CUMMINS ISM FAULT CODES


111 Engine Control Module Critical Internal Failure - Bad Intelligent Device or Component
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
131 Accelerator Pedal 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 Circuit - Voltage Above Normal, or Shorted to High Source
134 Remote Accelerator Pedal or Lever Position Sensor Circuit - Voltage Below Normal, or Shorted to Low Source
135 Oil Pressure Sensor Circuit - Voltage Above Normal or Shorted to High Source
141 Oil Pressure Sensor Circuit - Voltage Below Normal or Shorted to Low Source
143 Oil Pressure Low - Data Valid but Below Normal Operational Range - Moderately Severe Level
144 Coolant Temperature Sensor Circuit - Voltage Above Normal or Shorted to High Source
145 Coolant Temperature Sensor Circuit - Voltage Below Normal or Shorted to Low Source
151 Coolant Temperature High - 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 Air Temperature High - Data Valid but Above Normal Operational Range - Most Severe Level
187 Sensor Supply Voltage Number 2 Circuit - Voltage Below Normal or Shorted to Low Source
195 Coolant Level Sensor Circuit - Choice
195-2wire Coolant Level Sensor Circuit — Voltage Above Normal or Shorted to High Source
195-3wire Coolant Level Sensor Circuit — Voltage Above Normal or Shorted to High Source
196 Coolant Level Sensor Circuit - Choice
196-2wire Coolant Level Sensor Circuit — Voltage Below Normal or Shorted to Low Source
196-3wire Coolant Level Sensor Circuit — Voltage Below Normal or Shorted to Low Source
197 Coolant Level Low - Data Valid but Below Normal Operational Range - Moderately Severe Level

ISM Codes 200 - 300

212 Oil Temperature Sensor Circuit - Voltage Above Normal, or Shorted to High Source
213 Oil Temperature Sensor Circuit - Voltage Below Normal, or Shorted to Low Source
214 Oil Temperature High - Data Valid but Above Normal Operational Range - Most Severe Level
219 Oil Level Number 2 (Remote Low - Data Valid but Below Normal Operational Range - Least Severe Level
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
223 Oil Burn Valve Solenoid Circuit - Voltage Below Normal, or Shorted to Low Source
224 Oil Burn Valve Solenoid Circuit - Voltage Above Normal, or Shorted to High Source
227 Sensor Supply Voltage Number 2 Circuit - Voltage Above Normal or Shorted to High Source
234 Engine Speed High - Data Valid but Above Normal Operational Range - Most Severe Level
235 Coolant Level Low - Data Valid but Below Normal Operational Range - Most Severe Level
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
249 Ambient Air Temperature Sensor Circuit - Voltage Above Normal, or Shorted to High Source
254 Fuel Shutoff Valve Circuit - Voltage Below Normal, or Shorted to Low Source
255 Fuel Shutoff Valve Circuit - Voltage Above Normal, or Shorted to High Source
256 Ambient Air Temperature Sensor Circuit - Voltage Below Normal, or Shorted to Low Source
259 Engine Fuel Shutoff Valve Stuck Open - Mechanical System not Responding Properly or Out of Adjustment
285 SAE J1939 Multiplexing PGN Timeout Error - Abnormal Update Rate
ISM Codes 300 - 400

311 Injector Solenoid Cylinder Number 1 Circuit - Current Above Normal, or Grounded Circuit
312 Injector Solenoid Cylinder Number 5 Circuit - Current Above Normal, or Grounded Circuit
313 Injector Solenoid Cylinder Number 3 Circuit - Current Above Normal, or Grounded Circuit
314 Injector Solenoid Cylinder Number 6 Circuit - Current Above Normal, or Grounded Circuit
315 Injector Solenoid Cylinder Number 2 Circuit - Current Above Normal, or Grounded Circuit
321 Injector Solenoid Cylinder Number 4 Circuit - Current Below Normal or Open Circuit
322 Injector Solenoid Cylinder Number 1 Circuit - Current Below Normal or Open Circuit
323 Injector Solenoid Cylinder Number 5 Circuit - Current Below Normal or Open Circuit
324 Injector Solenoid Cylinder Number 3 Circuit - Current Below Normal or Open Circuit
325 Injector Solenoid Cylinder Number 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
338 Idle Shutdown Vehicle Accessories Relay Circuit - Voltage Above Normal, or Shorted to High Source
339 Idle Shutdown Vehicle Accessories Relay Circuit - Voltage Below Normal, or Shorted to Low Source
341 Engine Control Module Data Lost - Data Erratic, Intermittent, or Incorrect
343 Engine Control Module Warning Internal Hardware Failure - Bad Intelligent Device or Component
352 Sensor Supply Voltage Number 1 Circuit - Voltage Below Normal or Shorted to Low Source
354 Sensor Supply Voltage Number 1 Circuit - Voltage Above Normal or Shorted to High Source
386 Accelerator Pedal or Lever Position Sensor Supply Voltage Circuit - Voltage Above Normal or Shorted to High Source

