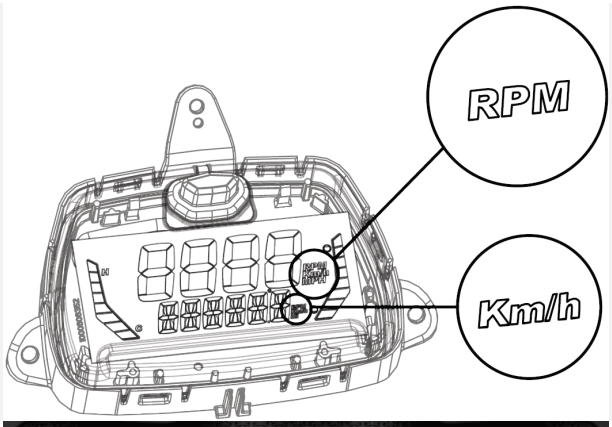
Коды неисправностей 850 E-TEC

Способ активации режима просмотра ошибок зависит от модели приборной панели:



Нажатием на кнопку добиться одновременного отображения оборотов двигателя и скорости.

Нажать и удерживать кнопку панели одновременно переключайте свет (ближний/дальний) не менее 5 раз.

После чего на панели отобразятся активные коды ошибок. Если ошибок несколько, то для их просмотра нажимаем на кнопку

Для выхода из режима удерживайте кнопку нажатой.

Чтобы перейти в режим отображения активных кодов неисправностей, нажав и удерживая кнопку МЕНЮ (M), несколько раз нажмите переключатель света фар.

Если сгенерировано два или более кодов неисправностей, для их просмотра используйте кнопки SET (S) и МЕНЮ (M).

Чтобы выйти из режима отображения кодов неисправностей, нажмите и удерживайте кнопку МЕНЮ (M).

Module	Code	Description	Causes	Service
Cluster	B2210	Heated lever up signal kept activated more than 60 seconds	Heated lever switch stuck or damaged wire. Damaged gauge input stage.	Check switch functionality. Check for short circuit on switch wiring. Refer to shop manual for testing procedure and wiring diagram.
Cluster	B2211	Heated lever down signal kept activated more than 60 seconds	Heated lever switch stuck or damaged wire. Damaged gauge input stage.	Check switch functionality. Check for short circuit on switch wiring. Refer to shop manual for testing procedure and wiring diagram.
Cluster	B2212	Warmers up signal kept activated more than 60 seconds	Warmers switch stuck or damaged wire. Damaged gauge input stage.	Check switch functionality. Check for short circuit on switch wiring. Refer to shop manual for testing procedure and wiring diagram.
Cluster	B2213	Warmers down signal kept activated more than 60 seconds	Warmers switch stuck or damaged wire. Damaged gauge input stage.	Check switch functionality. Check for short circuit on switch wiring. Refer to shop manual for testing procedure and wiring diagram.
Cluster	B2214	Gauge button kept activated more than 30 seconds	Gauge button stuck or damaged. Damaged gauge input stage.	Check switch functionality.
Cluster	B2215	Heated lever open or short circuit	Damaged or disconnected heated lever, circuit wires or gauge output pins. Damaged gauge output stage.	Check for appropriate heated lever resistivity. Check system circuit for continuity and short. Refer to shop manual for testing procedure, heated lever resistivity and wiring diagram. If heated lever and wiring are fine, replace gauge.

