

ISL & ISC Codes 0-100

- 0001 Exhaust Gas Pressure Sensor Number 1 Circuit - Voltage Above Normal, or Shorted to High Source
- 0002 Exhaust Gas Pressure Sensor Number 1 Circuit - Voltage Below Normal, or Shorted to Low Source
- 0003 Exhaust Gas Pressure Sensor Number 1 Circuit - Data Erratic, Intermittent, or Incorrect
- 0004 Exhaust Gas Temperature Sensor Number 1 Circuit - Data Erratic, Intermittent, or Incorrect
- 0005 Exhaust Gas Temperature Sensor Number 1 Circuit - Voltage Below Normal, or Shorted to Low Source
- 0006 Exhaust Gas Temperature Sensor Number 1 Circuit - Voltage Above Normal, or Shorted to High Source

ISL & ISC Codes 100-200

- 111 Engine Control Module Critical Internal Failure - Bad Intelligent Device or Component
- 115 Engine Magnetic Crankshaft Speed/Position Lost Both of Two Signals - Data Erratic, Intermittent, or Incorrect
- 122 Intake Manifold Pressure Sensor Circuit - Voltage Above Normal or Shorted to High Source
- 123 Intake Manifold Pressure Sensor Circuit - Voltage Below Normal or Shorted to Low Source
- 124 Intake Manifold One Pressure - Data Valid but Above Normal Operational Range - Moderately Severe Level
- 131 Accelerator Pedal or Lever Position Sensor Circuit - Shorted High
- 132 Accelerator Pedal or Lever Position Sensor Circuit - Voltage Below Normal or Shorted to Low Source
- 133 Remote Accelerator Pedal or Lever Position Sensor 1 Circuit - Voltage Above Normal, or Shorted to High Source
- 134 Remote Accelerator Pedal or Lever Position Sensor 1 Circuit - Voltage Below Normal, or Shorted to Low Source
- 135 Oil Pressure Sensor Choice
- 135auto Oil Pressure Sensor Circuit — Voltage Above Normal or Shorted to High Source
- 135mar Oil Pressure Sensor Circuit — Voltage Above Normal or Shorted to High Source
- 141 Oil Pressure Sensor Circuit Choice
- 141auto Oil Pressure Sensor Circuit - Voltage Below Normal or Shorted to Low Source
- 141mar Oil Pressure Sensor Circuit - Voltage Below Normal or Shorted to Low Source
- 143 Oil Pressure Low Choice

143b Oil Pressure Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

143bm Oil Pressure Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

144 Coolant Temperature Sensor Circuit Choice

144b Engine Coolant Temperature 1 Sensor Circuit - Voltage Above Normal or Shorted to High Source

144bm Engine Coolant Temperature 1 Sensor Circuit - Voltage Above Normal or Shorted to High Source

145 Engine Coolant Temperature 1 Sensor Circuit Choice

145b Engine Coolant Temperature 1 Sensor Circuit - Voltage Below Normal or Shorted to Low Source

145bm Engine Coolant Temperature 1 Sensor Circuit - Voltage Below Normal or Shorted to Low Source

146 Engine Coolant Temperature Choice

146b Engine Coolant Temperature - Data Valid but Above Normal Operational Range - Moderately Severe Level

146bm Engine Coolant Temperature - Data Valid but Above Normal Operational Range - Moderately Severe Level

147 Accelerator Pedal or Lever Position 1 Sensor Circuit Frequency - Data Valid but Below Normal Operational Range - Most Severe Level

148 Accelerator Pedal or Lever Position Sensor One - Data Valid but Above Normal Operational Range - Most Severe level

151 Engine Coolant Temperature Choice

151b Engine Coolant Temperature - Data Valid but Above Normal Operational Range - Most Severe Level

151bm Engine Coolant Temperature - Data Valid but Above Normal Operational Range - Most Severe Level

153 Intake Manifold Air Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source

154 Intake Manifold Air Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source

155 Intake Manifold 1 Temperature Choice

155b Intake Manifold 1 Temperature - Data Valid but Above Normal Operational Range - Most Severe Level

155bm Engine Coolant Temperature 1 Sensor Circuit — Voltage Above Normal or Shorted to High Source

