 | EVAP System Canister Purge Sol Circuit High           |
| P0460 | Fuel Level Sensor A Circuit Malfunction               |
| P0461 | Fuel Level Sensor A CKT Range/Performance             |
| P0462 | Fuel Level Sensor A Circuit Low Input                 |
| P0463 | Fuel Level Sensor A Circuit High Input                |
| P0464 | Fuel Level Sensor A CKT Intermittent                  |
| P0465 | EVAP Emission Purge Flow Sensor Circuit Malfunction   |
| P0466 | EVAP Emission Purge Flow Sensor CKT Range/Performance |
| P0467 | EVAP Emission Purge Flow Sensor Circuit Low Input     |
| P0468 | EVAP Emission Purge Flow Sensor Circuit High Input    |
| P0469 | EVAP Emission Purge Flow Sensor CKT Intermittent      |
| P0470 | Exhaust Pressure Sensor Circuit Malfunction           |
| P0471 | Exhaust Pressure Sensor CKT Range/Performance         |
| P0472 | Exhaust Pressure Sensor Circuit Low Input             |
| P0473 | Exhaust Pressure Sensor Circuit High Input            |
| P0474 | Exhaust Pressure Sensor CKT Intermittent              |
| P0475 | Exhaust Pressure Control Valve Circuit Malfunction    |
| P0476 | Exhaust Pressure Control Valve CKT Range/Performance  |
| P0477 | Exhaust Pressure Control Valve Circuit Low Input      |
| P0478 | Exhaust Pressure Control Valve Circuit High Input     |
| P0479 | Exhaust Pressure Control Valve CKT Intermittent       |
| P0480 | Cooling Fan 1 Control Circuit                         |
| P0481 | Cooling Fan 2 Control Circuit                         |
| P0482 | Cooling Fan 3 Control Circuit                         |
| P0483 | Control Fan Rationality Check Malfunction             |
| P0484 | Control Fan CKT Over Current                          |
| P0485 | Control Fan Power/Ground Circuit Malfunction          |
| P0486 | EGR System Sensor B Circuit                           |
| P0487 | EGR TPS Control Circuit                               |
| P0488 | EGR TPS Control CKT Range/Performance                 |
| P0489 | EGR Control Circuit Low                               |
| P0490 | EGR Control Circuit High                              |
| P0491 | Secondary Air System (Bank 1)                         |
| P0492 | Secondary Air System (Bank 2)                         |
| P0493 | Fan Speed Overspeed                                   |
| P0494 | Fan Speed Low   |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0495 | Fan Speed High  |
| P0496 | EVAP Emission High Purge Flow Fault                   |
| P0497 | EVAP Emission Low Purge Flow Fault                    |
| P0498 | EVAP Emission Vent Vlv/Sol Malf Circuit Low           |
| P0499 | EVAP Emission Vent Vlv/Sol Malf Circuit High          |
| P0500 | Vehicle Speed Sensor A Malfunction                    |
| P0501 | Vehicle Speed Sensor A Range/Performance              |
| P0502 | Vehicle Speed Sensor A Circuit Low Input              |
| P0503 | Vehicle Speed Sensor A Erratic/High                   |
| P0504 | Brake Switch A Brake Switch B Correlation             |
| P0505 | Idle Control System Malfunction                       |
| P0506 | Idle Control System RPM Low                           |
| P0507 | Idle Control System RPM High                          |
| P0508 | Idle Control System Circuit Low                       |
| P0509 | Idle Control System Circuit High                      |
| P0510 | Closed Throttle Position Switch                       |
| P0511 | Idle Air Control Circuit                              |
| P0512 | Starter Signal Circuit                                |
| P0513 | Immobilizer Incorrect                                 |
| P0514 | Battery Temperature Sensor CKT Range/Performance      |
| P0515 | Battery Temperature Sensor Circuit                    |
| P0516 | Battery Temperature Circuit Low                       |
| P0517 | Battery Temperature Circuit High                      |
| P0518 | Idle Air Control CKT Intermittent                     |
| P0519 | Idle Air Control System Performance                   |
| P0520 | Engine Oil Pressure Sensor/Switch Circuit Malfunction |
| P0521 | Engine Oil Pressure Sensor/Switch Range/Performance   |
| P0522 | Engine Oil Pressure Sensor/Switch Low Voltage         |
| P0523 | Engine Oil Pressure Sensor/Switch High Voltage        |
| P0524 | Engine Oil Pressure Too Low                           |
| P0525 | Cruise Servo CKT Range/Performance                    |
| P0526 | Fan Speed Sensor Circuit                              |
| P0527 | Fan Speed Sensor CKT Range/Performance                |
| P0528 | Fan Speed Sensor Circuit No Signal                    |
| P0529 | Fan Speed Sensor CKT Intermittent                     |
