

QSX15 Generator-Drive Control System - Fault Code Information

FAULT CODE	LAMP ACTION	REASON	EFFECT (Only when fault code is active)
111	Shutdown	Engine control module - critical internal failure.	Engine will not start.
122	Warning	Intake manifold pressure sensor circuit - shorted high.	No action is taken by the ECM. Possible loss of performance.
123	Warning	Intake manifold pressure sensor circuit - shorted low.	No action is taken by the ECM. Possible loss of performance.
135	Warning	Engine oil pressure sensor circuit - shorted high.	No engine protection for oil pressure.
141	Warning	Engine oil pressure sensor circuit - shorted low.	No engine protection for oil pressure.
143	Warning	Engine oil pressure low - warning. Voltage signal indicates oil pressure has dropped below the warning threshold for low oil pressure.	Calibration-dependent engine shut down occurs, or no action taken by ECM. Pre-Low oil pressure relay driver is energized.
144	Warning	Engine coolant temperature sensor circuit - shorted high.	No engine protection for coolant temperature. Possible white smoke.
145	Warning	Engine coolant temperature sensor circuit - shorted low.	No engine protection for coolant temperature. Possible white smoke.
146	Warning	Engine coolant temperature high - warning. Voltage signal indicates coolant temperature has exceeded the warning threshold for high coolant temperature.	Calibration-dependent engine shut down occurs, or no action is taken by ECM. Pre-High engine temperature relay driver is energized.
151	Shutdown	Engine coolant temperature high - critical. Voltage signal indicates coolant temperature has exceeded the shutdown threshold for high coolant temperature.	Engine will shut down. High engine temperature relay driver is energized.
152	Warning	Engine coolant temperature low - warning. Voltage signal indicates coolant temperature has dropped below the warning threshold for low coolant temperature.	No action is taken by ECM. Possible hard starting.
153	Warning	Intake manifold temperature sensor circuit - shorted high.	No engine protection for intake manifold temperature. Possible smoke at engine start-up and no-load operation.
154	Warning	Intake manifold temperature sensor circuit - shorted low.	No engine protection for intake manifold temperature. Possible smoke at engine start-up and no-load operation.
155	Shutdown	Intake manifold temperature high - critical. Voltage signal indicates intake manifold temperature has exceeded the shutdown threshold for high intake manifold temperature.	Engine will shut down. High engine temperature relay driver is energized.
197	Warning	Engine coolant level low - warning. Voltage signal indicates low radiator coolant level.	No action is taken by the ECM. Fault Code 146, 151, 228, and/or 233 could possibly also be logged.
212	Warning	Engine oil temperature sensor circuit - shorted high.	No engine protection for oil temperature.
213	Warning	Engine oil temperature sensor circuit - shorted low.	No engine protection for oil temperature.
214	Shutdown	Engine oil temperature high - critical. Voltage signal indicates oil temperature has exceeded the shutdown threshold for high oil temperature.	Engine will shut down.
219	Warning	Engine oil level 2 (remote) low - maintenance. Low oil level is detected in the remote oil reservoir used in the Centinel™ system.	Centinel™ system is disabled.

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221	Warning	Barometric pressure sensor circuit - shorted high.	No action is taken by the ECM. Possible loss of performance.
222	Warning	Barometric pressure sensor circuit - shorted low.	No action is taken by the ECM. Possible loss of performance.
223	Warning	Engine oil burn valve solenoid circuit - shorted low. The Centinel™ actuator circuit is open or shorted.	ECM turns off the Centinel™ actuator supply voltage, and the Centinel™ system is disabled.
224	Warning	Engine oil burn valve solenoid circuit shorted high. The Centinel™ actuator circuit is shorted.	ECM turns off the Centinel™ actuator supply voltage is disabled.
234	Shutdown	Engine speed high - critical. Voltage signal indicates engine speed has exceeded the shutdown threshold for engine overspeed.	Engine will shutdown. Overspeed relay driver is energized.
235	Shutdown	Engine coolant level low - critical. Voltage signal indicates very low radiator coolant level.	Engine will shut down.
236	Shutdown	Engine position sensor circuit - lost the signal from the engine position sensor.	Engine will shut down.
254	Shutdown	Fuel shutoff valve circuit - shorted low. Low voltage detected at the fuel shutoff valve signal pin, or the resistance of the solenoid has dropped below specified threshold.	Engine will shut down.
259	Warning	Fuel shutoff valve - stuck open.	No action is taken by the ECM. Possible slow engine shutdown.
343	Warning	Engine control module - warning internal hardware failure. Error internal to the ECM.	No action is taken by the ECM. Possible loss of performance.
359	Warning	Engine failed to start.	No action is taken by the ECM, although the engine will not start.
378	Shutdown	Fueling actuator 1 circuit - open circuit (front).	Engine will shut down.
379	Shutdown	Fueling actuator 1 circuit - grounded circuit (front).	Engine will shut down.
394	Shutdown	Timing actuator 1 circuit - open circuit (front).	Engine will shut down.
395	Shutdown	Timing actuator 1 circuit - grounded circuit (front).	Engine will shut down.
396	Shutdown	Fueling actuator 2 circuit - open circuit (rear).	Engine will shut down.
397	Shutdown	Fueling actuator 2 circuit - grounded circuit (rear).	Engine will shut down.
398	Shutdown	Timing actuator 2 circuit - open circuit (rear).	Engine will shut down.
399	Shutdown	Timing actuator 2 circuit - grounded circuit (rear).	Engine will shut down.
415	Shutdown	Engine oil pressure low - critical. Voltage signal indicates oil pressure has dropped below the shutdown threshold for low oil pressure.	Engine will shut down. Low oil pressure relay driver is energized.
421	Warning	Engine oil temperature high - warning. Voltage signal indicates oil temperature has exceeded the warning threshold for high oil temperature.	Calibration-dependent engine shut down occurs, or no action is taken by the ECM.