Module	Code	Description	Causes	Service
Cluster	B2216	Heated grips open or short circuit	Damaged or disconnected heated grips, circuit wires or gauge output pins. Damaged gauge output stage.	Check for appropriate heated grips resistivity. Check system circuit for continuity and short. Refer to shop manual for testing procedure, heated grips resistivity and wiring diagram. If heated grips and wiring are fine, replace gauge.
ECM	P0106	Ambient Pressure Sensor not plausible	Ambient air pressure sensor Defective Damaged circuit wires, damaged connector or damaged ECM pins, ECM voltage supply.	Make sure sensor connector is fully inserted. Measure voltage between harness connector MAPTS-1and MAPTS-3 (expected value: 4.8 to 5.1 volts). Check fort short between ground or supply on MAPTS-4
ECM	P0107	Ambient Pressure Sensor short to gnd	Voltage on system circuit MAPTS-4 reached a low value. Sensor may be disconnected. Circuit wires MAPTS-3 or MAPTS-4 may be disconnected. MAPTS-4 is shorted to ground No 5 volts supply on MAPTS-3 circuit. Damaged sensor. Damaged ECM.	Make sure sensor's connector is fully inserted. Measure voltage between harness connector AAPTS-1 and AAPTS-3 with the vehicle turned on (expected value: 4.8 to 5.1 volts) Check continuity between ECMB-F4 and MAPTS-1. Check continuity between ECMB-E4 and MAPTS-3. Check continuity between ECMB-F3 and MAPTS-4.
ECM	P0108	Ambient Pressure Sensor short to vcc	Voltage on system circuit MAPTS-4 reached a high value. Circuit wire MAPTS-4 shorted to a supply Circuit wire MAPTS-1 is not connected. Damaged sensor. Damaged ECM.	Make sure sensor's connector is fully inserted. Measure voltage between harness connector MAPTS-1 and MAPTS-3 with the vehicle turned on (expected value: 4.8 to 5.1 volts) Check continuity between ECMB-F4 and MAPTS-1. Check continuity between ECMB-E4 and MAPTS-3. Check continuity between ECMB-F3 and MAPTS-4.
ECM	P0111	Intake Air Temperature Sensor not plausible	MAPTS sensor Defective Damaged circuit wires, damaged connector or damaged ECM pins, ECM voltage supply.	Make sure sensor connector is fully inserted. Check for continuity all circuits from ECM to CTS connector (refer to the shop manual for wiring diagram). Check MAPTS-2 circuits for resistivity to ground or supply.
ECM	P0112	Intake air temperature sensor voltage too low.	Voltage on system circuit MAPTS-2 reached a low value. System circuit MAPTS-2 shorted to ground. Damaged sensor.	Disconnect the sensor and check for a change in the fault code. If the fault code stays the same, look for a short circuit on the harness. If the fault code is different, replace the sensor. Check MAPTS sensor pins 1 and 2 for approximately 2280 to 2736 ohms at 19 to 21°C (66 to 70°F). If the sensor resistivity is out of range replace the sensor. If the sensor resistivity is correct according to the specified temperature range then check circuit wire MAPTS-2 for a short to the ground.

Module	Code	Description	Causes	Service
ECM	P0113	Intake air temperature sensor voltage too high.	Voltage on system circuit MAPTS-2 reached a high value. Sensor may be disconnected. Circuit wires MAPTS-1 or MAPTS-2 may be disconnected. Damaged sensor.	Make sure sensor's connector is fully inserted. If it is correct then disconnect it and perform the following tests. Check MAPTS sensor pins 1 and 2 for approximately 2280 to 2736 ohms at 19 to 21°C (66 to 70°F). If the sensor resistivity is out of range replace the sensor. Check system circuits ECMB-B2 for continuity to terminal 2 of the MAPTS sensor. Check system circuits ECMB-F4 for continuity to terminal 1 of the MAPTS sensor.
ECM	P0116	Engine Coolant Temperature Sensor not plausible	Intermittent engine temperature sensor reading	Make sure sensor's connector is fully inserted. Check for continuity all circuits from ECM to CTS connector (refer to the shop manual for wiring diagram). Check CTS pin 1 circuits for resistivity to ground.
ECM	P0117	Coolant temperature sensor voltage too low	Coolant temperature sensor or circuit wires shorted to ground.	Disconnect the sensor and check for a change in the fault code. If the fault code stays the same, look for a short circuit on the harness. If the fault code is different, replace the sensor. Check for leakage between sensor's connection and ground. Check system circuit ECMA-C1 for continuity to terminal 1 of the CTS connector and ECMA-B1 for continuity to terminal 2 of the CTS connector. Check circuit ECMB-B1 for resistivity to ground.
ECM	P0118	Coolant temperature sensor voltage too high	Disconnected sensor or sensor's resistance too high.	Check for disconnected coolant temperature sensor. Check the engine temperature sensor for approximately 2280 to 2736 ohms at 19 to 21°C (66 to 70°F). Replace the sensor if necessary. Check system circuit ECMA-C1 for continuity to terminal 1 of the CTS connector and ECMA-B1 for continuity to terminal 2 of the CTS connector.
ECM	P0121	Throttle position sensor functional problem	Damaged circuit wires or connector, damaged throttle position sensor.	Check throttle position sensor connector for 5 volts between pin 2 and 3. Check system circuits ECMA-D2 for continuity to terminal 3 of the TPS connector, ECMA-C2 for continuity to terminal 2 of the TPS connector and ECMA-D3 for continuity to terminal 1 of the TPS connector.
ECM	P0122	Throttle position sensor voltage too low	Damaged circuit wires, damaged throttle position sensor or damaged ECM pins.	Check throttle position sensor connector for 5 volts between pin 2 and 3. Check system circuits ECMA-D2 for continuity to terminal 3 of the TPS connector, ECMA-C2 for continuity to terminal 2 of the TPS connector and ECMA-D3 for continuity to terminal 1 of the TPS connector. Check for continuity to ground on ECMA-D3