| P0530 | A/C Refrigerant Pressure Sensor A Circuit Malfunction |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0531 | A/C Refrigerant Pressure Sensor A CKT Range/Performance |
| P0532 | A/C Refrigerant Pressure Sensor A Circuit Low Input     |
| P0533 | A/C Refrigerant Pressure Sensor A Circuit High Input    |
| P0534 | A/C Refrigerant Charge Loss                             |
| P0535 | A/C Evaporator Temperature Sensor Circuit               |
| P0536 | A/C Evaporator Temperature Sensor CKT Range/Performance |
| P0537 | A/C Evaporator Temperature Sensor Circuit Low           |
| P0538 | A/C Evaporator Temperature Sensor Circuit High          |
| P0539 | A/C Evaporator Temperature Sensor CKT Intermittent      |
| P0540 | Intake Air Heater A Circuit                             |
| P0541 | Intake Air Heater A Circuit Low                         |
| P0542 | Intake Air Heater A Circuit High                        |
| P0543 | Intake Air Heater A Circuit Open                        |
| P0544 | Exhaust Gas Temp. Sensor Circuit (Bank 1 Sensor 1)      |
| P0545 | Exhaust Gas Temp. Sensor Circuit Low (Bank 1 Sensor 1)  |
| P0546 | Exhaust Gas Temp. Sensor Circuit High (Bank 1 Sensor 1) |
| P0547 | Exhaust Gas Temp. Sensor Circuit (Bank 2 Sensor 1)      |
| P0548 | Exhaust Gas Temp. Sensor Circuit Low (Bank 2 Sensor 1)  |
| P0549 | Exhaust Gas Temp. Sensor Circuit High (Bank 2 Sensor 1) |
| P0550 | Power Steering Pres Sensor Circuit Malfunction          |
| P0551 | Power Steering Pres Sensor CKT Range/Performance        |
| P0552 | Power Steering Pres Sensor Circuit Low Input            |
| P0553 | Power Steering Pres Sensor Circuit High Input           |
| P0554 | Power Steering Pres Sensor CKT Intermittent             |
| P0555 | Brake Booster Pressure Sensor Circuit                   |
| P0556 | Brake Booster Pressure Sensor CKT Range/Performance     |
| P0557 | Brake Booster Pressure Sensor Circuit Low Input         |
| P0558 | Brake Booster Pressure Sensor Circuit High Input        |
| P0559 | Brake Booster Pressure Sensor CKT Intermittent          |
| P0560 | System Voltage Malfunction                              |
| P0561 | System Voltage Unstable                                 |
| P0562 | System Voltage Low                                      |
| P0563 | System Voltage High                                     |
| P0564 | Cruise Control Multi-Function. Input A Signal Error     |
| P0565 | Cruise Control On Signal Malfunction                    |
| P0566 | Cruise Control Off Signal Malfunction                   |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0567 | Cruise Control Resume Signal Malfunction                    |
| P0568 | Cruise Control Set Signal Malfunction                       |
| P0569 | Cruise Control Coast Signal Malfunction                     |
| P0570 | Cruise Control Acceleration Signal Error                    |
| P0571 | Brake Switch A Circuit Malfunction                          |
| P0572 | Brake Switch A Circuit Low Input                            |
| P0573 | Brake Switch A Circuit High Input                           |
| P0574 | Cruise Control Vehicle Speed Too High                       |
| P0575 | Cruise Control Circuit Malfunction                          |
| P0576 | Cruise Control Circuit Low Input                            |
| P0577 | Cruise Control Circuit High Input                           |
| P0578 | Cruise Control Multi-Function Input A Circuit Stuck         |
| P0579 | Cruise Control Multi-Function Input A CKT Range/Performance |
| P0580 | Cruise Control Multi-Function Input A Circuit Low           |
| P0581 | Cruise Control Multi-Function Input A Circuit High          |
| P0582 | Cruise Control Vacuum Control Circuit Open                  |
| P0583 | Cruise Control Vacuum Control Circuit Low                   |
| P0584 | Cruise Control Vacuum Control Circuit High                  |
| P0585 | Cruise Control Multi-Function Input Correlation             |
| P0586 | Cruise Control Vent Control Circuit Open                    |
| P0587 | Cruise Control Vent Control Circuit Low                     |
| P0588 | Cruise Control Vent Control Circuit High                    |
| P0589 | Cruise Control Multi-Function Input B Circuit               |
| P0590 | Cruise Control Multi-Function Input B Circuit Stuck         |
| P0591 | Cruise Control Multi-Function Input B CKT Range/Performance |
| P0592 | Cruise Control Multi-Function Input B Circuit Low           |
| P0593 | Cruise Control Multi-Function Input B Circuit High          |
| P0594 | Cruise Control Servo Control Circuit Open                   |
| P0595 | Cruise Control Servo Control Circuit Low                    |
