1. List of Diagnostic Trouble Code (DTC)

A: LIST

DTC	Item	Index
P0011	A Camshaft Position-Timing Over- Advanced or System Performance (Bank 1)	<ref. "a"="" (bank="" (dtc)="" -="" 1)="" camshaft="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-9,="" or="" over-advanced="" p0011="" performance="" position="" system="" tim-ing="" to="" trouble="" —="" —,=""></ref.>
P0021	A Camshaft Position-Timing Over- Advanced or System Performance (Bank 2)	<ref. "a"="" (bank="" (dtc)="" -="" 2)="" camshaft="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-11,="" or="" over-advanced="" p0021="" performance="" position="" system="" tim-ing="" to="" trouble="" —="" —,=""></ref.>
P0030	HO2S Heater Control Circuit (Bank 1 Sensor 1)	<ref. cir-<br="" control="" dtc="" gd(h4dotc)-12,="" heater="" ho2s="" p0030="" to="" —="">CUIT (BANK 1 SENSOR 1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0031	HO2S Heater Control Circuit Low (Bank 1 Sensor 1)	<ref. cir-<br="" control="" dtc="" gd(h4dotc)-14,="" heater="" ho2s="" p0031="" to="" —="">CUIT LOW (BANK 1 SENSOR 1) —, Diagnostic Trouble Code (DTC) Detect- ing Criteria.></ref.>
P0032	HO2S Heater Control Circuit High (Bank 1 Sensor 1)	<ref. cir-<br="" control="" dtc="" gd(h4dotc)-16,="" heater="" ho2s="" p0032="" to="" —="">CUIT HIGH (BANK 1 SENSOR 1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0037	HO2S Heater Control Circuit Low (Bank 1 Sensor 2)	<ref. cir-<br="" control="" dtc="" gd(h4dotc)-18,="" heater="" ho2s="" p0037="" to="" —="">CUIT LOW (BANK 1 SENSOR 2) —, Diagnostic Trouble Code (DTC) Detect- ing Criteria.></ref.>
P0038	HO2S Heater Control Circuit High (Bank 1 Sensor 2)	<ref. cir-<br="" control="" dtc="" gd(h4dotc)-20,="" heater="" ho2s="" p0038="" to="" —="">CUIT HIGH (BANK 1 SENSOR 2) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0068	Manifold Absolute Pressure/Barometric Pressure Circuit Range/Performance	<ref. dtc="" gd(h4dotc)-22,="" manifold="" p0068="" pressure="" sen-<br="" to="" —="">SOR RANGE/PERFORMANCE —, Diagnostic Trouble Code (DTC) Detect- ing Criteria.></ref.>
P0101	Mass or Volume Air Flow Circuit Range/Performance	<ref. (dtc)="" air="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" flow="" gd(h4dotc)-24,="" mass="" or="" p0101="" performance="" range="" to="" trouble="" volume="" —="" —,=""></ref.>
P0102	Mass or Volume Air Flow Circuit Low Input	<ref. (dtc)="" air="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" flow="" gd(h4dotc)-27,="" input="" low="" mass="" or="" p0102="" to="" trouble="" volume="" —="" —,=""></ref.>
P0103	Mass or Volume Air Flow Circuit High Input	<ref. (dtc)="" air="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" flow="" gd(h4dotc)-29,="" high="" input="" mass="" or="" p0103="" to="" trouble="" volume="" —="" —,=""></ref.>
P0107	Manifold Absolute Pressure/Barometric Pressure Circuit Low Input	<ref. absolute="" dtc="" gd(h4dotc)-31,="" manifold="" p0107="" pres-<br="" to="" —="">SURE/BAROMETRIC PRESSURE CIRCUIT LOW INPUT —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0108	Manifold Absolute Pressure/Barometric Pressure Circuit High Input	<ref. absolute="" dtc="" gd(h4dotc)-33,="" manifold="" p0108="" pres-<br="" to="" —="">SURE/BAROMETRIC PRESSURE CIRCUIT HIGH INPUT —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0111	Intake Air Temperature Circuit Range/Performance	<ref. (dtc)="" air="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-35,="" intake="" p0111="" performance="" range="" temperature="" to="" trouble="" —="" —,=""></ref.>
P0112	Intake Air Temperature Circuit Low Input	<ref. (dtc)="" air="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-37,="" input="" intake="" low="" p0112="" temperature="" to="" trouble="" —="" —,=""></ref.>
P0113	Intake Air Temperature Circuit High Input	<ref. (dtc)="" air="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-39,="" high="" input="" intake="" p0113="" temperature="" to="" trouble="" —="" —,=""></ref.>