ISM Codes 400 - 500

415 Oil Pressure Low - Data Valid but Below Normal Operational Range - Most Severe Level
418 Water-In-Fuel Indicator High - Data Valid but Above Normal Operational Range - Least Severe Level
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 Idle Validation Switch Circuit - Integrated Switch and Sensor Type
431niss Idle Validation Switch Circuit - Non-Integrated Switch and Sensor Type
431sss Idle Validation Switch Circuit - Solid-State Switch and Sensor Type
432 Accelerator Pedal or Lever Idle Validation Circuit - Out of Calibration
433 Intake Manifold Pressure Sensor Circuit - Data Erratic, Intermittent, or Incorrect
434 Power Lost without Ignition Off - Data Erratic, Intermittent, or Incorrect
435 Oil Pressure Sensor Circuit - Data Erratic, Intermittent, or Incorrect
443 Accelerator Pedal or Lever Position Sensor Supply Voltage Circuit - Voltage Below Normal or Shorted to Low Source

ISM Codes 500 - 600

551 Idle Validation Switch Circuit Choice
551iss Idle Validation Switch Circuit - Integrated Switch and Sensor Type
551niss Idle Validation Switch Circuit - Non-Integrated Switch and Sensor Type
551sss Idle Validation Switch Circuit - Solid-State Switch and Sensor Type
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 - 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

ISM Codes 600- 1000

649 Change Lubricating Oil and Filter - Condition Exists
687 Turbocharger Number 1 Speed Low - Data Valid but Below Normal Operational Range - Moderately 
Severe Level
689 Primary Engine Speed Sensor Error - 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
778 Engine Speed Sensor (Camshaft Error - Data Erratic, Intermittent or Incorrect)
784 Loss of Communication with Adaptive Cruise Control - Data Erratic, Intermittent or Incorrect
951 Cylinder Power Imbalance Between Cylinders - Data Erratic, Intermittent, or Incorrect

ISM Codes 1000 - 9121

1119 Engine Coolant Temperature - Data Valid but Above Normal Operational Range - Moderately Severe 
Level
1137 Hall Effect Speed Sensors Connected Incorrectly - Condition Exists
1228 EGR Valve Position Sensor Circuit - Data Erratic, Intermittent, or Incorrect
1943 Ambient Air Density - Data Valid But Below Normal Operational Range - Least Severe Level
2197 (OEM Temperature Sensor Engine Protection Warning - Root Cause Not Known
2271 EGR Valve Position Circuit - Voltage Above Normal, or Shorted to High Source
2272 EGR Valve Position Circuit - Voltage Below Normal, or Shorted to Low Source
2273 EGR Valve Delta Pressure Sensor Circuit - Voltage Above Normal, or Shorted to High Source
2274 EGR Valve Delta Pressure Sensor Circuit - Voltage Below Normal, or Shorted to Low Source
2346 Turbocharger Turbine Inlet Temperature (Calculated - Data Valid but Above Normal Operational 
Range - Least Severe Level
2347 Turbocharger Compressor Outlet Temperature (Calculated - Data Valid but Above Normal Operational 
Range - Least Severe Level)
2348 EGR Valve Position Failed Automatic Calibration Procedure - Out of Calibration
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
105-fc2359 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 Pressure Sensor Circuit - Voltage Above Normal, or Shorted to High Source
2374 Exhaust Pressure Sensor Circuit - Voltage Below Normal, or Shorted to Low Source
2375 EGR Gas Temperature Sensor Circuit - Voltage Above Normal, or Shorted to High Source
2376 EGR Gas Temperature Sensor Circuit - Voltage Below Normal, or Shorted to Low Source
2377 Fan Control Circuit - Voltage Above Normal or Shorted to High Source
2384 VGT Actuator - Voltage Below Normal or Shorted to Low Source
2385 VGT Actuator - Voltage Above Normal or Shorted to High Source
2554 Exhaust Pressure Sensor Circuit - Data Erratic, Intermittent or Incorrect
2961 EGR Temperature - Data Valid but Above Normal Operational Range - Least Severe Level
2962 EGR Temperature - Data Valid but Above Normal Operational 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
9121 EGR Valve Actuator Over Temperature (Calculated - Data Valid but Above Normal Operational Range - Least Severe Level)