| P0596 | Cruise Control Servo Control Circuit High                   |
| P0597 | Cruise Control Circuit Open                                 |
| P0598 | Cruise Control Circuit Low                                  |
| P0599 | Cruise Control Circuit High                                 |
| P0600 | Serial Communication Link Malfunction                       |
| P0601 | Internal Control Module Memory Check Sum Error              |
| P0602 | Control Module Programming Error                            |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0603 | PCM Keep Alive Memory (KAM) Error            |
| P0604 | PCM Random Access Memory (RAM) Error         |
| P0605 | PCM Read Only Memory (ROM) Error             |
| P0606 | PCM Processor Fault                          |
| P0607 | Control Module Performance                   |
| P0608 | Control Module VSS Output A Malfunction      |
| P0609 | Control Module VSS Output B Malfunction      |
| P0610 | Control Module Vehicle Options Malfunction   |
| P0611 | Injector Control Module Performance          |
| P0612 | Injector Control Module Relay Control        |
| P0613 | TCM Processor Fault                          |
| P0614 | ECM/TCM Incompatible                         |
| P0615 | Starter Relay Circuit                        |
| P0616 | Starter Relay Circuit Low                    |
| P0617 | Starter Relay Circuit High                   |
| P0618 | Alternative Fuel Module (KAM) Error          |
| P0619 | Alternative Fuel Module Memory               |
| P0620 | Generator Control Malfunction                |
| P0621 | Generator L-Term. Lamp Control               |
| P0622 | Generator F-Term. Field F Control            |
| P0623 | Generator Lamp Control Circuit               |
| P0624 | Fuel Cap Lamp Circuit                        |
| P0625 | Generator F-Term. Circuit Low                |
| P0626 | Generator F-Term. Circuit High               |
| P0627 | Fuel Pump A Control Circuit Open             |
| P0628 | Fuel Pump A Control Circuit Low              |
| P0629 | Fuel Pump A Control Circuit High             |
| P0630 | PCM VIN Not Program. Or Mismatch             |
| P0631 | TCM VIN Not Program. Or Mismatch             |
| P0632 | Odometer Code Not Programmed ECM/PCM         |
| P0633 | Immobilizer Code Not Programmed ECM/PCM      |
| P0634 | PCM/ECM/TCM Internal Temp. Too High          |
| P0635 | Power Steering Control Circuit               |
| P0636 | Power Steering Control Circuit Low           |
| P0637 | Power Steering Control Circuit High          |
| P0638 | Throttle Actuator Range/Performance (Bank 1) |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0639 | Throttle Actuator Range/Performance (Bank 2)        |
| P0640 | Intake Air Heater Control Circuit                   |
| P0641 | Sensor A Reference Voltage Circuit Open             |
| P0642 | Sensor A Reference Voltage Circuit Low              |
| P0643 | Sensor A Reference Voltage Circuit High             |
| P0644 | Driver Display Serial Communication Link            |
| P0645 | A/C Clutch Relay Control Circuit                    |
| P0646 | A/C Clutch Relay Control Circuit Low                |
| P0647 | A/C Clutch Relay Control Circuit High               |
| P0648 | Immobilizer Lamp Circuit                            |
| P0649 | Cruise Control Lamp Circuit                         |
| P0650 | MIL Control Circuit Malfunction                     |
| P0651 | Sensor B Reference Voltage Circuit Open             |
| P0652 | Sensor B Reference Voltage Circuit Low              |
| P0653 | Sensor B Reference Voltage Circuit High             |
| P0654 | Engine RPM Circuit Malfunction                      |
| P0655 | Engine Hot Lamp Output Circuit Malfunction          |
| P0656 | Fuel Level Output Circuit Malfunction               |
| P0657 | Actuator Supply Voltage A Circuit Open              |
| P0658 | Actuator Supply Voltage A Circuit Low               |
| P0659 | Actuator Supply Voltage A Circuit High              |
| P0660 | Intake Man Tuning Control CKT Open (Bank 1)         |
| P0661 | Intake Man Tuning Control CKT Low (Bank 1)          |
| P0662 | Intake Man Tuning Control CKT High (Bank 1)         |
| P0663 | Intake Man Tuning Control CKT Open (Bank 2)         |
| P0664 | Intake Man Tuning Control CKT Low (Bank 2)          |
| P0665 | Intake Man Tuning Control CKT High (Bank 2)         |
| P0666 | PCM/ECM/TCM Internal Temp. Sensor Circuit           |
| P0667 | PCM/ECM/TCM Internal Temp. Sensor Range/Performance |
| P0668 | PCM/ECM/TCM Internal Temp. Sensor Circuit Low       |
| P0669 | PCM/ECM/TCM Internal Temp. Sensor Circuit High      |
| P0670 | Glow Plug/Heater Module Control                     |