Module	Code	Description	Causes	Service
ECM	P0123	Throttle position sensor voltage too high	Damaged circuit wires, damaged throttle position sensor or damaged ECM pins.	Check throttle position sensor connector for 5 volts between pin 2 and 3. Check system circuits ECMA-D2 for continuity to terminal 3 of the TPS connector, ECMA-C2 for continuity to terminal 2 of the TPS connector and ECMA-D3 for continuity to terminal 1 of the TPS connector. Check for continuity to supply on ECMA-D3
ECM	P0127	Intake Air Temperature sensor too high	Disconnected sensor or sensor's resistance too high.	Check for disconnected air temperature sensor Check system circuits ECMB for continuity to terminal of the MAPTS sensor (refer to electrical schematic).
ECM	P0217	High coolant temperature detected	Poor cooling conditions. Engine may have been idling for too long. Low coolant level. Problem with cooling system.	Check coolant level. Check condition list to find out how it happened. Check cooling system.
ECM	P0231	Fuel pump open circuit or shorted to ground	Disconnected fuel pump. Damaged fuel pump, damaged circuit wires or connectors.	Check system circuit ECMB-M3 for continuity to terminal A of the fuel pump connector. Check system circuit ECMB-L4 for continuity to terminal C of the fuel pump connector. Check circuit ECMB-M3 and ECMB-L4 for resistivity to ground.
ECM	P0232	Fuel Pump short to 12V	Damaged fuel pump, damaged circuit wires or connectors.	Check system circuit ECMB-M3 for continuity to terminal A of the fuel pump connector. Check system circuit ECMB-L4 for continuity to terminal C of the fuel pump connector. Check circuit fuel pump connector A and C for short
ECM	P0236	Exhaust Pressure Sensor circuit Fault	Exhaust pressure sensor Defective Damaged circuit wires, damaged connector or damaged ECM pins, ECM voltage supply.	Make sure sensor's connector is fully inserted. Check for continuity all circuits from ECM to Exhaust pressure sensor connector (refer to the shop manual for wiring diagram).
ECM	P0237	Exhaust Pressure Sensor Open circuit or shorted to ground	Voltage on system circuit reached a low value. Sensor may be disconnected. No 5 volts supply on sensor circuit. Damaged sensor. Damaged ECM.	Make sure sensor's connector is fully inserted. Measure voltage between harness connector EPS-1 and EPS-3 with the vehicle turned on (expected value: 4.8 to 5.1 volts) Check continuity between EPS and ECM (refer to the shop manual for wiring diagram)
ECM	P0238	Exhaust Pressure Sensor Short circuit	Voltage on system circuit MAPTS-4 reached a high value. Circuit wire ETS shorted to a supply Damaged sensor. Damaged ECM.	Make sure sensor's connector is fully inserted. Measure voltage between harness connector EPS-1 and EPS-3 with the vehicle turned on (expected value: 4.8 to 5.1 volts) Check continuity between EPS and ECM (refer to the shop manual for wiring diagram)
ECM	P0244	Wastegate Position deviation from target	Damage wastegate link adjustment	Check Wastegate link adjustment perform learning of the wastegate position close / Open

Module	Code	Description	Causes	Service
ECM	P0245	Wastegate motor short circuit	Damaged circuit wires or connector, damaged actuator motor.	Make sure connector is fully inserted. Check system circuit between ECM and wastegate motor (refer to shop manual for wiring diagram)
ECM	P0246	Wastegate motor Open circuit or shorted to ground	Damaged circuit wires or connector, damaged actuator motor.	Make sure connector is fully inserted. Check system circuit between ECM and wastegate motor (refer to shop manual for wiring diagram)
ECM	P0261	E-TEC MAG injector open circuit or shorted to ground	Damaged or disconnected injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check for approximately 2.4 ohms on injector. Check system circuit ECMA-M1 and MAG injector pin 2. Check system circuit system voltage (55V ECMA-L1) and PTO injector pin 1 for short to ground. Replace ECM.
ECM	P0262	E-TEC MAG injector shorted to system voltage (over current)	Damaged injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check for approximately 2.4 ohms on injector. Check system circuit ECMA-M1 and MAG injector pin 2. Check system circuit system voltage (55V ECMA-L1) and PTO injector pin 1. Replace ECM.
ECM	P0264	E-TEC PTO injector open circuit or shorted to ground	Damaged or disconnected injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check for approximately 2.4 ohms on injector. Check system circuit ECMA-M2 and PTO injector pin 2. Check system circuit system voltage (55V ECMA-L1) and MAG injector pin 1 for short to ground. Replace ECM.
ECM	P0265	E-TEC PTO injector shorted to system voltage (over current)	Damaged injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check for approximately 2.4 ohms on injector. Check system circuit ECMA-M2 and PTO injector pin 2. Check system circuit system voltage (55V ECMA-L1) and MAG injector pin 1. Replace ECM.
ECM	P0270	Throttle body MAG injector open or shorted to ground	Damaged or disconnected injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check for disconnected injector. Check system circuit ECMA-A3 for short to ground. Check for MAG open throttle body injectors. Remake ECM
ECM	P0271	Throttle body MAG injector shorted to 12V or system voltage	Damaged injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check system circuit ECMA-A3 for short to 12V or 55V. Check for MAG shorted throttle body injectors. Remake ECM
ECM	P0273	Throttle body PTO injector open or shorted to ground	Damaged or disconnected injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check for disconnected injector. Check system circuit ECMA-A2 for short to ground. Check for PTO shorted throttle body injectors. Remake ECM
ECM	P0274	Throttle body PTO injector shorted to 12V or system voltage	Damaged injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check system circuit ECMA-A2 for short to 12V or 55V. Check for PTO open throttle body injectors. Remake ECM

