

DTC Summaries

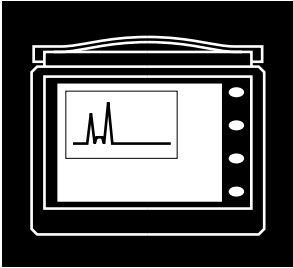
Jaguar S-TYPE

Use the bookmarks at left to access the required DTC Summary.

- Powertrain DTC Summaries: 2000 Model Year applies to vehicles up to VIN L86901
- Powertrain DTC Summaries: 2001 – 2002 Model Year applies to 2001 and 2002 MY vehicles from VIN L86902 ON

Other S-TYPE Summaries apply as indicated by the Model Years in the titles.





Powertrain DTC Summaries

Jaguar S-TYPE 2000 Model Year

Refer to page 2 for important information regarding the use of “Powertrain DTC Summaries”.

Revised April, 2002:

- DTCs P0325, P0330

Revised August, 2002:

- DTC P1584

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
SYS	The powertrain system the DTC is associated with – EMS, TRANS, PCM, ABS/TC (DSC). DTC retrieval tools: OBD II – indicates that the DTC is an OBD II code and can be accessed via a generic scan tool or PDU. JAG – indicates that the DTC is not an OBD II code and is accessed only via PDU.
FAULT DESCRIPTION	Fault description.
MONITORING CONDITIONS	“SERVICE DRIVE CYCLE” For the particular DTC. Operate the vehicle as described to check for a reoccurrence of the DTC. Refer to pages 4 – 8. KOEO and KOER PDU self tests must be carried out to check for a reoccurrence of the fault. Refer to page 3.
CHECK ENGINE MIL (CK ENG)	1 1 TRIP – indicates that the CHECK ENGINE MIL is activated by a fault occurring during ONE “TRIP”. 2 2 TRIPS – indicates that the CHECK ENGINE MIL is activated by a fault occurring during TWO CONSECUTIVE “TRIPS”. N NO – indicates that the CHECK ENGINE MIL is not activated.
OTHER	Driver Warnings: N None R RED MIL A AMBER MIL M MESSAGE “SYSTEM FAULT” C Charge indicator H Engine High Temperature indicator S Speed Control indicator T Traction Control indicator
DEFAULT ACTION	Control Module default action: Logged – DTC stored in PCM memory buffer; Flagged – DTC stored in PCM memory / CHECK ENGINE MIL activated.
POSSIBLE CAUSES	HIGH VOLTAGE – High voltage can be either sensor supply voltage (5 volts) or B+ voltage.

OBD II SYSTEM READINESS

If DTC P1000 is flagged after DTCs have been cleared, all SEVEN (7) OBD II diagnostic monitor drive cycles have not been completed. Refer to OBD monitor drive cycles, pages 4 – 8.

SELF TESTS

Two technician initiated component self tests are available using PDU:

KOEO Key (ignition) On Engine Off – The KOEO self test determines if system components are operating within tolerances with the ignition switched ON and the engine stopped.

KOER Key (ignition) On Engine Running – The KOER self test determines if system components are operating within tolerances with the ignition switched on and the engine running. KOER flags self-test DTC P1001 if a component fails to operate within the specified limits but does not activate the CHECK ENGINE MIL.

OBD DIAGNOSTIC MONITORS

The Engine Management and Transmission Control systems are continuously checked during vehicle operation by the Powertrain Control Module (PCM) on-board diagnostic (OBD) facility. The PCM OBD incorporates seven diagnostic monitors. Each monitor has an associated group of DTCs. The diagnostic monitors will complete the diagnostic test(s) if a specified service “drive cycle” is carried out.

The seven diagnostic monitors are as follows:

- Heated Oxygen Sensors Monitor
- Adaptive Fuel Monitor
- Misfire Monitor
- Catalyst Efficiency Monitor
- Evaporative System Monitor
- EGR Monitor (V6 NAS only)
- Comprehensive Component Monitor (Engine Management / Transmission)

DIAGNOSTIC MONITORS DRIVE CYCLES

Technicians can ensure that an OBD Monitor drive cycle is completed and that all or specific components have been checked by completing a specified drive cycle. Use the following service drive cycles to confirm that the components and subsystems covered by the Diagnostic Monitors are operating correctly.

HEATED OXYGEN SENSORS MONITOR DRIVE CYCLE

Note: The HO2 Sensor Monitor will also be completed during the Catalyst Efficiency Monitor drive cycle.

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 3 Drive vehicle on a level road. Avoid harsh acceleration.
- 4 Maintain a steady speed between 64 km/h (40 mph) and 113 km/h (60 mph) for 10 seconds.

ADAPTIVE FUEL MONITOR DRIVE CYCLE

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).

MISFIRE MONITOR DRIVE CYCLE

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 3 Drive vehicle on a level road. Accelerate at 50% throttle up to 105 km/h (65 mph).
- 4 Release throttle and coast down to 80 km/h (50mph).
- 5 The misfire monitor will complete once acceleration is resumed.

CATALYST EFFICIENCY MONITOR DRIVE CYCLE

The catalyst efficiency monitor operates by comparing the number of downstream HO2 Sensor “swings” to a given number of upstream HO2 Sensor “swings” while the vehicle is cruising in each of two AM (mass air flow) stages. The AM and IMAF values vary between V6 and V8 vehicles due to differences in MAF Sensor characteristics.

- 1 Fuel level >25%.
- 2 Connect PDU so that the AM (mass air flow, grams per second) PID can be observed while driving. If AM cannot be accessed, read IMAF (mass air flow sensor raw voltage).
- 3 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 4 Drive vehicle on a level road. Avoid harsh acceleration.
- 5 Stage 1 – Maintain a steady speed of approximately 80 km/h (50 mph). Adjust the speed as necessary to stay within the stage 1 range. Maintain this speed for 3 minutes.
- 6 Stage 2 – Maintain a steady speed of approximately 97 km/h (60 mph). Adjust the speed as necessary to stay within the stage 2 range. Maintain this speed for 3 minutes.

	V8		V6	
	AM	IMAF	AM	IMAF
Stage 1	15.9 – 19.7 grams per second	3.15 v – 3.40 v	15.9 – 19.7 grams per second	3.40 v – 3.70 v
Stage 2	21.2 – 24.2 grams per second	3.50 v – 3.80 v	21.9 – 25.7 grams per second	3.90 v – 4.25 v

EVAPORATIVE SYSTEM MONITOR DRIVE CYCLE

The EVAP drive cycle requires that the vehicle not be operated for six hours prior to completing the drive cycle. A 20-minute driving period is required because the EVAP check is dependant on purge flow rate.

- 1 Fuel level 15% – 80%.
- 2 Ambient temperature 5 – 43 °C (40 – 110 °F).
- 3 Surface elevation no higher than 2,957 meter (9,700 feet) above sea level.
- 4 Start engine and bring to normal operating temperature >82 °C (180 °F). Idle for 5 minutes.
- 5 Drive vehicle on a level road.
- 6 Maintain a steady speed between 72 km/h (45 mph) and 121 km/h (75 mph) for 20 minutes.
- 7 The EVAP monitor will perform a 30 second EVAP system check sometime during the 20 minute cruise period.

EGR MONITOR DRIVE CYCLE (V6 NAS ONLY)

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 3 Idle for 20 seconds.
- 4 Using moderate power, accelerate from rest to 97 km/h (60 mph) in approximately 15 seconds.
- 5 Maintain a set speed of 97 km/h (60 mph) for one minute.

COMPREHENSIVE COMPONENT MONITOR ENGINE MANAGEMENT DRIVE CYCLE

The Comprehensive Component Monitor Engine Management drive cycles are the same for V6 and V8 except for the “idle in Drive” time period. The additional “idle in Drive” time for V8 is to allow the AAI check to occur.

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 3 Transmission Mode switch – Normal.
- 4 Switch off all heavy electrical consumers: air conditioning, heaters, etc.
- 5 Idle for 15 seconds.
- 6 Select 2nd Gear; accelerate slowly.
- 7 After 5 seconds, select 3rd Gear; accelerate slowly.
- 8 After 5 seconds, select 4th Gear; accelerate slowly.
- 9 After 5 seconds, select Drive; cruise at 72 km/h (45 mph) for 30 seconds.
- 10 Stop vehicle in a safe place. Do not turn the steering wheel after stopping.
- 11 Idle in Drive with foot hard on brake pedal. (Idle in Drive 30 seconds – V6; 3 minutes – V8).
- 12 From stop, accelerate to 80 km/h (50 mph) at 50% throttle. Cruise for 30 seconds.
- 13 Stop vehicle and repeat “idle in Drive”. Do not move the steering wheel.

COMPREHENSIVE COMPONENT MONITOR TRANSMISSION DRIVE CYCLE

The Comprehensive Component Monitor transmission drive cycle will “check” all transmission system components.

- 1 Start engine.
- 2 Move transmission mode switch between Normal and Sport. Verify switch state illumination.
- 3 Move the gear selector to all positions in the J Gate for five (5) seconds each. Verify the state illumination in each position.
- 4 Drive vehicle to bring the transmission fluid temperature up to normal operating temperature.
- 5 Stop vehicle.
- 6 Switch off all heavy electrical consumers: air conditioning, heaters, etc.
- 7 Transmission mode switch – Normal.
- 8 Select 2nd Gear; accelerate slowly. After 5 seconds, select 3rd Gear; accelerate slowly. After 5 seconds, select 4th Gear; accelerate slowly. After 5 seconds, select Drive; cruise at 72 km/h (45 mph) for 30 seconds.
- 9 Stop vehicle.
- 10 Use the J Gate to shift through all gears while accelerating briskly to 87 km/h (55 mph). Cruise at this speed to allow torque converter lockup to occur in fifth gear.
- 11 Stop vehicle and repeat steps 8 through 10.

POWERTRAIN CONTROL ACRONYMS:

AAI Valve	Air Assist Injection Valve	IAT Sensor	Intake Air Temperature Sensor
A/C	Air conditioning	IMT Valve	Intake Manifold Tuning Valve
APP Sensor	Accelerator Pedal Position Sensor	IP Sensor	Injection Pressure Sensor
B+	Battery Voltage	KS 1	Knock Sensor – RH Bank
CHT Sensor	Cylinder Head Temperature Sensor	KS 2	Knock Sensor – LH Bank
CKP Sensor	Crankshaft Position Sensor	MAF Sensor	Mass Air Flow Sensor
CMP Sensor 1	Camshaft Position Sensor – RH Bank	PCM	Powertrain Control Module
CMP Sensor 2	Camshaft Position Sensor – LH Bank	PSP Switch	Power Steering Pressure Switch
DLC	Data Link Connector	PTEC	Powertrain Electronic Control
DPFE Sensor	Differential Pressure Feedback EGR Sensor	SCP	Standard Corporate Protocol Network
ECT Sensor	Engine Coolant Temperature Sensor	TACM	Throttle Actuator Control Module
EFT Sensor	Engine Fuel Temperature Sensor	TCC	Torque converter clutch
EGR	Exhaust Gas Recirculation	TFT Sensor	Transmission Fluid Temperature Sensor
EOT Sensor	Engine Oil Temperature Sensor	TP Sensor	Throttle Position Sensor
EVAP Canister Close Valve	Evaporative Emission Canister Close Valve	WT Valve 1	Variable Valve Timing Valve – RH Bank
EVAP Canister Purge Valve	Evaporative Emission Canister Purge Valve	WT Valve 2	Variable Valve Timing Valve – LH Bank
FTP Sensor	Fuel Tank Pressure Sensor		
HO2 Sensor 1 / 1	Heated Oxygen Sensor – RH Bank / Upstream		
HO2 Sensor 1 / 2	Heated Oxygen Sensor – RH Bank / Downstream		
HO2 Sensor 2 / 1	Heated Oxygen Sensor – LH Bank / Upstream		
HO2 Sensor 2 / 2	Heated Oxygen Sensor – LH Bank / Downstream		

POWERTRAIN CONTROL PDU ACRONYMS:

ACCF	Air conditioning clutch output – fault detected	EFPT	Fuel injection pressure sensor (raw input)
ACCON	A/C clutch commanded on	EFPT1	Fuel injection pressure sensor before PCM default action
ACP	Air conditioning high side pressure	EFT	Engine fuel temperature sensor (raw input)
ADCF	Adaptive damping control output – fault detected	EFT1	Engine fuel temperature sensor before PCM default action
AFT1F	Adaptive fueling table 1 – failure	EGR1	EGR output – open circuit detected
AFT2F	Adaptive fueling table 2 – failure	EGR2	EGR output – short circuit to ground detected
ASLIP	Actual torque converter slip value	EGRDC	EGR duty cycle
ATMR1	Time since engine start	EGRF	EGR system failure
CAM ANGLE1	Actual position of right camshaft	EOTA	Engine oil temperature -actual
CAMDC	Variable valve timing right bank duty cycle	EPCS1	Electronic pressure control solenoid 1
CAMERR	Actual position of right camshaft	EPCS2	Electronic pressure control solenoid 2
CANPF	EVAP Canister purge output – fault detected	EPCS3	Electronic pressure control solenoid 3
CANVF	EVAP Canister close valve output – fault detected	EPCSF	Electronic pressure control solenoid fault detected
CCSF	Coast clutch solenoid fault detected	FP1	Fuel pump – output fault detected
CHTC	Cylinder head temperature before PCM default action	FPDC	Modulated fuel pump control – duty cycle
CLOOP	Closed loop fuel	FTPT	Fuel tank pressure sensor
CLOOP1	Closed loop fuel with H02S fault	FUEL	Fuel tank level
CLV	Calculated load value	GEAR	In gear
CVSDC	EVAP Canister close valve duty cycle	GRCUR	Current transmission gear ratio
DOLF	Data link output – fault detected	H02S11	H02S bank 1 upstream sensor voltage – before correcting for %h(CSD) condition.
ECT	Engine coolant temperature – degrees Celsius	H02S12	H02S bank 1 downstream sensor voltage – before correcting for %h(CSD) condition.
ECT2	Engine coolant temperature – degrees Fahrenheit	H02S1D	H02S voltage – bank 1 downstream
ECTF	Engine coolant temperature sensor failure		
EDF	Low speed fan output – fault detected		

POWERTRAIN CONTROL PDU ACRONYMS:

H02S1F	Heated oxygen sensor 1 – failure	LSFP	Low speed fuel pump output – fault detected
H02S1U	H02S voltage – bank 1 upstream	MAFF	Mass air flow sensor – failure
H02S1UA	H02S bank 1 upstream heater current monitor	MILF	CHECK ENGINE MIL output fault detected
H02S2D	H02S voltage – bank 2 downstream	Q212F	H02S bank 1 downstream – heater fault detected
H02S2F	Heated oxygen sensor 2 – failure	OLOOP3	Open loop fuel – conditions not met; go to closed loop
H02S2U	H02S voltage – bank 2 upstream	OTRIP	OBDI trip completed
HTR11	H02S bank 1 upstream – heater On	PNPS	Park neutral position sensor
IAC1	Idle speed control- fault detected	REVS	Reverse switch (not used – manual transmission)
IAC2	Idle speed control output – over current fault detected	RPM2	Engine speed
IATF	Intake air temperature sensor failure	RPM2	Engine speed
IEGR	Differential pressure feedback EGR sensor input (raw)	RTT	Transmission gear ratio
IMCDC	Intake manifold communications control – duty cycle	SAFTOT	Spark advance
IMCF	Inlet manifold communications output – fault indicated	SCACL	Cruise control set/ acceleration switch
IMRCF	Inlet manifold runner control output fault indicated	SCAN	Cruise control cancel switch
INDSA	Park neutral position sensor	SCN	Cruise control null state
INJ1	Air assist injection fault	SCOF	Cruise control Off switch
ISC1	Idle speed control – desired RPM	SCON	Cruise control On switch
KAMRF1	Adaptive fuel correction multiplier – bank 1	SCRES	Cruise control resume switch
KAMRF2	Adaptive fuel correction multiplier – bank 2	SCTAP	Cruise control coast tap down switch
LAMBSE1	Desired open loop equivalence ratio – bank 1	SLIPA	Absolute torque converter slip value (not used)
LAMBSE2	Desired open loop equivalence ratio – bank 2	SLIPD	Desired torque converter slip value (not used)
LOAD	Air charge load normalized to sea level		

POWERTRAIN CONTROL PDU ACRONYMS:

SSCM	Shift solenoids – commanded gear	TOTFM	Transmission fluid temperature before PCM default action
SSDCM	Shift solenoids commanded gear	TOTLK	Transmission over temperature lockup mode
SSDF	Shift solenoid output fault	TPS	Throttle position
SSD1	Shift solenoid 1	TPSF	Throttle position sensor failure
SSD1F	Shift solenoid 1 output fault	TRS1	Transmission range sensor 1
SSD2	Shift solenoid 2	TRS2	Transmission range sensor 2
SSD2F	Shift solenoid 2 output fault	TRS3	Transmission range sensor 3
SSD3	Shift solenoid 3	TRS4	Transmission range sensor 4
SSD3F	Shift solenoid 3 output fault	TSS	Turbine speed sensor
TCCDC	Torque converter clutch solenoid duty cycle	VCT1F	Variable valve timing bank 1 output – fault detected
TCCF	Torque converter clutch solenoid duty cycle fault detected	VCT2F	Variable valve timing bank 2 output – fault detected
TCS	Transmission control switch (D – 4 switch)	VMVDC	EVAP Canister purge valve duty cycle
TCTF	Secondary throttle output – fault detected	VMVM	EVAP Canister purge valve output state monitor
TIS	Transmission input speed (Turbine speed)	VPWR	Battery voltage
TMILF	Transmission fault lamp output fault detected	VSF	Variable speed fan level
TOS	Transmission output speed (OSS)	VSS	Vehicle speed sensor
TOT2	Actual transmission fluid temperature (TFT)		

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0065	V8 EMS OBD II	Air assisted fuel injection (AAI) control range / performance	KOEO – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	AAI System piping: restricted, disconnected, broken AAI Valve failure
P0066	V8 EMS OBD II	Air assisted fuel injection (AAI) control circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	AAI Valve B+ power supply circuit fault AAI Valve to PCM PWM drive circuit: open circuit, high resistance, short circuit AAI Valve failure
P0102	EMS OBD II	MAF Sensor sense circuit low voltage	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Restricted air filter MAF Sensor to PCM sensing circuit high resistance or open circuit MAF Sensor to PCM sensing circuit intermittent short circuit to ground MAF Sensor supply circuit open circuit or short circuit to ground MAF Sensor failure
P0103	EMS OBD II	MAF Sensor sense circuit high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	MAF Sensor to PCM reference ground circuit open circuit MAF Sensor to PCM sensing circuit short circuit to high voltage MAF Sensor failure
P0112	EMS OBD II	IAT Sensor sense circuit high voltage (low temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – IAT default value 38 °C (100 °F)	IAT Sensor to PCM wiring open circuit or high resistance IAT Sensor to PCM sensing circuit short circuit to high voltage IAT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0113	EMS OBD II	IAT Sensor sense circuit low voltage (high temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – IAT default value 38 °C (100 °F)	IAT Sensor to PCM sensing circuit short circuit to ground IAT Sensor failure
P0117	EMS OBD II	ECT Sensor sense circuit low voltage (high temperature) V6 – Refer to DTC P1290	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – ECT default value 102 °C (215 °F)	Engine overheat condition – refer to P1285 ECT Sensor to PCM sensing circuit short circuit to ground ECT Sensor failure
P0118	EMS OBD II	ECT Sensor sense circuit high voltage (low temperature) V6 – Refer to DTC P1289	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – ECT default value 102 °C (215 °F)	ECT Sensor to PCM wiring open circuit or high resistance ECT Sensor to PCM sensing circuit short circuit to high voltage ECT Sensor failure
P0122	EMS JAG	TP Sensor sense circuit low voltage – TP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “1” (TP Sensor pin 10) open circuit or high resistance TP Sensor failure
P0123	EMS JAG	TP Sensor sense circuit high voltage – TP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “1” (TP Sensor pin 10) short circuit to high voltage TP Sensor failure
P0124	EMS JAG	TP Sensor signal intermittent – TP1	Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “1” (TP Sensor pin 10) intermittent: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0125	EMS OBD II	ECT / CHT Sensor response insufficient for closed loop fuel metering control	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Low coolant level Contaminated coolant Engine coolant thermostat failure CHT Sensor to cylinder head poor contact – V6 ECT / CHT Sensor to PCM sensing circuit: high resistance, open circuit or short circuit to high voltage
P0130	EMS OBD II	HO2 Sensor sense circuit malfunction – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 to PCM sensing circuit: open circuit, high resistance, short circuit to ground or high voltage HO2 Sensor 1/1 failure
P0131	EMS OBD II	HO2 Sensor sense circuit low voltage – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 to PCM sensing circuit open circuit HO2 Sensor 1/1 short circuit to ground HO2 Sensor 1/1 failure
P0132	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 1, upstream (1/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 to PCM sensing circuit short circuit to high voltage HO2 Sensor 1/1 reference ground circuit (HO2 sensor to splice) open circuit HO2 Sensor 1/1 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0133	EMS OBD II	HO2 Sensor sense circuit slow response – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	Engine misfire HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 mechanical damage HO2 Sensor 1/1 to PCM wiring intermittent open circuit HO2 Sensor 1/1 to PCM sensing circuit short circuit to high voltage HO2 Sensor 1/1 short circuit to ground HO2 Sensor 1/1 reference ground circuit (HO2 sensor to splice) open circuit HO2 Sensor 1/1 heater circuit fault Exhaust leak Low exhaust temperature Injector flow partially restricted Catalyst efficiency decrease HO2 Sensor 1/1 failure
P0135	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 1, upstream (1/1)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 heater power supply open circuit HO2 Sensor 1/1 heater to ECM wiring short circuit or open circuit HO2 Sensor 1/1 heater failure
P0136	EMS OBD II	HO2 Sensor sense circuit malfunction – bank 1, downstream (1/2)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/2 to PCM sensing circuit: open circuit, high resistance, short circuit to ground or high voltage HO2 Sensor 1/2 failure
P0138	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 1, downstream (1/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/2 to PCM sensing circuit short circuit to high voltage HO2 Sensor 1/2 reference ground circuit (HO2 sensor to splice) open circuit HO2 Sensor 1/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0141	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 1, downstream (1/2)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/2 disconnected HO2 Sensor 1/2 heater power supply open circuit HO2 Sensor 1/2 heater to ECM wiring short circuit or open circuit HO2 Sensor 1/2 heater failure
P0150	EMS OBD II	HO2 Sensor sense circuit malfunction – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 to PCM sensing circuit: open circuit, high resistance, short circuit to ground or high voltage HO2 Sensor 2/1 failure
P0151	EMS OBD II	HO2 Sensor sense circuit low voltage – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 to PCM sensing circuit open circuit HO2 Sensor 2/1 short circuit to ground HO2 Sensor 2/1 failure
P0152	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 2, upstream (2/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 to PCM sensing circuit short circuit to high voltage HO2 Sensor 2/1 reference ground circuit (HO2 sensor to splice) open circuit HO2 Sensor 2/1 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0153	EMS OBD II	HO2 Sensor sense circuit slow response – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	Engine misfire HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 mechanical damage HO2 Sensor 2/1 to PCM wiring intermittent open circuit HO2 Sensor 2/1 to PCM sensing circuit short circuit to high voltage HO2 Sensor 2/1 short circuit to ground HO2 Sensor 2/1 reference ground circuit (HO2 sensor to splice) open circuit HO2 Sensor 2/1 heater circuit fault Exhaust leak Low exhaust temperature Injector flow partially restricted Catalyst efficiency decrease HO2 Sensor 2/1 failure
P0155	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 2, upstream (2/1)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 heater power supply open circuit HO2 Sensor 2/1 heater to ECM wiring short circuit or open circuit HO2 Sensor 2/1 heater failure
P0156	EMS OBD II	HO2 Sensor sense circuit malfunction – bank 2, downstream (2/2)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/2 to PCM sensing circuit: open circuit, high resistance, short circuit to ground or high voltage HO2 Sensor 2/2 failure
P0158	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 2, downstream (2/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/2 to PCM sensing circuit short circuit to high voltage HO2 Sensor 2/2 reference ground circuit (HO2 sensor to splice) open circuit HO2 Sensor 2/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0161	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 2, downstream (2/2)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/2 disconnected HO2 Sensor 2/2 heater power supply open circuit HO2 Sensor 2/2 heater to ECM wiring short circuit or open circuit HO2 Sensor 2/2 heater failure
P0171	EMS OBD II	System too lean – bank 1	Adaptive fuel monitor drive cycle – page 4	2	N	None	Engine misfire Air intake leak between MAF Sensor and throttle Fuel filter, system restriction Fuel injector restriction Fuel pressure sensor failure (low fuel pressure) Low fuel pump output HO2 Sensor(s) (1/1, 1/2) harness wiring condition fault Exhaust leak (before catalyst) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM
P0172	EMS OBD II	System too rich – bank 1	Adaptive fuel monitor drive cycle – page 4	2	N	None	Restricted air filter Leaking fuel injector(s) Fuel pressure sensor failure (high fuel pressure) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0174	EMS OBD II	System too lean – bank 2	Adaptive fuel monitor drive cycle – page 4	2	N	None	Engine misfire Air intake leak between MAF Sensor and throttle Fuel filter, system restriction Fuel injector restriction Fuel pressure sensor failure (low fuel pressure) Low fuel pump output HO2 Sensor(s) (2/1, 2/2) harness wiring condition fault Exhaust leak (before catalyst) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM
P0175	EMS OBD II	System too rich – bank 2	Adaptive fuel monitor drive cycle – page 4	2	N	None	Restricted air filter Leaking fuel injector(s) Fuel pressure sensor failure (high fuel pressure) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM
P0180	EMS OBD II	EFT Sensor circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	EFT Sensor disconnected EFT Sensor to PCM sensing circuit: high resistance, open circuit, short circuit to ground or high voltage EFT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0190	EMS OBD II	IP Sensor circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	IP Sensor reference ground circuit (to splice) open circuit IP Sensor reference voltage circuit (to splice) open circuit IP Sensor to PCM sensing circuit; open circuit, high resistance, short circuit to ground or high voltage IP Sensor failure
P0192	EMS OBD II	IP Sensor sense circuit low voltage (low pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	IP Sensor reference voltage circuit (to splice) open circuit IP Sensor to PCM sensing circuit; open circuit, high resistance, short circuit to ground IP Sensor failure
P0193	EMS OBD II	IP Sensor sense circuit high voltage (high pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	IP Sensor reference ground circuit (to splice) open circuit IP Sensor to PCM sensing circuit short circuit to high voltage IP Sensor failure
P0196	EMS OBD II	EOT Signal does not follow CHT / ECT signal	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – V6 CHT substituted – V8 ECT substituted	EOT Sensor to PCM sensing circuit high resistance when hot EOT Sensor to PCM sensing circuit intermittent high resistance EOT Sensor failure
P0222	EMS JAG	TP Sensor sense circuit low voltage – TP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “2” (TP Sensor pin 1) open circuit or high resistance TP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0223	EMS JAG	TP Sensor sense circuit high voltage – TP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “2” (TP Sensor pin 1) short circuit to high voltage TP Sensor failure
P0224	EMS JAG	TP Sensor signal intermittent – TP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “2” (TP Sensor pin 1) intermittent: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure
P0227	EMS JAG	TP Sensor sense circuit low voltage – TP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “3” (TP Sensor pin 2) open circuit or high resistance TP Sensor failure
P0228	EMS JAG	TP Sensor sense circuit high voltage – TP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “3” (TP Sensor pin 2) short circuit to high voltage TP Sensor failure
P0229	EMS JAG	TP Sensor signal intermittent – TP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “3” (TP Sensor pin 2) intermittent: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0300	EMS OBD II	Random misfire detected	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Cylinder compression low Worn camshaft / broken valve spring(s) Fuel delivery pressure (low / high) Fuel injector(s) restricted / leaking Fuel injector(s) continuously open Fuel contamination Fuel injector circuit fault(s) (Injector DTCs also flagged) Spark plug failure / fouled / incorrect gap PCM to ignition coil primary circuit fault (Cylinder misfire detected DTC also flagged) Ignition coil failure
P0301	EMS OBD II	Misfire detected – cylinder 1 (1/1)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0302	EMS OBD II	Misfire detected – cylinder 2 (1/2)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0303	EMS OBD II	Misfire detected – cylinder 3 (1/3)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0304	EMS OBD II	Misfire detected – cylinder 4 (1/4 V8, 2/1 V6)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0305	EMS OBD II	Misfire detected – cylinder 5 (2/1 V8, 2/2 V6)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0306	EMS OBD II	Misfire detected – cylinder 6 (2/2 V8, 2/3 V6)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes

**If the misfire is severe enough to cause catalyst damage, the individual cylinder DTC will be flagged immediately and the CHECK ENGINE MIL will flash.

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0307	V8 EMS OBD II	Misfire detected – cylinder 7 (2/3 V8)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0308	V8 EMS OBD II	Misfire detected – cylinder 8 (2/4 V8)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0320	EMS OBD II	CKP Sensor circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	2	N	None (The engine will shut off)	CKP Sensor disconnected CKP Sensor gap incorrect CKP Sensor reluctor damaged teeth Foreign matter on CKP Sensor face – V8 Foreign matter on CKP Sensor (on drive plate) – V8 CKP Sensor sensing circuit open circuit, high resistance, short circuit to ground or high voltage CKP Sensor failure
P0325	EMS OBD II	KS (knock sensor) circuit malfunction – bank 1 V8 – front (bank 2) V6	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Poor sensor contact with the cylinder block KS to PCM sensing circuit (KS pin 2): open circuit, high resistance, short circuit to ground or high voltage KS to PCM reference ground circuit (KS pin 1): open circuit, high resistance, short circuit to high voltage KS failure
P0330	EMS OBD II	KS (knock sensor) circuit malfunction – bank 2 V8 – rear (bank 1) V6	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Poor sensor contact with the cylinder block KS to PCM sensing circuit (KS pin 2): open circuit, high resistance, short circuit to ground or high voltage KS to PCM reference ground circuit (KS pin 1): open circuit, high resistance, short circuit to high voltage KS failure

**If the misfire is severe enough to cause catalyst damage, the individual cylinder DTC will be flagged immediately and the CHECK ENGINE MIL will flash.

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0340	EMS OBD II	CMP Sensor circuit malfunction – bank 1	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – VVT inhibited (Decreased engine performance)	Bank 1 CMP Sensor disconnected Bank 1 CMP Sensor gap incorrect / foreign matter on sensor face Bank 1 CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage Bank 1 CMP Sensor reference ground circuit (to splice) open circuit Bank 1 CMP Sensor failure
P0341	EMS OBD II	CMP Sensor circuit malfunction – bank 2	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – VVT inhibited (Decreased engine performance)	Bank 2 CMP Sensor disconnected Bank 2 CMP Sensor gap incorrect / foreign matter on sensor face Bank 2 CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage Bank 2 CMP Sensor reference ground circuit (to splice) open circuit Bank 2 CMP Sensor failure
P0350	EMS OBD II	Ignition coil primary circuit malfunction – undetermined cylinder identification	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Ignition coils power supply; open circuit, short circuit Ignition suppression capacitor(s) failure Incorrect CKP Sensor air gap
P0351	EMS OBD II	Ignition coil primary circuit malfunction – cylinder 1/1	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Ignition coil disconnected PCM to ignition coil primary circuit: open circuit, high resistance, short circuit to ground Ignition coil failure (If other individual ignition coil primary circuit DTCs are flagged, refer to P0350 Possible Causes)
P0352	EMS OBD II	Ignition coil primary circuit malfunction – cylinder 1/2	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0353	EMS OBD II	Ignition coil primary circuit malfunction – cylinder 1/3	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0354	EMS OBD II	Ignition coil primary circuit malfunction – V6 cylinder 2/1; V8 cylinder 1/4	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0355	EMS OBD II	Ignition coil primary circuit malfunction – V6 cylinder 2/2; V8 cylinder 2/1	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0356	EMS OBD II	Ignition coil primary circuit malfunction – V6 cylinder 2/3; V8 cylinder 2/2	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0357	V8 EMS OBD II	Ignition coil primary circuit malfunction – V8 cylinder 2/3	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0358	V8 EMS OBD II	Ignition coil primary circuit malfunction – V8 cylinder 2/4	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0401	V6 EMS OBD II	EGR flow insufficient detected	EGR monitor drive cycle – page 6	2	N	None	DPFE Sensor to PCM sensing circuit (sensor pin 1) open circuit, high resistance EGR Valve stuck closed or restricted EGR Valve vacuum hose, restricted, disconnected or broken
P0402	V6 EMS OBD II	EGR flow excessive detected	KOER – page 3, or EGR monitor drive cycle – page 6	2	N	None	EGR Valve stuck open EGR Valve seat held open by debris

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0420	EMS OBD II	Catalytic converter system efficiency below threshold – bank 1	Catalyst efficiency monitor drive cycle – page 5	2	N	None	Bank 1 HO2 sensor(s) disconnected Bank 1 HO2 sensor(s) to PCM wiring fault Bank 1 HO2 sensor(s) heater to PCM wiring fault Bank 1 HO2 sensor(s) heater failure Bank 1 upstream HO2 sensor failure Bank 1 downstream HO2 sensor failure Bank 1 catalyst failure
P0430	EMS OBD II	Catalytic converter system efficiency below threshold – bank 2	Catalyst efficiency monitor drive cycle – page 5	2	N	None	Bank 2 HO2 sensor(s) disconnected Bank 2 HO2 sensor(s) to PCM wiring fault Bank 2 HO2 sensor(s) heater to PCM wiring fault Bank 2 HO2 sensor(s) heater failure Bank 2 upstream HO2 sensor failure Bank 2 downstream HO2 sensor failure Bank 2 catalyst failure
P0442	EMS OBD II	EVAP Control system leak detected – small leak	Evaporative system monitor drive cycle – page 6	2	N	None	Fuel cap seal defective EVAP system leak (canister damage, pipework damage) EVAP Canister purge valve to PCM drive circuit open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit open circuit EVAP Canister purge valve to engine purge pipe damaged / restricted / leaking EVAP Canister purge valve operating vacuum hose leak / restriction EVAP Canister purge failure Fuel tank leak

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0443	EMS OBD II	EVAP Canister purge valve circuit malfunction	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	EVAP Canister purge valve to PCM drive circuit open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit open circuit EVAP Canister purge valve failure
P0451	EMS OBD II	FTP Sensor range / performance	Evaporative system monitor drive cycle – page 6	2	N	None	FTP Sensor disconnected FTP Sensor to PCM sensing circuit open circuit, short circuit to ground, short circuit to B+ voltage FTP Sensor to PCM reference voltage circuit open circuit or short circuit to ground FTP Sensor to PCM wiring (supply, sense, reference ground) short circuit to each other FTP Sensor failure
P0452	EMS OBD II	FTP Sensor circuit low voltage (low pressure)	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	FTP Sensor disconnected FTP Sensor to PCM sensing circuit open circuit or short circuit to ground FTP Sensor to PCM reference voltage circuit open circuit or short circuit to ground FTP Sensor failure
P0453	EMS OBD II	FTP Sensor circuit high voltage (high pressure)	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	FTP Sensor to PCM wiring (supply, sense, reference ground) short circuit to each other FTP Sensor to PCM sense circuit short circuit to high voltage FTP Sensor to PCM reference ground circuit open circuit FTP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0455	EMS OBD II	EVAP Control system control-leak detected – major leak	Evaporative system monitor drive cycle – page 6	2	N	None	Fuel cap off Fuel cap seal defective Fuel tank over filled EVAP system leak (canister damage, pipework damage) EVAP Canister purge valve to PCM drive circuit open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit open circuit EVAP Canister purge valve to engine purge pipe damaged / restricted / leaking EVAP Canister purge valve operating vacuum hose leak / restriction EVAP Canister purge failure FTP Sensor not responding to pressure changes (restricted / failure) Fuel tank leak
P0456	EMS OBD II	EVAP Control system control-leak detected – small leak (0.5 mm; 0.020 in.)	Evaporative system monitor drive cycle – page 6	2	N	None	Refer to P0456 Possible Causes (except fuel cap off)
P0460	EMS JAG	Fuel level sensor(s) circuit malfunction	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	N	N	None	Fuel level sensor(s) to RECM sense circuits: open circuit, high resistance, short circuit RECM / PCM SCP communication fault (U Code flagged) Fuel level sensor(s) failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0500	ABS/TC JAG	Vehicle speed circuit malfunction	Engine running; vehicle in motion	N	N	None	Rear wheel speed sensor(s) circuit(s): open circuit, high resistance, short circuit Rear wheel speed sensor(s) failure Front wheel speed sensor(s) circuit(s): open circuit, high resistance, short circuit Front wheel speed sensor(s) failure Instrument pack malfunction SCP Failure (code U1039 flagged)
P0503	TRANS JAG	Vehicle speed circuit – electrical noise	Engine running; vehicle in motion	N	N	None	Wheel speed sensor(s) circuit(s) electrical noise Instrument pack malfunction SCP Failure (code U1039 flagged)
P0505	EMS JAG	Idle air control malfunction	KOER – page 3	N	N	None	Engine air filter restricted / defective Engine air intake restricted / damaged PCM / TACM circuit fault TACM failure Throttle failure
P0602	PCM JAG	PCM Programming error	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	PCM failure
P0603	PCM JAG	PCM Keep alive memory (KAM) test error	KOEO – page 3	N	N	None	PCM failure
P0605	PCM JAG	PCM Read only memory (ROM) test error	KOEO – page 3	N	N	None	PCM failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0703	EMS JAG	Brake ON / OFF switch circuit malfunction	Engine running; operate brake pedal	N	M, S	PCM Default: – Speed control inhibited	Brake switch to PCM signal circuit: open circuit, high resistance, short circuit Brake switch power supply circuit: open circuit, short circuit Brake switch signal circuit (gearshift interlock, ABS/TC, stop lamps): open circuit, short circuit Brake switch failure
P0704	V6 EMS JAG	Clutch pedal switch circuit malfunction (Manual transmission)	KOEO – page 3, or KOER – page 3	N	M, S	PCM Default: – Speed control inhibited	Clutch pedal switch to PCM signal circuit: open circuit, high resistance, short circuit PCM to clutch pedal switch reference ground circuit: open circuit, high resistance, short circuit Clutch pedal switch failure
P0705	TRANS OBD II	Range sensor circuit malfunction (sensor transmitting an invalid code)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Defaults to DRIVE (to maintain all five gears) J Gate gear selected illumination extinguished (Harsh shifts)	Range sensor incorrect alignment Gear selector cable incorrectly adjusted Range sensor circuit: intermittent open circuit; open circuit Range sensor failure
P0708	TRANS OBD II	Range sensor circuit open circuit	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Defaults to DRIVE (to maintain all five gears) J Gate gear selected illumination extinguished (Harsh shifts)	Range sensor circuit open circuit Range sensor disconnected Range sensor failure
P0712	TRANS JAG	TFT Sensor sense circuit low voltage (high fluid temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited (Firm shifts)	TFT Sensor sense circuit short circuit to ground TFT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0713	TRANS JAG	TFT Sensor sense circuit high voltage (low fluid temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited (Firm shifts)	TFT Sensor sense circuit: open circuit; high resistance; short circuit to high voltage TFT Sensor failure
P0715	TRANS OBD II	Turbine speed sensor circuit malfunction	KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – Speed calculated from output speed sensor (Harsh TCC shifts)	Turbine speed sensor circuit: short circuit; high resistance; open circuit Turbine speed sensor failure
P0717	TRANS JAG	Turbine speed sensor sense circuit – no signal	KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – Speed calculated from output speed sensor (Harsh TCC shifts)	Turbine speed sensor sense circuit open circuit Turbine speed sensor failure
P0718	TRANS JAG	Turbine speed sensor sense circuit – electrical noise	Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – Speed calculated from output speed sensor (Harsh TCC shifts)	Turbine speed sensor sense circuit: short circuit; open circuit
P0720	TRANS OBD II	Output speed sensor circuit malfunction	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – Speed calculated from SCP vehicle speed message	Output speed sensor circuit: short circuit; high resistance; open circuit Output speed sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0721	TRANS JAG	Output speed sensor sense circuit – electrical noise	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – Speed calculated from SCP vehicle speed message ABS/TCCM, DSCCM Default: – traction control inhibited (Abnormal shift schedule)	Output speed sensor sense circuit: short circuit; open circuit
P0722	TRANS JAG	Output speed sensor sense circuit – intermittent signal	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – Speed calculated from SCP vehicle speed message ABS/TCCM, DSCCM Default: – traction control inhibited (Abnormal shift schedule)	Output speed sensor sense circuit intermittent: short circuit; high resistance; open circuit Output speed sensor failure
P0731	TRANS JAG	1st Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 1st Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0732	TRANS JAG	2nd Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 2nd Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0733	TRANS JAG	3rd Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 3rd Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0734	TRANS JAG	4th Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 4th Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0735	TRANS JAG	5th Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 5th Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0741	TRANS JAG	TCC Slip detected	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	Transmission will continue to attempt lock-up ABS/TCCM, DSCCM Default: – traction control inhibited	TCC solenoid circuit fault (TCC solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Transmission mechanical failure
P0743	TRANS OBD II	TCC Solenoid circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – TCC Lock-up inhibited	TCC Drive circuit: open circuit; high resistance; short circuit to ground TCC solenoid failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0745	TRANS OBD II	Pressure control solenoid 1 stuck	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern	Pressure control solenoid 1 drive circuit: short circuit to ground; open circuit Pressure control solenoid 1 failure
P0750	TRANS OBD II	Shift solenoid 1 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – If short circuit to B+ V or open circuit – 3rd, 2nd, 3rd, 4th, 5th shift pattern – If short circuit to ground – 1st, 2nd, 3rd shift pattern (Harsh shifts)	Shift solenoid 1 drive circuit: short circuit to ground or B+ V; high resistance; open circuit Shift solenoid 1 failure
P0755	TRANS OBD II	Shift solenoid 2 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – If short circuit to B+ V or open circuit – 1st, 2nd, 4th, 5th shift pattern – If short circuit to ground – 3rd, 2nd, 3rd, 4th, 5th shift pattern (Harsh shifts)	Shift solenoid 2 drive circuit: short circuit to ground or B+ V; high resistance; open circuit Shift solenoid 2 failure
P0760	TRANS OBD II	Shift solenoid 3 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – If short circuit to B+ V or open circuit – 1st, 3rd, 4th, 5th shift pattern – If short circuit to ground – normal shift pattern (Harsh shifts)	Shift solenoid 3 drive circuit: short circuit to ground or B+ V; high resistance; open circuit Shift solenoid 3 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0765	TRANS JAG	Shift solenoid 4 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – DRIVE – normal shift pattern – Manual – 2, 3, 4 inhibited (Harsh shifts)	Shift solenoid 4 drive circuit: short circuit to ground or B+ V; high resistance; open circuit Shift solenoid 4 failure
P0775	TRANS OBD II	Pressure control solenoid 2 stuck	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 4th shift pattern	Pressure control solenoid 2 drive circuit: short circuit to ground; open circuit Pressure control solenoid 2 failure
P0779	TRANS JAG	Pressure control solenoid 2 drive circuit intermittent low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 4th shift pattern	Pressure control solenoid 2 drive circuit intermittent short circuit to ground
P0791	TRANS JAG	Intermediate speed sensor circuit	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – One-way clutch test inhibited ABS/TCCM, DSCCM Default: – traction control inhibited (Harsh shifts)	Intermediate speed sensor circuit: short circuit; high resistance; open circuit Intermediate speed sensor failure
P0794	TRANS JAG	Intermediate speed sensor sense circuit – intermittent signal	Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – One-way clutch test inhibited (Harsh shifts)	Intermediate speed sensor sense circuit intermittent: short circuit; high resistance; open circuit Intermediate speed sensor failure
P0795	TRANS OBD II	Pressure control solenoid 3 stuck	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 3rd gears only	Pressure control solenoid 3 drive circuit: short circuit to ground; open circuit Pressure control solenoid 3 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0796	TRANS JAG	Pressure control solenoid 3 circuit high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	ABS/TCCM, DSCCM Default: – traction control inhibited (Harsh shifts)	Pressure control solenoid 3 drive circuit short circuit to B+ V Pressure control solenoid 3 failure Transmission mechanical failure (other DTCs logged)
P0797	TRANS OBD II	Pressure control solenoid 3 circuit low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 3rd gears only (Harsh shifts)	Pressure control solenoid 3 drive circuit short circuit to ground Pressure control solenoid 3 failure Transmission mechanical failure (other DTCs logged)
P0799	TRANS JAG	Pressure control solenoid 3 drive circuit intermittent low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – 1st, 2nd, 3rd gears only	Pressure control solenoid 3 drive circuit intermittent short circuit to ground
P0812	TRANS JAG	Reverse switch circuit malfunction (Manual transmission)	KOER – page 3, or Drive vehicle; select Reverse gear	N	N	None	Reverse switch to PCM signal circuit: open circuit, high resistance, short circuit Reverse pedal switch reference ground circuit (from splice) open circuit Reverse pedal switch failure
P0814	TRANS JAG	J Gate illumination circuit failure – gear selected	Comprehensive component monitor transmission drive cycle – page 8	N	N	None	PCM / J Gate illumination circuit(s): short circuit; open circuit (PCM pins FH1-7, 8, 9)
P0840	TRANS JAG	Transmission pressure switch circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – Manual 2nd, 3rd inhibited	Pressure switch to PCM signal circuit: short circuit; high resistance; open circuit Pressure switch transmission internal circuit: short circuit; high resistance; open circuit Pressure switch failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1000	PCM JAG	OBD II System checks not complete since last memory clear	KOEO – page 3, or KOER – page 3, or Drive vehicle	N	N	None	Refer to page 3
P1001	PCM JAG	KOER not complete	KOER – page 3	N	N	None	Refer to page 3
P1100	EMS JAG	MAF Sensor signal intermittent	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	MAF Sensor to PCM sensing circuit intermittent: open circuit, high resistance, short circuit MAF Sensor supply circuit intermittent: open circuit or short circuit MAF Sensor failure
P1101	EMS JAG	MAF Sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	None	MAF Sensor to PCM sensing circuit: open circuit, high resistance, short circuit MAF Sensor supply circuit: open circuit or short circuit MAF Sensor failure
P1112	EMS JAG	IAT Sensor signal intermittent	Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – IAT default value 38 °C (100 °F)	IAT Sensor to PCM sensing circuit intermittent: open circuit, high resistance, short circuit IAT Sensor reference ground circuit (to splice) intermittent open circuit IAT Sensor failure
P1116	V8 EMS JAG	ECT Sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	PCM Default: – ECT default value 102 °C (215 °F)	IAT Sensor to PCM sensing circuit: open circuit, high resistance, short circuit IAT Sensor reference ground circuit (to splice) open circuit IAT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1117	V8 EMS JAG	ECT Sensor signal intermittent	Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – ECT default value 102 °C (215 °F)	ECT Sensor to PCM sensing circuit intermittent: open circuit, high resistance, short circuit ECT Sensor reference ground circuit (to splice) intermittent open circuit ECT Sensor failure
P1121	EMS OBD II	TP Sensor signals inconsistent with MAF Sensor signals	Comprehensive component monitor engine management drive cycle – page 7	2	N	None (as long as normal TP signals are received)	TP Sensors to PCM wiring harness fault MAF Sensor to PCM wiring harness fault TP Sensor(s) failure MAF Sensor failure
P1122	EMS JAG	APP Sensor circuit low voltage – APP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “1” (sensor pin 5) open circuit or high resistance APP Sensor reference voltage (sensor pin 10) open circuit APP Sensor failure
P1123	EMS JAG	APP Sensor circuit high voltage – APP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “1” (sensor pin 5) short circuit to high voltage APP Sensor reference ground (sensor pin 9) open circuit APP Sensor failure
P1124	EMS JAG	TP Sensor out of self test range	KOEO – page 3, or KOER – page 3, or Drive vehicle	N	N	None (as long as normal TP signals are received)	One or more individual TP Sensors to PCM sensing circuits: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure
P1127	EMS JAG	Exhaust not warm enough; downstream HO2 Sensors not tested	Heated oxygen sensors monitor drive cycle – page 4	N	N	None	Engine not at normal operating temperature Exhaust system leak / failure
P1128	EMS JAG	Upstream HO2 Sensors swapped from bank to bank	Heated oxygen sensors monitor drive cycle – page 4	N	N	None	Upstream HO2 Sensors swapped from bank to bank Upstream HO2 Sensors to PCM wiring fault