| P0671 | Glow Plug/Heater Cylinder 1                         |
| P0672 | Glow Plug/Heater Cylinder 2                         |
| P0673 | Glow Plug/Heater Cylinder 3                         |
| P0674 | Glow Plug/Heater Cylinder 4                         |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0675 | Glow Plug/Heater Cylinder 5                                  |
| P0676 | Glow Plug/Heater Cylinder 6                                  |
| P0677 | Glow Plug/Heater Cylinder 7                                  |
| P0678 | Glow Plug/Heater Cylinder 8                                  |
| P0679 | Glow Plug/Heater Cylinder 9                                  |
| P0680 | Glow Plug/Heater Cylinder 10                                 |
| P0681 | Glow Plug/Heater Cylinder 11                                 |
| P0682 | Glow Plug/Heater Cylinder 12                                 |
| P0683 | Glow Plug/Heater Module Communication Problem                |
| P0684 | Glow Plug/Heater Communication Problem CKT Range/Performance |
| P0685 | ECM/PCM Power Relay Control Circuit Open                     |
| P0686 | ECM/PCM Power Relay Control Circuit Low                      |
| P0687 | ECM/PCM Power Relay Control Circuit High                     |
| P0688 | ECM/PCM Power Relay Sense Circuit Open                       |
| P0689 | ECM/PCM Power Relay Sense Circuit Low                        |
| P0690 | ECM/PCM Power Relay Sense Circuit High                       |
| P0691 | Fan 1 Control Circuit Low                                    |
| P0692 | Fan 1 Control Circuit High                                   |
| P0693 | Fan 2 Control Circuit Low                                    |
| P0694 | Fan 2 Control Circuit High                                   |
| P0695 | Fan 3 Control Circuit Low                                    |
| P0696 | Fan 3 Control Circuit High                                   |
| P0697 | Sensor C Reference Voltage Circuit Open                      |
| P0698 | Sensor C Reference Voltage Circuit Low                       |
| P0699 | Sensor C Reference Voltage Circuit High                      |
| P0700 | Trans Control Sys Malfunction                                |
| P0701 | Trans Control Sys Range/Performance                          |
| P0702 | Trans Control Sys Electrical                                 |
| P0703 | Brake Switch B Circuit Malfunction                           |
| P0704 | Clutch Switch Input Circuit Malfunction                      |
| P0705 | Trans Range Sensor Circuit Malfunction (PRNDL Input)         |
| P0706 | Trans Range Sensor CKT Range/Performance                     |
| P0707 | Trans Range Sensor Circuit Low Input                         |
| P0708 | Trans Range Sensor Circuit High Input                        |
| P0709 | Trans Range Sensor CKT Intermittent                          |
| P0710 | Transmission Fluid Temperature Sensor Circuit Malfunction    |

## OBDII Generic DTC Definitions

|       |  |
|-------|--|
| P0711 | Trans Fluid Temp Sensor A CKT Range/Performance    |
| P0712 | Trans Fluid Temp Sensor A Circuit Low Input        |
| P0713 | Trans Fluid Temp Sensor A Circuit High Input       |
| P0714 | Trans Fluid Temp Sensor A CKT Intermittent         |
| P0715 | Input/Turbine Speed Sensor A Circuit Malfunction   |
| P0716 | Input/Turbine Speed Sensor A CKT Range/Performance |
| P0717 | Input/Turbine Speed Sensor A Circuit No Signal     |
| P0718 | Input/Turbine Speed Sensor A CKT Intermittent      |
| P0719 | Brake Switch B Circuit Low Input                   |
| P0720 | Output Speed Sensor Circuit Malfunction            |
| P0721 | Output Speed Sensor Circuit Range/Performance      |
| P0722 | Output Speed Sensor Circuit No Signal              |
| P0723 | Output Speed Sensor CKT Intermittent               |
| P0724 | Brake Switch B Circuit High Input                  |
| P0725 | Engine Speed Sensor Circuit Malfunction            |
| P0726 | Engine Speed Sensor CKT Range/Performance          |
| P0727 | Engine Speed Sensor Circuit No Signal              |
| P0728 | Engine Speed Sensor CKT Intermittent               |
| P0729 | Gear 6 Ratio Incorrect                             |
| P0730 | Gear Ratio Incorrect                               |
| P0731 | Gear 1 Ratio Incorrect                             |
| P0732 | Gear 2 Ratio Incorrect                             |
| P0733 | Gear 3 Ratio Incorrect                             |
| P0734 | Gear 4 Ratio Incorrect                             |
| P0735 | Gear 5 Ratio Incorrect                             |
| P0736 | Reverse Ratio Incorrect                            |
| P0737 | TCM Engine Speed Output Circuit                    |