Module	Code	Description	Causes	Service
ECM	P0326	Knock sensor below minimum noise	Damaged or disconnected knock sensor, damaged circuit wires or damaged connector.	Check system circuits ECMA-H1 for continuity to terminal 1 of knock sensor connector and ECMA-G1 for continuity to terminal 2 of knock sensor connector. Check sensor mounting surface and torque.
ECM	P0339	Crankshaft signal fault (lost of sync)	CPS signal not plausible, damaged circuit wires, damaged connector or damaged tooth wheel.	Check for 190 to 290 ohms between terminals ECMA-K1 and ECMA-K2 of ECM connector. Check for 2 volts AC between terminals ECMA-K1 and ECMA-K2 of ECM connector while cranking the engine.
ECM	P0351	MAG ignition coil open circuit or shorted to ground	Damaged circuit wires or connector, damaged or disconnected ignition coil.	Check system circuit ECMA-J3 for continuity to terminal 2 of the ignition coil connector. Check for 55 volts on terminal 3 of ignition coil connector. Check for continuity between terminal 1 of ignition coil connector and chassis.
ECM	P0352	PTO ignition coil open circuit or shorted to ground	Damaged circuit wires or connector, damaged or disconnected ignition coil.	Check system circuit ECMA-K3 for continuity to terminal 5 of the ignition coil connector. Check for 55 volts on terminal 6 of ignition coil connector. Check for continuity between terminal 4 of ignition coil connector and chassis.
ECM	P0387	Absolute Crank position sensor Signal 1 or Signal 2 Voltage too low	Absolute Crank Position sensor or circuit wires shorted to Ground	Check for damaged sensor wires could cause intermittent to ground Check system circuit ECMA-H2 for continuity to terminal 4 of the ACPS connector and ECMA-G2 for continuity to terminal 3 of the ACPS connector.
ECM	P0388	Absolute Crank position sensor Signal 1 or Signal 2 Voltage too high	Absolute Crank Position sensor Disconnected or shorted to Battery	Check for disconnected ACPS sensor. Check for damaged sensor wires or connector Check system circuit ECMA-H2 for continuity to terminal 4 of the ACPS connector and ECMA-G2 for continuity to terminal 3 of the ACPS connector.
ECM	P0389	Absolute Crank position sensor Signal not plausible	Absolute Crank Position sensor Signal 1 and 2 are not synchronized	Check for damaged sensor wires or connector Check system circuit ECMA-H2 for continuity to terminal 4 of the ACPS connector and ECMA-G2 for continuity to terminal 3 of the ACPS connector. Check for damage sensor
ECM	P0426	Exhaust temperature sensor functional problem	Intermittent exhaust temperature sensor reading or circuit wires shorted to ground.	Check for damaged sensor wire
ECM	P0427	Exhaust temperature sensor too low	Damaged circuit wires, damaged sensor or damaged ECM pins.	Check for damaged or disconnected exhaust sensor probe.
ECM	P0428	Exhaust temperature sensor too high or THCM probe open	Damaged circuit wires, damaged sensor, damaged connector or damaged ECM pins	Check TST 137296 Check for damaged or disconnected exhaust sensor probe.
ECM	P0501	Vehicle Speed plausibility fault	Damaged circuit wires, damage sensor damaged connector or damaged ECM pins	Check for Speed sensor functionality (refer to shop manual for speed sensor diagnostic)
ECM	P0513	Invalid key detected	A non stored access key was detected when key switch was turned to ON. If no access key is available, program a new one and retry.	N/A

