ADVANCED PARKING GUIDANCE SYSTEM

HINT:

If a trouble code is output during the DTC check, inspect the trouble areas listed for that code. Inspect fuses and relays before investigating the trouble areas shown in the table below.

Advanced Parking Guidance System

DTC CODE	DETECTION ITEM	TROUBLE AREA
		Parking assist ECU initialization (not initialized parking assist ECU)
		2. Height control sensor vehicle height difference setting (not initialized parking assist ECU)
C1611	ECU Malfunction	3. Rear television camera optical axis adjustment (initialized parking assist ECU)
		4. Steering angle setting (initialized parking assist ECU)
		5. Parking assist ECU
C1612	IG Voltage is Low or High	1. Harness or connector
		2. Parking assist ECU
C1613	ACC Voltage is Low or High	1. Harness or connector
		2. Parking assist ECU
		1. Harness or connector
C1621	Back Camera Power Supply Failure	Rear television camera assembly Parking assist ECU
		-
C1622	Open or Short Circuit in Back Camera	 Harness or connector Rear television camera assembly
C1022	Signal	3. Parking assist ECU
		1. Harness or connector
C1625	Open or Short in Steering Angle Sensor +B	2. Steering angle sensor (spiral with sensor cable
		sub-assembly)
C1626	Steering Angle Sensor Failure	1. Steering angle sensor (spiral with sensor cable sub-assembly)
		2. Parking assist ECU

DTC CODE	DETECTION ITEM	TROUBLE AREA
C1627	Vehicle Height Sensor Voltage is Low or High	Harness or connector Headlight leveling ECU assembly Parking assist ECU
C1628	Vehicle Height Sensor Failure	 Harness or connector Rear height control sensor sub-assembly RH Parking assist ECU
C1645	Power Steering Control System Failure	Power steering system
C164A	EPS Communication Malfunction	 Parking assist ECU Power steering system Power steering ECU
C164E	Stop Switch Circuit Malfunction	Electronically controlled brake system
C1657	Hybrid Powertrain Control Module	Hybrid control system
C1658	Speed Sensor Malfunction	Electronically controlled brake system
C1659	Brake System Malfunction	Electronically controlled brake system
C1662	Ambient Temperature High	Parking assist ECU
C168B	AVC-LAN Communication Malfunction	AVC-LAN communication
C168C	AVC-LAN Command Time Out	AVC-LAN communication
C1691	Back Camera Initialization Incomplete	 Height control sensor vehicle height difference setting Rear television camera optical axis adjustment Parking assist ECU
C1694	Steering Angle Initialization Incomplete	Steering angle setting Parking assist ECU
C1695	Zero point Calibration of Vehicle Height Sensor Incomplete	Height control sensor vehicle height difference setting Parking assist ECU
C1AE0	Front Left Side Sensor	 No. 1 ultrasonic sensor (front left side sensor) Parking assist ECU

DTC CODE	DETECTION ITEM	TROUBLE AREA
C1AE5	Front Right Side Sensor	No. 1 ultrasonic sensor (front right side sensor) Parking assist ECU
U0073	Control Module Communication Bus Off	CAN communication system
U0126	Lost Communication with Steering Angle Sensor Module	CAN communication system
U0129	Lost Communication with Brake System Control Module	CAN communication system
U0131	Lost Communication with Power Steering Control Module	CAN communication system
U0140	Lost Communication with Main Body ECU	CAN communication system
U0293	Lost Communication with HV ECU	CAN communication system
U1000	Can Communication Failure(Message Registry)	Parking assist ECU
C1AEE	APGS Sensor Communication Circuit	 Harness or connector No. 1 ultrasonic sensor (front left side sensor) No. 1 ultrasonic sensor (front right side sensor) Parking assist ECU

AUDIO-VISUAL SYSTEM

Communication Diagnosis

DTC CODE	DETECTION ITEM	TROUBLE AREA
01-21	ROM Error	Radio receiver assembly
01-22	RAM Error	Radio receiver assembly
01-2E	EEPROM Error	Radio receiver assembly
01-D5	Absence of Registration Unit	 Power source circuit of the component shown by the sub-code AVC-LAN circuit between the radio receiver assembly and component shown by the sub-code Component shown by the sub-code
01-D6	No Master	 Radio receiver assembly power source circuit Power source circuit of the component which has stored this code AVC-LAN circuit between the radio receiver assembly and component which has stored this code Component which has stored this code Radio receiver assembly
01-D7	Connection Check Error	 Radio receiver assembly power source circuit Power source circuit of the component which has stored this code AVC-LAN circuit between the radio receiver assembly and component which has stored this code Component which has stored this code Radio receiver assembly
01-D8	No Response for Connection Check	 Power source circuit of the component shown by the sub-code AVC-LAN circuit between the radio receiver assembly and component shown by the sub-code Component shown by the sub-code

DTC CODE	DETECTION ITEM	TROUBLE AREA
01-D9	Last Mode Error	 Power source circuit of the component shown by the sub-code AVC-LAN circuit between the radio receiver assembly and component shown by the sub- code Component shown by the sub-code
01-DA	No Response Against ON / OFF Command	 Power source circuit of the component shown by the sub-code AVC-LAN circuit between the radio receiver assembly and component shown by the sub- code Component shown by the sub-code
01-DB	Mode Status Error	 Power source circuit of the component shown by the sub-code AVC-LAN circuit between the radio receiver assembly and component shown by the sub-code Component shown by the sub-code
01-DC	Transmission Error	If the same sub-code is stored in other components, check power source circuit and communication system of all components shown by sub-code
01-DD	Master Reset	 Radio receiver assembly power source circuit AVC-LAN circuit between the radio receiver assembly and component which has stored this code Radio receiver assembly Component which has stored this code
01-DE	Slave Reset	 Power source circuit of the component shown by the sub-code AVC-LAN circuit between the radio receiver assembly and component shown by the sub- code Component shown by the sub-code

DTC CODE	DETECTION ITEM	TROUBLE AREA
01-DF	Master Error	 Radio receiver assembly power source circuit AVC-LAN circuit between the radio receiver assembly and component which has stored this code Radio receiver assembly Component which has stored this code
01-E0	Registration Complete Indication Error	-
01-E1	Voice Processing Device ON Error	 Radio receiver assembly power source circuit AVC-LAN circuit between the radio receiver assembly and component which has stored this code Radio receiver assembly Component which has stored this code
01-E2	ON / OFF Indication Parameter Error	Radio receiver assembly
01-E3	Registration Demand Transmission	-
01-E4	Multiple Frame Incomplete	-
01-F2	No Response from Diagnosis Memory Request	Stereo component amplifier assembly
01-FF	No Response to Diagnosis Request	Stereo component amplifier assembly

Telephone

DTC CODE	DETECTION ITEM	TROUBLE AREA
57-10	TEL ECU Malfunction (TEL)	Radio receiver assembly
57-47	Bluetooth Module Initialization Failed	Radio receiver assembly

Radio Unit

DTC CODE	DETECTION ITEM	TROUBLE AREA
60-10	AM Tuner PLL does not Lock	Radio receiver assembly
60-11	FM Tuner PLL does not Lock	Radio receiver assembly
60-42	Tuner Power Source Error	Radio receiver assembly

DTC CODE	DETECTION ITEM	TROUBLE AREA
60-43	AM Tuner Error	Radio receiver assembly
60-44	FM Tuner Error	Radio receiver assembly
60-50	Malfunction in Internal IC	Radio receiver assembly

CD Player

DTC CODE	DETECTION ITEM	TROUBLE AREA
62-10	CD Player Mechanical Error	Radio receiver assembly
62-11	CD Insertion and Ejection Error	Radio receiver assembly
62-12	CD Reading Abnormal	Radio receiver assembly
62-41	Wrong Disc	CD Radio receiver assembly
62-42	Disc cannot be Read	CD Radio receiver assembly
62-43	CD-ROM Abnormal	CD Radio receiver assembly
62-44	CD Abnormal	Radio receiver assembly
62-45	Eject Error	Radio receiver assembly
62-46	Scratched / Reversed Disc	CD Radio receiver assembly
62-47	High Temperature	Radio receiver assembly
62-48	Excess Current	Radio receiver assembly
62-50	Tray Insertion / Ejection Error	Radio receiver assembly
62-51	Elevator Error	Radio receiver assembly
62-52	Clamp Error	Radio receiver assembly
62-78	DSP Error	-
62-7D	Disc cannot be Played	CD Radio receiver assembly

DTC CODE	DETECTION ITEM	TROUBLE AREA
62-7E	No Playable Files	CD Radio receiver assembly
62-7F	Copyright Protection Error	CD Radio receiver assembly

In-dash CD Changer

DTC CODE	DETECTION ITEM	TROUBLE AREA
63-10	CD Changer Mechanical Error	Radio receiver assembly
63-11	CD Insertion and Ejection Error	Radio receiver assembly
63-12	CD Reading Abnormal	Radio receiver assembly
63-41	Wrong Disc	CD Radio receiver assembly
63-42	Disc cannot be Read	CD Radio receiver assembly
63-43	CD-ROM Abnormal	CD Radio receiver assembly
63-44	CD Abnormal	Radio receiver assembly
63-45	Eject Error	Radio receiver assembly
63-46	Scratched / Reversed Disc	CD Radio receiver assembly
63-47	High Temperature	Radio receiver assembly
63-48	Excess Current	Radio receiver assembly
63-50	Tray Insertion / Ejection Error	Radio receiver assembly
63-51	Elevator Error	Radio receiver assembly
63-52	Clamp Error	Radio receiver assembly
63-78	DSP Error	-
63-7D	Disc cannot be Played	CD Radio receiver assembly

DTC CODE	DETECTION ITEM	TROUBLE AREA		
63-7E	No Playable Files	CD Radio receiver assembly		
63-7F	Copyright Protection Error	CD Radio receiver assembly		

XM Tuner

DTC CODE	DETECTION ITEM	TROUBLE AREA
C0-11	Satellite Radio Tuner Internal Circuit Error 1	Radio receiver assembly
C0-12	Satellite Radio Tuner Internal Circuit Error 2	Radio receiver assembly
C0-13	Satellite Radio Tuner Internal Circuit Error 3	Radio receiver assembly
C0-14	Satellite Radio Tuner Internal Circuit Error 4	Radio receiver assembly
C0-15	Satellite Radio Tuner Internal Circuit Error 5	Radio receiver assembly
C0-16	Satellite Radio Tuner Internal Circuit Error 6	Radio receiver assembly
C0-40	Antenna not Connected	 Antenna cord Amplifier antenna assembly (Satellite radio antenna) Radio receiver assembly
C0-41	Antenna Shorted	 Antenna cord Amplifier antenna assembly (Satellite radio antenna) Radio receiver assembly

CAN COMMUNICATION SYSTEM

Power Management Control ECU Output DTCs (Techstream Display/Power Management1)

DTC CODE	DETECTION ITEM	TROUBLE AREA
U0104	Lost Communication with Driving Support ECU	 Driving support ECU branch wire or connector Power source circuit of driving support ECU Driving support ECU
U1002	Lost Communication with Gateway Module (Power Management1)	 Open or short in CAN No. 2 bus main wire or connector Open or short in CAN No. 2 bus branch wire or connector Power management control ECU Driving support ECU Seat belt control ECU Parking assist ECU CAN No. 3 junction connector
U1100	Lost Communication with Seat Belt Control ECU	Seat belt control ECU branch wire or connector Power source circuit of seat belt control ECU Seat belt control ECU
U110B	Lost Communication with Parking Assist Control Module "B"	 Parking assist ECU branch wire or connector Power source circuit of parking assist ECU Parking assist ECU

Power Management Control ECU Output DTCs (Techstream Display/Power Management2)

DTC CODE	DETECTION ITEM	TROUBLE AREA			
U0100	Lost Communication with ECM / PCM	ECM main wire or connector Power source circuit of ECM ECM			
U0129	Lost Communication with Brake System Control Module	Skid control ECU Skid control ECU			
U0164	Lost Communication with A/C ECU	 Air conditioning amplifier branch wire or connector Power source circuit of air conditioning amplifier Air conditioning amplifier 			
U1002	Lost Communication with Gateway Module (Power Management2)	 Open or short in power management bus main wire or connector Open or short in power management bus branch wire or connector Power management control ECU ECM Air conditioning amplifier Skid control ECU CAN No. 4 junction connector 			

Driving Support ECU Output DTCs (Techstream Display/Pre-Collision2)

DTC CODE	DETECTION ITEM	TROUBLE AREA		
U1002	Lost Communication with Gateway Module (Parking Assist Bus)	 Open or short in parking assist bus main wire or connector Open or short in parking assist bus branch wire or connector Driving support ECU CAN No. 5 junction connector 		

CRUISE CONTROL SYSTEM

HINT:

If a trouble code is displayed during the DTC check, inspect the trouble areas listed for that code.