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1129	EMS JAG	Downstream HO2 Sensors swapped from bank to bank	Heated oxygen sensors monitor drive cycle – page 4	N	N	None	Downstream HO2 Sensors swapped from bank to bank Downstream HO2 Sensors to PCM wiring fault
P1130	EMS OBD II	Lack of HO2 Sensor swing, adaptive fuel at limit – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak Contaminated fuel Fuel in engine oil Engine misfire HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1131	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates lean – bank 1, upstream (1/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1132	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates rich – bank 1, upstream (1/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 to PCM wiring fault Exhaust system restriction Contaminated fuel Fuel in engine oil HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1133	EMS OBD II	Bank 1 fuel metering control shifted lean	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 1/1 causing "lean drift" Temporary contamination of HO2 Sensor 1/2 causing "rich drift" Engine misfire HO2 Sensors 1/1 and 1/2 to PCM wiring fault(s) Engine induction air leak between MAF Sensor and throttle Exhaust system leak Water in bank 1 spark plug well(s) HO2 Sensors 1/1 and/or 1/2 failure
P1134	EMS OBD II	Bank 1 fuel metering control shifted rich	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 1/1 causing "rich drift" Temporary contamination of HO2 Sensor 1/2 causing "lean drift" Engine misfire HO2 Sensors 1/1 and 1/2 to PCM wiring fault(s) Exhaust system restriction Water in bank 1 spark plug well(s) HO2 Sensors 1/1 and/or 1/2 failure
P1135	EMS JAG	APP Sensor signal intermittent – APP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit "1" (sensor pin 5) intermittent: open circuit, high resistance, short circuit APP Sensor reference voltage (sensor pin 10) intermittent open circuit APP Sensor reference ground (sensor pin 9) intermittent open circuit APP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1137	EMS JAG	Lack of HO2 Sensor swing, sensor indicates lean – bank 1, downstream (1/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 1/2 to PCM wiring fault HO2 Sensor 1/2 failure
P1138	EMS JAG	Lack of HO2 Sensor swing, sensor indicates rich – bank 1, downstream (1/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 1/2 to PCM wiring fault HO2 Sensor 1/2 failure
P1150	EMS OBD II	Lack of HO2 Sensor swing, adaptive fuel at limit – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak Contaminated fuel Fuel in engine oil Engine misfire HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1151	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates lean – bank 2, upstream (2/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak HO2 Sensor 2/1 failure Fuel injection fault PCM Keep alive memory (KAM) error

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1152	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates rich – bank 2, upstream (2/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 to PCM wiring fault Exhaust system restriction Contaminated fuel Fuel in engine oil HO2 Sensor 2/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1153	EMS OBD II	Bank 2 fuel metering control shifted lean	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 2/1 causing "lean drift" Temporary contamination of HO2 Sensor 2/2 causing "rich drift" Engine misfire HO2 Sensors 2/1 and 2/2 to PCM wiring fault(s) Engine induction air leak between MAF Sensor and throttle Exhaust system leak Water in bank 2 spark plug well(s) HO2 Sensors 2/1 and/or 2/2 failure
P1154	EMS OBD II	Bank 2 fuel metering control shifted rich	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 2/1 causing "rich drift" Temporary contamination of HO2 Sensor 2/2 causing "lean drift" Engine misfire HO2 Sensors 2/1 and 2/2 to PCM wiring fault(s) Exhaust system restriction Water in bank 2 spark plug well(s) HO2 Sensors 2/1 and/or 2/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1157	EMS JAG	Lack of HO2 Sensor swing, sensor indicates lean – bank 2, downstream (2/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 2/2 to PCM wiring fault HO2 Sensor 2/2 failure
P1158	EMS JAG	Lack of HO2 Sensor swing, sensor indicates rich – bank 2, downstream (2/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 2/2 to PCM wiring fault HO2 Sensor 2/2 failure
P1183	EMS OBD II	EOT Sensor circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – V6 CHT substituted – V8 ECT substituted	EOT Sensor to PCM sensing circuit: open circuit, high resistance, short circuit EOT Sensor reference ground circuit (to splice) open circuit EOT Sensor failure
P1184	EMS JAG	EOT Sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	PCM Default: – V6 CHT substituted – V8 ECT substituted	EOT Sensor to PCM sensing circuit high resistance when hot EOT Sensor to PCM sensing circuit intermittent high resistance EOT Sensor failure
P1214	EMS JAG	APP Sensor signal intermittent – APP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “2” (sensor pin 4) intermittent: open circuit, high resistance, short circuit APP Sensor reference voltage (sensor pin 8) intermittent open circuit APP Sensor reference ground (sensor pin 6) intermittent open circuit APP Sensor failure
P1215	EMS JAG	APP Sensor circuit low voltage – APP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “3” (sensor pin 7) open circuit or high resistance APP Sensor reference voltage (sensor pin 3) open circuit APP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1216	EMS JAG	APP Sensor circuit high voltage – APP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “1” (sensor pin 7) short circuit to high voltage APP Sensor reference ground (sensor pin 2) open circuit APP Sensor failure
P1217	EMS JAG	APP Sensor signal intermittent – APP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “3” (sensor pin 7) intermittent: open circuit, high resistance, short circuit APP Sensor reference voltage (sensor pin 3) intermittent open circuit APP Sensor reference ground (sensor pin 2) intermittent open circuit APP Sensor failure
P1222	EMS JAG	APP Sensor circuit low voltage – APP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “2” (sensor pin 4) open circuit or high resistance APP Sensor reference voltage (sensor pin 8) open circuit APP Sensor failure
P1223	EMS JAG	APP Sensor circuit high voltage – APP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “2” (sensor pin 4) short circuit to high voltage APP Sensor reference ground (sensor pin 6) open circuit APP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1233	EMS JAG	Fuel delivery system disabled or inoperative	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (Engine shut off)	PCM to RECM fuel pump drive signal circuit (PCM pin FH1-58): open circuit, high resistance, short circuit RECM to fuel pump drive circuit: open circuit, high resistance, short circuit Fuel pump relay power supply open circuit, short circuit Fuel pump relay to RECM power supply circuit open circuit Fuel pump relay failure
P1235	EMS JAG	Fuel pump control out of range	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (Engine running too rich / lean)	PCM to RECM fuel pump drive signal circuit (PCM pin FH1-58) intermittent: open circuit, high resistance, short circuit RECM to fuel pump drive circuit intermittent: open circuit, high resistance, short circuit
P1237	EMS JAG	Fuel pump secondary circuit malfunction	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (Engine shut off)	RECM to fuel pump drive circuit: open circuit, high resistance, short circuit Fuel pump relay power supply open circuit, short circuit Fuel pump relay to RECM power supply circuit open circuit Fuel pump relay failure
P1246	EMS JAG	Generator load input to PCM failure	KOER – page 3	N	M, C	None	Accessory drive belt failure PCM to generator load circuit (PCM pin P11-50): open circuit, high resistance, short circuit Generator failure
P1260	EMS JAG	Vehicle theft detected – engine disabled (PCM SCP input from PATS, INST, GECM)	KOEO – page 3	N	N	None	Invalid ignition key code Passive anti-theft system (PATS) signal to instrument pack missing or corrupted PATS SCP message failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1270	EMS JAG	Engine speed or vehicle speed limit reached	Operate vehicle	N	N	None	Engine speed limit reached Vehicle speed limit reached
P1285	V6 EMS JAG	Cylinder head over temperature sensed	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	M, H	PCM Default: – fail-safe cooling strategy	Coolant level low / leak Coolant contaminated Cooling system thermostat defective Excessive load on engine – high elevation, steep grade, trailer towing
P1288	V6 EMS JAG	CHT Sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	PCM Default: – CHT default value 102 °C (215 °F)	Engine not at normal operating temperature Engine overheat condition – refer to P1285 CHT Sensor disconnected CHT Sensor to PCM circuit fault PCM cooling fan circuit failure Cooling fan module to fan motor circuit failure Cooling fan module failure
P1289	V6 EMS JAG	CHT Sensor sense circuit high voltage (low temperature) DTC P0118 flagged for OBD II	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – CHT default value 102 °C (215 °F)	CHT Sensor to cylinder head poor contact CHT Sensor to PCM sensing circuit high resistance, open circuit or short circuit to high voltage CHT Sensor failure
P1290	V6 EMS JAG	CHT Sensor sense circuit low voltage (high temperature) DTC P0117 flagged for OBD II	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – CHT default value 102 °C (215 °F)	Engine overheat condition – refer to P1285 CHT Sensor to PCM wiring short circuit to ground CHT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1299	V6 EMS OBD II	Fail-safe cooling mode active	Comprehensive component monitor engine management drive cycle – page 7	1	M, H	PCM Default: – fail-safe cooling strategy	Engine overheat condition – refer to P1285 PCM cooling fan circuit failure Cooling fan module to fan motor circuit failure Cooling fan module failure
P1309	EMS OBD II	Misfire monitor failure	Misfire monitor drive cycle – page 4	2	N	None	CKP Sensor fault – refer to P0320 CMP Sensor(s) fault – refer to P0340, P0341 PCM failure
P1380	EMS OBD II	VVT Solenoid circuit malfunction – bank 1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 1 VVT solenoid valve disconnected Bank 1 VVT solenoid valve to PCM PWM drive circuit fault Bank 1 VVT solenoid valve power supply circuit fault Bank 1 VVT solenoid failure
P1381	EMS OBD II	VVT Over advanced – bank 1	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 1 VVT solenoid valve to PCM PWM drive circuit fault Bank 1 VVT actuator oil supply fault Bank 1 VVT actuator stuck
P1383	EMS OBD II	VVT Over retarded – bank 1	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 1 VVT solenoid valve to PCM PWM drive circuit fault Bank 1 VVT actuator oil supply fault Bank 1 VVT actuator stuck
P1385	EMS OBD II	VVT Solenoid circuit malfunction – bank 2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 2 VVT solenoid valve disconnected Bank 2 VVT solenoid valve to PCM PWM drive circuit fault Bank 2 VVT solenoid valve power supply circuit fault Bank 2 VVT solenoid failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1386	EMS OBD II	VVT Over advanced – bank 2	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 2 VVT solenoid valve to PCM PWM drive circuit fault Bank 2 VVT actuator oil supply fault Bank 2 VVT actuator stuck
P1388	EMS OBD II	VVT Over retarded – bank 2	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 2 VVT solenoid valve to PCM PWM drive circuit fault Bank 2 VVT actuator oil supply fault Bank 2 VVT actuator stuck
P1400	V6 EMS OBD II	DPFE Sensor circuit low voltage	KOEO – page 3, or KOER – page 3, or EGR monitor drive cycle – page 6	2	N	None	DPFE Sensor reference voltage circuit (to splice) open circuit DPFE Sensor to PCM sensing circuit; open circuit, high resistance, short circuit to ground DPFE Sensor failure
P1401	V6 EMS OBD II	DPFE Sensor circuit high voltage	KOEO – page 3, or KOER – page 3, or EGR monitor drive cycle – page 6	2	N	None	DPFE Sensor reference ground circuit (to splice) open circuit DPFE Sensor to PCM sensing circuit short circuit to high voltage DPFE Sensor failure
P1405	V6 EMS OBD II	DPFE Sensor upstream hose – no flow	EGR monitor drive cycle – page 6	2	N	None	Upstream hose disconnected, restricted, broken
P1406	V6 EMS OBD II	DPFE Sensor downstream hose – no flow	EGR monitor drive cycle – page 6	2	N	None	Downstream hose disconnected, restricted, broken
P1408	V6 EMS JAG	EGR Flow out of self test range	KOER – page 3, or EGR monitor drive cycle – page 6	N	N	None	DPFE Sensor reference voltage circuit (to splice) open circuit DPFE Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1409	V6 EMS OBD II	EGR Vacuum regulator circuit malfunction	KOEO – page 3, or KOER – page 3, or EGR monitor drive cycle – page 6	2	N	None	EGR Vacuum regulator to PCM drive circuit: open circuit, high resistance, short circuit EGR Vacuum regulator power supply circuit: open circuit, short circuit EGR Vacuum regulator failure
P1443	EMS OBD II	EVAP Canister purge valve circuit malfunction	Evaporative system monitor drive cycle – page 6	2	N	None	EVAP Canister purge valve to PCM drive circuit: open circuit, high resistance, short circuit EVAP Canister purge valve power supply circuit: open circuit, short circuit EVAP Canister purge valve failure
P1450	EMS OBD II	System unable to bleed-up fuel tank vacuum	Evaporative system monitor drive cycle – page 6	2	N	None	Restricted vapor piping – fuel tank to EVAP canister purge valve EVAP Canister purge valve stuck open
P1451	EMS OBD II	EVAP Canister close valve circuit malfunction	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	EVAP Canister close valve to PCM drive circuit: open circuit, high resistance, short circuit EVAP Canister close valve power supply circuit: open circuit, short circuit EVAP Canister close valve failure
P1460	EMS JAG	A/C compressor cut-out malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (PCM inhibits A/C clutch engagement during: engine cranking, wide open throttle, throttle limp home mode)	PCM to A/C compressor clutch relay circuit: open circuit, short circuit A/C compressor clutch relay to A/C compressor circuit: open circuit, short circuit A/C compressor clutch relay failure A/C compressor clutch ground circuit open circuit A/C compressor clutch failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1461	EMS JAG	A/C Pressure sensor high voltage (high pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	A/C Pressure sensor to PCM wiring (supply, sense, reference ground) short circuit to each other A/C Pressure sensor to PCM sensing circuit short circuit to high voltage A/C Pressure sensor failure
P1462	EMS JAG	A/C Pressure sensor low voltage (low pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	A/C Pressure sensor to PCM sensing circuit open circuit or short circuit to ground A/C Pressure sensor to PCM reference voltage circuit open circuit or short circuit to ground A/C Pressure sensor to PCM reference ground circuit open circuit A/C Pressure sensor failure
P1463	EMS JAG	Air conditioning system insufficient refrigerant pressure charge	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	A/C Refrigerant charge low A/C Refrigeration system leak A/C Pressure sensor to PCM wiring fault A/C Pressure sensor failure A/C Compressor failure
P1464	EMS JAG	A/C Pressure sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	None	A/C Pressure sensor to PCM wiring fault A/C Pressure sensor failure
P1474	EMS JAG	Radiator cooling fan control circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	PCM to cooling fan module circuit: open circuit, high resistance, short circuit Cooling fan module failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1506	EMS OBD II	Idle air control over speed error	KOER – page 3	2	N	None	Intake manifold air leak PCM / TACM circuit fault TACM failure Throttle failure
P1507	EMS OBD II	Idle air control under speed error	KOER – page 3	2	N	None	Engine air filter restricted / defective Engine air intake restricted / damaged PCM / TACM circuit fault TACM failure Throttle failure
P1532	V6 EMS JAG	IMT Valve control circuit malfunction – top valve	KOEO – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	IMT Valve (top) disconnected IMT Valve (top) to PCM drive circuit fault IMT Valve (top) power supply circuit fault IMT Valve (top) failure
P1534	EMS JAG	Air bag(s) deployed (Restraints control module (RCM) input to PCM) circuit malfunction	KOEO – page 3	N	A, M		PCM to RCM airbag deployed circuit: open circuit, high resistance, short circuit to ground RCM fault
P1549	V6 EMS JAG	IMT Valve control circuit malfunction – bottom valve	KOEO – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	IMT Valve (bottom) disconnected IMT Valve (bottom) to PCM drive circuit fault IMT Valve (bottom) power supply circuit fault IMT Valve (bottom) failure
P1565	EMS JAG	Speed control command switch input (steering wheel switches) out of range – high voltage	Drive vehicle; operate all speed control steering wheel switches	N	M, S	PCM Default: – speed control inhibited	Speed control steering wheel switches to PCM signal circuit (PCM pin FH1-57): short circuit to B+ V Speed control steering wheel switche(s) failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1566	EMS JAG	Speed control command switch input (steering wheel switches) out of range – low voltage	Drive vehicle; operate all speed control steering wheel switches	N	M, S	PCM Default: – speed control inhibited	Speed control steering wheel switches to PCM wiring: open circuit, high resistance, short circuit to ground Speed control steering wheel switch(es) failure
P1572	EMS JAG	Brake cancel switch out of self test range	Ignition ON; operate brake pedal	N	M, S	PCM Default: – speed control inhibited	Brake cancel switch to PCM signal circuit: open circuit, high resistance, short circuit Brake cancel switch power supply circuit: open circuit, short circuit Brake cancel switch failure
P1573	EMS OBD II	TP Sensor signals malfunction – more than one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	Throttle limp home mode: – high idle speed – no accelerator pedal response	TP Sensor to PCM sensing circuits (sensor pins 1, 2, 10): open circuit, high resistance, short circuit TP Sensor to PCM reference voltage circuits (sensor pins 4, 3): open circuit, high resistance, short circuit TP Sensor to PCM reference ground circuits (sensor pins 6, 7): open circuit, high resistance, short circuit TP Sensor failure
P1574	EMS JAG	TP Sensor signals disagree – one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal signals are received from the remaining two sensors)	Refer to P1573 Possible Causes
P1576	EMS OBD II	APP Sensor signals malfunction – more than one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	Throttle limp home mode: – high idle speed – no accelerator pedal response	APP Sensor to PCM sensing circuits (sensor pins 4, 5, 7): open circuit, high resistance, short circuit APP Sensor to PCM reference voltage circuits (sensor pins 3, 8, 10): open circuit, high resistance, short circuit APP Sensor to PCM reference ground circuits (sensor pins 2, 6, 9): open circuit, high resistance, short circuit APP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1577	EMS JAG	APP Sensor signals disagree – one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal signals are received from the remaining two sensors)	Refer to P1576 Possible Causes
P1580	EMS OBD II	PCM Override of internal throttle monitor	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	Throttle limp home mode: – high idle speed – no accelerator pedal response (Engine may stop if fuel injection is canceled)	TP Sensor circuit fault – TP Sensor DTC(s) flagged Throttle circuit fault – throttle DTC(s) flagged
P1581	EMS JAG	PCM Throttle monitor malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	R, M	PCM Default: – cruise control inhibited – reverse gear power limiting inhibited	PCM Failure
P1582	EMS JAG	Throttle data recorder data available	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Vehicle impact To reuse PCM: – 100 Ignition key cycles, then – Clear DTC using PDU, or – Additional 40 ignition key cycles
P1583	EMS JAG	Speed control inhibited by PCM throttle monitor	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None	TP Sensor circuit fault – TP Sensor DTC(s) flagged Throttle circuit fault – throttle DTC(s) flagged

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1584	EMS OBD II	Throttle actuation malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	A, M	None (Engine will stall at low throttle angles)	Throttle body failure
P1585	EMS OBD II	TACM malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	None (Engine will stop – or possibly run at very low idle speed)	PCM to TACM redundant control circuits (TACM pins 2, 3): open circuit, high resistance, short circuit TACM ground circuits: open circuit, high resistance TACM Failure
P1586	EMS OBD II	TACM to PCM communication (SCP) failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	A, M	None	SCP circuit fault – U Code flagged TACM Failure
P1587	EMS OBD II	PCM to TACM throttle command redundancy circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R*, M	If only one command circuit fails: None If both command circuits fail: Throttle limp home mode – high idle speed – no accelerator pedal response R* If both command circuits fail	PCM to TACM redundant control circuits (TACM pins 2, 3): open circuit, high resistance, short circuit
P1589	EMS OBD II	Throttle valve angle does not match desired angle	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R	None (Engine will stop – or possibly run at very low idle speed)	Throttle failure

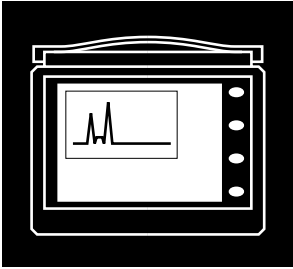
DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1633	PCM OBD II	Keep alive memory (KAM) voltage too low	Drive vehicle	1	N	None	Vehicle battery voltage low Battery power supply to PCM interrupted for longer than 20 seconds during engine operation
P1635	EMS JAG	Wheel / axle ratio out of acceptable range	Drive vehicle	N	N	None	Incorrect size tire(s) fitted to vehicle Incorrect size wheel(s) fitted to vehicle
P1636	PCM OBD II	PCM Internal communication error	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – self test partially inhibited	PCM Failure
P1650	EMS JAG	PSP Switch out of self test range	KOEO – page 3, or KOER – page 3	N	N	None	PSP switch to PCM signal circuit: open circuit, high resistance, short circuit PSP switch reference ground circuit (to splice): open circuit PSP switch failure
P1651	EMS JAG	PSP Switch circuit malfunction	Drive vehicle	N	N	None	PSP switch to PCM signal circuit: open circuit, high resistance, short circuit PSP switch reference ground circuit (to splice): open circuit PSP switch failure
P1700	TRANS JAG	Transmission intermediate failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	N	PCM Default: – 2nd and 5th gears only	Clear DTC 1700 Diagnose and repair other flagged DTCs Conduct drive cycle – if P1700 reflags: transmission mechanical failure (direct one-way clutch)
P1702	TRANS JAG	Range sensor circuit intermittent malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	N	PCM Defaults to DRIVE (to maintain all five gears) J Gate gear selected illumination extinguished (Harsh shifts)	Gear selector cable incorrectly adjusted Range sensor circuit intermittent: open circuit; short circuit Range sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1704	TRANS JAG	Range sensor circuit not indicating P / N during self test	KOEO – page 3, or KOER – page 3	N	T	ABS/TCCM, DSCCM Default: – traction control inhibited	Selector not in P / N Range sensor incorrect alignment Gear selector cable incorrectly adjusted Gear selector mechanical failure Range sensor failure
P1705	TRANS JAG	Range sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	None	Range sensor incorrect alignment Gear selector cable incorrectly adjusted Gear selector mechanical failure Range sensor failure
P1711	TRANS JAG	TFT Out of self test range	KOEO – page 3, or KOER – page 3	N	T	ABS/TCCM, DSCCM Default: – traction control inhibited	Transmission not at normal operating temperature TFT Sense circuit: short circuit; high resistance; open circuit TFT Sensor failure
P1713	TRANS JAG	TFT Signal – no change at low range during vehicle operation	Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited	TFT Sensor circuit: high resistance; open circuit TFT Sensor failure
P1714	TRANS OBD II	Shift solenoid 1 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 3rd shift pattern or – 3rd, 2nd, 3rd, 4th, 5th shift pattern (Shift pattern depends on position of stuck solenoid)	Shift solenoid 1 mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1715	TRANS OBD II	Shift solenoid 2 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern or – 3rd, 2nd, 3rd, 4th, 5th shift pattern (Shift pattern depends on position of stuck solenoid)	Shift solenoid 2 mechanical failure
P1716	TRANS OBD II	Shift solenoid 3 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 5th shift pattern or – normal shift pattern (Shift pattern depends on position of stuck solenoid)	Shift solenoid 3 mechanical failure
P1717	TRANS JAG	Shift solenoid 4 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – DRIVE – normal shift pattern – Manual – 2, 3, 4 inhibited	Shift solenoid 4 mechanical failure
P1718	TRANS JAG	TFT Signal – no change at high range during vehicle operation	Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited	TFT Sensor circuit short circuit TFT Sensor failure
P1740	TRANS OBD II	TCC solenoid stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	None (TCC applied / released depending on position of stuck solenoid)	TCC solenoid mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1746	TRANS JAG	Pressure control solenoid 1 circuit low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – normal shift pattern (Harsh shifts)	Pressure control solenoid 1 drive circuit short circuit to ground Pressure control solenoid 1 failure Transmission mechanical failure (other DTCs logged)
P1747	TRANS OBD II	Pressure control solenoid 1 circuit high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern (Harsh shifts)	Pressure control solenoid 1 drive circuit: short circuit to B+ V; open circuit Pressure control solenoid 1 failure Transmission mechanical failure (other DTCs logged)
P1760	TRANS JAG	Pressure control solenoid 1 drive circuit intermittent low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern	Pressure control solenoid 1 drive circuit intermittent short circuit to ground
P1780	TRANS OBD II	D – 4th switch out of self test range	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – Manual 4th inhibited	D – 4th Switch power supply open circuit D – 4th Switch / PCM sense circuit: short circuit; high resistance; open circuit D – 4th Switch failure
P1783	TRANS JAG	Transmission over temperature condition indicated – >127 °C (270 °F)	Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – TCC Lock-up in all gears ABS/TCCM, DSCCM Default: – traction control inhibited	Excessive vehicle load Transmission fluid level low Transmission fluid contaminated Transmission fluid cooler failure (clogged) TFT Sensor fault – refer to P0712

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1788	TRANS JAG	Pressure control solenoid 2 circuit high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – normal shift pattern ABS/TCCM, DSCCM Default: – traction control inhibited (Harsh shifts)	Pressure control solenoid 2 drive circuit: short circuit to B+ V; open circuit Pressure control solenoid 2 failure Transmission mechanical failure (other DTCs logged)
P1789	TRANS OBD II	Pressure control solenoid 2 drive circuit low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 4th shift pattern (Harsh shifts)	Pressure control solenoid 2 drive circuit short circuit to ground Pressure control solenoid 2 failure Transmission mechanical failure (other DTCs logged)
P1881	V8 EMS JAG	Engine coolant level sensor circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Low coolant level Coolant level sensor to PCM signal circuit: open circuit, high resistance, short circuit Coolant level sensor power supply circuit: open circuit, short circuit Coolant level sensor ground circuit: open circuit, high resistance Coolant level sensor failure



Powertrain DTC Summaries – OBD II

Jaguar S-TYPE 2001 – 2002 Model Year

STARTING VIN: L86902

Refer to page 2 for important information regarding the use of “Powertrain DTC Summaries”.

Revised April, 2002:

- DTCs P0325, P0330

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
SYS	The powertrain system the DTC is associated with – EMS, TRANS, PCM, ABS/TC (DSC). DTC retrieval tools: OBD II – indicates that the DTC is an OBD II code and can be accessed via a generic scan tool or PDU / WDS. JAG – indicates that the DTC is not an OBD II code and is accessed only via PDU / WDS.
FAULT DESCRIPTION	Fault description.
MONITORING CONDITIONS	“DIAGNOSTIC MONITOR DRIVE CYCLE” for the particular DTC. Operate the vehicle as described to check for a reoccurrence of the DTC. Refer to pages 4 – 8. KOEO and KOER PDU / WDS self tests must be carried out to check for a reoccurrence of the fault. Refer to page 3.
CHECK ENGINE MIL (CK ENG)	1 1 TRIP – indicates that the CHECK ENGINE MIL is activated by a fault occurring during ONE “TRIP”. 2 2 TRIPS – indicates that the CHECK ENGINE MIL is activated by a fault occurring during TWO CONSECUTIVE “TRIPS”. N NO – indicates that the CHECK ENGINE MIL is not activated.
OTHER	Driver Warnings: N None R RED MIL A AMBER MIL M MESSAGE “SYSTEM FAULT” C Charge indicator H Engine High Temperature indicator S Speed Control indicator T Traction Control indicator
DEFAULT ACTION	Control Module default action: Logged – DTC stored in PCM memory buffer; Flagged – DTC stored in PCM memory / CHECK ENGINE MIL activated.
POSSIBLE CAUSES	Possible causes are listed in the order of diagnostic checking. HIGH VOLTAGE – High voltage can be either sensor supply voltage (5 volts) or B+ voltage.

OBD II SYSTEM READINESS

If DTC P1000 is flagged after DTCs have been cleared, all SIX (6) OBD II diagnostic monitor drive cycles have not been completed. Refer to OBD monitor drive cycles, pages 4 – 8.

SELF TESTS

Two technician initiated component self tests are available using PDU / WDS:

KOEO Key (ignition) On Engine Off – The KOEO self test determines if system components are operating within tolerances with the ignition switched ON and the engine stopped.

KOER Key (ignition) On Engine Running – The KOER self test determines if system components are operating within tolerances with the ignition switched on and the engine running. KOER flags self-test DTC P1001 if a component fails to operate within the specified limits but does not activate the CHECK ENGINE MIL.

OBD DIAGNOSTIC MONITORS

The Engine Management and Transmission Control systems are continuously checked during vehicle operation by the Powertrain Control Module (PCM) on-board diagnostic (OBD) facility. The PCM OBD incorporates six diagnostic monitors. Each monitor has an associated group of DTCs. The diagnostic monitors will complete the diagnostic test(s) if a specified service “drive cycle” is carried out.

The six diagnostic monitors are as follows:

- Heated Oxygen Sensors Monitor
- Adaptive Fuel Monitor
- Misfire Monitor
- Catalyst Efficiency Monitor
- Evaporative System Monitor
- Comprehensive Component Monitor (Engine Management / Transmission)

DIAGNOSTIC MONITORS DRIVE CYCLES

Technicians can ensure that an OBD Monitor drive cycle is completed and that all or specific components have been checked by completing a specified drive cycle. Use the following service drive cycles to confirm that the components and subsystems covered by the Diagnostic Monitors are operating correctly.

HEATED OXYGEN SENSORS MONITOR DRIVE CYCLE

NOTE: The HO2 Sensor Monitor will also be completed during the Catalyst Efficiency Monitor drive cycle.

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 3 Drive vehicle on a level road. Avoid harsh acceleration.
- 4 Maintain a steady speed between 64 km/h (40 mph) and 97 km/h (60 mph) for 10 seconds.

ADAPTIVE FUEL MONITOR DRIVE CYCLE

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).

MISFIRE MONITOR DRIVE CYCLE

- 1 Fuel level >25%.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 3 Drive vehicle on a level road. Accelerate at 50% throttle up to 105 km/h (65 mph).
- 4 Release throttle and coast down to 80 km/h (50mph).
- 5 The misfire monitor will complete once acceleration is resumed.

CATALYST EFFICIENCY MONITOR DRIVE CYCLE

The catalyst efficiency monitor operates by comparing the number of downstream HO2 Sensor “swings” to a given number of upstream HO2 Sensor “swings” while the vehicle is cruising in each of two AM (mass air flow) stages. The AM and IMAF values vary between V6 and V8 vehicles due to differences in MAF Sensor characteristics.

- 1 Fuel level >25%.
- 2 Connect PDU / WDS so that the AM (mass air flow, grams per second) PID can be observed while driving. If AM cannot be accessed, read IMAF (mass air flow sensor raw voltage).
- 3 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 4 Drive vehicle on a level road. Avoid harsh acceleration.
- 5 Stage 1 – Maintain a steady speed of approximately 80 km/h (50 mph). Adjust the speed as necessary to stay within the stage 1 range. Maintain this speed for 3 minutes.
- 6 Stage 2 – Maintain a steady speed of approximately 97 km/h (60 mph). Adjust the speed as necessary to stay within the stage 2 range. Maintain this speed for 3 minutes.

	V8		V6	
	AM	IMAF	AM	IMAF
Stage 1	15.9 – 19.7 grams per second	3.15 v – 3.40 v	15.9 – 19.7 grams per second	3.40 v – 3.70 v
Stage 2	21.2 – 24.2 grams per second	3.50 v – 3.80 v	21.9 – 25.7 grams per second	3.90 v – 4.25 v

EVAPORATIVE SYSTEM MONITOR DRIVE CYCLE

The EVAP drive cycle requires that the vehicle not be operated for six hours prior to completing the drive cycle. A 20-minute driving period is required because the EVAP check is dependant on purge flow rate.

- 1 Engine OFF >6 hours.
- 2 Fuel level 15% – 85%.
- 3 Ambient temperature 5 – 43 °C (40 – 110 °F).
- 4 Surface elevation no higher than 2,957 meter (9,700 feet) above sea level.
- 5 Start engine and bring to normal operating temperature >82 °C (180 °F). Idle for 5 minutes.
- 6 Drive vehicle on a level road.
- 7 Maintain a steady speed between 72 km/h (45 mph) and 121 km/h (75 mph) for 20 minutes.
- 8 The EVAP monitor will perform a 30 second EVAP system check sometime during the 20 minute cruise period.

COMPREHENSIVE COMPONENT MONITOR ENGINE MANAGEMENT DRIVE CYCLE

The Comprehensive Component Monitor Engine Management drive cycle requires that the vehicle not be operated for six hours prior to completing the drive cycle. The drive cycles are the same for V6 and V8 except for the "idle in Drive" time period. The additional "idle in Drive" time for V8 is to allow the AAI check to occur.

- 1 Engine OFF >6 hours
- 2 Fuel level >25%.
- 3 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 4 Transmission Mode switch – Normal.
- 5 Switch off all heavy electrical consumers: air conditioning, heaters, etc.
- 6 Idle for 15 seconds.
- 7 Select 2nd Gear; accelerate slowly.
- 8 After 5 seconds, select 3rd Gear; accelerate slowly.
- 9 After 5 seconds, select 4th Gear; accelerate slowly.
- 10 After 5 seconds, select Drive; cruise at 72 km/h (45 mph) for 30 seconds.
- 11 Stop vehicle in a safe place. Do not turn the steering wheel after stopping.
- 12 Idle in Drive with foot hard on brake pedal. (Idle in Drive 30 seconds – V6; 3 minutes – V8).
- 13 From stop, accelerate to 80 km/h (50 mph) at 50% throttle. Cruise for 30 seconds.
- 14 Stop vehicle and repeat "idle in Drive". Do not move the steering wheel.

COMPREHENSIVE COMPONENT MONITOR TRANSMISSION DRIVE CYCLE

The Comprehensive Component Monitor transmission drive cycle will “check” all transmission system components.

- 1 Start engine.
- 2 Move transmission mode switch between Normal and Sport. Verify switch state illumination.
- 3 Move the gear selector to all positions in the J Gate for five (5) seconds each. Verify the state illumination in each position.
- 4 Drive vehicle to bring the transmission fluid temperature up to normal operating temperature.
- 5 Stop vehicle.
- 6 Switch off all heavy electrical consumers: air conditioning, heaters, etc.
- 7 Transmission mode switch – Normal.
- 8 Select 2nd Gear; accelerate slowly. After 5 seconds, select 3rd Gear; accelerate slowly. After 5 seconds, select 4th Gear; accelerate slowly. After 5 seconds, select Drive; cruise at 72 km/h (45 mph) for 30 seconds.
- 9 Stop vehicle.
- 10 Use the J Gate to shift through all gears while accelerating briskly to 87 km/h (55 mph). Cruise at this speed to allow torque converter lockup to occur in fifth gear.
- 11 Stop vehicle and repeat steps 8 through 10.

POWERTRAIN CONTROL ACRONYMS:

AAI Valve	Air Assist Injection Valve	IAT Sensor	Intake Air Temperature Sensor
A/C	Air conditioning	IMT Valve	Intake Manifold Tuning Valve
APP Sensor	Accelerator Pedal Position Sensor	IP Sensor	Injection Pressure Sensor
B+	Battery Voltage	KS 1	Knock Sensor – RH Bank
CHT Sensor	Cylinder Head Temperature Sensor	KS 2	Knock Sensor – LH Bank
CKP Sensor	Crankshaft Position Sensor	MAF Sensor	Mass Air Flow Sensor
CMP Sensor 1	Camshaft Position Sensor – RH Bank	PCM	Powertrain Control Module
CMP Sensor 2	Camshaft Position Sensor – LH Bank	PSP Switch	Power Steering Pressure Switch
DLC	Data Link Connector	PTEC	Powertrain Electronic Control
ECT Sensor	Engine Coolant Temperature Sensor	SCP	Standard Corporate Protocol Network
EFT Sensor	Engine Fuel Temperature Sensor	TACM	Throttle Actuator Control Module
EOT Sensor	Engine Oil Temperature Sensor	TCC	Torque converter clutch
EVAP Canister Close Valve	Evaporative Emission Canister Close Valve	TFT Sensor	Transmission Fluid Temperature Sensor
EVAP Canister Purge Valve	Evaporative Emission Canister Purge Valve	TP Sensor	Throttle Position Sensor
FTP Sensor	Fuel Tank Pressure Sensor	WTV Valve 1	Variable Valve Timing Valve – RH Bank
HO2 Sensor 1 / 1	Heated Oxygen Sensor – RH Bank / Upstream	WTV Valve 2	Variable Valve Timing Valve – LH Bank
HO2 Sensor 1 / 2	Heated Oxygen Sensor – RH Bank / Downstream		
HO2 Sensor 2 / 1	Heated Oxygen Sensor – LH Bank / Upstream		
HO2 Sensor 2 / 2	Heated Oxygen Sensor – LH Bank / Downstream		

POWERTRAIN CONTROL PDU / WDS ACRONYMS:

ACCF	Air conditioning clutch output – fault detected	EFPT	Fuel injection pressure sensor (raw input)
ACCON	A/C clutch commanded on	EFPT1	Fuel injection pressure sensor before PCM default action
ACP	Air conditioning high side pressure	EFT	Engine fuel temperature sensor (raw input)
ADCF	Adaptive damping control output – fault detected	EFT1	Engine fuel temperature sensor before PCM default action
AFT1F	Adaptive fueling table 1 – failure	EOTA	Engine oil temperature -actual
AFT2F	Adaptive fueling table 2 – failure	EPCS1	Electronic pressure control solenoid 1
ASLIP	Actual torque converter slip value	EPCS2	Electronic pressure control solenoid 2
ATMR1	Time since engine start	EPCS3	Electronic pressure control solenoid 3
CAM ANGLE1	Actual position of right camshaft	EPCSF	Electronic pressure control solenoid fault detected
CAMDC	Variable valve timing right bank duty cycle	FP1	Fuel pump – output fault detected
CAMERR	Actual position of right camshaft	FPDC	Modulated fuel pump control – duty cycle
CANPF	EVAP Canister purge output – fault detected	FTPT	Fuel tank pressure sensor
CANVF	EVAP Canister close valve output – fault detected	FUEL	Fuel tank level
CCSF	Coast clutch solenoid fault detected	GEAR	In gear
CHTC	Cylinder head temperature before PCM default action	GRCUR	Current transmission gear ratio
CLOOP	Closed loop fuel	HO2S11	HO2S bank 1 upstream sensor voltage – before correcting for %h(CSD) condition.
CLOOP1	Closed loop fuel with HO2S fault	HO2S12	HO2S bank 1 downstream sensor voltage – before correcting for %h(CSD) condition.
CLV	Calculated load value	HO2S1D	HO2S voltage – bank 1 downstream
CVSDC	EVAP Canister close valve duty cycle		
DOLF	Data link output – fault detected		
ECT	Engine coolant temperature – degrees Celsius		
ECT2	Engine coolant temperature – degrees Fahrenheit		
ECTF	Engine coolant temperature sensor failure		
EDF	Low speed fan output – fault detected		

POWERTRAIN CONTROL PDU / WDS ACRONYMS:

HO2S1F	Heated oxygen sensor 1 – failure	LSFP	Low speed fuel pump output – fault detected
HO2S1U	HO2S voltage – bank 1 upstream	MAFF	Mass air flow sensor – failure
HO2S1UA	HO2S bank 1 upstream heater current monitor	MILF	CHECK ENGINE MIL output fault detected
HO2S2D	HO2S voltage – bank 2 downstream	O212F	HO2S bank 1 downstream – heater fault detected
HO2S2F	Heated oxygen sensor 2 – failure	OLOOP3	Open loop fuel – conditions not met; go to closed loop
HO2S2U	HO2S voltage – bank 2 upstream	OTRIP	OBDI trip completed
HTR11	HO2S bank 1 upstream – heater On	PNPS	Park neutral position sensor
IAC1	Idle speed control- fault detected	REVS	Reverse switch (not used – manual transmission)
IAC2	Idle speed control output – over current fault detected	RPM1	Engine speed
IATF	Intake air temperature sensor failure	RPM2	Engine speed
IMCDC	Intake manifold communications control – duty cycle	RTT	Transmission gear ratio
IMCF	Inlet manifold communications output – fault indicated	SAFTOT	Spark advance
IMRCF	Inlet manifold runner control output fault indicated	SCACL	Cruise control set/ acceleration switch
INDSA	Park neutral position sensor	SCAN	Cruise control cancel switch
INJ1	Air assist injection fault	SCN	Cruise control null state
ISC1	Idle speed control – desired RPM	SCOF	Cruise control Off switch
KAMRF1	Adaptive fuel correction multiplier – bank 1	SCON	Cruise control On switch
KAMRF2	Adaptive fuel correction multiplier – bank 2	SCRES	Cruise control resume switch
LAMBSE1	Desired open loop equivalence ratio – bank 1	SCTAP	Cruise control coast tap down switch
LAMBSE2	Desired open loop equivalence ratio – bank 2	SLIPA	Absolute torque converter slip value (not used)
LOAD	Air charge load normalized to sea level	SLIPD	Desired torque converter slip value (not used)

POWERTRAIN CONTROL PDU / WDS ACRONYMS:

SSCM	Shift solenoids – commanded gear	TOTFM	Transmission fluid temperature before PCM default action
SSDCM	Shift solenoids commanded gear	TOTLK	Transmission over temperature lockup mode
SSDF	Shift solenoid output fault	TPS	Throttle position
SSD1	Shift solenoid 1	TPSF	Throttle position sensor failure
SSD1F	Shift solenoid 1 output fault	TRS1	Transmission range sensor 1
SSD2	Shift solenoid 2	TRS2	Transmission range sensor 2
SSD2F	Shift solenoid 2 output fault	TRS3	Transmission range sensor 3
SSD3	Shift solenoid 3	TRS4	Transmission range sensor 4
SSD3F	Shift solenoid 3 output fault	TSS	Turbine speed sensor
TCCDC	Torque converter clutch solenoid duty cycle	VCT1F	Variable valve timing bank 1 output – fault detected
TCCF	Torque converter clutch solenoid duty cycle fault detected	VCT2F	Variable valve timing bank 2 output – fault detected
TCS	Transmission control switch (D – 4 switch)	VMVDC	EVAP Canister purge valve duty cycle
TCTF	Secondary throttle output – fault detected	VMVM	EVAP Canister purge valve output state monitor
TIS	Transmission input speed (Turbine speed)	VPWR	Battery voltage
TMILF	Transmission fault lamp output fault detected	VSF	Variable speed fan level
TOS	Transmission output speed (OSS)	VSS	Vehicle speed sensor
TOT2	Actual transmission fluid temperature (TFT)		

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0065	V8 EMS OBD II	Air assisted fuel injection (AAI) control range / performance	KOEO – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	AAI System piping: restricted, disconnected, broken AAI Valve failure
P0066	V8 EMS OBD II	Air assisted fuel injection (AAI) control circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	AAI Valve B+ power supply circuit fault AAI Valve to PCM PWM drive circuit: open circuit, high resistance, short circuit AAI Valve failure
P0102	EMS OBD II	MAF Sensor sense circuit low voltage	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Restricted air filter MAF Sensor to PCM sensing circuit: high resistance, open circuit or intermittent short circuit to ground MAF Sensor supply circuit: open circuit or short circuit to ground MAF Sensor failure
P0103	EMS OBD II	MAF Sensor sense circuit high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	MAF Sensor to PCM reference ground circuit: open circuit MAF Sensor to PCM sensing circuit: short circuit to high voltage MAF Sensor failure
P0112	EMS OBD II	IAT Sensor sense circuit high voltage (low temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – IAT default value 38 °C (100 °F)	IAT Sensor to PCM wiring: open circuit or high resistance IAT Sensor to PCM sensing circuit: short circuit to high voltage IAT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0113	EMS OBD II	IAT Sensor sense circuit low voltage (high temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – IAT default value 38 °C (100 °F)	IAT Sensor to PCM sensing circuit: short circuit to ground IAT Sensor failure
P0116	EMS JAG	ECT (V8) / CHT (V6) Sensor shift preventing OBD Monitor completion	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Low coolant level Contaminated coolant Engine coolant thermostat failure CHT Sensor to cylinder head poor contact – V6 ECT / CHT Sensor to PCM sensing circuit: high resistance, open circuit or short circuit to high voltage ECT / CHT Sensor failure
P0117	V8 EMS OBD II	ECT Sensor sense circuit low voltage (high temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – ECT default value 102 °C (215 °F)	ECT Sensor to PCM sensing circuit: short circuit to ground ECT Sensor failure
P0118	V8 EMS OBD II	ECT Sensor sense circuit high voltage (low temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – ECT default value 102 °C (215 °F)	ECT Sensor to PCM wiring: open circuit or high resistance ECT Sensor to PCM sensing circuit: short circuit to high voltage ECT Sensor failure
P0122	EMS JAG	TP Sensor sense circuit low voltage – TP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “1” (TP Sensor pin 10): open circuit or high resistance TP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0123	EMS JAG	TP Sensor sense circuit high voltage – TP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “1” (TP Sensor pin 10): short circuit to high voltage TP Sensor failure
P0124	EMS JAG	TP Sensor signal intermittent – TP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “1” (TP Sensor pin 10) intermittent: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure
P0125	EMS OBD II	ECT / CHT Sensor response insufficient for closed loop fuel metering control (Coolant thermostat monitor)	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Low coolant level Contaminated coolant Engine coolant thermostat failure CHT Sensor to cylinder head poor contact – V6 ECT / CHT Sensor to PCM sensing circuit: high resistance, open circuit or short circuit to high voltage Engine cooling fan stuck on high speed Above normal air flow through engine compartment due to accident damage and/or missing panels
P0131	EMS OBD II	HO2 Sensor sense circuit low voltage – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 to PCM sensing circuit: open circuit HO2 Sensor 1/1 short circuit to ground HO2 Sensor 1/1 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0132	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 1, upstream (1/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 to PCM sensing circuit: short circuit to high voltage HO2 Sensor 1/1 reference ground circuit (HO2 sensor to splice): open circuit HO2 Sensor 1/1 failure
P0133	EMS OBD II	HO2 Sensor sense circuit slow response – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	Engine misfire HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 mechanical damage HO2 Sensor 1/1 to PCM wiring: intermittent open circuit HO2 Sensor 1/1 to PCM sensing circuit: short circuit to high voltage HO2 Sensor 1/1 short circuit to ground HO2 Sensor 1/1 reference ground circuit (HO2 sensor to splice): open circuit HO2 Sensor 1/1 heater circuit fault Exhaust leak Low exhaust temperature Injector flow partially restricted Catalyst efficiency decrease HO2 Sensor 1/1 failure
P0135	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 1, upstream (1/1)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 heater power supply: open circuit HO2 Sensor 1/1 heater to ECM wiring: short circuit or open circuit HO2 Sensor 1/1 heater failure
P0136	EMS OBD II	HO2 Sensor sense circuit malfunction – bank 1, downstream (1/2)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/2 to PCM sensing circuit: open circuit, high resistance, short circuit to ground or high voltage HO2 Sensor 1/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0138	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 1, downstream (1/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/2 to PCM sensing circuit: short circuit to high voltage HO2 Sensor 1/2 reference ground circuit (HO2 sensor to splice): open circuit HO2 Sensor 1/2 failure
P0141	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 1, downstream (1/2)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/2 disconnected HO2 Sensor 1/2 heater power supply: open circuit HO2 Sensor 1/2 heater to ECM wiring: short circuit or open circuit HO2 Sensor 1/2 heater failure
P0151	EMS OBD II	HO2 Sensor sense circuit low voltage – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 to PCM sensing circuit: open circuit HO2 Sensor 2/1 short circuit to ground HO2 Sensor 2/1 failure
P0152	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 2, upstream (2/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 to PCM sensing circuit: short circuit to high voltage HO2 Sensor 2/1 reference ground circuit (HO2 sensor to splice): open circuit HO2 Sensor 2/1 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0153	EMS OBD II	HO2 Sensor sense circuit slow response – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	Engine misfire HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 mechanical damage HO2 Sensor 2/1 to PCM wiring: intermittent open circuit HO2 Sensor 2/1 to PCM sensing circuit: short circuit to high voltage HO2 Sensor 2/1 short circuit to ground HO2 Sensor 2/1 reference ground circuit (HO2 sensor to splice): open circuit HO2 Sensor 2/1 heater circuit fault Exhaust leak Low exhaust temperature Injector flow partially restricted Catalyst efficiency decrease HO2 Sensor 2/1 failure
P0155	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 2, upstream (2/1)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 heater power supply: open circuit HO2 Sensor 2/1 heater to ECM wiring: short circuit or open circuit HO2 Sensor 2/1 heater failure
P0156	EMS OBD II	HO2 Sensor sense circuit malfunction – bank 2, downstream (2/2)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/2 to PCM sensing circuit: open circuit, high resistance, short circuit to ground or high voltage HO2 Sensor 2/2 failure
P0158	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 2, downstream (2/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/2 to PCM sensing circuit: short circuit to high voltage HO2 Sensor 2/2 reference ground circuit (HO2 sensor to splice): open circuit HO2 Sensor 2/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0161	EMS OBD II	HO2 Sensor heater circuit malfunction – bank 2, downstream (2/2)	KOEO – page 3, or KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/2 disconnected HO2 Sensor 2/2 heater power supply: open circuit HO2 Sensor 2/2 heater to ECM wiring: short circuit or open circuit HO2 Sensor 2/2 heater failure
P0171	EMS OBD II	System too lean – bank 1	Adaptive fuel monitor drive cycle – page 4	2	N	None	Engine misfire Air intake leak between MAF Sensor and throttle Fuel filter, system restriction Fuel injector restriction Fuel pressure sensor failure (low fuel pressure) Low fuel pump output HO2 Sensor(s) (1/1, 1/2) harness wiring condition fault Exhaust leak (before catalyst) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM
P0172	EMS OBD II	System too rich – bank 1	Adaptive fuel monitor drive cycle – page 4	2	N	None	Restricted air filter Leaking fuel injector(s) Fuel pressure sensor failure (high fuel pressure) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0174	EMS OBD II	System too lean – bank 2	Adaptive fuel monitor drive cycle – page 4	2	N	None	Engine misfire Air intake leak between MAF Sensor and throttle Fuel filter, system restriction Fuel injector restriction Fuel pressure sensor failure (low fuel pressure) Low fuel pump output HO2 Sensor(s) (2/1, 2/2) harness wiring condition fault Exhaust leak (before catalyst) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM
P0175	EMS OBD II	System too rich – bank 2	Adaptive fuel monitor drive cycle – page 4	2	N	None	Restricted air filter Leaking fuel injector(s) Fuel pressure sensor failure (high fuel pressure) PCM receiving incorrect signal from one or more of the following components: ECT or CHT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor(s), TACM
P0180	EMS OBD II	EFT Sensor circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	EFT Sensor disconnected EFT Sensor to PCM sensing circuit: high resistance, open circuit, short circuit to ground or high voltage EFT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0190	EMS OBD II	IP Sensor circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	IP Sensor reference ground circuit (to splice): open circuit IP Sensor reference voltage circuit (to splice): open circuit IP Sensor to PCM sensing circuit: open circuit, high resistance, short circuit to ground or high voltage IP Sensor failure
P0192	EMS OBD II	IP Sensor sense circuit low voltage (low pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	IP Sensor reference voltage circuit (to splice): open circuit IP Sensor to PCM sensing circuit: open circuit, high resistance, short circuit to ground IP Sensor failure
P0193	EMS OBD II	IP Sensor sense circuit high voltage (high pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	IP Sensor reference ground circuit (to splice): open circuit IP Sensor to PCM sensing circuit: short circuit to high voltage IP Sensor failure
P0196	EMS OBD II	EOT Signal does not follow CHT / ECT signal	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – V6 CHT substituted – V8 ECT substituted	EOT Sensor to PCM sensing circuit: high resistance when hot EOT Sensor to PCM sensing circuit: intermittent high resistance EOT Sensor failure
P0201	EMS JAG	Fuel injector 1/1 circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0202	EMS JAG	Fuel injector 1/2 circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure
P0203	EMS JAG	Fuel injector 1/3 circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure
P0204	EMS JAG	Fuel injector 1/4 circuit malfunction (V8) Fuel injector 2/1 circuit malfunction (V6)	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure
P0205	EMS JAG	Fuel injector 2/1 circuit malfunction (V8) Fuel injector 2/2 circuit malfunction (V6)	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure
P0206	EMS JAG	Fuel injector 2/2 circuit malfunction (V8) Fuel injector 2/3 circuit malfunction (V6)	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure
P0207	V8 EMS JAG	Fuel injector 2/3 circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure
P0208	V8 EMS JAG	Fuel injector 2/4 circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Injector disconnected Injector harness wiring: open or short circuit Injector failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0222	EMS JAG	TP Sensor sense circuit low voltage – TP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “2” (TP Sensor pin 1): open circuit or high resistance TP Sensor failure
P0223	EMS JAG	TP Sensor sense circuit high voltage – TP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “2” (TP Sensor pin 1): short circuit to high voltage TP Sensor failure
P0224	EMS JAG	TP Sensor signal intermittent – TP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “2” (TP Sensor pin 1) intermittent: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure
P0227	EMS JAG	TP Sensor sense circuit low voltage – TP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “3” (TP Sensor pin 2): open circuit or high resistance TP Sensor failure
P0228	EMS JAG	TP Sensor sense circuit high voltage – TP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “3” (TP Sensor pin 2): short circuit to high voltage TP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0229	EMS JAG	TP Sensor signal intermittent – TP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal TP signals are received from remaining sensors)	TP Sensor to PCM sensing circuit “3” (TP Sensor pin 2) intermittent: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure
P0300	EMS OBD II	Random misfire detected	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Cylinder compression low Worn camshaft / broken valve spring(s) Fuel delivery pressure (low / high) Fuel injector(s) restricted / leaking Fuel injector(s) continuously open Fuel contamination Fuel injector circuit fault(s) (Injector DTCs also flagged) Spark plug failure / fouled / incorrect gap PCM to ignition coil primary circuit fault (Cylinder misfire detected DTC also flagged) Ignition coil failure
P0301	EMS OBD II	Misfire detected – cylinder 1 (1/1)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0302	EMS OBD II	Misfire detected – cylinder 2 (1/2)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0303	EMS OBD II	Misfire detected – cylinder 3 (1/3)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0304	EMS OBD II	Misfire detected – cylinder 4 (1/4 V8, 2/1 V6)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes

**If the misfire is severe enough to cause catalyst damage, the individual cylinder DTC will be flagged immediately and the CHECK ENGINE MIL will flash.