Module	Code	Description	Causes	Service
ECM	P0562	Battery voltage low	Battery failure, damaged circuit wires or connection, too much load on electrical system.	Check battery condition, check if additional accessories are connected in the circuit.
ECM	P0563	Battery voltage high	An external battery charger may have been used, damaged ECM.	Measure 12 V primary circuit voltage on diagnostic connector pin 3 and 5 for approximately 14 volts while engine is running. If it's higher than 15.5 volts you may have a damaged ECM. Make sure no external power is connected to the primary 12 volt circuit.
Cluster	P0601	EEPROM checksum error	The cluster's memory has been corrupted.	Replace gauge if odometer value does not make sense with previous known value.
ECM	P0601	EMM checksum	Calibration has been modified from production release	N/A
ECM	P0602	Calibration has been modified from production release	N/A	N/A
ECM	P0616	Starter Relay Open circuit	N/A	N/A
ECM	P0617	Starter Relay short to supply (over current)	N/A	N/A
Cluster	P0629	Fuel sensor open circuit or short to ground	Damaged sensor, damaged circuit wires, damaged connector or damaged cluster's output pins.	Check for 2.6 ohms (full tank) to 93.6 ohms (empty tank) between pin 4 and 8 in the disconnected harness gauge connector. Refer to shop manual for testing procedure and wiring diagram.
ECM	P0642	5V reference supply too low	Damaged sensors, damaged circuit wires, damaged connector, damaged ECM pins or damaged ECM	Check for damaged sensors on ECMA connector: TPS, RAVE position sensor, Oil feedback, ACPS (shot only) Check 5 volts sensor supply.
ECM	P0643	5V reference supply too high	Damaged sensors, damaged circuit wires, damaged connector, damaged ECM pins or damaged ECM	Check for damaged sensors on ECMA connector: TPS, RAVE position sensor, Oil feedback, ACPS (shot only) Check 5 volts sensor supply.
ECM	P0667	ECM temperature sensor functional problem	Damaged temperature sensor inside in the ECM.	This sensor is used for monitoring only. No action is required.
ECM	P0668	ECM temperature sensor voltage too low	Damaged temperature sensor inside in the ECM.	This sensor is used for monitoring only. No action is required.
ECM	P0669	ECM temperature sensor voltage too high	Damaged temperature sensor inside in the ECM.	This sensor is used for monitoring only. No action is required.
ECM	P0686	Accessory Relay / spare short to gnd (open)	N/A	N/A
ECM	P0687	Accessory Relay / spare short to supply (over current)	N/A	N/A
ECM	P0691	Fan Relay open circuit or shorted to ground	Disconnected fan relay. Damaged fan relay, damaged circuit wires or connectors.	Check system circuit ECMB-J2 for continuity to fan relay control pin. Check 12V supply to relay
ECM	P0692	Fan Relay short to 12V	Damaged fan relay, damaged circuit wires or connectors.	Check system circuit ECMB-J2 for continuity to fan relay control pin.
ECM	P06B0	5V vehicle supply too low/high	Damaged sensors, damaged circuit wires, damaged connector, damaged ECM pins or damaged ECM	Check for damaged sensors on ECMB connector: VSS and MAPTS Check 5 volts sensor supply. Measure voltage between ECMB-D2 and ground or ECMB-E4 and ground (expected value: 4.8 to 5.1 volts).