FAULT CODE	LAMP ACTION	REASON	EFFECT (Only when fault code is active)
422	Warning	Engine coolant level sensor circuit - data incorrect. Voltage detected simultaneously on both the coolant level high and low signal pins - or - no voltage detected on either pin.	No engine protection for coolant level.
441	Warning	Battery 1 voltage low - warning.	ECM voltage supply approaching level at which unpredictable operation will occur.
442	Warning	Battery 1 voltage high - warning.	ECM damage will occur.
449	Warning	Fuel pressure high - warning. Voltage signal indicates fuel supply pressure has increased above the warning threshold for the low fuel pressure.	No action taken by the ECM. Engine could possibly not start, could possibly have low power, could possibly produce white smoke, and/or run rough.
482	Warning	Fuel pressure low - warning. Voltage signal indicates fuel supply pressure has dropped below the warning threshold for the low fuel supply pressure.	No action taken by the ECM. Engine could possibly not start, could possibly have low power, could possibly produce white smoke, and/or run rough.
488	Warning	Intake manifold temperature high - warning. Voltage signal indicates intake manifold temperature has exceeded the warning threshold for high intake manifold temperature.	Calibration-dependent engine shut down occurs, or no action is taken by the ECM. Pre-High engine temperature relay driver is energized.
546	Warning	Fuel delivery pressure sensor circuit - shorted high.	No action taken by the ECM. Possible loss of performance.
547	Warning	Fuel delivery pressure sensor circuit - shorted low.	No action taken by the ECM. Possible loss of performance.
611	Warning	Engine hot shutdown. Engine shutdown by operator before proper engine cooldown.	No action taken by the ECM. Possible loss of performance. Possible damage to engine could possibly occur.
649	Warning	Change lubricating oil and filter. The Centinel™ system has not been able to replace old oil with new. The condition has persisted for long enough that the oil quality warrants a full change out.	No action taken by the ECM. Possible damage to the engine can occur.
689	Warning	Primary engine speed sensor error. No engine speed signal detected from the crankshaft engine speed sensor.	No action taken by the ECM. Engine will continue to run on the camshaft engine position sensor. Possible loss of performance.
731	Warning	Engine speed/position - mechanical misalignment between the camshaft and crankshaft.	No action taken by the ECM. Possible loss of performance.
778	Warning	Secondary engine speed sensor error. No engine position signal detected from the camshaft engine position sensor.	No action taken by the ECM. Engine will continue to run on the crankshaft engine speed sensor. Possible loss of performance.
1411	Warning	Generator output frequency potentiometer - shorted high.	The frequency adjustment feature will be disabled and a default value of zero will be used. Possible loss of performance.
1412	Warning	Droop adjust potentiometer - shorted high.	The droop adjustment feature will be disabled and a default value of zero will be used. Possible loss of performance.
1413	Shutdown	Controller configuration error.	Engine will not start.
1416	Warning	Fail to shutdown.	The operator has enabled the user-engaged engine shutdown override feature. No engine protection features are working.
1417	Warning	Controller will not power down.	The ECM can not power down from some unknown condition. Possible drain on battery.
1418	Warning	Gain adjust potentiometer - shorted high.	The gain adjustment feature will be disabled and a default value of zero will be used. Possible loss of performance.

FAULT CODE	LAMP ACTION	REASON	EFFECT (Only when fault code is active)
1424	Warning	Relay high side driver diagnostic has detected an error.	The user interface panel lamps will not function correctly. No action is taken by the ECM.
1425	Warning	Common shutdown relay driver diagnostic has detected an error.	The shutdown panel lamp will not function correctly. No action is taken by the ECM.
1426	Warning	Common warning relay driver diagnostic has detected an error.	The warning panel lamp will not function correctly. No action taken by the ECM.
1427	Warning	Overspeed (OS) relay driver diagnostic has detected an error.	The overspeed panel lamp will not function correctly. No action taken by the ECM.
1428	Warning	Low oil pressure (LOP) relay driver diagnostic has detected an error.	The low oil pressure lamp will not function correctly. No action is taken by the ECM.
1429	Warning	High engine temperature (HET) relay driver diagnostic has detected an error.	The high engine temperature panel lamp will not function correctly. No action is taken by the ECM.
1431	Warning	Pre-Low oil pressure relay driver diagnostic has detected an error.	The Pre-Low oil pressure panel lamp will not function correctly. No action is taken by the ECM.
1432	Warning	Pre-High engine temperature relay driver diagnostic has detected an error.	The Pre-High engine temperature panel lamp will not function correctly. No action is taken by the ECM.
1433	Shutdown	Operator interface mode transition to emergency stop (due to E-Stop).	Engine will shut down and will not restart until the emergency stop switch has been reset.
1434	Shutdown	Operator interface mode transition to emergency stop (due to remote E-Stop).	Engine will shut down and will not restart until the remote emergency stop switch has been reset.
1435	Warning	Engine cold - potential starting problem.	No action is taken by the ECM. Possible - hard starting.
1437	Shutdown	Emergency stop circuit fuse blown.	Engine will not start.
1438	Warning	Fail to crank.	No action is taken by the ECM, although the engine will not start.
1443	Shutdown	Battery is dead.	Engine will not start.
1473	Shutdown	The ECM watchdog has failed.	Engine will shut down.
1479	Warning	Fail to start relay driver diagnostic has detected an error.	The fail to start panel lamp will not function correctly. No action is taken by the ECM.
2297	Warning	Fuel supply pump driver diagnostic has detected an error.	Priming pump is disabled. Possible loss of performance.