

Last Modified: 6-2-2008	5.1 S	From: 200601
Model Year: 2007	Model: Camry	Doc ID: RM000002203002X
Title: 2GR-FE ENGINE CONTROL SYSTEM: SFI SYSTEM: DIAGNOSTIC TROUBLE CODE CHART (2007 Camry)		

DIAGNOSTIC TROUBLE CODE CHART

SFI SYSTEM:

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0010	Camshaft Position "A" Actuator Circuit (Bank 1)	1. Open or short in Oil Control Valve (OCV) for intake camshaft circuit 2. OCV for intake camshaft (bank 1) 3. ECM	Comes on	DTC stored	INFO
P0011	Camshaft Position "A" - Timing Over-Advanced or System Performance (Bank 1)	1. Valve timing 2. OCV for intake camshaft 3. OCV filter 4. Intake camshaft timing gear assembly 5. ECM	Comes on	DTC stored	INFO
P0012	Camshaft Position "A" - Timing Over-Retarded (Bank 1)	Same as DTC P0011	Comes on	DTC stored	INFO
P0013	Camshaft Position "B" Actuator Circuit / Open (Bank 1)	1. Open or short in Oil Control Valve (OCV) for exhaust camshaft circuit 2. OCV for exhaust camshaft (bank 1) 3. ECM	Comes on	DTC stored	INFO
P0014	Camshaft Position "B" - Timing Over-Advanced or System Performance (Bank 1)	1. Valve timing 2. OCV for exhaust camshaft 3. OCV filter 4. Exhaust camshaft 5. ECM	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0015	Camshaft Position "B" - Timing Over-Retarded (Bank 1)	Same as DTC P0014	Comes on	DTC stored	INFO
P0016	Crankshaft Position - Camshaft Position Correlation (Bank 1 Sensor A)	1. Mechanical system (Timing chain has jumped teeth or chain is stretched) 2. ECM	Comes on	DTC stored	INFO
P0017	Crankshaft Position - Camshaft Position Correlation (Bank 1 Sensor B)	Same as DTC P0016	Comes on	DTC stored	INFO
P0018	Crankshaft Position - Camshaft Position Correlation (Bank 2 Sensor A)	Same as DTC P0016	Comes on	DTC stored	INFO
P0019	Crankshaft Position - Camshaft Position Correlation (Bank 2 Sensor B)	Same as DTC P0016	Comes on	DTC stored	INFO
P0020	Camshaft Position "A" Actuator Circuit (Bank 2)	1. Open or short in Oil Control Valve (OCV) for intake camshaft circuit 2. OCV for intake camshaft (bank 2) 3. ECM	Comes on	DTC stored	INFO
P0021	Camshaft Position "A" - Timing Over-Advanced or System Performance (Bank 2)	Same as DTC P0011	Comes on	DTC stored	INFO
P0022	Camshaft Position "A" - Timing Over-Retarded (Bank 2)	Same as DTC P0011	Comes on	DTC stored	INFO
P0023	Camshaft Position "B" Actuator Circuit / Open (Bank 2)	1. Open or short in Oil Control Valve (OCV) for exhaust camshaft circuit 2. OCV for exhaust camshaft (bank 2)	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		3. ECM			
P0024	Camshaft Position "B" - Timing Over-Advanced or System Performance (Bank 2)	Same as DTC P0014	Comes on	DTC stored	INFO
P0025	Camshaft Position "B" - Timing Over-Retarded (Bank 2)	Same as DTC P0014	Comes on	DTC stored	INFO
P0031	Oxygen (A/F) Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	1. Open in Air-Fuel Ratio (A/F) sensor heater circuit 2. A/F sensor heater (bank 1 sensor 1) 3. A/F sensor heater relay 4. ECM	Comes on	DTC stored	INFO
P0032	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 1 Sensor 1)	1. Short in A/F sensor heater circuit 2. A/F sensor heater (bank 1 sensor 1) 3. A/F sensor heater relay 4. ECM	Comes on	DTC stored	INFO
P0037	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	1. Open in Heated Oxygen (HO2) sensor heater circuit 2. HO2 sensor heater (bank 1 sensor 2) 3. Engine room junction block (EFI relay) 4. ECM	Comes on	DTC stored	INFO