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0305	EMS OBD II	Misfire detected – cylinder 5 (2/1 V8, 2/2 V6)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0306	EMS OBD II	Misfire detected – cylinder 6 (2/2 V8, 2/3 V6)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0307	V8 EMS OBD II	Misfire detected – cylinder 7 (2/3 V8)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0308	V8 EMS OBD II	Misfire detected – cylinder 8 (2/4 V8)	Misfire monitor drive cycle – page 4	1 or 2 **	N	None	Refer to P0300 Possible Causes
P0320	EMS OBD II	CKP Sensor circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	2	N	None (The engine will shut off)	CKP Sensor disconnected CKP Sensor gap incorrect CKP Sensor reluctor damaged teeth Foreign matter on CKP Sensor face – V8 Foreign matter on CKP Sensor (on drive plate) – V8 CKP Sensor sensing circuit: open circuit, high resistance, short circuit to ground or high voltage CKP Sensor failure
P0325	EMS OBD II	KS (knock sensor) circuit malfunction – bank 1 V8 – front (bank 2) V6	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Poor sensor contact with the cylinder block KS to PCM sensing circuit (KS pin 2): open circuit, high resistance, short circuit to ground or high voltage KS to PCM reference ground circuit (KS pin 1): open circuit, high resistance, short circuit to high voltage KS failure

**If the misfire is severe enough to cause catalyst damage, the individual cylinder DTC will be flagged immediately and the CHECK ENGINE MIL will flash.

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0330	EMS OBD II	KS (knock sensor) circuit malfunction – bank 2 V8 – rear (bank 1) V6	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Poor sensor contact with the cylinder block KS to PCM sensing circuit (KS pin 2): open circuit, high resistance, short circuit to ground or high voltage KS to PCM reference ground circuit (KS pin 1): open circuit, high resistance, short circuit to high voltage KS failure
P0340	EMS OBD II	CMP Sensor circuit malfunction – bank 1	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – VVT inhibited (Decreased engine performance)	Bank 1 CMP Sensor disconnected Bank 1 CMP Sensor gap incorrect / foreign matter on sensor face Bank 1 CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage Bank 1 CMP Sensor reference ground circuit (to splice): open circuit Bank 1 CMP Sensor failure
P0341	EMS OBD II	CMP Sensor circuit malfunction – bank 2	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – VVT inhibited (Decreased engine performance)	Bank 2 CMP Sensor disconnected Bank 2 CMP Sensor gap incorrect / foreign matter on sensor face Bank 2 CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage Bank 2 CMP Sensor reference ground circuit (to splice): open circuit Bank 2 CMP Sensor failure
P0350	EMS OBD II	Ignition coil primary circuit malfunction – undetermined cylinder identification	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Ignition coils power supply: open circuit, short circuit Ignition suppression capacitor(s) failure Incorrect CKP Sensor air gap

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0351	EMS OBD II	Ignition coil primary circuit malfunction – cylinder 1/1	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Ignition coil disconnected PCM to ignition coil primary circuit: open circuit, high resistance, short circuit to ground Ignition coil failure (If other individual ignition coil primary circuit DTCs are flagged, refer to P0350 Possible Causes)
P0352	EMS OBD II	Ignition coil primary circuit malfunction – cylinder 1/2	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0353	EMS OBD II	Ignition coil primary circuit malfunction – cylinder 1/3	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0354	EMS OBD II	Ignition coil primary circuit malfunction – V6 cylinder 2/1; V8 cylinder 1/4	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0355	EMS OBD II	Ignition coil primary circuit malfunction – V6 cylinder 2/2; V8 cylinder 2/1	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0356	EMS OBD II	Ignition coil primary circuit malfunction – V6 cylinder 2/3; V8 cylinder 2/2	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0357	V8 EMS OBD II	Ignition coil primary circuit malfunction – V8 cylinder 2/3	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes
P0358	V8 EMS OBD II	Ignition coil primary circuit malfunction – V8 cylinder 2/4	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Refer to P0531 Possible Causes

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0420	EMS OBD II	Catalytic converter system efficiency below threshold – bank 1	Catalyst efficiency monitor drive cycle – page 5	2	N	None	Bank 1 HO2 sensor(s) disconnected Bank 1 HO2 sensor(s) to PCM wiring fault Bank 1 HO2 sensor(s) heater to PCM wiring fault Bank 1 HO2 sensor(s) heater failure Bank 1 upstream HO2 sensor failure Bank 1 downstream HO2 sensor failure Bank 1 catalyst failure
P0430	EMS OBD II	Catalytic converter system efficiency below threshold – bank 2	Catalyst efficiency monitor drive cycle – page 5	2	N	None	Bank 2 HO2 sensor(s) disconnected Bank 2 HO2 sensor(s) to PCM wiring fault Bank 2 HO2 sensor(s) heater to PCM wiring fault Bank 2 HO2 sensor(s) heater failure Bank 2 upstream HO2 sensor failure Bank 2 downstream HO2 sensor failure Bank 2 catalyst failure
P0442	EMS OBD II	EVAP Control system leak detected – small leak (1 mm; 0.040 in.)	Evaporative system monitor drive cycle – page 6	2	N	None	Fuel cap seal defective EVAP system leak (canister damage, pipework damage) EVAP Canister purge valve to PCM drive circuit: open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit: open circuit EVAP Canister purge valve to engine purge pipe damaged / restricted / leaking EVAP Canister purge valve operating vacuum hose leak / restriction EVAP Canister purge failure Fuel tank leak

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0443	EMS OBD II	EVAP Canister purge valve circuit malfunction	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	EVAP Canister purge valve to PCM drive circuit: open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit: open circuit EVAP Canister purge valve failure
P0451	EMS OBD II	FTP Sensor range / performance	Evaporative system monitor drive cycle – page 6	2	N	None	FTP Sensor disconnected FTP Sensor to PCM sensing circuit: open circuit, short circuit to ground, short circuit to B+ voltage FTP Sensor to PCM reference voltage circuit: open circuit or short circuit to ground FTP Sensor to PCM wiring (supply, sense, reference ground): short circuit to each other FTP Sensor failure
P0452	EMS OBD II	FTP Sensor circuit low voltage (low pressure)	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	FTP Sensor disconnected FTP Sensor to PCM sensing circuit: open circuit or short circuit to ground FTP Sensor to PCM reference voltage circuit: open circuit or short circuit to ground FTP Sensor failure
P0453	EMS OBD II	FTP Sensor circuit high voltage (high pressure)	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	FTP Sensor to PCM wiring (supply, sense, reference ground): short circuit to each other FTP Sensor to PCM sense circuit: short circuit to high voltage FTP Sensor to PCM reference ground circuit: open circuit FTP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0455	EMS OBD II	EVAP Control system control – leak detected: major leak	Evaporative system monitor drive cycle – page 6	2	N	None	Fuel cap off Fuel cap seal defective Fuel tank over filled EVAP system leak (canister damage, pipework damage) EVAP Canister purge valve to PCM drive circuit: open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit: open circuit EVAP Canister purge valve to engine purge pipe damaged / restricted / leaking EVAP Canister purge valve operating vacuum hose leak / restriction EVAP Canister purge failure FTP Sensor not responding to pressure changes (restricted / failure) Fuel tank leak
P0456	EMS OBD II	EVAP Control system control – leak detected: very small leak (0.5 mm; 0.020 in.)	Evaporative system monitor drive cycle – page 6	2	N	None	Fuel cap seal defective EVAP system leak (canister damage, pipework damage) EVAP Canister purge valve to PCM drive circuit: open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit: open circuit EVAP Canister purge valve to engine purge pipe damaged / restricted / leaking EVAP Canister purge valve operating vacuum hose leak / restriction EVAP Canister purge failure Fuel tank leak

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0460	EMS JAG	Fuel level sensor(s) circuit malfunction	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	N	N	None	Fuel level sensor(s) to RECM sense circuits: open circuit, high resistance, short circuit RECM / PCM SCP communication fault (U Code flagged) Fuel level sensor(s) failure
P0500	ABS/TC JAG	Vehicle speed circuit malfunction	Engine running; vehicle in motion	N	N	None	Rear wheel speed sensor(s) circuit(s): open circuit, high resistance, short circuit Rear wheel speed sensor(s) failure Front wheel speed sensor(s) circuit(s): open circuit, high resistance, short circuit Front wheel speed sensor(s) failure Instrument pack malfunction SCP Failure (code U1039 flagged)
P0503	TRANS JAG	Vehicle speed circuit – electrical noise	Engine running; vehicle in motion	N	N	None	Wheel speed sensor(s) circuit(s) electrical noise Instrument pack malfunction SCP Failure (code U1039 flagged)
P0505	EMS JAG	Idle air control malfunction	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Engine air filter restricted / defective Engine air intake restricted / damaged PCM / TACM circuit fault TACM failure Throttle failure
P0602	PCM JAG	PCM Programming error	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	PCM failure
P0603	PCM JAG	PCM Keep alive memory (KAM) test error	KOEO – page 3	N	N	None	PCM failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0605	PCM JAG	PCM Read only memory (ROM) test error	KOEO – page 3	N	N	None	PCM failure
P0703	EMS JAG	Brake ON / OFF switch circuit malfunction	KOER – page 3, or Engine running; operate brake pedal	N	M, S	PCM Default: – Speed control inhibited	Brake switch to PCM signal circuit: open circuit, high resistance, short circuit Brake switch power supply circuit: open circuit, short circuit Brake switch signal circuit (gearshift interlock, ABS/TC, stop lamps): open circuit, short circuit Brake switch failure
P0705	TRANS OBD II	Range sensor circuit malfunction (sensor transmitting an invalid code)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Defaults to DRIVE (to maintain all five gears) J Gate gear selected illumination extinguished (Harsh shifts)	Range sensor incorrect alignment Gear selector cable incorrectly adjusted Range sensor circuit: intermittent open circuit; open circuit Range sensor failure
P0708	TRANS OBD II	Range sensor circuit open circuit	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Defaults to DRIVE (to maintain all five gears) J Gate gear selected illumination extinguished (Harsh shifts)	Range sensor circuit open circuit Range sensor disconnected Range sensor failure
P0712	TRANS JAG	TFT Sensor sense circuit low voltage (high fluid temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited (Firm shifts)	TFT Sensor sense circuit short circuit to ground TFT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0713	TRANS JAG	TFT Sensor sense circuit high voltage (low fluid temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited (Firm shifts)	TFT Sensor sense circuit: open circuit, high resistance, short circuit to high voltage TFT Sensor failure
P0715	TRANS OBD II	Turbine speed sensor circuit malfunction	KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – Speed calculated from output speed sensor (Harsh TCC shifts)	Turbine speed sensor circuit: short circuit, high resistance, open circuit Turbine speed sensor failure
P0717	TRANS JAG	Turbine speed sensor sense circuit – no signal	KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – Speed calculated from output speed sensor (Harsh TCC shifts)	Turbine speed sensor sense circuit: open circuit Turbine speed sensor failure
P0718	TRANS JAG	Turbine speed sensor sense circuit – electrical noise	Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – Speed calculated from output speed sensor (Harsh TCC shifts)	Turbine speed sensor sense circuit: short circuit, open circuit
P0720	TRANS OBD II	Output speed sensor circuit malfunction	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – Speed calculated from SCP vehicle speed message	Output speed sensor circuit: short circuit, high resistance, open circuit Output speed sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0721	TRANS JAG	Output speed sensor sense circuit – electrical noise	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – Speed calculated from SCP vehicle speed message ABS/TCCM, DSCCM Default: – traction control inhibited (Abnormal shift schedule)	Output speed sensor sense circuit: short circuit, open circuit
P0722	TRANS JAG	Output speed sensor sense circuit – intermittent signal	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – Speed calculated from SCP vehicle speed message ABS/TCCM, DSCCM Default: – traction control inhibited (Abnormal shift schedule)	Output speed sensor sense circuit intermittent: short circuit, high resistance, open circuit Output speed sensor failure
P0731	TRANS JAG	1st Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 1st Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0732	TRANS JAG	2nd Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 2nd Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0733	TRANS JAG	3rd Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 3rd Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0734	TRANS JAG	4th Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 4th Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0735	TRANS JAG	5th Gear ratio error	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – 5th Gear inhibited ABS/TCCM, DSCCM Default: – traction control inhibited	Shift solenoid circuit fault (shift solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Engine speed signal malfunction (CKP Sensor DTC(s) also flagged) Transmission mechanical failure
P0741	TRANS JAG	TCC Slip detected	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	Transmission will continue to attempt lock-up ABS/TCCM, DSCCM Default: – traction control inhibited	TCC solenoid circuit fault (TCC solenoid DTC(s) also flagged) Pressure control solenoid circuit fault (pressure solenoid DTC(s) also flagged) Transmission mechanical failure
P0743	TRANS OBD II	TCC Solenoid circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – TCC Lock-up inhibited	TCC Drive circuit: open circuit; high resistance, short circuit to ground TCC solenoid failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0745	TRANS OBD II	Pressure control solenoid 1 stuck	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern	Pressure control solenoid 1 drive circuit: short circuit to ground; open circuit Pressure control solenoid 1 failure
P0750	TRANS OBD II	Shift solenoid 1 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – If short circuit to B+ V or open circuit – 3rd, 2nd, 3rd, 4th, 5th shift pattern – If short circuit to ground – 1st, 2nd, 3rd shift pattern (Harsh shifts)	Shift solenoid 1 drive circuit: short circuit to ground or B+ V; high resistance, open circuit Shift solenoid 1 failure
P0755	TRANS OBD II	Shift solenoid 2 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – If short circuit to B+ V or open circuit – 1st, 2nd, 4th, 5th shift pattern – If short circuit to ground – 3rd, 2nd, 3rd, 4th, 5th shift pattern (Harsh shifts)	Shift solenoid 2 drive circuit: short circuit to ground or B+ V; high resistance, open circuit Shift solenoid 2 failure
P0760	TRANS OBD II	Shift solenoid 3 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – If short circuit to B+ V or open circuit – 1st, 3rd, 4th, 5th shift pattern – If short circuit to ground – normal shift pattern (Harsh shifts)	Shift solenoid 3 drive circuit: short circuit to ground or B+ V; high resistance, open circuit Shift solenoid 3 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0765	TRANS JAG	Shift solenoid 4 circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – DRIVE – normal shift pattern – Manual – 2, 3, 4 inhibited (Harsh shifts)	Shift solenoid 4 drive circuit: short circuit to ground or B+ V, high resistance, open circuit Shift solenoid 4 failure
P0775	TRANS OBD II	Pressure control solenoid 2 stuck	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 4th shift pattern	Pressure control solenoid 2 drive circuit: short circuit to ground; open circuit Pressure control solenoid 2 failure
P0779	TRANS JAG	Pressure control solenoid 2 drive circuit – intermittent low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 4th shift pattern	Pressure control solenoid 2 drive circuit: intermittent short circuit to ground
P0791	TRANS JAG	Intermediate speed sensor circuit	Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – One-way clutch test inhibited ABS/TCCM, DSCCM Default: – traction control inhibited (Harsh shifts)	Intermediate speed sensor circuit: short circuit, high resistance, open circuit Intermediate speed sensor failure
P0794	TRANS JAG	Intermediate speed sensor sense circuit – intermittent signal	Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – One-way clutch test inhibited (Harsh shifts)	Intermediate speed sensor sense circuit intermittent: short circuit, high resistance, open circuit Intermediate speed sensor failure
P0795	TRANS OBD II	Pressure control solenoid 3 stuck	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 3rd gears only	Pressure control solenoid 3 drive circuit: short circuit to ground, open circuit Pressure control solenoid 3 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P0796	TRANS JAG	Pressure control solenoid 3 circuit – high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	ABS/TCCM, DSCCM Default: – traction control inhibited (Harsh shifts)	Pressure control solenoid 3 drive circuit: short circuit to B+ V Pressure control solenoid 3 failure Transmission mechanical failure (other DTCs logged)
P0797	TRANS OBD II	Pressure control solenoid 3 circuit – low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 3rd gears only (Harsh shifts)	Pressure control solenoid 3 drive circuit: short circuit to ground Pressure control solenoid 3 failure Transmission mechanical failure (other DTCs logged)
P0799	TRANS JAG	Pressure control solenoid 3 drive circuit – intermittent low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – 1st, 2nd, 3rd gears only	Pressure control solenoid 3 drive circuit: intermittent short circuit to ground
P0814	TRANS JAG	J Gate illumination circuit failure – gear selected	Comprehensive component monitor transmission drive cycle – page 8	N	N	None	PCM / J Gate illumination circuit(s): short circuit, open circuit (PCM pins FH1-7, 8, 9)
P0840	TRANS JAG	Transmission pressure switch circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – Manual 2nd, 3rd inhibited	Pressure switch to PCM signal circuit: short circuit, high resistance, open circuit Pressure switch transmission internal circuit: short circuit, high resistance, open circuit Pressure switch failure
P1000	PCM JAG	OBD System checks not complete since last memory clear	KOEO – page 3, or KOER – page 3, or Drive vehicle	N	N	None	Refer to page 3

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1001	PCM JAG	KOER not complete	KOER – page 3	N	N	None	Refer to page 3
P1100	EMS JAG	MAF Sensor signal intermittent	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	MAF Sensor to PCM sensing circuit intermittent: open circuit, high resistance, short circuit MAF Sensor supply circuit intermittent: open circuit or short circuit MAF Sensor failure
P1101	EMS JAG	MAF Sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	None	MAF Sensor to PCM sensing circuit: open circuit, high resistance, short circuit MAF Sensor supply circuit: open circuit or short circuit MAF Sensor failure
P1112	EMS JAG	IAT Sensor signal intermittent	Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – IAT default value 38 °C (100 °F)	IAT Sensor to PCM sensing circuit intermittent: open circuit, high resistance, short circuit IAT Sensor reference ground circuit (to splice): intermittent open circuit IAT Sensor failure
P1116	V8 EMS JAG	ECT Sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	PCM Default: – ECT default value 102 °C (215 °F)	IAT Sensor to PCM sensing circuit: open circuit, high resistance, short circuit IAT Sensor reference ground circuit (to splice): open circuit IAT Sensor failure
P1117	EMS JAG	ECT / CHT Sensor signal intermittent	Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – ECT / CHT default value 102 °C (215 °F)	ECT / CHT Sensor to PCM sensing circuit intermittent: open circuit, high resistance, short circuit ECT / CHT Sensor reference ground circuit (to splice): intermittent open circuit ECT / CHT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1121	EMS OBD II	TP Sensor signals inconsistent with MAF Sensor signals	Comprehensive component monitor engine management drive cycle – page 7	2	N	None (as long as normal TP signals are received)	TP Sensors to PCM wiring harness fault MAF Sensor to PCM wiring harness fault TP Sensor(s) failure MAF Sensor failure
P1122	EMS JAG	APP Sensor circuit low voltage – APP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “1” (sensor pin 5): open circuit or high resistance APP Sensor reference voltage (sensor pin 10): open circuit APP Sensor failure
P1123	EMS JAG	APP Sensor circuit high voltage – APP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “1” (sensor pin 5): short circuit to high voltage APP Sensor reference ground (sensor pin 9): open circuit APP Sensor failure
P1124	EMS JAG	TP Sensor out of self test range	KOEO – page 3, or KOER – page 3, or	N	N	None (as long as normal TP signals are received)	Accelerator pedal depressed during self test One or more individual TP Sensors to PCM sensing circuits: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure
P1125	EMS JAG	TP Sensor signal intermittent	Comprehensive component monitor engine management drive cycle – page 7	N	N	None	One or more individual TP Sensors to PCM sensing circuits: open circuit, high resistance, short circuit to ground or high voltage TP Sensor failure
P1127	EMS JAG	Exhaust not warm enough; downstream HO2 Sensors not tested	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	Engine not at normal operating temperature Exhaust system leak / failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1128	EMS JAG	Upstream HO2 Sensors swapped from bank to bank	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	Upstream HO2 Sensors swapped from bank to bank Upstream HO2 Sensors to PCM wiring fault
P1129	EMS JAG	Downstream HO2 Sensors swapped from bank to bank	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	Downstream HO2 Sensors swapped from bank to bank Downstream HO2 Sensors to PCM wiring fault
P1130	EMS OBD II	Lack of HO2 Sensor swing, adaptive fuel at limit – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak Contaminated fuel Fuel in engine oil Engine misfire HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1131	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates lean – bank 1, upstream (1/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1132	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates rich – bank 1, upstream (1/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 1/1 to PCM wiring fault Exhaust system restriction Contaminated fuel Fuel in engine oil HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1133	EMS OBD II	Bank 1 fuel metering control shifted lean	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 1/1 causing "lean drift" Temporary contamination of HO2 Sensor 1/2 causing "rich drift" Engine misfire HO2 Sensors 1/1 and 1/2 to PCM wiring fault(s) Engine induction air leak between MAF Sensor and throttle Exhaust system leak Water in bank 1 spark plug well(s) HO2 Sensors 1/1 and/or 1/2 failure
P1134	EMS OBD II	Bank 1 fuel metering control shifted rich	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 1/1 causing "rich drift" Temporary contamination of HO2 Sensor 1/2 causing "lean drift" Engine misfire HO2 Sensors 1/1 and 1/2 to PCM wiring fault(s) Exhaust system restriction Water in bank 1 spark plug well(s) HO2 Sensors 1/1 and/or 1/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1135	EMS JAG	APP Sensor signal intermittent – APP1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “1” (sensor pin 5): intermittent: open circuit, high resistance, short circuit APP Sensor reference voltage (sensor pin 10): intermittent open circuit APP Sensor reference ground (sensor pin 9): intermittent open circuit APP Sensor failure
P1137	EMS JAG	Lack of HO2 Sensor swing, sensor indicates lean – bank 1, downstream (1/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 1/2 to PCM wiring fault HO2 Sensor 1/2 failure
P1138	EMS JAG	Lack of HO2 Sensor swing, sensor indicates rich – bank 1, downstream (1/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 1/2 to PCM wiring fault HO2 Sensor 1/2 failure
P1150	EMS OBD II	Lack of HO2 Sensor swing, adaptive fuel at limit – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak Contaminated fuel Fuel in engine oil Engine misfire HO2 Sensor 1/1 failure Fuel injection fault PCM Keep alive memory (KAM) error

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1151	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates lean – bank 2, upstream (2/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 to PCM wiring fault Engine induction air leak between MAF Sensor and throttle Exhaust system leak HO2 Sensor 2/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1152	EMS OBD II	Lack of HO2 Sensor swing, sensor indicates rich – bank 2, upstream (2/1)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	2	N	None	HO2 Sensor 2/1 to PCM wiring fault Exhaust system restriction Contaminated fuel Fuel in engine oil HO2 Sensor 2/1 failure Fuel injection fault PCM Keep alive memory (KAM) error
P1153	EMS OBD II	Bank 2 fuel metering control shifted lean	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 2/1 causing "lean drift" Temporary contamination of HO2 Sensor 2/2 causing "rich drift" Engine misfire HO2 Sensors 2/1 and 2/2 to PCM wiring fault(s) Engine induction air leak between MAF Sensor and throttle Exhaust system leak Water in bank 2 spark plug well(s) HO2 Sensors 2/1 and/or 2/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1154	EMS OBD II	Bank 2 fuel metering control shifted rich	Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Temporary contamination of HO2 Sensor 2/1 causing "rich drift" Temporary contamination of HO2 Sensor 2/2 causing "lean drift" Engine misfire HO2 Sensors 2/1 and 2/2 to PCM wiring fault(s) Exhaust system restriction Water in bank 2 spark plug well(s) HO2 Sensors 2/1 and/or 2/2 failure
P1157	EMS JAG	Lack of HO2 Sensor swing, sensor indicates lean – bank 2, downstream (2/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 2/2 to PCM wiring fault HO2 Sensor 2/2 failure
P1158	EMS JAG	Lack of HO2 Sensor swing, sensor indicates rich – bank 2, downstream (2/2)	KOER – page 3, or Heated oxygen sensors monitor drive cycle – page 4	N	N	None	HO2 Sensor 2/2 to PCM wiring fault HO2 Sensor 2/2 failure
P1183	EMS OBD II	EOT Sensor circuit malfunction	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – V6 CHT substituted – V8 ECT substituted	EOT Sensor to PCM sensing circuit: open circuit, high resistance, short circuit EOT Sensor reference ground circuit (to splice): open circuit EOT Sensor failure
P1184	EMS JAG	EOT Sensor out of self test range	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – V6 CHT substituted – V8 ECT substituted	EOT Sensor to PCM sensing circuit: high resistance when hot EOT Sensor to PCM sensing circuit: intermittent high resistance EOT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1214	EMS JAG	APP Sensor signal intermittent – APP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “2” (sensor pin 4) intermittent: open circuit, high resistance, short circuit APP Sensor reference voltage (sensor pin 8): intermittent open circuit APP Sensor reference ground (sensor pin 6): intermittent open circuit APP Sensor failure
P1215	EMS JAG	APP Sensor circuit low voltage – APP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “3” (sensor pin 7): open circuit or high resistance APP Sensor reference voltage (sensor pin 3): open circuit APP Sensor failure
P1216	EMS JAG	APP Sensor circuit high voltage – APP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “1” (sensor pin 7): short circuit to high voltage APP Sensor reference ground (sensor pin 2) open circuit APP Sensor failure
P1217	EMS JAG	APP Sensor signal intermittent – APP3	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “3” (sensor pin 7) intermittent: open circuit, high resistance, short circuit APP Sensor reference voltage (sensor pin 3): intermittent open circuit APP Sensor reference ground (sensor pin 2): intermittent open circuit APP Sensor failure
P1222	EMS JAG	APP Sensor circuit low voltage – APP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “2” (sensor pin 4): open circuit or high resistance APP Sensor reference voltage (sensor pin 8): open circuit APP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1223	EMS JAG	APP Sensor circuit high voltage – APP2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal APP signals are received from remaining sensors)	APP Sensor to PCM sensing circuit “2” (sensor pin 4): short circuit to high voltage APP Sensor reference ground (sensor pin 6): open circuit APP Sensor failure
P1233	EMS JAG	Fuel delivery system disabled or inoperative	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (Engine shut off)	PCM to RECM fuel pump drive signal circuit (PCM pin FH1-58): open circuit, high resistance, short circuit RECM to fuel pump drive circuit: open circuit, high resistance, short circuit Fuel pump relay power supply: open circuit, short circuit Fuel pump relay to RECM power supply circuit: open circuit Fuel pump relay failure
P1235	EMS JAG	Fuel pump control out of range	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (Engine running too rich / lean)	PCM to RECM fuel pump drive signal circuit (PCM pin FH1-58) intermittent: open circuit, high resistance, short circuit RECM to fuel pump drive circuit intermittent: open circuit, high resistance, short circuit
P1237	EMS JAG	Fuel pump secondary circuit malfunction	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (Engine shut off)	RECM to fuel pump drive circuit: open circuit, high resistance, short circuit Fuel pump relay power supply: open circuit, short circuit Fuel pump relay to RECM power supply circuit: open circuit Fuel pump relay failure
P1246	EMS JAG	Generator load input to PCM failure	KOER – page 3	N	M, C	None	Accessory drive belt failure PCM to generator load circuit (PCM pin PI1-50): open circuit, high resistance, short circuit Generator failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1260	EMS JAG	Vehicle theft detected – engine disabled (PCM SCP input from PATS, INST, GECCM)	KOEO – page 3	N	N	None	Invalid ignition key code Passive anti-theft system (PATS) signal to instrument pack missing or corrupted PATS SCP message failure
P1285	V6 EMS OBD II	Cylinder head over temperature sensed	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	M, H	PCM Default: – fail-safe cooling strategy	Coolant level low / leak Coolant contaminated Cooling system thermostat defective Excessive load on engine – high elevation, steep grade, trailer towing
P1288	V6 EMS JAG	CHT Sensor out of self test range	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	PCM Default: – CHT default value 102 °C (215 °F)	Engine not at normal operating temperature Engine overheat condition – refer to P1285 CHT Sensor disconnected CHT Sensor to PCM circuit fault PCM cooling fan circuit failure Cooling fan module to fan motor circuit failure Cooling fan module failure
P1289	V6 EMS OBD II	CHT Sensor sense circuit high voltage (low temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – CHT default value 102 °C (215 °F)	CHT Sensor to cylinder head poor contact CHT Sensor to PCM sensing circuit: high resistance, open circuit or short circuit to high voltage CHT Sensor failure
P1290	V6 EMS OBD II	CHT Sensor sense circuit low voltage (high temperature)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – CHT default value 102 °C (215 °F)	Engine overheat condition – refer to P1285 CHT Sensor to PCM wiring: short circuit to ground CHT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1299	V6 EMS OBD II	Fail-safe cooling mode active	Comprehensive component monitor engine management drive cycle – page 7	1	M, H	PCM Default: – fail-safe cooling strategy	Engine overheat condition – refer to P1285 PCM cooling fan circuit failure Cooling fan module to fan motor circuit failure Cooling fan module failure
P1309	EMS OBD II	Misfire monitor failure	Misfire monitor drive cycle – page 4	2	N	None	CKP Sensor fault – refer to P0320 CMP Sensor(s) fault – refer to P0340, P0341 PCM failure
P1380	EMS OBD II	VVT Solenoid circuit malfunction – bank 1	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 1 VVT solenoid valve disconnected Bank 1 VVT solenoid valve to PCM PWM drive circuit fault Bank 1 VVT solenoid valve power supply circuit fault Bank 1 VVT solenoid failure
P1381	EMS OBD II	VVT Over advanced – bank 1	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 1 VVT solenoid valve to PCM PWM drive circuit fault Bank 1 VVT actuator oil supply fault Bank 1 VVT actuator stuck
P1383	EMS OBD II	VVT Over retarded – bank 1	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 1 VVT solenoid valve to PCM PWM drive circuit fault Bank 1 VVT actuator oil supply fault Bank 1 VVT actuator stuck
P1385	EMS OBD II	VVT Solenoid circuit malfunction – bank 2	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 2 VVT solenoid valve disconnected Bank 2 VVT solenoid valve to PCM PWM drive circuit fault Bank 2 VVT solenoid valve power supply circuit fault Bank 2 VVT solenoid failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1386	EMS OBD II	VVT Over advanced – bank 2	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 2 VVT solenoid valve to PCM PWM drive circuit fault Bank 2 VVT actuator oil supply fault Bank 2 VVT actuator stuck
P1388	EMS OBD II	VVT Over retarded – bank 2	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Bank 2 VVT solenoid valve to PCM PWM drive circuit fault Bank 2 VVT actuator oil supply fault Bank 2 VVT actuator stuck
P1450	EMS OBD II	System unable to bleed-up fuel tank vacuum	Evaporative system monitor drive cycle – page 6	2	N	None	Restricted vapor piping – fuel tank to EVAP canister purge valve EVAP Canister purge valve stuck open
P1451	EMS OBD II	EVAP Canister close valve circuit malfunction	KOEO – page 3, or KOER – page 3, or Evaporative system monitor drive cycle – page 6	2	N	None	EVAP Canister close valve to PCM drive circuit: open circuit, high resistance, short circuit EVAP Canister close valve power supply circuit: open circuit, short circuit EVAP Canister close valve failure
P1460	EMS JAG	A/C compressor cut-out malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None (PCM inhibits A/C clutch engagement during: engine cranking, wide open throttle, throttle limp home mode)	PCM to A/C compressor clutch relay circuit: open circuit, short circuit A/C compressor clutch relay to A/C compressor circuit: open circuit, short circuit A/C compressor clutch relay failure A/C compressor clutch ground circuit: open circuit A/C compressor clutch failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1461	EMS JAG	A/C Pressure sensor high voltage (high pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	A/C Pressure sensor to PCM wiring (supply, sense, reference ground): short circuit to each other A/C Pressure sensor to PCM sensing circuit: short circuit to high voltage A/C Pressure sensor failure
P1462	EMS JAG	A/C Pressure sensor low voltage (low pressure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	A/C Pressure sensor to PCM sensing circuit: open circuit or short circuit to ground A/C Pressure sensor to PCM reference voltage circuit: open circuit or short circuit to ground A/C Pressure sensor to PCM reference ground circuit: open circuit A/C Pressure sensor failure
P1464	EMS JAG	A/C Pressure sensor out of self test range	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	A/C Pressure sensor to PCM wiring fault A/C Pressure sensor failure
P1474	EMS JAG	Radiator cooling fan control circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	PCM to cooling fan module circuit: open circuit, high resistance, short circuit Cooling fan module failure
P1500	ABS/TC JAG	Vehicle speed circuit intermittent malfunction	Engine running; vehicle in motion	N	N	None	Rear wheel speed sensor(s) circuit(s) intermittent: open circuit, high resistance, short circuit Front wheel speed sensor(s) circuit(s) intermittent: open circuit, high resistance, short circuit

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1501	ABS/TC JAG	Vehicle speed out of self test range	KOER – page 3	N	N	None	Vehicle speed above 8 km/h (5 mph) preventing KOER self test from completing
P1506	EMS OBD II	Idle air control over speed error	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Intake manifold air leak PCM / TACM circuit fault TACM failure Throttle failure
P1507	EMS OBD II	Idle air control under speed error	KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	N	None	Engine air filter restricted / defective Engine air intake restricted / damaged PCM / TACM circuit fault TACM failure Throttle failure
P1532	V6 EMS JAG	IMT Valve control circuit malfunction – top valve	KOEO – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	IMT Valve (top) disconnected IMT Valve (top) to PCM drive circuit fault IMT Valve (top) power supply circuit fault IMT Valve (top) failure
P1534	EMS JAG	Air bag(s) deployed (Restraints control module (RCM) input to PCM) circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None	PCM to RCM airbag deployed circuit: open circuit, high resistance, short circuit to ground RCM fault
P1549	V6 EMS JAG	IMT Valve control circuit malfunction – bottom valve	KOEO – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	IMT Valve (bottom) disconnected IMT Valve (bottom) to PCM drive circuit fault IMT Valve (bottom) power supply circuit fault IMT Valve (bottom) failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1565	EMS JAG	Speed control command switch input (steering wheel switches) out of range – high voltage	Drive vehicle; operate all speed control steering wheel switches	N	M, S	PCM Default: – speed control inhibited	Speed control steering wheel switches to PCM signal circuit (PCM pin FH1-57): short circuit to B+ V Speed control steering wheel switch(es) failure
P1566	EMS JAG	Speed control command switch input (steering wheel switches) out of range – low voltage	Drive vehicle; operate all speed control steering wheel switches	N	M, S	PCM Default: – speed control inhibited	Speed control steering wheel switches to PCM wiring: open circuit, high resistance, short circuit to ground Speed control steering wheel switch(es) failure
P1572	EMS OBD II	Brake cancel switch out of self test range	Ignition ON; operate brake pedal	2	M, S	PCM Default: – speed control inhibited	Brake cancel switch to PCM signal circuit: open circuit, high resistance, short circuit Brake cancel switch power supply circuit: open circuit, short circuit Brake cancel switch failure
P1573	EMS OBD II	TP Sensor signals malfunction – more than one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	Throttle limp home mode: – high idle speed – no accelerator pedal response	TP Sensor to PCM sensing circuits (sensor pins 1, 2, 10): open circuit, high resistance, short circuit TP Sensor to PCM reference voltage circuits (sensor pins 4, 3): open circuit, high resistance, short circuit TP Sensor to PCM reference ground circuits (sensor pins 6, 7): open circuit, high resistance, short circuit TP Sensor failure
P1574	EMS JAG	TP Sensor signals disagree – one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal signals are received from the remaining two sensors)	Refer to P1573 Possible Causes

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1576	EMS OBD II	APP Sensor signals malfunction – more than one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	Throttle limp home mode: – high idle speed – no accelerator pedal response	APP Sensor to PCM sensing circuits (sensor pins 4, 5, 7): open circuit, high resistance, short circuit APP Sensor to PCM reference voltage circuits (sensor pins 3, 8, 10): open circuit, high resistance, short circuit APP Sensor to PCM reference ground circuits (sensor pins 2, 6, 9): open circuit, high resistance, short circuit APP Sensor failure
P1577	EMS JAG	APP Sensor signals disagree – one signal failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	None (as long as normal signals are received from the remaining two sensors)	Refer to P1576 Possible Causes
P1580	EMS OBD II	Internal throttle monitor PCM override (Electronic throttle system failure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	Throttle limp home mode: – high idle speed – no accelerator pedal response (Engine may stop if fuel injection is canceled)	TP Sensor circuit fault – TP Sensor DTC(s) flagged Throttle circuit fault – throttle DTC(s) flagged Uneven throttle valve movement due to debris on throttle valve and/or shaft (Test for smooth actuation by moving the throttle valve by hand while the ignition is switched OFF.) PCM Failure
P1581	EMS JAG	PCM Throttle monitor malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	PCM Default: – cruise control inhibited – possible engine disable	PCM Failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1582	EMS JAG	Throttle data recorder data available	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	N	None	Vehicle impact To reuse PCM: 100 Ignition key cycles, then Clear DTC using PDU / WDS, or Additional 40 ignition key cycles
P1584	EMS OBD II	Throttle actuation malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	A, M	PCM Default: Failure Mode #1: TACM operates in open loop control. (Engine may stall and throttle response will be harsh.) Failure Mode #2: TACM operates in normal closed loop mode but with reduced torque output. (Engine may stall.)	Throttle Body failure
P1585	EMS OBD II	TACM self test failure (Electronic throttle system failure)	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	PCM Default: – engine will stop, or possibly run at very low idle speed	TACM Failure (Throttle Body failure)
P1586	EMS OBD II	TACM to PCM communication (SCP) failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	A, M	PCM Default: – engine will stop, or possibly run at very low idle speed	TACM power supply or ground circuits: open circuit, high resistance SCP circuit fault – U Code flagged TACM Failure (Throttle Body failure)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1587	EMS OBD II	PCM to TACM throttle command redundancy circuit malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	A, R*, M	If only one command circuit fails: None If both command circuits fail: Throttle limp home mode – high idle speed – no accelerator pedal response R* If both command circuits fail	PCM to TACM redundant control circuits (TACM pins 2, 3): open circuit, high resistance, short circuit TACM Failure (Throttle Body failure) PCM Failure
P1588	EMS JAG	Throttle return spring failure detected	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	N	A, M	Throttle limp home mode	Throttle body failure
P1589	EMS OBD II	TACM unable to control throttle valve to commanded throttle angle	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor engine management drive cycle – page 7	2	R, M	PCM Default: – engine will stop, or possibly run at very low idle speed	Throttle valve stuck due to obstruction Throttle body failure
P1633	PCM OBD II	Keep alive memory (KAM) voltage too low	Drive vehicle	1	N	None	Vehicle battery voltage low Battery power supply to PCM interrupted for longer than 20 seconds during engine operation
P1635	EMS JAG	Wheel / axle ratio out of acceptable range	Drive vehicle	N	N	None	Incorrect size tire(s) fitted to vehicle Incorrect size wheel(s) fitted to vehicle
P1636	PCM OBD II	PCM Internal communication error	Comprehensive component monitor engine management drive cycle – page 7	2	N	PCM Default: – self test partially inhibited	PCM Failure

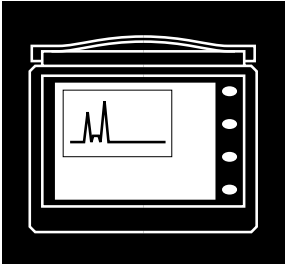
DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1650	EMS JAG	PSP Switch out of self test range	KOEO – page 3, or KOER – page 3	N	N	None	PSP switch to PCM signal circuit: open circuit, high resistance, short circuit PSP switch reference ground circuit (to splice): open circuit PSP switch failure
P1700	TRANS OBD II	Transmission intermediate failure	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	N	PCM Default: – 2nd and 5th gears only	Clear DTC 1700 Diagnose and repair other flagged DTCs Conduct drive cycle – if P1700 reflags: transmission mechanical failure (direct one- way clutch)
P1702	TRANS JAG	Range sensor circuit intermittent malfunction	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	N	PCM Defaults to DRIVE (to maintain all five gears) J Gate gear selected illumination extinguished (Harsh shifts)	Gear selector cable incorrectly adjusted Range sensor circuit intermittent: open circuit or short circuit Range sensor failure
P1704	TRANS JAG	Range sensor circuit not indicating P / N during self test	KOEO – page 3, or KOER – page 3	N	T	ABS/TCCM, DSCCM Default: – traction control inhibited	Selector not in P / N Range sensor incorrect alignment Gear selector cable incorrectly adjusted Gear selector mechanical failure Range sensor failure
P1705	TRANS JAG	Range sensor out of self test range	KOEO – page 3, or KOER – page 3	N	N	None	Range sensor incorrect alignment Gear selector cable incorrectly adjusted Gear selector mechanical failure Range sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1711	TRANS JAG	TFT Out of self test range	KOEO – page 3, or KOER – page 3	N	T	ABS/TCCM, DSCCM Default: – traction control inhibited	Transmission not at normal operating temperature TFT Sense circuit: short circuit, high resistance, open circuit TFT Sensor failure
P1713	TRANS JAG	TFT Signal – no change at low range during vehicle operation	Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited	TFT Sensor circuit: high resistance, open circuit TFT Sensor failure
P1714	TRANS OBD II	Shift solenoid 1 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 3rd shift pattern or – 3rd, 2nd, 3rd, 4th, 5th shift pattern (Shift pattern depends on position of stuck solenoid)	Shift solenoid 1 mechanical failure
P1715	TRANS OBD II	Shift solenoid 2 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern or – 3rd, 2nd, 3rd, 4th, 5th shift pattern (Shift pattern depends on position of stuck solenoid)	Shift solenoid 2 mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1716	TRANS OBD II	Shift solenoid 3 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 5th shift pattern or – normal shift pattern (Shift pattern depends on position of stuck solenoid)	Shift solenoid 3 mechanical failure
P1717	TRANS JAG	Shift solenoid 4 stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – DRIVE – normal shift pattern – Manual – 2, 3, 4 inhibited	Shift solenoid 4 mechanical failure
P1718	TRANS JAG	TFT Signal – no change at high range during vehicle operation	Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – TFT calculated from ECT (V8) / CHT (V6) ABS/TCCM, DSCCM Default: – traction control inhibited	TFT Sensor circuit short circuit TFT Sensor failure
P1740	TRANS OBD II	TCC solenoid stuck – mechanical failure	Comprehensive component monitor transmission drive cycle – page 8	2	A, M	None (TCC applied / released depending on position of stuck solenoid)	TCC solenoid mechanical failure
P1746	TRANS JAG	Pressure control solenoid 1 circuit low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M, T	PCM Default: – normal shift pattern (Harsh shifts)	Pressure control solenoid 1 drive circuit: short circuit to ground Pressure control solenoid 1 failure Transmission mechanical failure (other DTCs logged)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1747	TRANS OBD II	Pressure control solenoid 1 circuit high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern (Harsh shifts)	Pressure control solenoid 1 drive circuit: short circuit to B+ V; open circuit Pressure control solenoid 1 failure Transmission mechanical failure (other DTCs logged)
P1760	TRANS JAG	Pressure control solenoid 1 drive circuit intermittent low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	A, M	PCM Default: – 1st, 2nd, 4th, 5th shift pattern	Pressure control solenoid 1 drive circuit: intermittent short circuit to ground
P1780	TRANS OBD II	D – 4th switch out of self test range	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – Manual 4th inhibited	D – 4th Switch power supply open circuit D – 4th Switch / PCM sense circuit: short circuit, high resistance, open circuit D – 4th Switch failure
P1783	TRANS JAG	Transmission over temperature condition indicated – >127 °C (270 °F)	Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – TCC Lock-up in all gears ABS/TCCM, DSCCM Default: – traction control inhibited	Excessive vehicle load Transmission fluid level low Transmission fluid contaminated Transmission fluid cooler failure (clogged) TFT Sensor fault – refer to P0712
P1788	TRANS JAG	Pressure control solenoid 2 circuit high voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	N	T	PCM Default: – normal shift pattern ABS/TCCM, DSCCM Default: – traction control inhibited (Harsh shifts)	Pressure control solenoid 2 drive circuit: short circuit to B+ V; open circuit Pressure control solenoid 2 failure Transmission mechanical failure (other DTCs logged)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	POSSIBLE CAUSES
P1789	TRANS OBD II	Pressure control solenoid 2 drive circuit low voltage	KOEO – page 3, or KOER – page 3, or Comprehensive component monitor transmission drive cycle – page 8	2	A, M	PCM Default: – 1st, 1st, 3rd, 4th, 4th shift pattern (Harsh shifts)	Pressure control solenoid 2 drive circuit: short circuit to ground Pressure control solenoid 2 failure Transmission mechanical failure (other DTCs logged)



Powertrain DTC Summaries – OBD II

Jaguar S-TYPE V6, V8 N/A and V8 SC 2003 Model Year

Refer to pages 2 – 9 for important information regarding the use of “Powertrain DTC Summaries”.

REFERENCE: It is recommended that the applicable “Electrical Guide” be referenced when using the information contained in this document.