187 Sensor Supply Voltage Number 2 Circuit Choice

187b Sensor Supply Voltage Number 2 Circuit - Voltage Below Normal or Shorted to Low Source

187bm Sensor Supply 2 Circuit - Voltage Below Normal, or Shorted to Low Source

195 Coolant Level Sensor 1 Circuit - Choice

195-2wire Coolant Level Sensor 1 Circuit - Voltage Above Normal or Shorted to High Source

195-3wire Coolant Level Sensor 1 Circuit - Voltage Above Normal or Shorted to High Source

196 Coolant Level Sensor 1 Circuit - Choice

196-2wire Coolant Level Sensor 1 Circuit - Voltage Below Normal or Shorted to Low Source

196-3wire Coolant Level Sensor 1 Circuit - Voltage Below Normal or Shorted to Low Source

197 Coolant Level Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

ISL & ISC Codes 200-300

221 Barometric Pressure Sensor Circuit - Voltage Above Normal or Shorted to High Source

222 Barometric Pressure Sensor Circuit - Voltage Below Normal or Shorted to Low Source

227 Sensor Supply Voltage Number 2 Circuit Choice

227b Sensor Supply Voltage Number 2 Circuit - Voltage Above Normal or Shorted to High Source

227bm Sensor Supply 2 Circuit - Voltage Above Normal or Shorted to High Source

234 Engine Crankshaft Speed/Position Choice

234b Engine Crankshaft Speed/Position — Data Valid but Above Normal Operational Range - Most Severe Level

234bm Engine Crankshaft Speed/Position — Data Valid but Above Normal Operational Range - Most Severe Level

235 Coolant Level Low - Data Valid but Below Normal Operational Range - Most Severe Level

237 External Speed Command Input (Multiple Unit Synchronization - Data Erratic, Intermittent, or Incorrect

238 Sensor Supply 3 Circuit - Voltage Below Normal, or Shorted to Low Source

241 Vehicle Speed Sensor Circuit - Data Erratic, Intermittent, or Incorrect

242 Vehicle Speed Sensor Circuit Tampering Has Been Detected - Abnormal Rate of Change

245 Fan Control Circuit - Voltage Below Normal or Shorted to Low Source

253 Engine Oil Level - Data Valid But Below Normal Operational Range - Most Severe Level

268 Injector Metering Rail 1 Pressure - Data Erratic, Intermittent, or Incorrect

269 Antitheft Password Valid Indicator - Data Erratic, Intermittent, or Incorrect

271 High Fuel Pressure Solenoid Valve Circuit Choice

271b High Fuel Pressure Solenoid Valve Circuit - Voltage Below Normal or Shorted to Low Source

271cl High Fuel Pressure Solenoid Valve Circuit - Voltage Below Normal or Shorted to Low Source

272 High Fuel Pressure Solenoid Valve Circuit Choice

272b High Fuel Pressure Solenoid Valve Circuit - Voltage Above Normal or Shorted to High Source

272cl High Fuel Pressure Solenoid Valve Circuit - Voltage Above Normal or Shorted to High Source