Module	Code	Description	Causes	Service
ECM	P06B1	5V engine supply too low/high	Damaged sensors, damaged circuit wires, damaged connector, damaged ECM pins or damaged ECM	Check for damaged sensors on ECMA connector: RPS and TPS Check 5 volts sensor supply. Measure voltage between ECMA-F3 and ground or ECMA-D2 and ground or ECMA-E4 and ground (expected value: 4.8 to 5.1 volts).
ECM	P1217	Engine shutdown at idle because overheat occurred	Engine coolant temperature reached a high value at idle and the engine was stopped for protection.	Avoid keeping the engine idling for too long. Inspect cooling system for leaks.
ECM	P1218	Major Engine overheat occurred	Poor cooling conditions. Engine may have been idling for too long. Low coolant level. Problem with cooling system.	Check coolant level. Check condition list to find out how it happened. Check cooling system.
ECM	P1231	Oil pump open circuit or shorted to ground	Damaged or disconnected oil pump, circuit wires or ECM output pins.	Check connection on oil pump, check system circuit ECMA-B4 and OP-1. Check connection on oil pump OP-1 for 55 volts.
ECM	P1232	Oil Pump short to system voltage	Damaged oil pump, circuit wires or ECM output pins.	Check connection on oil pump, check system circuit ECMA-B4 and OP-1. Check for short oil pump
ECM	P1233	Oil pump feedback switch do not close	Damaged or disconnected oil pump feedback switch circuit wires or ECM input pin.	Check connection on oil pump feedback switch, check system circuit ECMA-E1 and ECMA-F1. Check black wire on oil pump feedback switch connector for resistivity to ground.
ECM	P1234	Oil pump feedback switch do not open	Damaged oil pump feedback switch circuit wires.	Check connection on oil pump feedback switch, check system circuit ECMA-E1 and ECMA-F1. Look for damaged short to ground wire.
ECM	P1251	Turbo oil pump Open Circuit or shorted to Ground	Damaged or disconnected oil pump, circuit wires or ECM output pins.	Check connection on oil pump Check circuit ECM to oil pump (refer to manual shop for wiring diagram) Check for 12Volts at the pump when activating the pump
ECM	P1252	Turbo oil pump Open Circuit or shorted to Supply	Damaged oil pump, circuit wires or ECM output pins.	Check circuit ECM to oil pump (refer to manual shop for wiring diagram) Check for short oil pump Check for 12Volts at the pump when activating the pump
ECM	P1253	Turbo oil pump Short Circuit	Damaged oil pump, circuit wires or ECM output pins.	Check circuit ECM to oil pump (refer to manual shop for wiring diagram) Check for short oil pump Check for 12Volts at the pump when activating the pump
ECM	P1326	High engine detonation detected on MAG side	Poor fuel quality, low fuel pressure, wrong timing offset, damaged spark plug, engine temperature too high, worn piston/ring.	Measure fuel pressure, check timing offset, check spark plug, check coolant system, check for evidence of piston erosion.
ECM	P1327	High engine detonation detected on PTO side	Poor fuel quality, low fuel pressure, wrong timing offset, damaged spark plug, engine temperature too high, worn piston/ring.	Measure fuel pressure, check timing offset, check spark plug, check coolant system, check for evidence of piston erosion.
ECM	P1347	Absolute Crank position sensor Signal 1 or Signal 2 Voltage too low	Absolute Crank Position sensor or circuit wires shorted to Ground	Check for damaged sensor wires could cause intermittent to ground Check system circuit ECMA-H2 for continuity to terminal 4 of the ACPS connector and ECMA-G2 for continuity to terminal 3 of the ACPS connector.

Module	Code	Description	Causes	Service
ECM	P1348	Absolute Crank position sensor Signal 1 or Signal 2 Voltage too high	Absolute Crank Position sensor Disconnected or shorted to Battery	Check for disconnected ACPS sensor. Check for damaged sensor wires or connector Check system circuit ECMA-H2 for continuity to terminal 4 of the ACPS connector and ECMA-G2 for continuity to terminal 3 of the ACPS connector.
ECM	P1351	MAG ignition shorted to system voltage	Damaged circuit wires or connector, damaged ignition coil.	Check system circuit ECMA-J3 for short to 55 volts.
ECM	P1352	PTO ignition shorted to system voltage	Damaged circuit wires or connector, damaged ignition coil.	Check system circuit ECMA-K3 for short to 55 volts.
ECM	P1426	High exhaust gas temperature detected	Damaged sensor, low fuel pump pressure, air leak in exhaust system, poor fuel quality.	Check fuel pump pressure, check sensor and replace if necessary, check components in exhaust system.
ECM	P1427	Temperature module not detected	Temperature module is set to be active with BUDS2 but the module is not connected or it is damaged. Damaged wires.	Check if temperature module is connected. Check for damaged connector or damaged wires. Check if 12 volts system is ok. Check for 12 volts between pin 3 and 4 on connector TM. Check for continuity between TM connector pin 1 and BUDS connector pin 1. Check for continuity between TM connector pin 2 and BUDS connector pin 2.
ECM	P1428	Tuned pipe temperature sensor open circuit	Damaged sensor or damaged sensor wire.	Check for damaged sensor wire
ECM	P1429	Tuned pipe temperature sensor functional problem	Intermittent contact with the temperature sensor. Damaged sensor or damaged sensor wire.	Check for damaged sensor wire
ECM	P1430	Thermocouple module not correctly set	Thermocouple module is connected but it is not set to be active with BUDS2	Check vehicle exhaust configuration in BUDS
ECM	P1470	RAVE control deviation	Loose RAVE cable adjustment Damaged RAVE cable	Check RAVE cable and adjustment
ECM	P1471	RAVE position sensor functional problem	Damaged circuit wires or connector, damaged Rave position sensor.	Make sure sensor connector is fully inserted. Measure voltage between harness connector ERF-1 and ERF-3 (expected value: 4.8 to 5.1 volts). Check system circuit between ERF-2 and ECMA-E3 Replace sensor
ECM	P1472	RAVE position sensor voltage too low	Damaged circuit wires or connector, damaged Rave position sensor.	Make sure sensor connector is fully inserted. Measure voltage between harness connector ERF-1 and ERF-3 (expected value: 4.8 to 5.1 volts). Check system circuit between ERF-2 and ECMA-E3 Replace sensor
ECM	P1473	RAVE position sensor voltage too high	Damaged circuit wires or connector, damaged Rave position sensor.	Measure voltage between harness connector ERF-1 and ERF-3 (expected value: 4.8 to 5.1 volts). Check system circuit between ERF-2 and ECMA-E3 Replace sensor