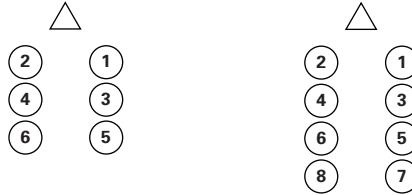
Reissued: May, 2003

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
SYS	The powertrain system with which the DTC is associated – EMS (ALL SYSTEMS), V6 EMS, V8 EMS, V8 SC EMS, TRANS, DSC. DTC retrieval tools: OBD II – indicates that the DTC is an OBD II code and can be accessed via a generic scan tool or WDS. JAG – indicates that the DTC is not an OBD II code and is accessed only via WDS.
FAULT DESCRIPTION	Fault description.
MONITORING CONDITIONS	“DIAGNOSTIC MONITOR DRIVE CYCLE” for the particular DTC. Operate the vehicle as described to check for a recurrence of the DTC. Refer to pages 4 – 8. Use WDS Datalogger or Scan Tool to monitor specified engine parameter(s).
CHECK ENGINE MIL (CK ENG)	1 1 TRIP – indicates that the CHECK ENGINE MIL is activated by a fault occurring during ONE “TRIP”. 2 2 TRIPS – indicates that the CHECK ENGINE MIL is activated by a fault occurring during TWO CONSECUTIVE “TRIPS”. Refer to page 3 for definition of OBD “TRIP”. N NO – indicates that the CHECK ENGINE MIL is not activated.
OTHER	Driver Warnings: N = None. R = RED MIL (warning lamp) plus Message Center message. A = AMBER MIL (warning lamp) plus Message Center message. C = Charge indicator.
DEFAULT ACTION	Control Module default action: Logged – DTC stored in ECM memory buffer; Flagged – DTC stored in ECM memory / CHECK ENGINE MIL activated.
CM PIN	ECM (system – Engine Management System) / TCM (system – Transmission) connector pin number(s).
POSSIBLE CAUSES	Possible causes are listed in the order of diagnostic checking. HIGH VOLTAGE – High voltage can be either sensor supply voltage (5 volts) or B+ voltage.

CYLINDER NUMBERING

Engine cylinder numbering is as follows:



OBD SYSTEM READINESS – ENGINE MANAGEMENT

If DTC P1000 is flagged after DTCs have been cleared, all engine management OBD diagnostic monitor drive cycles HAVE NOT BEEN COMPLETED.

If DTC P1111 is flagged after DTCs have been cleared, all engine management OBD diagnostic monitor drive cycles HAVE BEEN COMPLETED.

OBD SYSTEM READINESS – TRANSMISSION

Use WDS Datalogger “TOTAL NUMBER OF DTC SET” to determine if transmission OBD monitoring has been completed.

OBD “TRIPS”

The OBD system defines 1 TRIP as an ignition cycle (ignition key OFF; wait 30 seconds; ignition key ON) plus a minimum engine coolant temperature increase of 22 °C (40 °F) after which, the engine coolant temperature has to reach a minimum of 71 °C (160 °F).

OBD DIAGNOSTIC MONITORS

The Engine Management and Transmission Control systems are continuously checked during vehicle operation by the Engine Control Module (ECM) and Transmission Control Module (TCM) on-board diagnostic (OBD) facilities. Powertrain OBD incorporates seven diagnostic monitors. Each monitor has an associated group of DTCs. The diagnostic monitors will complete the diagnostic test(s) if a specified service "drive cycle" is carried out.

The seven diagnostic monitors are as follows:

- Heated Oxygen Sensors Monitor
- Adaptive Fuel Monitor
- Misfire Monitor
- Catalyst Efficiency Monitor
- Evaporative System Monitor
- Exhaust Gas Recirculation Monitor
- Comprehensive Component Monitor (Engine Management / Transmission)

DIAGNOSTIC MONITORS DRIVE CYCLES

Technicians can ensure that an OBD Monitor drive cycle is completed and that all or specific components have been checked by completing a specified drive cycle. Use the following service drive cycles to confirm that the components and subsystems covered by the Diagnostic Monitors are operating correctly.

HEATED OXYGEN SENSORS MONITOR DRIVE CYCLE

Upstream (Universal) oxygen sensors:

- 1 Engine OFF; cooling fans inoperative >20 seconds.
- 2 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 3 Drive the vehicle between 3000 – 4000 rpm in 3rd gear at a steady speed. Lift foot completely off accelerator and coast to a stop within 30 seconds. Do not touch accelerator pedal for 4 seconds after coming to a stop.
- 4 Repeat Step 3.
- 5 Idle engine for 11 minutes.

Downstream oxygen sensors:

- 1 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 2 Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 10 minutes.
- 3 Drive the vehicle above 3000 rpm in 3rd gear at a steady speed. Lift foot completely off accelerator and coast for 30 seconds.

Oxygen sensor heaters:

- 1 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 2 Idle engine for 3 minutes.

ADAPTIVE FUEL MONITOR DRIVE CYCLE

- 1 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 2 Idle for a minimum of 10 minutes.

MISFIRE MONITOR DRIVE CYCLE

- 1 Record flagged DTC (s) and accompanying WDS DTC Monitor freeze frame(s) data.
- 2 Fuel level >25%.
- 3 Start the engine at a coolant temperature lower than the recorded freeze frame value (from Step 1).
- 4 Drive the vehicle to the recorded freeze frame conditions for 4 minutes. If CHECK ENGINE MIL flashes, lower the engine speed until the flashing stops.

Note regarding misfire monitor DTCs:

If, on the first trip, the misfire is severe enough to cause excess exhaust emission, the individual cylinder DTC plus DTC P1316 will be logged. The CHECK ENGINE MIL will not be activated. If the fault recurs on the second trip, the individual cylinder DTC plus DTC P1316 will be flagged, and the CHECK ENGINE MIL will be activated.

If, on the first trip, the misfire is severe enough to cause catalyst damage (more severe than excess exhaust emission), the CHECK ENGINE MIL will flash while the fault is present and the individual cylinder DTC plus DTC P1313 (bank 1), DTC P1314 (bank 2) will be logged. When the fault is no longer present the MIL will be deactivated. If the fault recurs on the second trip, the CHECK ENGINE MIL will flash while the fault is present and the individual cylinder DTC plus DTC P1313 (bank 1), DTC P1314 (bank 2) will be flagged. When the fault is no longer present the CHECK ENGINE MIL will be activated.

CATALYST EFFICIENCY MONITOR DRIVE CYCLE

- 1 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 2 Drive the vehicle in a steady state condition between 1300 – 3000 rpm without stops or starts for a minimum of 5 minutes.

EVAPORATIVE SYSTEM MONITOR DRIVE CYCLE (OBD II ONLY)

- 1 Ensure that fuel filler cap is fully closed (minimum three clicks).
- 2 Fuel level >30% and <85%.
- 3 Using WDS, perform ECM DTC Clear (even if no DTCs are flagged).
- 4 Drive vehicle for a minimum of 2 minutes, and until engine is at normal operating temperature.
- 5 Using WDS, ensure that the EVAP Canister Purge Valve is operating by observing "PURGE VAPOR MANAGEMENT VALVE – DUTY CYCLE". If the valve is not active, ECM adaptations have not been learned. Conduct a "green ECM" Drive Cycle as described in Technical Service Bulletin.
- 6 Drive vehicle to the road where the EVAP System Drive Cycle will be conducted. Stop vehicle and switch OFF the ignition. Leave ignition OFF for 30 seconds, then restart the engine.
- 7 Accelerate briskly to 80 km/h (50 mph) ensuring that the engine speed reaches a minimum of 3500 rpm for a minimum of 5 seconds.
- 8 (0.040 inch EVAP Test) View WDS "PURGE VAPOR MANAGEMENT VALVE – DUTY CYCLE", "CANISTER CLOSE VALVE – VAPOR RECOVERY SYSTEM", and FUEL TANK PRESSURE – VAPOR RECOVERY SYSTEM". Avoiding high engine loads, drive the vehicle steadily between 65 km/h (40 mph) and 100 km/h (60 mph). Avoid driving conditions that will produce excessive fuel movement. WDS should give an indication that the test is active (it may take up to 30 minutes before the test will initialize). When the test has initialized (EVAP Canister Close Valve CLOSED), it will take approximately 90 seconds for the test to complete.
- 9 (0.020 inch EVAP Test) Continue driving vehicle as explained in Step 8 for an additional 10 minutes.
- 10 Gently coast the vehicle to a stop. Allow the engine to idle for 2 minutes and view WDS "PURGE VAPOR MANAGEMENT VALVE – DUTY CYCLE", "CANISTER CLOSE VALVE – VAPOR RECOVERY SYSTEM", and FUEL TANK PRESSURE – VAPOR RECOVERY SYSTEM". WDS should give an indication that the test is active. When the test has initialized (EVAP Canister Close Valve CLOSED), it will take approximately 90 seconds for the test to complete.
- 11 If the 0.020 inch EVAP Test is not activated, the purge system vapor concentration may be too great. To reduce the vapor concentration proceed as follows:
- 12 Drive the vehicle for an additional 30 minutes avoiding driving conditions that will produce excessive fuel movement. Repeat Step 10. If the 0.020 inch EVAP Test is still not activated, repeat the Drive Cycle from Step 6.
- 13 Using WDS, check for and clear flagged DTCs.

EXHAUST GAS RECIRCULATION MONITOR DRIVE CYCLE

- 1 Start engine and bring to normal operating temperature >82 °C (180 °F).
- 2 Drive the vehicle in 3rd gear at 2500 rpm. Maintain a steady speed for 1 minute, then lift foot completely off accelerator and coast for a minimum of 10 seconds.

COMPREHENSIVE COMPONENT MONITOR ENGINE MANAGEMENT DRIVE CYCLE

To avoid unnecessary complexity, a single comprehensive engine management drive cycle has not been developed for S-TYPE. Refer to the individual DTC for specific drive cycle / monitoring conditions.

COMPREHENSIVE COMPONENT MONITOR TRANSMISSION DRIVE CYCLE

To avoid unnecessary complexity, a single comprehensive transmission drive cycle has not been developed for S-TYPE. Refer to the individual DTC for specific drive cycle / monitoring conditions.

POWERTRAIN CONTROL ACRONYMS:

A/C	Air conditioning	IAT Sensor	Intake Air Temperature Sensor
APP Sensor	Accelerator Pedal Position Sensor	IC	Instrument Cluster
ASC	Adaptive Speed Control	IMT Valve 1	Intake Manifold Tuning Valve: Bottom
B+	Battery Voltage	IMT Valve 2	Intake Manifold Tuning Valve: Top
Bank 1	RH Engine cylinder bank (cylinders 1, 3, 5, 7) (A Bank)	IP Sensor	Injection Pressure Sensor
Bank 2	LH Engine cylinder bank (cylinders 2, 4, 6, 8) (B Bank)	KS 1	Knock Sensor – Bank 1
BARO Sensor	Barometric Pressure Sensor	KS 2	Knock Sensor – Bank 2
CAN	Controller Area Network	MAF Sensor	Mass Air Flow Sensor
CKP Sensor	Crankshaft Position Sensor	MAP Sensor	Manifold Absolute Pressure Sensor
CMP Sensor 1	Camshaft Position Sensor – Bank 1	N/A	Normally Aspirated
CMP Sensor 2	Camshaft Position Sensor – Bank 2	SC	Supercharged
DLC	Data Link Connector	TCC	Torque converter clutch
DSC	Dynamic Stability Control	TCM	Transmission Control Module
ECM	Engine Control Module	TFT Sensor	Transmission Fluid Temperature Sensor
ECT Sensor	Engine Coolant Temperature Sensor	TP Sensor	Throttle Position Sensor
EFT Sensor	Engine Fuel Temperature Sensor	V6	V6 Engine
EGR	Exhaust Gas Recirculation	V8	V8 Engine
EOT Sensor	Engine Oil Temperature Sensor	VVT Valve 1	Variable Valve Timing Valve – Bank 1
EVAP Canister Close Valve	Evaporative Emission Canister Close Valve	VVT Valve 2	Variable Valve Timing Valve – Bank 2
EVAP Canister Purge Valve	Evaporative Emission Canister Purge Valve		
FTP Sensor	Fuel Tank Pressure Sensor		
HO2 Sensor 1/1	Heated Oxygen Sensor – Bank 1 / Upstream		
HO2 Sensor 1/2	Heated Oxygen Sensor – Bank 1 / Downstream		
HO2 Sensor 2/1	Heated Oxygen Sensor – Bank 2 / Upstream		
HO2 Sensor 2/2	Heated Oxygen Sensor – Bank 2 / Downstream		

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0010	EMS OBD II	VVT circuit malfunction – bank 1	<p>Idle engine 30 seconds</p> <p>Accelerate from stop through complete engine rpm range Coast to a stop</p> <p>Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes; coast to a stop</p> <p>Accelerate smoothly through complete accelerator pedal travel; coast to a stop</p> <p>Idle engine 30 seconds</p>	2	N	<p>ECM Default:</p> <p>– Bank 1 VVT hold current set at a constant value of 450 mA (V6) 520 mA (V8)</p>	PI1 –109	<p>VVT solenoid valve disconnected</p> <p>VVT solenoid valve to ECM PWM drive circuit: open circuit, short circuit, high resistance</p> <p>VVT solenoid failure</p>
P0020	EMS OBD II	VVT circuit malfunction – bank 2	<p>Idle engine 30 seconds</p> <p>Accelerate from stop through complete engine rpm range; coast to a stop</p> <p>Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes; coast to a stop</p> <p>Accelerate smoothly through complete accelerator pedal travel; coast to a stop</p> <p>Idle engine 30 seconds</p>	2	N	<p>ECM Default:</p> <p>– Bank 2 VVT hold current set at a constant value of 450 mA (V6) 520 mA (V8)</p>	PI1 –110	<p>VVT solenoid valve disconnected</p> <p>VVT solenoid valve to ECM PWM drive circuit: open circuit, short circuit, high resistance</p> <p>VVT solenoid failure</p>

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0031	EMS OBD II	HO2 Sensor heater control circuit low current – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	ECM Default: – Bank 1 closed loop fuel metering and adaptive fuel metering inhibited – Canister purge inhibited – Bank 1 upstream HO2S heater control circuit switched off	PI1 –001 –002 –029 –030	HO2 Sensor 1/1 heater power supply circuit: open circuit HO2 Sensor 1/1 heater control circuit: open circuit, high resistance HO2 Sensor 1/1 heater ground circuit(s) fault (PI1–029, PI1–030) HO2 Sensor 1/1 heater failure
P0032	EMS OBD II	HO2 Sensor heater control circuit high current – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	ECM Default: – Bank 1 closed loop fuel metering and adaptive fuel metering inhibited – Canister purge inhibited – Bank 1 upstream HO2S heater control circuit switched off	PI1 –001 –002 –029 –030	HO2 Sensor 1/1 heater control circuit: short circuit to ground HO2 Sensor 1/1 heater ground circuit(s) fault (PI1–029, PI1–030) HO2 Sensor 1/1 heater failure
P0037	EMS OBD II	HO2 Sensor heater control circuit low resistance – bank 1, downstream (1/2)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	None	PI1 –092	HO2 Sensor 1/2 heater control circuit: short circuit to ground HO2 Sensor 1/2 heater failure
P0038	EMS OBD II	HO2 Sensor heater control circuit high resistance – bank 1, downstream (1/2)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	None	PI1 –092	HO2 Sensor 1/2 heater control circuit: open circuit; high resistance HO2 Sensor 1/2 heater failure
P0051	EMS OBD II	HO2 Sensor heater control circuit low current – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	ECM Default: – Bank 2 closed loop fuel metering and adaptive fuel metering inhibited – Canister purge inhibited – Bank 2 upstream HO2S heater control circuit switched off	PI1 –055 –056 –081 –082	HO2 Sensor 2/1 heater power supply circuit: open circuit HO2 Sensor 2/1 heater control circuit: open circuit, high resistance HO2 Sensor 2/1 heater ground circuit(s) fault (PI1–081, PI1–082) HO2 Sensor 2/1 heater failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0052	EMS OBD II	HO2 Sensor heater control circuit high current – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	ECM Default: – Bank 2 closed loop fuel metering and adaptive fuel metering inhibited – Canister purge inhibited – Bank 2 upstream HO2S heater control circuit switched off	P11 –055 –056 –081 –082	HO2 Sensor 2/1 heater control circuit: short circuit to ground HO2 Sensor 2/1 heater ground circuit(s) fault (P11–081, P11–082) HO2 Sensor 2/1 heater failure
P0057	EMS OBD II	HO2 Sensor heater control circuit low resistance – bank 2, downstream (2/2)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	None	P11 –093	HO2 Sensor 2/2 heater control circuit: short circuit to ground HO2 Sensor 2/2 heater failure
P0058	EMS OBD II	HO2 Sensor heater control circuit high resistance – bank 2, downstream (2/2)	Heated oxygen sensors monitor drive cycle – page 5 (Oxygen sensor heaters)	2	N	None	P11 –093	HO2 Sensor 2/2 heater control circuit: open circuit; high resistance HO2 Sensor 2/2 heater failure
P0096	V8 SC EMS OBD II	IAT Sensor 2 circuit range / performance	Engine coolant temperature <40 °C (104 °F) Ambient temperature <40 °C (104 °F) Engine coolant temperature and ambient temperature within 10 °C (20 °F) of each other Start engine and drive above 1500 rpm at a steady speed for a minimum of 2 minutes	2	A	ECM Default: – Default value of 70 °C (158 °F) used	P11 –072	IAT Sensor 2 disconnected IAT Sensor 2 to ECM sensing circuit: open circuit IAT Sensor 2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0097	V8 SC EMS OBD II	IAT Sensor 2 circuit high voltage (low air temperature)	Ignition ON 10 seconds	2	A	ECM Default: – Default value of 70 °C (158 °F) used	PI1 –072	IAT Sensor 2 disconnected IAT Sensor 2 to ECM wiring: open circuit or high resistance IAT Sensor 2 to ECM sensing circuit: short circuit to B+ voltage IAT Sensor 2 failure
P0098	V8 SC EMS OBD II	IAT Sensor 2 circuit low voltage (high air temperature)	Ignition ON 10 seconds	2	A	ECM Default: – Default value of 70 °C (158 °F) used	PI1 –072	IAT Sensor 2 to ECM wiring: short circuit to ground IAT Sensor 2 failure
P0101	EMS OBD II	MAF Sensor circuit range / performance	Fuel level >25% Start engine and bring to normal operating temperature >82 °C (180 °F) Drive the vehicle steadily in 4th or 5th gear on a level road between 1700 – 2300 rpm (V6), 1200 – 1800 rpm (V8); hold the engine speed constant for 40 seconds while maintaining a steady throttle	2	A	ECM Default: – Default air mass used – Adaptive fuel metering inhibited – Catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	PI1 –044	Blocked air cleaner Air intake leak Engine breather leak Throttle control malfunction MAF Sensor to ECM sensing circuit: high resistance, intermittent short circuit to ground MAF Sensor supply circuit: high resistance MAF Sensor failure Throttle adaption fault (check throttle position voltage at Ignition ON)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0102	EMS OBD II	MAF Sensor circuit low voltage	Ignition ON 10 seconds	2	A	ECM Default: <ul style="list-style-type: none"> - Default air mass used - Adaptive fuel metering inhibited - Catalyst warm up ignition retard inhibited - Canister purge inhibited - Maximum engine speed reduced 	P11 -044	Blocked air cleaner Air intake leak between MAF Sensor and throttle MAF Sensor to ECM sensing circuit: high resistance, open circuit, intermittent short circuit to ground MAF Sensor supply circuit: open circuit, short circuit to ground MAF Sensor failure
P0103	EMS OBD II	MAF Sensor circuit high voltage	Ignition ON 10 seconds	2	A	ECM Default: <ul style="list-style-type: none"> - Default air mass used - Adaptive fuel metering inhibited - Catalyst warm up ignition retard inhibited - Canister purge inhibited - Maximum engine speed reduced 	P11 -044 -045 -046	MAF Sensor to ECM sensing circuit: short circuit to B+ voltage MAF Sensor to ECM sensor ground circuit: open circuit MAF Sensor failure
P0105	EMS OBD II	MAP Sensor circuit malfunction	Fuel level >25% Start engine and bring to normal operating temperature >82 °C (180 °F) Drive the vehicle steadily in 4th or 5th gear on a level road between 1700 – 2300 rpm (V6), 1200 – 1800 rpm (V8); hold the engine speed constant for 40 seconds while maintaining a steady throttle	2	N	ECM Default: <ul style="list-style-type: none"> - Default value of 1.013 BAR (29.92 in hg) used 	P11 -127	Intake manifold air leak (loose or missing component) MAP Sensor to ECM circuit(s) fault MAP Sensor failure Throttle adaption fault (check throttle position voltage at Ignition ON)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0106	EMS OBD II	BARO Sensor circuit range / performance	Engine temperature cool (cooling fans not running) Remove ignition key for 20 seconds (cooling fans not running) Ignition key in, position II for 5 seconds (do not start) Repeat cycle twice more	2	N	ECM Default: – Default value of 1 BAR (29.53 in hg) used	—	BARO Sensor failure (internal ECM fault)
P0107	EMS OBD II	BARO Sensor circuit low voltage	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 1 BAR (29.53 in hg) used	—	BARO Sensor failure (internal ECM fault)
P0108	EMS OBD II	BARO Sensor circuit high voltage	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 1 BAR (29.53 in hg) used	—	BARO Sensor failure (internal ECM fault)
P0111	EMS OBD II	IAT Sensor circuit range / performance	Engine OFF; coolant temperature <35 °C (95 °F) Start engine and hold 3000 rpm in P or N for 30 seconds	2	N	ECM Default: – Default value substituted 25 °C (77 °F) (V6) 50 °C (122 °F) V8	P11 –071	Blocked air cleaner Air intake leak Engine breather leak IAT Sensor to ECM wiring: open circuit or high resistance IAT Sensor to ECM sensing circuit: short circuit to high voltage IAT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0112	EMS OBD II	IAT Sensor circuit high voltage (low air temperature)	Ignition ON 10 seconds	2	N	ECM Default: – Default value substituted 25 °C (77 °F) (V6) 50 °C (122 °F) V8	PI1 –071	IAT Sensor disconnected IAT Sensor to ECM wiring: open circuit or high resistance IAT Sensor to ECM sensing circuit: short circuit to B+ voltage IAT Sensor failure
P0113	EMS OBD II	IAT Sensor circuit low voltage (high air temperature)	Ignition ON 10 seconds	2	N	ECM Default: – Default value substituted 25 °C (77 °F) (V6) 50 °C (122 °F) V8	PI1 –071	IAT Sensor to ECM wiring: short circuit to ground IAT Sensor failure
P0116	EMS OBD II	ECT Sensor circuit range / performance	Engine coolant temperature and ambient temperature within 10 °C (20 °F) of each other Start engine and drive the vehicle steadily in 4th or 5th gear above 1700 rpm until the engine coolant temperature reaches 80 °C (176 °F) CAUTION: Overheating is possible if the ECT sensor is faulty and cooling fans do not operate.	2	A	ECM Default: – EOT value substituted (no greater than 95 °C (203 °F)) – Closed loop fuel metering inhibited – Adaptive fuel metering inhibited – Catalyst warm-up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	PI1 –070	ECT Sensor disconnected Low coolant level Contaminated coolant Engine thermostat failure ECT Sensor to ECM sensing circuit: open circuit, high resistance when hot, intermittent high resistance ECT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0117	EMS OBD II	ECT Sensor circuit high voltage (low coolant temperature)	Ignition ON 10 seconds	2	A	ECM Default: <ul style="list-style-type: none"> - EOT value substituted (no greater than 95 °C (203 °F)) - Closed loop fuel metering inhibited - Adaptive fuel metering inhibited - Catalyst warm-up ignition retard inhibited - Canister purge inhibited - Maximum engine speed reduced 	PI1 -070	ECT Sensor disconnected ECT Sensor to ECM sensing circuit: high resistance, open circuit, short circuit to B+ voltage ECT Sensor failure
P0118	EMS OBD II	ECT Sensor circuit low voltage (high coolant temperature)	Ignition ON 10 seconds	2	A	ECM Default: <ul style="list-style-type: none"> - EOT value substituted (no greater than 95 °C (203 °F)) - Closed loop fuel metering inhibited - Adaptive fuel metering inhibited - Catalyst warm-up ignition retard inhibited - Canister purge inhibited - Maximum engine speed reduced 	PI1 -070	Engine overheat condition ECT Sensor to ECM wiring: short circuit to ground ECT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0121	EMS OBD II	TP Sensor range / performance (TP1 compared to TP2)	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	PI1 –075 –076	TP Sensor to ECM wiring: open circuit, high resistance TP Sensor to ECM sensing circuits (TP1 or TP2): short circuit to B+ voltage TP Sensor failure
P0122	EMS OBD II	TP Sensor circuit 1 low voltage	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	PI1 –075	TP Sensor to ECM sensing circuit (TP1): open circuit, short circuit to ground, high resistance TP Sensor failure
P0123	EMS OBD II	TP Sensor circuit 1 high voltage	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	PI1 –075	TP Sensor to ECM sensing circuit (TP1): short circuit to high voltage TP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0125	EMS OBD II	ECT Sensor response (for closed loop fuel control) (Coolant thermostat monitor)	Engine coolant temperature and ambient temperature within 10 °C (20 °F) of each other Start engine and drive the vehicle steadily in 4th or 5th gear above 1700 rpm until the engine coolant temperature reaches 80 °C (176 °F) CAUTION: Overheating is possible if the ECT sensor is faulty and cooling fans do not operate.	2	A	ECM Default: – EOT value substituted (no greater than 95 °C (203 °F)) – Closed loop fuel metering inhibited – Adaptive fuel metering inhibited – Catalyst warm-up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	PI1 –070	ECT Sensor disconnected Low coolant level Contaminated coolant Engine coolant thermostat failure ECT Sensor to ECM sensing circuit: high resistance, open circuit or short circuit to high voltage Engine cooling fan stuck on high speed Above normal air flow through engine compartment due to accident damage and / or missing panels
P0128	EMS OBD II	Coolant thermostat range / performance	Engine OFF; coolant temperature < 35 °C (95 °F) Start engine and drive until normal engine operating temperature > 85 °C (180 °F)	2	N	None	—	Contaminated coolant Engine coolant thermostat failure ECT Sensor failure (ECT Sensor DTC(s) also flagged)
P0131	EMS OBD II	HO2 Sensor sense circuit low current – bank 1, upstream (1/1) (Universal oxygen sensor: lean condition at ECM – high current at sensor)	Heated oxygen sensors monitor drive cycle – page 5 (Upstream oxygen sensors)	2	N	None	PI1 –083 –084	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 to ECM variable current circuit fault (HO2 Sensor pin 3) ECM to HO2 Sensor 1/1 constant current circuit fault (HO2 Sensor pin 4) HO2 Sensor 1/1 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0132	EMS OBD II	HO2 Sensor sense circuit high current – bank 1, upstream (1/1) (Universal oxygen sensor: rich condition at ECM – low current at sensor)	Heated oxygen sensors monitor drive cycle – page 5 (Upstream oxygen sensors)	2	N	None	PI1 -083 -084	HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 to ECM variable current circuit fault (HO2 Sensor pin 3) ECM to HO2 Sensor 1/1 constant current circuit fault (HO2 Sensor pin 4) HO2 Sensor 1/1 failure
P0133	EMS OBD II	HO2 Sensor sense circuit slow response – bank 1, upstream (1/1)	Heated oxygen sensors monitor drive cycle – page 5 (Upstream oxygen sensors)	2	N	ECM Default: – Bank 1 closed loop fuel metering inhibited – Canister purge inhibited	PI1 -083 -084	Engine misfire HO2 Sensor 1/1 disconnected HO2 Sensor 1/1 mechanical damage HO2 Sensor 1/1 to ECM wiring fault HO2 Sensor 1/1 short circuit to ground HO2 Sensor 1/1 to ECM wiring shield open circuit HO2 Sensor 1/1 heater circuit fault Exhaust leak Low exhaust temperature Injector flow partially blocked Catalyst efficiency decrease HO2 Sensor 1/1 failure
P0137	EMS OBD II	HO2 Sensor sense circuit low voltage – bank 1, downstream (1/2)	Heated oxygen sensors monitor drive cycle – page 5 (Downstream oxygen sensors)	2	N	None	PI1 -128	HO2 Sensor 1/2 disconnected HO2 Sensor 1/2 to ECM wiring open circuit HO2 Sensor 1/2 short circuit to ground HO2 Sensor 1/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0138	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 1, downstream (1/2)	Heated oxygen sensors monitor drive cycle – page 5 (Downstream oxygen sensors)	2	N	None	PI1 -128	HO2 Sensor 1/2 sensing circuit: short circuit to high voltage HO2 Sensor 1/2 ground (BRD – braided shield) open circuit HO2 Sensor 1/2 failure
P0140	EMS OBD II	HO2 Sensor sense circuit no activity – bank 1, downstream (1/2)	Heated oxygen sensors monitor drive cycle – page 5 (Downstream oxygen sensors)	2	N	None	PI1 -128	HO2 Sensor 1/2 disconnected HO2 Sensor 1/2 mechanical damage HO2 Sensor 1/2 to ECM wiring open circuit HO2 Sensor 1/2 sensing circuit: short circuit to high voltage HO2 Sensor 1/2 short circuit to ground HO2 Sensor 1/2 ground (BRD – braided shield) open circuit Exhaust leak Low exhaust temperature HO2 Sensor 1/2 failure
P0151	EMS OBD II	HO2 Sensor sense circuit low current – bank 2, upstream (2/1) (Universal oxygen sensor: lean condition at ECM – high current at sensor)	Heated oxygen sensors monitor drive cycle – page 5 (Upstream oxygen sensors)	2	N	None	PI1 -107 -108	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 to ECM variable current circuit fault (HO2 Sensor pin 3) ECM to HO2 Sensor 2/1 constant current circuit fault (HO2 Sensor pin 4) HO2 Sensor 2/1 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0152	EMS OBD II	HO2 Sensor sense circuit high current – bank 2, upstream (2/1) (Universal oxygen sensor: rich condition at ECM – low current at sensor)	Heated oxygen sensors monitor drive cycle – page 5 (Upstream oxygen sensors)	2	N	None	PI1 –107 –108	HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 to ECM variable current circuit fault (HO2 Sensor pin 3) ECM to HO2 Sensor 2/1 constant current circuit fault (HO2 Sensor pin 4) HO2 Sensor 2/1 failure
P0153	EMS OBD II	HO2 Sensor sense circuit slow response – bank 2, upstream (2/1)	Heated oxygen sensors monitor drive cycle – page 5 (Upstream oxygen sensors)	2	N	ECM Default: – Bank 1 closed loop fuel metering inhibited – Canister purge inhibited	PI1 –107 –108	Engine misfire HO2 Sensor 2/1 disconnected HO2 Sensor 2/1 mechanical damage HO2 Sensor 2/1 to ECM wiring fault HO2 Sensor 2/1 short circuit to ground HO2 Sensor 2/1 to ECM wiring shield open circuit HO2 Sensor 2/1 heater circuit fault Exhaust leak Low exhaust temperature Injector flow partially blocked Catalyst efficiency decrease HO2 Sensor 2/1 failure
P0157	EMS OBD II	HO2 Sensor sense circuit low voltage – bank 2, downstream (2/2)	Heated oxygen sensors monitor drive cycle – page 5 (Downstream oxygen sensors)	2	N	None	PI1 –129	HO2 Sensor 2/2 disconnected HO2 Sensor 2/2 to ECM wiring open circuit HO2 Sensor 2/2 short circuit to ground HO2 Sensor 2/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0158	EMS OBD II	HO2 Sensor sense circuit high voltage – bank 2, downstream (2/2)	Heated oxygen sensors monitor drive cycle – page 5 (Downstream oxygen sensors)	2	N	None	PI1 -129	HO2 Sensor 2/2 sensing circuit: short circuit to high voltage HO2 Sensor 2/2 ground (BRD – braided shield) open circuit HO2 Sensor 2/2 failure
P0160	EMS OBD II	HO2 Sensor sense circuit no activity – bank 2, downstream (2/2)	Heated oxygen sensors monitor drive cycle – page 5 (Downstream oxygen sensors)	2	N	None	PI1 -129	HO2 Sensor 2/2 disconnected HO2 Sensor 2/2 mechanical damage HO2 Sensor 2/2 to ECM wiring open circuit HO2 Sensor 2/2 sensing circuit short circuit to high voltage HO2 Sensor 2/2 short circuit to ground HO2 Sensor 2/2 ground (BRD – braided shield) open circuit Exhaust leak Low exhaust temperature HO2 Sensor 2/2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0171	EMS OBD II	Bank 1 combustion too lean	Start engine and bring to normal operating temperature >82 °C (180 °F) Idle for 10 minutes	2	N	ECM Default: <ul style="list-style-type: none"> - Bank 1 catalyst warm-up ignition retard inhibited - Bank 1 closed loop fuel metering inhibited - Canister purge inhibited - Maximum engine speed reduced 	—	<p>Engine misfire</p> <p>Air intake leak between MAF Sensor and cylinder head</p> <p>Fuel filter / system restriction</p> <p>Fuel injector restriction</p> <p>IP Sensor fault (low fuel pressure)</p> <p>Low fuel pump output</p> <p>HO2 Sensor(s) (1/1, 1/2) harness wiring condition fault</p> <p>EFT Sensor fault (low fuel temperature)</p> <p>MAF Sensor fault (low intake air flow)</p> <p>Exhaust leak (before catalyst)</p> <p>ECM receiving incorrect signal from one or more of the following components: ECT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor</p>
P0172	EMS OBD II	Bank 1 combustion too rich	Start engine and bring to normal operating temperature >82 °C (180 °F) Idle for 10 minutes	2	N	ECM Default: <ul style="list-style-type: none"> - Bank 1 catalyst warm-up ignition retard inhibited - Bank 1 closed loop fuel metering inhibited - Canister purge inhibited - Maximum engine speed reduced 	—	<p>Restricted air filter</p> <p>Leaking fuel injector(s)</p> <p>IP Sensor fault (high fuel pressure)</p> <p>EFT Sensor fault (high fuel temperature)</p> <p>MAF Sensor fault (high intake air flow)</p> <p>HO2 Sensor(s) (1/1, 1/2) harness wiring condition fault</p> <p>ECM receiving incorrect signal from one or more of the following components: ECT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor</p>

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0174	EMS OBD II	Bank 2 combustion too lean	Start engine and bring to normal operating temperature >82 °C (180 °F) Idle for 10 minutes	2	N	ECM Default: <ul style="list-style-type: none"> - Bank 2 catalyst warm-up ignition retard inhibited - Bank 2 closed loop fuel metering inhibited - Canister purge inhibited - Maximum engine speed reduced 	—	Engine misfire Air intake leak between MAF Sensor and cylinder head Fuel filter / system restriction Fuel injector restriction IP Sensor fault (low fuel pressure) Low fuel pump output HO2 Sensor(s) (2/1, 2/2) harness wiring condition fault EFT Sensor fault (low fuel temperature) MAF Sensor fault (low intake air flow) Exhaust leak (before catalyst) ECM receiving incorrect signal from one or more of the following components: ECT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor
P0175	EMS OBD II	Bank 2 combustion too rich	Start engine and bring to normal operating temperature >82 °C (180 °F) Idle for 10 minutes	2	N	ECM Default: <ul style="list-style-type: none"> - Bank 2 catalyst warm-up ignition retard inhibited - Bank 2 closed loop fuel metering inhibited - Canister purge inhibited - Maximum engine speed reduced 	—	Restricted air filter Leaking fuel injector(s) IP Sensor fault (high fuel pressure) EFT Sensor fault (high fuel temperature) MAF Sensor fault (high intake air flow) HO2 Sensor(s) (2/1, 2/2) harness wiring condition fault ECM receiving incorrect signal from one or more of the following components: ECT Sensor, MAF Sensor, IAT Sensor, IP Sensor, EFT Sensor, TP Sensor

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0181	EMS OBD II	EFT Sensor range / performance	Engine OFF; coolant temperature < 35 °C (95 °F) Start engine and drive until normal engine operating temperature > 82 °C (180 °F) Drive for an additional 25 minutes	2	N	ECM Default: – Default value of 25 °C (77 °F) used	PI1 –050	EFT Sensor disconnected EFT Sensor to ECM sensing circuit: high resistance, open circuit, short circuit to ground short circuit to high voltage EFT Sensor to splice sensor ground circuit: high resistance, open circuit EFT Sensor failure
P0182	EMS OBD II	EFT Sensor circuit low voltage (high temperature)	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 25 °C (77 °F) used	PI1 –050	EFT Sensor to ECM sensing circuit: short circuit to ground EFT Sensor to splice sensor ground circuit: short circuit EFT Sensor failure
P0183	EMS OBD II	EFT Sensor circuit high voltage (low temperature)	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 25 °C (77 °F) used	PI1 –050	EFT Sensor disconnected EFT Sensor to ECM sensing circuit: high resistance, open circuit, short circuit to high voltage EFT Sensor to splice sensor ground circuit: high resistance, open circuit EFT Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0191	EMS OBD II	IP Sensor circuit range / performance	Fuel level >25% Idle engine 30 seconds Accelerate from stop through complete engine rpm range; coast to a stop Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes; coast to a stop Accelerate smoothly through complete accelerator pedal travel; coast to a stop Idle engine 30 seconds	2	N	ECM Default: – Default value of 3.80 BAR (55.11 psi) used – Fuel pump feedback control inhibited	PI1 –073	Fuel filter / system restriction Fuel system leak Incorrect fuel pump output IP Sensor to ECM sensing circuit: high resistance, open circuit, short circuit to ground, short circuit to high voltage IP Sensor to splice sensor supply circuit: high resistance, open circuit IP Sensor to splice sensor ground circuit: high resistance, open circuit, short circuit to ground, short circuit to high voltage IP Sensor failure
P0192	EMS OBD II	IP Sensor sensor circuit low voltage (low pressure)	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 3.80 BAR (55.11 psi) used – Fuel pump feedback control inhibited	PI1 –073	IP Sensor disconnected IP Sensor to ECM sensing circuit: open circuit or short circuit to ground IP Sensor to splice sensor supply circuit: high resistance open circuit IP Sensor failure
P0193	EMS OBD II	IP Sensor sensor circuit high voltage (high pressure)	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 3.80 BAR (55.11 psi) used – Fuel pump feedback control inhibited	PI1 –073	IP Sensor to ECM wiring (supply, sense): short circuit to each other IP Sensor to ECM sense circuit: short circuit to high voltage IP Sensor to splice sensor ground circuit: open circuit IP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0196	EMS OBD II	EOT Sensor range / performance	Engine OFF; coolant temperature <35 °C (95 °F) Start engine and drive until normal engine operating temperature > 82 °C (180 °F)	2	N	ECM Default: – ECT substituted	PI1 –078	EOT Sensor to ECM sensing circuit; high resistance when hot, intermittent high resistance EOT Sensor failure
P0197	EMS OBD II	EOT Sensor low voltage (high temperature)	Ignition ON 10 seconds	2	N	ECM Default: – ECT substituted	PI1 –078	EOT Sensor to ECM sensing circuit: short circuit to ground EOT Sensor failure
P0198	EMS OBD II	EOT Sensor high voltage (low temperature)	Ignition ON 10 seconds	2	N	ECM Default: – ECT substituted	PI1 –078	EOT Sensor disconnected EOT Sensor to ECM sensing circuit: high resistance, open circuit, short circuit to B+ voltage EOT Sensor failure
P0201	EMS OBD II	Fuel injector 1 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 adaptive fuel metering inhibited – Bank 1 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	V6 PI1 –115 V8 PI1 –120	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0202	EMS OBD II	Fuel injector 2 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 adaptive fuel metering inhibited – Bank 2 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	V6 P11 –120 V8 P11 –115	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure
P0203	EMS OBD II	Fuel injector 3 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 adaptive fuel metering inhibited – Bank 1 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	P11 –114	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure
P0204	EMS OBD II	Fuel injector 4 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 adaptive fuel metering inhibited – Bank 2 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	P11 –119	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0205	EMS OBD II	Fuel injector 5 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 adaptive fuel metering inhibited – Bank 1 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	P11 –113	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure
P0206	EMS OBD II	Fuel injector 6 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 adaptive fuel metering inhibited – Bank 2 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	P11 –118	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure
P0207	V8 EMS OBD II	Fuel injector 7 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 adaptive fuel metering inhibited – Bank 1 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	P11 –117	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0208	V8 EMS OBD II	Fuel injector 8 circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 adaptive fuel metering inhibited – Bank 2 catalyst warm up ignition retard inhibited – Canister purge inhibited – Maximum engine speed reduced	PI1 –112	Injector disconnected Injector harness wiring: open circuit, short circuit Injector failure
P0222	EMS OBD II	TP Sensor sense circuit 2 (TP2) low voltage	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	PI1 –076	TP Sensor to ECM sensing circuit (TP2): open circuit, short circuit to ground, high resistance TP Sensor failure
P0223	EMS OBD II	TP Sensor sense circuit 2 (TP2) high voltage	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	PI1 –076	TP Sensor to ECM sensing circuit (TP2): short circuit to high voltage TP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0300	EMS OBD II	Random misfire detected * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	ECM to ignition coil primary circuit fault (Cylinder misfire detected DTC also flagged) Fuel injector circuit fault(s) (Injector DTCs also flagged) Ignition coil failure Spark plug failure / fouled / incorrect gap Cylinder compression low Fuel delivery pressure (low / high) Fuel injector(s) restricted / leaking Fuel injector(s) continuously open Fuel contamination Worn camshaft / broken valve spring(s)
P0301	EMS OBD II	Misfire detected – cylinder 1 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes
P0302	EMS OBD II	Misfire detected – cylinder 2 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes
P0303	EMS OBD II	Misfire detected – cylinder 3 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes
P0304	EMS OBD II	Misfire detected – cylinder 4 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes
P0305	EMS OBD II	Misfire detected – cylinder 5 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes
P0306	EMS OBD II	Misfire detected – cylinder 6 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0307	V8 EMS OBD II	Misfire detected – cylinder 7 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes
P0308	V8 EMS OBD II	Misfire detected – cylinder 8 * Refer to Misfire Note, page 6	Misfire monitor drive cycle – page 6	1 or 2*	N	None	—	Refer to P0300 Possible Causes
P0327	EMS OBD II	Bank 1 KS sense circuit out of range – low voltage	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Maximum ignition retard – Maximum engine speed reduced	PI1 –098	Poor sensor contact with the cylinder block KS to ECM sense circuit short circuit to ground KS failure
P0328	EMS OBD II	Bank 1 KS sense circuit out of range – high voltage	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Maximum ignition retard – Maximum engine speed reduced	PI1 –098	Poor sensor contact with the cylinder block KS to ECM sense circuit: high resistance, open circuit, short circuit to high voltage KS failure
P0332	EMS OBD II	Bank 2 KS sense circuit out of range – low voltage	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Maximum ignition retard – Maximum engine speed reduced	PI1 –099	Poor sensor contact with the cylinder block KS to ECM sense circuit short circuit to ground KS failure
P0333	EMS OBD II	Bank 2 KS sense circuit out of range – high voltage	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Maximum ignition retard – Maximum engine speed reduced	PI1 –099	Poor sensor contact with the cylinder block KS to ECM sense circuit: high resistance, open circuit, short circuit to high voltage KS failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0335	EMS OBD II	CKP Sensor circuit malfunction	Start engine; increase engine speed to 1500 rpm and hold for 30 seconds Repeat 2 additional times NOTE: If CKP Sensor fault exists, engine will start after approximately 5 seconds of cranking as the ECM will default to CMP Sensor 1 signal for synchronization.	2	A	ECM Default: – Maximum engine speed reduced – CMP Sensor 1 signal used for synchronization	PI1 –036 –037	CKP Sensor disconnected CKP Sensor gap incorrect / foreign matter on sensor face CKP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage CKP Sensor failure
P0336	EMS OBD II	CKP Sensor circuit range / performance	Start engine; momentarily race the engine; stop engine Repeat 2 additional times Start engine; drive vehicle; select 2nd gear Accelerate smoothly through complete accelerator pedal travel; coast to a stop	2	A	ECM Default: – Maximum engine speed reduced	PI1 –036 –037	CKP Sensor reluctor: foreign matter / damaged teeth CKP Sensor sensing circuit: intermittent open circuit, short circuit to ground, short circuit to high voltage CKP Sensor failure
P0340	EMS OBD II	CMP Sensor 1 circuit malfunction – bank 1	Start engine; momentarily race the engine; stop engine Repeat 2 additional times Idle engine 1 minute	2	N	ECM Default: – Bank 1 and bank 2 VVT valves set to full retard	PI1 –094 –095	CMP Sensor disconnected CMP Sensor gap incorrect / foreign matter on sensor face CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage CMP Sensor 1 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0341	EMS OBD II	CMP Sensor 1 circuit range / performance – bank 1	Start engine; momentarily race the engine; stop engine Repeat 2 additional times Idle engine 1 minute	2	N	ECM Default: – Bank 1 and bank 2 VVT valves set to full retard	P11 –094 –095	CMP Sensor disconnected CMP Sensor gap incorrect / foreign matter on sensor face CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage CMP Sensor 1 failure
P0345*	EMS OBD II	CMP Sensor 2 circuit malfunction – bank 2 * P0345 Early production vehicles; P1340 later production vehicles	Start engine; momentarily race the engine; stop engine Repeat 2 additional times Idle engine 1 minute	2	N	ECM Default: – Bank 1 and bank 2 VVT valves set to full retard	P11 –068 –069	CMP Sensor disconnected CMP Sensor gap incorrect / foreign matter on sensor face CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage CMP Sensor 2 failure
P0346*	EMS OBD II	CMP Sensor 2 circuit range / performance – bank 2 * P0346 Early production vehicles; P1341 later production vehicles	Start engine; momentarily race the engine; stop engine Repeat 2 additional times Idle engine 1 minute	2	N	ECM Default: – Bank 1 and bank 2 VVT valves set to full retard	P11 –068 –069	CMP Sensor disconnected CMP Sensor gap incorrect / foreign matter on sensor face CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage CMP Sensor 2 failure
P0351	EMS OBD II	Ignition module primary circuit malfunction – cylinder 1	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 sub feedback control inhibited – Bank 1 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 1)	P11 –087	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0352	EMS OBD II	Ignition module primary circuit malfunction – cylinder 2	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 sub feedback control inhibited – Bank 2 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 2)	PI1 –061	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure
P0353	EMS OBD II	Ignition module primary circuit malfunction – cylinder 3	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 sub feedback control inhibited – Bank 1 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 3)	PI1 –088	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0354	EMS OBD II	Ignition module primary circuit malfunction – cylinder 4	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 sub feedback control inhibited – Bank 2 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 4)	PI1 -062	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure
P0355	EMS OBD II	Ignition module primary circuit malfunction – cylinder 5	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 sub feedback control inhibited – Bank 1 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 5)	PI1 -089	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0356	EMS OBD II	Ignition module primary circuit malfunction – cylinder 6	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 sub feedback control inhibited – Bank 2 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 6)	PI1 –063	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure
P0357	V8 EMS OBD II	Ignition module primary circuit malfunction – cylinder 7	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 1 closed loop fuel metering inhibited – Bank 1 sub feedback control inhibited – Bank 1 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 7)	PI1 –090	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0358	V8 EMS OBD II	Ignition module primary circuit malfunction – cylinder 8	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Bank 2 closed loop fuel metering inhibited – Bank 2 sub feedback control inhibited – Bank 2 adaptive fuel metering inhibited – Maximum engine speed reduced – Fuel injection cut off (cylinder 8)	P11 –064	ECM to ignition module / coil primary circuit: open circuit, short circuit to ground, high resistance Ignition module / coil ground circuit: open circuit, high resistance Ignition module / coil B+ voltage supply circuit: open circuit Ignition module / coil failure
P0400	V8 EMS OBD II	EGR flow malfunction	EGR Monitor drive cycle – page 8	2	N	None	—	EGR valve incorrectly fitted or loose EGR pipe blocked EGR valve stuck open / closed, blocked EGR valve failure
P0405	V8 EMS OBD II	EGR valve drive circuits low voltage	Ignition ON 10 seconds	2	N	None	IP1 –057 –058 –059 –060	EGR valve power supply circuit open circuit EGR valve to ECM drive circuit pair (EGR valve pins 1 / 4, 6 / 3): open circuit, high resistance EGR valve failure (stepper motor open circuit)
P0406	V8 EMS OBD II	EGR valve drive circuits high voltage	Ignition ON 10 seconds	2	N	None	IP1 –057 –058 –059 –600	EGR valve to ECM drive circuit pair (EGR valve pins 1 / 4, 6 / 3): short circuit to ground or high voltage EGR valve failure (stepper motor short circuit)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0420	EMS OBD II	Catalytic converter system efficiency below threshold – bank 1	Catalyst efficiency monitor drive cycle – page 6 * If a replacement new catalyst fails the catalyst efficiency monitor test causing DTC P0420 to be flagged, drive the vehicle 16 kilometres (10 miles) and repeat the drive cycle.	2	N	None	—	Catalyst failure* due to following causes: – Thermal melt-down – Fractured or mis-shaped substrate – Poisoned substrate from high oil consumption or incorrect fuel Upstream and downstream HO2 Sensors swapped positions HO2 Sensor to ECM wiring fault HO2 Sensor heater to ECM wiring fault HO2 Sensor heater failure Upstream HO2 Sensor failure Downstream HO2 Sensor failure
P0430	EMS OBD II	Catalytic converter system efficiency below threshold – bank 2	Catalyst efficiency monitor drive cycle – page 6 * If a replacement new catalyst fails the catalyst efficiency monitor test causing DTC P0420 to be flagged, drive the vehicle 16 kilometres (10 miles) and repeat the drive cycle.	2	N	None	—	Catalyst failure* due to following causes: – Thermal melt-down – Fractured or mis-shaped substrate – Poisoned substrate from high oil consumption or incorrect fuel Upstream and downstream HO2 Sensors swapped positions HO2 Sensor to ECM wiring fault HO2 Sensor heater to ECM wiring fault HO2 Sensor heater failure Upstream HO2 Sensor failure Downstream HO2 Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0442	EMS OBD II	EVAP system leak detected – small (0.040 in.)	Evaporative system monitor drive cycle – page 7	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	—	Fuel cap seal defective EVAP system leak (canister damage, pipework damage) EVAP Canister purge valve to ECM drive circuit: open circuit, short circuit, high resistance EVAP Canister purge valve power supply circuit: open circuit, short circuit EVAP Canister purge valve to engine purge pipe: restricted, leaking, disconnected EVAP Canister purge valve operating vacuum hose leak / restriction EVAP Canister purge valve failure Fuel tank leak
P0443	EMS OBD II	EVAP canister purge valve circuit malfunction (This fault will be detected as part of the 0.040 inch EVAP test. Refer to page 7.)	Evaporative system monitor drive cycle – page 7	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	PI1 –066	EVAP Canister purge valve failure (leaking)
P0444	EMS OBD II	EVAP canister purge valve circuit open circuit	Evaporative system monitor drive cycle – page 7	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	PI1 –066	EVAP Canister purge valve disconnected EVAP Canister purge valve to ECM drive circuit: open circuit, high resistance EVAP Canister purge valve failure
P0445	EMS OBD II	EVAP canister purge valve circuit short circuit	Evaporative system monitor drive cycle – page 7	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	PI1 –066	EVAP Canister purge valve to ECM drive circuit: short circuit to ground EVAP Canister purge valve failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0446	EMS OBD II	EVAP canister close valve circuit malfunction (This fault will be detected as part of the 0.040 inch EVAP test. Refer to page 7.)	Evaporative system monitor drive cycle – page 7	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	PI1 –067	Fuel tank / EVAP canister atmospheric port: restricted, blocked EVAP canister close valve failure (stuck closed)
P0447	EMS OBD II	EVAP canister close valve circuit open circuit	Ignition ON 10 seconds	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	PI1 –067	EVAP canister close valve power supply circuit: open circuit, short circuit EVAP canister close valve to ECM drive circuit: open circuit, high resistance, short circuit to B+ voltage EVAP canister close valve failure
P0448	EMS OBD II	EVAP canister close valve circuit short circuit	Ignition ON 10 seconds	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	PI1 –067	EVAP canister close valve to ECM drive circuit: short to ground EVAP canister close valve failure
P0450	EMS OBD II	FTP Sensor circuit malfunction (This fault will be detected as part of the 0.040 inch EVAP test. Refer to page 7.)	Evaporative system monitor drive cycle – page 7	2	N	None	PI1 –104	FTP Sensor failure
P0452	EMS OBD II	FTP Sensor circuit low voltage (low pressure)	Ignition ON 10 seconds	2	N	None	PI1 –104	FTP Sensor disconnected FTP Sensor to ECM sense circuit: open circuit, short circuit to ground FTP Sensor to splice sensor supply circuit: open circuit, high resistance FTP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0453	EMS OBD II	FTP Sensor circuit high voltage (high pressure)	Ignition ON 10 seconds	2	N	None	PI1 -104	FTP Sensor to splice sensor ground circuit: open circuit, high resistance FTP Sensor to ECM sense circuit: short circuit to high voltage FTP Sensor failure
P0455	EMS OBD II	EVAP system leak detected – large (This fault will be detected as part of the 0.040 inch EVAP test. Refer to page 7.)	Evaporative system monitor drive cycle – page 7	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	—	Fuel cap off Fuel cap seal defective / missing EVAP system leak (canister damage, pipework damage) EVAP Canister purge valve to engine purge pipe: blocked, leaking, disconnected EVAP Canister purge valve failure (stuck closed or stuck open) Fuel tank leak
P0456	EMS OBD II	EVAP system leak detected – very small (0.020 in.)	Evaporative system monitor drive cycle – page 7	2	N	ECM Default: – Canister purge inhibited – Adaptive fuel metering inhibited	—	Fuel cap not fitted correctly Fuel cap seal defective EVAP system leak (canister damage, pipework damage) EVAP canister leaking EVAP canister close valve failure Fuel tank leak
P0460	EMS OBD II	Fuel level sensor(s) circuit range / performance	Fuel tank empty Fill in stages: 1 / 4, 1/2, 3 / 4, full Check fuel gauge reading at each stage	2	N	None	—	Fuel level sensor to Rear Electronic Control Module circuit(s): intermittent short circuit, open circuit, high resistance Fuel level sensor failure Rear Electronic Control Module fault (incorrect fuel level data)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0480	EMS OBD II	Radiator cooling fan module drive circuit malfunction	Start engine Battery voltage > 12 volts Idle for 2 minutes	N	N	ECM Default: - With ignition ON, fan operates at maximum speed	P11 -051	ECM to radiator cooling fan module drive circuit: short circuit, open circuit, high resistance Radiator cooling fan / module fault
P0506	EMS OBD II	Idle RPM lower than expected	Start engine and drive until normal engine operating temperature > 82 °C (180 °F) Stop vehicle and idle 30 seconds Drive vehicle for 2 minutes Stop vehicle and idle 30 seconds Repeat drive / idle two additional times	2	N	None	—	Air intake restriction Accessory drive overload (defective / seized component) Throttle valve stuck closed Throttle body failure
P0507	EMS OBD II	Idle RPM higher than expected	Start engine and drive until normal engine operating temperature > 82 °C (180 °F) Stop vehicle and idle 30 seconds Drive vehicle for 2 minutes Stop vehicle and idle 30 seconds Repeat drive / idle two additional times	2	N	None	—	Intake air leak between MAF sensor and throttle Intake air leak between throttle and engine Engine crankcase breather leak Throttle valve stuck open Throttle body failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0532	EMS JAG	Air conditioning pressure sensor circuit low voltage (high pressure)	Start engine Use WDS to monitor air conditioning pressure sensor signal voltage Set climate control to a low temperature; operate for 2 minutes Switch off climate control; wait 2 minutes	N	N	ECM Default: – Air conditioning compressor clutch inhibited	PI1 –121	Air conditioning pressure sensor disconnected Air conditioning pressure sensor to ECM sense circuit: open circuit, short circuit to ground Air conditioning pressure sensor to splice sensor supply circuit: open circuit, high resistance Air conditioning pressure sensor failure
P0533	EMS JAG	Air conditioning pressure sensor circuit high voltage (low pressure)	Start engine Use WDS to monitor air conditioning pressure sensor signal voltage Set climate control to a low temperature; operate for 2 minutes Switch off climate control; wait 2 minutes	N	N	ECM Default: – Air conditioning compressor clutch inhibited	PI1 –121	Air conditioning pressure sensor to splice sensor ground circuit: open circuit, high resistance Air conditioning pressure sensor to ECM sense circuit: short circuit to high voltage Air conditioning pressure sensor failure
P0560	EMS OBD II	Battery power supply voltage malfunction	Engine temperature cool (cooling fans not running) Remove ignition key for 20 seconds (cooling fans not running) Ignition key in, position II for 5 seconds (do not start) Repeat cycle two additional times	2	N	None	PI1 –022	ECM battery power supply open circuit, high resistance