275 Fuel Pumping Element Number 1 (Front - Mechanical System Not Responding Properly or Out of Adjustment

281 Fault Pump Pressurizing Assembly 1 - Mechanical System Not Responding Properly or Out of Adjustment

284 Engine Speed/Position Sensor (Crankshaft Supply Voltage Circuit - Voltage Below Normal or Shorted to Low Source

285 SAE J1939 Multiplexing PGN Timeout Error - Abnormal Update Rate

286 SAE J1939 Multiplexing Configuration Error - Out of Calibration

287 SAE J1939 Multiplexing Accelerator Pedal or Lever Sensor System Error - Received Network Data Error

288 SAE J1939 Multiplexing Remote Accelerator Pedal or Lever Data Error - Received Network Data Error

291 Proprietary Datalink Error (OEM/Vehicle Datalink - Abnormal Update Rate

292 Auxiliary Temperature Sensor Input 1 - Special Instructions

293 Auxiliary Temperature Sensor Input 1 - Voltage Above Normal, or Shorted to High Source

294 Auxiliary Temperature Sensor Input 1 Circuit - Voltage Below Normal, or Shorted to Low Source

295 Barometric Pressure - Data Erratic, Intermittent, or Incorrect

296 Auxiliary Pressure Sensor Input 1 - Special Instructions

296a Auxiliary Pressure Sensor Input 1 - Special Instructions

296lrv Crankcase Pressure - Data Above Normal Operational Range - Severe Level

297 Auxiliary Pressure Sensor Input 1 Circuit - Voltage Above Normal, or Shorted to High Source

298 Auxiliary Pressure Sensor Input 1 Circuit - Voltage Below Normal, or Shorted to Low Source

ISL & ISC Codes 300-400

319 Real Time Clock Power Interrupt - Data Erratic, Intermittent, or Incorrect

322 Injector Solenoid Driver Cylinder 1 Circuit - Current Below Normal, or Open Circuit

323 Injector Solenoid Driver Cylinder 5 Circuit - Current Below Normal, or Open Circuit

324 Injector Solenoid Driver Cylinder 3 Circuit - Current Below Normal, or Open Circuit

325 Injector Solenoid Driver Cylinder 6 Circuit - Current Below Normal, or Open Circuit

331 Injector Solenoid Cylinder Number 2 Circuit - Current Below Normal or Open Circuit

332 Injector Solenoid Cylinder Number 4 Circuit - Current Below Normal or Open Circuit

334 Engine Coolant Temperature - Data Erratic, Intermittent, or Incorrect

341 Engine Control Module Data Lost - Data Erratic, Intermittent, or Incorrect

342 Electronic Calibration Code Incompatibility - Out of Calibration

343 Engine Control Module Warning Internal Hardware Failure - Bad Intelligent Device or Component

351 Injector Power Supply — Bad Intelligent Device or Component

352 Sensor Supply Voltage Number 1 Circuit - Voltage Below Normal or Shorted to Low Source

386 Sensor Supply Voltage Number 1 Circuit - Voltage Above Normal or Shorted to High Source

387 Accelerator Pedal or Lever Position Sensor Supply Voltage Circuit - Voltage Above Normal or Shorted to High Source

ISL & ISC Codes 400-500

412 SAE J1587/J1922 Data Link - Can Not Transmit

415 Engine Oil Rifle Pressure Choice

415sn Engine Oil Rifle Pressure - Data Valid but Below Normal Operational Range - Most Severe Level

415sw Engine Oil Rifle Pressure - Data Valid but Below Normal Operational Range - Most Severe Level

418 Water-In-Fuel Indicator - Data Valid but Above Normal Operational Range - Least Severe Level

426 SAE J1939 Data Link - Cannot Transmit

427 SAE J1939 Datalink - Abnormal Update Rate

428 Water-In-Fuel Sensor Circuit - Voltage Above Normal or Shorted to High Source

429 Water-In-Fuel Sensor Circuit - Voltage Below Normal or Shorted to Low Source

431 Idle Validation Switch Circuit Choice

431iss Accelerator Pedal or Lever Idle Validation Circuit - Data Erratic, Intermittent, or Incorrect

431niss Accelerator Pedal or Lever Idle Validation Circuit - Data Erratic, Intermittent, or Incorrect

431sss Accelerator Pedal or Lever Idle Validation Circuit - Data Erratic, Intermittent, or Incorrect

432 Accelerator Pedal or Lever Idle Validation Circuit - Out of Calibration

433 Intake Manifold Pressure Sensor Circuit - Data Incorrect

434 Power Supply Lost With Ignition On - Data Erratic, Intermittent or Incorrect

435 Oil Pressure Switch Sensor Circuit - Data Erratic, Intermittent or Incorrect

436 Intake Manifold 1 Temperature - Data Erratic, Intermittent, or Incorrect

441 Battery 1 Voltage - Data Valid but Below Normal Operational Range - Moderately Severe Level

442 Battery 1 Voltage - Data Valid but Below Normal Operational Range - Moderately Severe Level

443 Accelerator Pedal or Lever Position Sensor Supply Voltage Circuit — Voltage Below Normal or Shorted to Low Source

449 Fuel Pressure High Choice

449b Injector Metering Rail Number 1 Pressure - Data Valid But Above Normal Operating Range - Most Severe Level

449cl Injector Metering Rail Number 1 Pressure - Data Valid But Above Normal Operating Range - Most Severe Level