Module	Code	Description	Causes	Service
ECM	P1474	RAVE actuator motor open circuit	Damaged circuit wires or connector, damaged Rave actuator motor.	Make sure connector is fully inserted. Check system circuit between E-RAVE-4 and ECMA-G4 + ECMA-H4 Check system circuit between E-RAVE-5 and ECMA-J4 + ECMA-K4 Replace rave actuator motor
ECM	P1475	RAVE actuator motor short circuit	Damaged circuit wires or connector, damaged Rave actuator motor.	Check system circuit between E-RAVE-4 and ECMA-G4 + ECMA-H4 Check system circuit between E-RAVE-5 and ECMA-J4 + ECMA-K4 Replace rave actuator motor
ECM	P1476	RAVE valve middle position not reached	Damaged E-RAVE cable Carbon deposit around E-RAVE parts.	Check if the E-RAVE valves move freely. Clean and make the necessary adjustment if necessary.
ECM	P1477	RAVE valve close position not reached	Damaged E-RAVE cable Carbon deposit around E-RAVE parts.	Check TST 137296 Check if the E-RAVE valves move freely. Clean and make the necessary adjustment if necessary.
ECM	P1478	RAVE valve open position not reached	Damaged E-RAVE cable Carbon deposit around E-RAVE parts.	Check if the E-RAVE valves move freely. Clean and make the necessary adjustment if necessary.
ECM	P1479	RAVE motor Sensor short to supply	Damaged circuit wires, connector or sensor	Measure voltage between harness connector E-RAVE-1 and E-RAVE-2 (expected value: 4.8 to 5.1 volts). Check system circuit between E-RAVE-3 and ECMA-D4
ECM	P147B	RAVE position Open / Close learning Out of range	Wrong RAVE position during RAVE valve setting	Program RAVE valve position sensor setting Check Close Rave Position sensor voltage for 0.6V +/-0.3V Check Open Rave Position sensor Voltage for 4.1V +/-0.3V
ECM	P1480	RAVE motor Sensor short to gnd	Damaged circuit wires, connector or sensor	Make sure sensor connector is fully inserted. Measure voltage between harness connector E-RAVE-1 and E-RAVE-2 (expected value: 4.8 to 5.1 volts). Check system circuit between E-RAVE-3 and ECMA-D4
ECM	P1481	RAVE motor Sensor not plausible	Damaged circuit wires, connector or sensor	Make sure sensor connector is fully inserted. Measure voltage between harness connector E-RAVE-1 and E-RAVE-2 (expected value: 4.8 to 5.1 volts). Check system circuit between E-RAVE-3 and ECMA-D4
ECM	P1532	High ECM temperature detected	Poor fuel flow in ECM. Damaged ECM.	Check fuel system for clogged filter, damaged regulator or damaged fuel pump.
ECM	P1533	Major ECM overheat occurred	Low fuel pressure, low fuel circulation in ECM.	Check fuel pump pressure, check fuel line for pinched hose.
ECM	P1549	Major Exhaust gas overheat occurred	Damaged sensor, low fuel pump pressure, air leak in exhaust system, poor fuel quality.	Check fuel pump pressure, check sensor and replace if necessary, check components in exhaust system.
ECM	P1560	Charging voltage 12V Open load	N/A	N/A
ECM	P1562	System voltage too low	Damaged circuit wires, connector, injector, ignition coil, oil pump, capacitor or ECM.	Check for loose connection on capacitor or damaged capacitor. Check for defective component as describe in Possible Causes.

