Evolution E-Codes

Alarm	E-Code	Diesel	Gas	Description	Procedure
Controller	180	X	X	**Internal Harness Loop Broken**—External display board is not able to communicate with main board. This alarm is internal to the display board and is not logged (the main board is not aware of this E-Code).	
Controller	1001	X	X	**Internal Harness Loop Broken**—Internal harness connecting external display board to main board has become disconnected. Triggered when main board does not see communication from display board.	
Overcrank	1100	X	X	**Default—Engine/Starter Problem** The default for overcrank alarm, because of the nature of cranking there is almost no insight into the cause of an overcrank alarm with the current sensors.	Problem 18
Overcrank	1101		X	**No Fuel Pressure** Low to no fuel pressure while cranking. To set, fuel pressure has to be measured as low for at least 1200 ms before the overcrank alarm is set.	Test 58
Overspeed	1200	X	X	**Prolonged** Over 72 Hz for three seconds.	Test 68
Overspeed	1201	X	X	**Prolonged—Throttle stuck open** Over 72 Hz for three seconds with the throttle stuck open. Possible causes: Stuck throttle	Test 68
Overspeed	1204		X	**External Ignition Overspeed** CAN alarm from external ignition, threshold is >30% over nominal.	Test 68
Overspeed	1205	X	X	**Instantaneous** Over 75 Hz for one second.	Test 68
Overspeed	1206	X	X	**Instantaneous—Throttle stuck open** Over 75 Hz for one second with the throttle stuck open, total loss of control. Possible causes: Stuck throttle	Test 68
Low Oil Pressure	1300	X	X	**Occurred while running—Default** The default extended alarm for low oil pressure. Check the oil level.	Problem 28
High Temperature	1400	X	X	**Air Flow Impeded / Flow Issue** Check the inlet/outlet for debris. Coolant temp greater than 246 ºF (119 ºC) for 1 second. Check coolant sensor circuit for proper operation.	Problem 27 Test 114
High Temperature	1401		X	**Fuel Pressure Low—Running Lean** Very low fuel pressure while running will cause an increase in engine temperature. Fuel pressure must be measured as low for 1200 ms preceding high temperature alarm to set this E-Code.	Problem 34
Rpm Sensor	1500	X	X	Missing Mag Pickup Pulses.	Problem 31
Alarm	**E-Code**	**Diesel**	**Gas**	**Description**	**Procedure**
Rpm Sensor	1516	X	X	**Cranking + Low Fuel** Cranking with Low Fuel Pressure faults to rpm sensor loss. Possible causes: Low fuel pressure for at least 1200 ms, ignition fault, air pocket in fuel line, dirty fuel	Problem 34
Rpm Sensor	1517	X	X	**Running + Low Fuel** Running with low fuel pressure faults to rpm sensor loss. Possible causes: Low fuel pressure for 1200 ms, ignition fault, air pocket in fuel line, dirty fuel	Problem 34