451 Injector Metering Rail Number 1 Pressure Sensor Circuit - Voltage Above Normal or Shorted to High Source

452 Injector Metering Rail Number 1 Pressure Sensor Circuit - Voltage Below Normal or Shorted to Low Source

471 Engine Oil Level - Data Valid But Below Normal Operational Range - Least Severe Level

488 Intake Manifold 1 Temperature - Data Valid but Above Normal Operational Range - Moderately Severe Level

497 Multiple Unit Synchronization Switch - Data Erratic, Intermittent, or Incorrect

498 Engine Oil Level Sensor Circuit - Voltage Above Normal, or Shorted to High Source

499 Engine Oil Level Sensor Circuit - Voltage Below Normal, or Shorted to Low Source

ISL & ISC Codes 500-600

523 Auxiliary Intermediate (PTO Speed Switch Validation - Data Erratic, Intermittent, or Incorrect)

527 Auxiliary Input/Out Two Circuit Voltage Above Normal or Shorted to High Source

528 Auxiliary Alternate Torque Validation Switch - Data Erratic, Intermittent, or Incorrect

529 Auxiliary Input/Output Three Circuit - Voltage Above Normal, or Shorted to High Source

545 Turbocharger 1 Wastegate Control - Mechanical System Not Responding Properly or Out of Adjustment

551 Idle Validation Switch Circuit Choice

551iss Accelerator Pedal or Lever Idle Validation Circuit - Voltage Below Normal or Shorted to Low Source

551niss Accelerator Pedal or Lever Idle Validation Circuit - Voltage Below Normal or Shorted to Low Source

551sss Accelerator Pedal or Lever Idle Validation Circuit - Voltage Below Normal or Shorted to Low Source

553 Injector Metering Rail One Pressure - Data Valid but Above Normal Operational Range - Moderately Severe Level

554 Injector Metering Rail 1 Pressure - Data Erratic, Intermittent, or Incorrect

559 Fuel Pump Delivery Pressure Low Choice

559b Fuel Pump Delivery Pressure Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

559cl Injector Metering Rail 1 Pressure - Data Valid but Below Normal Operational Range - Moderately Severe Level

584 Starter Relay Circuit - Voltage Above Normal or Shorted to High Source

585 Starter Relay Circuit - Voltage Below Normal or Shorted to Low Source

595 Turbocharger Number 1 Speed High Choice

595b Turbocharger Number 1 Speed High - Warning Level

595cl Turbocharger Number 1 Speed High - Data Valid but Above Normal Operational Range - Moderately Severe Level

596 Electrical Charging System Voltage High - Data Valid but Above Normal Operational Range - Moderately Severe Level

597 Electrical Charging System Voltage Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

598 Electrical Charging System Voltage Low - Data Valid but Below Normal Operational Range - Most Severe Level

599 Auxiliary Commanded Dual Output Shutdown - Special Instructions

ISL & ISC Codes 600-700

649 Change Lubricating Oil and Filter - Condition Exists

687 Turbocharger Speed Sensor Choice

687b Turbocharger Speed Sensor - Below Normal Operating Range

687cl Turbocharger Number 1 Speed Low - Data Valid but Below Normal Operating Range - Moderately Severe Level

688 Engine Oil Level - Data Valid But Above Normal Operational Range - Most Severe Level

689 Engine Crankshaft Speed/Position - Data Erratic, Intermittent, or Incorrect

691 Turbocharger Number 1 Compressor Inlet Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source

692 Turbocharger Number 1 Compressor Inlet Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source

ISL & ISC Codes 700-900

731 Engine Speed/Position Sensors Choice

731b Engine Speed Sensor/Position Camshaft and Crankshaft Misalignment - Mechanical System Not Responding Properly or Out of Adjustment

731bm Engine Speed Sensor/Position Camshaft and Crankshaft Misalignment - Mechanical System Not Responding Properly or Out of Adjustment

757 Electronic Control Module Data Lost - Condition Exists

778 Engine Speed Sensor (Camshaft Error - Data Erratic, Intermittent or Incorrect

779 Auxiliary Equipment Sensor Input Number 3 (OEM Switch - Root Cause Not Known)

784 Adaptive Cruise Control - Error

951 Cylinder Power Imbalance Detected

957 EGR Valve Position - Data Erratic, Intermittent, or Incorrect

958 VGT Position Sensor - Data Erratic, Intermittent, or Incorrect

1117 Power Lost Without Ignition Off Choice

1117auto Power Lost Without Ignition Off - Data Erratic, Intermittent or Incorrect