Module	Code	Description	Causes	Service
ECM	P1563	System voltage too high	Damaged circuit wires, connector or ECM.	Check for loose connection on capacitor or damaged capacitor. Check for defective component as describe in Possible Causes.
ECM	P1621	12 volts supply overload	Damaged circuit wires or connector.	Check 12 volts circuit for damaged or shorted wires. Check tail light, headlamp or diagnostic connector. Try removing fuse F1, F2, F3 and F4 to isolate the issue
ECM	P1656	DESS line shorted to ground	Damaged circuit wires or mixed up connections.	Check system circuits ECMB-K3 for continuity to terminal C of DESS post connector. Check system circuits ECMB-K2 for continuity to terminal B of DESS post connector. Check system circuits ECMB-J3 for continuity to terminal A of DESS post connector. Check system circuits fuse box terminal A to terminal D of D.E.S.S post connector.
ECM	P2147	Throttle body PTO and MAG injectors supply short to ground or over current	Damaged or disconnected injector, circuit wires or ECM output pins. Damaged ECM output stage.	Check system circuit ECMA-A1 and ECMA-A4 for short to ground Check for MAG and PTO shorted throttle body injectors. Remake ECM
ECM	P2299	Incompatibility between brake lever position and engine/vehicle speed	Brake lever was left in Park position. The pilot kept a constant pressure applied on the brake lever while running. Defective or stuck brake switch. Brake circuit is shorted to 12 volts.	Check if the brake switch operate properly. Check if brake switch is secured on the master cylinder. Check for 12 volts at ECM connector ECMB-H3 when brake is applied. Check for 0 volt at ECM connector ECMB-H3 when brake is not applied. Check for a faulty ground on the brake light.
ECM	P2478	Exhaust temperature sensor dropout	Exhaust temperature sensor is incorrect location	Check sensor probe location in exhaust system
ECM	P250F	Low oil level	Oil level too low	N/A
ECM	P2563	Wastegate Learned position OPEN to CLOSED is out of range	Learning of the wastegate position not correctly done	Check for lower than 2.5V when wastegate position is open Check for higher than 3.5V when wastegate is close
ECM	P2564	Wastegate Position Sensor short circuit	Damaged circuit wires or connector, damaged position sensor.	Make sure sensor connector is fully inserted. Measure voltage between harness connector WG-1 and WG-3 (expected value: 4.8 to 5.1 volts). Check system circuit between WG-2 and ECM (refer to shop manual for wiring diagram)
ECM	P2565	Wastegate Position Sensor open circuit or short to ground	Damaged circuit wires or connector, damaged position sensor.	Make sure sensor connector is fully inserted. Measure voltage between harness connector WG-1 and WG-3 (expected value: 4.8 to 5.1 volts). Check system circuit between WG-2 and ECM (refer to shop manual for wiring diagram)

Module	Code	Description	Causes	Service
ECM	P2566	Wastegate Position Sensor Fault	Damaged circuit wires or connector, damaged position sensor.	Make sure sensor connector is fully inserted. Measure voltage between harness connector WG-1 and WG-3 (expected value: 4.8 to 5.1 volts). Check system circuit between WG-2 and ECM (refer to shop manual for wiring diagram)
ECM	P25B3	Wastegate close position not reached	Damaged wastegate link	Check if the wastegate move freely. Clean and make the necessary adjustment if necessary.
ECM	P25B4	Wastegate open position not reached	Damaged wastegate link	Check if the wastegate move freely. Clean and make the necessary adjustment if necessary.
ECM	P3001	Boost/Intake pressure reached maximum allowed	N/A	Clear Pcode
ECM	P3002	Boost pressure delta not possible	Damaged intake or exhaust pressure sensor or wiring	Look for intake MAPTS Pcode. Measure voltage between harness connector *Exhaust pressure sensor power* (expected: 4.8 to 5.1 volts). Check for short between ground or supply on *harness Exhaust pressure sensor input* Inspect harness and sensors for loose connection or damage
ECM	P3003	Boost Pressure delta too high	Wastegate linkage wrong adjusted	Inspect WG linkage, make sure WG can move freely Clean and make the necessary adjustment if necessary.
ECM	P3004	Leak in Intake system	Intake leak Defective Turbo	Inspect for intake leak Check in shop manual for turbo inspection procedure
ECM	P3005	Boost pressure exceed target	Damaged wastegate link	Check if the wastegate move freely. Clean and make the necessary adjustment if necessary.
ECM	P3006	Boost pressure delta not possible at idle (exhaust too low)	Damaged intake or exhaust pressure sensor or wiring	Look for intake MAPTS Pcode. Measure voltage between harness connector *Exhaust pressure sensor power* (expected: 4.8 to 5.1 volts). Check for short between ground or supply on *harness Exhaust pressure sensor input* Inspect harness and sensors for loose connection or damage
ECM	P3311	Belt Overload warning state occurred	Repeated fast engine acceleration in a short time	Advise owner
ECM	P3312	Belt Overload critical state occurred	Owner kept suddenly fast engine acceleration after warning	Advise owner to maintain more regular RPMs when the overload warning shows up.
ECM	P3401	ACPS synchronization drifted	ACPS stored positions are no longer valid	Re-learn SHOT positions.
ECM	U0155	Loss of communication with Cluster	ECM could not communicate with cluster	Look at cluster connector and ECMA connector for bent pins. Verify wiring from ECM to cluster is not damaged and connectors are fully plugged in.