P0117	Engine Coolant Temperature Circuit Low Input	<ref. (dtc)="" circuit="" code="" coolant="" criteria.="" detecting="" diagnostic="" dtc="" engine="" gd(h4dotc)-41,="" input="" low="" p0117="" temperature="" to="" trouble="" —="" —,=""></ref.>
P0118	Engine Coolant Temperature Circuit High Input	<ref. (dtc)="" circuit="" code="" coolant="" criteria.="" detecting="" diagnostic="" dtc="" engine="" gd(h4dotc)-43,="" high="" input="" p0118="" temperature="" to="" trouble="" —="" —,=""></ref.>

DTC	Item	Index
P0122	Throttle/Pedal Position Sensor/ Switch "A" Circuit Low Input	<ref. dtc="" gd(h4dotc)-45,="" p0122="" pedal="" position<br="" throttle="" to="" —="">SENSOR/SWITCH "A" CIRCUIT LOW INPUT —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0123	Throttle/Pedal Position Sensor/ Switch "A" Circuit High Input	<ref. "a"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-47,="" high="" input="" p0123="" pedal="" position="" sensor="" switch="" throttle="" to="" trouble="" —="" —,=""></ref.>
P0125	Insufficient Coolant Temperature for Closed Loop Fuel Control	<ref. coolant="" dtc="" gd(h4dotc)-49,="" insufficient="" p0125="" tem-<br="" to="" —="">PERATURE FOR CLOSED LOOP FUEL CONTROL —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0128	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	<ref. coolant="" dtc="" gd(h4dotc)-51,="" p0128="" thermostat<br="" to="" —="">(COOLANT TEMPERATURE BELOW THERMOSTAT REGULATING TEM- PERATURE) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0129	Atmospheric Pressure Sensor Circuit Range/Performance	<ref. (dtc)="" barometric="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-53,="" low="" p0129="" pressure="" to="" too="" trouble="" —="" —,=""></ref.>
P0131	O ₂ Sensor Circuit Low Voltage (Bank 1 Sensor 1)	<ref. dtc="" gd(h4dotc)-54,="" o<sub="" p0131="" to="" —="">2 SENSOR CIRCUIT LOW VOLTAGE (BANK 1 SENSOR 1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0132	O ₂ Sensor Circuit High Voltage (Bank 1 Sensor 1)	<ref. dtc="" gd(h4dotc)-56,="" o<sub="" p0132="" to="" —="">2 SENSOR CIRCUIT HIGH VOLTAGE (BANK 1 SENSOR 1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0133	O ₂ Sensor Circuit Slow Response (Bank 1 Sensor 1)	<ref. dtc="" gd(h4dotc)-58,="" o<sub="" p0133="" to="" —="">2 SENSOR CIRCUIT SLOW RESPONSE (BANK 1 SENSOR 1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0134	O ₂ Sensor Circuit No Activity Detected (Bank 1 Sensor 1)	<ref. dtc="" gd(h4dotc)-61,="" o<sub="" p0134="" to="" —="">2 SENSOR CIRCUIT NO ACTIVITY DETECTED (BANK 1 SENSOR 1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0137	O ₂ Sensor Circuit Low Voltage (Bank 1 Sensor 2)	<ref. dtc="" gd(h4dotc)-63,="" o<sub="" p0137="" to="" —="">2 SENSOR CIRCUIT LOW VOLTAGE (BANK 1 SENSOR 2) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0138	O ₂ Sensor Circuit High Voltage (Bank 1 Sensor 2)	<ref. dtc="" gd(h4dotc)-65,="" o<sub="" p0138="" to="" —="">2 SENSOR CIRCUIT HIGH VOLTAGE (BANK 1 SENSOR 2) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0139	O ₂ Sensor Circuit Slow Response (Bank 1 Sensor 2)	<ref. dtc="" gd(h4dotc)-67,="" o<sub="" p0139="" to="" —="">2 SENSOR CIRCUIT SLOW RESPONSE (BANK 1 SENSOR 2) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0171	System too Lean (Bank 1)	<ref. (bank="" (dtc)="" ,="" 1)="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-70,="" lean="" p0171="" system="" to="" too="" trouble="" —=""></ref.>
P0172	System too Rich (Bank 1)	<ref. (bank="" (dtc)="" ,="" 1)="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-73,="" p0172="" rich="" system="" to="" too="" trouble="" —=""></ref.>