P0038	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	1. Short in HO2 sensor heater circuit 2. HO2 sensor heater (bank 1 sensor 2) 3. Engine room junction block (EFI relay)	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		4. ECM			
P0051	Oxygen (A/F) Sensor Heater Control Circuit Low (Bank 2 Sensor 1)	1. Open in A/F sensor heater circuit 2. A/F sensor heater (bank 2 sensor 1) 3. A/F sensor heater relay 4. ECM	Comes on	DTC stored	INFO
P0052	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 2 Sensor 1)	1. Short in A/F sensor heater circuit 2. A/F sensor heater (bank 2 sensor 1) 3. A/F sensor heater relay 4. ECM	Comes on	DTC stored	INFO
P0057	Oxygen Sensor Heater Control Circuit Low (Bank 2 Sensor 2)	1. Open in HO2 sensor heater circuit 2. HO2 sensor heater (bank 2 sensor 2) 3. Engine room junction block (EFI relay) 4. ECM	Comes on	DTC stored	INFO
P0058	Oxygen Sensor Heater Control Circuit High (Bank 2 Sensor 2)	1. Short in HO2 sensor heater circuit 2. HO2 sensor heater (bank 2 sensor 2) 3. Engine room junction block (EFI relay) 4. ECM	Comes on	DTC stored	INFO
P0100	Mass or Volume Air Flow Circuit	1. Open or short in Mass Air Flow (MAF) meter circuit 2. MAF meter 3. ECM	Comes on	DTC stored	INFO
P0101	Mass Air Flow Circuit Range / Performance Problem	MAF meter	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0102	Mass or Volume Air Flow Circuit Low Input	1. Open in MAF meter circuit 2. Short in MAF meter circuit 3. MAF meter 4. ECM	Comes on	DTC stored	INFO
P0103	Mass or Volume Air Flow Circuit High Input	1. Short in MAF meter circuit (+B circuit) 2. MAF meter 3. ECM	Comes on	DTC stored	INFO
P0110	Intake Air Temperature Circuit Malfunction	1. Open or short in Intake Air Temperature (IAT) sensor circuit 2. IAT sensor (built into Mass Air Flow [MAF] meter) 3. ECM	Comes on	DTC stored	INFO
P0111	Intake Air Temperature Sensor Gradient Too High	MAF meter	Comes on	DTC stored	INFO
P0112	Intake Air Temperature Circuit Low Input	1. Short in IAT sensor circuit 2. IAT sensor (built into MAF meter) 3. ECM	Comes on	DTC stored	INFO
P0113	Intake Air Temperature Circuit High Input	1. Open in IAT sensor circuit 2. IAT sensor (built into MAF meter) 3. ECM	Comes on	DTC stored	INFO
P0115	Engine Coolant Temperature Circuit Malfunction	1. Open or short in Engine Coolant Temperature (ECT) sensor circuit 2. ECT sensor 3. ECM	Comes on	DTC stored	INFO
P0116	Engine Coolant Temperature Circuit Range / Performance Problem	1. Thermostat 2. ECT sensor	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0117	Engine Coolant Temperature Circuit Low Input	1. Short in ECT sensor circuit 2. ECT sensor 3. ECM	Comes on	DTC stored	INFO
P0118	Engine Coolant Temperature Circuit High Input	1. Open in ECT sensor circuit 2. ECT sensor 3. ECM	Comes on	DTC stored	INFO
P0120	Throttle / Pedal Position Sensor / Switch "A" Circuit Malfunction	1. Throttle Position (TP) sensor (built into throttle body) 2. ECM	Comes on	DTC stored	INFO
P0121	Throttle / Pedal Position Sensor / Switch "A" Circuit Range / Performance Problem	TP sensor (built into throttle body)	Comes on	DTC stored	INFO
P0122	Throttle / Pedal Position Sensor / Switch "A" Circuit Low Input	1. TP sensor (built into throttle body) 2. Short in VTA1 circuit 3. Open in VC circuit 4. ECM	Comes on	DTC stored	INFO
P0123	Throttle / Pedal Position Sensor / Switch "A" Circuit High Input	1. TP sensor (built into throttle body) 2. Open in VTA1 circuit 3. Open in E2 circuit 4. Short between VC and VTA1 circuits 5. ECM	Comes on	DTC stored	INFO