| P0738 | TCM Engine Speed Output Circuit Low                |
| P0739 | TCM Engine Speed Output Circuit High               |
| P0740 | TCC Circuit Malfunction                            |
| P0741 | Torque Converter CKT Performance Or Stuck Off      |
| P0742 | Torque Converter Circuit Stuck On                  |
| P0743 | Torque Converter Circuit Electrical                |
| P0744 | Torque Converter CKT Intermittent                  |
| P0745 | Pres Control Sol. A Circuit Malfunction            |
| P0746 | Pres Control Sol. A CKT Performance Or Stuck Off   |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0747 | Pres Control Sol. A Circuit Stuck On          |
| P0748 | Pres Control Sol. A Circuit Electrical        |
| P0749 | Pres Control Sol. A CKT Intermittent          |
| P0750 | Shift Solenoid A Malfunction                  |
| P0751 | Shift Solenoid A CKT Performance Or Stuck Off |
| P0752 | Shift Solenoid A Circuit Stuck On             |
| P0753 | Shift Solenoid A Circuit Electrical           |
| P0754 | Shift Solenoid A CKT Intermittent             |
| P0755 | Shift Solenoid B Malfunction                  |
| P0756 | Shift Solenoid B CKT Performance Or Stuck Off |
| P0757 | Shift Solenoid B Circuit Stuck On             |
| P0758 | Shift Solenoid B Circuit Electrical           |
| P0759 | Shift Solenoid B CKT Intermittent             |
| P0760 | Shift Solenoid C Malfunction                  |
| P0761 | Shift Solenoid C CKT Performance Or Stuck Off |
| P0762 | Shift Solenoid C Circuit Stuck On             |
| P0763 | Shift Solenoid C Circuit Electrical           |
| P0764 | Shift Solenoid C CKT Intermittent             |
| P0765 | Shift Solenoid D Malfunction                  |
| P0766 | Shift Solenoid D CKT Performance Or Stuck Off |
| P0767 | Shift Solenoid D Circuit Stuck On             |
| P0768 | Shift Solenoid D Circuit Electrical           |
| P0769 | Shift Solenoid D CKT Intermittent             |
| P0770 | Shift Solenoid E Malfunction                  |
| P0771 | Shift Solenoid E CKT Performance Or Stuck Off |
| P0772 | Shift Solenoid E Circuit Stuck On             |
| P0773 | Shift Solenoid E Circuit Electrical           |
| P0774 | Shift Solenoid E CKT Intermittent             |
| P0775 | Pres Ctrl Sol. B Circuit Malfunction          |
| P0776 | Pres Ctrl Sol. B CKT Performance Or Stuck Off |
| P0777 | Pres Ctrl Sol. B Circuit Stuck On             |
| P0778 | Pres Ctrl Sol. B Circuit Electrical           |
| P0779 | Pres Ctrl Sol. B CKT Intermittent             |
| P0780 | Shift Malfunction                             |
| P0781 | 1-2 Shift Malfunction                         |
| P0782 | 2-3 Shift Malfunction                         |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0783 | 3-4 Shift Malfunction                                       |
| P0784 | 4-5 Shift Malfunction                                       |
| P0785 | Shift/Timing Solenoid Malfunction                           |
| P0786 | Shift/Timing Solenoid Range/Performance                     |
| P0787 | Shift/Timing Solenoid Low                                   |
| P0788 | Shift/Timing Solenoid High                                  |
| P0789 | Shift/Timing Solenoid Intermittent Ckt                      |
| P0790 | Normal/Performance Switch Circuit Malfunction               |
| P0791 | Intermediate Shaft Speed Sensor A Circuit                   |
| P0792 | Intermediate Shaft Speed Sensor A Circuit Range/Performance |
| P0793 | Intermediate Shaft Speed Sensor A Circuit No Signal         |
| P0794 | Intermediate Shaft Speed Sensor A CKT Intermittent          |
| P0795 | Pres Ctrl Sol. C Malfunction                                |
| P0796 | Pres Ctrl Sol. C CKT Performance Or Stuck Off               |
| P0797 | Pres Ctrl Sol. C Circuit Stuck On                           |
| P0798 | Pres Ctrl Sol. C Circuit Electrical                         |
| P0799 | Pres Ctrl Sol. C CKT Intermittent                           |
| P0800 | Transfer Case Control System MIL Request                    |
| P0801 | Reverse Inhibit Control Circuit Malfunction                 |
| P0802 | Trans Control Sys MIL Request Circuit Open                  |
| P0803 | 1-4 Upshift (Skip Shift) Solenoid Circuit Malfunction       |
| P0804 | 1-4 Upshift (Skip Shift) Lamp Circuit Malfunction           |
| P0805 | Clutch Position Sensor Circuit Malfunction                  |
| P0806 | Clutch Position Sensor Circuit Range/Performance            |
| P0807 | Clutch Position Sensor Circuit Low                          |
| P0808 | Clutch Position Sensor Circuit High                         |
| P0809 | Clutch Position Sensor Circuit Intermittent Ckt             |