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0566	EMS JAG	Speed control CANCEL switch ON fault	Ignition ON 45 seconds	N	A	ECM Default: – Speed control inhibited	PI1 –047	Speed control switches internal steering wheel circuit: short circuit to ground Steering wheel cassette reel: short circuit to ground Cassette reel to ECM circuit: short circuit to ground CANCEL switch failure (stuck ON)
P0567	EMS JAG	Speed control RESUME switch ON fault	Ignition ON 45 seconds	N	A	ECM Default: – Speed control inhibited	PI1 –047	Speed control switches internal steering wheel circuit: short circuit to ground Steering wheel cassette reel: short circuit to ground Cassette reel to ECM circuit: short circuit to ground RESUME switch failure (stuck ON)
P0568	EMS JAG	Speed control input signal low / high resistance	Ignition ON 45 seconds	N	A	ECM Default: – Speed control inhibited	PI1 –047	Speed control switches internal steering wheel circuit: open circuit; high resistance Steering wheel cassette reel open circuit, high resistance Cassette reel to ECM circuit: open circuit, high resistance
P0569	EMS JAG	Speed control SET / – switch ON fault	Ignition ON for more than 5 minutes	N	A	ECM Default: – Speed control inhibited	PI1 –047	Speed control switches internal steering wheel circuit: short circuit to ground Steering wheel cassette reel: short circuit to ground Cassette reel to ECM circuit: short circuit to ground SET / – switch failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0570	EMS JAG	Speed control SET / + switch ON fault	Ignition ON for more than 5 minutes	N	A	ECM Default: – Speed control inhibited	PI1 –047	Speed control switches internal steering wheel circuit: short circuit to ground Steering wheel cassette reel: short circuit to ground Cassette reel to ECM circuit: short circuit to ground SET / + switch failure
P0603	EMS OBD II	ECM Keep alive memory error	Engine temperature cool (cooling fans not running) Remove ignition key for 20 seconds (cooling fans not running) Ignition key in, position II for 5 seconds (do not start) Repeat cycle two additional times	2	N	None	—	ECM Failure
P0605	TRANS OBD II	TCM Self test error	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	—	TCM failure
P0606	TRANS OBD II	TCM “Watch dog” circuit malfunction	Ignition ON 10 seconds	N	A	TCM Default: – Mechanical limp home mode	—	TCM failure
P0610	TRANS JAG	TCM Configuration error	Ignition ON 10 seconds	N	A	TCM Default: – Mechanical limp home mode	—	Reconfigure TCM and / or ECM using WDS

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0616	EMS OBD II	Starter relay drive circuit low voltage / starter relay request on (ignition switch position III START)	Ignition ON Battery voltage > 12 volts P or N selected Crank engine for more than 2 seconds	2	N	None	PI1 -041	Starter relay drive circuit: open circuit, high resistance Starter relay failure
P0617	EMS OBD II	Starter relay drive circuit high voltage / starter relay request on (ignition switch position III START)	Ignition ON Battery voltage > 12 volts Automatic – P or N selected; manual – clutch fully pressed Crank engine for more than 2 seconds	2	N	None	PI1 -041	Starter relay drive circuit: short circuit to high voltage Starter relay failure
P0641	TRANS OBD II	Sensor supply voltage circuit malfunction	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0646	EMS OBD II	A/C Compressor clutch relay drive circuit low voltage (CAN A/C compressor clutch request OFF)	Start engine Climate control system OFF Idle for 10 seconds	2	N	None	PI1 -034	A/C Compressor clutch relay drive circuit: open circuit, high resistance A/C Compressor clutch relay failure
P0647	EMS OBD II	A/C Compressor clutch relay drive circuit high voltage (CAN A/C compressor clutch request ON)	Start engine Climate control system ON – full cooling Idle for 2 minutes	2	N	None	PI1 -034	A/C Compressor clutch relay drive circuit: short circuit to high voltage A/C Compressor clutch relay failure
P0651	TRANS OBD II	Pressure regulator and shift solenoid supply circuit malfunction	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0666	TRANS JAG	Substrate temperature sensor circuit malfunction	Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes. Coast to a stop.	N	N	None	—	TCM / Control valve failure
P0701	TRANS OBD II	TCM control errors	Drive vehicle from stop to 113 km/h (70 mph). Coast to a stop.	2	A	TCM Default: – Mechanical limp home mode	—	DSC Fault (Check for DSC DTCs) TCM / Control valve failure
P0702	TRANS OBD II	TCM Battery power supply low voltage (short time)	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	GB2 -14	Battery power supply fuse failure Battery power supply: intermittent open circuit
P0705	TRANS OBD II	Gear position switch circuit malfunction	Switch ignition ON. Move the gear selector slowly from P to the 2 position, then back to P	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0706	TRANS JAG	J-Gate selector position plausibility fault	Switch ignition ON. Move the gear selector slowly from P to the 2 position, then back to P	N	A	TCM Default: – Shift strategy fixed – J-Gate "manual" function disabled – If selected, Sport Mode disabled	—	TCM / J-Gate Module CAN fault J-Gate Module failure
P0709	TRANS JAG	J-Gate selector Intermediate position fault	Switch ignition ON. Move the gear selector slowly from P to the 2 position, then back to P	N	A	TCM Default: – Shift strategy fixed – J-Gate "manual" function disabled – If selected, Sport Mode disabled	—	J-Gate Module failure
P0710	TRANS JAG	Transmission fluid temperature sensor circuit malfunction	Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes. Coast to a stop.	N	N	None	—	TCM / TCM Fluid temperature sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0711	TRANS JAG	Transmission fluid (ATF) temperature range fault	Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes. Coast to a stop.	N	N	None	—	Transmission fluid over-temperature: drain and replace transmission fluid
P0715	TRANS OBD II	Turbine speed sensor circuit failure	Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes. Coast to a stop.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Turbine speed sensor failure
P0720	TRANS JAG	Output speed sensor circuit failure	Drive vehicle from stop to 113 km/h (70 mph). Coast to a stop.	N	N	TCM Default: – Mechanical limp home mode – Substitute DSC vehicle speed for transmission output speed	—	TCM / Control valve failure
P0721	TRANS OBD II	Output speed sensor signal gradient fault	Drive vehicle from stop to 113 km/h (70 mph). Coast to a stop.	2	A	TCM Default: – Mechanical limp home mode – Substitute DSC vehicle speed for transmission output speed	—	Transmission mechanical failure TCM / Control valve failure
P0725	TRANS OBD II	Engine over-speed range fault	Using full acceleration, drive vehicle from stop to 113 km/h (70 mph). Coast to a stop.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / ECM CAN Fault
P0729	TRANS OBD II	Sixth gear ratio fault	Drive vehicle from stop to 113 km/h (70 mph). Ensure that Sixth gear is engaged by moving the gear selector to the 5 position and observing that the transmission down shifts. Coast to a stop.	2	A	TCM Default: – Mechanical limp home mode	—	ECM Torque signal fault Transmission mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0730	TRANS JAG	Gear ratio fault	Drive vehicle from stop to 113 km/h (70 mph). Ensure that Sixth gear is engaged by moving the gear selector to the 5 position and observing that the transmission down shifts. Coast to a stop	N	N	None	—	ECM Torque signal fault Transmission mechanical failure
P0731	TRANS OBD II	First gear ratio fault	Start vehicle and select gear position 2. Accelerate hard until the engine speed reaches 4500 rpm, after the transmission has shifted to second gear. Stop the vehicle. Repeat two additional times	2	A	TCM Default: – Mechanical limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0732	TRANS OBD II	Second gear ratio fault	Start vehicle and select gear position 2. Accelerate the vehicle until second gear is engaged. Drive the vehicle for 5 minutes in second gear. Vary the vehicle speed and acceleration rate.	2	A	TCM Default: – Mechanical limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0733	TRANS OBD II	Third gear ratio fault	Start vehicle and select gear position 3. Accelerate the vehicle until third gear is engaged. Drive the vehicle for 5 minutes in third gear. Vary the vehicle speed and acceleration rate.	2	A	TCM Default: – Mechanical limp home mode	—	ECM Torque signal fault Transmission mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0734	TRANS OBD II	Fourth gear ratio fault	Start vehicle and select gear position 4. Accelerate the vehicle until fourth gear is engaged. Drive the vehicle for 5 minutes in fourth gear. Vary the vehicle speed and acceleration rate.	2	A	TCM Default: – Mechanical limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0735	TRANS OBD II	Fifth gear ratio fault	Start vehicle and select gear position 5. Accelerate the vehicle until fifth gear is engaged. Drive the vehicle for 5 minutes in fifth gear. Vary the vehicle speed and acceleration rate.	2	A	TCM Default: – Mechanical limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0736	TRANS OBD II	Reverse gear ratio fault	Start vehicle and select REVERSE gear. Accelerate the vehicle at different rates for 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0740	TRANS OBD II	Torque converter clutch pressure regulator solenoid circuit malfunction	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0741	TRANS JAG	Torque converter clutch pressure regulator solenoid stuck open	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	N	N	TCM Default: – Deactivate torque converter clutch pressure regulator; lock up clutch disabled	—	TCM / Control valve failure Transmission mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0743	TRANS OBD II	Torque converter clutch pressure regulator solenoid circuit plausibility error	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0750	TRANS OBD II	Pressure regulator solenoid 1 circuit malfunction	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0753	TRANS OBD II	Pressure regulator solenoid 1 circuit plausibility error	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0755	TRANS OBD II	Pressure regulator solenoid 2 circuit malfunction	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0758	TRANS OBD II	Pressure regulator solenoid 2 circuit plausibility error	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0760	TRANS OBD II	Pressure regulator solenoid 3 circuit malfunction	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0763	TRANS OBD II	Pressure regulator solenoid 3 circuit plausibility error	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0765	TRANS OBD II	Pressure regulator solenoid 4 circuit malfunction	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0768	TRANS OBD II	Pressure regulator solenoid 4 circuit plausibility error	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0770	TRANS OBD II	Pressure regulator solenoid 5 circuit malfunction	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0773	TRANS OBD II	Pressure regulator solenoid 5 circuit plausibility error	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0780	TRANS JAG	Gear load fault	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	N	N	None	—	ECM Torque signal fault Transmission mechanical failure
P0781	TRANS OBD II	1–2 / 2–1 Gear load fault	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Electronic limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0782	TRANS OBD II	2–3 / 3–2 Gear load fault	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Electronic limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0783	TRANS OBD II	3–4 / 4–3 Gear load fault	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Electronic limp home mode	—	ECM Torque signal fault Transmission mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0784	TRANS OBD II	4-5 / 5-4 Gear load fault	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Electronic limp home mode	—	ECM Torque signal fault Transmission mechanical failure
P0787	TRANS OBD II	Shift solenoid circuit malfunction	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0788	TRANS OBD II	Shift solenoid circuit plausibility error	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Mechanical limp home mode	—	TCM / Control valve failure
P0825	TRANS JAG	J-Gate positions R, D plausibility error	Ignition ON. Slowly move gear selector from Park to Drive, then back to Park.	N	A	None	—	J-Gate incorrectly adjusted J-Gate Module failure
P0829	TRANS OBD II	5-6 Gear load fault	Drive the vehicle at 113 km/h (70 mph), then reduce the throttle angle until the torque convertor locks. Ensure that the torque convertor remains locked for at least 1 minute.	2	A	TCM Default: – Electronic limp home mode	—	ECM Torque signal fault Transmission mechanical failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0831	TRANS (ECM*) OBD II	Clutch cancel switch low voltage (switch normally closed) * Manual transmission input to ECM	Drive vehicle 60 – 100 km/h (37 – 62 mph); V6: 1800 – 3000 rpm; engine load >0.60 g/rpm V8:1800 – 2500 rpm; engine load >0.40 g/rpm Continue for 30 seconds	2	N	None	PI1 -033	Clutch cancel switch supply circuit: open circuit Clutch cancel switch to ECM circuit: open circuit, high resistance Clutch cancel switch failure
P0832	TRANS (ECM*) OBD II	Clutch cancel switch high voltage (switch normally closed) * Manual transmission input to ECM	Drive vehicle > 10 km/h (6 mph); shift from 1st to 2nd; stop vehicle Repeat 6 times	2	N	None	PI1 -033	Clutch cancel switch to ECM circuit: short circuit to high voltage Clutch cancel switch failure
P0834	TRANS (ECM*) JAG	Clutch pedal safety switch low voltage (switch normally open) * Manual transmission input to ECM	Drive vehicle > 10 km/h (6 mph); shift from 1st to 2nd; stop vehicle Repeat 30 times	N	N	None	PI1 -031	Clutch pedal safety switch supply circuit: open circuit Clutch pedal safety switch to ECM circuit: open circuit, high resistance Clutch pedal safety switch failure
P0835	TRANS (ECM*) JAG	Clutch pedal safety switch high voltage (switch normally open) * Manual transmission input to ECM	Drive vehicle 60 – 100 km/h (37 – 62 mph); V6: 1800 – 3000 rpm; engine load >0.60 g/rpm V8: 1800 – 2500 rpm; engine load >0.40 g/rpm Continue for 30 seconds	N	N	None	PI1 -031	Clutch pedal safety switch to ECM circuit: short circuit to high voltage Clutch pedal safety switch failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P0860	TRANS (ECM*) JAG	J-Gate CAN network malfunction * J-Gate / CAN monitored by ECM	Ignition ON 10 seconds	N	A	ECM Default: – Speed control inhibited – Maximum throttle opening for N range inhibited – Throttle opening limited to 30% – Maximum engine speed reduced	PI1 –123 –124	CAN open circuit fault CAN short circuit fault J-Gate failure
P1000	EMS JAG	System (OBD) check not complete since last memory clear	System Readiness Test	N	N	None	—	Refer to page 3
P1104	EMS OBD II	MAF Sensor ground malfunction	Ignition ON 10 seconds	2	A	ECM Default: – Calculated default air mass used – Adaptive fuel metering inhibited – Sub feedback control inhibited – Catalyst warm up ignition retard inhibited – EGR inhibited (V8) – Canister purge inhibited – Maximum engine speed reduced	PI1 –045 –046	MAF Sensor to ECM sensor ground circuit open circuit, short circuit to high voltage, high resistance MAF Sensor to ECM sensing circuit: open circuit MAF Sensor failure
P1107	EMS OBD II	MAP Sensor sense circuit low voltage	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 1.013 BAR (29.92 in hg) used	PI1 –127	MAP Sensor to ECM sense circuit: open circuit, short circuit to ground MAP Sensor sensor supply circuit (to splice): open circuit MAP Sensor failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1108	EMS OBD II	MAP Sensor sense circuit high voltage	Ignition ON 10 seconds	2	N	ECM Default: – Default value of 1.013 BAR (29.92 in hg) used	PI1 –127	MAP Sensor sensor ground circuit (to splice): open circuit MAP Sensor to ECM sense circuit: short circuit to high voltage MAP Sensor failure
P1111	EMS JAG	System (OBD) checks complete since last memory clear	System Readiness Test	N	N	None	—	Refer to page 3
P1122	EMS OBD II	APP Sensor sense circuit low voltage – APP1	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – APP angle default value used – Speed control inhibited – APP adaptations (wear, variance) inhibited	PI1 –102	APP Sensor to ECM sense circuit (APP1): open circuit, short circuit to ground, high resistance APP Sensor sensor supply circuit: open circuit, high resistance APP Sensor failure
P1123	EMS OBD II	APP Sensor sense circuit high voltage – APP1 NOTE: This DTC could be flagged by both sensor element sensing circuit having faults.	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – APP angle default value used – Speed control inhibited – APP adaptations (wear, variance) inhibited	PI1 –102 –103	APP Sensor sensor to ECM sense circuit(s) (APP1 or APP2): short circuit to high voltage APP Sensor sensor ground circuit(s): open circuit APP Sensor failure
P1146	V6 EMS OBD II	Generator “CONTROL” circuit low voltage / request high	Battery voltage > 12 volts Switch OFF all electrical consumers Start engine; idle for 16 minutes with all electrical consumers switched OFF	2	C	None	PI1 –053	Generator to ECM “CONTROL” circuit: open circuit, high resistance Generator regulator failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1215	EMS OBD II	APP Sensor sense circuit low voltage – APP2	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – APP angle default value used – Speed control inhibited – APP adaptations (wear, variance) inhibited	PI1 –103	APP Sensor to ECM sense circuit (APP2): open circuit, short circuit to ground, high resistance APP Sensor sensor supply circuit (to splice): open circuit, high resistance APP Sensor failure
P1216	EMS OBD II	APP Sensor sense circuit high voltage – APP2 NOTE: This DTC could be flagged by both sensor element sensing circuit having faults.	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – APP angle default value used – Speed control inhibited – APP adaptations (wear, variance) inhibited	PI1 –102 –103	APP Sensor sensor to ECM sense circuit(s) (APP2 or APP1): short circuit to high voltage APP Sensor sensor ground circuit(s) (to splice): open circuit APP Sensor failure
P1224	EMS OBD II	Throttle control position error	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – Engine shut down – Speed control disabled	PI1 –080 –106 –052 –134	Throttle motor failure Throttle body failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1229	EMS OBD II	Throttle motor control circuit malfunction	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited – Speed control disabled	PI1 –080 –106 –052 –134 –004 –005 –054	Throttle motor disconnected Throttle motor to ECM drive circuits: short circuit or open circuit ECM ground circuit fault(s) (PI1–004, 005, 054) Throttle motor failure Throttle body failure
P1233	V8 SC EMS OBD II	Fuel pump 2 drive circuit fault	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	N	ECM Default: – Fuel pump 2 feedback control inhibited	PI1 –053	ECM to Fuel Pump 2 Module control drive circuit: open circuit, short circuit, high resistance Fuel Pump 2 Module failure
P1234	EMS OBD II	No fuel pump (1 SC) commands received by ECM	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	N	ECM Default: – Fuel pump feedback control inhibited	PI1 –027	ECM to Rear Electronic Control Module drive circuit: open circuit, short circuit, high resistance Rear Electronic Control Module failure
P1236	EMS OBD II	Fuel pump (1 SC) not activated when requested by ECM	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	N	ECM Default: – Fuel pump feedback control inhibited	PI1 –027	ECM to Rear Electronic Control Module drive circuit: open circuit, short circuit, high resistance Rear Electronic Control Module failure
P1240	EMS OBD II	Sensor power supply circuit malfunction	Ignition ON 10 seconds	2	R	None	PI1 –012 –013	ECM to sensors sensor supply voltage circuit(s): short circuit to ground, short circuit to high voltage, open circuit, high resistance

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1241	EMS OBD II	Sensor power supply circuit low voltage	Ignition ON 10 seconds	2	R	ECM Default: <ul style="list-style-type: none"> - Throttle motor and throttle motor relay disabled - Throttle valve opening set to default value - Idle speed controlled by fuel injection intervention - Idle speed adaption inhibited 	P11 -012 -013	ECM to sensors sensor supply voltage circuit(s): short circuit to ground
P1242	EMS OBD II	Sensor power supply circuit high voltage	Ignition ON 10 seconds	2	R	ECM Default: <ul style="list-style-type: none"> - Throttle motor and throttle motor relay disabled - Throttle valve opening set to default value - Idle speed controlled by fuel injection intervention - Idle speed adaption inhibited 	P11 -012 -013	ECM to sensors supply voltage circuit(s): open circuit, high resistance, short circuit to high voltage
P1243	EMS OBD II	Sensor ground circuits open circuit	Ignition ON 10 seconds	2	N	None	P11 -019 -020	ECM to sensors sensor ground circuit(s): open circuit, high resistance
P1244	V6EMS OBD II	Generator "CONTROL" circuit high voltage / request low	Battery voltage > 12 volts Switch OFF all electrical consumers Start engine; idle for 16 minutes with all electrical consumers switched OFF	2	C	ECM Default: <ul style="list-style-type: none"> - Cooling fan speed increased 	P11 -053	Generator to ECM "CONTROL" circuit: short circuit to high voltage Generator regulator failure Generator failure
P1245	EMS OBD II	Engine crank signal low voltage	Remove starter relay Turn ignition switch to position III (START); hold for > 1 second	2	N	None	P11 -006	Ignition switch to ECM circuit: open circuit Ignition switch failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1246	EMS OBD II	Engine crank signal high voltage	Drive vehicle > 15 km/h (9 mph) between 1500 – 4000 rpm for 10 seconds; stop vehicle Repeat 5 times	2	N	None	P11 -006	Ignition switch to ECM circuit: short circuit to high voltage Ignition switch failure
P1250	EMS OBD II	Throttle valve return spring malfunction	Idle engine Switch OFF ignition for 10 seconds Start engine and repeat	2	R	ECM Default: – Vehicle speed limited – Throttle opening limited to 30% – Speed control inhibited	—	Throttle return spring failure (throttle body failure)
P1251	EMS OBD II	Throttle motor relay OFF failure	Engine temperature cool (cooling fans not running) Remove ignition key for 20 seconds (cooling fans not running) Ignition key in, position II for 5 seconds (do not start) Repeat cycle two additional times	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	P11 -052	Throttle motor relay coil power supply circuit: open circuit (fuse) Throttle motor relay failure Throttle motor relay coil to ECM circuit: open circuit ECM ground circuit fault (relay coil drive)
P1254	EMS OBD II	Throttle “limp home” spring malfunction	Idle engine Switch OFF ignition for 10 seconds Start engine and repeat	2	R	ECM Default: – Vehicle speed limited – Throttle opening limited to 30% – Speed control inhibited	—	Throttle limp home spring failure (throttle body failure)

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1260	EMS JAG	Security input malfunction	Start engine	N	N	None	—	Invalid ignition key code Passive anti-theft system (PATS) signal to instrument pack missing or corrupted Security message (PATS) CAN failure NOTE: To clear this DTC, the failure must first be rectified, followed by an ignition ON cycle to allow a successful PATS identification exchange between the ECM and the IC. The fault code can then be cleared.
P1313	EMS OBD II	Misfire rate catalyst damage – bank 1 NOTE: This DTC will flag only when accompanied by an individual cylinder misfire DTC: P0300 – P0308.	Misfire monitor drive cycle – page 6	2	A	ECM Default: – Maximum engine speed reduced	—	Cylinder compression low Worn camshaft / broken valve spring(s) Fuel delivery pressure (low / high) Fuel injector(s) restricted / leaking Fuel injector(s) continuously open Fuel contamination Fuel injector circuit fault(s) (Injector DTCs also flagged) Spark plug failure / fouled / incorrect gap ECM to ignition coil primary circuit fault (Cylinder misfire detected DTC also flagged) Ignition coil failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1314	EMS OBD II	Misfire rate catalyst damage – bank 2 NOTE: This DTC will flag only when accompanied by an individual cylinder misfire DTC: P0300 – P0308.	Misfire monitor drive cycle – page 6	2	A	ECM Default: – Maximum engine speed reduced	—	Cylinder compression low Worn camshaft / broken valve spring(s) Fuel delivery pressure (low / high) Fuel injector(s) restricted / leaking Fuel injector(s) continuously open Fuel contamination Fuel injector circuit fault(s) (Injector DTCs also flagged) Spark plug failure / fouled / incorrect gap ECM to ignition coil primary circuit fault (Cylinder misfire detected DTC also flagged) Ignition coil failure
P1316	EMS OBD II	Misfire excess emission NOTE: This DTC will flag only when accompanied by an individual cylinder misfire DTC: P0300 – P0308.	Misfire monitor drive cycle – page 6	2	N	None	—	Cylinder compression low Worn camshaft / broken valve spring(s) Fuel delivery pressure (low / high) Fuel injector(s) restricted / leaking Fuel injector(s) continuously open Fuel contamination Fuel injector circuit fault(s) (Injector DTCs also flagged) Spark plug failure / fouled / incorrect gap ECM to ignition coil primary circuit fault (Cylinder misfire detected DTC also flagged) Ignition coil failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1338	EMS OBD II	Fuel pump (1 SC) drive circuit low / high voltage	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	N	ECM Default: – Fuel pump feedback control inhibited	PI1 –027	Rear Electronic Control Module to fuel pump drive circuit: open circuit, short circuit, high resistance Rear Electronic Control Module failure Fuel pump failure
P1339	V8 SC EMS OBD II	Fuel pump 2 drive circuit low voltage / high voltage fault	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	N	ECM Default: – Fuel pump 2 feedback control inhibited	PI1 –053 –011	Fuel Pump 2 Module to fuel pump drive circuit: open circuit, short circuit, high resistance Fuel Pump 2 Module to ECM monitor circuit: open circuit, short circuit, high resistance Fuel Pump 2 Module failure Fuel pump 2 failure
P1340	EMS OBD II	CMP Sensor 2 circuit malfunction – bank 2	Start engine; momentarily race the engine; stop engine Repeat 2 additional times Idle engine 1 minute	2	N	ECM Default: – Bank 1 and bank 2 VVT valves set to full retard	PI1 –068 –069	CMP Sensor disconnected CMP Sensor gap incorrect / foreign matter on sensor face CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage CMP Sensor 2 failure
P1341	EMS OBD II	CMP Sensor 2 circuit range / performance – bank 2	Start engine; momentarily race the engine; stop engine Repeat 2 additional times Idle engine 1 minute	2	N	ECM Default: – Bank 1 and bank 2 VVT valves set to full retard	PI1 –068 –069	CMP Sensor disconnected CMP Sensor gap incorrect / foreign matter on sensor face CMP Sensor sensing circuit: open circuit, short circuit to ground, short circuit to high voltage CMP Sensor 2 failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1344	EMS OBD II	APP Sensor sense circuits APP1 and APP2 range / performance	Battery voltage > 10 volts Ignition ON Slowly press accelerator pedal to the floor over a 5 second period Slowly return the pedal to rest Repeat 3 times	2	R	ECM Default: – APP angle default value used – Speed control inhibited – APP adaption (wear, variance) inhibited	PI1 –102 –103	APP Sensor to ECM sense circuits: short circuit, open circuit, high resistance APP Sensor sensor supply circuits: short circuit, open circuit, high resistance APP Sensor sensor ground circuits: open circuit APP Sensor failure
P1367	EMS OBD II	Ignition module(s) / coil(s) bank 1 fault	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Closed loop fuel metering inhibited – Adaptive fuel metering inhibited – Catalyst warm up ignition retard inhibited – EGR Inhibited (V8) – Canister purge inhibited – Maximum engine speed reduced – Fuel injection cut off (bank 1)	PI1 –131	Ignition monitoring circuit between splice and ECM: open circuit, short circuit to ground, short circuit to B+ voltage Ignition module(s) / coil(s) bank 1 ground circuit fault

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1368	EMS OBD II	Ignition module(s) / coil(s) bank 2 fault	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Closed loop fuel metering inhibited – Adaptive fuel metering inhibited – Catalyst warm up ignition retard inhibited – EGR Inhibited (V8) – Canister purge inhibited – Maximum engine speed reduced – Fuel injection cut off (bank 2)	P11 –132	Ignition monitoring circuit between splice and ECM: open circuit, short circuit to ground, short circuit to B+ voltage Ignition module(s) / coil(s) bank 2 ground circuit fault
P1384	EMS OBD II	VVT solenoid malfunction – bank 1	Idle engine 30 seconds Accelerate from stop through complete engine rpm range; coast to a stop Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes; coast to a stop Accelerate smoothly through complete accelerator pedal travel; coast to a stop Idle engine 30 seconds	2	N	ECM Default: – Bank 1 VVT hold current set at a constant valve of 450 mA	P11 –109	VVT solenoid valve 1 to ECM PWM drive circuit fault VVT solenoid valve 1 ground circuit fault VVT solenoid 1 failure Oil contamination VVT 1 oil flow fault VVT / camshaft mechanical failure – bank 1

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1396	EMS OBD II	VVT solenoid malfunction – bank 2	Idle engine 30 seconds Accelerate from stop through complete engine rpm range; coast to a stop Drive the vehicle steadily between 48 – 97 km/h (30 – 60 mph) for 5 minutes; coast to a stop Accelerate smoothly through complete accelerator pedal travel; coast to a stop Idle engine 30 seconds	2	N	ECM Default: – Bank 2 VVT hold current set at a constant value of 450 mA	P11 –110	VVT solenoid valve 2 to ECM PWM drive circuit fault VVT solenoid valve 2 ground circuit fault VVT solenoid 2 failure Oil contamination VVT 2 oil flow fault VVT / camshaft mechanical failure – bank 2
P1410	V8 SC EMS JAG	Air cleaner solenoid valve drive circuit malfunction	Start engine Idle for 2 minutes	N	N	None	P11 –014	ECM to air cleaner solenoid circuit: open circuit, short circuit, high resistance Air cleaner solenoid failure
P1474	V8 SC EMS OBD II	Intercooler coolant pump malfunction	Start engine and bring to normal engine operating temperature > 80 °C (176 °F) Drive vehicle in Drive at 80 km/h (50 mph) – 105 km/h (65 mph) for > 10 minutes	2	N	ECM Default: – Default value of 70 °C (158 °F) used	—	Intercooler coolant pump failure
P1516	EMS OBD II	Gear change P / N driving malfunction	Drive vehicle V6: >15 km/h (9 mph) between 1500 – 4000 rpm; engine load >0.40 g/rpm Continue for 30 seconds V8: >24 km/h (15 mph) between 1500 – 4000 rpm for 30 seconds	2	A	ECM Default: – Speed control inhibited – Maximum engine speed reduced	P11 –031	ECM P / N circuit: short circuit to ground, short circuit to high voltage; high resistance Gear selector cable setting incorrect J-Gate assembly incorrect setting J-Gate / ECM CAN fault

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1517	EMS OBD II	Gear change P / N starting malfunction	Start engine in P Start engine in N Check that engine does not start in R, D, 5, 4, 3, 2	2	A	ECM Default: – Speed control inhibited – Maximum throttle opening for N range inhibited – Maximum engine speed reduced	P11 –031	ECM P / N circuit: short circuit to ground, short circuit to high voltage; high resistance Gear selector cable setting incorrect J-Gate assembly incorrect setting J-Gate / ECM CAN fault
P1532	V6 EMS OBD II	IMT valve 2 (top) circuit malfunction	Battery voltage > 12 volts Start engine and bring to normal operating temperature > 82 °C (180 °F) Run engine at 5000 rpm in N for 20 seconds	2	N	ECM Default: – IMT 2 Inhibited	P11 –039	IMT Valve 2 (top) disconnected IMT Valve 2 (top) to ECM drive circuit fault IMT Valve 2 (top) power supply circuit fault IMT Valve 2 (top) failure
P1549	V6 EMS OBD II	IMT valve 1 (bottom) circuit malfunction	Battery voltage > 12 volts Start engine and bring to normal operating temperature > 82 °C (180 °F) Run engine at 5000 rpm in N for 20 seconds	2	N	ECM Default: – IMT 1 Inhibited	P11 –038	IMT Valve 1 (bottom) disconnected IMT Valve 1 (bottom) to ECM drive circuit fault IMT Valve 1 (bottom) power supply circuit fault IMT Valve 1 (bottom) failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1571	EMS JAG	Brake ON / OFF switch; brake cancel switch malfunction (Brake ON / OFF switch – normally open; brake cancel switch – normally closed)	Start engine; idle in P, N Press brake pedal for >30 seconds; release brake pedal Repeat 10 times –or– Drive >80 km/h (50 mph) > 1 minute (do not press the brake pedal); momentarily press the brake pedal Repeat 10 times –or– Using WDS, monitor both circuits Pedal at rest = “0” (both circuits); pedal pressed = “1” (both circuits)	N	A	ECM Default: – Speed control inhibited – Maximum engine speed reduced – J-Gate locked in Park	PI1 –008 –009	Brake ON / OFF switch to ECM circuit: open circuit, short circuit to ground, high resistance Brake ON / OFF power supply circuit: open circuit Brake ON / OFF switch failure Brake cancel switch to ECM circuit: open circuit, short circuit to ground, high resistance Brake cancel switch power supply circuit: open circuit Brake cancel switch failure
P1582	EMS JAG	“Flight recorder” data is stored if any one of five conditions occur:	1 Inertia switch activated 2 Throttle Limp Home mode 3 Engine starts and stumbles 4 Engine fail to start 5 Engine stall	N	N	None	PI1 –010	If none of the five conditions occur, check: Inertia switch to ECM circuit: short circuit to B+ voltage Inertia switch failure
P1603	TRANS OBD II	TCM Internal communications error	Ignition ON 10 seconds	1	A	None	—	TCM / Control valve failure
P1605	TRANS JAG	TCM RAM error	Ignition ON, then OFF. Cycle ignition switch 6 times.	N	N	TCM Default: – Mechanical limp home	GB2 –14	Battery power supply circuit: open circuit, short circuit to ground TCM / Control valve failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1606	EMS OBD II	EMS control relay malfunction	Ignition key switched OFF >5 seconds; cooling fans not running	1	N	None	PI1 -040	ECM control relay failure ECM control relay to ECM circuit fault ECM control relay coil power supply open circuit ECM ground circuit fault (relay coil drive)
P1609	EMS OBD II	ECM microprocessor to microprocessor communication failure	Ignition ON 10 seconds	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	—	ECM Failure
P1611	EMS OBD II	ECM sub CPU failure	Drive vehicle If fitted, engage speed control Refer to Owner's Handbook and ensure that speed control engages normally	2	R	ECM Default: – Throttle motor and throttle motor relay disabled – Throttle valve opening set to default value – Idle speed controlled by fuel injection intervention – Idle speed adaption inhibited	—	ECM Failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1629	V6 EMS OBD II	Generator "FIELD" circuit failure	Battery voltage > 12 volts Switch OFF all electrical consumers Ignition ON 15 seconds Start engine; momentarily idle with all electrical consumers switched OFF Switch ignition OFF Switch ignition ON	2	C	None	P11 -065	ECM to generator "FIELD" return circuit: open circuit, high resistance Generator regulator failure Generator failure
P1631	EMS OBD II	Throttle motor relay coil drive circuit OFF failure	Engine temperature cool (cooling fans not running) Remove ignition key for 20 seconds (cooling fans not running) Ignition key in, position II for 5 seconds (do not start) Repeat cycle twice more	2	R	ECM Default: - Throttle motor and throttle motor relay disabled - Throttle valve opening set to default value - Idle speed controlled by fuel injection intervention - Idle speed adaption inhibited	P11 -052	Throttle motor relay coil power supply circuit: open circuit (fuse) Throttle motor relay failure Throttle motor relay coil to ECM drive circuit: open circuit, short circuit to ground
P1632	EMS OBD II	Generator charge system failure / generator "CHARGE / FAULT" circuit failure	Battery voltage > 12 volts Switch OFF all electrical consumers Start engine; idle for 16 minutes with all electrical consumers switched OFF If no recurrence of DTC(s): hold engine > 1500 rpm for 1 minute in N	2	C	None	P11 -079	ECM to generator "CHARGE / FAULT" circuit: short circuit, open circuit, high resistance Generator regulator failure Generator failure

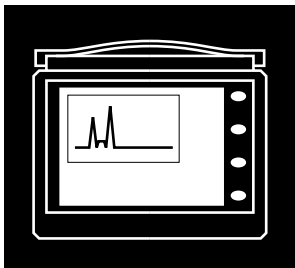
DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1633	EMS OBD II	ECM main CPU failure	Ignition ON 10 seconds	2	R	ECM Default: <ul style="list-style-type: none"> - Throttle motor and throttle motor relay disabled - Throttle valve opening set to default value - Idle speed controlled by fuel injection intervention - Idle speed adaption inhibited 	—	ECM Failure
P1634	EMS OBD II	Throttle "watch dog" circuit malfunction	Idle engine Switch OFF ignition for 10 seconds Start engine and repeat	2	R	ECM Default: <ul style="list-style-type: none"> - Vehicle speed limited - Throttle opening limited to 30% - Speed control inhibited 	—	ECM Failure
P1637	EMS OBD II	CAN ECM to DSCCM network malfunction	Ignition ON 10 seconds	2	A	ECM Default: <ul style="list-style-type: none"> - Speed control inhibited - Maximum throttle opening for N range inhibited - Throttle opening limited to 30% - Maximum engine speed reduced 	PI1 -123 -124	CAN open circuit fault – DSCCM to ECM CAN short circuit fault DSCCM failure ECM failure
P1638	EMS OBD II	CAN ECM / IC network malfunction	Ignition ON 10 seconds	1	N	None (Engine will not start – PATS failure)	PI1 -123 -124	CAN open circuit fault – IC to ECM CAN short circuit fault IC failure ECM failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1642	EMS OBD II	CAN circuit malfunction	Ignition ON 10 seconds	1	A	ECM Default: – Speed control inhibited – Maximum throttle opening for N range inhibited – Throttle opening limited to 30% – Maximum engine speed reduced (Engine will not start – PATS failure)	PI1 –123 –124	CAN short circuit fault Control module failure – check for additional flagged DTC(s) to locate control module source
P1643	EMS OBD II	CAN ECM / TCM network malfunction	Ignition ON 10 seconds	2	A	ECM Default: – Speed control inhibited – Maximum throttle opening for N range inhibited – Throttle opening limited to 30% – Maximum engine speed reduced	PI1 –123 –124	CAN open circuit fault – TCM to ECM CAN short circuit fault TCM failure ECM failure
P1646	EMS OBD II	ECM HO2 Sensor control malfunction – bank 1 upstream (1/1)	Drive vehicle for 10 minutes	2	N	ECM Default: – HO2S 1/1 control circuit inhibited	—	HO2 Sensor 1/1 heater failure HO2 Sensor 1/1 sensing circuit: short circuit to ground, short circuit to high voltage, open circuit, high resistance ECM Failure
P1647	EMS OBD II	ECM HO2 Sensor control malfunction – bank 2 upstream (2/1)	Drive vehicle for 10 minutes	2	N	ECM Default: – HO2S 2/1 control circuit inhibited	—	HO2 Sensor 2/1 heater failure HO2 Sensor 2/1 sensing circuit: short circuit to ground, short circuit to high voltage, open circuit, high resistance ECM Failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1648	EMS OBD II	ECM internal Knock Sensor CPU self test failure	Start engine Battery voltage > 12 volts Idle for 2 minutes	2	A	ECM Default: – Maximum ignition retard – Maximum engine speed reduced	—	ECM Failure
P1656	EMS OBD II	TP Sensor amplifier circuit malfunction	Ignition ON 10 seconds	2	A	ECM Default: – Maximum engine speed reduced	P11 -075	ECM Failure
P1657	EMS OBD II	Throttle motor relay coil drive circuit ON failure	Engine temperature cool (cooling fans not running) Remove ignition key for 20 seconds (cooling fans not running) Ignition key in, position II for 5 seconds (do not start) Repeat cycle two additional times	2	R	ECM Default: – Vehicle speed limited – Throttle opening limited to 30% – Speed control inhibited	P11 -052 -134	Throttle motor relay failure Throttle motor relay coil to ECM drive circuit: short circuit to B+ voltage
P1658	EMS OBD II	Throttle motor relay ON failure	Engine temperature cool (cooling fans not running) Remove ignition key for 20 seconds (cooling fans not running) Ignition key in, position II for 5 seconds (do not start) Repeat cycle two additional times	2	R	ECM Default: – Vehicle speed limited – Throttle opening limited to 30% – Speed control inhibited	P11 -052	Throttle motor relay failure Throttle motor relay coil to ECM drive circuit: short circuit to B+ voltage

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1696	EMS JAG	CAN ECM / ASCCM network malfunction	Ignition ON 30 seconds	N	N	ECM Default: – Speed control inhibited	PI1 –123 –124	CAN open circuit fault – ASCCM to ECM CAN short circuit fault ASCCM failure ECM failure
P1697	EMS JAG	Adaptive speed control HEADWAY switch(es) circuit malfunction	Ignition ON 45 seconds	N	A	ECM Default: – Speed control inhibited	PI1 –047	Speed control switches internal steering wheel circuit: short circuit to ground Steering wheel cassette reel: short circuit to ground Cassette reel to ECM circuit: short circuit to ground HEADWAY + / – switch(es) failure (stuck ON)
P1699	EMS OBD II	CAN ECM / A/CCM network malfunction	Ignition ON 10 seconds	2	N	None	PI1 –123 –124	CAN open circuit fault – A/CCM to ECM CAN short circuit fault A/CCM failure ECM failure
P1749	TRANS JAG	PARK / NEUTRAL circuit malfunction	Ignition ON. Move gear selector to N; leave in N for 5 seconds, then return to P.	N	N	None	GB2 –10	TCM TO ECM P / N circuit: open circuit, short circuit to ground, short circuit to B+ voltage TCM / Control valve failure
P1774	TRANS JAG	CAN TCM / J-Gate Module network malfunction	Ignition ON 10 seconds	N	A	TCM Default: – Manual gear selection disabled – Sport mode disabled	GB2 –2 –6	CAN open circuit fault – TCM to J-Gate Module CAN short circuit fault J-Gate Module failure

DTC	SYS	FAULT DESCRIPTION	MONITORING CONDITIONS	CK ENG	OTHER	DEFAULT ACTION	CM PIN	POSSIBLE CAUSES
P1783	TRANS OBD II	Transmission over-temperature shut-down	Drive vehicle for 1 hour while continually performing hard acceleration starts / stops	N	A	TCM Default: – Mechanical limp home mode	—	Transmission fluid level low Transmission fluid cooler circuit: obstructed, leaking Transmission fluid cooler fins blocked by debris Transmission mechanical failure
P1794	TRANS OBD II	TCM ignition switched power supply circuit malfunction	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	GB2 -9	Ignition switched power supply fuse failure Ignition switched power supply circuit: short circuit to ground, open circuit
P1796	TRANS OBD II	CAN network fault	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	GB2 -2 -6	CAN open circuit or short circuit fault TCM / Control valve failure
P1797	TRANS OBD II	CAN TCM / ECM network malfunction	Ignition ON 10 seconds	2	A	TCM Default: – Mechanical limp home mode	GB2 -2 -6	CAN open circuit fault – TCM to ECM CAN short circuit fault ECM failure TCM / Control valve failure
P1798	TRANS JAG	CAN TCM / IC network malfunction	Ignition ON 10 seconds	N	N	None	GB2 -2 -6	CAN open circuit fault – TCM to IC CAN short circuit fault IC failure TCM / Control valve failure
P1799	TRANS JAG	CAN TCM / DSCCM network malfunction	Ignition ON 10 seconds	N	N	TCM Default: – Substitute transmission output speed for DSC vehicle speed	GB2 -2 -6	CAN open circuit fault – TCM to DSCCM CAN short circuit fault DSCCM failure TCM / Control valve failure



Body DTC Summaries

Jaguar S-TYPE 2000 – 2002 Model Years

Refer to page 2 for important information regarding the use of “Body DTC Summaries”.