P0125	Insufficient Coolant Temperature for Closed Loop Fuel Control	1. Cooling system 2. ECT sensor 3. Thermostat	Comes on	DTC stored	INFO
P0128	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	1. Thermostat 2. Cooling system 3. ECT sensor 4. ECM	Comes on	DTC stored	INFO
P0136	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	1. Open or short in HO2 sensor (bank 1 sensor 2) circuit	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		2. HO2 sensor (bank 1 sensor 2) 3. HO2 sensor heater (bank 1 sensor 2) 4. A/F sensor (bank 1 sensor 1) 5. Engine room junction block (EFI relay) 6. Gas leakage from exhaust system			
P0137	Oxygen Sensor Circuit Low Voltage (Bank 1 Sensor 2)	1. Open in HO2 sensor (bank 1 sensor 2) circuit 2. HO2 sensor (bank 1 sensor 2) 3. HO2 sensor heater (bank 1 sensor 2) 4. Engine room junction block (EFI relay) 5. Gas leakage from exhaust system	Comes on	DTC stored	INFO
P0138	Oxygen Sensor Circuit High Voltage (Bank 1 Sensor 2)	1. Short in HO2 sensor (bank 1 sensor 2) circuit 2. HO2 sensor (bank 1 sensor 2) 3. ECM internal circuit malfunction	Comes on	DTC stored	INFO
P0141	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	1. HO2 sensor 2. ECM	Comes on	DTC stored	INFO
P0156	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)	1. Open or short in HO2 sensor (bank 2 sensor 2) circuit 2. HO2 sensor (bank 2 sensor 2) 3. HO2 sensor heater (bank 2 sensor 2)	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		<ul style="list-style-type: none"> 4. A/F sensor (bank 2 sensor 1) 5. Engine room junction block (EFI relay) 6. Gas leakage from exhaust system 			
P0157	Oxygen Sensor Circuit Low Voltage (Bank 2 Sensor 2)	<ul style="list-style-type: none"> 1. Open in HO2 sensor (bank 2 sensor 2) circuit 2. HO2 sensor (bank 2 sensor 2) 3. HO2 sensor heater (bank 2 sensor 2) 4. Engine room junction block (EFI relay) 5. Gas leakage from exhaust system 	Comes on	DTC stored	INFO
P0158	Oxygen Sensor Circuit High Voltage (Bank 2 Sensor 2)	<ul style="list-style-type: none"> 1. Short in HO2 sensor (bank 2 sensor 2) circuit 2. HO2 sensor (bank 2 sensor 2) 3. ECM internal circuit malfunction 	Comes on	DTC stored	INFO
P0161	Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)	<ul style="list-style-type: none"> 1. HO2 sensor 2. ECM 	Comes on	DTC stored	INFO
P0171	System Too Lean (Bank 1)	<ul style="list-style-type: none"> 1. Air induction system 2. Injector blockage 3. MAF meter 4. ECT sensor 5. Fuel pressure 6. Gas leakage from exhaust system 7. Open or short in A/F sensor (bank 1 sensor 1) circuit 8. A/F sensor (bank 1 	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		sensor 1) 9. A/F sensor heater (bank 1 sensor 1) 10. A/F sensor heater relay 11. A/F sensor heater and A/F sensor heater relay circuits 12. PCV hose connections 13. PCV valve and hose 14. ECM			
P0172	System Too Rich (Bank 1)	1. Injector leakage or blockage 2. MAF meter 3. ECT sensor 4. Ignition system 5. Fuel pressure 6. Gas leakage from exhaust system 7. Open or short in A/F sensor (bank 1 sensor 1) circuit 8. A/F sensor (bank 1 sensor 1) 9. A/F sensor heater (bank 1 sensor 1) 10. A/F sensor heater relay 11. A/F sensor heater and A/F sensor heater relay circuits 12. ECM	Comes on	DTC stored	<input type="button" value="INFO"/>