Cruise Control System

DTC CODE	DETECTION ITEM	TROUBLE AREA		
P0571	Brake Switch "A" Circuit	Stop light switch assemblyStop light switch assembly circuitPower management control ECU		
P0575	Cruise Control Input Circuit	- Power management control ECU		
P1578	Brake System Malfunction	- Electronically controlled brake system		
U0122	Lost Communication with Vehicle Dynamics Control Module	Brake booster with master cylinder (skid control ECU)CAN communication systemPower management control ECU		

DYNAMIC RADAR CRUISE CONTROL SYSTEM

HINT:

If a trouble code is displayed during the DTC check, inspect the trouble areas listed for that code.

Dynamic Radar Cruise Control System

DTC CODE	DETECTION ITEM	TROUBLE AREA
C1A01	Driving Support ECU	Driving support ECU
C1A02	Vehicle Information Not Obtained	- Driving support ECU - Main body ECU
C1A03	Driving Support ECU Internal Logical Error	Driving support ECU
C1A05	Stop Light Switch Circuit	- Stop light switch assembly - Stop light switch circuit - Driving support ECU
C1A06	Stop Light Switch Input Circuit	Driving support ECU
C1A0A	Front Radar Sensor Region Code Mismatch	Millimeter wave radar sensor assemblyMain body ECUDriving support ECU
C1A0C	Object Recognition Camera Region Code Mismatch	- Lane recognition camera sensor assembly - Driving support ECU
C1A10	Front Radar Sensor	- Millimeter wave radar sensor assembly - Driving support ECU
C1A11	Front Radar Sensor Incorrect Axial Gap	- Millimeter wave radar sensor assembly - Driving support ECU
C1A14	Front Radar Sensor Beam Axis Not Adjusted	- Millimeter wave radar sensor assembly - Driving support ECU
C1A20	Object Recognition ECU	- Lane recognition camera sensor assembly - Driving support ECU
C1A22	Object Recognition Camera Incorrect Axial Gap	- Lane recognition camera sensor assembly - Driving support ECU

DTC CODE	DETECTION ITEM	TROUBLE AREA
C1A23	Object Recognition Camera Initialization Incomplete	- Lane recognition camera sensor assembly - Driving support ECU
C1A40	ENG / EHV Device	 - Hybrid control system - Power management control ECU - SFI system - ECM - Driving support ECU
C1A41	Brake Request Value Mismatch between ENG / EHV and Driving Support ECU	 Electronically controlled brake system Hybrid control system Power management control ECU Brake booster with maser cylinder (skid control ECU) Driving support ECU
C1A4A	Skid Control Buzzer Circuit	- Electronically controlled brake system - Driving support ECU
C1A4B	Stop Light Relay Circuit	Stop light control relayStop light control relay circuitBrake booster with maser cylinder (skid control ECU)
C1A50	Brake System	- Electronically controlled brake system - Driving support ECU
P1615	Communication Error from Distance Control ECU to HV ECU	- Driving support ECU - Power management control ECU
U0122	Lost Communication with Vehicle Dynamics Control Module	- Brake booster with maser cylinder (skid control ECU) - CAN communication system - Driving support ECU
U0123	Lost Communication with Yaw Rate Sensor Module	Yaw rate sensorCAN communication systemDriving support ECU

DTC CODE	DETECTION ITEM	TROUBLE AREA
U0126	Lost Communication with Steering Angle Sensor Module	- Steering angle sensor - CAN communication system - Driving support ECU
U0235	Lost Communication with Cruise Control Front Distance Range Sensor	Millimeter wave radar sensor assemblyMillimeter wave radar sensor circuitDriving support ECU
U0293	Lost Communication with HV ECU	 Power management control ECU CAN communication system Driving support ECU Brake booster with maser cylinder (skid control ECU)
U1104	Lost Communication with Driving Support ECU	 Driving support ECU CAN communication system Millimeter wave radar sensor assembly Power management control ECU Brake booster with maser cylinder (skid control ECU)
U1119	Lost Communication with Object Recognition ECU (CAN)	Lane recognition camera sensor assemblyCAN communication systemDriving support ECU

ELECTRONIC SHIFT LEVER SYSTEM

HINT:

- Remove the P CON MAIN fuse to clear DTCs C2300, C2301, C2303, C2304, C2305, C2306, C2307 and C2309 because they cannot be clear with the Techstream.
- When a DTC is detected, the master warning light comes on and an error message is indicated on the multi-display.

Electronic Shift Lever System

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MULTI- DISPLAY ERROR MESSAGE	MEMORY
C2300	Actuator System Malfunction	 Transmission control ECU assembly Auxiliary battery Integration relay Shift control actuator assembly Hybrid vehicle transaxle assembly Wire harness or connector 	Comes on	Comes on	DTC stored
C2301	Shift Changing Time Malfunction	 - Auxiliary battery - Shift control actuator assembly - Hybrid vehicle transaxle assembly - Transmission control ECU assembly 	Comes on	Comes on	DTC stored
C2303	Short in Power Source Relay Circuit	Transmission control ECU assemblyIntegration relayWire harness or connector	Comes on	Comes on	DTC stored

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MULTI- DISPLAY ERROR MESSAGE	MEMORY
C2304	Open or Short Circuit in U Phase	 - Auxiliary battery - Transmission control ECU assembly - Shift control actuator assembly - Integration relay - Wire harness or connector 	Comes on	Comes on	DTC stored
C2305	Open or Short Circuit in V Phase	 - Auxiliary battery - Transmission control ECU assembly - Shift control actuator assembly - Integration relay - Wire harness or connector 	Comes on	Comes on	DTC stored
C2306	Open or Short Circuit in W Phase	 Auxiliary battery Transmission control ECU assembly Shift control actuator assembly Integration relay Wire harness or connector 	Comes on	Comes on	DTC stored
C2307	Power Supply	- Transmission control ECU assembly - Wire harness or connector	Comes on	Comes on	DTC stored
C2308	EEPROM Malfunction	- Transmission control ECU assembly	-	-	DTC stored
C2309	Open in B+ Circuit	Transmission control ECU assemblyAuxiliary batteryWire harness or connector	Comes on	Comes on	DTC stored

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MULTI- DISPLAY ERROR MESSAGE	MEMORY
C2310	Open or Short Circuit in Battery Circuit	- P CON MAIN fuse - Transmission control ECU assembly - Wire harness or connector	Comes on	Comes on	DTC stored
C2311	Communication Error from HV ECU	- Transmission control ECU assembly - Power management control ECU - Wire harness or connector	Comes on	Comes on	DTC stored
C2315	HV System	- Power management control ECU	Comes on	Comes on	DTC stored
U0146	Lost Communication with Body ECU	- CAN communication system	-	-	DTC stored

ELECTRONICALLY CONTROLLED BRAKE SYSTEM

NOTICE:

When replacing the brake booster with master cylinder (skid control ECU), sensor, etc., make sure that the power switch is turned off, the stop light switch is off, and 2 minutes have elapsed since the driver's door was closed.

HINT:

- If no abnormality is found when inspecting parts, inspect the skid control ECU and ground points for poor connections.
- When 2 or more DTCs are detected, perform circuit inspections one by one until the problem is identified.
- Inspect the fuses and relays before inspecting the trouble areas as shown in the table below.

ABS DTC

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
42	Electronically Controlled Brake System Malfunction	-	Electronically controlled brake system
C0200/31	Front Speed Sensor RH Circuit	501 502 503 504 506 507 508	 Open or short in speed sensor Improperly installed speed sensor, or abnormal clearance between sensor and rotor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Front speed sensor RH Brake booster with master cylinder (Skid control ECU)
C0205/32	Front Speed Sensor LH Circuit	511 512 513 514 516 517 518	 Open or short in speed sensor Improperly installed speed sensor, or abnormal clearance between sensor and rotor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Front speed sensor LH Brake booster with master cylinder (Skid control ECU)

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C0210/33	Rear Speed Sensor RH Circuit	521 522 523 524 526 527 528	 Open or short in speed sensor Improperly installed speed sensor, or abnormal clearance between sensor and rotor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Rear speed sensor RH Brake booster with master cylinder (Skid control ECU)
C0215/34	Rear Speed Sensor LH Circuit	531 532 533 534 536 537 538	 Open or short in speed sensor Improperly installed speed sensor, or abnormal clearance between sensor and rotor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Rear speed sensor LH Brake booster with master cylinder (Skid control ECU)
C1235/35	Foreign Object is Attached on Tip of Front Speed Sensor RH	541	 Speed sensor rotor malfunction (foreign object attached) Foreign object attached to speed sensor Open or short in speed sensor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Resistance in speed sensor circuit Brake booster with master cylinder (Skid control ECU)

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1236/36	Foreign Object is Attached on Tip of Front Speed Sensor LH	542	 Speed sensor rotor malfunction (foreign object attached) Foreign object attached to speed sensor Open or short in speed sensor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Resistance in speed sensor circuit Brake booster with master cylinder (Skid control ECU)
C1238/38	Foreign Object is Attached on Tip of Rear Speed Sensor RH	543	 Speed sensor rotor malfunction (foreign object attached) Foreign object attached to speed sensor Open or short in speed sensor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Resistance in speed sensor circuit Brake booster with master cylinder (Skid control ECU)
C1239/39	Foreign Object is Attached on Tip of Rear Speed Sensor LH	544	 Speed sensor rotor malfunction (foreign object attached) Foreign object attached to speed sensor Open or short in speed sensor Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Resistance in speed sensor circuit Brake booster with master cylinder (Skid control ECU)
C1243/43	Acceleration Sensor Stuck Malfunction	561 562 563 564	Yaw rate and acceleration sensor internal stuck malfunction

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1244/44	Open or Short in Acceleration Sensor Circuit	571	Yaw rate and acceleration sensor installed improperly Yaw rate and acceleration sensor
C1245/45	Acceleration Sensor Output Malfunction	581	Yaw rate and acceleration sensor installed improperly Yaw rate and acceleration sensor
C1336/98	Zero Point Calibration of Acceleration Sensor Undone	-	1. Zero point calibration undone 2. Yaw rate and acceleration sensor 3. Brake booster with master cylinder (Skid control ECU) (Perform zero point calibration and check for DTCs. If no DTCs are output again, the sensor is normal.)
C1381/97	Acceleration Sensor Power Supply Voltage Malfunction	601	Yaw rate and acceleration sensor supply voltage shut down Yaw rate and acceleration sensor Brake booster with master cylinder (Skid control ECU)
C1442/44	Invalid Data Received from Acceleration Sensor	572	Yaw rate and acceleration sensor
U0124/95	Lost Communication with Lateral Acceleration Sensor Module	591 592	CAN communication line (CAN No. 1 bus) Yaw rate and acceleration sensor Brake booster with master cylinder (Skid control ECU)

VSC DTC

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
43	ABS Control System Malfunction	-	ABS control system
45	Electronically Controlled Brake System Malfunction	-	Electronically controlled brake system