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
CM	The control module(s) the DTC is associated with: ABS/TC Anti-lock braking / traction control A/CCM Climate control ADCM Adaptive damping AUDIO Radio head unit CTCM Cellular telephone control module DDCM Driver door control module DSCCM Dynamic stability control DSCM Driver seat control module GECM General electronic control module INST Instrument pack MC Message center (part of instrument pack) NCM Navigation control module RCM Restraints control module RECM Rear electronic control module RPACM Reverse parking aid control module SCLM Steering column locking module VACM Voice activation control module VECM Vehicle emergency message control module
SYSTEM	The vehicle system the DTC is associated with. Refer to the applicable Electrical Guide Figure for circuit details.
FAULT DESCRIPTION	Fault description. If available, customer symptom (complaint) information is provided in this column.
MIL	Y = System MIL (if fitted) is activated. N = System MIL (if fitted) is not activated. M = Message displayed.
POSSIBLE CAUSES	Suggested possible causes listed in order of probability.

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1200	A/CCM	Climate control	Climate control push button circuit failure	N	Internal A/CCM failure
B1201	RECM	Instrument pack	Fuel level sensor circuit(s) fault CUSTOMER SYMPTOM: Inaccurate fuel level	N	RECM to fuel level sensor circuit(s) (CA101-15, CA101-16): open circuit, short circuit to ground, short circuit to B+ voltage, short circuit to each other, high resistance Fuel level sensor failure
B1205	MC	Instrument pack	Message center switch pack circuit fault CUSTOMER SYMPTOM: Message center switches inoperative	N	Instrument pack to message center switch pack circuit(s): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Message center switch pack failure
B1213	INST	Security	Less than two (2) keys are programmed	N	Program at least two keys using PDU
B1231	RCM	SRS Airbag	Crash data memory full	Y	Replace RCM
B1242	A/CCM	Climate control	Fresh / recirculation air flow actuator motor drive circuit fault CUSTOMER SYMPTOM: No variable air flow direction control	N	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Fresh / recirculation air flow actuator position feedback reference voltage circuit: open circuit, short circuit to ground or B+ voltage Fresh / recirculation air flow actuator position feedback circuit: open circuit, short circuit to ground Fresh / recirculation air flow actuator failure
B1246	INST	Interior lighting Dimmer-controlled lighting	Interior lighting master switch / dimmer switch circuit fault CUSTOMER SYMPTOM: Both interior lighting master switch and dimmer switch inoperative	N	Instrument pack to switches signal circuit (FC63-16): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Dimmer switch failure Interior lighting master switch failure
B1251	A/CCM	Climate control	In-car temperature sensor circuit open circuit CUSTOMER SYMPTOM: No automatic temperature control	N	In-car temperature sensor disconnected A/CCM to in-car temperature sensor sensing circuit (FC28-09) open circuit In-car temperature sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1253	A/CCM	Climate control	In-car temperature sensor circuit short circuit to ground CUSTOMER SYMPTOM: No automatic temperature control	N	A/CCM to in-car temperature sensor sensing circuit (FC28-09) short circuit to ground In-car temperature sensor failure
B1255	A/CCM	Climate control	Ambient air temperature sensor circuit open circuit CUSTOMER SYMPTOM: Inaccurate exterior temperature displayed	N	Ambient air temperature sensor disconnected A/CCM to ambient air temperature sensor sensing circuit (FC28-17) open circuit Ambient air temperature sensor failure
B1257	A/CCM	Climate control	Ambient air temperature sensor circuit short circuit to ground CUSTOMER SYMPTOM: Inaccurate exterior temperature displayed	N	A/CCM to ambient air temperature sensor sensing circuit (FC28-17) short circuit to ground Ambient air temperature sensor failure
B1259	A/CCM	Climate control	Dual solar sensor sensing circuit(s) open circuit CUSTOMER SYMPTOM: Poor automatic temperature control in high sun load conditions	N	Dual solar sensor disconnected A/CCM to dual solar sensor sensing circuit(s) (FC28-07 – LH, FC28-20 – RH) open circuit Dual solar sensor failure
B1261	A/CCM	Climate control	Dual solar sensor sensing circuit(s) short circuit to ground CUSTOMER SYMPTOM: Poor automatic temperature control in high sun load conditions	N	A/CCM to dual solar sensor sensing circuit(s) (FC28-07 – LH, FC28-20 – RH) short circuit to ground Dual solar sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1262	A/CCM	Climate control	Defrost mode actuator motor drive circuit fault CUSTOMER SYMPTOM: No defrost air flow direction control	N	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Defrost mode actuator position feedback reference voltage circuit: open circuit, short circuit to ground or B+ voltage Defrost mode actuator position feedback circuit: open circuit, short circuit to ground Defrost mode actuator failure
B1263	A/CCM	Climate control	Panel mode actuator motor drive circuit fault CUSTOMER SYMPTOM: No panel air flow direction control	N	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Panel mode actuator position feedback reference voltage circuit: open circuit, short circuit to ground or B+ voltage Panel mode actuator position feedback circuit: open circuit, short circuit to ground Panel mode actuator failure
B1264	A/CCM	Climate control	Floor mode actuator motor drive circuit fault CUSTOMER SYMPTOM: No floor air flow direction control	N	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Floor mode actuator position feedback reference voltage circuit: open circuit, short circuit to ground or B+ voltage Floor mode actuator position feedback circuit: open circuit, short circuit to ground Floor mode actuator failure
B1265	A/CCM	Climate control	Cold air bypass actuator motor drive circuit fault CUSTOMER SYMPTOM: No bypass air flow direction control	N	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Cold air bypass actuator position feedback reference voltage circuit: open circuit, short circuit to ground or B+ voltage Cold air bypass actuator position feedback circuit: open circuit, short circuit to ground Cold air bypass actuator failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1299	RPACM	Reverse parking aid	Ignition switched power supply fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	N	RPACM ignition switched power supply circuit: open circuit, short circuit to ground
B1309	DDCM	Central door locking	Driver door lock circuit short circuit to ground CUSTOMER SYMPTOM: Driver door lock switch inoperative	N	DDCM to driver door latch assembly lock circuit (DT2-8) short circuit to ground Driver door latch assembly failure
B1318	RCM	SRS Airbag	Ignition switched power supply low voltage	Y	Ignition switched power supply open circuit Charging system low voltage fault
B1319	GECM	Interior lighting Central door locking Security	Driver door switch circuit fault CUSTOMER SYMPTOM – GECM systems effected: Interior lighting – lamps inoperative or always on Central door locking Security	N	GECM to driver door switch circuit (CA31-8): open circuit, short circuit to ground, short circuit to B+ voltage Driver door switch ground fault Driver door switch failure
B1327	GECM	Interior lighting Central door locking Security	Passenger door switch circuit fault CUSTOMER SYMPTOM – GECM systems effected: Interior lighting – lamps inoperative or always on Central door locking Security	N	GECM to passenger door switch circuit (CA31-8): open circuit, short circuit to ground, short circuit to B+ voltage Passenger door switch ground fault Passenger door switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1331	RECM	Interior lighting Central door locking Security	Trunk switch circuit fault CUSTOMER SYMPTOM – RECM systems effected: Interior lighting – trunk lamps inoperative or always on Central door locking Security	N	RECM to trunk switch circuit (CA102-14): open circuit, short circuit to ground, short circuit to B+ voltage Trunk switch ground fault Trunk switch failure
B1335	RECM	Interior lighting Central door locking Security	RH rear door switch circuit fault CUSTOMER SYMPTOM – RECM systems effected: Interior lighting – interior lamps inoperative or always on Central door locking Security	N	RECM to RH rear door switch circuit (CA101-17 LHD, CA103-16 RHD): open circuit, short circuit to ground, short circuit to B+ voltage RH rear door switch ground fault RH rear door switch failure
B1341	DDCM	Central door locking	Driver door unlock circuit short circuit to ground CUSTOMER SYMPTOM: Driver door lock switch inoperative	N	DDCM to driver door latch assembly unlock circuit (DT2-9) short circuit to ground Driver door latch assembly failure
B1342	ABS/ TCCM	Anti-lock braking / traction control	Control module failure CUSTOMER SYMPTOM: MIL warning; default operation	Y	ABS/TCCM failure
B1342	A/CCM	Climate control	Control module failure CUSTOMER SYMPTOM: No climate control operation	N	A/CCM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1342	ADCM	Suspension adaptive damping (CATS)	Control module failure CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM failure
B1342	AUDIO	In-car entertainment	Control module failure CUSTOMER SYMPTOM: In-car entertainment system inoperative	N	Radio head unit failure
B1342	CTCM	Cellular telephone	Control module failure CUSTOMER SYMPTOM: Telephone inoperative	N	CTCM failure
B1342	DDCM	Various – see FAULT DESCRIPTION	Control module failure CUSTOMER SYMPTOM – DDCM systems effected: Memory set functions Driver door mirror movement Driver door locking Remote keyless entry functions Security alarm set / reset functions Window lift function from driver door switch pack Driver window lift	N	DDCM failure
B1342	DSCCM	Dynamic stability control	Control module failure CUSTOMER SYMPTOM: MIL warning; default operation	Y	DSCCM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1342	DSCM	Driver seat	Control module failure CUSTOMER SYMPTOM: Driver seat functions inoperative	N	DSCM failure
B1342	GECM	Various – see FAULT DESCRIPTION	Control module failure CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Security Interior lighting Dimmer controlled lighting Variable assist power steering Central door locking Window lifts	N	GECM failure
B1342	INST	Instrument pack	Control module failure CUSTOMER SYMPTOM: Gauges and indicators inoperative	N	Instrument pack failure
B1342	RCM	SRS Airbag	Control module failure	Y	RCM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1342	RECM	Various – see FAULT DESCRIPTION	Control module failure CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Fuel pump (engine management) Climate control Instrument pack Exterior lighting: rear Interior lighting Heated backlight Central door locking Security Window lifts	N	RECM failure
B1342	RPACM	Reverse parking aid	Control module failure CUSTOMER SYMPTOM: Reverse parking aid inoperative	N	RPACM failure
B1342	SCLCM	Security (steering column lock control module)	Control module failure CUSTOMER SYMPTOM: Steering column locking inoperative	N	SCLCM failure
B1342	VECM	Telephone with voice control and vehicle emergency message system (VEMS)	Control module failure CUSTOMER SYMPTOM: VEMS inoperative	N	VECM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1352	INST	Instrument pack	Ignition "key-in" switch circuit fault CUSTOMER SYMPTOM: Key-in audible warning inoperative; steering column and driver seat entry / exit memory functions inoperative	N	Instrument pack to key-in switch circuit (FC14-21): open circuit, short circuit to ground Key-in switch failure
B1400	DDCM	Window lifts	Driver window "one touch down" signal circuit fault CUSTOMER SYMPTOM: Driver window "one touch down" always active	N	DDCM to driver door switch pack window "one touch" circuit (DD4-21) short circuit to B+ voltage Driver door switch pack failure
B1405	DDCM	Window lifts	Driver window down signal circuit fault CUSTOMER SYMPTOM: Driver window switch inoperative	N	DDCM to driver door switch pack driver window down circuit (DD4-20) short circuit to B+ voltage Driver door switch pack failure
B1408	DDCM	Window lifts	Driver window up signal circuit fault CUSTOMER SYMPTOM: Driver window switch inoperative	N	DDCM to driver door switch pack driver window up circuit (DD4-19) short circuit to B+ voltage Driver door switch pack failure
B1416	DDCM	Window lifts	LH rear window up / down signals circuit fault CUSTOMER SYMPTOM: Driver door switch pack LH rear window switch inoperative	N	DDCM to driver door switch pack LH rear window circuit(s) (DD4-8; DD4-9) short circuit to B+ voltage Driver door switch pack failure
B1420	DDCM	Window lifts	Passenger window up / down signals circuit fault CUSTOMER SYMPTOM: Driver door switch pack passenger window switch inoperative	N	DDCM to driver door switch pack passenger window circuit(s) (DD4-2; DD4-3) short circuit to B+ voltage Driver door switch pack failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1424	DDCM	Window lifts	RH rear window up / down signals circuit fault CUSTOMER SYMPTOM: Driver door switch pack RH rear window switch inoperative	N	DDCM to driver door switch pack RH rear window circuit(s) (DD4-4; DD4-5) short circuit to B+ voltage Driver door switch pack failure
B1438	GECM	Wash / wipe system	Wiper mode select switch circuit fault CUSTOMER SYMPTOM: Windshield wipers inoperative	N	GECM to wipe / wash switch wiper mode select circuit (CA31-2): open circuit, short circuit to ground, short circuit to B+ voltage Wipe / wash switch failure
B1446	GECM	Wash / wipe system	Windshield wiper motor park sense circuit fault CUSTOMER SYMPTOM: Incorrect windshield wiper operation	N	GECM to wiper park switch circuit (FH9-13): open circuit, short circuit to ground, short circuit to B+ voltage Wiper park switch failure
B1470	INST	Exterior lighting: front	Headlamp switch circuit fault CUSTOMER SYMPTOM: Headlamp switch inoperative	N	Instrument pack to lighting switch (headlamps) circuit (FC63-12): open circuit, short circuit Lighting switch failure
B1472	INST	Instrument pack	Seat belt switch circuit fault	Y	Instrument pack to seat belt switch circuit (FC14-18): open circuit, short circuit to ground, short circuit to B+ voltage Seat belt switch ground fault Seat belt switch failure
B1479	GECM	Wash / wipe system	Washer fluid level switch circuit fault CUSTOMER SYMPTOM: Low fluid MIL on or off continuously; programmed wash / wipe inoperative	Y	GECM to fluid level switch circuit (FH9-15): open circuit, short circuit to ground, short circuit to B+ voltage Washer fluid level switch ground fault Washer fluid level switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1483	RECM	Exterior lighting: rear	Brake (stop lamp) switch circuit fault CUSTOMER SYMPTOM: Stop lamps inoperative or always on	N	Brake switch battery power supply open circuit RECM to brake switch circuit open circuit, short circuit to ground, short circuit to B+ voltage Brake switch failure
B1485	ABS/ TCCM	Anti-lock braking / traction control	Brake (stop lamp) switch circuit fault	N	Brake switch battery power supply open circuit DSCCM to brake switch circuit open circuit, short circuit to ground, short circuit to B+ voltage Brake switch failure
B1485	DSCCM	Dynamic stability control	Brake (stop lamp) switch circuit fault	N	Brake switch battery power supply open circuit DSCCM to brake switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Brake switch failure
B1499	GECM	Exterior lighting: front	LH front turn signal circuit fault CUSTOMER SYMPTOM: LH front turn signal inoperative; LH front turn signal always on	N	LH front turn signal bulb failure GECM to LH front turn signal (headlamp unit) circuit (FH60-5): open circuit, short circuit to ground LH headlamp unit failure GECM failure
B1499	RECM	Exterior lighting: rear	LH rear turn signal circuit fault CUSTOMER SYMPTOM: LH rear turn signal inoperative; LH rear turn signal always on	N	LH rear turn signal bulb failure RECM to LH rear turn signal (tail lamp unit) circuit (CA63-3): open circuit, short circuit to ground LH tail lamp unit failure RECM failure
B1501	GECM	Exterior lighting: front	LH front turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: LH front turn signal inoperative; LH front turn signal always on	N	GECM to LH front turn signal (headlamp unit) circuit (FH60-5): short circuit to B+ voltage LH headlamp unit failure GECM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1501	RECM	Exterior lighting: rear	LH rear turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: LH rear turn signal inoperative; LH rear turn signal always on	N	RECM to LH rear turn signal (tail lamp unit) circuit (CA63-3): short circuit to B+ voltage LH tail lamp unit failure RECM failure
B1503	GECM	Exterior lighting: front	RH front turn signal circuit fault CUSTOMER SYMPTOM: RH front turn signal inoperative; RH front turn signal always on	N	RH front turn signal bulb failure GECM to RH front turn signal (headlamp unit) circuit (FH60-4): open circuit, short circuit to ground RH headlamp unit failure GECM failure
B1503	RECM	Exterior lighting: rear	RH rear turn signal circuit fault CUSTOMER SYMPTOM: RH rear turn signal inoperative; RH rear turn signal always on	N	RH rear turn signal bulb failure RECM to RH rear turn signal (tail lamp unit) circuit (CA63-4): open circuit, short circuit to ground RH tail lamp unit failure RECM failure
B1505	GECM	Exterior lighting: front	RH front turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: RH front turn signal inoperative; RH front turn signal always on	N	GECM to RH front turn signal (headlamp unit) circuit (FH60-4): short circuit to B+ voltage RH headlamp unit failure GECM failure
B1505	RECM	Exterior lighting: rear	RH rear turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: RH rear turn signal inoperative; RH rear turn signal always on	N	RECM to RH rear turn signal (tail lamp unit) circuit (CA63-4): short circuit to B+ voltage RH tail lamp unit failure RECM failure
B1519	GECM	Security	Hood switch circuit fault CUSTOMER SYMPTOM: Security system does not arm; security system functions incorrectly	N	GECM to hood switch circuit (FH59-3): open circuit, short circuit to ground, short circuit to B+ voltage Hood switch ground fault Hood switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1530	DDCM	Memory functions: Steering column movement Door mirror movement Driver seat movement	Memory set switch circuit fault CUSTOMER SYMPTOM: Memory set switch inoperative	N	DDCM to driver door switch pack memory set switch circuit (DD4-25) short circuit to ground Driver door switch pack failure
B1534	DDCM	Memory functions: Steering column movement Door mirror movement Driver seat movement	Memory 1 switch circuit fault CUSTOMER SYMPTOM: Memory 1 switch inoperative	N	DDCM to driver door switch pack memory 1 switch circuit (DD4-10) short circuit to ground Driver door switch pack failure
B1538	DDCM	Memory functions: Steering column movement Door mirror movement Driver seat movement	Memory 2 switch circuit fault CUSTOMER SYMPTOM: Memory 2 switch inoperative	N	DDCM to driver door switch pack memory 2 switch circuit (DD4-11) short circuit to ground Driver door switch pack failure
B1551	RECM	Central door locking	Trunk release circuit fault CUSTOMER SYMPTOM: Trunk will not release	N	RECM to trunk release circuit (CA103-10): open circuit, short circuit to ground Trunk release ground fault Trunk release failure
B1567	GECM	Exterior lighting: front	Headlamp main beam circuit(s) fault CUSTOMER SYMPTOM: Headlamp main beam(s) inoperative; headlamp main beam(s) always on	N	Headlamp bulb failure GECM to headlamp main beam bulbs circuit(s) (FH60-10, FH60-17): open circuit, short circuit to ground, short circuit to B+ voltage Headlamp unit failure
B1567	INST	Exterior lighting: front	Headlamp main / dip / flash switch circuit fault CUSTOMER SYMPTOM: Headlamp main / dip / flash switch inoperative	N	Instrument pack to lighting stalk switch circuit (FC15-19): short circuit to ground, short circuit to B+ voltage Lighting stalk switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1571	RECM	Interior lighting Central door locking Security	LH rear door switch circuit fault CUSTOMER SYMPTOM – RECM systems effected: Interior lighting – interior lamps inoperative or always on Central door locking Security	N	RECM to LH rear door switch circuit (CA103-16 LHD, CA101-17 RHD): open circuit, short circuit to ground, short circuit to B+ voltage LH rear door switch ground fault LH rear door switch failure
B1600	INST	Battery; starter; generator Security	Ignition key transponder signal is not received CUSTOMER SYMPTOM: Engine will not start	N	Incorrect ignition key(s) Reconfigure instrument pack for ignition keys using PDU Passive anti-theft system transceiver failure
B1601	INST	Battery; starter; generator Security	Instrument pack passive anti-theft system module (PATS) received incorrect ignition key code from PATS transceiver CUSTOMER SYMPTOM: Engine will not start	N	Reprogram instrument pack for ignition keys using PDU Passive anti-theft system transceiver failure
B1602	INST	Battery; starter; generator Security	Instrument pack passive anti-theft system module (PATS) received invalid form of ignition key code from PATS transceiver CUSTOMER SYMPTOM: Engine will not start	N	Passive anti-theft system transceiver failure
B1629	RPACM	Reverse parking aid	Reverse lamps activated input circuit fault CUSTOMER SYMPTOM: Sensors inactive in Reverse; sensors active in forward gears above 6 mph (10 km/h)	N	RPACM reverse sensing circuit (CA112-9) short circuit to B+ voltage
B1676	ABS/ TCCM	Anti-lock braking / traction control	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM: MIL warning; default operation	Y	Charging system low / high voltage fault

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1676	A/CCM	Climate control	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM: No climate control operation	N	Charging system low / high voltage fault
B1676	DDCM	Various – see FAULT DESCRIPTION	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM – DDCM systems effected: Memory set functions Driver door mirror movement Driver door locking Remote keyless entry functions Security alarm set / reset functions Window lift function from driver door switch pack Driver window lift	N	Charging system low / high voltage fault
B1676	DSCCM	Dynamic stability control	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM: MIL warning; default operation	Y	Charging system low / high voltage fault
B1676	DSCM	Driver seat	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM: Inaccurate memory position recall	N	Charging system low / high voltage fault

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1676	GECM	Various – see FAULT DESCRIPTION	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Security Interior lighting Dimmer controlled lighting Variable assist power steering Passenger door mirror movement Central door locking Windshield wash / wipe Window lifts	N	Charging system low / high voltage fault
B1676	INST	Instrument pack	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM: Gauges and indicators inoperative	N	Charging system low / high voltage fault

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1676	RECM	Various – see FAULT DESCRIPTION	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Fuel pump (engine management) Climate control Instrument pack Exterior lighting: rear Interior lighting Heated backlight Central door locking Security Window lifts	N	Charging system low / high voltage fault
B1681	INST	Battery; starter; generator Security	Instrument pack passive anti-theft system (PATS) module does not receive PATS transceiver signal CUSTOMER SYMPTOM: Engine will not start	N	Instrument pack to passive anti-theft system transceiver circuit(s) (FC15-4, FC15-5): open circuit, short circuit to ground, short circuit to each other, short circuit to B+ voltage, high resistance Passive anti-theft system transceiver failure
B1689	INST	Exterior lighting: front	Autolamps switch circuit fault CUSTOMER SYMPTOM: Headlamp autolamp function inoperative	N	Instrument pack to lighting switch (autolamps) circuit (FC63-14): open circuit, short circuit Lighting switch failure
B1703	DSCM	Driver seat	Seat recline forward switch circuit fault CUSTOMER SYMPTOM: Erratic operation; recline forward inoperative	N	Seat recline forward switch circuit (DM9-12) short circuit to B+ voltage Seat recline forward switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1707	DSCM	Driver seat	Seat recline rearward switch circuit fault CUSTOMER SYMPTOM: Erratic operation; recline rearward inoperative	N	Seat recline rearward switch circuit (DM9-4) short circuit to B+ voltage Seat recline rearward switch failure
B1711	DSCM	Driver seat	Seat front raise switch circuit fault CUSTOMER SYMPTOM: Erratic operation; seat front raise inoperative	N	Seat front raise switch circuit (DM9-13) short circuit to B+ voltage Seat raise switch failure
B1715	DSCM	Driver seat	Seat front lower switch circuit fault CUSTOMER SYMPTOM: Erratic operation; seat front lower inoperative	N	Seat front lower switch circuit (DM9-5) short circuit to B+ voltage Seat lower switch failure
B1719	DSCM	Driver seat	Seat forward switch circuit fault CUSTOMER SYMPTOM: Erratic operation; seat forward inoperative	N	Seat forward switch circuit (DM9-3) short circuit to B+ voltage Seat forward switch failure
B1723	DSCM	Driver seat	Seat rearward switch circuit fault CUSTOMER SYMPTOM: Erratic operation; seat rearward inoperative	N	Seat rearward circuit (DM9-11) short circuit to B+ voltage Seat rearward switch failure
B1727	DSCM	Driver seat	Seat rear raise switch circuit fault CUSTOMER SYMPTOM: Erratic operation; seat rear raise inoperative	N	Seat rear raise switch circuit (DM9-14) short circuit to B+ voltage Seat rear raise switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1731	DSCM	Driver seat	Seat rear lower switch circuit fault CUSTOMER SYMPTOM: Erratic operation; seat rear lower inoperative	N	Seat rear lower switch circuit (DM9-6) short circuit to B+ voltage Seat rear lower switch failure
B1757	DSCM	Driver seat	Seat cushion rear motor or position sensor circuit(s) fault CUSTOMER SYMPTOM: Seat cushion rear raise / lower memory set inoperative; seat cushion rear raise / lower function inoperative	N	Seat cushion rear position sensor failure Seat cushion rear motor failure
B1761	DSCM	Driver seat	Seat cushion front motor or position sensor circuit(s) fault CUSTOMER SYMPTOM: Seat cushion front raise / lower memory set inoperative; seat cushion front raise / lower function inoperative	N	Seat cushion front position sensor failure Seat cushion front motor failure
B1765	DSCM	Driver seat	Seat fore / aft motor or position sensor circuit(s) fault CUSTOMER SYMPTOM: Seat forward / rearward memory set inoperative; seat forward / rearward function inoperative	N	Seat forward / rearward position sensor failure Seat forward / rearward motor failure
B1769	DSCM	Driver seat	Seat recline motor or position sensor circuit(s) fault CUSTOMER SYMPTOM: Seat recline memory set inoperative; seat recline function inoperative	N	Seat recline position sensor failure Seat recline motor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1794	GEKM	Exterior lighting: front	Headlamp dip beam circuit(s) fault CUSTOMER SYMPTOM: Headlamp dip beam(s) inoperative; headlamp dip beam(s) always on	N	Headlamp bulb failure GEKM to headlamp dip beam bulbs circuit(s) (FH60-7, FH60-8): open circuit, short circuit to ground, short circuit to B+ voltage Headlamp unit failure
B1844	CTCM	Cellular telephone	Handset push button stuck active	N	Cellular telephone handset failure
B1869	RCM	SRS Airbag	Airbag MIL circuit open circuit	Y	RCM to instrument pack warning MIL circuit (CA114-20) open circuit
B1870	RCM	SRS Airbag	Airbag MIL circuit short circuit	Y	RCM to instrument pack warning MIL circuit (CA114-20) short circuit to B+ voltage
B1874	VECM	Telephone with voice control and vehicle emergency message system (VEMS)	Telephone hand set not detected CUSTOMER SYMPTOM: VEMS inoperative	N	Telephone hand set disconnected VECM to telephone hand set harness open circuit fault
B1875	INST	Exterior lighting: front	Turn signals / hazard switch circuit fault CUSTOMER SYMPTOM: Turn signals and hazard warning inoperative	N	Instrument pack to turn signals / hazard switch circuit (FC15-20): short circuit to ground, short circuit to B+ voltage Turn signals and / or hazard switch failure
B1877	RCM	SRS Airbag	Driver seat belt pretensioner circuit open circuit	Y	RCM to pretensioner circuit(s) (CA114-18, CA114-22) open circuit
B1878	RCM	SRS Airbag	Driver seat belt pretensioner circuit short circuit to B+ voltage	Y	RCM to pretensioner circuit(s) (CA114-18, CA114-22) short circuit to B+ voltage
B1879	RCM	SRS Airbag	Driver seat belt pretensioner circuit short circuit to ground	Y	RCM to pretensioner circuit(s) (CA114-18, CA114-22) short circuit to ground
B1881	RCM	SRS Airbag	Passenger seat belt pretensioner circuit open circuit	Y	RCM to pretensioner circuit(s) (CA114-15, CA114-16) open circuit
B1882	RCM	SRS Airbag	Passenger seat belt pretensioner circuit short circuit to B+ voltage	Y	RCM to pretensioner circuit(s) (CA114-15, CA114-16) short circuit to B+ voltage

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1883	RCM	SRS Airbag	Passenger seat belt pretensioner circuit short circuit to ground	Y	RCM to pretensioner circuit(s) (CA114-15, CA114-16) short circuit to ground
B1885	RCM	SRS Airbag	Driver seat belt pretensioner circuit resistance fault	Y	Pretensioner shorting bar making contact while connector is mated Pretensioner failure
B1886	RCM	SRS Airbag	Passenger seat belt pretensioner circuit resistance fault	Y	Pretensioner shorting bar making contact while connector is mated Pretensioner failure
B1887	RCM	SRS Airbag	Driver air bag circuit short circuit to ground	Y	RCM to airbag circuit(s) (CA114-3, CA114-4) short circuit to ground
B1888	RCM	SRS Airbag	Passenger air bag circuit short circuit to ground	Y	RCM to airbag circuit(s) (CA114-6, CA114-7) short circuit to ground
B1891	RCM	SRS Airbag	Airbag audible warning circuit short circuit to B+ voltage	Y	RCM to instrument pack warning MIL circuit (CA114-26) short circuit to B+ voltage
B1892	RCM	SRS Airbag	Airbag MIL circuit fault	Y	RCM to instrument pack warning MIL circuit (CA114-26) open circuit, short circuit to ground
B1893	VECM	Telephone with voice control and vehicle emergency message system (VEMS)	VEMS GPS antenna circuit open circuit CUSTOMER SYMPTOM: VEMS unable to determine position	N	VECM to antenna circuit open circuit VEMS GPS antenna failure
B1916	RCM	SRS Airbag	Driver air bag circuit short circuit to B+ voltage	Y	RCM to airbag circuit(s) (CA114-3, CA114-4) short circuit to B+ voltage
B1921	RCM	SRS Airbag	RCM case bracket ground fault	Y	Clean / repair case bracket ground RCM failure
B1925	RCM	SRS Airbag	Passenger air bag circuit short circuit to B+ voltage	Y	RCM to airbag circuit(s) (CA114-6, CA114-7) short circuit to B+ voltage
B1932	RCM	SRS Airbag	Driver air bag circuit open circuit	Y	RCM to airbag circuit(s) (CA114-3, CA114-4) open circuit
B1933	RCM	SRS Airbag	Passenger air bag circuit open circuit	Y	RCM to airbag circuit(s) (CA114-6, CA114-7) open circuit

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1934	RCM	SRS Airbag	Driver airbag circuit resistance fault	Y	Airbag shorting bar making contact while connector is mated Airbag failure
B1935	RCM	SRS Airbag	Passenger airbag circuit resistance fault	Y	Airbag shorting bar making contact while connector is mated Airbag failure
B1946	A/CCM	Climate control	Evaporator discharge temperature sensor open circuit CUSTOMER SYMPTOM: Poor automatic temperature control; no air conditioning compressor cycling control	N	Evaporator discharge temperature sensor disconnected A/CCM to evaporator discharge temperature sensor sensing circuit (FC28-10) open circuit Evaporator discharge temperature sensor failure
B1947	A/CCM	Climate control	Evaporator discharge temperature sensor short circuit to ground CUSTOMER SYMPTOM: Poor automatic temperature control; no air conditioning compressor cycling control	N	A/CCM to evaporator discharge temperature sensor sensing circuit (FC28-10) short circuit to ground Evaporator discharge temperature sensor failure
B1966	A/CCM	Climate control	Driver discharge temperature sensor open circuit CUSTOMER SYMPTOM: Poor driver temperature control	N	Driver discharge temperature sensor (LH – LHD; RH – RHD) disconnected A/CCM to driver discharge temperature sensor (LH – LHD; RH – RHD) sensing circuit (FC28-18) open circuit Driver discharge temperature sensor (LH – LHD; RH – RHD) failure
B1967	A/CCM	Climate control	Driver discharge temperature sensor short circuit to ground CUSTOMER SYMPTOM: Poor driver temperature control	N	A/CCM to driver discharge temperature sensor (LH – LHD; RH – RHD) sensing circuit (FC28-18) short circuit to ground Driver discharge temperature sensor (LH – LHD; RH – RHD) failure
B1992	RCM	SRS Airbag	Driver side-airbag circuit short circuit to B+ voltage	Y	Side airbag circuit(s) (CA1-2, CA1-3) short circuit to B+ voltage
B1993	RCM	SRS Airbag	Driver side-airbag circuit short circuit to ground	Y	Side airbag circuit(s) (CA1-2, CA1-3) short circuit to ground
B1994	RCM	SRS Airbag	Driver side-airbag circuit open circuit	Y	Side airbag circuit(s) (CA1-2, CA1-3) open circuit

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B1995	RCM	SRS Airbag	Driver side-airbag circuit resistance fault	Y	Side airbag shorting bar making contact while connector is mated Side airbag failure
B1996	RCM	SRS Airbag	Passenger side-airbag circuit short circuit to B+ voltage	Y	Side airbag circuit(s) (CA1-5, CA1-6) short circuit to B+ voltage
B1997	RCM	SRS Airbag	Passenger side-airbag circuit short circuit to ground	Y	Side airbag circuit(s) (CA1-5, CA1-6) short circuit to ground
B1998	RCM	SRS Airbag	Passenger side-airbag circuit open circuit	Y	Side airbag circuit(s) (CA1-5, CA1-6) open circuit
B1999	RCM	SRS Airbag	Passenger side-airbag circuit resistance fault	Y	Side airbag shorting bar making contact while connector is mated Side airbag failure
B2102	VECM	Telephone with voice control and vehicle emergency message system (VEMS)	VEMS GPS antenna circuit short circuit CUSTOMER SYMPTOM: VEMS unable to determine position	N	VECM to antenna circuit short circuit to ground VEMS GPS antenna failure
B2103	INST	Battery; starter; generator Security	Instrument pack passive anti-theft system (PATS) module does not receive PATS transceiver data CUSTOMER SYMPTOM: Engine will not start	N	Instrument pack to passive anti-theft system transceiver data circuit (FC15-5): open circuit, short circuit to ground, short circuit to each other, short circuit to B+ voltage, high resistance Passive anti-theft system transceiver failure
B2112	DDCM	Central door locking Security	Driver door "lock / alarm set" key cylinder switch circuit fault CUSTOMER SYMPTOM: Driver door key cylinder switch inoperative	N	DDCM to driver door switch pack "alarm set" circuit (DT2-16) short circuit to ground Driver door switch pack failure
B2116	DDCM	Central door locking Security	Driver door "unlock / alarm reset" key cylinder switch circuit fault CUSTOMER SYMPTOM: Driver door key cylinder switch inoperative	N	DDCM to driver door switch pack "alarm reset" circuit (DT2-17) short circuit to ground Driver door switch pack failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2139	INST	Battery; starter; generator Security	Powertrain control module identification does not match instrument pack CUSTOMER SYMPTOM: Engine will not start	Y	Reconfigure instrument pack using PDU
B2141	INST	Battery; starter; generator Security	Powertrain control module identification lost from instrument pack non-volatile memory CUSTOMER SYMPTOM: Engine will not start	Y	Reconfigure instrument pack using PDU
B2141	VECM	Telephone with voice control and vehicle emergency message system (VEMS)	Non-volatile memory failure CUSTOMER SYMPTOM: Telephone numbers lost; invalid telephone numbers	N	VECM failure
B2143	DSCM	Driver seat	Non-volatile memory failure	N	Recalibrate seat memory using PDU
B2143	MC	Instrument pack	Non-volatile memory failure CUSTOMER SYMPTOM: Error message displayed instead of odometer reading	N	Instrument pack failure
B2146	DSCM	Driver seat	Seat recline motor position out of range CUSTOMER SYMPTOM: Seat recline memory set inoperative; seat recline function inoperative	N	Recalibrate seat memory using PDU Seat recline position sensor circuits: open circuit, short circuit, high resistance Seat recline position sensor failure
B2149	DSCM	Driver seat	Seat front raise / lower motor position out of range CUSTOMER SYMPTOM: Seat front raise / lower memory set inoperative; seat front raise / lower function inoperative	N	Recalibrate seat memory using PDU Seat front raise / lower position sensor circuits: open circuit, short circuit, high resistance Seat front raise / lower position sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2152	DSCM	Driver seat	Seat rear raise / lower motor position out of range CUSTOMER SYMPTOM: Seat rear raise / lower memory set inoperative; seat rear raise / lower function inoperative	N	Recalibrate seat memory using PDU Seat rear raise / lower position sensor circuits: open circuit, short circuit, high resistance Seat rear raise / lower position sensor failure
B2155	DSCM	Driver seat	Seat fore / aft motor position out of range CUSTOMER SYMPTOM: Seat fore / aft memory set inoperative; seat fore / aft function inoperative	N	Recalibrate seat memory using PDU Seat fore / aft position sensor circuits: open circuit, short circuit, high resistance Seat fore / aft position sensor failure
B2158	DSCM	Driver seat	Seat recline motor memory position out of range CUSTOMER SYMPTOM: Seat recline memory set inoperative; seat recline function inoperative	N	Seat recline position sensor failure DSCM failure
B2161	DSCM	Driver seat	Seat front raise / lower motor memory position out of range CUSTOMER SYMPTOM: Seat front raise / lower memory set inoperative; seat front raise / lower function inoperative	N	Seat front raise / lower position sensor failure DSCM failure
B2162	INST	Security	Steering column locking control module identification does not match instrument pack CUSTOMER SYMPTOM: Engine will not start	Y	Reconfigure instrument pack using PDU
B2162	SCLCM	Security	Instrument pack identification does not match steering column locking control module CUSTOMER SYMPTOM: Engine will not start	Y	Reconfigure SCLCM using PDU

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2164	DSCM	Driver seat	Seat rear raise / lower motor memory position out of range CUSTOMER SYMPTOM: Seat rear raise / lower memory set inoperative; seat rear raise / lower function inoperative	N	Seat rear raise / lower position sensor failure DSCM failure
B2167	DSCM	Driver seat	Seat fore / aft motor memory position out of range CUSTOMER SYMPTOM: Seat fore / aft memory set inoperative; seat fore / aft function inoperative	N	Seat fore / aft position sensor failure DSCM failure
B2168	SCLCM	Security	SCLCM unable to detect unlocked condition	N	SCLCM failure
B2169	SCLCM	Security	SCLCM unable to detect locked condition	N	SCLCM failure
B2170	SCLCM	Security	SCLCM microswitch failure	N	SCLCM failure
B2172	RECM	RECM inertia switch input Fuel pump (engine management) Central door locking	Inertia switch circuit open circuit	N	Inertia switch tripped (vehicle impact) RECM to inertia switch circuit (CA100-8) open circuit Inertia switch failure
B2174	RECM	Window lifts	LH rear window up signal circuit fault CUSTOMER SYMPTOM: LH rear window switch inoperative	N	RECM to LH rear door switch up circuit (CA99-2) short circuit to B+ voltage LH rear door switch failure
B2178	RECM	Window lifts	LH rear window down signal circuit fault CUSTOMER SYMPTOM: LH rear window switch inoperative	N	RECM to LH rear door switch down circuit (CA99-1) short circuit to B+ voltage LH rear door switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2190	RECM	Window lifts	RH rear window up signal circuit fault CUSTOMER SYMPTOM: RH rear window switch inoperative	N	RECM to RH rear door switch up circuit (CA104-1) short circuit to B+ voltage RH rear door switch failure
B2194	RECM	Window lifts	RH rear window down signal circuit fault CUSTOMER SYMPTOM: RH rear window switch inoperative	N	RECM to RH rear door switch down circuit (CA104-3) short circuit to B+ voltage RH rear door switch failure
B2197	NCM	Navigation	Television module error	N	NCM to television module harness fault Television module to monitor harness fault Television antenna harness fault Television module failure
B2198	NCM	Navigation	Traffic master module error	N	NCM to traffic master module harness fault Traffic master antenna harness fault Traffic master module failure
B2199	NCM	Navigation	Vehicle information control module error	N	NCM to vehicle information control module harness fault Vehicle information control module antenna harness fault Vehicle information control module failure
B2200	NCM	Navigation	No communication with television module	N	NCM to television module harness open circuit Television module failure
B2201	NCM	Navigation	No communication with traffic master module	N	NCM to traffic master module harness open circuit Traffic master module failure
B2202	NCM	Navigation	No communication with vehicle information control module	N	NCM to vehicle information control module harness open circuit Vehicle information control module failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2203	NCM	Navigation	Navigation CD ROM error	N	CD not installed CD damaged CD inserted incorrectly CD cover not closed NCM harness connections not fully mated NCM harness fault NCN failure
B2204	NCM	Navigation	Navigation GPS antenna fault	N	NCM to navigation harness open circuit, short circuit, high resistance Navigation GPS antenna failure NCM failure
B2205	NCM	Navigation	NCM GPS receiver fault	N	NCM to navigation harness open circuit, short circuit, high resistance Navigation GPS antenna failure NCM failure
B2206	NCM	Navigation	NCM gyroscope fault	N	NCM incorrectly mounted in vehicle NCM failure
B2207	NCM	Navigation	NCM internal ROM error	N	NCM failure
B2208	NCM	Navigation	No communication with navigation display module	N	NCM to navigation display module harness open circuit Navigation display module failure
B2214	GECM	Window lifts	Passenger window up signal circuit fault CUSTOMER SYMPTOM: Passenger window switch inoperative	N	GECM to passenger door switch up circuit (CA24-25) short circuit to B+ voltage Driver door switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2215	GECM	Window lifts	Passenger window down signal circuit fault CUSTOMER SYMPTOM: Passenger window switch inoperative	N	GECM to passenger door switch down circuit (CA24-10) short circuit to B+ voltage Driver door switch failure
B2312	GECM	Door mirrors movement	Passenger door mirror horizontal movement feedback circuit fault CUSTOMER SYMPTOM: Passenger door mirror horizontal movement interrupts; no horizontal memory recall	N	GECM to mirror horizontal movement feedback circuit (CA24-7): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Passenger door mirror failure
B2316	GECM	Door mirrors movement	Passenger door mirror vertical movement feedback circuit fault CUSTOMER SYMPTOM: Passenger door mirror vertical movement interrupts; no vertical memory recall	N	GECM to mirror vertical movement feedback circuit (CA24-11): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Passenger door mirror failure
B2320	DDCM	Door mirrors movement	Driver door mirror horizontal movement feedback circuit fault CUSTOMER SYMPTOM: Driver door mirror horizontal movement interrupts; no horizontal memory recall	N	DDCM to mirror horizontal movement feedback circuit (DT2-14): open circuit, high resistance Driver door mirror failure
B2324	DDCM	Door mirrors movement	Driver door mirror vertical movement feedback circuit fault CUSTOMER SYMPTOM: Driver door mirror vertical movement interrupts; no vertical memory recall	N	DDCM to mirror vertical movement feedback circuit (DT2-15): open circuit, high resistance Driver door mirror failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2328	INST	Steering column movement	Steering column reach position feedback circuit fault CUSTOMER SYMPTOM: Steering column reach movement inoperative	N	Instrument pack to column reach potentiometer feedback circuit (FC63-21): open circuit, short circuit to ground, short circuit to B+ voltage Column reach motor drive circuit(s): open circuit, short circuit to ground, intermittent short circuit to B+ voltage, high resistance Column reach potentiometer failure Column reach motor failure
B2332	INST	Steering column movement	Steering column tilt position feedback circuit fault CUSTOMER SYMPTOM: Steering column tilt movement inoperative	N	Instrument pack to column tilt potentiometer feedback circuit (FC63-20): open circuit, short circuit to ground, short circuit to B+ voltage Column tilt motor drive circuit(s): open circuit, short circuit to ground, intermittent short circuit to B+ voltage, high resistance Column tilt potentiometer failure Column tilt motor failure
B2336	DDCM	Door mirrors movement	Mirror movement switches circuit(s) fault CUSTOMER SYMPTOM: Mirror movement switch(es) inoperative	N	DDCM to driver door switch pack mirror movement circuit(s); open circuit, short circuit to ground, short circuit to each other, high resistance Driver door switch pack ground fault Driver door switch pack failure
B2351	INST	Steering column movement	Steering column adjust switch circuit fault CUSTOMER SYMPTOM: Steering column adjust switch inoperative	N	Instrument pack to column adjust switch signal circuit (FC63-15): short circuit to ground, short circuit to B+ voltage Steering column adjust switch failure
B2373	RPACM	Reverse parking aid	Reverse parking aid state illumination LED circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	N	RPACM to switch LED circuit (CA112-19) short circuit to B+ voltage

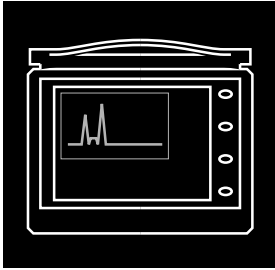
DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2384	AUDIO	In-car entertainment (Reverse parking aid vehicles only)	Reverse gear selected signal fault CUSTOMER SYMPTOM: Audio does not mute when Reverse is selected; audio permanently muted	N	J Gate to PCM gear selector position circuit(s): open circuit, short circuit to ground, short circuit to B+ voltage, short circuit to each other, high resistance J Gate internal circuit fault SCP fault
B2385	AUDIO	In-car entertainment (Navigation vehicles only)	Audio navigation mute signal fault CUSTOMER SYMPTOM: No navigation sound; audio volume permanently reduced or muted	N	NCM to radio head unit mute signal circuit (FC73-16): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance NCM mute signal fault
B2401	AUDIO	In-car entertainment	Audio tape deck mechanism fault CUSTOMER SYMPTOM: Tape deck inoperative	N	Audio tape deck mechanism failure
B2402	AUDIO	In-car entertainment	CD Autochanger thermal shutdown fault CUSTOMER SYMPTOM: CD inoperative	N	CD Autochanger thermal shutdown; allow unit to cool and retest CD Autochanger failure
B2403	AUDIO	In-car entertainment	CD Autochanger internal fault CUSTOMER SYMPTOM: CD inoperative	N	CD media unreadable CD Autochanger mechanism failure
B2404	AUDIO	In-car entertainment	Steering wheel switch circuit fault CUSTOMER SYMPTOM: Audio not responding to switch commands	N	Steering wheel switch(es) stuck ON Steering wheel switch signal circuit (FC73-11): short circuit to ground, short circuit to B+ voltage, high resistance Steering wheel switches failure
B2425	DDCM	Central door locking Security	Remote keyless entry rolling code out of synchronization	N	Recode key fob transmitter DDCM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2428	A/CCM	Climate control	Passenger discharge temperature sensor open circuit CUSTOMER SYMPTOM: Poor passenger temperature control	N	Passenger discharge temperature sensor (RH – LHD; LH – RHD) disconnected A/CCM to passenger discharge temperature sensor (RH – LHD; LH – RHD) sensing circuit (FC28-06) open circuit Passenger discharge temperature sensor (RH – LHD; LH – RHD) failure
B2429	A/CCM	Climate control	Passenger discharge temperature sensor short circuit to ground CUSTOMER SYMPTOM: Poor passenger temperature control	N	A/CCM to passenger discharge temperature sensor (RH – LHD; LH – RHD) sensing circuit (FC28-06) short circuit to ground Passenger discharge temperature sensor (RH – LHD; LH – RHD) failure
B2431	INST	Security system	Key fob transmitter programming error CUSTOMER SYMPTOM: Key fob transmitter inoperative	N	Reprogram key fob(s) Key fob transmitter failure
B2442	GECM	Security	Intrusion sensor / inclination sensor signal circuit fault	N	GECM to sensor(s) signal circuit (CA31-18): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Intrusion sensor(s) failure Inclination sensor failure
B2443	GECM	Automatic transmission	Transmission performance mode switch circuit fault CUSTOMER SYMPTOM: Mode switch inoperative	N	GECM to mode switch circuit (CA31-10): open circuit, short circuit to ground, short circuit to B+ voltage Mode switch ground fault Mode switch failure
B2472	INST	Exterior lighting: front Exterior lighting: rear	Fog lamp switch circuit fault CUSTOMER SYMPTOM: Fog lamp switch inoperative	N	Instrument pack to lighting switch (fog lamps) circuit (FC63-13): open circuit, short circuit Lighting switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2477	ABS/TC	Anti-lock braking / traction control	Control module incorrectly configured CUSTOMER SYMPTOM: MIL flashing, default operation	Y	Reconfigure ABS/TCCM using PDU
B2477	A/CCM	Climate control	Control module incorrectly configured CUSTOMER SYMPTOM: Driver / passenger temperature control reversed; poor heater performance	N	Reconfigure A/CCM using PDU
B2477	ADCM	Suspension adaptive damping (CATS)	Control module incorrectly configured CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	Replace ADCM
B2477	AUDIO	In-car entertainment	Control module incorrectly or not configured CUSTOMER SYMPTOM: Numerous function problems; poor audio sound quality	N	Reconfigure radio head unit using PDU
B2477	DDCM	Various – see FAULT DESCRIPTION	Control module incorrectly configured CUSTOMER SYMPTOM – DDCM systems effected: Memory set functions Driver door mirror movement Driver door locking Remote keyless entry functions Security alarm set / reset functions Window lift function from driver door switch pack Driver window lift	N	Replace DDCM

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2477	DSCCM	Dynamic stability control	Control module incorrectly configured CUSTOMER SYMPTOM: MIL flashing, default operation	Y	Reconfigure DSCCM using PDU
B2477	GECM	Various – see FAULT DESCRIPTION	Control module incorrectly configured CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Security Interior lighting Dimmer controlled lighting Variable assist power steering Passenger door mirror movement Central door locking Windshield wash / wiper Window lifts		Replace GECM
B2477	INST	Instrument pack	Control module incorrectly configured CUSTOMER SYMPTOM: Engine will not start	N	Reconfigure instrument pack using PDU
B2477	RCM	SRS Airbag	Control module incorrectly configured	Y	Replace RCM

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
B2477	RECM	Various – see FAULT DESCRIPTION	Control module incorrectly configured CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Fuel pump (engine management) Climate control Instrument pack Exterior lighting: rear Interior lighting Heated backlight Central door locking Security Window lifts	N	Replace RECM
B2477	RPACM	Reverse parking aid	Control module incorrectly configured CUSTOMER SYMPTOM: Reverse parking aid inoperative; status / fault LED illuminated	Y	Replace RPACM
B2477	VECM	Telephone with voice control and vehicle emergency message system (VEMS)	Control module incorrectly configured CUSTOMER SYMPTOM: VEMS inoperative	N	Reconfigure VECM using PDU



Body DTC Summaries

Jaguar S-TYPE 2003 Model Year

Revised August, 2002: B2290, B2291, B2292

Revised February, 2003: B1317, B1318, B1600, B1601

Refer to pages 2 and 3 for important information regarding the use of "Body DTC Summaries".