P0174	System Too Lean (Bank 2)	1. Air induction system 2. Injector blockage 3. MAF meter 4. ECT sensor 5. Fuel pressure 6. Gas leakage from exhaust system 7. Open or short in A/F	Comes on	DTC stored	<input type="button" value="INFO"/>

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		sensor (bank 2 sensor 1) circuit 8. A/F sensor (bank 2 sensor 1) 9. A/F sensor heater (bank 2 sensor 1) 10. A/F sensor heater relay 11. A/F sensor heater and A/F sensor heater relay circuits 12. PCV hose connections 13. PCV valve and hose 14. ECM			
P0175	System Too Rich (Bank 2)	1. Injector leakage or blockage 2. MAF meter 3. ECT sensor 4. Ignition system 5. Fuel pressure 6. Gas leakage from exhaust system 7. Open or short in A/F sensor (bank 2 sensor 1) circuit 8. A/F sensor (bank 2 sensor 1) 9. A/F sensor heater (bank 2 sensor 1) 10. A/F sensor heater relay 11. A/F sensor heater and A/F sensor heater relay circuits 12. ECM	Comes on	DTC stored	INFO
P0220	Throttle / Pedal Position Sensor / Switch "B" Circuit	1. TP sensor (built into throttle body) 2. ECM	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0222	Throttle / Pedal Position Sensor / Switch "B" Circuit Low Input	<ol style="list-style-type: none"> 1. TP sensor (built into throttle body) 2. Short in VTA2 circuit 3. Open in VC circuit 4. ECM 	Comes on	DTC stored	INFO
P0223	Throttle / Pedal Position Sensor / Switch "B" Circuit High Input	<ol style="list-style-type: none"> 1. TP sensor (built into throttle body) 2. Open in VTA2 circuit 3. Open in E2 circuit 4. Short between VC and VTA2 circuits 5. ECM 	Comes on	DTC stored	INFO
P0300	Random / Multiple Cylinder Misfire Detected	<ol style="list-style-type: none"> 1. Open or short in engine wire harness 2. Connector connections 3. Vacuum hose connection 4. Ignition system 5. Injector 6. Fuel pressure 7. Mass Air Flow (MAF) meter 8. Engine Coolant Temperature (ECT) sensor 9. Compression pressure 10. Valve clearance 11. Valve timing 12. PCV valve and hose 13. PCV hose connections 14. Air induction system 15. ECM 	Comes on or flashes	DTC stored	INFO
P0301	Cylinder 1 Misfire Detected	Same as DTC P0300	Comes on or flashes	DTC stored	INFO
P0302	Cylinder 2 Misfire Detected	Same as DTC P0300	Comes on or flashes	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0303	Cylinder 3 Misfire Detected	Same as DTC P0300	Comes on or flashes	DTC stored	INFO
P0304	Cylinder 4 Misfire Detected	Same as DTC P0300	Comes on or flashes	DTC stored	INFO
P0305	Cylinder 5 Misfire Detected	Same as DTC P0300	Comes on or flashes	DTC stored	INFO
P0306	Cylinder 6 Misfire Detected	Same as DTC P0300	Comes on or flashes	DTC stored	INFO
P0327	Knock Sensor 1 Circuit Low Input (Bank 1 or Single Sensor)	1. Short in knock sensor 1 circuit 2. Knock sensor 1 3. ECM	Comes on	DTC stored	INFO
P0328	Knock Sensor 1 Circuit High Input (Bank 1 or Single Sensor)	1. Open in knock sensor 1 circuit 2. Knock sensor 1 3. ECM	Comes on	DTC stored	INFO
P0332	Knock Sensor 2 Circuit Low Input (Bank 2)	1. Short in knock sensor 2 circuit 2. Knock sensor 2 3. ECM	Comes on	DTC stored	INFO
P0333	Knock Sensor 2 Circuit High Input (Bank 2)	1. Open in knock sensor 2 circuit 2. Knock sensor 2 3. ECM	Comes on	DTC stored	INFO
P0335	Crankshaft Position Sensor "A" Circuit	1. Open or short in Crankshaft Position Sensor (CKP) circuit 2. CKP sensor 3. Sensor plate (CKP sensor plate) 4. ECM	Comes on	DTC stored	INFO
P0339	Crankshaft Position Sensor "A" Circuit Intermittent	Same as DTC P0335	Does not come on	DTC stored	INFO
