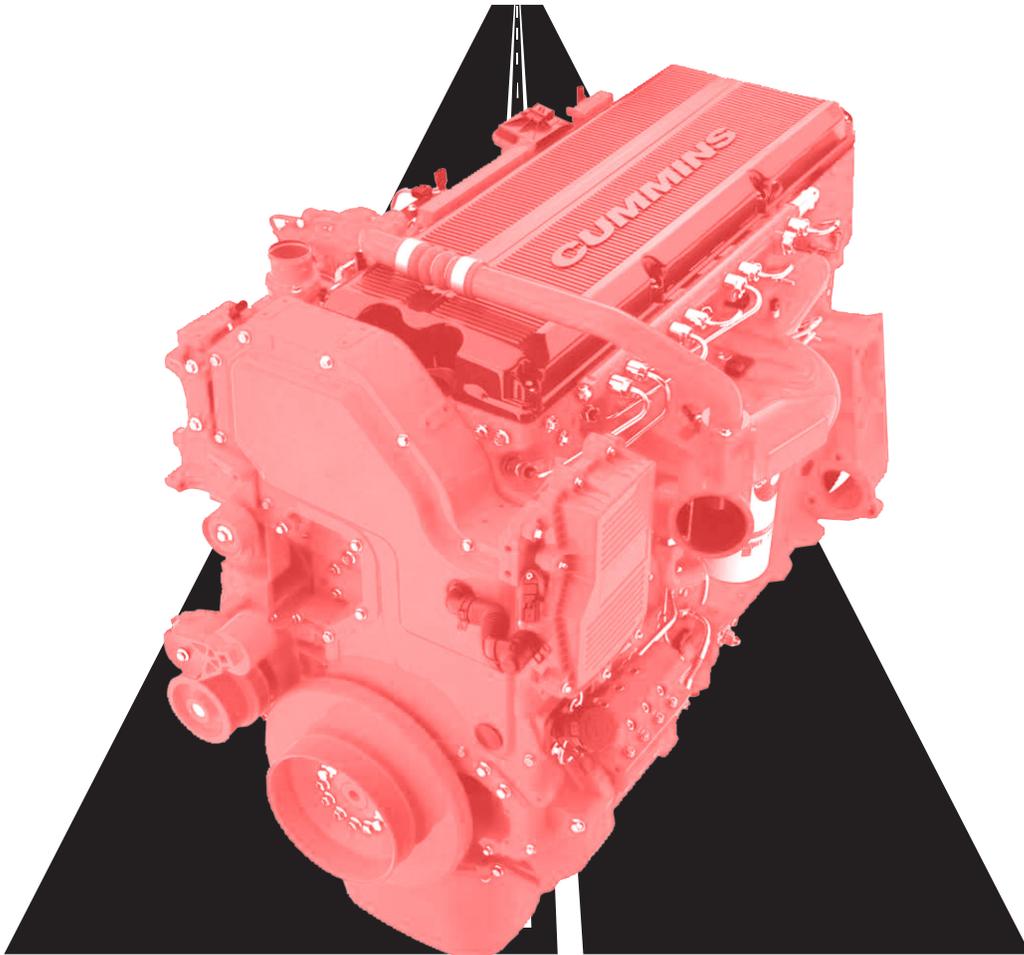




Cummins QSB & Tier III Engine Fault Codes



Fault Severity Level	Fault Severity Function	Action To Be Taken By Operator
1	Stop	Stop Engine Now – Damage Imminent
2	Warning	Warning – Engine May Continue to Run, but Must Be Repaired the Same Day
3	Maintenance	Maintenance – Repair At The Next PM
4	None- Information Only	None – No Lamp Action

FAULT CODE (LAMP)	SID(S) PID(P) FMI	SPN FMI	DESCRIPTION	CSB
111 (Red)	S254 12	629 12	Engine Control Module – Critical internal failure	X
115 (Red)	P190 2	190 2	Engine Speed/Position Sensor Circuit - lost both of two signals from the magnetic pickup sensor	X
122 (Yellow)	P102 3	102 3	Intake Manifold Pressure Sensor #1 Circuit - shorted high	X
123 (Yellow)	P102 4	102 4	Intake Manifold Pressure Sensor #1 Circuit - shorted low	X
131 (Red)	P091 3	091 3	Accelerator Pedal Position Sensor Circuit - shorted high	X
132 (Red)	P091 4	091 4	Accelerator Pedal Position Sensor Circuit - shorted low	X
133 (Red)	P029 3	974 3	Remote Accelerator Pedal Position Sensor Circuit - shorted high	X
134 (Red)	P029 4	974 4	Remote Accelerator Pedal Position Sensor Circuit - shorted low	X
135 (Yellow)	P100 3	100 3	Engine Oil Pressure Sensor Circuit - shorted high	X
141 (Yellow)	P100 4	100 4	Engine Oil Pressure Sensor Circuit - shorted low	X
143 (Yellow)	P100 1	100 18	Engine Oil Pressure Low – Warning	X
144 (Yellow)	P110 3	110 3	Engine Coolant Temperature Sensor Circuit - shorted high	X
145 (Yellow)	P110 4	110 4	Engine Coolant Temperature Sensor Circuit - shorted low	X
146 (Yellow)	P110 0	110 16	Engine Coolant Temperature High – Warning	X
147 (Red)	P091 8	091 8	Accelerator Pedal Position Sensor Circuit - low frequency	X
148 (Red)	P091 8	091 8	Accelerator Pedal Position Sensor Circuit - high frequency	X