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
CM	The control module(s) the DTC is associated with. Refer to page 3.
SYSTEM	The vehicle system the DTC is associated with. Refer to the applicable Electrical Guide Figure for circuit details.
FAULT DESCRIPTION	Fault description. If available, customer symptom (complaint) information is provided in this column.
MIL	Y = MIL (warning indicator) is activated. N = MIL (warning indicator) is not activated. M = Message displayed.
CM PIN	Control module connector pin number(s)
POSSIBLE CAUSES	Suggested possible causes listed in order of probability.

REFERENCE: It is recommended that the applicable "Electrical Guide" be referenced when using the information contained in this document.

CONTROL MODULE ACRONYMS

A/CCM	Air Conditioning Control Module
ADCM	Adaptive Damping Control Module
AMP	Power Amplifier
ASCCM	Adaptive Speed Control Control Module
AUDIO	Audio Unit
CPCM	Cellular Phone Control Module
DDCM	Driver Door Control Module
DSCCM	Dynamic Stability Control Module
DSCM	Driver Seat Control Module
EPBCM	Electronic Parking Brake Control Module
GECM	General Electronic Control Module
HLCM	Headlamp Leveling Control Module
IC	Instrument Cluster
IS	Intrusion Sensor
NCM	Navigation Control Module
PACM	Parking Aid Control Module
RCM	Restraints Control Module
RECM	Rear Electronic Control Module
SCLCM	Steering Column Locking Control Module
VACM	Voice Activation Control Module

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1201	RECM	Instrumentation	Fuel level sensor circuit(s) fault CUSTOMER SYMPTOM: Inaccurate fuel level	N	CA101 -15 -16	RECM to fuel level sensor circuit(s): open circuit, short circuit to ground, short circuit to B+ voltage, short circuit to each other, high resistance Fuel level sensor(s) failure
B1202	IC	Instrumentation	Fuel level sensor circuit fault	N	—	Fuel level sensor(s) circuit(s): open circuit Fuel level sensor SCP message error Fuel level sensor(s) failure
B1204	IC	Instrumentation	Fuel level sensor circuit fault	N	—	Fuel level sensor(s) circuit(s): short circuit to ground Fuel level sensor SCP message error Fuel level sensor(s) failure
B1213	IC	Security	Less than two (2) keys are programmed	N	—	Program at least two keys using WDS
B1231	DSCCM	Dynamic Stability Control (monitored by Adaptive Speed Control System)	Longitudinal acceleration threshold exceeded	Y M	—	Brake booster vacuum low Brake booster failure Brake pressure sensor failure Brake hydraulic unit failure Adaptive speed control control module failure
B1231	RCM	Advanced restraint system	Crash data memory full Flash code 13	Y	-	Replace RCM
B1238	AUDIO	In Car Entertainment	CD autochanger over-temperature fault	N	—	Switch OFF CD autochanger. Load CD autochanger and play media to check for reoccurrence. CD autochanger failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1242	A/CCM	Climate Control	Fresh / recirculation air flow actuator motor drive circuit fault CUSTOMER SYMPTOM: No variable air flow direction control	N	FC40 -09 -10 -15 FC27 -09 -10 -15 FC41 -11 -22 FC28 -11 -22	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Fresh / recirculation air flow actuator position sensor supply voltage circuit: open circuit, short circuit to ground or B+ voltage Fresh / recirculation air flow actuator position sensor signal circuit: open circuit, short circuit to ground Fresh / recirculation air flow actuator failure
B1251	A/CCM	Climate Control	In-car temperature sensor circuit open circuit CUSTOMER SYMPTOM: No automatic temperature control	N	FC41 -09 FC28 -09	In-car temperature sensor disconnected A/CCM to in-car temperature sensor sensing circuit: open circuit In-car temperature sensor failure
B1253	A/CCM	Climate Control	In-car temperature sensor circuit short circuit to ground CUSTOMER SYMPTOM: No automatic temperature control	N	FC41 -09 FC28 -09	A/CCM to in-car temperature sensor sensing circuit: short circuit to ground In-car temperature sensor failure
B1255	A/CCM	Climate Control	Ambient air temperature sensor circuit open circuit CUSTOMER SYMPTOM: Inaccurate exterior temperature displayed	N	FC41 -17 FC28 17	Ambient air temperature sensor disconnected A/CCM to ambient air temperature sensor sensing circuit: open circuit Ambient air temperature sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1257	A/CCM	Climate Control	Ambient air temperature sensor circuit short circuit to ground CUSTOMER SYMPTOM: Inaccurate exterior temperature displayed	N	FC41 -17 FC28 17	A/CCM to ambient air temperature sensor sensing circuit: short circuit to ground Ambient air temperature sensor failure
B1262	A/CCM	Climate Control	Defrost mode actuator motor drive circuit fault CUSTOMER SYMPTOM: No defrost air flow direction control	N	FC40 -01 -13 -17 -26 FC27 -01 -13 -17 -26 FC41 -22 FC28 -22	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Defrost mode actuator position sensor supply voltage circuit: open circuit, short circuit to ground or B+ voltage Defrost mode actuator position sensor signal circuit: open circuit, short circuit to ground Defrost mode actuator failure
B1263	A/CCM	Climate Control	Panel mode actuator motor drive circuit fault CUSTOMER SYMPTOM: No panel air flow direction control	N	FC40 -03 -17 -24 -25 FC27 -03 -17 -24 -25 FC41 -22 FC28 -22	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Panel mode actuator position sensor supply voltage circuit: open circuit, short circuit to ground or B+ voltage Panel mode actuator position sensor signal circuit: open circuit, short circuit to ground Panel mode actuator failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1264	A/CCM	Climate Control	Floor mode actuator motor drive circuit fault CUSTOMER SYMPTOM: No floor air flow direction control	N	FC40 -16 -17 -22 -23 FC27 -16 -17 -22 -23 FC41 -22 FC28 -22	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Floor mode actuator position sensor supply voltage circuit: open circuit, short circuit to ground or B+ voltage Floor mode actuator position sensor signal circuit: open circuit, short circuit to ground Floor mode actuator failure
B1265	A/CCM	Climate Control	Cold air bypass actuator motor drive circuit fault CUSTOMER SYMPTOM: No bypass air flow direction control	N	FC40 -02 -11 -12 FC27 -02 -11 -12 FC41 -11 -22 FC28 -11 -22	A/CCM to actuator drive circuit(s): high resistance, open circuit, short circuit to ground, or short circuit to each other Cold air bypass actuator position sensor supply voltage circuit: open circuit, short circuit to ground or B+ voltage Cold air bypass actuator position sensor signal circuit: open circuit, short circuit to ground Cold air bypass actuator failure
B1299	PACM	Parking Aid	Sensor power supply circuit fault	N	CA112 -15	Sensor power supply circuit: short circuit to ground

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1309	DDCM	Central door locking	Driver door lock circuit short circuit to ground CUSTOMER SYMPTOM: Driver door lock switch inoperative	N	DT2 -8	DDCM to driver door latch assembly lock circuit: short circuit to ground Driver door latch assembly failure
B1310	RECM	Central Locking	Passenger door latch lock / unlock switch circuit fault	N	CA101 -19	RECM to passenger door latch lock / unlock switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage, short circuit to each other, high resistance
B1317	DSCCM	Dynamic Stability Control	Battery voltage out of range – high	Y M	FH103 -1 -16 -32 -47	Charging system high voltage fault DSCCM ground fault
B1317	EPBCM	Electronic Parking Brake	Battery voltage out of range – high	Y M	CA241 -1 -4	Charging system high voltage fault EPBCM ground fault
B1317	IC	Instrument Cluster	Battery voltage out of range – high	N	FC14 -3 FC15 -3	Charging system high voltage fault IC ground fault
B1317	RCM	Advanced restraint system	Battery voltage out of range – high: >17.5 V ±1.5 V	N	CA114 -12	Charging system over voltage fault
B1318	DSCCM	Dynamic Stability Control	Battery voltage out of range – low	Y M	FH103 -1 -16 -32 -47	Charging system low voltage fault DSCCM battery power supply circuit(s): high resistance
B1318	EPBCM	Electronic Parking Brake	Battery voltage out of range – low	Y M	CA241 -1 -4	Charging system low voltage fault EPBCM battery power supply circuit(s): high resistance

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1318	HLCM	Automatic Headlamp Leveling	Battery voltage out of range – low	N	FH12 -23	Charging system low voltage fault DSCCM ignition switched power supply circuit: high resistance
B1318	IC	Instrument Cluster	Battery voltage out of range – low	N	FC14 -3 FC15 -3	Charging system low voltage fault IC battery power supply circuit(s): high resistance
B1318	RCM	Advanced restraint system	Battery voltage out of range – low	N	CA114 -12	Charging system low voltage fault Ignition switched power supply circuit: high resistance
B1319	GECM	Interior lighting Central door locking Security	Driver door ajar switch circuit fault CUSTOMER SYMPTOM – GECM systems effected: Interior lighting – lamps inoperative or always ON Central door locking Security	N	CA31 -8	GECM to driver ajar door switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Driver door ajar switch ground fault Driver door ajar switch failure
B1327	GECM	Interior lighting Central door locking Security	Passenger door ajar switch circuit fault CUSTOMER SYMPTOM – GECM systems effected: Interior lighting – lamps inoperative or always on Central door locking Security	N	CA24 -15	GECM to passenger door ajar switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Passenger door ajar switch ground fault Passenger door ajar switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1331	RECM	Interior lighting Central door locking Security	Trunk ajar switch circuit fault CUSTOMER SYMPTOM – RECM systems effected: Interior lighting – trunk lamps inoperative or always ON Central door locking Security	N	CA102 -14	RECM to trunk ajar switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Trunk ajar switch ground fault Trunk ajar switch failure
B1341	DDCM	Central door locking	Driver door unlock circuit short circuit to ground CUSTOMER SYMPTOM: Driver door lock switch inoperative	N	DT2 -9	DDCM to driver door latch assembly unlock circuit: short circuit to ground Driver door latch assembly failure
B1342	A/CCM	Climate Control	Control module failure CUSTOMER SYMPTOM: No climate control operation	N	—	A/CCM failure
B1342	ADCM	Suspension adaptive damping (CATS)	Control module failure CUSTOMER SYMPTOM: Dampers default to firm; fault message	M		ADCM failure
B1342	AMP	In Car Entertainment – Power Amplifier circuits	Power amplifier internal fault	N	—	Power amplifier failure
B1342	ASCCM	Adaptive Speed Control	Control module failure	Y M	—	ASCCM failure
B1342	AUDIO	In Car Entertainment	Control module failure	N	—	Audio unit failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1342	CPCM	Telephone	CPCM internal fault	N	–	CPCM failure
B1342	DDCM	Driver Door Control Module	DDCM internal fault	N	–	DDCM failure
B1342	DSCCM	Dynamic Stability Control	Control module failure	Y* M	—	DSCCM failure * CHECK ENGINE MIL
B1342	EPBCM	Electronic Parking Brake	Control module failure	Y M	—	EPBCM failure
B1342	GECM	Various – see FAULT DESCRIPTION	Control module failure CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Security Interior lighting Dimmer controlled lighting Variable assist power steering	N	—	GECM failure
B1342	HLCM	Automatic Headlamp Leveling	HLCM internal fault	N	–	HLCM failure
B1342	IC	Instrument Cluster	Control module failure	N	—	IC failure
B1342	NCM	Navigation	NCM internal fault	N	–	NCM failure
B1342	PACM	Parking Aid	PACM internal fault	N	–	PACM failure
B1342	RCM	Advanced restraint system	RCM internal fault	N	–	RCM failure
B1342	RECM	Rear Electronic Control Module	Control module failure	N	—	RECM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1342	SCLCM	Security (steering column lock control module)	Control module failure CUSTOMER SYMPTOM: Steering column locking inoperative	N	—	SCLCM failure
B1352	IC	Instrument Cluster	Ignition "key-in" switch circuit fault CUSTOMER SYMPTOM: Key-in audible warning inoperative; steering column and driver seat entry / exit memory functions inoperative	N	FC14-2	Instrument cluster to key-in switch circuit: open circuit, short circuit to ground Key-in switch failure
B1438	GECM	Wash / wipe system	Wiper mode select switch circuit fault CUSTOMER SYMPTOM: Windshield wipers inoperative	N	CA31-2	GECM to wipe / wash switch wiper mode select circuit: open circuit, short circuit to ground, short circuit to B+ voltage Wipe / wash switch failure
B1446	GECM	Wash / wipe system	Windshield wiper motor park sense circuit fault CUSTOMER SYMPTOM: Incorrect windshield wiper operation	N	FH9-13	GECM to wiper park switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Wiper park switch failure
B1470	IC	Exterior lighting: front	Headlamp switch circuit fault CUSTOMER SYMPTOM: Headlamp switch inoperative	N	FC63-13	Instrument cluster to main lighting switch (headlamps) circuit: open circuit, short circuit to ground, short circuit to B+ voltage Main lighting switch failure
B1479	GECM	Wash / wipe system	Washer fluid level switch circuit fault CUSTOMER SYMPTOM: Low fluid MIL on or off continuously; programmed wash / wipe inoperative	Y	FH9-15	GECM to fluid level switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Washer fluid level switch ground fault Washer fluid level switch failure
B1483	RECM	Exterior lighting: rear	Brake (stop lamp) switch circuit fault CUSTOMER SYMPTOM: Stop lamps inoperative or always on	N	CA102-13	Brake switch battery power supply open circuit RECM to brake switch circuit open circuit, short circuit to ground, short circuit to B+ voltage Brake switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1499	GECM	Exterior lighting: front	LH front turn signal circuit fault CUSTOMER SYMPTOM: LH front turn signal inoperative; LH front turn signal always ON	N	FH60 -5	LH front turn signal bulb failure GECM to LH front turn signal (headlamp unit) circuit: open circuit, short circuit to ground LH headlamp unit failure GECM failure
B1499	RECM	Exterior lighting: rear	LH rear turn signal circuit fault CUSTOMER SYMPTOM: LH rear turn signal inoperative; LH rear turn signal always on	N	CA63 -3	LH rear turn signal bulb failure RECM to LH rear turn signal (tail lamp unit) circuit: open circuit, short circuit to ground LH tail lamp unit failure RECM failure
B1501	GECM	Exterior lighting: front	LH front turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: LH front turn signal inoperative; LH front turn signal always ON	N	FH60 -5	GECM to LH front turn signal (headlamp unit) circuit: short circuit to B+ voltage LH headlamp unit failure GECM failure
B1501	RECM	Exterior lighting: rear	LH rear turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: LH rear turn signal inoperative; LH rear turn signal always on	N	CA63 -3	RECM to LH rear turn signal (tail lamp unit) circuit: short circuit to B+ voltage LH tail lamp unit failure RECM failure
B1503	GECM	Exterior lighting: front	RH front turn signal circuit fault CUSTOMER SYMPTOM: RH front turn signal inoperative; RH front turn signal always ON	N	FH60 -4	RH front turn signal bulb failure GECM to RH front turn signal (headlamp unit) circuit: open circuit, short circuit to ground RH headlamp unit failure GECM failure
B1503	RECM	Exterior lighting: rear	RH rear turn signal circuit fault CUSTOMER SYMPTOM: RH rear turn signal inoperative; RH rear turn signal always on	N	CA63 -4	RH rear turn signal bulb failure RECM to RH rear turn signal (tail lamp unit) circuit: open circuit, short circuit to ground RH tail lamp unit failure RECM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1505	GECM	Exterior lighting: front	RH front turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: RH front turn signal inoperative; RH front turn signal always ON	N	FH60 -4	GECM to RH front turn signal (headlamp unit) circuit: short circuit to B+ voltage RH headlamp unit failure GECM failure
B1505	RECM	Exterior lighting: rear	RH rear turn signal circuit B+ voltage fault CUSTOMER SYMPTOM: RH rear turn signal inoperative; RH rear turn signal always on	N	CA63 -4	RECM to RH rear turn signal (tail lamp unit) circuit: short circuit to B+ voltage RH tail lamp unit failure RECM failure
B1519	GECM	Security	Hood ajar switch circuit fault CUSTOMER SYMPTOM: Security system does not arm; security system functions incorrectly	N	FH59 -3	GECM to hood ajar switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Hood ajar switch ground fault Hood ajar switch failure
B1530	DDCM	Memory functions: Steering column movement Door mirror movement Driver seat movement	Memory set switch circuit fault CUSTOMER SYMPTOM: Memory set switch inoperative	N	DD4 -25	DDCM to driver door switch pack memory set switch circuit: short circuit to ground Driver door switch pack failure
B1534	DDCM	Memory functions: Steering column movement Door mirror movement Driver seat movement	Memory 1 switch circuit fault CUSTOMER SYMPTOM: Memory 1 switch inoperative	N	DD4 -1	DDCM to driver door switch pack memory 1 switch circuit: short circuit to ground Driver door switch pack failure
B1538	DDCM	Memory functions: Steering column movement Door mirror movement Driver seat movement	Memory 2 switch circuit fault CUSTOMER SYMPTOM: Memory 2 switch inoperative	N	DD4 -11	DDCM to driver door switch pack memory 2 switch circuit: short circuit to ground Driver door switch pack failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1551	GECM	Central Door Locking	Trunk release circuit fault CUSTOMER SYMPTOM: Trunk will not release	N	CA24 -4	GECM to trunk release circuit: open circuit, short circuit to ground Trunk release switch ground fault Trunk release switch failure Valet switch failure
B1567	GECM	Exterior lighting: front	Headlamp main beam circuit(s) fault CUSTOMER SYMPTOM: Headlamp main beam(s) inoperative; headlamp main beam(s) always ON	N	FH60 -10 -17	Headlamp bulb failure GECM to headlamp main beam bulbs circuit(s): open circuit, short circuit to ground, short circuit to B+ voltage Headlamp unit failure
B1576	IC	Exterior lighting: front	Headlamp main beam switch circuit fault CUSTOMER SYMPTOM: Headlamp main beam switch inoperative	N	FC63 -12	Instrument cluster to main lighting switch (main beam) circuit: open circuit, short circuit to ground, short circuit to B+ voltage Main lighting switch failure
B1600	IC	Battery; starter; generator Security	Ignition key transponder signal is not received CUSTOMER SYMPTOM: Engine will not start	N	FC15 -4 -5 -6	Incorrect ignition key(s) Reconfigure instrument cluster for ignition keys using WDS Passive anti-theft system transceiver failure
B1601	IC	Battery; starter; generator Security	Instrument cluster passive anti-theft system module (PATS) received incorrect ignition key code from PATS transceiver CUSTOMER SYMPTOM: Engine will not start	N	FC15 -4 -5 -6	Reprogram instrument cluster for ignition keys using WDS Passive anti-theft system transceiver failure
B1602	IC	Battery; starter; generator Security	Instrument cluster passive anti-theft system module (PATS) received invalid form of ignition key code from PATS transceiver CUSTOMER SYMPTOM: Engine will not start	N	FC15 -4 -5 -6	Passive anti-theft system transceiver failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1676	A/CCM	Climate Control	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM: No climate control operation	N	FC41 -14 FC28 -14	Charging system low / high voltage fault
B1676	DDCM	Driver Door Control Module	Battery voltage out of range: 9 v – 16 v	N	CA85 -11	Charging system low / high voltage fault Battery power supply circuit: high resistance
B1676	GECM	Various – see FAULT DESCRIPTION	Battery voltage out of range: 9 v – 16 v CUSTOMER SYMPTOM – GECM systems effected: Switched system power SCP functions Security Interior lighting Dimmer controlled lighting Variable assist power steering Passenger door mirror movement Central door locking	N	FC15 -3	Charging system low / high voltage fault Battery power supply circuit: open circuit, high resistance
B1676	RECM	Rear Electronic Control Module	Battery voltage out of range: 9 v – 16 v	N	CA101 -3	Charging system low / high voltage fault Battery power supply circuit: high resistance
B1681	IC	Battery; starter; generator Security	Instrument cluster passive anti-theft system (PATS) module does not receive PATS transceiver signal CUSTOMER SYMPTOM: Engine will not start	N	FC15 -4 -5	Instrument cluster to passive anti-theft system transceiver circuit(s): open circuit, short circuit to ground, short circuit to each other, short circuit to B+ voltage, high resistance Passive anti-theft system transceiver failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1689	IC	Exterior lighting: front	Autolamps / exit delay switch circuit fault CUSTOMER SYMPTOM: Headlamp autolamp function / exit delay function inoperative	N	FC63 -2	Instrument cluster to main lighting switch (autolamps / exit delay) circuit: open circuit, short circuit Main lighting switch failure
B1794	GECM	Exterior lighting: front (non HID)	Headlamp dip beam circuit(s) fault CUSTOMER SYMPTOM: Headlamp dip beam(s) inoperative; headlamp dip beam(s) always ON	N	FH60 -7 -8	Headlamp bulb failure GECM to headlamp dip beam bulbs circuit(s): open circuit, short circuit to ground, short circuit to B+ voltage Headlamp unit failure
B1869	RCM	Advanced restraint system	Airbag MIL circuit fault	N	CA114 -19	Airbag MIL circuit: open circuit
B1870	RCM	Advanced restraint system	Airbag MIL circuit fault	Y	CA114 -19	Airbag MIL circuit: short circuit to B+ voltage
B1875	IC	Exterior lighting: front	Turn signals / hazard switch circuit fault CUSTOMER SYMPTOM: Turn signals and hazard warning inoperative	N	FC63 -1	Instrument cluster to turn signals / hazard switch circuit: short circuit to ground, short circuit to B+ voltage Turn signals and / or hazard switch failure
B1884	RCM	Advanced restraint system	Passenger airbag deactivated indicator lamp circuit fault Flash code 18	Y	CA114 -15	Passenger airbag deactivated indicator lamp circuit: open circuit, short circuit to ground
B1890	RCM	Advanced restraint system	Passenger airbag deactivated indicator lamp circuit fault	Y	CA114 -15	Passenger airbag deactivated indicator lamp circuit: short circuit to B+ voltage
B1891	RCM	Advanced restraint system	Airbag audible warning circuit fault	N	CA114 -22	Airbag audible warning circuit: short circuit to B+ voltage
B1892	RCM	Advanced restraint system	Airbag audible warning circuit fault Flash code 53	Y	CA114 -22	Airbag audible warning circuit: open circuit, short circuit to ground

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B1893	CPCM	JaguarNet	Jaguar Net GPS antenna circuit fault	N	CA211 -1	Jaguar Net GPS antenna circuit: open circuit
B1921	RCM	Advanced restraint system	RCM internal airbag diagnostic monitor ground circuit fault Flash code 14	Y	-	RCM mounting bracket contact: open circuit, high resistance
B1940	DSCM	Driver seat	Seat memory position out of range	N	—	Re calibrate DSCM using WDS
B1946	A/CCM	Climate Control	Evaporator discharge temperature sensor open circuit CUSTOMER SYMPTOM: Poor automatic temperature control; no air conditioning compressor cycling control	N	FC41 -10 FC28 -10	Evaporator discharge temperature sensor disconnected A/CCM to evaporator discharge temperature sensor sensing circuit: open circuit Evaporator discharge temperature sensor failure
B1947	A/CCM	Climate Control	Evaporator discharge temperature sensor short circuit to ground CUSTOMER SYMPTOM: Poor automatic temperature control; no air conditioning compressor cycling control	N	FC41 -10 FC28 -10	A/CCM to evaporator discharge temperature sensor sensing circuit: short circuit to ground Evaporator discharge temperature sensor failure
B1966	A/CCM	Climate Control	Driver discharge temperature sensor open circuit CUSTOMER SYMPTOM: Poor driver temperature control	N	FC41 -18 FC28 -18	Driver discharge temperature sensor (LH – LHD; RH – RHD) disconnected A/CCM to driver discharge temperature sensor (LH – LHD; RH – RHD) sensing circuit: open circuit Driver discharge temperature sensor (LH – LHD; RH – RHD) failure
B1967	A/CCM	Climate Control	Driver discharge temperature sensor short circuit to ground CUSTOMER SYMPTOM: Poor driver temperature control	N	FC41 -18 FC28 -18	A/CCM to driver discharge temperature sensor (LH – LHD; RH – RHD) sensing circuit: short circuit to ground Driver discharge temperature sensor (LH – LHD; RH – RHD) failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2004	AUDIO	In Car Entertainment	Audio unit media over-temperature fault	N	—	Switch OFF audio unit and allow to cool. Switch audio unit ON, load and play media, and check for reoccurrence. Audio unit failure
B2102	CPCM	JaguarNet	Jaguar Net GPS antenna circuit fault	N	CA211 -1	Jaguar Net GPS antenna circuit: short circuit
B2103	CPCM	Telephone	Telephone antenna circuit fault	N	CA209 -1 CA210 -1	Telephone antenna circuit: high resistance, open circuit
B2103	IC	Battery; starter; generator Security	Instrument pack passive anti-theft system (PATS) module does not receive PATS transceiver data CUSTOMER SYMPTOM: Engine will not start	N	FC15 -5	Instrument cluster to passive anti-theft system transceiver data circuit: open circuit, short circuit to ground, short circuit to each other, short circuit to B+ voltage, high resistance Passive anti-theft system transceiver failure
B2112	DDCM	Central door locking Security	Driver door "lock / alarm set" key cylinder switch circuit fault CUSTOMER SYMPTOM: Driver door key cylinder switch inoperative	N	DT2 -16	DDCM to driver door switch pack "alarm set" circuit: short circuit to ground Driver door switch pack failure
B2116	DDCM	Central door locking Security	Driver door "unlock / alarm reset" key cylinder switch circuit fault CUSTOMER SYMPTOM: Driver door key cylinder switch inoperative	N	DT2 -17	DDCM to driver door switch pack "alarm reset" circuit: short circuit to ground Driver door switch pack failure
B2139	IC	Battery; starter; generator Security	Engine control module identification does not match instrument cluster CUSTOMER SYMPTOM: Engine will not start	Y	—	Reconfigure instrument cluster using WDS

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2141	CPCM	Telephone	CPCM configuration failure	N	—	Invalid telephone numbers present Reconfigure CPCM using WDS
B2141	DSCCM	Dynamic Stability Control	DSCCM configuration failure	Y M	—	Reconfigure DSCCM using WDS
B2141	IC	Battery; starter; generator Security	Engine control module identification lost from instrument cluster non-volatile memory CUSTOMER SYMPTOM: Engine will not start	Y	—	Reconfigure instrument cluster using WDS
B2143	IC	Instrumentation	Odometer memory failure	N	—	IC failure
B2146	IC	Interior lighting Dimmer-controlled lighting	Dimmer switch circuit fault CUSTOMER SYMPTOM: Both interior lighting master switch and dimmer switch inoperative	N	FC63 -16	Dimmer switch signal circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Dimmer switch failure
B2147	DSCM	Driver seat	Driver seat switch circuit fault (one or more individual switches)	N	All seat switch DSCM input circuits	Driver seat switch DSCM input circuit(s): short circuit to B+ voltage Driver seat switch pack failure
B2162	IC	Security	Steering column locking control module identification does not match instrument cluster CUSTOMER SYMPTOM: Engine will not start	Y	—	Reconfigure instrument cluster using WDS
B2162	SCLCM	Security	Instrument pack identification does not match steering column locking control module CUSTOMER SYMPTOM: Engine will not start	Y	—	Reconfigure SCLCM using WDS

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2168	SCLCM	Security	SCLCM unable to detect unlocked condition	N	—	SCLCM failure
B2169	SCLCM	Security	SCLCM unable to detect locked condition	N	—	SCLCM failure
B2172	RECM	RECM inertia switch input Fuel pump (engine management) Central door locking	Inertia switch circuit open circuit	N	CA100-8	Inertia switch tripped (vehicle impact) RECM to inertia switch circuit: open circuit Inertia switch failure
B2197	NCM	Television	Television screen module internal fault	N	–	Television screen module failure
B2199	NCM	Vehicle information control system	Vehicle information control module internal fault	N	–	Vehicle information control module failure
B2202	NCM	Navigation	Vehicle information control system communications fault	N	–	NCM configured for VICS; vehicle information control module not installed Reconfigure NCM using WDS
B2204	NCM	Navigation	GPS antenna signal not received	N	CA167-01-02	NCM to Navigation GPS antenna circuit: open circuit
B2205	NCM	Navigation	NCM GPS receiver fault	N	CA167-01-02	Navigation GPS antenna obstructed NCM to Navigation GPS antenna circuit: high resistance, open circuit, short circuit NCM failure
B2206	NCM	Navigation	NCM gyroscope error	N	–	NCM failure
B2207	DSCM	Driver seat	DSCM internal ROM error	N	—	DSCM failure
B2207	NCM	Navigation	NCM internal error	N	–	NCM failure
B2207	PACM	Parking Aid	PACM internal error	N	–	PACM failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2208	NCM	Navigation	NCM to telematics display communication fault	N	CA257	NCM to telematics communication circuit: high resistance, open circuit
B2243	RECM	Interior lighting Central door locking Security	Driver side rear door ajar switch circuit fault	N	CA101 -16	RECM to driver side rear door ajar switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Driver side rear door ajar switch ground fault Driver side rear door ajar switch failure
B2245	RECM	Interior lighting Central door locking Security	Passenger side rear door ajar switch circuit fault	N	CA101 -17	RECM to passenger side rear door ajar switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Passenger side rear door ajar switch ground fault Passenger side rear door ajar switch failure
B2290	RCM	Advanced restraint system	Passenger seat weight sensing (Occupancy Classification) CAN circuit fault Flash code 16	Y	CA232 -17 -18	Passenger seat weight sensing CAN circuit fault Passenger seat weight pressure sensor circuit fault Test using WDS
B2291	RCM	Advanced restraint system	Passenger spatial sensing (Occupancy Position) CAN circuit fault Flash code 17	Y	CA232 -17 -18	Passenger spatial sensing CAN circuit fault Passenger spatial sensor(s) circuit(s) fault Test using WDS
B2292	RCM	Advanced restraint system	Seat belt pretensioner circuit fault Flash code 33 – driver side Flash code 34 – passenger side	Y	CA232 -31 -32 CA232 -33 -34	Driver seat belt pretensioner circuit fault Passenger seat belt pretensioner circuit fault Test using WDS
B2293	RCM	Advanced restraint system	Airbag circuit status fault Flash code 19 – driver side Flash code 21 – passenger side	Y	CA114 -05 -06 CA114 -13 -14	Driver airbag circuit fault Passenger air bag circuit fault Test using WDS

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2294	RCM	Advanced restraint system	Curtain airbag circuit status fault Flash code 24 – driver side Flash code 25 – passenger side	Y	CA232 -03 -04 CA232 -05 -06	Driver curtain airbag circuit fault Passenger curtain air bag circuit fault Test using WDS
B2295	RCM	Advanced restraint system	Side airbag circuit status fault Flash code 22 – driver side Flash code 23 – passenger side	Y	CA232 -01 -02 CA232 -21 -22	Driver side airbag circuit fault Passenger side air bag circuit fault Test using WDS
B2296	RCM	Advanced restraint system	Impact sensor circuit status fault Flash code 42 – Front impact sensor Flash code 43 – Driver side impact sensor Flash code 44 – Passenger side impact sensor Flash code 45 – Driver rear side impact sensor Flash code 46 – Passenger rear side impact sensor	Y	CA232 -19 -20 CA232 -27 -28 CA232 -29 -30 CA232 -13 -14 CA232 -15 -16	Impact sensor circuit fault Test using WDS

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2309	DSCM	Driver seat	Seat motor out of range (one or more seat motors)	N	All seat motors and sensors circuits	One or more seat motor circuits: open circuit, short circuit to ground, short circuit to each other One or more seat position sensors signal ground circuits: open circuit, short circuit to B+ voltage One or more seat position sensor signal circuits: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Seat motor(s) failure Seat position sensor(s) failure
B2312	GECM	Door mirrors movement	Passenger door mirror horizontal movement sensor signal circuit fault CUSTOMER SYMPTOM: Passenger door mirror horizontal movement interrupts; no horizontal memory recall	N	CA24 -7	GECM to mirror horizontal movement sensor signal circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Passenger door mirror failure
B2316	GECM	Door Mirrors Movement	Passenger door mirror vertical movement sensor signal circuit fault CUSTOMER SYMPTOM: Passenger door mirror vertical movement interrupts; no vertical memory recall	N	CA24 -11	GECM to mirror vertical movement sensor signal circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Passenger door mirror failure
B2320	DDCM	Door mirrors movement	Driver door mirror horizontal movement feedback circuit fault CUSTOMER SYMPTOM: Driver door mirror horizontal movement interrupts; no horizontal memory recall	N	DT2 -14	DDCM to mirror horizontal movement feedback circuit: open circuit, high resistance Driver door mirror failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2324	DDCM	Door mirrors movement	Driver door mirror vertical movement feedback circuit fault CUSTOMER SYMPTOM: Driver door mirror vertical movement interrupts; no vertical memory recall	N	DT2 -15	DDCM to mirror vertical movement feedback circuit: open circuit, high resistance Driver door mirror failure
B2328	IC	Steering column movement	Steering column reach position sensor circuit fault CUSTOMER SYMPTOM: Steering column reach movement inoperative	N	FC15 -11 -12 FC63 -9	Instrument cluster to column reach position sensor signal circuit: open circuit, short circuit to ground, short circuit to B+ voltage Column reach motor drive circuit(s): open circuit, short circuit to ground, intermittent short circuit to B+ voltage, high resistance Column reach position sensor failure Column reach motor failure
B2332	IC	Steering column movement	Steering column tilt position sensor circuit fault CUSTOMER SYMPTOM: Steering column tilt movement inoperative	N	FC15 -11 -12 FC63 -20	Instrument cluster to column tilt position sensor circuit: open circuit, short circuit to ground, short circuit to B+ voltage Column tilt motor drive circuit(s): open circuit, short circuit to ground, intermittent short circuit to B+ voltage, high resistance Column tilt position sensor failure Column tilt motor failure
B2336	DDCM	Door mirrors movement	Mirror movement switches circuit(s) fault CUSTOMER SYMPTOM: Mirror movement switch(es) inoperative	N	DD4 -3 -19 -20 -21 -23 -24	DDCM to driver door switch pack mirror movement circuit(s); open circuit, short circuit to ground, short circuit to each other, high resistance Driver door switch pack ground fault Driver door switch pack failure
B2351	IC	Steering column movement	Steering column adjust switch circuit fault CUSTOMER SYMPTOM: Steering column adjust switch inoperative	N	FC63 -17	Instrument cluster to column adjust switch signal circuit: short circuit to ground, short circuit to B+ voltage Steering column adjust switch failure
B2369	ASCCM	Adaptive Speed Control	Chime request circuit fault	Y M	FH107 -6	Chime request circuit: short circuit to ground

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2375	SCLCM	Security	Position sensor failure – unlocking	N	—	SCLCM failure
B2376	SCLCM	Security	Lock cycle timing invalid	N		Reconfigure SCLCM using WDS SCLCM failure
B2377	SCLCM	Security	Unlock cycle timing invalid	N	—	Reconfigure SCLCM using WDS SCLCM failure
B2378	SCLCM	Security	Position sensor failure – locking	N	—	SCLCM failure
B2379	SCLCM	Security	SCLCM not configured	N	—	Reconfigure SCLCM using WDS
B2401	AUDIO	In Car Entertainment	Audio unit tape deck fault	N	—	Audio unit failure
B2403	AUDIO	In Car Entertainment	CD autochanger failure	N	—	CD autochanger failure
B2408	AMP	In Car Entertainment – Power Amplifier circuits	Speaker circuit(s) fault	N	All speaker	One or more speaker circuits: short circuit to ground Run "Audio Speaker Cycle Command" to test which channel is shorted.
B2425	DDCM	Central door locking Security	Remote keyless entry rolling code out of synchronization	N	—	Recode key fob transmitter DDCM failure
B2426	A/CCM	Climate Control	RH dual solar sensor sensing circuit open circuit CUSTOMER SYMPTOM: Poor automatic temperature control in high sun load conditions		FC41 -20 FC28 -20	Dual solar sensor disconnected A/CCM to RH dual solar sensor sensing circuit: open circuit Dual solar sensor failure
B2427	A/CCM	Climate Control	RH dual solar sensor sensing circuit short circuit to ground CUSTOMER SYMPTOM: Poor automatic temperature control in high sun load conditions		FC41 -20 FC28 -20	A/CCM to RH dual solar sensor sensing circuit: short circuit to ground Dual solar sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2428	A/CCM	Climate Control	Passenger discharge temperature sensor open circuit CUSTOMER SYMPTOM: Poor passenger temperature control	N	FC41-06 FC28-06	Passenger discharge temperature sensor (RH – LHD; LH – RHD) disconnected A/CCM to passenger discharge temperature sensor (RH – LHD; LH – RHD) sensing circuit: open circuit Passenger discharge temperature sensor (RH – LHD; LH – RHD) failure
B2429	A/CCM	Climate Control	Passenger discharge temperature sensor short circuit to ground CUSTOMER SYMPTOM: Poor passenger temperature control	N	FC41-06 FC28-06	A/CCM to passenger discharge temperature sensor (RH – LHD; LH – RHD) sensing circuit: short circuit to ground Passenger discharge temperature sensor (RH – LHD; LH – RHD) failure
B2431	IC	Security system	Key fob transmitter programming error CUSTOMER SYMPTOM: Key fob transmitter inoperative	N	—	Reprogram key fob(s) Key fob transmitter failure
B2434	RCM	Advanced restraint system	Driver seat belt switch circuit fault Flash code 51	Y	CA232-25	Driver seat belt switch circuit: short circuit to ground
B2435	RCM	Advanced restraint system	Driver seat belt switch circuit fault Flash code 51	Y	CA232-25	Driver seat belt switch circuit: high resistance Driver seat belt switch failure
B2438	RCM	Advanced restraint system	Passenger seat belt switch circuit fault Flash code 52	Y	CA232-26	Passenger seat belt switch circuit: short circuit to ground
B2439	RCM	Advanced restraint system	Passenger seat belt switch circuit fault Flash code 52	Y	CA232-26	Passenger seat belt switch circuit: high resistance Passenger seat belt switch failure
B2472	IC	Exterior lighting: front Exterior lighting: rear	Fog lamp switch circuit fault CUSTOMER SYMPTOM: Fog lamp switch inoperative	N	FC63-6	Instrument cluster to auxiliary lighting switch (fog lamps) circuit: open circuit, short circuit to ground, short circuit to B+ voltage Auxiliary lighting switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2477	A/CCM	Climate Control	Control module incorrectly configured CUSTOMER SYMPTOM: Driver / passenger temperature control reversed; poor heater performance	N	—	Reconfigure A/CCM using WDS
B2477	ADCM	Suspension adaptive damping (CATS)	Control module incorrectly configured CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	—	Reconfigure ADCM using WDS
B2477	AMP	In Car Entertainment – Power Amplifier circuits	Power amplifier incorrectly configured	N	—	Reconfigure power amplifier using WDS
B2477	ASCCM	Adaptive Speed Control	Control module configuration failure	Y M	—	Reconfigure ASCCM using WDS
B2477	AUDIO	In Car Entertainment	Control module configuration failure	N	—	Reconfigure AUDIO using WDS
B2477	CPCM	JaguarNet	CPCM JaguarNet configuration failure	N	–	Reconfigure CPCM using WDS
B2477	DDCM	Various – see FAULT DESCRIPTION	Control module incorrectly configured CUSTOMER SYMPTOM – DDCM systems effected: Memory set functions Driver door mirror movement Driver door locking Remote keyless entry functions Security alarm set / reset functions	N	—	Replace DDCM

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2477	EPBCM	Electronic Parking Brake	Control module incorrectly configured	Y M	—	Reconfigure EPBCM using WDS
B2477	HLCM	Automatic Headlamp Leveling	Control module incorrectly configured	N	—	Reconfigure HLCM using WDS
B2477	IC	Instrument Cluster	Control module incorrectly configured	N	—	Reconfigure IC using WDS
B2477	IS	Intrusion Sensor	Control module incorrectly configured	N	—	Reconfigure IS using WDS
B2477	PACM	Parking Aid	PACM configuration failure	N	-	Reconfigure PACM using WDS
B2477	RCM	Advanced restraint system	RCM configuration failure Flash code 54	Y	-	Reconfigure RCM using WDS
B2477	RECM	Rear Electronic Control Module	RECM incorrectly configured	N	—	Reconfigure RECM using WDS
B2477	VACM	Voice Activation Control Module	Control module configuration error	N	—	Reconfigure VACM using WDS
B2516	A/CCM	Climate Control	Blower motor circuit fault	N	FC40 -21 FC27 -21 FC41 -05 FC28 -05	Blower motor circuit: open circuit, short circuit to ground, short circuit to B+ voltage Blower motor failure A/CCM failure
B2608	HLCM	Automatic Headlamp Leveling	LH headlamp stepper motor drive circuits fault	N	FH12 -16 -17 -18 -19	LH headlamp stepper motor drive circuit(s): short circuit to ground

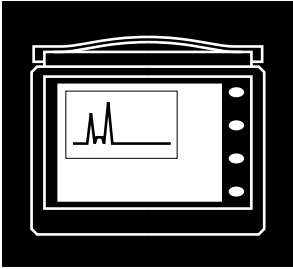
DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2609	HLCM	Automatic Headlamp Leveling	LH headlamp stepper motor drive circuits fault	N	FH12 -16 -17 -18 -19	LH headlamp stepper motor drive circuit(s): short circuit to B+ voltage, open circuit
B2610	HLCM	Automatic Headlamp Leveling	LH headlamp stepper motor drive over-temperature	N	FH12 -16 -17 -18 -19	LH headlamp stepper motor failure
B2611	HLCM	Automatic Headlamp Leveling	RH headlamp stepper motor drive circuits fault	N	FH12 -15 -20 -21 -22	RH headlamp stepper motor drive circuit(s): short circuit to ground
B2612	HLCM	Automatic Headlamp Leveling	RH headlamp stepper motor drive circuits fault	N	FH12 -15 -20 -21 -22	RH headlamp stepper motor drive circuit(s): short circuit to B+ voltage, open circuit
B2613	HLCM	Automatic Headlamp Leveling	RH headlamp stepper motor drive over-temperature	N	FH12 -15 -20 -21 -22	RH headlamp stepper motor failure
B2614	HLCM	Automatic Headlamp Leveling	Axle sensor supply circuits fault	N	FH12 -10 -25	Front and/or rear axle sensor supply circuit(s): short circuit to ground
B2615	HLCM	Automatic Headlamp Leveling	Axle sensor supply circuits fault	N	FH12 -10 -25	Front and/or rear axle sensor supply circuit(s): short circuit to B+ voltage

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2616	HLCM	Automatic Headlamp Leveling	Front axle sensor signal circuit fault	N	FH12-06	Front axle sensor signal circuit: short circuit to high voltage, open circuit
B2617	HLCM	Automatic Headlamp Leveling	Front axle sensor signal circuit fault	N	FH12-06	Front axle sensor signal circuit: short circuit to ground
B2618	HLCM	Automatic Headlamp Leveling	Front axle sensor signal out of range	N	FH12-06	Front axle sensor disconnected, incorrectly installed Front axle sensor failure
B2619	HLCM	Automatic Headlamp Leveling	Rear axle sensor signal circuit fault	N	FH12-07	Rear axle sensor signal circuit: short circuit to high voltage, open circuit
B2620	HLCM	Automatic Headlamp Leveling	Rear axle sensor signal circuit fault	N	FH12-07	Rear axle sensor signal circuit: short circuit to ground
B2621	HLCM	Automatic Headlamp Leveling	Rear axle sensor signal out of range	N	FH12-07	Rear axle sensor disconnected, incorrectly installed Rear axle sensor failure
B2622	HLCM	Automatic Headlamp Leveling	CAN vehicle speed message error	N	-	CAN circuit fault CAN network fault
B2623	HLCM	Automatic Headlamp Leveling	CAN dip beam message error	N	-	CAN circuit fault CAN network fault
B2626	HLCM	Automatic Headlamp Leveling	HLCM not configured	N	-	Configure HLCM using WDS
B2633	CPCM	Telephone	Microphone circuit fault	N	CA261-17 -18	Microphone circuit: open circuit Microphone failure
B2636	CPCM	JaguarNet	SOS switch circuit fault	N	CA261-15	SOS switch circuit: short circuit to ground SOS switch failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2637	CPCM	JaguarNet	Information switch circuit fault	N	CA261 -31	Information switch circuit: short circuit to ground Information switch failure
B2638	CPCM	Telephone	Telephone rechargeable battery fault	N	-	Battery charging circuit fault Incorrect battery installed
B2640	CPCM	Jaguar Net	Airbag deployment signal circuit fault	N	CA261 -30	Airbag deployment signal circuit: open circuit
B2641	CPCM	Jaguar Net	Airbag deployment signal circuit fault	N	CA261 -30	Airbag deployment signal circuit: short circuit to B+ voltage
B2642	AMP	In Car Entertainment – Power Amplifier circuits	Low voltage detected	N	CA263 -3 -9	Power amplifier battery supply circuit(s): intermittent open circuit, high resistance Battery / generator charging system fault Power amplifier failure
B2642	AUDIO	In Car Entertainment	Low voltage detected (monitored by CD autochanger)	N	CA267 -2	CD autochanger battery supply circuit: intermittent open circuit, high resistance Battery / generator charging system fault CD autochanger failure
B2643	AMP	In Car Entertainment – Power Amplifier circuits	High voltage detected	N	CA263 -3 -9	Battery / generator charging system fault Power amplifier failure
B2646	NCM	Television	TV antenna 1 circuit fault	N	FC102	TV antenna 1 circuit: open circuit
B2647	NCM	Television	TV antenna 2 circuit fault	N	FC103	TV antenna 2 circuit: open circuit
B2648	NCM	Television	TV antenna 3 circuit fault	N	FC104	TV antenna 3 circuit: open circuit
B2649	NCM	Television	TV antenna 4 circuit fault	N	FC105	TV antenna 4 circuit: open circuit

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2650	NCM	Television	TV antenna 1 circuit fault	N	FC102	TV antenna 1 circuit: short circuit
B2651	NCM	Television	TV antenna 2 circuit fault	N	FC103	TV antenna 2 circuit: short circuit
B2652	NCM	Television	TV antenna 3 circuit fault	N	FC104	TV antenna 3 circuit: short circuit
B2653	NCM	Television	TV antenna 4 circuit fault	N	FC105	TV antenna 4 circuit: short circuit
B2655	NCM	Telematics display	Telematics display internal fault	N	-	Telematics display failure
B2656	NCM	Navigation	NCM DVD error	N	-	NCM failure
B2691	RCM	Advanced restraint system	Driver seat belt switch circuit fault Flash code 51	Y	CA232 -25	Driver seat belt switch circuit: open circuit, short circuit to B+ voltage
B2692	RCM	Advanced restraint system	Passenger seat belt switch circuit fault Flash code 52	Y	CA232 -26	Passenger seat belt switch circuit: open circuit, short circuit to B+ voltage
B2736	DSCCM	Dynamic Stability Control	Pedal travel sensor circuit fault	Y M	FH103 -24 -26 -40	Pedal travel sensor circuit: open circuit, short circuit to ground, short circuit to B+ voltage, short circuit to each other, high resistance Pedal travel sensor failure
B2739	DSCCM	Dynamic Stability Control	Pedal travel sensor signal circuit fault	Y M	FH103 -40	Pedal travel sensor incorrectly mounted Pedal travel sensor signal circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Pedal travel sensor failure Brake hydraulic unit failure
B2741	DSCCM	Dynamic Stability Control	Yaw rate and lateral acceleration sensors cluster circuit fault	Y M	FH103 -5 -7 -25 -29	Yaw rate and lateral acceleration sensors cluster circuit: open circuit, short circuit to ground, short circuit to B+ voltage, short circuit to each other, high resistance Yaw rate and lateral acceleration sensors cluster failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
B2783	A/CCM	Climate Control	Humidity sensor short circuit to ground	N	FC40 -04 FC27 -04	A/CCM to humidity sensor sensing circuit: short circuit to ground Humidity sensor failure
B2784	A/CCM	Climate Control	Humidity sensor open circuit	N	FC40 -04 FC27 -04	Humidity sensor disconnected A/CCM to humidity sensor sensor sensing circuit: open circuit Humidity sensor failure
B2795	A/CCM	Climate Control	LH dual solar sensor sensing circuit short circuit to ground CUSTOMER SYMPTOM: Poor automatic temperature control in high sun load conditions	N	FC41 -07 FC28 -07	A/CCM to LH dual solar sensor sensing circuit: short circuit to ground Dual solar sensor failure
B2796	A/CCM	Climate Control	LH dual solar sensor sensing circuit open circuit CUSTOMER SYMPTOM: Poor automatic temperature control in high sun load conditions	N	FC41 -07 FC28 -07	Dual solar sensor disconnected A/CCM to LH dual solar sensor sensing circuit: open circuit Dual solar sensor failure
B2888	AUDIO	In Car Entertainment	Audio unit media fault	N	—	Audio unit failure
B2912	DSCCM	Dynamic Stability Control	Reverse gear plausibility error	Y M	—	Manual transmission reverse gear switch circuit: short circuit to ground Manual transmission reverse gear switch failure Reverse gear engaged CAM message fault Yaw rate and lateral acceleration sensors cluster failure



Chassis DTC Summaries

Jaguar S-TYPE 2000 – 2002 Model Years

Refer to page 2 for important information regarding the use of “Chassis DTC Summaries”.