P0340	Camshaft Position Sensor Circuit Malfunction	1. Open or short in VVT sensor for intake camshaft circuit 2. VVT sensor for	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		intake camshaft 3. Camshaft timing gear for intake camshaft 4. Jumped tooth of timing chain for intake camshaft 5. ECM			
P0342	Camshaft Position Sensor "A" Circuit Low Input (Bank 1 or Single Sensor)	Same as DTC P0340	Comes on	DTC stored	INFO
P0343	Camshaft Position Sensor "A" Circuit High Input (Bank 1 or Single Sensor)	Same as DTC P0340	Comes on	DTC stored	INFO
P0345	Camshaft Position Sensor "A" Circuit (Bank 2)	Same as DTC P0340	Comes on	DTC stored	INFO
P0347	Camshaft Position Sensor "A" Circuit Low Input (Bank 2)	Same as DTC P0340	Comes on	DTC stored	INFO
P0348	Camshaft Position Sensor "A" Circuit High Input (Bank 2)	Same as DTC P0340	Comes on	DTC stored	INFO
P0351	Ignition Coil "A" Primary / Secondary Circuit	1. Ignition system 2. Open or short in IGF1 or IGT circuit (1 to 6) between ignition coil and ECM 3. No. 1 to No. 6 ignition coils 4. ECM	Comes on	DTC stored	INFO
P0352	Ignition Coil "B" Primary / Secondary Circuit	Same as DTC P0351	Comes on	DTC stored	INFO
P0353	Ignition Coil "C" Primary / Secondary Circuit	Same as DTC P0351	Comes on	DTC stored	INFO
P0354	Ignition Coil "D" Primary / Secondary Circuit	Same as DTC P0351	Comes on	DTC stored	INFO
P0355	Ignition Coil "E" Primary / Secondary Circuit	Same as DTC P0351	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0356	Ignition Coil "F" Primary / Secondary Circuit	Same as DTC P0351	Comes on	DTC stored	INFO
P0365	Camshaft Position Sensor "B" Circuit (Bank 1)	<ol style="list-style-type: none"> 1. Open or short in VVT sensor for exhaust camshaft circuit 2. VVT sensor for exhaust camshaft 3. Exhaust camshaft 4. Jumped tooth of timing chain 5. ECM 	Comes on	DTC stored	INFO
P0367	Camshaft Position Sensor "B" Circuit Low Input (Bank 1)	<ol style="list-style-type: none"> 1. Open or short in VVT sensor for exhaust camshaft circuit 2. VVT sensor for exhaust camshaft 3. Exhaust camshaft 4. Jumped tooth of timing chain 5. ECM 	Comes on	DTC stored	INFO
P0368	Camshaft Position Sensor "B" Circuit High Input (Bank 1)	<ol style="list-style-type: none"> 1. Open or short in VVT sensor for exhaust camshaft circuit 2. VVT sensor for exhaust camshaft 3. Exhaust camshaft 4. Jumped tooth of timing chain 5. ECM 	Comes on	DTC stored	INFO
P0390	Camshaft Position Sensor "B" Circuit (Bank 2)	<ol style="list-style-type: none"> 1. Open or short in VVT sensor for exhaust camshaft circuit 2. VVT sensor for exhaust camshaft 3. Exhaust camshaft 4. Jumped tooth of timing chain 5. ECM 	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0392	Camshaft Position Sensor "B" Circuit Low Input (Bank 2)	<ol style="list-style-type: none"> 1. Open or short in VVT sensor for exhaust camshaft circuit 2. VVT sensor for exhaust camshaft 3. Exhaust camshaft 4. Jumped tooth of timing chain 5. ECM 	Comes on	DTC stored	INFO
P0393	Camshaft Position Sensor "B" Circuit High Input (Bank 2)	<ol style="list-style-type: none"> 1. Open or short in VVT sensor for exhaust camshaft circuit 2. VVT sensor for exhaust camshaft 3. Exhaust camshaft 4. Jumped tooth of timing chain 5. ECM 	Comes on	DTC stored	INFO