1117mar Power Lost Without Ignition Off - Data Erratic, Intermittent or Incorrect

1139 Injector Solenoid Driver Cylinder 1 - Mechanical System Not Responding Properly or Out of Adjustment

1141 Injector Solenoid Driver Cylinder 2 - Mechanical System Not Responding Properly or Out of Adjustment

1142 Injector Solenoid Driver Cylinder 3 - Mechanical System Not Responding Properly or Out of Adjustment

1143 Injector Solenoid Driver Cylinder 4 - Mechanical System Not Responding Properly or Out of Adjustment

1144 Injector Solenoid Driver Cylinder 5 - Mechanical System Not Responding Properly or Out of Adjustment

1145 Injector Solenoid Driver Cylinder 6 - Mechanical System Not Responding Properly or Out of Adjustment

ISL & ISC Codes 1200-1600

1228 EGR Valve Position - Data Erratic, Intermittent, or Incorrect

1229 VGT Position Sensor - Data Erratic, Intermittent, or Incorrect

1239 Accelerator Pedal or Lever Position Sensor 2 Circuit - Voltage Above Normal or Shorted to High Source

1241 Accelerator Pedal or Lever Position Sensor 2 Circuit - Voltage Below Normal or Shorted to Low Source

1242 Accelerator Pedal or Lever Position Sensor 1 and 2 - Data Erratic, Intermittent, or Incorrect

ISL & ISC Codes 1600-1700

1633 Komnet Datalink Cannot Transmit - Data Erratic, Intermittent, or Incorrect

1639 Auxiliary Equipment Sensor Input Number 3 (OEM Switch - Root Cause Not Known

1654 Engine Misfire Cylinder 1 - Condition Exists

1655 Engine Misfire Cylinder 2 - Condition Exists

1656 Engine Misfire Cylinder 3 - Condition Exists

1657 Engine Misfire Cylinder 4 - Condition Exists

1658 Engine Misfire Cylinder 5 - Condition Exists

1659 Engine Misfire Cylinder 6 - Condition Exists

1663 Catalyst Inlet Temperature Sensor Swapped with Outlet - Condition Exists

1664 Catalyst Missing - Condition Exists

1665 Exhaust Gas Temperature 1 Circuit - Voltage Below Normal, or Shorted to Low Source

1666 Exhaust Gas Temperature Circuit 1 - Voltage Above Normal, or Shorted to Low Source

1667 Exhaust Gas Temperature 1 - Data Erratic, Intermittent, or Incorrect

1668 Catalyst Tank Level Sensor Circuit - Voltage Below Normal, or Shorted to Low Source

1669 Catalyst Tank Level Sensor Circuit - Voltage Above Normal, or Shorted to High Source

1671 Catalyst Tank Level - Data Valid but Below Normal Operational Range - Moderately Severe Level.

1673 Catalyst Tank Level - Data Erratic, Intermittent, or Incorrect

1674 Exhaust Gas Temperature 2 Circuit - Voltage Below Normal, or Shorted to Low Source

1675 Exhaust Gas Temperature 2 Circuit - Voltage Above Normal, or Shorted to Low Source

1676 Exhaust Gas Temperature 2 - Data Erratic, Intermittent, or Incorrect

1677 Catalyst Tank Temperature - Voltage Below Normal, or Shorted to Low Source

1678 Catalyst Tank Temperature - Voltage Above Normal, or Shorted to High Source

1679 Catalyst Tank Temperature - Data Erratic, Intermittent, or Incorrect

1681 Dosing Control Unit - Bad Intelligent Device or Component

1682 Catalyst Reagent Dosing Unit Input Lines - Condition Exists

1683 Catalyst Tank Heater Circuit - Voltage Above Normal, or Shorted to High Source

1684 Catalyst Tank Heater Circuit - Voltage Above Normal, or Shorted to High Source

1687 Catalyst Over Temperature - Data Valid but Above Normal Operational Range - Most Severe Level

1689 Real-Time Clock Power Interrupt - Data Erratic, Intermittent or Incorrect

1692 Aftertreatment Outlet NOx Sensor - Voltage Below Normal or Shorted to Low Source

1694 Aftertreatment Outlet NOx Sensor - Data Erratic, Intermittent, or Incorrect

