Cummins Engine Diagnostic Fault Codes for 2003 and later engines (generally for 2004 and later Alpines; see page 13 for earlier engine diagnostic codes):

Note: This information obtained from internet sources and not verified- use at your own risk!!!!

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

ISL & ISC Codes 900-1200

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
- $1145\ \mathrm{Injector}\ \mathrm{Solenoid}\ \mathrm{Driver}\ \mathrm{Cylinder}\ 6$ 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
- 2385cl 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

See Below for 2002 and earlier engines (2003 & earlier Alpines) using CAPS fuel system.

Cummins Engine Diagnostic Fault Codes for 2002 and earlier CAPS fuel system engines (generally 2003 and earlier model year Alpines):

ISC Fault Codes # 111-500 111 Electronic Control Module (ECM Microprocessor

- 115 Engine Speed Sensor (ESS Circuit
- 121 Engine Position Sensor Circuit
- 122 Intake Manifold Pressure Sensor Circuit
- 123 Intake Manifold Pressure Sensor Circuit
- 124 Intake Manifold Pressure Engine Protection
- 131 Accelerator Position Sensor Circuit
- 132 Accelerator Position Sensor Circuit
- 133 Remote Throttle Position Sensor
- 134 Remote Throttle Position Sensor
- 135 Oil Pressure Sensor Circuit
- 141 Oil Pressure Sensor/Switch Circuit Choice
- 141sn Oil Pressure Sensor Circuit
- 141sw Oil Pressure Switch Circuit
- 143 Oil Pressure Sensor/Switch Circuit Choice
- 143sn Oil Pressure Sensor Circuit
- 143sw Oil Pressure Switch Circuit
- 144 Coolant Temperature Sensor Circuit
- 145 Coolant Temperature Sensor Circuit
- 146 Coolant Temperature Engine Protection
- 147 Frequency Throttle Circuit
- 148 Frequency Throttle Circuit
- 151 Coolant Temperature Engine Protection
- 153 Intake Manifold Air Temperature Sensor Circuit
- 154 Intake Manifold Air Temperature Sensor Circuit
- 184 OEM Pressure Engine Protection
- 191 Air Conditioner Clutch Supply Circuit
- 221 Ambient Air Pressure Sensor Circuit
- 222 Ambient Air Pressure Sensor Circuit
- 234 Engine Overspeed Circuit

- 235 Engine Coolant Level Engine Protection
- 241 Vehicle Speed Sensor Circuit
- 242 Vehicle Speed Sensor (VSS Circuit
- 243 Engine Brake Supply Choice
- 243isc Engine Brake Supply Circuit
- 243isl Engine Brake Supply Circuit
- 245 Engine Fan Clutch Supply Circuit
- 263 Fuel Temperature Sensor Circuit
- 265 Fuel Temperature Sensor Circuit
- 268 Fuel Pressure Sensor Circuit
- 271 Front Pumping Valve Circuit
- 272 Front Pumping Valve Circuit
- 273 Rear Pumping Valve Circuit
- 274 Rear Pumping Valve Circuit
- 275 Front Pumping Element
- 276 Injection Control Valve Stator Circuit
- 277 Injection Control Valve Stator Circuit
- 278 Lift Pump Circuit
- 279 Injection Control Valve Stator Circuit
- 281 Pumping Element
- 282 Pumping Element
- 283 Engine Speed Sensor
- 284 Engine Speed Sensor
- 285 J1939 Datalink Multiplexing
- 286 J1939 Datalink Multiplexing
- 296 OEM Pressure Engine Protection
- 297 OEM Pressure Sensor Circuit
- 298 OEM Pressure Sensor Circuit
- 328 Rear Pumping Element
- 329 Fuel Injection Pump
- 349 Auxiliary Speed or Auxiliary Pressure Input Error
- 352 Sensor Supply Circuit
- 381 Intake Air Heater Relay Circuit
- 382 Intake Air Heater Relay Circuit

- 385 Remote Accelerator Control Circuit
- 387 Accelerator Position Sensor Circuit
- 415 Oil Pressure Sensor/Switch Circuit Choice
- 415sn Oil Pressure Sensor Circuit
- 415sw Oil Pressure Switch Circuit
- 418 Water-In-Fuel (WIF Sensor Circuit
- 422 Coolant Level Sensor Circuit
- 429 Water-In-Fuel (WIF Sensor Circuit
- 431 Idle Validation Switch (IVS Circuit
- 432 Accelerator Pedal Circuit (ISS
- 433 Intake Manifold Pressure Sensor Circuit
- 434 Unswitched Battery Supply Circuit
- 441 Unswitched Battery Supply Circuit
- 442 Unswitched Battery Supply Circuit
- 443 Accelerator Position Sensor Circuit
- 444 Remote Accelerator Control Circuit
- 449 Fuel Pressure Sensor Circuit
- 451 Fuel Pressure Sensor Circuit
- 452 Fuel Pressure Sensor Circuit
- 456 Fuel Pressure Sensor Circuit
- 488 Intake Manifold Air Temperature Sensor Engine Protection Circuit
- 489 Auxiliary Speed or Auxiliary Pressure Input Error
- 493 Injection Control Valve Identifier Circuit
- 497 Primary/Secondary ECM Identification Error

ISC Fault Codes #515-2195

- 515 Coolant Level Sensor Circuit
- 516 Coolant Level Sensor Circuit
- 524 Switched Droop Selection Circuit
- 527 Dual Output Driver A
- 528 Alternate (Switched Torque Curve Switch Circuit
- 529 Dual Output Driver B
- 539 Transient Suppressor Circuit
- 768 Output Device Driver (Transmission Shift Modulator
- 779 OEM Input Engine Protection

2194 Multiple Unit Synchronization Switch Error 2195 OEM Switch - Engine Protection