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1210/36	Zero Point Calibration of Yaw Rate Sensor Undone	-	1. Zero point calibration undone 2. Yaw rate and acceleration sensor 3. Brake booster with master cylinder (Skid control ECU) (Perform zero point calibration and check for DTCs. If no DTCs are output again, the sensor is normal.)
C1231/31	Steering Angle Sensor Circuit Malfunction	701 702 703	Steering angle sensor internal malfunction
C1234/34	Yaw Rate Sensor Malfunction	711 712 713 714	Yaw rate and acceleration sensor internal malfunction
C1290/66	Steering Angle Sensor Zero Point Malfunction	751	 Yaw rate and acceleration sensor zero point calibration incomplete Poor adjustment of the center position of the steering wheel Poor adjustment of front wheel alignment
C1310/51	Malfunction in HV system	-	Power management control ECU (Hybrid vehicle control ECU)
C1380/64	Stop Light Control Relay Malfunction	761 762	 Stop light switch Stop light switch circuit Stop light control relay Stop light control relay circuit Brake booster with master cylinder (Skid control ECU)
C1439/66	Steering Angle Sensor Initialization Incomplete	752	Steering angle sensor Yaw rate and acceleration sensor Brake booster with master cylinder (Skid control ECU)
C1440/98	Unusual Bank Angle Detected	-	Yaw rate and acceleration sensor
C1443/34	Invalid Data Received from Yaw Rate Sensor	715	Yaw rate and acceleration sensor

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1445/66	Vehicle Driven with Steering Angle Sensor not Initialized	753	Steering angle sensor Yaw rate and acceleration sensor Brake booster with master cylinder (Skid control ECU)
U0123/62	Lost Communication with Yaw Rate Sensor Module	731 732	CAN communication line (CAN No. 1 bus) Yaw rate and acceleration sensor Brake booster with master cylinder (Skid control ECU)
U0126/63	Lost Communication with Steering Angle Sensor Module	741 742	CAN communication line (CAN No. 1 bus) Steering angle sensor Brake booster with master cylinder (Skid control ECU)

Electronically Controlled Brake System DTC

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
36	ABS Control System Malfunction	-	ABS control system
C1202/68	Master Reservoir Level Malfunction	371	 Low brake fluid level Brake fluid leaks Brake master cylinder reservoir (Brake fluid level warning switch) internal open circuit Brake master cylinder reservoir (Brake fluid level warning switch) internal short circuit Open in wire harness Short in wire harness Brake disc rotor excessive wear Brake booster with master cylinder (Skid control ECU)
C1203/95	ECM Communication Circuit Malfunction	-	The wrong ECU and sensor was installed Brake booster with master cylinder (Skid control ECU)

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1211/25	SLA Linear Solenoid	21 22 23 24	Supply voltage reduced Brake booster with master cylinder (Skid control ECU or brake actuator)
C1212/26	SLR Linear Solenoid	31 32 33 34	Supply voltage reduced Brake booster with master cylinder (Skid control ECU or brake actuator)
C1214/62	Hydraulic Control System Malfunction	431 432 433 434 435 436 437 438	1. Brake fluid leaks 2. Brake disc rotor excessive wear 3. Brake booster with master cylinder (Brake actuator)
C1225/31	SA1 Solenoid Circuit	41 42 43 44	Supply voltage reduced Brake booster with master cylinder (Skid control ECU or brake actuator)
C1226/32	SA2 Solenoid Circuit	51 52 53 54	Supply voltage reduced Brake booster with master cylinder (Skid control ECU or brake actuator)
C1227/33	SA3 Solenoid Circuit	61 62 63 64	Supply voltage reduced Brake booster with master cylinder (Skid control ECU or brake actuator)
C1228/34	STR Solenoid Circuit	71 72 73 74	Supply voltage reduced Brake booster with master cylinder (Skid control ECU or brake actuator)

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1242/42	Open in IG1 / IG2 Power Source Circuit	111 112	 Open or short in IG1 circuit Open or short in IG2 circuit Improperly connected connector, deformation or corrosion of terminals Smart key system (IG start circuit) Auxiliary battery Hybrid control system (Charging circuit) Brake booster with master cylinder (Skid control ECU)
C1246/46	Master Cylinder Pressure Sensor Malfunction	201 202 203 204 207	Brake pedal stroke sensor Brake booster with master cylinder (Skid control ECU or brake actuator)
C1247/47	Stroke Sensor Malfunction	211 212 213 214 215 216 217 218 219 220 221 222 223	 Open or short in brake pedal stroke sensor power supply circuit Open or short in wire harness Improperly connected connector, deformation or corrosion of terminals Brake pedal stroke sensor Brake booster with master cylinder (Skid control ECU)
C1249/49	Open in Stop Light Switch Circuit	231	1. STOP fuse 2. Stop light switch 3. Stop light switch circuit 4. Brake booster with master cylinder (Skid control ECU)

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1252/52	Brake Booster Pump Motor on Time Abnormally Long	311	1. Short in motor circuit or motor monitor circuit 2. Motor relay stuck 3. Accumulator pressure sensor malfunction in brake actuator 4. Brake booster with master cylinder (Skid control ECU)
C1253/53	Pump Motor Relay Malfunction	321 322 323 324 325 326 327 328 329	Open or short in motor circuit or motor monitor circuit Brake booster with master cylinder (Skid control ECU)
C1256/56	Accumulator Low Pressure	341	 Accumulator pressure dropped due to frequent brake pedal operation (not a malfunction) Pump motor malfunction Accumulator deterioration Accumulator pressure sensor Supply voltage reduced
C1257/57	Power Supply Drive Circuit	361 362	Brake booster with master cylinder (Skid control ECU)
C1259/58	HV System Regenerative Malfunction	-	Power management control ECU (Hybrid vehicle control ECU)
C1300	Skid Control ECU Malfunction	-	Brake booster with master cylinder (Skid control ECU)
C1311/11	Open in Main Relay 1 Circuit	1	Open or short in ABS main relay circuit Brake booster with master cylinder (Skid control ECU)

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1312/12	Short in Main Relay 1 Circuit	2	Short in ABS main relay circuit ABS main relay internal stuck Brake booster with master cylinder (Skid control ECU)
C1345/66	Linear Solenoid Valve Offset Learning Undone	-	Perform linear valve offset learning and check for DTCs. If no DTCs are output again, the valve is normal.
C1352/21	Front Increasing Pressure Solenoid RH Malfunction	11 12	Brake booster with master cylinder (Skid control ECU or brake actuator)
C1353/23	Front Increasing Pressure Solenoid LH Malfunction	15 16	Brake booster with master cylinder (Skid control ECU or brake actuator)
C1356/22	Front Decreasing Pressure Solenoid RH Malfunction	13 14	Brake booster with master cylinder (Skid control ECU or brake actuator)
C1357/24	Front Decreasing Pressure Solenoid LH Malfunction	17 18	Brake booster with master cylinder (Skid control ECU or brake actuator)
C1364/61	Wheel Cylinder Pressure Sensor Malfunction	421 422 423 424 426	Brake booster with master cylinder (Skid control ECU or brake actuator)
C1365/54	Accumulator Pressure Sensor Malfunction	331 332 333 334	Brake booster with master cylinder (Skid control ECU or brake actuator)
C1368/67	Linear Solenoid Valve Offset Malfunction	-	 Perform linear valve offset learning and check for DTCs. If no DTCs are output again, the valve is normal. Brake booster with master cylinder (Brake actuator)
C1391/69	Accumulator Leak Malfunction	351	Brake fluid leaks Brake booster with master cylinder (Brake actuator) (Malfunctioning internal seal, low gas pressure in accumulator, etc.)

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1392/48	Stroke Sensor Zero Point Calibration Undone	-	Brake pedal stroke sensor zero point calibration incomplete (Initialization and calibration of linear solenoid valve incomplete) Brake booster with master cylinder (Skid control ECU)
C1451/72	Motor Drive Permission Malfunction	-	Brake fluid leaks Air bleeding not performed
U0073/94	Control Module Communication Bus OFF	461 462 463 464 465 466	1. CAN communication line (CAN No. 1 bus) 2. Yaw rate and acceleration sensor 3. Steering angle sensor 4. Brake booster with master cylinder (Skid control ECU)
U0293/59	Communication Error from HV ECU	411 412 413	1. CAN communication line (Power management bus) 2. Power management control ECU (Hybrid vehicle control ECU) 3. Brake booster with master cylinder (Skid control ECU)

ABS and Electronically Controlled Brake System DTC

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1241/41	Low Battery Positive Voltage	101*1 102*2 551*2 552*2 553*2	 Improperly connected connector, deformation or corrosion of terminals Auxiliary battery Hybrid control system (Charging circuit) Brake booster with master cylinder (Skid control ECU)

^{*1:} Electronically Controlled Brake System DTC

^{*2:} ABS DTC

ABS Test Mode DTC

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1271/71	Low Output Signal of Front Speed Sensor RH (Test Mode DTC)	-	 Front speed sensor RH Sensor installation Speed sensor rotor
C1272/72	Low Output Signal of Front Speed Sensor LH (Test Mode DTC)	-	Front speed sensor LH Sensor installation Speed sensor rotor
C1273/73	Low Output Signal of Rear Speed Sensor RH (Test Mode DTC)	-	Rear speed sensor RH Sensor installation Speed sensor rotor
C1274/74	Low Output Signal of Rear Speed Sensor LH (Test Mode DTC)	-	Rear speed sensor LH Sensor installation Speed sensor rotor
C1275/75	Abnormal Change in Output Signal of Front Speed Sensor RH (Test Mode DTC)	-	Front speed sensor RH Speed sensor rotor
C1276/76	Abnormal Change in Output Signal of Front Speed Sensor LH (Test Mode DTC)	-	Front speed sensor LH Speed sensor rotor
C1277/77	Abnormal Change in Output Signal of Rear Speed Sensor RH (Test Mode DTC)	-	Rear speed sensor RH Speed sensor rotor
C1278/78	Abnormal Change in Output Signal of Rear Speed Sensor LH (Test Mode DTC)	-	 Rear speed sensor LH Speed sensor rotor
C1279/79	Acceleration Sensor Output Voltage Malfunction (Test Mode DTC)	-	Sensor installation Yaw rate and acceleration sensor
C1281/81	Master Cylinder Pressure Sensor Output Malfunction (Test Mode DTC)	-	 Stop light switch Regulator pressure sensor

VSC Test Mode DTC

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C0371/71	Yaw Rate Sensor (Test Mode DTC)	-	Sensor installation Yaw rate and acceleration sensor

Electronically Controlled Brake System Test Mode DTC

DTC CODE	DETECTION ITEM	INF CODE	TROUBLE AREA
C1346/71	Stroke Sensor Zero Point Learning Malfunction (Test Mode DTC)	-	Brake pedal stroke sensor Brake pedal stroke sensor circuit