P0181	Fuel Temperature Sensor "A" Circuit Range/Performance	<ref. dtc="" fuel="" gd(h4dotc)-76,="" p0181="" sensor<br="" temperature="" to="" —="">"A" CIRCUIT RANGE/PERFORMANCE —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0182	Fuel Temperature Sensor "A" Circuit Low Input	<ref. "a"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-79,="" input="" low="" p0182="" sensor="" temperature="" to="" trouble="" —="" —,=""></ref.>
P0183	Fuel Temperature Sensor "A" Circuit High Input	<ref. "a"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-81,="" high="" input="" p0183="" sensor="" temperature="" to="" trouble="" —="" —,=""></ref.>
P0222	Throttle/Pedal Position Sensor/ Switch "B" Circuit Low Input	<ref. "b"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-83,="" input="" low="" p0222="" pedal="" position="" sensor="" switch="" throttle="" to="" trouble="" —="" —,=""></ref.>
P0223	Throttle/Pedal Position Sensor/ Switch "B" Circuit High Input	<ref. "b"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-85,="" high="" input="" p0223="" pedal="" position="" sensor="" switch="" throttle="" to="" trouble="" —="" —,=""></ref.>
P0230	Fuel Pump Primary Circuit	<ref. (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-87,="" p0230="" primary="" pump="" to="" trouble="" —="" —,=""></ref.>

DTC	Item	Index
P0244	Turbo/Super Charger Wastegate Solenoid "A" Range/Performance	<ref. charger<br="" dtc="" gd(h4dotc)-89,="" p0244="" super="" to="" turbo="" —="">WASTEGATE SOLENOID "A" RANGE/PERFORMANCE —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0245	Turbo/Super Charger Wastegate Solenoid "A" Low	<ref. charger<br="" dtc="" gd(h4dotc)-91,="" p0245="" super="" to="" turbo="" —="">WASTEGATE SOLENOID "A" LOW —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0246	Turbo/Super Charger Wastegate Solenoid "A" High	<ref. charger<br="" dtc="" gd(h4dotc)-93,="" p0246="" super="" to="" turbo="" —="">WASTEGATE SOLENOID "A" HIGH —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0301	Cylinder 1 misfire detected	<ref. (dtc)="" 1="" code="" criteria.="" cylinder="" detected="" detecting="" diagnostic="" dtc="" gd(h4dotc)-95,="" misfire="" p0301="" to="" trouble="" —="" —,=""></ref.>
P0302	Cylinder 2 misfire detected	<ref. (dtc)="" 2="" code="" criteria.="" cylinder="" detected="" detecting="" diagnostic="" dtc="" gd(h4dotc)-102,="" misfire="" p0302="" to="" trouble="" —="" —,=""></ref.>
P0303	Cylinder 3 misfire detected	<ref. (dtc)="" 3="" code="" criteria.="" cylinder="" detected="" detecting="" diagnostic="" dtc="" gd(h4dotc)-102,="" misfire="" p0303="" to="" trouble="" —="" —,=""></ref.>
P0304	Cylinder 4 misfire detected	<ref. (dtc)="" 4="" code="" criteria.="" cylinder="" detected="" detecting="" diagnostic="" dtc="" gd(h4dotc)-102,="" misfire="" p0304="" to="" trouble="" —="" —,=""></ref.>
P0327	Knock Sensor 1 Circuit Low Input (Bank 1 or Single Sensor)	<ref. (bank="" (dtc)="" 1="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-103,="" input="" knock="" low="" or="" p0327="" sensor="" sensor)="" single="" to="" trouble="" —="" —,=""></ref.>
P0328	Knock Sensor 1 Circuit High Input (Bank 1 or Single Sensor)	<ref. (bank="" (dtc)="" 1="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-105,="" high="" input="" knock="" or="" p0328="" sensor="" sensor)="" single="" to="" trouble="" —="" —,=""></ref.>
P0335	Crankshaft Position Sensor "A" Circuit	<ref. crankshaft="" dtc="" gd(h4dotc)-107,="" p0335="" position="" sen-<br="" to="" —="">SOR "A" CIRCUIT —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0336	Crankshaft Position Sensor "A" Circuit Range/Performance	<ref. crankshaft="" dtc="" gd(h4dotc)-109,="" p0336="" position="" sen-<br="" to="" —="">SOR "A" CIRCUIT RANGE/PERFORMANCE —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0340	Camshaft Position Sensor "A" Circuit (Bank 1 or Single Sensor)	<ref. camshaft="" dtc="" gd(h4dotc)-111,="" p0340="" position="" sen-<br="" to="" —="">SOR "A" CIRCUIT (BANK 1 OR SINGLE SENSOR) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0345	Camshaft Position Sensor "A" Circuit (Bank 2)	<ref. "a"="" (bank="" (dtc)="" 2)="" camshaft="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-113,="" p0345="" position="" sensor="" to="" trouble="" —="" —,=""></ref.>