| P0810 | Clutch Position Control Malfunction                         |
| P0811 | Clutch Slippage Excessive                                   |
| P0812 | Reverse Input Circuit Malfunction                           |
| P0813 | Reverse Output Circuit Malfunction                          |
| P0814 | Trans Range Display Circuit Malfunction                     |
| P0815 | Upshift Switch Circuit Malfunction                          |
| P0816 | Downshift Switch Circuit Malfunction                        |
| P0817 | Starter Disable Circuit                                     |
| P0818 | Driveline Disconnect. Switch Input                          |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0819 | Up/Down Shift SW Transmission Range Correlation         |
| P0820 | Gear Lever X-Y Sensor Circuit                           |
| P0821 | Gear Lever X Sensor Circuit                             |
| P0822 | Gear Lever Y Sensor Circuit                             |
| P0823 | Gear Lever X Sensor Circuit Intermittent Ckt            |
| P0824 | Gear Lever Y Sensor Circuit Intermittent Ckt            |
| P0825 | Gear Lever Push/Pull Switch (Shift Anticipate)          |
| P0826 | Upshift Switch Downshift Switch Circuit                 |
| P0827 | Upshift Switch Downshift Switch Circuit Low             |
| P0828 | Upshift Switch Downshift Switch Circuit High            |
| P0829 | 5-6 Shift   |
| P0830 | Clutch Position Switch A Circuit Malfunction            |
| P0831 | Clutch Position Switch A Circuit Low                    |
| P0832 | Clutch Position Switch A Circuit High                   |
| P0833 | Clutch Position Switch B Circuit Malfunction            |
| P0834 | Clutch Position Switch B Circuit Low                    |
| P0835 | Clutch Position Switch B Circuit High                   |
| P0836 | 4 Wheel Drive Switch Circuit Malfunction                |
| P0837 | 4 Wheel Drive Switch CKT Range/Performance              |
| P0838 | 4 Wheel Drive Switch Circuit Low                        |
| P0839 | 4 Wheel Drive Switch Circuit High                       |
| P0840 | Trans Fluid Press Sensor/Switch A Circuit Malfunction   |
| P0841 | Trans Fluid Press Sensor/Switch A CKT Range/Performance |
| P0842 | Trans Fluid Press Sensor/Switch A Circuit Low           |
| P0843 | Trans Fluid Press Sensor/Switch A Circuit High          |
| P0844 | Trans Fluid Press Sensor/Switch A CKT Intermittent      |
| P0845 | Trans Fluid Press Sensor/Switch B Circuit Malfunction   |
| P0846 | Trans Fluid Press Sensor/Switch B CKT Range/Performance |
| P0847 | Trans Fluid Press Sensor/Switch B Circuit Low           |
| P0848 | Trans Fluid Press Sensor/Switch B Circuit High          |
| P0849 | Trans Fluid Press Sensor/Switch B CKT Intermittent      |
| P0850 | Park/Neutral Switch Input Circuit                       |
| P0851 | Park/Neutral Switch Circuit Low Input                   |
| P0852 | Park/Neutral Switch Circuit High Input                  |
| P0853 | Drive Switch Input Circuit                              |
| P0854 | Drive Switch Circuit Low Input                          |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0855 | Drive Switch Circuit High Input                         |
| P0856 | Traction Control Input Signal                           |
| P0857 | Traction Control Input Signal Range/Performance         |
| P0858 | Traction Control Input Signal Low                       |
| P0859 | Traction Control Input Signal High                      |
| P0860 | Gear Shift Module Communications Circuit                |
| P0861 | Gear Shift Module Communications Circuit Low            |
| P0862 | Gear Shift Module Communications Circuit High           |
| P0863 | TCM Communications Circuit                              |
| P0864 | TCM Communications CKT Range/Performance                |
| P0865 | TCM Communications Circuit Low                          |
| P0866 | TCM Communications Circuit High                         |
| P0867 | Trans Fluid Press                                       |
| P0868 | Trans Fluid Press Low                                   |
| P0869 | Trans Fluid Press High                                  |
| P0870 | Trans Fluid Press Sensor/Switch C Circuit               |
| P0871 | Trans Fluid Press Sensor/Switch C CKT Range/Performance |
| P0872 | Trans Fluid Press Sensor/Switch C Circuit Low           |
| P0873 | Trans Fluid Press Sensor/Switch C Circuit High          |
| P0874 | Trans Fluid Press Sensor/Switch C CKT Intermittent      |
| P0875 | Trans Fluid Press Sensor/Switch D Circuit               |
| P0876 | Trans Fluid Press Sensor/Switch D CKT Range/Performance |