P0420	Catalyst System Efficiency Below Threshold (Bank 1)	<ol style="list-style-type: none"> 1. Gas leakage from exhaust system 2. A/F sensor (bank 1 sensor 1) 3. HO2 sensor (bank 1 sensor 2) 4. Exhaust manifold (Three-Way Catalytic Converter [TWC]) 	Comes on	DTC stored	INFO
P0430	Catalyst System Efficiency Below Threshold (Bank 2)	<ol style="list-style-type: none"> 1. Gas leakage from exhaust system 2. A/F sensor (bank 2 sensor 1) 3. HO2 sensor (bank 2 sensor 2) 4. Exhaust manifold (Three-Way Catalytic Converter [TWC]) 	Comes on	DTC stored	INFO
P043E	Evaporative Emission System Reference Orifice Clog Up	<ol style="list-style-type: none"> 1. Pump module 2. Connector / wire harness (Pump module - ECM) 	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		3. ECM			
P043F	Evaporative Emission System Reference Orifice High Flow	1. Pump module 2. Connector / wire harness (Pump module - ECM) 3. ECM	Comes on	DTC stored	INFO
P0441	Evaporative Emission Control System Incorrect Purge Flow	1. EVAP VSV 2. Connector / wire harness (EVAP VSV - ECM) 3. ECM 4. Pump module 5. Leakage from EVAP system 6. Leakage from EVAP line (EVAP VSV - Intake manifold)	Comes on	DTC stored	INFO
P0450	Evaporative Emission Control System Pressure Sensor / Switch	1. Pump module (including pressure sensor) 2. ECM	Comes on	DTC stored	INFO
P0451	Evaporative Emission Control System Pressure Sensor Range / Performance	1. Pump module (including pressure sensor) 2. Connector / wire harness (between pump module and ECM) 3. ECM	Comes on	DTC stored	INFO
P0452	Evaporative Emission Control System Pressure Sensor / Switch Low Input	1. Pump module (including pressure sensor) 2. Connector / wire harness (between pump module and ECM) 3. ECM	Comes on	DTC stored	INFO
P0453	Evaporative Emission Control System Pressure	1. Pump module (include pressure	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
	Sensor / Switch High Input	sensor) 2. Connector / wire harness (between pump module and ECM) 3. ECM			
P0455	Evaporative Emission Control System Leak Detected (Gross Leak)	1. Fuel tank cap (loose) 2. Leakage from EVAP line (Canister - Fuel tank) 3. Leakage from EVAP line (EVAP VSV - Canister) 4. Pump module 5. Leakage from fuel tank 6. Leakage from canister	Comes on	DTC stored	INFO
P0456	Evaporative Emission Control System Leak Detected (Very Small Leak)	Same as DTC P0455	Comes on	DTC stored	INFO
P0500	Vehicle Speed Sensor "A"	1. Vehicle speed sensor 2. Vehicle speed sensor signal circuit 3. Combination meter 4. ECM 5. Skid control ECU	Comes on	DTC stored	INFO
P0504	Brake Switch "A" / "B" Correlation	1. Short in stop light switch signal circuit 2. Stop light switch 3. ECM	Does not come on	DTC stored	INFO
P0505	Idle Control System Malfunction	1. ETCS (Electronic Throttle Control System) 2. Air induction system 3. PCV hose connection 4. ECM	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P050A	Cold Start Idle Air Control System Performance	1. Throttle body assembly 2. MAF meter 3. Air induction system 4. PCV hose connections 5. VVT system 6. Air cleaner filter element 7. ECM	Comes on	DTC stored	INFO
P050B	Cold Start Ignition Timing Performance	Same as DTC P050A	Comes on	DTC stored	INFO
P0560	System Voltage	1. Open in back-up power source circuit 2. ECM	Comes on	DTC stored	INFO
P0604	Internal Control Module Random Access Memory (RAM) Error	ECM	Comes on	DTC stored	INFO
P0606	ECM / PCM Processor	ECM	Comes on (except when there is a malfunction in the ECM internal circuit)	DTC stored	INFO