P0420	Catalyst System Efficiency Below Threshold (Bank 1)	<ref. catalyst="" dtc="" effi-<br="" gd(h4dotc)-114,="" p0420="" system="" to="" —="">CIENCY BELOW THRESHOLD (BANK 1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0442	Evaporative Emission Control System Leak Detected (small leak)	<ref. (dtc)="" (small="" code="" control="" criteria.="" detected="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-117,="" leak="" leak)="" p0442="" system="" to="" trouble="" —="" —,=""></ref.>
P0447	Evaporative Emission Control System Vent Control Circuit Open	<ref. (dtc)="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-142,="" open="" p0447="" system="" to="" trouble="" vent="" —="" —,=""></ref.>
P0448	Evaporative Emission Control System Vent Control Circuit Shorted	<ref. (dtc)="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-144,="" p0448="" shorted="" system="" to="" trouble="" vent="" —="" —,=""></ref.>
P0451	Evaporative Emission Control System Pressure Sensor Range/Performance	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-146,="" p0451="" performance="" pressure="" range="" sensor="" system="" to="" trouble="" —="" —,=""></ref.>
P0452	Evaporative Emission Control System Pressure Sensor Low Input	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-148,="" input="" low="" p0452="" pressure="" sensor="" system="" to="" trouble="" —="" —,=""></ref.>
P0453	Evaporative Emission Control System Pressure Sensor High Input	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-150,="" high="" input="" p0453="" pressure="" sensor="" system="" to="" trouble="" —="" —,=""></ref.>

DTC	Item	Index
P0456	Evaporative Emission Control System Leak Detected (very small leak)	<ref. (dtc)="" (very="" code="" control="" criteria.="" detected="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-152,="" leak="" leak)="" p0456="" small="" system="" to="" trouble="" —="" —,=""></ref.>
P0457	Evaporative Emission Control System Leak Detected (fuel cap loose/ off)	<ref. dtc="" emission<br="" evaporative="" gd(h4dotc)-152,="" p0457="" to="" —="">CONTROL SYSTEM LEAK DETECTED (FUEL CAP LOOSE/OFF) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0458	Evaporative Emission Control System Purge Control Valve Circuit Low	<ref. dtc="" emission<br="" evaporative="" gd(h4dotc)-153,="" p0458="" to="" —="">CONTROL SYSTEM PURGE CONTROL VALVE CIRCUIT LOW —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0459	Evaporative Emission Control System Purge Control Valve Circuit High	<ref. (dtc)="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" emission="" evaporative="" gd(h4dotc)-155,="" high="" p0459="" purge="" system="" to="" trouble="" valve="" —="" —,=""></ref.>
P0461	Fuel Level Sensor Circuit Range/Performance	<ref. cir-<br="" dtc="" fuel="" gd(h4dotc)-157,="" level="" p0461="" sensor="" to="" —="">CUIT RANGE/PERFORMANCE —, Diagnostic Trouble Code (DTC) Detect- ing Criteria.></ref.>
P0462	Fuel Level Sensor Circuit Low Input	<ref. cir-<br="" dtc="" fuel="" gd(h4dotc)-159,="" level="" p0462="" sensor="" to="" —="">CUIT LOW INPUT —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0463	Fuel Level Sensor Circuit High Input	<ref. cir-<br="" dtc="" fuel="" gd(h4dotc)-161,="" level="" p0463="" sensor="" to="" —="">CUIT HIGH INPUT —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0464	Fuel Level Sensor Circuit Intermittent	<ref. cir-<br="" dtc="" fuel="" gd(h4dotc)-163,="" level="" p0464="" sensor="" to="" —="">CUIT INTERMITTENT —, Diagnostic Trouble Code (DTC) Detecting Crite- ria.></ref.>