| P0877 | Trans Fluid Press Sensor/Switch D Circuit Low           |
| P0878 | Trans Fluid Press Sensor/Switch D Circuit High          |
| P0879 | Trans Fluid Press Sensor/Switch D CKT Intermittent      |
| P0880 | TCM Power Input Signal                                  |
| P0881 | TCM Power Input Signal Range/Performance                |
| P0882 | TCM Power Input Signal Low                              |
| P0883 | TCM Power Input Signal High                             |
| P0884 | TCM Power Input Signal CKT Intermittent                 |
| P0885 | TCM Power Relay Control Circuit Open                    |
| P0886 | TCM Power Relay Control Circuit Low                     |
| P0887 | TCM Power Relay Control Circuit High                    |
| P0888 | TCM Power Relay Sense Circuit                           |
| P0889 | TCM Power Relay Sense CKT Range/Performance             |
| P0890 | TCM Power Relay Sense Circuit Low                       |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0891 | TCM Power Relay Sense Circuit High                |
| P0892 | TCM Power Relay Sense CKT Intermittent            |
| P0893 | Multiple Gears Engaged                            |
| P0894 | Transmission Comp. Slipping                       |
| P0895 | Shift Time Too Short                              |
| P0896 | Shift Time Too Long                               |
| P0897 | Transmission Fluid Deteriorated                   |
| P0898 | Transmission Ctrl. MIL Request Circuit Low        |
| P0899 | Transmission Ctrl. MIL Request Circuit High       |
| P0900 | Clutch Actuator Circuit Open                      |
| P0901 | Clutch Actuator CKT Range/Performance             |
| P0902 | Clutch Actuator Circuit Low                       |
| P0903 | Clutch Actuator Circuit High                      |
| P0904 | Gate Select Position Circuit                      |
| P0905 | Gate Select Position CKT Range/Performance        |
| P0906 | Gate Select Position Circuit Low                  |
| P0907 | Gate Select Position Circuit High                 |
| P0908 | Gate Select Position CKT Intermittent             |
| P0909 | Gate Select Control Error                         |
| P0910 | Gate Select Actuator Circuit Open                 |
| P0911 | Gate Select Actuator CKT Range/Performance        |
| P0912 | Gate Select Actuator Circuit Low                  |
| P0913 | Gate Select Actuator Circuit High                 |
| P0914 | Gear Shift Position Circuit                       |
| P0915 | Gear Shift Position CKT Range/Performance         |
| P0916 | Gear Shift Position Circuit Low                   |
| P0917 | Gear Shift Position Circuit High                  |
| P0918 | Gear Shift Position CKT Intermittent              |
| P0919 | Gear Shift Position Control Error                 |
| P0920 | Gear Shift Forward Actuator Circuit Open          |
| P0921 | Gear Shift Forward Actuator CKT Range/Performance |
| P0922 | Gear Shift Forward Actuator Circuit Low           |
| P0923 | Gear Shift Forward Actuator Circuit High          |
| P0924 | Gear Shift Reverse Actuator Circuit Open          |
| P0925 | Gear Shift Reverse Actuator CKT Range/Performance |
| P0926 | Gear Shift Reverse Actuator Circuit Low           |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0927 | Gear Shift Reverse Actuator Circuit High                  |
| P0928 | Gear Shift Lock Solenoid Ctrl Circuit Open                |
| P0929 | Gear Shift Lock Solenoid Ctrl CKT Range/Performance       |
| P0930 | Gear Shift Lock Solenoid Ctrl Circuit Low                 |
| P0931 | Gear Shift Lock Solenoid Ctrl Circuit High                |
| P0932 | Hydraulic Pressure Sensor Circuit                         |
| P0933 | Hydraulic Pressure Sensor CKT Range/Performance           |
| P0934 | Hydraulic Pressure Sensor Circuit Low                     |
| P0935 | Hydraulic Pressure Sensor Circuit High                    |
| P0936 | Hydraulic Pressure Sensor CKT Intermittent                |
| P0937 | Hydraulic Oil Temp Sensor Circuit                         |
| P0938 | Hydraulic Oil Temp Sensor CKT Range/Performance           |
| P0939 | Hydraulic Oil Temp Sensor Circuit Low                     |
| P0940 | Hydraulic Oil Temp Sensor Circuit High                    |
| P0941 | Hydraulic Oil Temp Sensor CKT Intermittent                |
| P0942 | Hyd. Pressure Unit  |
| P0943 | Hyd. Pressure Unit Cycling Too Short                      |
| P0944 | Hyd. Pressure Unit Loss of Pressure                       |
| P0945 | Hyd. Pump Relay Circuit Open                              |
| P0946 | Hyd. Pump Relay CKT Range/Performance                     |
| P0947 | Hyd. Pump Relay Circuit Low                               |
