

GM 4300 DIAGNOSTIC FAULT CODE QUICK REFERENCE TABLE



Fault Number	Fault Title	Controller Affected	Fault Condition/Circuit Description	Additional Notes	Service Actions
1	Engine Coolant Temp PTO Kill	Master	This fault is reported when the engine coolant temperature has reached 105 °C (220 °F).	PTO will be disabled	<ol style="list-style-type: none"> 1) Test the cooling fan function. 2) Inspect the airflow passages. 3) Check the coolant level.
2	Engine Coolant Temp Engine Kill	Master	This fault is reported when the engine coolant temperature has reached 115 °C (240 °F).	Engine will be shut down	<ol style="list-style-type: none"> 1) Test the cooling fan function. 2) Inspect the airflow passages. 3) Check the coolant level.
3	Fuse Failure	Master	This fault is reported when the fuse is blown on one of the output circuits on the master TEC.		<ol style="list-style-type: none"> 1) Check 7.5 amp fuse F2-1 protecting outputs 1–4 on the master TEC. 2) Check 7.5 amp fuse F2-2 protecting outputs 5–8 on the master TEC. 3) Check 7.5 amp fuse F2-3 protecting outputs 9–12 on the master TEC.
4	IPE Voltage Too Low	Master	This fault is reported when the inputs or outputs on the master TEC are not working correctly.	This is an internal circuit board fault inside the master TEC.	<ol style="list-style-type: none"> 1) Replace the master TEC controller.
5	Main Power Relay Failure	Master	This fault is reported when the main power relay on the master TEC has failed.		<ol style="list-style-type: none"> 1) Test all of the 7.5 amp fuses. 2) Test the function of the main power relay. 3) Ensure that the master TEC is getting 12 Vdc from the relay.
6	Key Start Timeout	Master	This fault is reported when the ignition key has been stuck or held in the “Start” position for more than 30 seconds.	If the key was being held for more than 30 seconds, returning key to the “Run” position will clear the fault.	<ol style="list-style-type: none"> 1) Check the ignition key switch function. 2) Check all connections for corrosion.
7	Software Incompatible	Master	This fault is reported when either the machine model number is not valid, or the master TEC controller received a message from another master TEC controller on the bus circuit.		<ol style="list-style-type: none"> 1) Reprogram the machine using Toro DIAG.

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8	Charging Too High	Master	This fault is reported when the alternator is producing more than 16.3 volts.		<ol style="list-style-type: none"> 1) Check alternator voltage regulator output. 2) Replace alternator.
9	Charging Too Low	Master	This fault is reported when the alternator is producing less than 8.8 volts.		<ol style="list-style-type: none"> 1) Check alternator voltage regulator output. 2) Replace the alternator.
10	Can Bus Timeout - Engine	Master	This fault is reported when the master TEC has lost communication with the ECU for at least 5 seconds.		<ol style="list-style-type: none"> 1) Check CAN connection. 2) Verify power to engine controller. 3) Check the resistance of the CAN bus.
12	Can Bus Timeout - InfoCenter	Master	This fault is reported when the master TEC has lost communication with the InfoCenter for at least 5 seconds.		<ol style="list-style-type: none"> 1) Check CAN connection. 2) Verify power to InfoCenter. 3) Check the resistance of the CAN bus.
13	Key Switch Broken	Master	This fault is reported when the ignition Key Start input is active but the Key Run input is off.		<ol style="list-style-type: none"> 1) Check for a loose wire or connector at the key switch. 2) Check for corrosion in the connector. 3) Check the TEC harness and all connectors for loose wires. 4) Check the function of the key switch.
15	Engine Throttle Switch Broken	Master	This fault is reported when the master TEC receives an Increase RPM and Decrease RPM request simultaneously from the throttle switch.		<ol style="list-style-type: none"> 1) Check the engine throttle switch. There could be a short in the switch. 2) Check the harness and all connectors for a loose wire or corrosion.
19	Coolant Temp Sensor Out of Range	Master	This fault is reported when Coolant temperature sensor reading is not in range.		<ol style="list-style-type: none"> 1) Check for a loose wire or connector. 2) Test the coolant temperature sensor function.
20	Counterbalance Pressure Sensor Out of Range	Master	This fault is reported when the counterbalance pressure sensor reading is not in range.		<ol style="list-style-type: none"> 1) Check for a loose wire or connector. 2) Check for corrosion. 3) Test the counterbalance pressure sensor function.

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24	Joystick Broken	Master	This fault is reported when both the deck raise and lower inputs are active.		<ol style="list-style-type: none"> 1) Check the joystick switch. There could be a short in the switch. 2) Check the harness/connector for a loose wire or corrosion.
26	Engine Start Out	Master	This fault is reported when current through the Engine Start output is too high.		<ol style="list-style-type: none"> 1) Check that the Out 1 circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.
27	Engine Run Out	Master	This fault is reported when current through the Engine Run output is too high.		<ol style="list-style-type: none"> 1) Check that the Out 2 circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.
37	Glow Out	Master	This fault is reported when current through the glow plug relay is too high.		<ol style="list-style-type: none"> 1) Check that the Out 3 circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.
53	SV1 Out	Master	This fault is reported when current through the SV1 output is too high.		<ol style="list-style-type: none"> 1) Check that the 11 Out circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.
54	SV2 Out	Master	This fault is reported when current through the SV2 output is too high.		<ol style="list-style-type: none"> 1) Check that the Out 12 circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.
59	PRV1 Out	Master	This fault is reported when current through the rear PTO valve is too high.		<ol style="list-style-type: none"> 1) Check that the Out 5 circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.

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60	PRV2 Out	Master	This fault is reported when current through the front PTO valve is too high.		<ol style="list-style-type: none"> 1) Check that the Out 6 circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.
61	PRV Out	Master	This fault is reported when current through the counterbalance valve is too high.		<ol style="list-style-type: none"> 1) Check that the Out 7 circuit is not shorted. 2) Test the component connected to the output for proper resistance. 3) Replace the TEC.
68	Alternator Not Charging	Master	This fault is reported when the alternator is producing less than 8.8 volts.		<ol style="list-style-type: none"> 1) Test the alternator output. 2) If voltage measurement is less than 8.8 volts, replace the alternator.
69	Engine Oil Pressure Low	Master	This fault is reported when the engine oil pressure is low.		<ol style="list-style-type: none"> 1) Check the engine oil level. 2) Test the engine oil pressure while the engine is running.