P0483	Cooling Fan Rationality Check	<ref. (dtc)="" check="" code="" cooling="" criteria.="" detecting="" diagnostic="" dtc="" fan="" gd(h4dotc)-166,="" p0483="" rationality="" to="" trouble="" —="" —,=""></ref.>
P0502	Vehicle Speed Sensor Circuit Low Input	<ref. (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-167,="" input="" low="" p0502="" sensor="" speed="" to="" trouble="" vehicle="" —="" —,=""></ref.>
P0503	Vehicle Speed Sensor Intermittent/ Erratic/High	<ref. (dtc)="" code="" criteria.="" detecting="" diagnostic="" dtc="" erratic="" gd(h4dotc)-169,="" high="" intermittent="" p0503="" sensor="" speed="" to="" trouble="" vehicle="" —="" —,=""></ref.>
P0506	Idle Control System RPM Lower Than Expected	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" expected="" gd(h4dotc)-171,="" idle="" lower="" p0506="" rpm="" system="" than="" to="" trouble="" —="" —,=""></ref.>
P0507	Idle Control System RPM Higher Than Expected	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" expected="" gd(h4dotc)-173,="" higher="" idle="" p0507="" rpm="" system="" than="" to="" trouble="" —="" —,=""></ref.>
P0512	Starter Request Circuit	<ref. (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-175,="" p0512="" request="" starter="" to="" trouble="" —="" —,=""></ref.>
P0519	Idle Control System Malfunction (Fail-Safe)	<ref. (dtc)="" (fail-safe)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-176,="" idle="" mal-function="" p0519="" system="" to="" trouble="" —="" —,=""></ref.>
P0545	Exhaust Gas Temperature Sensor Circuit Low-Bank 1	<ref. (dtc)="" 1="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" exhaust="" gas="" gd(h4dotc)-177,="" low-bank="" p0545="" sensor="" temperature="" to="" trouble="" —="" —,=""></ref.>
P0546	Exhaust Gas Temperature Sensor Circuit High-Bank 1	<ref. dtc="" exhaust="" gas="" gd(h4dotc)-179,="" p0546="" tempera-<br="" to="" —="">TURE SENSOR CIRCUIT HIGH-BANK 1 —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0600	Improper CAN communication	<ref. (dtc)="" can="" code="" communication="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-181,="" improper="" p0600="" to="" trouble="" —="" —,=""></ref.>
P0604	Internal Control Module Random Access Memory (RAM) Error	<ref. control="" dtc="" gd(h4dotc)-182,="" internal="" mod-<br="" p0604="" to="" —="">ULE RANDOM ACCESS MEMORY (RAM) ERROR —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0605	Internal Control Module Read Only Memory (ROM) Error	<ref. control="" dtc="" gd(h4dotc)-183,="" internal="" mod-<br="" p0605="" to="" —="">ULE READ ONLY MEMORY (ROM) ERROR —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P0607	Control Module Performance	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-184,="" module="" p0607="" perfor-mance="" to="" trouble="" —="" —,=""></ref.>

LIST OF DIAGNOSTIC TROUBLE CODE (DTC) GENERAL DESCRIPTION

DTC	Item	Index
P0638	Throttle Actuator Control Range/Performance (Bank 1)	<ref. (bank="" (dtc)="" 1)="" actuator="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-187,="" p0638="" performance="" range="" throttle="" to="" trouble="" —="" —,=""></ref.>
P0691	Cooling Fan 1 Control Circuit Low	<ref. (dtc)="" 1="" circuit="" code="" control="" cooling="" criteria.="" detecting="" diagnostic="" dtc="" fan="" gd(h4dotc)-190,="" low="" p0691="" to="" trouble="" —="" —,=""></ref.>
P0692	Cooling Fan 1 Control Circuit High	<ref. (dtc)="" 1="" circuit="" code="" control="" cooling="" criteria.="" detecting="" diagnostic="" dtc="" fan="" gd(h4dotc)-191,="" high="" p0692="" to="" trouble="" —="" —,=""></ref.>
P0700	Request AT MIL ON	<ref. (dtc)="" at="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-192,="" mil="" on="" p0700="" request="" to="" trouble="" —="" —,=""></ref.>
P0851	Neutral Switch Input Circuit Low (AT model)	<ref. (at="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-193,="" input="" low="" model)="" neutral="" p0851="" switch="" to="" trouble="" —="" —,=""></ref.>