HYBRID BATTERY SYSTEM

Hybrid Battery System

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL
P0A7F-123	Hybrid Battery Pack Deterioration	HV battery assembly Battery smart unit	Comes on
P0A80-123	Replace Hybrid Battery Pack	HV battery assembly Battery smart unit	Comes on
P0A82-123	Hybrid Battery Pack Cooling Fan 1	 Battery cooling blower assembly Battery smart unit Power management control ECU HV battery intake duct Wire harness or connector 	-
P0A84-123	Hybrid Battery Pack Cooling Fan 1	 Wire harness or connector Integration relay Battery cooling blower assembly Battery smart unit Power management control ECU 	-
P0A85-123	Hybrid Battery Pack Cooling Fan 1	 Wire harness or connector Battery cooling blower assembly Battery smart unit HV battery assembly 	-
P0A95-123	High Voltage Fuse	Service plug grip HV battery assembly	-
P0A9C-123	Hybrid Battery Temperature Sensor "A" Range / Performance	 HV battery assembly Battery smart unit Wire harness or connector 	Comes on
P0A9D-123	Hybrid Battery Temperature Sensor "A" Circuit Low	 HV battery assembly Battery smart unit Wire harness or connector Hybrid battery junction block 	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL
P0A9E-123	Hybrid Battery Temperature Sensor "A" Circuit High	HV battery assembly Battery smart unit Wire harness or connector Hybrid battery junction block	Comes on
P0AAE-123	Hybrid Battery Pack Air Temperature Sensor "A" Circuit Low	 HV battery assembly Battery smart unit Wire harness or connector Hybrid battery junction block 	-
P0AAF-123	Hybrid Battery Pack Air Temperature Sensor "A" Circuit High	 HV battery assembly Battery smart unit Wire harness or connector Hybrid battery junction block 	-
P0ABF-123	Hybrid Battery Pack Current Sensor Circuit	Hybrid battery junction block Battery smart unit Wire harness or connector	Comes on
P0AC0-123	Hybrid Battery Pack Current Sensor Circuit Range / Performance	Hybrid battery junction block Battery smart unit	Comes on
P0AC1-123	Hybrid Battery Pack Current Sensor Circuit Low	Hybrid battery junction block Battery smart unit Wire harness or connector	Comes on
P0AC2-123	Hybrid Battery Pack Current Sensor Circuit High	Hybrid battery junction block Battery smart unit Wire harness or connector	Comes on
P0AC6-123	Hybrid Battery Temperature Sensor "B" Range / Performance	HV battery assembly Battery smart unit Wire harness or connector	Comes on
P0AC7-123	Hybrid Battery Temperature Sensor "B" Circuit Low	HV battery assembly Battery smart unit Wire harness or connector Hybrid battery junction block	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL
P0AC8-123	Hybrid Battery Temperature Sensor "B" Circuit High	 HV battery assembly Battery smart unit Wire harness or connector Hybrid battery junction block 	Comes on
POACB-123	Hybrid Battery Temperature Sensor "C" Range / Performance	 HV battery assembly Battery smart unit Wire harness or connector 	Comes on
POACC-123	Hybrid Battery Temperature Sensor "C" Circuit Low	 HV battery assembly Battery smart unit Wire harness or connector Hybrid battery junction block 	Comes on
P0ACD-123	Hybrid Battery Temperature Sensor "C" Circuit High	1. HV battery assembly 2. Battery smart unit 3. Wire harness or connector 4. Hybrid battery junction block	Comes on
P0AFC-123	Hybrid Battery Pack Sensor Module	 Battery smart unit Wire harness or connector IGCT fuse IGCT No. 2 fuse IGCT relay 	Comes on
P0B3D-123	Hybrid Battery Voltage Sensor "A" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B42-123	Hybrid Battery Voltage Sensor "B" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B47-123	Hybrid Battery Voltage Sensor "C" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B4C-123	Hybrid Battery Voltage Sensor "D" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B51-123	Hybrid Battery Voltage Sensor "E" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B56-123	Hybrid Battery Voltage Sensor "F" Circuit Low	Battery smart unit HV battery assembly	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL
P0B5B-123	Hybrid Battery Voltage Sensor "G" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B60-123	Hybrid Battery Voltage Sensor "H" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B65-123	Hybrid Battery Voltage Sensor "I" Circuit Low	 Battery smart unit HV battery assembly 	Comes on
P0B6A-123	Hybrid Battery Voltage Sensor "J" Circuit Low	 Battery smart unit HV battery assembly 	Comes on
P0B6F-123	Hybrid Battery Voltage Sensor "K" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B74-123	Hybrid Battery Voltage Sensor "L" Circuit Low 1. Battery smart unit 2. HV battery assembly		Comes on
P0B79-123	Hybrid Battery Voltage Sensor "M" Circuit Low	Battery smart unit HV battery assembly	Comes on
P0B7E-123	Hybrid Battery Voltage Sensor "N" Circuit Low	 Battery smart unit HV battery assembly 	Comes on
P0B83-123	Hybrid Battery Voltage Sensor "O" Circuit Low	Battery smart unit HV battery assembly	Comes on
P3011-123	Battery Block 1 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3012-123	Battery Block 2 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3013-123	Battery Block 3 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3014-123	Battery Block 4 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3015-123	Battery Block 5 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3016-123	Battery Block 6 Becomes Weak	HV battery assembly Battery smart unit	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL
P3017-123	Battery Block 7 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3018-123	Battery Block 8 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3019-123	Battery Block 9 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3020-123	Battery Block 10 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3021-123	Battery Block 11 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3022-123	Battery Block 12 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3023-123	Battery Block 13 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3024-123	Battery Block 14 Becomes Weak	HV battery assembly Battery smart unit	Comes on
P3065-123	Hybrid Battery Temperature Sensor Range / Perfoemance Stack A	 HV battery assembly Battery smart unit Wire harness or connector 	Comes on
P308A-123	Hybrid Battery Voltage Sensor All Circuits Low	Battery smart unit HV battery assembly	Comes on
U029A-123	Lost Communication with Hybrid Battery Pack Sensor Module	 Wire harness or connector Power management control ECU Battery smart unit IGCT fuse IGCT NO. 2 fuse IGCT relay 	Comes on