P0607	Control Module Performance	ECM	Comes on (except when there is a malfunction in the cruise control switch circuit)	DTC stored	INFO
P0617	Starter Relay Circuit High	1. Park / Neutral Position (PNP) switch 2. Starter relay circuit 3. Cranking holding function circuit 4. Ignition switch 5. ECM	Comes on	DTC stored	INFO
P0630	VIN not Programmed or Mismatch - ECM / PCM	ECM	Comes on	DTC stored	INFO
P0657	Actuator Supply Voltage Circuit / Open	ECM	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P0705	Transmission Range Sensor Circuit Malfunction (PRNDL Input)	1. Short in park / neutral position switch circuit 2. Park / neutral position switch 3. ECM	Comes on	DTC stored	INFO
P0724	Brake Switch "B" Circuit High	1. Short in stop light switch signal circuit 2. Stop light switch 3. ECM	Comes on	DTC stored	INFO
P2102	Throttle Actuator Control Motor Circuit Low	1. Open in throttle actuator circuit 2. Throttle actuator 3. ECM	Comes on	DTC stored	INFO
P2103	Throttle Actuator Control Motor Circuit High	1. Short in throttle actuator circuit 2. Throttle actuator 3. Throttle valve 4. Throttle body assembly 5. ECM	Comes on	DTC stored	INFO
P2111	Throttle Actuator Control System - Stuck Open	1. Throttle actuator 2. Throttle body 3. Throttle valve	Comes on	DTC stored	INFO
P2112	Throttle Actuator Control System - Stuck Closed	Same as DTC P2111	Comes on	DTC stored	INFO
P2118	Throttle Actuator Control Motor Current Range / Performance	1. Open in ETCS power source circuit 2. ETCS fuse 3. ECM	Comes on	DTC stored	INFO
P2119	Throttle Actuator Control Throttle Body Range / Performance	1. ETCS 2. ECM	Comes on	DTC stored	INFO
P2120	Throttle / Pedal Position Sensor / Switch "D" Circuit	1. Accelerator Pedal Position (APP) sensor 2. ECM	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
P2121	Throttle / Pedal Position Sensor / Switch "D" Circuit Range / Performance	1. Accelerator Pedal Position (APP) sensor 2. ECM	Comes on	DTC stored	INFO
P2122	Throttle / Pedal Position Sensor / Switch "D" Circuit Low Input	1. Accelerator Pedal Position (APP) sensor 2. Open in VCP1 circuit 3. Open or ground short in VPA circuit 4. ECM	Comes on	DTC stored	INFO
P2123	Throttle / Pedal Position Sensor / Switch "D" Circuit High Input	1. Accelerator Pedal Position (APP) sensor 2. Open in EPA circuit 3. ECM	Comes on	DTC stored	INFO
P2125	Throttle / Pedal Position Sensor / Switch "E" Circuit	1. Accelerator Pedal Position (APP) sensor 2. ECM	Comes on	DTC stored	INFO
P2127	Throttle / Pedal Position Sensor / Switch "E" Circuit Low Input	1. Accelerator Pedal Position (APP) sensor 2. Open in VCP2 circuit 3. Open or ground short in VPA2 circuit 4. ECM	Comes on	DTC stored	INFO
P2128	Throttle / Pedal Position Sensor / Switch "E" Circuit High Input	1. Accelerator Pedal Position (APP) sensor 2. Open in EPA2 circuit 3. ECM	Comes on	DTC stored	INFO
P2135	Throttle / Pedal Position Sensor / Switch "A" / "B" Voltage Correlation	1. Short between VTA1 and VTA2 circuits 2. TP sensor (built into throttle body) 3. ECM	Comes on	DTC stored	INFO
P2138	Throttle / Pedal Position Sensor / Switch "D" / "E" Voltage Correlation	1. Short between VPA and VPA2 circuits 2. APP sensor 3. ECM	Comes on	DTC stored	INFO
P2195	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 1 Sensor 1)	1. Open or short in A/F sensor (bank 1 sensor 1) circuit	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		2. A/F sensor (bank 1 sensor 1) 3. A/F sensor heater (bank 1 sensor 1) 4. A/F sensor heater relay 5. A/F sensor heater and relay circuits 6. Air induction system 7. Fuel pressure 8. Injector 9. ECM			