Alarm	E-Code	Diesel	Gas	Description	Procedure
Rpm Sensor	1518		X	**No Pulse during Cranking** Rpm sensor loss, no tooth pulses sensed for 75 consecutive milliseconds while starter active. Possible causes: starter circuit issue, rpm sensor	Problem 31
Rpm Sensor	1519		X	**No Pulse during Running** Cranking faults to rpm sensor loss. Possible causes: starter circuit issue, rpm sensor	Problem 31
Rpm Sensor	1520		X	**Missing Pulses during Cranking** Cranking faults to rpm sensor loss. Starter engaged, no tooth pulses for 75 ms. Possible causes: starter circuit issue, rpm sensor alignment, low battery	Problem 31
Rpm Sensor	1521		X	**Missing Pulses during Running** While running, no tooth pulses for 75 consecutive milliseconds. Possible causes: rpm sensor alignment, low battery	Problem 31
Underspeed	1600	X	X	**Unit Overloaded or Fuel System issue** <83.3% speed (60 Hz) or <66.6% speed (50 Hz) for 30 seconds. Unit is overloaded slowing engine speed. Possible cause: highly inductive loads	
Underspeed	1601		X	**Low Fuel Pressure** Low fuel pressure starves the engine, slowing it. Low fuel pressure detected for 1200 ms before underspeed condition detected. Check fuel supply and settings	Problem 34
Underspeed	1602	X	X	**Throttle Stuck Closed/near Closed** The throttle is stuck closed or stuck near closed limiting the fuel to the engine, slowing it down. Stuck closed must be detected for one second with underspeed to set E-Code.	Test 68
Overvoltage	1800	X	X	Prolonged three seconds of over 10% above nominal.	Problem 3
Overvoltage	1801	X	X	**Instantaneous**—Set by an instantaneous measurement 30% over nominal.	Problem 3
Overvoltage	1803	X	X	**Overspeed** Generator running at higher speed (25% over nominal rpm) causing overvoltage.	Problem 3
Undervoltage	1900	X	X	**Prolonged** Undervoltage; Generator voltage below 80% of nominal for 10+ seconds.	Problem 1
Undervoltage	1901	X	X	**Instantaneous** Generator voltage less than 15V. Hold off time of two seconds.	Problem 1
Undervoltage	1902	X	X	**Both Zero Crosses missing** Undervoltage due to faulty excitation winding, or zero cross circuit, or circuit in general. Both zero crosses must be missing for 1.5 seconds. Possible cause: loose wiring, field boost hardware failure	Problem 1
Undervoltage	1903	X	X	**Little / No Voltage (<120V)** Controller measuring no voltage resulting in undervoltage. Generator voltage less than 120V when undervoltage set.	Problem 1
Undervoltage	1904	X	X	**No Field Current But Have DPE** No field current during undervoltage alarm. Possible cause: Wire loose, brush failure	Problem 1

Alarm	E-Code	Diesel	Gas	Description	Procedure
Undervoltage	1905	X	X	**Low Speed** Generator running underspeed for > 30 seconds when undervoltage alarm set. Possible cause: fuel supply/control system, engine intake exhaust or mechanical issues.	Problem 1
Undervoltage	1916	X	X	**Single Zero Cross missing** Undervoltage due to faulty excitation winding, or zero cross circuit, or circuit in general. One zero cross missing for greater than 1.5 seconds. Possible cause: field boost hardware failure.	Problem 1
Wire Error	2099	X	X	Incorrect DC AC wiring hook up.	
Overload Remove Load	2101	X	X	**Overload (DPE Style Field Current Method)** Field Current measured value is above threshold. Possible cause: overload	
Fuse Problem	2400	X	X	**Missing / Damaged Fuse** The controller fuse is missing or damaged in such a way that it does not work. Fuse problem must be detected for 1.5 seconds. Firmware older than V1.30	
Alarm	**E-Code**	**Diesel**	**Gas**	**Description**	**Procedure**
Bosch	2500	X	X	Command and position feedback not matching or taking too much time to achieve. Possible causes: governor wire loose, governor module	Test 68
Bosch	2501	X	X	**Stuck Open** Command and position feedback not matching or taking too much time to achieve. Governor in open position for greater than one second. Possible causes: governor wire loose, governor module	Test 68
Bosch	2502	X	X	**Stuck Closed** Command and position feedback not matching or taking too much time to achieve. Governor in closed position (commanded otherwise) for greater than one second. Possible cause: governor wire loose, governor module	Test 68
Ignition	2600		X	Ignition Fault	Problem 37, 38, 39
Ignition	2601		X	**Missing Cam Pulse**—Cam pulses missing for five seconds.	Problem 38
Ignition	2602		X	Crank Circuit (External Module)	Problem 38, 39
Over current cylinder1	2611		X	Coil current too high for one second.	Problem 37
Over current cylinder2	2612		X	Coil current too high for one second.	Problem 37
Over current cylinder3	2613		X	Coil current too high for one second.	Problem 37
Over current cylinder4	2614		X	Coil current too high for one second.	Problem 37
Over current cylinder5	2615		X	Coil current too high for one second.	Problem 37
Over current cylinder6	2616		X	Coil current too high for one second.	Problem 37
Over current cylinder7	2617		X	Coil current too high for one second.	Problem 37
Over current cylinder8	2618		X	Coil current too high for one second.	Problem 37