P0851	Neutral Switch Input Circuit Low (MT model)	<ref. (dtc)="" (mt="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-194,="" input="" low="" model)="" neutral="" p0851="" switch="" to="" trouble="" —="" —,=""></ref.>
P0852	Neutral Switch Input Circuit High (AT model)	<ref. (at="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-195,="" high="" input="" model)="" neutral="" p0852="" switch="" to="" trouble="" —="" —,=""></ref.>
P0852	Neutral Switch Input Circuit High (MT model)	<ref. (dtc)="" (mt="" cir-cuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-196,="" high="" input="" model)="" neutral="" p0852="" switch="" to="" trouble="" —="" —,=""></ref.>
P1086	Tumble Generated Valve Position Sensor 2 Circuit Low	<ref. (dtc)="" 2="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-197,="" generated="" low="" p1086="" position="" sensor="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1087	Tumble Generated Valve Position Sensor 2 Circuit High	<ref. (dtc)="" 2="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-199,="" generated="" high="" p1087="" position="" sensor="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1088	Tumble Generated Valve Position Sensor 1 Circuit Low	<ref. (dtc)="" 1="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-201,="" generated="" low="" p1088="" position="" sensor="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1089	Tumble Generated Valve Position Sensor 1 Circuit High	<ref. (dtc)="" 1="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-203,="" generated="" high="" p1089="" position="" sensor="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1090	Tumble Generated Valve System 1 (Valve Open)	<ref. (dtc)="" (valve="" 1="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-205,="" generated="" open)="" p1090="" system="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1091	Tumble Generated Valve System 1 (Valve Close)	<ref. (dtc)="" (valve="" 1="" close)="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-206,="" generated="" p1091="" system="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1092	Tumble Generated Valve System 2 (Valve Open)	<ref. (dtc)="" (valve="" 2="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-207,="" generated="" open)="" p1092="" system="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1093	Tumble Generated Valve System 2 (Valve Close)	<ref. (dtc)="" (valve="" 2="" close)="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-208,="" generated="" p1093="" system="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1094	Tumble Generated Valve Signal 1 Circuit Malfunction (Open)	<ref. (dtc)="" (open)="" 1="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-209,="" generated="" malfunction="" p1094="" signal="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1095	Tumble Generated Valve Signal 1 Circuit Malfunction (Short)	<ref. (dtc)="" (short)="" 1="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-211,="" generated="" malfunction="" p1095="" signal="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1096	Tumble Generated Valve Signal 2 Circuit Malfunction (Open)	<ref. (dtc)="" (open)="" 2="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-213,="" generated="" malfunction="" p1096="" signal="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>
P1097	Tumble Generated Valve Signal 2 Circuit Malfunction (Short)	<ref. (dtc)="" (short)="" 2="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-215,="" generated="" malfunction="" p1097="" signal="" to="" trouble="" tumble="" valve="" —="" —,=""></ref.>

DTC	Item	Index