HYBRID CONTROL SYSTEM

Hybrid Vehicle Control System

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0069-273	Manifold Absolute Pressure - Barometric Pressure Correlation	Inverter with converter assemblyManifold absolute pressure sensorECMWire harness or connector	Comes on	-
P0340-886	Camshaft Position Sensor "A" Circuit	 Wire harness or connector Camshaft position sensor Inverter with converter assembly ECM Power management control ECU 	Comes on	-
P0343-747	Camshaft Position Sensor "A" Circuit High Input	- SFI system - Inverter with converter assembly - ECM - Power management control ECU - Wire harness or connector	Comes on	-
P0516-769	Battery Temperature Sensor Circuit Low	- Thermistor assembly - Wire harness or connector - Power management control ECU	-	-
P0517-770	Battery Temperature Sensor Circuit High	- Thermistor assembly - Wire harness or connector - Power management control ECU	-	-
P060B-134	Internal Control Module A/D Processing Performance	Power management control ECU	Comes on	Comes on
P060B-135	Internal Control Module A/D Processing Performance	Power management control ECU	Comes on	Comes on
P060B-570	Internal Control Module A/D Processing Performance	Power management control ECU	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P062F-143	EEPROM Malfunction	Power management control ECU	Comes on	Comes on
P062F-165	EEPROM Malfunction	Power management control ECU	Comes on	Comes on
P0630-804	VIN not Programmed or Mismatch-ECM / PCM	Power management control ECU	Comes on	-
P06A4-209	Sensor Reference Voltage "D" Circuit Low	Power management control ECU	Comes on	-
P06A5-210	Sensor Reference Voltage "D" Circuit High	Power management control ECU	Comes on	-
P082B-575	Gear Lever X Position Circuit Low	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P082C-576	Gear Lever X Position Circuit High	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P082E-571	Gear Lever Y Position Circuit Low	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P082F-572	Gear Lever Y Position Circuit High	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P0851-579	Park / Neutral Switch Input Circuit Low	- Wire harness or connector - Transmission shift main switch (P position switch) - Power management control ECU	Comes on	-
P0852-580	Park / Neutral Switch Input Circuit High	- Wire harness or connector - Transmission shift main switch (P position switch) - Power management control ECU	Comes on	-
P085D-582	Gear Shift Control Module "A" Performance	- Wire harness or connector - Transmission control ECU assembly - Power management control ECU	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P085D-599	Gear Shift Control Module "A" Performance	- Wire harness or connector - Transmission control ECU assembly - Power management control ECU	Comes on	-
P0861-597	Gear Shift Control Module "A" Communication Circuit Low	Wire harness or connectorTransmission control ECU assemblyPower management control ECU	Comes on	-
P0862-598	Gear Shift Control Module "A" Communication Circuit High	Wire harness or connectorTransmission control ECU assemblyPower management control ECU	Comes on	-
P0A01-726	Motor Electronics Coolant Temperature Sensor Circuit Range / Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0A02-719	Motor Electronics Coolant Temperature Sensor Circuit Low	Inverter with converter assembly	Comes on	-
P0A03-720	Motor Electronics Coolant Temperature Sensor Circuit High	Inverter with converter assembly	Comes on	-
P0A04-725	Motor Electronics Coolant Temperature Sensor Circuit Intermittent	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A08-264	DC / DC Converter Status Circuit	 Wire harness or connector Water pump with motor assembly Inverter cooling system Hybrid vehicle transaxle assembly Generator cable Motor cable Frame wire Inverter with converter assembly Fusible link block assembly (MAIN) Fuse (DC/DC-S, IGCT, IGCT No. 2, IGCT No. 3) Fusible link block assembly (DC/DC) 	Comes on	-
P0A09-265	DC / DC Converter Status Circuit Low Input	- Wire harness or connector - Inverter with converter assembly - Power management control ECU	Comes on	-
P0A09-591	DC / DC Converter Status Circuit Low Input	- Wire harness or connector - Inverter with converter assembly - Power management control ECU	Comes on	-
P0A0D-350	High Voltage System Inter-Lock Circuit High	 Wire harness or connector Service plug grip Power management control ECU Inverter with converter assembly Frame wire Inverter terminal cover 	Comes on	-
P0A0D-351	High Voltage System Inter-Lock Circuit High	 Wire harness or connector Service plug grip Power management control ECU Inverter with converter assembly Frame wire Inverter terminal cover 	Comes on	-
P0A0F-204	Engine Failed to Start	- SFI system - Power management control ECU	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A0F-205	Engine Failed to Start	- SFI system - Power management control ECU	Comes on	-
P0A0F-206	Engine Failed to Start	- SFI system - Power management control ECU	Comes on	-
P0A0F-238	Engine Failed to Start	 Hybrid vehicle transaxle assembly Transmission input damper assembly Power management control ECU Engine 	Comes on	-
P0A0F-524	Engine Failed to Start	- SFI system - Power management control ECU	Comes on	-
P0A0F-525	Engine Failed to Start	- SFI system - Power management control ECU	Comes on	-
P0A10-263	DC / DC Converter Status Circuit High Input	- Wire harness or connector - Inverter with converter assembly - Power management control ECU	Comes on	-
P0A10-592	DC / DC Converter Status Circuit High Input	- Wire harness or connector - Inverter with converter assembly - Power management control ECU	Comes on	-
P0A1A-151	Generator Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1A-155	Generator Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1A-156	Generator Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1A-166	Generator Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1A-200	Generator Control Module	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A1A-658	Generator Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1A-659	Generator Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1A-791	Generator Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1A-792	Generator Control Module	Inverter with converter assemblyHybrid vehicle transaxle assemblyWire harness or connector	Comes on	Comes on
P0A1A-793	Generator Control Module	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A1B-163	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-164	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-168	Drive Motor "A" Control Module	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A1B-192	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-193	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-198	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-511	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-512	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-661	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A1B-786	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-794	Drive Motor "A" Control Module	Inverter with converter assembly	Comes on	Comes on
P0A1B-795	Drive Motor "A" Control Module	Inverter with converter assemblyHybrid vehicle transaxle assemblyWire harness or connector	Comes on	Comes on
P0A1B-796	Drive Motor "A" Control Module	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A1D-144	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-148	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-162	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-187	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-721	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-722	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-723	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-787	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-818	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-821	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A1D-822	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A1D-823	Hybrid Powertrain Control Module	Power management control ECU	Comes on	Comes on
P0A2B-250	Drive Motor "A" Temperature Sensor Circuit Range / Performance	Hybrid vehicle transaxle assembly (Motor temperature sensor)	Comes on	-
P0A2C-247	Drive Motor "A" Temperature Sensor Circuit Low	Wire harness or connectorPower management control ECUHybrid vehicle transaxle assembly (Motor temperature sensor)	Comes on	-
P0A2D-249	Drive Motor "A" Temperature Sensor Circuit High	Wire harness or connectorPower management control ECUHybrid vehicle transaxle assembly (Motor temperature sensor)	Comes on	-
P0A2E-248	Drive Motor "A" Temperature Sensor Circuit Intermittent	Hybrid vehicle transaxle assembly (Motor temperature sensor)	Comes on	-
P0A37-260	Generator Temperature Sensor Circuit Range / Performance	Hybrid vehicle transaxle assembly (Generator temperature sensor)	Comes on	-
P0A38-257	Generator Temperature Sensor Circuit Low	Wire harness or connectorPower management control ECUHybrid vehicle transaxle assembly (Generator temperature sensor)	Comes on	-
P0A39-259	Generator Temperature Sensor Circuit High	- Wire harness or connector - Power management control ECU - Hybrid vehicle transaxle assembly (Generator temperature sensor)	Comes on	-
P0A3A-258	Generator Temperature Sensor Circuit Intermittent	Hybrid vehicle transaxle assembly (Generator temperature sensor)	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A3F-243	Drive Motor "A" Position Sensor Circuit	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A40-500	Drive Motor "A" Position Sensor Circuit Range / Performance	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A41-245	Drive Motor "A" Position Sensor Circuit Low	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A4B-253	Generator Position Sensor Circuit	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A4C-513	Generator Position Sensor Circuit Range / Performance	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A4D-255	Generator Position Sensor Circuit Low	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A51-174	Drive Motor "A" Current Sensor Circuit	Inverter with converter assembly	Comes on	-
P0A60-288	Drive Motor "A" Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A60-290	Drive Motor "A" Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A60-294	Drive Motor "A" Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A60-501	Drive Motor "A" Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A63-296	Drive Motor "A" Phase W Current	Inverter with converter assembly	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A63-298	Drive Motor "A" Phase W Current	Inverter with converter assembly	Comes on	Comes on
P0A63-302	Drive Motor "A" Phase W Current	Inverter with converter assembly	Comes on	Comes on
P0A63-502	Drive Motor "A" Phase W Current	Inverter with converter assembly	Comes on	Comes on
P0A72-326	Generator Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A72-328	Generator Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A72-333	Generator Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A72-515	Generator Phase V Current	Inverter with converter assembly	Comes on	Comes on
P0A75-334	Generator Phase W Current	Inverter with converter assembly	Comes on	Comes on
P0A75-336	Generator Phase W Current	Inverter with converter assembly	Comes on	Comes on
P0A75-341	Generator Phase W Current	Inverter with converter assembly	Comes on	Comes on
P0A75-516	Generator Phase W Current	Inverter with converter assembly	Comes on	Comes on
P0A78-113	Drive Motor "A" Inverter Performance	 Hybrid vehicle transaxle assembly Generator cable Motor cable Inverter with converter assembly Power management control ECU PCU fuse Wire harness or connector 	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A78-121	Drive Motor "A" Inverter Performance	 Hybrid battery junction block Inverter with converter assembly Service plug grip (EV battery fuse) Frame wire Hybrid vehicle transaxle assembly Generator cable Motor cable Power management control ECU PCU fuse Wire harness or connector 	Comes on	Comes on
P0A78-128	Drive Motor "A" Inverter Performance	 Hybrid vehicle transaxle assembly Generator cable Motor cable Inverter with converter assembly Power management control ECU PCU fuse Wire harness or connector 	Comes on	Comes on
P0A78-202	Drive Motor "A" Inverter Performance	Inverter with converter assemblyHybrid vehicle transaxle assemblyMotor cable	Comes on	Comes on
P0A78-266	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-267	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-279	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-282	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A78-284	Drive Motor "A" Inverter Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Hybrid vehicle transaxle assembly Generator cable Motor cable Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse PCU fuse 	Comes on	Comes on
P0A78-286	Drive Motor "A" Inverter Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Hybrid vehicle transaxle assembly Generator cable Motor cable Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse PCU fuse 	Comes on	Comes on
P0A78-287	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-306	Drive Motor "A" Inverter Performance	- Hybrid vehicle transaxle assembly - Motor cable - Inverter with converter assembly	Comes on	Comes on
P0A78-503	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-504	Drive Motor "A" Inverter Performance	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A78-505	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-506	Drive Motor "A" Inverter Performance	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A78-510	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on until DTC is cleared	Comes on
P0A78-565	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-586	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-806	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-807	Drive Motor "A" Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A78-808	Drive Motor "A" Inverter Performance	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A7A-122	Generator Inverter Performance	 Power management control ECU Inverter with converter assembly Hybrid vehicle transaxle assembly Generator cable Motor cable Wire harness or connector PCU fuse 	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A7A-130	Generator Inverter Performance	 Power management control ECU Inverter with converter assembly Hybrid vehicle transaxle assembly Generator cable Motor cable Wire harness or connector PCU fuse 	Comes on	Comes on
P0A7A-203	Generator Inverter Performance	Inverter with converter assemblyHybrid vehicle transaxle assemblyGenerator cable	Comes on	Comes on
P0A7A-322	Generator Inverter Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Hybrid vehicle transaxle assembly Generator cable Motor cable Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse PCU fuse 	Comes on	Comes on
P0A7A-324	Generator Inverter Performance	- Inverter cooling system - Cooling fan system - Power management control ECU - Inverter with converter assembly - Hybrid vehicle transaxle assembly - Generator cable - Motor cable - Water pump with motor assembly - Wire harness or connector - IGCT No. 3 fuse - PCU fuse	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A7A-325	Generator Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A7A-344	Generator Inverter Performance	Hybrid vehicle transaxle assemblyGenerator cableInverter with converter assembly	Comes on	Comes on
P0A7A-517	Generator Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A7A-518	Generator Inverter Performance	Inverter with converter assemblyHybrid vehicle transaxle assemblyWire harness or connector	Comes on	Comes on
P0A7A-522	Generator Inverter Performance	Inverter with converter assembly	Comes on until DTC is cleared	Comes on
P0A7A-809	Generator Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A7A-810	Generator Inverter Performance	Inverter with converter assembly	Comes on	Comes on
P0A7A-811	Generator Inverter Performance	- Inverter with converter assembly - Hybrid vehicle transaxle assembly - Wire harness or connector	Comes on	Comes on
P0A90-251	Drive Motor "A" Performance	- Hybrid vehicle transaxle assembly - Motor cable - Inverter with converter assembly	Comes on	Comes on
P0A90-509	Drive Motor "A" Performance	- Hybrid vehicle transaxle assembly - Motor cable - Inverter with converter assembly	Comes on	Comes on
P0A92-261	Hybrid Generator Performance	- Hybrid vehicle transaxle assembly - Generator cable - Inverter with converter assembly	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A92-521	Hybrid Generator Performance	- Hybrid vehicle transaxle assembly - Generator cable - Inverter with converter assembly	Comes on	Comes on
P0A93-346	Inverter Cooling System Performance	 Wire harness or connector Inverter cooling system Water pump with motor assembly Power management control ECU Inverter with converter assembly Cooling fan system IGCT No. 3 fuse 	Comes on	Comes on
P0A94-127	DC / DC Converter Performance	 Hybrid battery junction block Inverter with converter assembly Service plug grip Frame wire Hybrid vehicle transaxle assembly Generator cable Motor cable Wire harness or connector PCU fuse Power management control ECU 	Comes on	Comes on
P0A94-172	DC / DC Converter Performance	 Wire harness or connector Hybrid vehicle transaxle assembly Generator cable Motor cable Inverter with converter assembly PCU fuse Power management control ECU 	Comes on	Comes on
P0A94-442	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-547	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-548	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A94-549	DC / DC Converter Performance	- Wire harness or connector - Inverter with converter assembly - Hybrid vehicle transaxle assembly	Comes on	Comes on
P0A94-550	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-553	DC / DC Converter Performance	 Wire harness or connector Inverter cooling system Water pump with motor assembly Hybrid vehicle transaxle assembly Generator cable Motor cable Inverter with converter assembly Cooling fan circuit PCU fuse IGCT No. 3 fuse Power management control ECU 	Comes on	Comes on
P0A94-554	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-555	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-556	DC / DC Converter Performance	- Wire harness or connector - Inverter with converter assembly - Hybrid vehicle transaxle assembly	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0A94-557	DC / DC Converter Performance	 Wire harness or connector Inverter cooling system Water pump with motor assembly Hybrid vehicle transaxle assembly Generator cable Motor cable Inverter with converter assembly Cooling fan circuit PCU fuse IGCT No. 3 fuse Power management control ECU 	Comes on	Comes on
P0A94-564	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-585	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-587	DC / DC Converter Performance	- Inverter with converter assembly - Battery smart unit	Comes on	Comes on
P0A94-589	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0A94-590	DC / DC Converter Performance	Inverter with converter assembly	Comes on	Comes on
P0AA1-231	Hybrid Battery Positive Contactor Circuit Stuck Closed	- Hybrid battery junction block assembly - Inverter with converter assembly	Comes on until DTC is cleared	-
P0AA1-233	Hybrid Battery Positive Contactor Circuit Stuck Closed	Hybrid battery junction block assembly	Comes on until DTC is cleared	-
P0AA4-232	Hybrid Battery Negative Contactor Circuit Stuck Closed	- Hybrid battery junction block assembly - Inverter with converter assembly	Comes on until DTC is cleared	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0AA6-526	Hybrid Battery Voltage System Isolation Fault	 Hybrid vehicle transaxle assembly Generator cable Motor cable Inverter with converter assembly Frame wire No. 2 engine wire Hybrid battery junction block assembly Compressor with motor assembly HV battery Battery smart unit 	Comes on until DTC is cleared	-
P0AA6-611	Hybrid Battery Voltage System Isolation Fault	Compressor with motor assembly	Comes on until DTC is cleared	-
P0AA6-612	Hybrid Battery Voltage System Isolation Fault	Hybrid battery junction block assemblyBattery smart unitHV battery	Comes on until DTC is cleared	-
P0AA6-613	Hybrid Battery Voltage System Isolation Fault	Hybrid vehicle transaxle assemblyMotor cableGenerator cableInverter with converter assembly	Comes on until DTC is cleared	-
P0AA6-614	Hybrid Battery Voltage System Isolation Fault	 Inverter with converter assembly Frame wire Compressor with motor assembly No. 2 engine wire Hybrid battery junction block assembly Hybrid vehicle transaxle assembly Motor cable Generator cable 	Comes on until DTC is cleared	-
P0AA7-727	Hybrid Battery Voltage Isolation Sensor Circuit	Battery smart unit	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0AC0-817	Hybrid Battery Pack Current Sensor Circuit Range / Performance	- Hybrid battery junction block assembly - Battery smart unit	Comes on	Comes on
P0ADB-227	Hybrid Battery Positive Contactor Control Circuit Low	Wire harness or connectorHybrid battery junction block assemblyPower management control ECU	Comes on	-
P0ADC- 226	Hybrid Battery Positive Contactor Control Circuit High	Wire harness or connectorHybrid battery junction block assemblyPower management control ECU	Comes on	-
P0ADF-229	Hybrid Battery Negative Contactor Control Circuit Low	- Wire harness or connector - Hybrid battery junction block assembly - Power management control ECU	Comes on	-
P0AE0-228	Hybrid Battery Negative Contactor Control Circuit High	Wire harness or connectorHybrid battery junction block assemblyPower management control ECU	Comes on	-
P0AE2-773	Hybrid Battery Precharge Contactor Circuit Stuck Closed	- Hybrid battery junction block assembly - Inverter with converter assembly	Comes on	-
P0AE6-225	Hybrid Battery Precharge Contactor Control Circuit Low	- Wire harness or connector - Hybrid battery junction block assembly - Power management control ECU	Comes on	-
P0AE7-224	Hybrid Battery Precharge Contactor Control Circuit High	Wire harness or connectorHybrid battery junction block assemblyPower management control ECU	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
POAEE-277	Motor Inverter Temperature Sensor "A" Circuit Range / Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0AEF-275	Drive Motor Inverter Temperature Sensor "A" Circuit Low	Inverter with converter assembly	Comes on	-
P0AF0-274	Drive Motor Inverter Temperature Sensor "A" Circuit High	Inverter with converter assembly	Comes on	-
P0AF1-276	Drive Motor Inverter Temperature Sensor "A" Circuit Intermittent / Erratic	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0AFC-129	Hybrid Battery Pack Sensor Module	Battery smart unit	Comes on	Comes on
POAFC-150	Hybrid Battery Pack Sensor Module	Battery smart unitWire harness or connectorFuseRelay	Comes on	Comes on
P0BCD- 315	Generator Inverter Temperature Sensor Circuit Range / Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0BCE-313	Generator Inverter Temperature Sensor Circuit Low	Inverter with converter assembly	Comes on	-
P0BCF-312	Generator Inverter Temperature Sensor Circuit High	Inverter with converter assembly	Comes on	-
P0BD0-314	Generator Inverter Temperature Sensor Circuit Intermittent / Erratic	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0C30-390	Hybrid Battery Pack State of Charge High	Power management control ECU	Comes on	-
P0C39-626	DC / DC Converter Temperature Sensor "A" Range / Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0C3A-621	DC / DC Converter Temperature Sensor "A" Low	Inverter with converter assembly	Comes on	-
P0C3B-622	DC / DC Converter Temperature Sensor "A" High	Inverter with converter assembly	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0C3C-625	DC / DC Converter Temperature Sensor "A" Intermittent / Erratic	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0C3E-628	DC / DC Converter Temperature Sensor "B" Range / Performance	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0C3F-623	DC / DC Converter Temperature Sensor "B" Low	Inverter with converter assembly	Comes on	-
P0C40-624	DC / DC Converter Temperature Sensor "B" High	Inverter with converter assembly	Comes on	-
P0C41-627	DC / DC Converter Temperature Sensor "B" Intermittent / Erratic	 Inverter cooling system Cooling fan system Power management control ECU Inverter with converter assembly Water pump with motor assembly Wire harness or connector IGCT No. 3 fuse 	Comes on	-
P0C73-776	Motor Electronics Coolant Pump "A" Control Performance	Inverter cooling systemWire harness or connectorWater pump with motor assemblyPower management control ECU	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P0C76-523	Hybrid Battery System Discharge Time Too Long	Inverter with converter assembly	Comes on	-
P1606-308	Collision Detection	- Airbag sensor assembly - Power management control ECU - Supplemental restraint systems	Comes on until DTC is cleared	-
P1606-317	Collision Detection	- Power management control ECU - Supplemental restraint systems	Comes on until DTC is cleared	-
P181A-596	Gear Lever X Position Circuit "A" / "B" Correlation	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P181B-595	Gear Lever Y Position Circuit "A" / "B" Correlation	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P182B-577	Gear Lever X Position "B" Circuit Low	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P182C-578	Gear Lever X Position "B" Circuit High	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P182E-573	Gear Lever Y Position "B" Circuit Low	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P182F-574	Gear Lever Y Position "B" Circuit High	- Wire harness or connector - Shift lock control unit assembly - Power management control ECU	Comes on	-
P2120-152	Throttle / Pedal Position Sensor / Switch "D" Circuit	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P2121-106	Throttle / Pedal Position Sensor / Switch "D" Circuit Range / Performance	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2122-104	Throttle / Pedal Position Sensor / Switch "D" Circuit Low Input	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2123-105	Throttle / Pedal Position Sensor / Switch "D" Circuit High Input	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2125-153	Throttle / Pedal Position Sensor / Switch "E" Circuit	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2126-109	Throttle / Pedal Position Sensor / Switch "E" Circuit Range / Performance	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2127-107	Throttle / Pedal Position Sensor / Switch "E" Circuit Low Input	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2128-108	Throttle / Pedal Position Sensor / Switch "E" Circuit High Input	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2138-110	Throttle / Pedal Position Sensor / Switch "D" / "E" Voltage Correlation	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2138-154	Throttle / Pedal Position Sensor / Switch "D" / "E" Voltage Correlation	- Wire harness or connector - Accelerator pedal assembly - Power management control ECU	Comes on	-
P2228-268	Barometric Pressure Sensor "A" Circuit Low	Inverter with converter assembly	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P2229-269	Barometric Pressure Sensor "A" Circuit High	Inverter with converter assembly	Comes on	-
P2511-149	ECM/PCM Power Relay Sense Circuit Intermittent	- Wire harness or connector - Power management control ECU	Comes on	-
P2532-772	Ignition Switch Run Position Circuit High	- Wire harness or connector - Integration relay (IG2 relay) - Power management control ECU	Comes on	-
P3000-388	HV Battery Malfunction	- Fuel level - HV battery	-	-
P3000-389	HV Battery Malfunction	- Engine - Hybrid vehicle transaxle assembly - HV battery	Comes on	-
P3000-603	HV Battery Malfunction	- Power management control ECU - HV battery	Comes on	-
P3004-131	Power Cable Malfunction	Hybrid battery junction blockFrame wireInverter with converter assemblyHV batteryWire harness or connector	Comes on	-
P3004-132	Power Cable Malfunction	 Hybrid battery junction block assembly Frame wire Inverter with converter assembly Power management control ECU HV battery Wire harness or connector 	Comes on	-
P3004-133	Power Cable Malfunction	Power management control ECU	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P3004-800	Power Cable Malfunction	 Wire harness or connector No. 2 engine wire Compressor with motor assembly Inverter with converter assembly Hybrid battery junction block Frame wire Power management control ECU 	Comes on	-
P3004-801	Power Cable Malfunction	 Wire harness or connector No. 2 engine wire Compressor with motor assembly Inverter with converter assembly Hybrid battery junction block Frame wire Power management control ECU 	Comes on	-
P3004-803	Power Cable Malfunction	- Hybrid battery junction block assembly - Wire harness or connector	Comes on	-
P3107-213	Airbag ECU Communication Circuit Malfunction	- Wire harness or connector - Airbag sensor assembly - Power management control ECU	Comes on	-
P3107-214	Airbag ECU Communication Circuit Malfunction	- Wire harness or connector - Airbag sensor assembly - Power management control ECU	Comes on	-
P3107-215	Airbag ECU Communication Circuit Malfunction	- Wire harness or connector - Airbag sensor assembly - Power management control ECU	Comes on	-
P3108-536	A/C Amplifier Communication Circuit Malfunction	- Wire harness or connector - Compressor with motor assembly - Power management control ECU	-	-
P3110-223	IGCT Relay Malfunction	- Wire harness or connector - IGCT relay - Power management control ECU	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
P3147-239	Transmission Malfunction	EngineHybrid vehicle transaxle assemblyWire harness or connectorPower management control ECUTransmission input damper	Comes on	-
P3147-240	Transmission Malfunction	Hybrid vehicle transaxle assembly	Comes on	-
P3147-241	Transmission Malfunction	EngineHybrid vehicle transaxle assemblyWire harness or connectorPower management control ECUTransmission input damper	Comes on	-
P3147-242	Transmission Malfunction	Hybrid vehicle transaxle assembly	Comes on	-
P314A-828	Inverter Coolant Pump Speed Signal	Wire harness or connectorPower management control ECUWater pump with motor assemblyIGCT No. 3 fuse	Comes on	Comes on
P3232-749	Open or Short to B+ in Blocking of HV Gate Connection	Wire harness or connectorPower management control ECUInverter with converter assembly	Comes on	-
P3233-750	Short to B+ in Blocking of HV Gate Connection	- Wire harness or connector - Power management control ECU - Inverter with converter assembly	Comes on	-
P324E-788	MG-ECU Power Relay Intermittent Circuit	 Wire harness or connector Inverter with converter assembly Engine room junction block assembly Power management control ECU 	Comes on	-
U0100-211	Lost Communication with ECM / PCM "A"	CAN communication system	Comes on	Comes on
U0100-212	Lost Communication with ECM / PCM "A"	CAN communication system	Comes on	Comes on