| P0948 | Hyd. Pump Relay Circuit High                              |
| P0949 | Auto Shift Adaptive Learning Not Complete                 |
| P0950 | Auto Shift Manual Control Circuit                         |
| P0951 | Auto Shift Manual Control CKT Range/Performance           |
| P0952 | Auto Shift Manual Control Circuit Low                     |
| P0953 | Auto Shift Manual Control Circuit High                    |
| P0954 | Auto Shift Manual Control CKT Intermittent                |
| P0955 | Auto Shift Manual Mode Circuit                            |
| P0956 | Auto Shift Manual Mode CKT Range/Performance              |
| P0957 | Auto Shift Manual Mode Circuit Low                        |
| P0958 | Auto Shift Manual Mode Circuit High                       |
| P0959 | Auto Shift Manual Mode CKT Intermittent                   |
| P0960 | Pressure Control Solenoid A Control Circuit Open          |
| P0961 | Pressure Control Solenoid A Control CKT Range/Performance |
| P0962 | Pressure Control Solenoid A Control Circuit Low           |

## OBDII Generic DTC Definitions

|       |   |
|-------|---|
| P0963 | Pressure Control Solenoid A Control Circuit High          |
| P0964 | Pressure Control Solenoid B Control Circuit Open          |
| P0965 | Pressure Control Solenoid B Control CKT Range/Performance |
| P0966 | Pressure Control Solenoid B Control Circuit Low           |
| P0967 | Pressure Control Solenoid B Control Circuit High          |
| P0968 | Pressure Control Solenoid C Control Circuit Open          |
| P0969 | Pressure Control Solenoid C Control CKT Range/Performance |
| P0970 | Pressure Control Solenoid C Control Circuit Low           |
| P0971 | Pressure Control Solenoid C Control Circuit High          |
| P0972 | Shift Solenoid A Control CKT Range/Performance            |
| P0973 | Shift Solenoid A Control Circuit Low                      |
| P0974 | Shift Solenoid A Control Circuit High                     |
| P0975 | Shift Solenoid B Control CKT Range/Performance            |
| P0976 | Shift Solenoid B Control Circuit Low                      |
| P0977 | Shift Solenoid B Control Circuit High                     |
| P0978 | Shift Solenoid C Control CKT Range/Performance            |
| P0979 | Shift Solenoid C Control Circuit Low                      |
| P0980 | Shift Solenoid C Control Circuit High                     |
| P0981 | Shift Solenoid D Control CKT Range/Performance            |
| P0982 | Shift Solenoid D Control Circuit Low                      |
| P0983 | Shift Solenoid D Control Circuit High                     |
| P0984 | Shift Solenoid E Control CKT Range/Performance            |
| P0985 | Shift Solenoid E Control Circuit Low                      |
| P0986 | Shift Solenoid E Control Circuit High                     |
| P0987 | Trans Fluid Press Sensor/Switch E Circuit                 |
| P0988 | Trans Fluid Press Sensor/Switch E CKT Range/Performance   |
| P0989 | Trans Fluid Press Sensor/Switch E Circuit Low             |
| P0990 | Trans Fluid Press Sensor/Switch E Circuit High            |
| P0991 | Trans Fluid Press Sensor/Switch E CKT Intermittent        |
| P0992 | Trans Fluid Press Sensor/Switch F Circuit                 |
| P0993 | Trans Fluid Press Sensor/Switch F CKT Range/Performance   |
| P0994 | Trans Fluid Press Sensor/Switch F Circuit Low             |
| P0995 | Trans Fluid Press Sensor/Switch F Circuit High            |
| P0996 | Trans Fluid Press Sensor/Switch F CKT Intermittent        |
| P0997 | Shift Solenoid F Control CKT Range/Performance            |
| P0998 | Shift Solenoid F Control Circuit Low                      |
| P0999 | Shift Solenoid F Control Circuit High                     |

## **6. Warranty and Service**

### **6.1 Limited One Year Warranty**

Autel warrants to its customers that this product will be free from all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:

1. The sole responsibility of Autel under the Warranty is limited to either the repair or, at the option of Autel, replacement of the Scan Tool at no charge with Proof of Purchase. The sales receipt may be used for this purpose.
2. This warranty does not apply to damages caused by improper use, accident, flood, lightning, or if the product was altered or repaired by anyone other than the Manufacturer's Service Center.
3. Autel shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the Scan Tool. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

### **6.2 Service Procedures**

If you have any questions, please contact your local store, distributor or visit our website at [www.auteltech.com](http://www.auteltech.com) .

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