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
CM	The control module(s) the DTC is associated with: ABS/TC Anti-lock braking / traction control ADCM Adaptive damping DSCCM Dynamic stability control GECM General electronic control module RCM Restraints control module RECM Rear electronic control module RPACM Reverse parking aid control module
SYSTEM	The vehicle system the DTC is associated with. Refer to the applicable Electrical Guide Figure for circuit details.
FAULT DESCRIPTION	Fault description. If available, customer symptom (complaint) information is provided in this column.
MIL	Y = System MIL (if fitted) is activated. N = System MIL (if fitted) is not activated. M = Message displayed.
POSSIBLE CAUSES	Suggested possible causes listed in order of probability.

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1095	ABS/ TCCM	Anti-lock braking / traction control	Pressure pump circuit fault CUSTOMER SYMPTOM: ABS/TC MIL warnings; ABS/TC inoperative	Y	ABS/TCCM failure
C1095	DSCCM	Dynamic stability control	Pressure pump circuit fault CUSTOMER SYMPTOM: DSC MIL warnings; DSC inoperative	Y	DSCCM failure
C1145	ABS/ TCCM	Anti-lock braking / traction control	RH front wheel speed sensor circuit fault CUSTOMER SYMPTOM: ABS/TC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	ABS/TCCM to wheel speed sensor signal circuit (FH33-3): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance RH front wheel speed sensor failure
C1145	DSCCM	Dynamic stability control	RH front wheel speed sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	DSCCM to wheel speed sensor signal circuit (FH51-34): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance RH front wheel speed sensor failure
C1155	ABS/ TCCM	Anti-lock braking / traction control	LH front wheel speed sensor circuit fault CUSTOMER SYMPTOM: ABS/TC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	ABS/TCCM to wheel speed sensor signal circuit (FH33-17): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance LH front wheel speed sensor failure
C1155	DSCCM	Dynamic stability control	LH front wheel speed sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	DSCCM to wheel speed sensor signal circuit (FH51-02): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance LH front wheel speed sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1165	ABS/ TCCM	Anti-lock braking / traction control	RH rear wheel speed sensor circuit fault CUSTOMER SYMPTOM: ABS/TC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	ABS/TCCM to wheel speed sensor signal circuit (FH33-7): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance RH rear wheel speed sensor failure
C1165	DSCCM	Dynamic stability control	RH rear wheel speed sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	DSCCM to wheel speed sensor signal circuit (FH51-37): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance RH rear wheel speed sensor failure
C1175	ABS/ TCCM	Anti-lock braking / traction control	LH rear wheel speed sensor circuit fault CUSTOMER SYMPTOM: ABS/TC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	ABS/TCCM to wheel speed sensor signal circuit (FH33-21): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance LH rear wheel speed sensor failure
C1175	DSCCM	Dynamic stability control	LH rear wheel speed sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings; below 3 mph (5 km/h) system inhibited; above 3 mph (5 km/h) the system is disabled	Y	DSCCM to wheel speed sensor signal circuit (FH51-04): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance LH rear wheel speed sensor failure
C1233	ABS/ TCCM	Anti-lock braking / traction control	LH front wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: ABS/TC MIL warnings	Y	LH front wheel speed sensor failure
C1233	DSCCM	Dynamic stability control	LH front wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: DSC MIL warnings	Y	LH front wheel speed sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1234	ABS/ TCCM	Anti-lock braking / traction control	RH front wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: ABS/TC MIL warnings	Y	RH front wheel speed sensor failure
C1234	DSCCM	Dynamic stability control	RH front wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: DSC MIL warnings	Y	RH front wheel speed sensor failure
C1235	ABS/ TCCM	Anti-lock braking / traction control	RH rear wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: ABS/TC MIL warnings	Y	RH rear wheel speed sensor failure
C1235	DSCCM	Dynamic stability control	RH rear wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: DSC MIL warnings	Y	RH rear wheel speed sensor failure
C1236	ABS/ TCCM	Anti-lock braking / traction control	LH rear wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: ABS/TC MIL warnings	Y	LH rear wheel speed sensor failure
C1236	DSCCM	Dynamic stability control	LH rear wheel speed signal fault – detectable at vehicle speed > 12.5 mph (20 km/h) CUSTOMER SYMPTOM: DSC MIL warnings	Y	LH rear wheel speed sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1277	DSCCM	Dynamic stability control	Steering angle rate sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to steering angle rate sensor signal circuit(s) (FH51-14, FH51-47): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Steering angle rate sensor failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1278	DSCCM	Dynamic stability control	Steering angle rate signal fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	Steering angle rate sensor failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1279	DSCCM	Dynamic stability control	Yaw velocity sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to yaw velocity sensor signal circuit (FH51-27): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Yaw velocity sensor failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1280	DSCCM	Dynamic stability control	Yaw velocity signal fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	Yaw velocity sensor failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1281	DSCCM	Dynamic stability control	Lateral accelerometer circuit fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to lateral accelerometer signal circuit (FH51-29); open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Lateral accelerometer failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1282	DSCCM	Dynamic stability control	Lateral accelerometer signal fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	Lateral accelerometer failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1283	DSCCM	Dynamic stability control	DSCCM active brake booster release switch test signal fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1284	GECCM	Instrument pack	Oil pressure switch circuit fault CUSTOMER SYMPTOM: Oil pressure MIL always on (if short circuit to ground)	N	GECCM to oil pressure switch circuit (FH59-9): open circuit, short circuit to ground, short circuit to B+ voltage Oil pressure switch ground fault (high resistance) Oil pressure switch failure
C1285	DSCCM	Dynamic stability control	Active brake booster solenoid drive circuit fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to active brake booster solenoid drive circuit (FH51-08): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Active brake booster solenoid failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1286	DSCCM	Dynamic stability control	Active brake booster mechanical fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	Active brake booster brake pedal fault Active brake booster vacuum fault Active brake booster failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1287	DSCCM	Dynamic stability control	Active brake booster release switch circuit fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to release switch reference voltage circuit (FH51-40): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Active brake booster release switch failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1288	DSCCM	Dynamic stability control	Primary brake pressure sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to primary brake pressure sensor sensing circuit (FH51-26): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance DSCCM to primary brake pressure sensor reference voltage / ground circuit(s) (FH51-10, FH51-43): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Primary brake pressure sensor failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1289	DSCCM	Dynamic stability control	Secondary brake pressure sensor circuit fault CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to secondary brake pressure sensor sensing circuit (FH51-28): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance DSCCM to secondary brake pressure sensor reference voltage / ground circuit(s) (FH51-12, FH51-45): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Secondary brake pressure sensor failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1414	RCM	SRS airbag system	Incorrect control module fitted	Y	Replace RCM (correct part number)
C1416	ADCM	Suspension adaptive damping (CATS)	RH front damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to RH front damper solenoid circuit(s) (CA11- 7, CA11-8): short circuit to B+ voltage RH front damper solenoid failure
C1417	ADCM	Suspension adaptive damping (CATS)	RH front damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to RH front damper solenoid circuit(s) (CA11- 7, CA11-8): short circuit to ground RH front damper solenoid failure
C1419	ADCM	Suspension adaptive damping (CATS)	RH front damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	RH front damper solenoid disconnected ADCM to RH front damper solenoid circuit(s) (CA11- 7, CA11-8): open circuit RH front damper solenoid failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1421	ADCM	Suspension adaptive damping (CATS)	LH front damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to LH front damper solenoid circuit(s) (CA11- 5, CA11-6): short circuit to B+ voltage LH front damper solenoid failure
C1422	ADCM	Suspension adaptive damping (CATS)	LH front damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to LH front damper solenoid circuit(s) (CA11- 5, CA11-6): short circuit to ground LH front damper solenoid failure
C1424	ADCM	Suspension adaptive damping (CATS)	LH front damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	LH front damper solenoid disconnected ADCM to LH front damper solenoid circuit(s) (CA11- 5, CA11-6): open circuit LH front damper solenoid failure
C1425	ADCM	Suspension adaptive damping (CATS)	RH rear damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to RH rear damper solenoid circuit(s) (CA11- 1, CA11-2): short circuit to ground RH rear damper solenoid failure
C1426	ADCM	Suspension adaptive damping (CATS)	RH rear damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to RH rear damper solenoid circuit(s) (CA11- 1, CA11-2): short circuit to B+ voltage RH rear damper solenoid failure
C1427	ADCM	Suspension adaptive damping (CATS)	RH rear damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	RH rear damper solenoid disconnected ADCM to RH rear damper solenoid circuit(s) (CA11- 1, CA11-2): open circuit RH rear damper solenoid failure

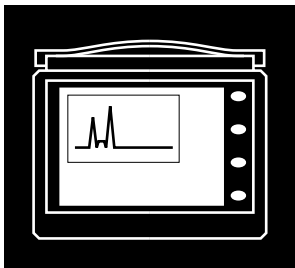
DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1430	ADCM	Suspension adaptive damping (CATS)	LH rear damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	LH rear damper solenoid disconnected ADCM to LH rear damper solenoid circuit(s) (CA11-3, CA11-4): open circuit LH rear damper solenoid failure
C1431	ADCM	Suspension adaptive damping (CATS)	LH rear damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to LH rear damper solenoid circuit(s) (CA11-3, CA11-4): short circuit to B+ voltage LH rear damper solenoid failure
C1432	ADCM	Suspension adaptive damping (CATS)	LH rear damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	ADCM to LH rear damper solenoid circuit(s) (CA11-3, CA11-4): short circuit to ground LH rear damper solenoid failure
C1435	ADCM	Suspension adaptive damping (CATS)	Rear vertical accelerometer sensing circuit fault CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	Rear vertical accelerometer incorrectly oriented ADCM to rear vertical accelerometer sensing circuit (CA12-10): open circuit, short circuit to ground, short circuit to B+ voltage Rear vertical accelerometer failure
C1446	GECM	Instrument pack	Parking brake switch circuit fault CUSTOMER SYMPTOM: Drive away door locking inoperative (manual transmission vehicles)	N	GECM to parking brake switch circuit (CA31-19): open circuit, short circuit to ground, short circuit to B+ voltage Parking brake switch ground fault (high resistance) Parking brake switch failure
C1455	ADCM	Suspension adaptive damping (CATS)	Front vertical accelerometer sensing circuit fault CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	Front vertical accelerometer incorrectly oriented ADCM to front vertical accelerometer sensing circuit (CA12-12): open circuit, short circuit to ground, short circuit to B+ voltage Front vertical accelerometer failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1515	ADCM	Suspension adaptive damping (CATS)	Lateral accelerometer sensing circuit fault CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	Lateral accelerometer incorrectly oriented ADCM to lateral accelerometer sensing circuit (CA12-11): open circuit, short circuit to ground, short circuit to B+ voltage Lateral accelerometer failure
C1699	RPACM	Reverse parking aid	LH sensor circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to LH sensor sense circuit (CA112-11): short circuit to B+ voltage RPACM to LH sensor power supply circuit (CA112-15): short circuit to B+ voltage
C1700	RPACM	Reverse parking aid	LH sensor circuit short circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to LH sensor sense circuit (CA112-11): open circuit, short circuit ground RPACM to LH sensor ground circuit (CA112-16): open circuit, short circuit ground
C1701	RPACM	Reverse parking aid	LH sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	LH sensor failure
C1702	RPACM	Reverse parking aid	RH sensor circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to RH sensor sense circuit (CA112-24): short circuit to B+ voltage RPACM to RH sensor power supply circuit (CA112-15): short circuit to B+ voltage
C1703	RPACM	Reverse parking aid	RH sensor circuit short circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to RH sensor sense circuit (CA112-24): open circuit, short circuit ground RPACM to RH sensor ground circuit (CA112-16): open circuit, short circuit ground

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1704	RPACM	Reverse parking aid	RH sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RH sensor failure
C1705	RPACM	Reverse parking aid	Center LH sensor circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to center LH sensor sense circuit (CA112-10): short circuit to B+ voltage RPACM to center LH sensor power supply circuit (CA112-15): short circuit to B+ voltage
C1706	RPACM	Reverse parking aid	Center LH sensor circuit short circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to center LH sensor sense circuit (CA112-10): open circuit, short circuit ground RPACM to center LH sensor ground circuit (CA112-16): open circuit, short circuit ground
C1707	RPACM	Reverse parking aid	Center LH sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	Center LH sensor failure
C1708	RPACM	Reverse parking aid	Center RH sensor circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to center RH sensor sense circuit (CA112-23): short circuit to B+ voltage RPACM to center RH sensor power supply circuit (CA112-15): short circuit to B+ voltage
C1709	RPACM	Reverse parking aid	Center RH sensor circuit short circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to center RH sensor sense circuit (CA112-23): open circuit, short circuit ground RPACM to center RH sensor ground circuit (CA112-16): open circuit, short circuit ground

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1710	RPACM	Reverse parking aid	Center RH sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	Center RH sensor failure
C1730	DSCCM	Dynamic stability control	DSCCM sensor reference voltage supply not within specification	Y	DSCCM failure NOTE: Control module calibration using PDU is required when the fault is repaired and the DTC is cleared. MIL will flash to indicate that configuration is required.
C1742	RPACM	Reverse parking aid	Parking aid sounder circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to sounder circuit(s) (CA112-14, CA114-17): open circuit, short circuit to ground Parking aid sounder failure
C1743	RPACM	Reverse parking aid	Parking aid sounder circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	RPACM to sounder circuit(s) (CA112-14, CA114-17): short circuit to B+ voltage
C1748	RPACM	Reverse parking aid	Reverse parking aid switch circuit fault CUSTOMER SYMPTOM: Reverse parking aid switch inoperative	N	RPACM to switch circuit (CA112-7): open circuit, short circuit to ground, short circuit to B+ voltage Reverse parking aid switch ground fault Reverse parking aid switch failure
C1805	ABS/ TCCM	Anti-lock braking / traction control	ABS/TCCM mismatched with PCM (powertrain control module) CUSTOMER SYMPTOM: ABS/TC MIL warnings	Y	Replace ABS/TCCM

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	POSSIBLE CAUSES
C1805	DSCCM	Dynamic stability control	DSCCM mismatched with PCM (powertrain control module) CUSTOMER SYMPTOM: DSC MIL warnings	Y	Replace DSCCM (correct part number)
C1920	RPACM	Reverse parking aid	Reverse parking aid state illumination circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	N / Y	RPACM to switch STATE LED circuit (CA112-19): open circuit, short circuit to ground Reverse parking aid switch ground fault Reverse parking aid switch failure
C1924	ADCM	Variable assist steering	Variable assist steering actuator circuit fault CUSTOMER SYMPTOM: "Steering feel" incorrect	N	GECCM to variable assist steering actuator circuit FH60-9: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Variable assist steering actuator failure
C1925	ADCM	Variable assist steering	Variable assist steering actuator circuit fault CUSTOMER SYMPTOM: "Steering feel" incorrect	N	GECCM to variable assist steering actuator circuit FH60-2: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Variable assist steering actuator failure
C1960	DSCCM	Dynamic stability control	Brake switch circuit fault (RECCM brake switch message does not agree with DSCCM brake switch message) CUSTOMER SYMPTOM: DSC MIL warnings	Y	DSCCM to brake switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance RECCM to brake switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance



Chassis DTC Summaries

Jaguar S-TYPE 2003 Model Year

Refer to pages 2 and 3 for important information regarding the use of "Chassis DTC Summaries".

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
CM	The control module(s) the DTC is associated with: ADCM Adaptive Damping Control Module ASCCM Adaptive Speed Control Control Module AUDIO Audio Unit DSCCM Dynamic Stability Control Control Module EPBCM Electronic Parking Brake Control Module GECM General Electronic Control Module PACM Parking Aid Control Module RCM Restraints Control Module
SYSTEM	The vehicle system the DTC is associated with. Refer to the applicable Electrical Guide Figure for circuit details.
FAULT DESCRIPTION	Fault description. If available, customer symptom (complaint) information is provided in this column.
MIL	Y = MIL (warning indicator) is activated. N = MIL (warning indicator) is not activated. M = Message displayed.
CM PIN	Control module connector pin number(s)
POSSIBLE CAUSES	Suggested possible causes listed in order of probability.

REFERENCE: It is recommended that the applicable "Electrical Guide" be referenced when using the information contained in this document.

CONTROL MODULE ACRONYMS

ADCM	Adaptive Damping Control Module
ASCCM	Adaptive Speed Control Control Module
AUDIO	Audio Unit
DSCCM	Dynamic Stability Control Control Module
ECM	Engine Control Module
EPBCM	Electronic Parking Brake Control Module
GECM	General Electronic Control Module
IC	Instrument Cluster
PACM	Parking Aid Control Module
RCM	Restraints Control Module
TCM	Transmission Control Module

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1093	DSCCM	Dynamic Stability Control	Traction control switch circuit fault	N	FH103 -38	Traction control switch circuit fault: open circuit, short circuit to B+ voltage, short circuit to ground Traction control switch failure
C1094	EPBCM	Electronic Parking Brake	Parking brake apply switch circuit fault	Y M	CA242 -5 -12	Parking brake apply switch circuit: open circuit, short circuit to B+ voltage
C1095	DSCCM	Dynamic Stability Control	DSCCM pump failure	Y M	FH103 -1 -47	Pump B+ power supply circuit: open circuit, short circuit to ground Pump ground circuit: open circuit, high resistance DSCCM failure
C1132	EPBCM	Electronic Parking Brake	Clutch pedal position sensor signal circuit fault	N	CA242 -11	Clutch pedal position sensor signal circuit: short circuit to ground
C1133	EPBCM	Electronic Parking Brake	Clutch pedal position sensor signal circuit fault	N	CA242 -11	Clutch pedal position sensor signal circuit: short circuit to B+ voltage
C1134	EPBCM	Electronic Parking Brake	In-gear switch circuit fault	N	CA242 -3	In-gear switch circuit: short circuit to ground
C1135	EPBCM	Electronic Parking Brake	In-gear switch circuit fault	Y M	CA242 -3	In-gear switch circuit: short circuit to B+ voltage
C1137	DSCCM	Dynamic Stability Control	DSCCM malfunction	Y* M	—	DSCCM failure * CHECK ENGINE
C1141	DSCCM	Dynamic Stability Control	LH front wheel speed sensor mechanical fault	Y M	—	LH front wheel speed sensor retractor tooth (teeth) missing or damaged
C1142	DSCCM	Dynamic Stability Control	RH front wheel speed sensor mechanical fault	Y M	—	RH front wheel speed sensor retractor tooth (teeth) missing or damaged

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1143	DSCCM	Dynamic Stability Control	LH rear wheel speed sensor mechanical fault	Y M	—	LH rear wheel speed sensor reluctor tooth (teeth) missing or damaged
C1144	DSCCM	Dynamic Stability Control	RH rear wheel speed sensor mechanical fault	Y M	—	RH rear wheel speed sensor reluctor tooth (teeth) missing or damaged
C1145	DSCCM	Dynamic Stability Control	RH front wheel speed sensor circuit fault	Y* M	FH103 -33 -34	RH front wheel speed sensor circuit: open circuit, short circuit to B+ voltage, short circuit to ground, high resistance RH front wheel speed sensor failure *CHECK ENGINE MIL
C1155	DSCCM	Dynamic Stability Control	LH front wheel speed sensor circuit fault	Y* M	FH103 -45 -46	LH front wheel speed sensor circuit: open circuit, short circuit to B+ voltage, short circuit to ground, high resistance LH front wheel speed sensor failure *CHECK ENGINE MIL
C1165	DSCCM	Dynamic Stability Control	RH rear wheel speed sensor circuit fault	Y* M	FH103 -42 -43	RH rear wheel speed sensor circuit: open circuit, short circuit to B+ voltage, short circuit to ground, high resistance RH rear wheel speed sensor failure *CHECK ENGINE MIL
C1175	DSCCM	Dynamic Stability Control	LH rear wheel speed sensor circuit fault	Y* M	FH103 -36 -37	LH rear wheel speed sensor circuit: open circuit, short circuit to B+ voltage, short circuit to ground, high resistance LH rear wheel speed sensor failure *CHECK ENGINE MIL
C1223	DSCCM	Dynamic Stability Control	LH front wheel speed sensor signal missing	Y M	FH103 -45	LH front wheel speed sensor air gap too large LH front wheel speed sensor reluctor mechanical damage LH front wheel speed sensor signal circuit: high resistance LH front wheel speed sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1234	DSCCM	Dynamic Stability Control	RH front wheel speed sensor signal missing	Y M	FH103 -34	RH front wheel speed sensor air gap too large RH front wheel speed sensor retractor mechanical damage RH front wheel speed sensor signal circuit: high resistance RH front wheel speed sensor failure
C1235	DSCCM	Dynamic Stability Control	LH rear wheel speed sensor signal missing	Y M	FH103 -43	LH rear wheel speed sensor air gap too large LH rear wheel speed sensor retractor mechanical damage LH rear wheel speed sensor signal circuit: high resistance LH rear wheel speed sensor failure
C1236	DSCCM	Dynamic Stability Control	RH rear wheel speed sensor signal missing	Y M	FH103 -36	RH rear wheel speed sensor air gap too large RH rear wheel speed sensor retractor mechanical damage RH rear wheel speed sensor signal circuit: high resistance RH rear wheel speed sensor failure
C1267	DSCCM	Dynamic Stability Control	DSCCM anti-lock functions temporarily disabled	Y M	—	DSCCM failure Note: attempt hard reset before DSCCM replacement
C1277	DSCCM	Dynamic Stability Control	Steering angle sensor circuit(s) fault	Y M	FH103 -3 -5 -6 -7	Steering angle sensor circuit(s): open circuit, intermittent open circuit, short circuit to B+ voltage, short circuit to ground, high resistance Steering angle sensor incorrectly mounted Steering angle sensor loose Steering angle sensor failure
C1279	DSCCM	Dynamic Stability Control	Yaw rate sensor circuit(s) fault	Y M	FH103 -5 -7 -25 -29	Yaw rate and lateral acceleration sensors cluster circuit(s): open circuit, intermittent open circuit, short circuit to B+ voltage, short circuit to ground, high resistance Yaw rate sensor failure
C1280	DSCCM	Dynamic Stability Control	Yaw rate sensor signal fault	Y M	FH103 -25 -29	Yaw rate and lateral acceleration sensors cluster incorrectly mounted Yaw rate and lateral acceleration sensors cluster loose Yaw rate and lateral acceleration sensors cluster failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1281	DSCCM	Dynamic Stability Control	Lateral acceleration sensor circuit(s) fault	Y M	FH103 -5 -7 -25 -29	Yaw rate and lateral acceleration sensors cluster circuit(s): open circuit, intermittent open circuit, short circuit to B+ voltage, short circuit to ground, high resistance Lateral acceleration sensor failure
C1282	DSCCM	Dynamic Stability Control	Lateral acceleration sensor signal fault	Y M	FH103 -25 -29	Yaw rate and lateral acceleration sensors cluster incorrectly mounted Yaw rate and lateral acceleration sensors cluster loose Yaw rate and lateral acceleration sensors cluster failure
C1284	GECCM	Instrumentation	Oil pressure switch circuit fault CUSTOMER SYMPTOM: Oil pressure MIL always on (if short circuit to ground)	N	FH59 -9	GECCM to oil pressure switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Oil pressure switch ground fault (high resistance) Oil pressure switch failure
C1285	DSCCM	Dynamic Stability Control	Booster solenoid circuit fault	Y M	FH103 -17 -31	Booster solenoid circuit: open circuit, short circuit to ground Booster solenoid failure
C1286	DSCCM	Dynamic Stability Control	Active brake booster mechanical failure	Y M	FH103 -27 -28 -30	Booster force switch circuit: open circuit, short circuit to ground Booster force switch failure DSCCM failure Active brake booster mechanical failure
C1287	DSCCM	Dynamic Stability Control	Booster force switch circuit fault	Y M	FH103 -27 -28 -30	Booster force switch circuit: open circuit, short circuit to ground, short circuit to B+ voltage Booster force switch failure
C1288	DSCCM	Dynamic Stability Control	Brake pressure sensor circuit fault	Y M	FH103 -18 -19 -20	Brake pressure sensor circuit: open circuit, short circuit to ground, short circuit to B+ voltage Brake pressure sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1291	ASCCM	Adaptive Speed Control	ASCCM sensor temperature out of range	Y M	—	ASCCM sensor too warm or too cold Normal operating temperature: -40 °C – 70 °C (-40 °F – 158 °F)
C1292	ASCCM	Adaptive Speed Control	ASCCM sensor blocked	Y M	—	Remove blockage from front of sensor
C1293	ASCCM	Adaptive Speed Control	ASCCM sensor alignment out of range	Y M	—	ASCCM sensor alignment incorrect Mechanically realign sensor Perform complete service alignment
C1294	ASCCM	Adaptive Speed Control	Active speed or vehicle speed out of range	Y M	—	Other control module (ECM, DSCCM, IC, TCM) ASC speed related fault ASCCM failure
C1295	DSCCM	Dynamic Stability Control	Steering angle sensor circuit fault	Y M	FH103 -3 -5 -6 -7	Steering angle sensor circuit(s): open circuit, intermittent open circuit, short circuit to B+ voltage, short circuit to ground, high resistance Steering angle sensor failure
C1306	DSCCM	Dynamic Stability Control	Steering angle sensor initialization failed	Y M	—	Steering angle sensor encoder ring incorrectly installed Steering angle sensor encoder ring loose Steering angle sensor encoder ring mechanical failure
C1307	DSCCM	Dynamic Stability Control	Steering angle sensor encoder ring fault	Y M	FH103 -3 -6	Steering angle sensor encoder ring incorrectly installed Steering angle sensor encoder ring loose Steering angle sensor encoder ring mechanical failure Steering angle sensor signal circuit: short circuit to each other Steering angle sensor failure
C1414	RCM	Advanced Restraint System	Incorrect control module fitted	Y	—	Replace RCM (correct part number)

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1416	ADCM	Suspension Adaptive Damping (CATS)	RH front damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -7 -8	ADCM to RH front damper solenoid circuit(s): short circuit to B+ voltage RH front damper solenoid failure
C1417	ADCM	Suspension Adaptive Damping (CATS)	RH front damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -7 -8	ADCM to RH front damper solenoid circuit(s): short circuit to ground RH front damper solenoid failure
C1419	ADCM	Suspension Adaptive Damping (CATS)	RH front damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -7 -8	RH front damper solenoid disconnected ADCM to RH front damper solenoid circuit(s): open circuit RH front damper solenoid failure
C1421	ADCM	Suspension Adaptive Damping (CATS)	LH front damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -5 -6	ADCM to LH front damper solenoid circuit(s): short circuit to B+ voltage LH front damper solenoid failure
C1422	ADCM	Suspension Adaptive Damping (CATS)	LH front damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -5 -6	ADCM to LH front damper solenoid circuit(s): short circuit to ground LH front damper solenoid failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1424	ADCM	Suspension Adaptive Damping (CATS)	LH front damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -5 -6	LH front damper solenoid disconnected ADCM to LH front damper solenoid circuit(s): open circuit LH front damper solenoid failure
C1425	ADCM	Suspension Adaptive Damping (CATS)	RH rear damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -1 -2	ADCM to RH rear damper solenoid circuit(s): short circuit to ground RH rear damper solenoid failure
C1426	ADCM	Suspension Adaptive Damping (CATS)	RH rear damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -1 -2	ADCM to RH rear damper solenoid circuit(s): short circuit to B+ voltage RH rear damper solenoid failure
C1427	ADCM	Suspension Adaptive Damping (CATS)	RH rear damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -1 -2	RH rear damper solenoid disconnected ADCM to RH rear damper solenoid circuit(s): open circuit RH rear damper solenoid failure
C1430	ADCM	Suspension Adaptive Damping (CATS)	LH rear damper solenoid circuit open circuit CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -3 -4	LH rear damper solenoid disconnected ADCM to LH rear damper solenoid circuit(s): open circuit LH rear damper solenoid failure
C1431	ADCM	Suspension Adaptive Damping (CATS)	LH rear damper solenoid circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -3 -4	ADCM to LH rear damper solenoid circuit(s): short circuit to B+ voltage LH rear damper solenoid failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1432	ADCM	Suspension Adaptive Damping (CATS)	LH rear damper solenoid circuit short circuit ground CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA11 -3 -4	ADCM to LH rear damper solenoid circuit(s): short circuit to ground LH rear damper solenoid failure
C1435	ADCM	Suspension Adaptive Damping (CATS)	Rear vertical accelerometer sensing circuit fault CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA12 -10	Rear vertical accelerometer incorrectly oriented ADCM to rear vertical accelerometer sensing circuit: open circuit, short circuit to ground, short circuit to B+ voltage Rear vertical accelerometer failure
C1440	DSCCM	Dynamic Stability Control	Brake pressure sensor signal circuit fault	Y M	FH103 -20	Brake pressure sensor signal circuit: open circuit, short circuit to B+ voltage, short circuit to ground Brake pressure sensor failure
C1446	DSCCM	Dynamic Stability Control	Stop lamp circuit fault (CAN message)	Y M	FH103 -11 -12 -14 -15	Brake ON / OFF switch circuit fault Brake ON / OFF switch failure Brake ON / OFF switch CAN message fault
C1455	ADCM	Suspension Adaptive Damping (CATS)	Front vertical accelerometer sensing circuit fault CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA12 -12	Front vertical accelerometer incorrectly oriented ADCM to front vertical accelerometer sensing circuit: open circuit, short circuit to ground, short circuit to B+ voltage Front vertical accelerometer failure
C1459	ASCCM	Adaptive Speed Control	Forward alert switch and ASC indicator circuit fault	Y M	FH107 -12	Forward alert switch and ASC indicator circuit: open circuit, short circuit to B+ voltage
C1515	ADCM	Suspension Adaptive Damping (CATS)	Lateral accelerometer sensing circuit fault CUSTOMER SYMPTOM: Dampers default to firm; fault message	M	CA12 -11	Lateral accelerometer incorrectly oriented ADCM to lateral accelerometer sensing circuit: open circuit, short circuit to ground, short circuit to B+ voltage Lateral accelerometer failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1699	PACM	Parking Aid	LH sensor data circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-11	LH sensor data circuit: short circuit to B+ voltage
C1700	PACM	Parking Aid	LH sensor data circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-11	LH sensor data circuit: open circuit, short circuit ground
C1701	PACM	Parking Aid	LH sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	—	LH sensor failure
C1702	PACM	Parking Aid	RH sensor data circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-24	RH sensor data circuit: short circuit to B+ voltage
C1703	PACM	Parking Aid	RH sensor data circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-24	RH sensor data circuit: open circuit, short circuit ground
C1704	PACM	Parking Aid	RH sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	—	RH sensor failure

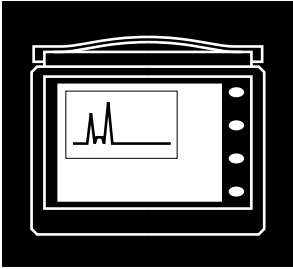
DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1705	PACM	Parking Aid	LH center sensor data circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-10	LH center sensor data circuit: short circuit to B+ voltage
C1706	PACM	Parking Aid	LH center sensor data circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-10	LH center sensor data circuit: open circuit, short circuit ground
C1707	PACM	Parking Aid	LH center sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	—	LH center sensor failure
C1708	PACM	Parking Aid	RH center sensor data circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-23	RH center sensor data circuit: short circuit to B+ voltage
C1709	PACM	Parking Aid	RH center sensor data circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112-23	RH center sensor data circuit: open circuit, short circuit ground
C1710	PACM	Parking Aid	RH center sensor fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	—	RH center sensor failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1730	DSCCM	Dynamic Stability Control	Sensor signal supply voltage (nominal 5 V) out of range	Y M	FH103 -7 -18 -26 -27 -30	Sensor supply voltage circuit(s): short circuit to ground, short circuit to B+ voltage DSC sensor(s) failure: brake pressure sensor, steering angle sensor, yaw rate and lateral acceleration sensor cluster, active brake booster force switch, pedal travel sensor DSCCM failure
C1742	PACM	Parking Aid	Parking aid sounder circuit fault CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112 -14 -17	PACM to sounder circuit(s): open circuit, short circuit to ground Parking aid sounder failure
C1743	PACM	Parking Aid	Parking aid sounder circuit short circuit to B+ voltage CUSTOMER SYMPTOM: Reverse parking aid inoperative	Y	CA112 -14 -17	PACM to sounder circuit(s): short circuit to B+ voltage
C1748	ASCCM	Adaptive Speed Control	Forward alert switch and ASC indicator circuit fault	Y M	FH107 -12	Forward alert switch and ASC indicator circuit: short circuit to ground
C1769	EPBCM	Electronic Parking Brake	Parking brake apply switch circuit fault	Y M	CA242 -5 -12	Parking brake apply switch circuit: short circuit to ground
C1777	DSCCM	Dynamic Stability Control	DSCCM internal vacuum pressure circuit fault	Y M	—	DSCCM failure Active brake booster failure
C1782	EPBCM	Electronic Parking Brake	Parking brake release switch circuit fault	Y M	CA242 -6 -12	Parking brake release switch circuit: open circuit, short circuit to B+ voltage
C1783	EPBCM	Electronic Parking Brake	Parking brake release switch circuit fault	Y M	CA242 -6 -12	Parking brake release switch circuit: short circuit to ground

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1784	EPBCM	Electronic Parking Brake	Parking brake drive circuit(s) fault	Y M	CA41 -2 -3	Parking brake drive circuit(s): short circuit to ground, short circuit to each other
C1785	EPBCM	Electronic Parking Brake	Parking brake drive circuit(s) fault	Y M	CA41 -2 -3	Parking brake drive circuit(s): open circuit
C1786	EPBCM	Electronic Parking Brake	Parking brake motor internal fault	Y M	—	Parking brake motor failure
C1799	EPBCM	Electronic Parking Brake	Parking brake motor position sensor circuit fault	Y M	CA242 -4 -10 -12	Parking brake motor position sensor circuit(s): open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Parking brake motor position sensor failure (parking brake motor failure)
C1801	EPBCM	Electronic Parking Brake	Motor current level / position conflict – apply	Y M	—	Parking brake motor failure
C1802	EPBCM	Electronic Parking Brake	Motor current level / position conflict – apply	Y M	—	Parking brake motor failure
C1803	EPBCM	Electronic Parking Brake	Motor current level / position conflict – release	Y M	—	Parking brake motor failure
C1924	GECM	Variable assist steering	Variable assist steering actuator circuit fault CUSTOMER SYMPTOM: "Steering feel" incorrect	N	FH60 -9	GECM to variable assist steering actuator circuit: short circuit to ground Variable assist steering actuator failure
C1925	GECM	Variable assist steering	Variable assist steering actuator circuit fault CUSTOMER SYMPTOM: "Steering feel" incorrect	N	FH60 -2	GECM to variable assist steering actuator circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Variable assist steering actuator failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C1935	ASCCM	Adaptive Speed Control	Chime request circuit fault	Y M	FH107 -6	Chime request circuit: open circuit, short circuit to B+ voltage
C1947	RCM	Advanced Restraint System	Driver seat position switch circuit fault Flash code 49	Y	CA232 -23 -24	Driver seat position switch circuit(s): short circuit to ground
C1948	RCM	Advanced Restraint System	Driver seat position switch circuit fault Flash code 49	Y	CA232 -23 -24	Driver seat position switch circuit(s): high resistance Driver seat position switch failure
C1977	AUDIO	In Car Entertainment	Steering wheel audio switch circuit fault	N	FC94 -18	Steering wheel audio switch circuit: short circuit to ground
C1981	RCM	Advanced Restraint System	Driver seat position switch circuit fault Flash code 49	Y	CA232 -23 -24	Driver seat position switch circuit(s): open circuit, short circuit to B+ voltage Driver seat position switch failure
C1989	EPBCM	Electronic Parking Brake	Parking brake apply and release switches simultaneously activated	Y M	CA242 -5 -6 -12	Parking brake apply and release switch circuits: short circuit to each other Electronic parking brake switch failure
C1994	DSCCM	Dynamic Stability Control	Yaw control failure	Y M	FH103 -5 -7 -25 29	Yaw rate sensor failure DSCCM failure
C1997	DSCCM	Dynamic Stability Control	Pressure control failure	Y M	FH103 -17 -20 -31	Brake pressure sensor signal circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Brake pressure sensor failure Booster solenoid circuit: open circuit, short circuit to ground, short circuit to B+ voltage, high resistance Booster solenoid failure Active brake booster failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
C2778	DSCCM	Dynamic Stability Control	Yaw rate and lateral acceleration sensors cluster sensor supply voltage circuit fault	Y M	FH103 -7	Yaw rate and lateral acceleration sensors cluster sensor supply voltage circuit: open circuit, short circuit to ground, short circuit to B+ voltage. DSCCM failure
C2783	DSCCM	Dynamic Stability Control	Yaw rate and lateral acceleration sensors cluster incorrect specification	Y M	—	Incorrect Yaw rate and lateral acceleration sensors cluster fitted
C2785	DSCCM	Dynamic Stability Control	DSC sensors out of calibration	Y M	—	DSCCM failure



Network DTC Summaries

Jaguar S-TYPE 2003 Model Year

Refer to pages 2 and 3 for important information regarding the use of "Network DTC Summaries".

KEY TO COLUMN HEADINGS

DTC	Diagnostic Trouble Code.
CM	The control module(s) the DTC is associated with: A/CCM Air Conditioning Control Module ADCM Adaptive damping Control Module AMP Power Amplifier ASCCM Adaptive speed Control Control Module AUDIO Audio Unit CPCM Cellular Telephone Control Module DSCCM Dynamic Stability Control Control Mmodule DSCM Driver Seat Control Module IC Instrument Cluster VACM Voice Activation Control Module
SYSTEM	The vehicle system the DTC is associated with. Refer to the applicable Electrical Guide Figure for circuit details.
FAULT DESCRIPTION	Fault description. If available, customer symptom (complaint) information is provided in this column.
MIL	Y = MIL is activated. N = MIL is not activated. M = Message displayed.
CM PIN	Control module connector pin number(s)
POSSIBLE CAUSES	Suggested possible causes listed in order of probability.

REFERENCE: It is recommended that the applicable "Electrical Guide" be referenced when using the information contained in this document.

CONTROL MODULE ACRONYMS

A/CCM	Air Conditioning Control Mmodule
ADCM	Adaptive Damping Control Module
AMP	Power Amplifier
ASCCM	Adaptive Speed Control Control Module
AUDIO	Audio Unit
CPCM	Cellular Telephone Control Module
DSCCM	Dynamic Stability Control Control Module
DSCM	Driver Seat Ccontrol Module
ECM	Engine Control Module
IC	Instrument Cluster
NCM	Navigation Control Module
TCM	Transmission Control Module
VACM	Voice Activation Control Module

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
U1260	DSCM	Driver Seat	SCP network SCP + circuit fault	N	DM43 -1	SCP network circuit (SCP +): open circuit, short circuit to B+ voltage, short circuit to ground SCP network fault DSCM SCP failure
U1261	DSCM	Driver Seat	SCP network SCP - circuit fault	N	DM34 -12	SCP network circuit (SCP -): open circuit, short circuit to B+ voltage, short circuit to ground SCP network fault DSCM SCP failure
U1262	AUDIO	In Car Entertainment	SCP network circuit fault	N	FC94 -9 -10	SCP network circuit: open circuit, short circuit to B+ voltage, short circuit to ground SCP network fault Audio unit SCP failure
U1262	DSCM	Driver Seat	SCP network circuit fault	N	DM34 -1 -12	SCP network circuit: open circuit, short circuit to B+ voltage, short circuit to ground SCP network fault DSCM SCP failure
U1341	ADCM	Suspension Adaptive Damping	SCP vehicle speed message invalid or not available	N	CA11 -13 -14	Verify integrity of DSCCM SCP network fault
U1900	A/CCM	Climate Control	CAN communication fault	N	FC41 -1 -12 FC28 -1 -12	CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground A/CCM internal CAN fault CAN network fault

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
U1900	IC	Instrumentation	CAN communication fault	N	FC15 -10 -20	CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground IC internal CAN fault CAN network fault
U1901	DSCCM	Dynamic Stability Control	Local CAN network (steering angle sensor, yaw rate and lateral acceleration sensor) communication fault	N	FH103 -25 -29	Local CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground DSCCM internal Local CAN fault Local CAN network fault
U2003	AUDIO	In Car Entertainment	CD autochanger not responding on D2B network	N	FC108 -1 -2 FC94 -9 -10	D2B "wake-up" circuit: open circuit, short circuit CD autochanger D2B "wake-up" fault CD autochanger D2B fault D2B network fault
U2008	AUDIO	In Car Entertainment	CPCM not responding on D2B network	N	FC108 -1 -2 FC94 -9 -10	D2B "wake-up" circuit: open circuit, short circuit CPCM D2B "wake-up" fault CPCM D2B fault D2B network fault
U2012	DSCCM	Dynamic Stability Control	CAN Communication fault	N	FH103 -11 -12 -14 -15	CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground DSCCM internal CAN fault CAN network fault
U2019	AUDIO	In Car Entertainment	VACM not responding on D2B network	N	FC108 -1 -2 FC94 -9 -10	D2B "wake-up" circuit: open circuit, short circuit VACM D2B "wake-up" fault VACM D2B fault D2B network fault

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
U2023	ASCCM	Adaptive Speed Control	CAN fault message received from other network module(s)	N	FH107 -4 -10	CAN / ASC related fault: ECM, TCM, DSCCM, IC ASCCM internal CAN fault CAN network fault
U2202	DSCCM	Dynamic Stability Control	CAN Invalid configuration data received	N	FH103 -11 -12 -14 -15	ECM, TCM or ASCCM incorrectly configured
U2501	ASCCM	Adaptive Speed Control	CAN ECM "token" missing	N	FH107 -4 -10	CAN ECM token missing on network (other CAN modules also flag ECM token missing fault) ECM / CAN fault CAN network fault
U2502	ASCCM	Adaptive Speed Control	CAN TCM "token" missing	N	FH107 -4 -10	CAN TCM token missing on network (other CAN modules also flag TCM token missing fault) TCM / CAN fault CAN network fault
U2503	ASCCM	Adaptive Speed Control	CAN IC "token" missing	N	FH107 -4 -10	CAN IC token missing on network (other CAN modules also flag IC token missing fault) IC / CAN fault CAN network fault
U2504	ASCCM	Adaptive Speed Control	CAN DSCCM "token" missing	N	FH107 -4 -10	CAN DSCCM token missing on network (other CAN modules also flag DSCCM token missing fault) DSCCM / CAN fault CAN network fault
U2515	DSCCM	Dynamic Stability Control	CAN Adaptive speed control message missing	N	—	TCM CAN DTC flagged
U2515	IC	Instrumentation	CAN ASCCM message missing	N	—	ASCCM CAN DTC flagged

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
U2516	ASCCM	Adaptive Speed Control	CAN TCM message missing	N	—	TCM CAN DTC flagged
U2516	IC	Instrumentation	CAN not responding	N	FC15 -10 -20	Multiple CAN modules with CAN DTCs flagged CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground IC internal CAN fault CAN network fault
U2518	IC	Instrumentation	CAN A/CCM message missing	N	—	A/CCM CAN DTC flagged
U2520	ASCCM	Adaptive Speed Control	CAN IC module missing	N	FH107 -4 -10	Instrument cluster CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground Instrument cluster CAN fault CAN network fault
U2521	ASCCM	Adaptive Speed Control	CAN DSCCM module missing	N	FH107 -4 -10	DSCCM CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground DSCCM CAN fault CAN network fault
U2521	IC	Instrumentation	CAN DSCCM message missing	N	—	DSCCM CAN DTC flagged
U2522	ASCCM	Adaptive Speed Control	CAN TCM module missing	N	FH107 -4 -10	TCM CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground TCM CAN fault CAN network fault
U2522	DSCCM	Dynamic Stability Control	CAN TCM module missing	N	FH103 -11 -12 -14 -15	TCM CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground TCM CAN fault CAN network fault

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
U2522	IC	Instrumentation	CAN TCM message missing	N	—	TCM CAN DTC flagged
U2523	ASCCM	Adaptive Speed Control	CAN ECM module missing	N	FH107 -4 -10	ECM CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground ECM CAN fault CAN network fault
U2523	DSCCM	Dynamic Stability Control	CAN ECM module missing	N	FH103 -11 -12 -14 -15	ECM CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground ECM CAN fault CAN network fault
U2523	IC	Instrumentation	CAN ECM message missing	N	—	ECM CAN DTC flagged
U2527	DSCCM	Dynamic Stability Control	Local CAN network (steering angle sensor, yaw rate and lateral acceleration sensor) transmit fault	N	FH103 -25 -29	Local CAN circuit: open circuit, short circuit to B+ voltage, short circuit to ground DSCCM internal Local CAN fault Local CAN network fault
U2601	AMP	In Car Entertainment	D2B “wake-up” circuit fault	N	CA263 -5	D2B “wake-up” circuit: short circuit to ground
U2601	AUDIO	In Car Entertainment	D2B “wake-up” circuit fault	N	FC94 -19	D2B “wake-up” circuit: short circuit to ground
U2601	CPCM	Telephone	D2B “wake-up” circuit fault	N	CA261 -23	D2B “wake-up” circuit: short circuit to ground
U2601	VACM	Voice Control	D2B “wake-up” circuit fault	N	CA300 -14	D2B “wake-up” circuit: short circuit to ground
U2602	AUDIO	In Car Entertainment	D2B network “ring” incomplete (fault reported)	N	FC108 -1 -2	D2B network module disconnected D2B network circuit: open circuit

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
U2603	AUDIO	In Car Entertainment	D2B network "ring" incomplete (fault not reported)	N	FC108 -1 -2	D2B network module disconnected D2B network circuit: open circuit
U2604	AUDIO	In Car Entertainment	D2B network "ring" incomplete (corrupted fault report)	N	FC108 -1 -2	D2B network module disconnected D2B network circuit: open circuit
U2605	AUDIO	In Car Entertainment	Audio unit unable to initialize it's address	N	FC108 -1 -2	More than one master module (audio unit) on the D2B network ring
U2606	AUDIO	In Car Entertainment	D2B slave module unable to initialize it's address	N	FC108 -1 -2	One or more slave modules duplicated on the D2B network ring
U2607	AUDIO	In Car Entertainment	D2B slave module switched into bypass mode	N	FC108 -1 -2	One or more slave modules on the D2B network ring switched into bypass mode
U2609	AMP	In Car Entertainment	D2B "wake-up" signal out of specification	N	CA263 -5	D2B "wake-up" circuit: high resistance D2B network slave module failure Power amplifier failure
U2609	AUDIO	In Car Entertainment	D2B "wake-up" signal out of specification	N	FC94 -19	D2B "wake-up" circuit: high resistance D2B network slave module failure Power amplifier failure
U2609	CPCM	Telephone	D2B "wake-up" signal out of specification	N	CA261 -23	D2B "wake-up" circuit: high resistance D2B network slave module failure Power amplifier failure

DTC	CM	SYSTEM	FAULT DESCRIPTION	MIL	CM PIN	POSSIBLE CAUSES
U2609	VACM	Voice Control	D2B "wake-up" signal out of specification	N	CA300 -14	D2B "wake-up" circuit: high resistance D2B network slave module failure Power amplifier failure
U2610	AMP	In Car Entertainment	D2B network "position status report" not received	N	—	D2B network error
U2610	CPCM	Telephone	D2B network "position status report" not received	N	—	D2B network error
U2610	VACM	Voice Control	D2B network "position status report" not received	N	—	D2B network error
U2611	AMP	In Car Entertainment	D2B network "alarm clear command" not received	N	—	D2B network error
U2611	CPCM	Telephone	D2B network "alarm clear command" not received	N	—	D2B network error
U2611	VACM	Voice Control	D2B network "alarm clear command" not received	N	—	D2B network error
U2613	AUDIO	In Car Entertainment	NCM not responding on D2B network	N	FC108 -1 -2 FC94 -9 -10	D2B "wake-up" circuit: open circuit, short circuit NCM D2B "wake-up" fault NCM D2B fault D2B network fault
U2614	AUDIO	In Car Entertainment	Power amplifier not responding on D2B network	N	FC108 -1 -2 FC94 -9 -10	D2B "wake-up" circuit: open circuit, short circuit Power amplifier D2B "wake-up" fault Power amplifier D2B fault D2B network fault