P2196	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 1 Sensor 1)	Same as DTC P2195	Comes on	DTC stored	INFO
P2197	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 2 Sensor 1)	1. Open or short in A/F sensor (bank 2 sensor 1) circuit 2. A/F sensor (bank 2 sensor 1) 3. A/F sensor heater (bank 2 sensor 1) 4. A/F sensor heater relay 5. A/F sensor heater and relay circuits 6. Air induction system 7. Fuel pressure 8. Injector 9. ECM	Comes on	DTC stored	INFO
P2198	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 2 Sensor 1)	Same as DTC P2197	Comes on	DTC stored	INFO
P2238	Oxygen (A/F) Sensor Pumping Current Circuit Low (Bank 1 Sensor 1)	1. Open or short in A/F sensor (bank 1 sensor 1) circuit 2. A/F sensor (bank 1 sensor 1) 3. A/F sensor heater (bank 1 sensor 1)	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		4. A/F sensor heater relay 5. A/F sensor heater and relay circuits 6. ECM			
P2239	Oxygen (A/F) Sensor Pumping Current Circuit High (Bank 1 Sensor 1)	Same as DTC P2238	Comes on	DTC stored	INFO
P2241	Oxygen (A/F) Sensor Pumping Current Circuit Low (Bank 2 Sensor 1)	1. Open or short in A/F sensor (bank 2 sensor 1) circuit 2. A/F sensor (bank 2 sensor 1) 3. A/F sensor heater (bank 2 sensor 1) 4. A/F sensor heater relay 5. A/F sensor heater and relay circuits 6. ECM	Comes on	DTC stored	INFO
P2242	Oxygen (A/F) Sensor Pumping Current Circuit High (Bank 2 Sensor 1)	Same as DTC P2241	Comes on	DTC stored	INFO
P2252	Oxygen (A/F) Sensor Reference Ground Circuit Low (Bank 1 Sensor 1)	Same as DTC P2238	Comes on	DTC stored	INFO
P2253	Oxygen (A/F) Sensor Reference Ground Circuit High (Bank 1 Sensor 1)	Same as DTC P2238	Comes on	DTC stored	INFO
P2255	Oxygen (A/F) Sensor Reference Ground Circuit Low (Bank 2 Sensor 1)	Same as DTC P2241	Comes on	DTC stored	INFO
P2256	Oxygen (A/F) Sensor Reference Ground Circuit High (Bank 2 Sensor 1)	Same as DTC P2241	Comes on	DTC stored	INFO
P2401	Evaporative Emission System Leak Detection Pump Control Circuit Low	1. Pump module 2. Connector / wire harness (Pump	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
		module - ECM) 3. ECM			
P2402	Evaporative Emission System Leak Detection Pump Control Circuit High	1. Pump module 2. Connector / wire harness (Pump module - ECM) 3. ECM	Comes on	DTC stored	INFO
P2419	Evaporative Emission System Switching Valve Control Circuit Low	1. Pump module 2. Connector / wire harness (Pump module - ECM) 3. ECM	Comes on	DTC stored	INFO
P2420	Evaporative Emission System Switching Valve Control Circuit High	1. Pump module (0.02 inch orifice, vacuum pump, vent valve) EVAP system monitor 2. Connector / wire harness (Pump module - ECM) 3. ECM	Comes on	DTC stored	INFO
P2610	ECM / PCM Internal Engine Off Timer Performance	ECM	Comes on	DTC stored	INFO
P2A00	A/F Sensor Circuit Slow Response (Bank 1 Sensor 1)	1. Open or short in A/F sensor (bank 1 sensor 1) circuit 2. A/F sensor (bank1 sensor 1) 3. ECM	Comes on	DTC stored	INFO
P2A03	A/F Sensor Circuit Slow Response (Bank 2 Sensor 1)	1. Open or short in A/F sensor (bank 2 sensor 1) circuit 2. A/F sensor (bank 2 sensor 1) 3. ECM	Comes on	DTC stored	INFO

DTC CODE	DETECTION ITEM	SUSPECTED TROUBLE AREA	MIL	MEMORY	SEE PAGE
U0101	Lost Communication with TCM	1. Open or short in TCM and ECM circuit 2. TCM 3. ECM	Comes on	DTC stored	INFO