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
U0100-530	Lost Communication with ECM / PCM "A"	CAN communication system	Comes on	Comes on
U0110-159	Lost Communication with Driver Motor Control Module	Wire harness or connectorInverter with converter assemblyPower management control ECUPCU fuse	Comes on	-
U0110-160	Lost Communication with Driver Motor Control Module	 Wire harness or connector Inverter with converter assembly Generator cable Motor cable Hybrid vehicle transaxle assembly Power management control ECU 	Comes on	-
U0110-656	Lost Communication with Driver Motor Control Module	Wire harness or connectorInverter with converter assemblyPower management control ECUPCU fuse	Comes on	-
U0110-657	Lost Communication with Driver Motor Control Module	Wire harness or connectorInverter with converter assemblyPower management control ECUPCU fuse	Comes on	-
U0129-220	Lost Communication with Brake System Control Module	CAN communication system	Comes on	-
U0129-222	Lost Communication with Brake System Control Module	CAN communication system	Comes on	-
U0129-527	Lost Communication with Brake System Control Module	CAN communication system	Comes on	-
U0129-528	Lost Communication with Brake System Control Module	CAN communication system	Comes on	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MASTER WARNING LIGHT	MIL
U0140-146	Lost Communication with Body Control Module	CAN communication system	Comes on	-
U0151-763	Lost Communication with Airbag ECU	CAN communication system	Comes on	-
U0164-594	Lost Communication with A/C ECU	CAN communication system	-	-
U0164-827	Lost Communication with A/C ECU	CAN communication system	-	-
U0424-537	Invalid Data Received from HVAC Control Module	Air conditioning amplifier assembly	-	-
U1107-436	Lost Communication with Power Management Module	CAN communication system	Comes on	-

LANE-KEEPING ASSIST SYSTEM

HINT:

If a trouble code is displayed during the DTC check, inspect the trouble area listed for that code.

Lane-keeping Assist System

DTC CODE	DETECTION ITEM	TROUBLE AREA
C1A01	Driving Support ECU	- Driving support ECU
C1A02	Vehicle Information Not Obtained	- Driving support ECU - Main body ECU
C1A05	Stop Light Switch Circuit	Stop light switch assemblyStop light switch assembly circuitHarness or connectorDriving support ECU
C1A06	Stop Light Switch Input Circuit	- Driving support ECU
C1A0C	Object Recognition Camera Region Code Mismatch	- Lane recognition camera sensor assembly - Driving support ECU
C1A20	Object Recognition ECU	- Lane recognition camera sensor assembly - Driving support ECU
C1A22	Object Recognition Camera Incorrect Axial Gap	- Lane recognition camera sensor assembly - Driving support ECU
C1A23	Object Recognition Camera Initialization Incomplete	- Lane recognition camera sensor assembly - Driving support ECU
C1A45	Vehicle Speed Sensor	 Vehicle speed sensor Brake booster with master cylinder (skid control ECU) CAN communication system Driving support ECU
C1A46	Yaw Rate Sensor	Yaw rate sensorBrake booster with master cylinder (skid control ECU)Driving support ECU

DTC CODE	DETECTION ITEM	TROUBLE AREA
C1A4A	Skid Control Buzzer Circuit	- Skid control buzzer - Skid control buzzer circuit - Brake booster with master cylinder (skid control ECU) - Driving support ECU
C1A70	Power Steering Control System	Power steering systemCAN communication systemDriving support ECU
C1A71	Power Steering Control Torque	Power steering systemCAN communication systemDriving support ECU
U0122	Lost Communication with Vehicle Dynamics Control Module	Brake booster with master cylinder (skid control ECU)CAN communication systemDriving support ECU
U0123	Lost Communication with Yaw Rate Sensor Module	- Yaw rate sensor - CAN communication system - Driving support ECU
U0131	Lost Communication with Power Steering Control Module	Power steering control ECUCAN communication systemDriving support ECU
U1104	Lost Communication with Driving Support ECU	 Driving support ECU CAN communication system Brake booster with master cylinder (skid control ECU) Lane recognition camera sensor assembly Power steering control ECU
U1119	Lost Communication with Object Recognition ECU (CAN)	Lane recognition camera sensor assemblyCAN communication systemDriving support ECUHarness or connector