P1110	Atmospheric Pressure Sensor Circuit Malfunction (Low Input)	<ref. atmospheric="" dtc="" gd(h4dotc)-217,="" p1110="" pressure<br="" to="" —="">SENSOR CIRCUIT MALFUNCTION (LOW INPUT) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P1111	Atmospheric Pressure Sensor Circuit Malfunction (High Input)	<ref. atmospheric="" dtc="" gd(h4dotc)-218,="" p1111="" pressure<br="" to="" —="">SENSOR CIRCUIT MALFUNCTION (HIGH INPUT) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P1152	O ₂ Sensor Circuit Range/Performance (Low) (Bank1 Sensor1)	<ref. dtc="" gd(h4dotc)-219,="" o<sub="" p1152="" to="" —="">2 SENSOR CIRCUIT RANGE/ PERFORMANCE (LOW) (BANK1 SENSOR1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P1153	O ₂ Sensor Circuit Range/Performance (High) (Bank1 Sensor1)	<ref. dtc="" gd(h4dotc)-222,="" o<sub="" p1153="" to="" —="">2 SENSOR CIRCUIT RANGE/ PERFORMANCE (HIGH) (BANK1 SENSOR1) —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P1160	Return Spring Failure	<ref. (dtc)="" code="" criteria.="" detecting="" diagnostic="" dtc="" failure="" gd(h4dotc)-225,="" p1160="" return="" spring="" to="" trouble="" —="" —,=""></ref.>
P1301	Misfire Detected (High Temperature Exhaust Gas)	<ref. (dtc)="" (high="" code="" criteria.="" detected="" detecting="" diagnostic="" dtc="" exhaust="" gas)="" gd(h4dotc)-227,="" misfire="" p1301="" temperature="" to="" trouble="" —="" —,=""></ref.>
P1312	Exhaust Gas Temperature Sensor Malfunction	<ref. (dtc)="" code="" criteria.="" detecting="" diagnostic="" dtc="" exhaust="" gas="" gd(h4dotc)-229,="" malfunction="" p1312="" sensor="" temperature="" to="" trouble="" —="" —,=""></ref.>
P1400	Fuel Tank Pressure Control Solenoid Valve Circuit Low	<ref. (dtc)="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-230,="" low="" p1400="" pressure="" solenoid="" tank="" to="" trouble="" valve="" —="" —,=""></ref.>
P1420	Fuel Tank Pressure Control Sol. Valve Circuit High	<ref. (dtc)="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-232,="" high="" p1420="" pressure="" sol.="" tank="" to="" trouble="" valve="" —="" —,=""></ref.>
P1443	Vent Control Solenoid Valve Function Problem	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" function="" gd(h4dotc)-234,="" p1443="" problem="" solenoid="" to="" trouble="" valve="" vent="" —="" —,=""></ref.>
P1446	Fuel Tank Sensor Control Valve Circuit Low	<ref. (dtc)="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-235,="" low="" p1446="" sensor="" tank="" to="" trouble="" valve="" —="" —,=""></ref.>
P1447	Fuel Tank Sensor Control Valve Circuit High	<ref. (dtc)="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-237,="" high="" p1447="" sensor="" tank="" to="" trouble="" valve="" —="" —,=""></ref.>
P1448	Fuel Tank Sensor Control Valve Range/Performance	<ref. (dtc)="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" fuel="" gd(h4dotc)-239,="" p1448="" performance="" range="" sensor="" tank="" to="" trouble="" valve="" —="" —,=""></ref.>
P1491	Positive Crankcase Ventilation (Blowby) Function Problem	<ref. (blow-by)="" (dtc)="" code="" crankcase="" criteria.="" detecting="" diagnostic="" dtc="" function="" gd(h4dotc)-243,="" p1491="" positive="" problem="" to="" trouble="" ventilation="" —="" —,=""></ref.>
P1518	Starter Switch Circuit Low Input	<ref. (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-245,="" input="" low="" p1518="" starter="" switch="" to="" trouble="" —="" —,=""></ref.>
P1544	Exhaust Gas Temperature Too High	<ref. dtc="" exhaust="" gas="" gd(h4dotc)-246,="" p1544="" tempera-<br="" to="" —="">TURE TOO HIGH —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P1560	Back-Up Voltage Circuit Malfunction	<ref. (dtc)="" back-up="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-247,="" malfunction="" p1560="" to="" trouble="" voltage="" —="" —,=""></ref.>
P2088	OCV Solenoid Valve Signal A Circuit Open (Bank 1)	<ref. (bank="" (dtc)="" 1)="" a="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-248,="" ocv="" open="" p2088="" signal="" solenoid="" to="" trouble="" valve="" —="" —,=""></ref.>