(*) Denotes Cense Fault codes

(**) HHP QSK45/60/78 Fault Severity Levels:
 Level 1: Stop Engine Now Level 3: Repair at Next PM
 Level 2: Repair Engine Same Day Level 4: Information Only

FAULT CODE (LAMP)	SID(S) PID(P) FMI	SPN FMI	DESCRIPTION	QSB
151 (Red)	P110 0	110 0	Engine Coolant Temperature High – Critical	X
153 (Yellow)	P105 3	105 3	Intake Manifold Temperature Sensor #1 Circuit - shorted high	X
154 (Yellow)	P105 4	105 4	Intake Manifold Temperature Sensor #1 Circuit - shorted low	X
155 (Red)	P105 0	105 0	Intake Manifold Temperature #1 High - Critical	X
184 (Yellow)	S233 2	609 2	Engine Control Module Identification Input State Error	X
234 (Red)	P190 0	190 0	Engine Speed High – Critical	X
235 (Red)	P111 1	111 1	Engine Coolant Level Low - Critical	X
241 (Yellow)	P084 2	084 2	Vehicle Speed Sensor Circuit - data incorrect	X
242 (Yellow)	P084 10	084 10	Vehicle Speed Sensor Circuit - tampering has been detected	X
243 (Yellow)	P121 4	513 4	Engine Brake Driver #1 Circuit - shorted low	X
245 (Yellow)	S033 4	647 4	Fan Clutch Circuit - shorted low	X
261 (Yellow)	P174 0	174 16	Fuel Temperature High – Warning	X
264 (Yellow)	P174 11	174 11	Fuel Temperature Sensor Circuit - data out-of-range	X
278 (Yellow)	P073 11	1075 11	Fuel Priming Pump Control Circuit - shorted high/low	X
283 (Yellow)	S221 3	1043 3	Engine Speed/Position Sensor #1 (Crankshaft) Supply Voltage Circuit - shorted high	X
284 (Yellow)	S221 4	1043 4	Engine Speed/Position Sensor #1 (Crankshaft) Supply Voltage Circuit - shorted low	X
285 (Yellow)	S231 9	639 9	SAE J1939 Multiplexing PGN Timeout Error	X
286 (Yellow)	S231 13	639 13	SAE J1939 Multiplexing Configuration Error	X
287 (Red)	P091 2	91 19	SAE J1939 Multiplexing Accelerator Pedal Sensor System Error	X
288 (Red)	P029 2	974 19	SAE J1939 Multiplexing Remote Throttle Data Error	X
296 (Red)	P223 14	1387 14	Auxiliary Pressure Sensor Input # 2 Engine Protection - Critical	X

(*) Denotes Cense Fault codes

(**) HHP QSK45/60/78 Fault Severity Levels:

Level 1: Stop Engine Now

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Level 2: Repair Engine Same Day

Level 4: Information Only

FAULT CODE (LAMP)	SID(S) PID(P) FMI	SPN FMI	DESCRIPTION	CSB
297 (Yellow)	P223 3	1387 3	Auxiliary Pressure Sensor Input # 2 Circuit – shorted high	X
298 (Yellow)	P223 4	1387 4	Auxiliary Pressure Sensor Input # 2 Circuit – shorted low	X
319 Maint.	P251 2	251 2	Real Time Clock - Power Interrupt	X
349 (Yellow)	P191 0	191 16	Transmission Output Shaft (Tailshaft) Speed High – Warning	X
352 (Yellow)	S232 4	1079 4	Sensor Supply Voltage #1 Circuit - shorted low	X
361 (Red)	S251 3	1076 3	Fuel Pump Control Module, Fuel Control Valve Circuit - shorted high	X
362 (Yellow)	S251 4	1076 4	Fuel Pump Control Module, Fuel Control Valve Circuit - shorted low	X
363 (Yellow)	S251 7	1076 7	Fuel Pump Control Module, Fuel Control Valve - mechanically stuck	X
364 (Yellow)	S233 9	1077 9	Fuel Pump Control Module, CAN Communication Error - abnormal update rate	X
365 (Yellow)	S233 4	1077 4	Fuel Pump Control Module, Supply Voltage Circuit - shorted low	X
366 (Yellow)	S233 2	1077 2	Fuel Pump Control Module, Supply Voltage Circuit - data incorrect	X
367 (Yellow)	P190 11	1078 11	Fuel Pump Control Module, Increment Angle Time Sensor Error	X
368 (Yellow)	S254 8	1078 8	Fuel Pump Control Module, Timing Error	X
369 (Yellow)	P190 2	1078 2	Fuel Pump Control Module, Engine Synchronization Error	X
372 (Yellow)	S233 11	1077 11	Fuel Pump Control Module, Idle Validation Error	X
373 (Red)	S233 3	1077 3	Fuel Pump Control Module, Fuel Shutoff Error	X
374 (Yellow)	S233 12	1077 12	Fuel Pump Control Module, Self-Test Error	X
375 (Yellow)	S254 2	629 2	Fuel Pump Control Module, Electronic Calibration Code Error	X
376 (Yellow)	S233 13	1077 13	Fuel Pump Control Module, Fueling or Engine Speed Mismatch	X
377 (Yellow)	S233 7	1077 7	Fuel Pump Control Module, Stuck Relay Error	X