LIN COMMUNICATION SYSTEM

Main Body ECU (Multiplex Network Body ECU)

DTC CODE	DETECTION ITEM	TROUBLE AREA
B1206	P/W Master Switch Communication Stop	 Multiplex network master switch assembly Main body ECU (multiplex network body ECU) Instrument panel junction block assembly Wire harness or connector D FR DOOR fuse
B1273*1	Sliding Roof ECU Communication Stop	 Sliding roof ECU (sliding roof drive gear subassembly) Main body ECU (multiplex network body ECU) Instrument panel junction block assembly Wire harness or connector S/ROOF fuse
B2321	Driver Side Door ECU Communication Stop	 Power window regulator motor assembly (for driver side) Main body ECU (multiplex network body ECU) Multiplex network master switch assembly Wire harness or connector D FR DOOR fuse
B2322	Front Passenger Side Door ECU Communication Stop	 Power window regulator motor assembly (for front passenger side) Main body ECU (multiplex network body ECU) Instrument panel junction block assembly Wire harness or connector P FR DOOR fuse
B2323	Rear Door RH ECU Communication Stop	 Power window regulator motor assembly (for rear RH side) Main body ECU (multiplex network body ECU) Instrument panel junction block assembly Wire harness or connector DOOR RR fuse

DTC CODE	DETECTION ITEM	TROUBLE AREA
B2324	Rear Door LH ECU Communication Stop	 Power window regulator motor assembly (for rear LH side) Main body ECU (multiplex network body ECU) Instrument panel junction block assembly Wire harness or connector DOOR RL fuse
B2325	LIN Communication Bus Malfunction	 Power window regulator motor assembly (for driver side) Power window regulator motor assembly (for front passenger side) Power window regulator motor assembly (for rear RH side) Power window regulator motor assembly (for rear LH side) Multiplex network master switch assembly Sliding roof ECU (sliding roof drive gear subassembly)*1
		7. Main body ECU (multiplex network body ECU)8. Instrument panel junction block assembly9. Wire harness or connector

^{*1:} w/ Moonroof with Solar Panel

Certification ECU (Smart Key ECU Assembly)

DTC CODE	DETECTION ITEM	TROUBLE AREA
B2785	Communication Malfunction between ECUs Connected by LIN	 Certification ECU (smart key ECU assembly) Power management control ECU Transmission control ECU assembly ID code box (immobiliser code ECU)*3 Wire harness or connector
B2786 ^{*2}	No Response from Steering Lock ECU	 Transmission control ECU assembly Certification ECU (smart key ECU assembly) Wire harness or connector P CON MAIN fuse
B2789*3	No Response from ID BOX	 ID code box (immobiliser code ECU) Certification ECU (smart key ECU assembly) Wire harness or connector ECU-B2 fuse
B278C	Lost Communication with Power Source Control	 Power management control ECU Certification ECU (smart key ECU assembly) Wire harness or connector AM2 fuse

^{*2:} Although "No Response from Steering Lock ECU" is displayed on the tester, this message is shown if the certification ECU (smart key ECU assembly) cannot communicate with the transmission control ECU assembly.

Power Management Control ECU

DTC CODE	DETECTION ITEM	TROUBLE AREA
B2287	LIN Communication Master Malfunction	 Power management control ECU Certification ECU (smart key ECU assembly) Wire harness or connector

^{*3:} w/ Automatic Light Control System

NAVIGATION SYSTEM

Navigation System

DTC CODE	DETECTION ITEM	TROUBLE AREA
B1561	XM Tuner Disconnected (Command Line)	Stereo component tuner assembly power source circuit AVC-LAN circuit between navigation receiver assembly and stereo component tuner assembly Navigation receiver assembly Stereo component tuner assembly
B1562	XM Tuner Disconnected (Burst Mode)	AVC-LAN plus circuit between display and navigation assembly and stereo component tuner assembly Stereo component tuner assembly Navigation receiver assembly
B1582	Map Disk Reading Malfunction	 Map disc Navigation receiver assembly
B1593	No Response from Stereo Component Amplifier	 Stereo component amplifier assembly power source circuit AVC-LAN circuit between navigation receiver assembly and stereo component amplifier assembly Navigation receiver assembly Stereo component amplifier assembly
B159F	No Response from XM Tuner	 Stereo component tuner assembly power source circuit AVC-LAN circuit between navigation receiver assembly and stereo component tuner assembly Navigation receiver assembly Stereo component tuner assembly
B15A0	LAN Master Malfunction	Navigation receiver assembly
B15A3	Stereo Component Amplifier Malfunction	Stereo component amplifier assembly
B15AD	Navigation Processor Malfunction	Navigation receiver assembly
B15B0	Display Screen Malfunction	Navigation receiver assembly

DTC CODE	DETECTION ITEM	TROUBLE AREA
B15B3	Radio Tuner Malfunction	Navigation receiver assembly
B15B7	Bluetooth Module Malfunction	Navigation receiver assembly
B15BA	XM Tuner Malfunction	Stereo component tuner assembly
B15C0	Short in GPS Antenna	 Wire harness Navigation antenna assembly Navigation receiver assembly
B15C1	Open in GPS Antenna	 Wire harness Navigation antenna assembly Navigation receiver assembly
B15C2	Speed Signal Malfunction	 Combination meter assembly (No. 3 meter circuit plate) Wire harness or connector No. 4 junction block No. 3 junction block Navigation receiver assembly
B15D3	Stereo Component Amplifier Disconnected	 Stereo component amplifier assembly power source circuit AVC-LAN circuit between navigation receiver assembly and stereo component amplifier assembly Navigation receiver assembly Stereo component amplifier assembly
B15D8	Monitor Disconnected	 Parking assist ECU power source circuit AVC-LAN circuit between navigation receiver assembly and parking assist ECU Parking assist ECU Navigation receiver assembly
B15E1	Media Malfunction	CD Navigation receiver assembly
B15FE	XM Tuner Antenna Disconnected	Amplifier antenna assembly (satellite radio antenna) Stereo component tuner assembly

DTC CODE	DETECTION ITEM	TROUBLE AREA
B15FF	XM Tuner Antenna Short	 Amplifier antenna assembly (satellite radio antenna) Stereo component tuner assembly
U0073	Control Module Communication Bus OFF	CAN communication system

REAR VIEW MONITOR SYSTEM (w/ Navigation System)

HINT:

If a trouble code is output during the DTC check, inspect the trouble areas listed for that code. Inspect fuses and relays before investigating the trouble areas shown in the table below.

Rear View Monitor System (w/ Navigation System)

DTC CODE	DETECTION ITEM	TROUBLE AREA
C1622	Open or Short Circuit in Back Camera Signal	 Harness or connector Navigation receiver assembly Rear television camera assembly

SAFETY CONNECT SYSTEM

HINT:

If a trouble code is stored during the DTC check, inspect the trouble areas listed for that code.

DCM (Telematics Transceiver)

DTC CODE	DETECTION ITEM	TROUBLE AREA
B1570	Manual (SOS) Switch Red Indicator Malfunction	 Map light assembly Wire harness or connector DCM (Telematics Transceiver)
B1571	Manual (SOS) Switch Green Indicator Malfunction	 Map light assembly Wire harness or connector DCM (Telematics Transceiver)
B1572	Telephone Microphone Error	 Wire harness or connector Telephone microphone assembly Map light assembly DCM (Telematics Transceiver)
B1573	Short in Telephone Antenna Circuit	 DCM (Telematics Transceiver) Telephone and GPS antenna assembly Wire harness or connector (Telephone and GPS antenna cord)
B15CB	Telematics Transceiver Antenna Disconnected	 DCM (Telematics Transceiver) Telephone and GPS antenna assembly Wire harness or connector (Telephone and GPS antenna cord)
B1583	GPS Signal Unreceived	Telephone and GPS antenna assembly DCM (Telematics Transceiver)
B15A8	Telematics Transceiver Malfunction	DCM (Telematics Transceiver)
B15C0	Short in GPS Antenna	 DCM (Telematics Transceiver) Wire harness or connector (Telephone and GPS antenna cord) Telephone and GPS antenna assembly

DTC CODE	DETECTION ITEM	TROUBLE AREA
B15C1	Open in GPS Antenna	DCM (Telematics Transceiver) Wire harness or connector (Telephone and GPS antenna cord) Telephone and GPS antenna assembly
B15C4	Airbag Signal Malfunction/Not Input	 Airbag system Wire harness or connector Center airbag sensor assembly DCM (Telematics Transceiver)
B15C5	Manual Button Malfunction	DCM (Telematics Transceiver) Map light assembly Wire harness or connector
B15CC	Backup Battery Failure	1. Wire harness or connector 2. BUB (Back-Up Battery) 3. DCM (Telematics Transceiver)
B15EC	Backup Battery Degradation	BUB (Back-Up Battery)

SFI SYSTEM

HINT:

Parameters listed in the chart may not be exactly the same as your readings due to the type of instrument or other factors. If a trouble code is displayed during the DTC check, inspect the trouble areas listed for that code.