P2089	OCV Solenoid Valve Signal A Circuit Short (Bank 1)	<ref. (bank="" (dtc)="" 1)="" a="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-250,="" ocv="" p2089="" short="" signal="" solenoid="" to="" trouble="" valve="" —="" —,=""></ref.>
P2092	OCV Solenoid Valve Signal A Circuit Open (Bank 2)	<ref. (bank="" (dtc)="" 2)="" a="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-252,="" ocv="" open="" p2092="" signal="" solenoid="" to="" trouble="" valve="" —="" —,=""></ref.>

LIST OF DIAGNOSTIC TROUBLE CODE (DTC) GENERAL DESCRIPTION

DTC	Item	Index
P2093	OCV Solenoid Valve Signal A Circuit Short (Bank 2)	<ref. (bank="" (dtc)="" 2)="" a="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-254,="" ocv="" p2093="" short="" signal="" solenoid="" to="" trouble="" valve="" —="" —,=""></ref.>
P2096	Post Catalyst Fuel Trim System Too Lean Bank 1	<ref. catalyst="" dtc="" fuel="" gd(h4dotc)-256,="" p2096="" post="" to="" trim<br="" —="">SYSTEM TOO LEAN BANK 1 —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P2097	Post Catalyst Fuel Trim System Too Rich Bank 1	<ref. catalyst="" dtc="" fuel="" gd(h4dotc)-258,="" p2097="" post="" to="" trim<br="" —="">SYSTEM TOO RICH BANK 1 —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P2101	Throttle Actuator Control Motor Circuit Range/Performance	<ref. (dtc)="" actuator="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-260,="" motor="" p2101="" performance="" range="" throttle="" to="" trouble="" —="" —,=""></ref.>
P2102	Throttle Actuator Control Motor Circuit Low	<ref. (dtc)="" actuator="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-262,="" low="" motor="" p2102="" throttle="" to="" trouble="" —="" —,=""></ref.>
P2103	Throttle Actuator Control Motor Circuit High	<ref. (dtc)="" actuator="" circuit="" code="" control="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-264,="" high="" motor="" p2103="" throttle="" to="" trouble="" —="" —,=""></ref.>
P2109	Throttle/Pedal Position Sensor A Minimum Stop Performance	<ref. (dtc)="" a="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-266,="" minimum="" p2109="" pedal="" performance="" position="" sensor="" stop="" throttle="" to="" trouble="" —="" —,=""></ref.>
P2122	Throttle/Pedal Position Sensor/ Switch "D" Circuit Low Input	<ref. dtc="" gd(h4dotc)-268,="" p2122="" pedal="" position<br="" throttle="" to="" —="">SENSOR/SWITCH "D" CIRCUIT LOW INPUT —, Diagnostic Trouble Code (DTC) Detecting Criteria.></ref.>
P2123	Throttle/Pedal Position Sensor/ Switch "D" Circuit High Input	<ref. "d"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-270,="" high="" input="" p2123="" pedal="" position="" sensor="" switch="" throttle="" to="" trouble="" —="" —,=""></ref.>
P2127	Throttle/Pedal Position Sensor/ Switch "E" Circuit Low Input	<ref. "e"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-272,="" input="" low="" p2127="" pedal="" position="" sensor="" switch="" throttle="" to="" trouble="" —="" —,=""></ref.>
P2128	Throttle/Pedal Position Sensor/ Switch "E" Circuit High Input	<ref. "e"="" (dtc)="" circuit="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-274,="" high="" input="" p2128="" pedal="" position="" sensor="" switch="" throttle="" to="" trouble="" —="" —,=""></ref.>
P2135	Throttle/Pedal Position Sensor/ Switch "A"/"B" Voltage Rationality	<ref. "a"="" "b"="" (dtc)="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-276,="" p2135="" pedal="" position="" rationality="" sensor="" switch="" throttle="" to="" trouble="" voltage="" —="" —,=""></ref.>
P2138	Throttle/Pedal Position Sensor/ Switch "D"/"E" Voltage Rationality	<ref. "d"="" "e"="" (dtc)="" code="" criteria.="" detecting="" diagnostic="" dtc="" gd(h4dotc)-278,="" p2138="" pedal="" position="" rationality="" sensor="" switch="" throttle="" to="" trouble="" voltage="" —="" —,=""></ref.>