1697 Aftertreatment #1 Air Enable Actuator - Voltage Above Normal, or Shorted to High Source

1698 Aftertreatment #1 Air Enable Actuator - Voltage Below Normal, or Shorted to Low Source

1699 Catalyst Tank Level Sensor - Data Erratic, Intermittent, or Incorrect

ISL & ISC Codes 1700-1800

1711 Dosing Control Unit Datalink - Abnormal Update Rate

1712 Catalyst Tank Heater Circuit - Data Valid But Below Normal Operating Range - Moderately Severe Level

1713 Catalyst Tank Heater Circuit - Data Valid But Above Normal Operating Range - Moderately Severe Level

1716 Auxiliary Temperature Sensor Input 1 Circuit - Root Cause Not Known

1717 Exhaust Gas Temperature 1 - Data Valid but Above Normal Operational Range - Least Severe Level

1718 Engine Misfire for Multiple Cylinders - Condition Exists

ISL & ISC Codes 1800-2000

1848 Intake Manifold 1 Temperature - Abnormal Rate of Change

1849 Exhaust Gas Temperature 1 - Abnormal Rate of Change

1851 Exhaust Gas Temperature 2 - Abnormal Rate of Change

1892 Wheel-Based Vehicle Speed - Data Valid but Below Normal Operational Range - Moderately Severe Level

1911 Injector Metering Rail 1 Pressure - Data Valid but Above Normal Operational Range - Most Severe Level

ISL & ISC Codes 2000-2200 2183 Engine Brake Actuator Driver 1 Circuit - Voltage Below Normal, or Shorted to Low Source

2185 Sensor Supply Voltage 4 Circuit - Voltage Above Normal or Shorted to High Source

2186 Sensor Supply Voltage 4 Circuit - Voltage Below Normal or Shorted to Low Source

ISL & ISC Codes 2200-2300

2215 Fuel Pump Delivery Pressure Low Choice

2215b Fuel Pump Delivery Pressure Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

2215cl Fuel Pump Delivery Pressure Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

2216 Fuel Pump Delivery Pressure High Choice

2216b Fuel Pump Delivery Pressure High - Data Valid but Above Normal Operational Range - Moderately Severe Level

2216cl Fuel Pump Delivery Pressure High - Data Valid but Above Normal Operational Range - Moderately Severe Level

2217 Engine Control Module Calibration Program Memory (RAM Corruption - Condition Exists

2249 Injector Metering Rail 1 Pressure - Data Valid but Below Normal Operational Range - Most Severe Level

2265 Electric Lift Pump for Engine Fuel Supply Circuit - Voltage Above Normal or Shorted to High Source

2266 Electric Lift Pump for Engine Fuel Supply Circuit - Voltage Below Normal or Shorted to Low Source

2271 EGR Valve Position Sensor Circuit - Voltage Above Normal or shorted to High Source

2272 EGR Valve Position Sensor Circuit - Voltage Below normal or Shorted to Low Source

2273 EGR Valve Differential Pressure Sensor Circuit - Shorted High

2274 EGR Valve Differential Pressure Sensor Circuit - Shorted Low

2292 Fuel Inlet Meter Device - Data Valid but Above Normal Operational Range - Moderately Severe Level

2293 Fuel Inlet Meter Device Flow Demand Lower Than Expected - Data Valid but Below Normal Operational Range - Moderately Severe Level

ISL & ISC Codes 2300-2500

2311 Fueling Actuator Number 1 Circuit Error Conditions Exists

2321 Engine Crankshaft Speed/Position - Data Erratic, Intermittent, or Incorrect

2322 Backup Engine Speed/Position Sensor Number 2 - Data Erratic, Intermittent, or Incorrect

2345 Turbocharger Speed Choice

2345b Turbocharger Speed - Invalid Rate of Change Detected

2345cl Turbocharger Speed Invalid Rate of Change detected - Abnormal Rate of Change

2346 Exhaust Gas Temperature Choice

2346b Exhaust Gas Temperature - Data Above Normal

2346cl Turbocharger Turbine Inlet Temperature (Calculated - Data Valid but Above Normal Operational Range - Least Severe Level

