

# Without OBD II

On G20 models, the ECU is located behind the center console. On J30, M30 and Q45 models, the ECU is located behind the RH kick panel.

If a malfunction occurs within the ECU/fuel injection system, a diagnostic trouble code may be stored in the ECU and the "Check Engine" lamp will blink. There is also a lamp built into the ECU which will concurrently blink. To read Code output, proceed as follows:

Turn ignition On, but do not start engine.

Using a small screwdriver, turn diagnostic mode selector switch, located on side of ECU, fully clockwise.

Wait two seconds, then rotate switch to full counterclockwise position.

A malfunction code can be read as the long (0.6 second) blink, indicating the first digit of a two digit number and the short (0.3 second) blink, indicating the second digit.

Ensure that the diagnostic switch is to the full counterclockwise position whenever the vehicle is in use.

# w/OBD II

On G20 and I30 models, connect a suitable Scan Tool to the DLC, located under instrument panel fuse box cover.

# **Clearing Codes**

If using a scan tool, follow tool manufacturer's instructions to clear Codes.

A second, though more time consuming method of clearing codes involves using a small screwdriver to turn the diagnostic mode selector switch, located on the side of the ECM/ECU, fully clockwise. After waiting two seconds, rotate the switch to the full counterclockwise position. The diagnosis will end and memory will then be cleared.

# **List of Codes**

# **Pre-OBDII**

11 Crank Angle Sensor

12 Mass Air Flow Sensor

13 ECT Sensor

14 Vehicle Speed Sensor

16 TCS Signal

21 Ignition Signal Circuit

25 Idle Air Control Valve

22 Fuel Pump Control

31 ECM

32 EGR Function

33 Heated Oxygen Sensor

34 Knock Sensor

35 EGR Temperature Sensor (RH)

41 Intake Air Temperature Sensor

42 Fuel Pump Sensor

43 Throttle Position Sensor

45 Injector Leak

46 Secondary Throttle Sensor

51 Injector Analysis

53 Exhaust Gas Sensor (LH)

54 Signal Circuit From A/T Control Unit To

**ECM** 

55 System OK (1990-1995 Q45 only)

65-71 Single Cylinder Or Multiple Cylinder

Misfire

72 Three Way catalyst Function

76 Fuel Injection System Function

77 Rear Heated Oxygen Sensor

82 Crankshaft Position Sensor

84 A/T Diagnosis Communication Line

91 Front Heated Oxygen Sensor Heater

103 Park/Neutral Position Switch

105 EGR & Canister Control Solenoid

#### **OBD2** Codes

P0000 No Self Diagnostic Failure Indicated

P0100 MAF Sensor

P0105 Absolute Pressure Sensor

P0110 IAT Sensor

P0115 ECT Sensor

P0120 TP Sensor

P0125 ECT Sensor

P0130 Closed Loop, Bank 1 Or Front O2S,

Bank 1

P0131 Front O2 Sensor, Bank 1 Lean Shift

Monitoring

P0132 Front O2 Sensor, Bank 1 Rich Shift

Monitoring

P0133 Front O2 Sensor, Bank 1 Response

Monitoring

P0134 Front O2 Sensor, Bank 1 High Voltage

P0135 Front HO2S Heater, Bank 1

P0136 Rear O2S, Bank 1

P0137 Rear O2S, Bank 1 Minimum Voltage

Monitoring

P0138 Rear O2S, Bank 1 Maximum Voltage

Monitoring

P0139 Rear O2S, Bank 1 Response Monitoring

P0140 Rear O2S, Bank 1 High Voltage

P0141 Rear H02S Heater, Bank 1

P0150 Closed Loop, Bank 2 Or Front O2S,

Bank 2

P0151 Front O2 Sensor, Bank 2 Lean Shift

Monitoring

P0152 Front O2 Sensor, Bank 2 Rich Shift

Monitoring

P0153 Front O2 Sensor, Bank 2 Response

Monitoring

P0154 Front O2 Sensor, Bank 2 High Voltage

P0155 Front HO2S Heater, Bank 2

P0156 Rear H02S Sensor, LH Bank

P0157-P0160 Rear O2S, Bank 2

P0161 Rear H02S Heater, LH Bank Or Bank 2

P0171 Fuel System Lean, Bank 1

P0172 Fuel System Rich, Bank 1

P0174 Fuel System Lean, Bank 2

P0175 Fuel System Rich, Bank 2

P0180 Tank Fuel Temp Sensor

P0300 Random Misfire

P0301-P0308 Misfire, Cylinder No. 1-8

P0325 Knock Sensor, Bank 1

P0330 Knock Sensor, Bank 2

P0335 CKP Sensor (Pos)

P0340 CMP

P0400 EGR System

P0402 EGRC/BPT Valve

P0403 EGR Volume Control Valve Circuit

P0420 TW Catalyst System, Bank 1

P0430 TW Catalyst System, Bank 2

P0440 EVAP Small Leak

P0443 Purge Control/V & S/V

P0446 Vent Control Valve

P0450 EVAP Pressure Sensor

P0500 Vehicle Speed Sensor

P0505 IACV/AAC Valve

P0510 Closed TP Sensor

P0600 A/T Comm Line

P0605 ECM/ECU

P0705 PNP Or Inhibitor Switch

P0710 ATF Temp Sensor

P0720 VSS A/T

P0725 Engine Speed Signal

P0731 A/T 1ST Signal

P0732 A/T 2ND Signal

P0733 A/T 3RD Signal

P0734 A/T 4TH Signal Or TCC

P0740 TCC SV Solenoid

P0744 A/T TCC Signal

P0745 Line Pressure S/V

P0750 Shift Solenoid/V A

P0755 Shift Solenoid/V B

P1105 MAP/BARO Switch SOL/V

P1110 Intake Valve Timing Control, LH Bank

P1120 TP Sensor 2

P1125 Tandem TP Sensor

P1130 Swirl Control Valve Control Solenoid

Valve

P1135 Intake Valve Timing Control, LH Bank 2

P1140 Intake Valve Timing Control Position

Sensor, RH Bank 1

P1145 Intake Valve Timing Control Position

Sensor, LH Bank 2

P1148 Closed Loop, Bank 1

P1165 Swirl Control Valve Control Vacuum

Check Switch

P1168 Closed Loop, Bank 2

P1210 Traction Control Signal Circuit

P1220 FPCM

P1320 Ignition Signal, Primary

P1335 CKP Sensor (Ref)

P1336 CKP Sensor (POS) Cog

P1400 EGRC Solenoid/V

P1401 EGR Temp Sensor

P1402 EGR System

P1440 EVAP Small Leak

P1441 VC/V Bypass/V

P1443 Canister Control Vacuum Check Switch

P1444 Purge Volume Control/V

P1445 Purge Volume Control/V

P1446 Vent Control Valve

P1447 EVAP Purge Flow

P1448 Vent Control Valve

P1490 VC/V Bypass/V

P1491 VC Cut/V Bypass/V

P1492 Purge Control/V S/V

P1493 Purge Control/V & S/V

P1605 A/T Diag Comm Line

P1705 TP Sensor A/T

P1706 PNP Switch

P1760 Overrun Clutch S/V

P1900 Cooling Fan