(*) Denotes Cense Fault codes

(**) HHP QSK45/60/78 Fault Severity Levels;

Level 1: Stop Engine Now

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Level 4: Information Only

FAULT CODE (LAMP)	SID(S) PID(P) FMI	SPN FMI	DESCRIPTION	QSB
381 (Yellow)	S237 11	626 11	Intake Air Heater (Relay Enable) #1 Circuit - data incorrect	X
382 (Yellow)	S237 11	626 11	Intake Air Heater (Relay Enable) #2 Circuit - data incorrect	X
385 (Yellow)	S232 3	620 3	OEM Sensor Supply Voltage Circuit - shorted high	X
386 (Yellow)	S232 3	1079 3	Sensor Supply Voltage #1 Circuit - shorted high	X
387 (Yellow)	S221 3	1043 3	Accelerator Pedal Position Sensor Supply Voltage Circuit - shorted high	X
389 (Yellow)	S033 11	647 11	Fan Clutch Circuit Error	X
391 (Yellow)	S017 11	632 11	Fuel Shutoff Valve Supply Voltage error	X
415 (Red)	P100 1	100 1	Engine Oil Pressure Low – Critical	X
418 WIF / Maint.	P097 0	097 15	Water in Fuel Indicator High – Maintenance	X
422 (Yellow)	P111 2	111 2	Engine Coolant Level Sensor Circuit - data incorrect	X
429 (Yellow)	P097 4	097 4	Water in Fuel Sensor Circuit - shorted low	X
431 (Yellow)	S230 2	558 2	Accelerator Pedal Idle Validation Circuit - data incorrect	X
432 (Red)	S230 13	558 13	Accelerator Pedal Idle Validation Circuit - out of calibration	X
433 (Yellow)	P102 2	102 2	Intake Manifold Pressure Sensor Circuit - data incorrect	X
434 (Yellow)	S251 2	627 2	Power Lost without Ignition Off	X
441 (Yellow)	P168 1	168 18	Battery #1 Voltage Low - Warning	X
442 (Yellow)	P168 0	168 16	Battery #1 Voltage High - Warning	X
443 (Yellow)	S221 4	1043 4	Accelerator Pedal Position Sensor Supply Voltage Circuit - shorted low	X
444 (Yellow)	S232 1	620 18	OEM Sensor Supply Voltage Low - Warning	X
488 (Yellow)	P105 0	105 16	Intake Manifold Temperature High – Warning!	X
489 (Yellow)	P191 1	191 18	Transmission Output Shaft (Tailshaft) Speed Low – Warning	X

(*) Denotes Cense Fault codes

(**) HHP QSK45/60/78 Fault Severity Levels:
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FAULT CODE (LAMP)	SID(S) PID(P) FMI	SPN FMI	DESCRIPTION	QSB
497 (Yellow)	S114 2	1377 2	Multiple Unit Synchronization Switch Circuit - data incorrect	X
515 (Yellow)	P091 3	091 3	Accelerator Pedal Frequency Position Sensor Supply Circuit - shorted high	X
516 (Yellow)	P091 4	091 4	Accelerator Pedal Frequency Position Sensor Supply Circuit - shorted low	X
517 (Yellow)	S251 12	1076 12	Fuel Metering Solenoid - bad device	X
524 (Yellow)	P113 2	113 2	OEM Alternate Droop Switch Validation - data incorrect	X
527 (Yellow)	P154 3	702 3	Auxiliary Input/Output #2 Circuit - shorted high	X
528 (Yellow)	P093 2	093 2	OEM Alternate torque validation switch - data incorrect	X
529 (Yellow)	S051 3	703 3	Auxiliary Input/Output #3 Circuit - shorted high	X
551 (Yellow)	S230 4	558 4	Accelerator Pedal Idle Validation Circuit - shorted low	X
599 (Red)	S025 14	640 14	OEM Commanded Dual Output Shutdown	X
611 (None)	S151 11	1383 31	Engine Hot Shutdown	X
768 (Yellow)	S009 11	923 11	Output Device Driver (VGT or Transmission shift PWM signal)	X
779 (Yellow)	S051 11	703 11	Auxiliary Equipment Sensor Input # 3 (OEM Switch)	X
2194* (Yellow)	P223 11	1387 11	Auxiliary Equipment Sensor Input # 2 (OEM Pressure Sensor) Engine Protection – Warning	X
2195* (Red)	S051 14	703 14	Auxiliary Equipment Sensor Input # 3 (OEM Switch) Engine Protection - Critical	X

(*) Denotes Cense Fault codes

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