2347 Turbocharger Compressor Outlet Temperature Choice

2347b Turbocharger Compressor Outlet Temperature - Data Above Normal

2347cl Turbocharger Compressor Outlet Air Temperature (Calculated - Data Valid but Above Normal Range

2348 EGR Valve Failed Automatic Calibration Procedure

2349 EGR Valve Control Circuit - Current Below Normal or Open Circuit

2351 EGR Valve Control Circuit - Voltage Below Normal or Shorted to Low Source

2352 EGR Valve Control Circuit - Voltage Above Normal or Shorted to High Source

2353 EGR Valve Control Circuit - Current Above Normal or Grounded Circuit

2357 EGR Valve Control - Mechanical System Not Responding Properly or Out of Adjustment

2359 EGR Differential Pressure Sensor - Data Valid But Above Normal Operating Range - Moderately Severe Level

2362 Engine Brake Actuator Circuit Number 1 - Voltage Below Normal or Shorted to Low Source

2363 Engine Brake Actuator Circuit Number 2 - Voltage Below Normal or Shorted to Low Source

2366 Engine Brake Actuator Circuit Number 1 - Voltage Above Normal or Shorted to High Source

2367 Engine Brake Actuator Circuit Number 2 - Voltage Above Normal or Shorted to High Source

2373 Exhaust Gas Pressure Sensor Circuit - Shorted High

2374 Exhaust Gas Pressure Sensor Circuit - Shorted Low

2375 Exhaust Gas Recirculation (EGR Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source

2376 Recirculation Exhaust Gas Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source

2377 Fan Control Circuit - Voltage Above Normal or Shorted to High Source

2381 Turbocharger Position Sensor Circuit - Shorted High

2382 Turbocharger Position Sensor Circuit - Shorted Low

2383 Variable Geometry Turbocharger Actuator Circuit - Current Below Normal, or Open Circuit

2384 VGT Actuator Choice

2384b VGT Actuator - Voltage Below Normal or Shorted to Low Source

2384cl VGT Actuator Driver Circuit - Voltage Below Normal, or Shorted to Low Source

2385 VGT Actuator Choice

2385b VGT Actuator - Voltage Above Normal or Shorted to High Source

2385c VGT Actuator Driver Circuit - Voltage Above Normal, or Shorted to High Source

2386 Turbocharger Actuator Motor Circuit - Current Above Normal

2387 Turbocharger Actuator Motor - Mechanical System Not Responding Properly

2388 Variable Geometry Turbocharger Actuator Position Failed Automatic Calibration Procedure - Out of Calibration

ISL & ISC Codes 2500-2800

2554 Exhaust Pressure Sensor Circuit - Data Erratic, Intermittent, or Incorrect

2555 Intake Air Heater Number 1 Circuit - Voltage Above Normal or Shorted to High Source

2556 Intake Air Heater Number 1 Circuit - Voltage Below Normal or Shorted to Low Source

2557 Auxiliary PWM Driver Number 1 - Voltage Above Normal or Shorted to High Source

2558 Auxiliary PWM Driver Number 1 - Voltage Below Normal or Shorted to Low Source

2659 Engine Coolant Temperature - Condition Exists

2771 Aftertreatment Outlet NOx Sensor - Abnormal Update Rate

2772 Aftertreatment Outlet NOx - Data Valid but Above Normal Operational Range - Least Severe Level

2773 Aftertreatment Outlet NOx - Data Valid but Above Normal Operational Range - Most Severe Level

ISL & ISC Codes 2800-3000

2961 EGR Temperature - Data Valid But Above Normal Operating Range, Least Severe Level

2962 EGR Temperature - Data Valid But Above Normal Operating Range, Moderately Severe Level

2963 Engine Coolant Temperature High - Data Valid but Above Normal Operational Range - Least Severe Level

2964 Intake Manifold Temperature High - Data Valid but Above Normal Operational Range - Least Severe Level

2973 Intake Manifold Pressure Sensor Circuit - Data Erratic, Intermittent or Incorrect

2976 Dosing Control Unit Temperature - Data Erratic, Intermittent, or Incorrect

ISL & ISC Codes 9000-9122

9121 EGR Valve Actuator Over Temperature (Calculated - Data Above Normal Range)

9122 Variable Geometry Turbocharger Actuator Over Temperature