SFI System

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0010	Camshaft Position "A" Actuator Circuit (Bank 1)	- Open or short in camshaft timing oil control valve assembly circuit - Camshaft timing oil control valve assembly - ECM	Comes on	DTC stored	Applies
P0011	Camshaft Position "A" - Timing Over-Advanced or System Performance (Bank 1)	 Valve timing Camshaft timing oil control valve assembly Oil control valve filter Camshaft timing gear assembly ECM 	Comes on	DTC stored	Applies
P0012	Camshaft Position "A" - Timing Over-Retarded (Bank 1)	 Valve timing Camshaft timing oil control valve assembly Oil control valve filter Camshaft timing gear assembly ECM 	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0016	Crankshaft Position - Camshaft Position Correlation (Bank 1 Sensor A)	- Valve timing - Camshaft timing oil control valve assembly - Oil control valve filter - Camshaft timing gear assembly (for intake camshaft) - ECM	Comes on	DTC stored	Applies
P0031	Oxygen (A/F) Sensor Heater Control Circuit Low (Bank 1 Sensor 1)	- Open in air fuel ratio sensor (sensor 1) heater circuit - Air fuel ratio sensor heater (sensor 1) - ECM	Comes on	DTC stored	Applies
P0032	Oxygen (A/F) Sensor Heater Control Circuit High (Bank 1 Sensor 1)	- Short in air fuel ratio sensor (sensor 1) heater circuit - Air fuel ratio sensor heater (sensor 1) - ECM	Comes on	DTC stored	Applies
P0037	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)	- Open in heated oxygen sensor (sensor 2) heater circuit - Heated oxygen sensor (sensor 2) heater - ECM	Comes on	DTC stored	Applies
P0038	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)	- Short in heated oxygen sensor (sensor 2) heater circuit - Heated oxygen sensor (sensor 2) heater - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0101	Mass Air Flow Circuit Range / Performance Problem	Mass air flow meter sub-assemblyIntake systemPCV hose connectionsEGR valve assembly	Comes on	DTC stored	-
P0102	Mass or Volume Air Flow Circuit Low Input	- Open or short in mass air flow meter sub-assembly circuit - Mass air flow meter sub-assembly - ECM	Comes on	DTC stored	Applies
P0103	Mass or Volume Air Flow Circuit High Input	- Open or short in mass air flow meter sub-assembly circuit - Mass air flow meter sub-assembly - ECM	Comes on	DTC stored	Applies
P0106	Manifold Absolute Pressure / Barometric Pressure Circuit Range / Performance Problem	- Intake system - Manifold absolute pressure sensor	Comes on	DTC stored	-
P0107	Manifold Absolute Pressure / Barometric Pressure Circuit Low Input	- Open or short in manifold absolute pressure sensor circuit - Manifold absolute pressure sensor - ECM	Comes on	DTC stored	Applies
P0108	Manifold Absolute Pressure / Barometric Pressure Circuit High Input	- Open or short in manifold absolute pressure sensor circuit - Manifold absolute pressure sensor - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0111	Intake Air Temperature Sensor Gradient Too High	Mass air flow meter sub- assembly	Comes on	DTC stored	-
P0112	Intake Air Temperature Circuit Low Input	- Short in intake air temperature sensor circuit - Intake air temperature sensor (built into mass air flow meter sub-assembly) - ECM	Comes on	DTC stored	Applies
P0113	Intake Air Temperature Circuit High Input	- Open in intake air temperature sensor circuit - Intake air temperature sensor (built into mass air flow meter sub-assembly) - ECM	Comes on	DTC stored	Applies
P0115	Engine Coolant Temperature Circuit Malfunction	- Open or short in engine coolant temperature sensor circuit - Engine coolant temperature sensor - ECM	Comes on	DTC stored	Applies
P0116	Engine Coolant Temperature Circuit Range / Performance Problem	- Water inlet with thermostat sub-assembly - Engine coolant temperature sensor	Comes on	DTC stored	Applies
P0117	Engine Coolant Temperature Circuit Low Input	- Short in engine coolant temperature sensor circuit - Engine coolant temperature sensor - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0118	Engine Coolant Temperature Circuit High Input	- Open in engine coolant temperature sensor circuit - Engine coolant temperature sensor - ECM	Comes on	DTC stored	Applies
P011B	Engine Coolant Temperature / Intake Air Temperature Correlation	Intake air temperature sensorEngine coolant temperature sensorECM	Comes on	DTC stored	-
P0120	Throttle / Pedal Position Sensor / Switch "A" Circuit Malfunction	- Throttle position sensor (built into throttle body assembly) - ECM	Comes on	DTC stored	Applies
P0121	Throttle / Pedal Position Sensor / Switch "A" Circuit Range / Performance Problem	- Throttle position sensor (built into throttle body assembly) - Throttle position sensor circuit - ECM	Comes on	DTC stored	Applies
P0122	Throttle / Pedal Position Sensor / Switch "A" Circuit Low Input	- Throttle position sensor (built into throttle body assembly) - Short in VTA1 circuit - Open in VC circuit - ECM	Comes on	DTC stored	Applies
P0123	Throttle / Pedal Position Sensor / Switch "A" Circuit High Input	- Throttle position sensor (built into throttle body assembly) - Open in VTA1 circuit - Open in E2 circuit - Short between VC and VTA1 circuits - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0125	Insufficient Coolant Temperature for Closed Loop Fuel Control	- Cooling system - Engine coolant temperature sensor - Water inlet with thermostat sub-assembly	Comes on	DTC stored	Applies
P0128	Coolant Thermostat (Coolant Temperature Below Thermostat Regulating Temperature)	Water inlet with thermostat sub-assemblyCooling systemEngine coolant temperature sensorECM	Comes on	DTC stored	Applies
P0136	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)	- Open or short in heated oxygen sensor (sensor 2) circuit - Heated oxygen sensor (sensor 2) - Heated oxygen sensor heater (sensor 2) - Air fuel ratio sensor (sensor 1) - Gas leaks from exhaust system - EGR valve assembly	Comes on	DTC stored	-
P0137	Oxygen Sensor Circuit Low Voltage (Bank 1 Sensor 2)	- Open or short in heated oxygen sensor (sensor 2) - Heated oxygen sensor (sensor 2) - Heated oxygen sensor heater (sensor 2) - Gas leak from exhaust system - EGR valve assembly	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0138	Oxygen Sensor Circuit High Voltage (Bank 1 Sensor 2)	- Short in heated oxygen sensor (sensor 2) circuit - Heated oxygen sensor (sensor 2) - EGR valve assembly - ECM - Air fuel ratio sensor (sensor 1)	Comes on	DTC stored	-
P0139	Oxygen Sensor Circuit Slow Response (Bank 1 Sensor 2)	 Short in heated oxygen sensor (sensor 2) circuit Heated oxygen sensor (sensor 2) EGR valve assembly ECM 	Comes on	DTC stored	-
P0141	Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)	- Open or short in heated oxygen sensor (sensor 2) heater circuit - Heated oxygen sensor (sensor 2) heater - ECM	Comes on	DTC stored	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0171	System Too Lean (Bank 1)	- Intake system - Fuel injector assembly - Mass air flow meter sub- assembly - Engine coolant temperature sensor - Fuel pressure - Gas leaks from exhaust system - Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - PCV valve and hose - PCV hose connections - EGR valve assembly - ECM	Comes on	DTC stored	Applies
P0172	System Too Rich (Bank 1)	- Fuel injector assembly - Mass air flow meter sub- assembly - Engine coolant temperature sensor - Ignition system - Fuel pressure - Gas leaks from exhaust system - Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - EGR valve assembly - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0220	Throttle / Pedal Position Sensor / Switch "B" Circuit	- Throttle position sensor (built into throttle body assembly) - ECM	Comes on	DTC stored	Applies
P0222	Throttle / Pedal Position Sensor / Switch "B" Circuit Low Input	- Throttle position sensor (built into throttle body assembly) - Short in VTA2 circuit - Open in VC circuit - ECM	Comes on	DTC stored	Applies
P0223	Throttle / Pedal Position Sensor / Switch "B" Circuit High Input	- Throttle position sensor (built into throttle body assembly) - Open in VTA2 circuit - Open in E2 circuit - Short between VC and VTA2 circuits - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0300	Random / Multiple Cylinder Misfire Detected	- Open or short in engine wire harness - Connector connection - Vacuum hose connections - Ignition system - Fuel injector assembly - Fuel pressure - Mass air flow meter sub-assembly - Engine coolant temperature sensor - Compression pressure - Valve timing - PCV valve and hose - PCV hose connections - Intake system - EGR valve assembly - ECM	Comes on / Blinks*1	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0301	Cylinder 1 Misfire Detected	- Open or short in engine wire harness - Connector connection - Vacuum hose connections - Ignition system - Fuel injector assembly - Fuel pressure - Mass air flow meter sub-assembly - Engine coolant temperature sensor - Compression pressure - Valve timing - PCV valve and hose - PCV hose connections - Intake system - EGR valve assembly - ECM	Comes on / Blinks*1	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0302	Cylinder 2 Misfire Detected	 Open or short in engine wire harness Connector connection Vacuum hose connections Ignition system Fuel injector assembly Fuel pressure Mass air flow meter sub-assembly Engine coolant temperature sensor Compression pressure Valve timing PCV valve and hose PCV hose connections Intake system EGR valve assembly ECM 	Comes on / Blinks*1	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0303	Cylinder 3 Misfire Detected	- Open or short in engine wire harness - Connector connection - Vacuum hose connections - Ignition system - Fuel injector assembly - Fuel pressure - Mass air flow meter sub-assembly - Engine coolant temperature sensor - Compression pressure - Valve timing - PCV valve and hose - PCV hose connections - Intake system - EGR valve assembly - ECM	Comes on / Blinks*1	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0304	Cylinder 4 Misfire Detected	 Open or short in engine wire harness Connector connection Vacuum hose connections Ignition system Fuel injector assembly Fuel pressure Mass air flow meter sub-assembly Engine coolant temperature sensor Compression pressure Valve timing PCV valve and hose PCV hose connections Intake system EGR valve assembly ECM 	Comes on / Blinks*1	DTC stored	Applies
P0327	Knock Sensor 1 Circuit Low Input (Bank 1 or Single Sensor)	- Short in knock control sensor circuit - Knock control sensor - ECM	Comes on	DTC stored	Applies
P0328	Knock Sensor 1 Circuit High Input (Bank 1 or Single Sensor)	- Open in knock control sensor circuit - Knock control sensor - ECM	Comes on	DTC stored	Applies
P0335	Crankshaft Position Sensor "A" Circuit	- Open or short in crankshaft position sensor circuit - Crankshaft position sensor - No. 1 crankshaft position sensor plate - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0340	Camshaft Position Sensor Circuit Malfunction	 Open or short in camshaft position sensor circuit Camshaft position sensor Intake camshaft Jumped tooth of timing chain for intake camshaft ECM 	Comes on	DTC stored	Applies
P0342	Camshaft Position Sensor "A" Circuit Low Input (Bank 1 or Single Sensor)	 Open or short in camshaft position sensor circuit Camshaft position sensor Intake camshaft Jumped tooth of timing chain for intake camshaft ECM 	Comes on	DTC stored	Applies
P0343	Camshaft Position Sensor "A" Circuit High Input (Bank 1 or Single Sensor)	 Open or short in camshaft position sensor circuit Camshaft position sensor Intake camshaft Jumped tooth of timing chain for intake camshaft ECM 	Comes on	DTC stored	Applies
P0351	Ignition Coil "A" Primary / Secondary Circuit	- Ignition system - Open or short in IGF or IGT1 circuit between ignition coil assembly and ECM - No. 1 ignition coil assembly - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0352	Ignition Coil "B" Primary / Secondary Circuit	 Ignition system Open or short in IGF or IGT2 circuit between ignition coil assembly and ECM No. 2 ignition coil assembly ECM 	Comes on	DTC stored	Applies
P0353	Ignition Coil "C" Primary / Secondary Circuit	 Ignition system Open or short in IGF or IGT3 circuit between ignition coil assembly and ECM No. 3 ignition coil assembly ECM 	Comes on	DTC stored	Applies
P0354	Ignition Coil "D" Primary / Secondary Circuit	- Ignition system - Open or short in IGF or IGT4 circuit between ignition coil assembly and ECM - No. 4 ignition coil assembly - ECM	Comes on	DTC stored	Applies
P0401	Exhaust Gas Recirculation Flow Insufficient Detected	 EGR valve assembly EGR passage EGR with cooler pipe sub-assembly Manifold absolute pressure sensor ECM 	Comes on	DTC stored	Applies
P0403	Exhaust Gas Recirculation Control Circuit	Open or short in EGR circuitEGR valve assemblyECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0420	Catalyst System Efficiency Below Threshold (Bank 1)	- Gas leaks from exhaust system - Air fuel ratio sensor (sensor 1) - Heated oxygen sensor (sensor 2) - Front exhaust pipe assembly (TWC: Front and rear catalyst) - EGR valve assembly	Comes on	DTC stored	Applies
P043E	Evaporative Emission System Reference Orifice Clog Up	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P043F	Evaporative Emission System Reference Orifice High Flow	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P0441	Evaporative Emission Control System Incorrect Purge Flow	- Purge VSV - Purge VSV circuit (between purge VSV and ECM) - Leakage from EVAP line (between purge VSV and intake manifold) - EVAP line clogged (between purge VSV and canister) - EGR valve assembly - ECM	Comes on	DTC stored	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0443*2	Evaporative Emission Control System Purge Control Valve Circuit	- Open or short in purge VSV circuit - Purge VSV - ECM	Comes on	DTC stored	Applies
P0451	Evaporative Emission Control System Pressure Sensor Range / Performance	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P0452	Evaporative Emission Control System Pressure Sensor / Switch Low Input	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P0453	Evaporative Emission Control System Pressure Sensor / Switch High Input	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P0455	Evaporative Emission Control System Leak Detected (Gross Leak)	- Fuel cap (loose) - Leakage from EVAP line (canister - fuel tank) - Leakage from EVAP line (purge VSV - canister) - Leakage from canister pump module - Leakage from fuel tank - Leakage from canister	Comes on	DTC stored	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P0456	Evaporative Emission Control System Leak Detected (Very Small Leak)	- Fuel cap (loose) - Leakage from EVAP line (canister - fuel tank) - Leakage from EVAP line (purge VSV - canister) - Leakage from canister pump module - Leakage from fuel tank - Leakage from canister	Comes on	DTC stored	-
P0505	Idle Control System Malfunction	 Electronic throttle control system Intake system PCV hose connections EGR valve assembly ECM 	Comes on	DTC stored	Applies
P050A	Cold Start Idle Air Control System Performance	- Throttle body assembly - Mass air flow meter sub- assembly - PCV system - Air cleaner filter element sub-assembly - Intake system - VVT system - EGR valve assembly - ECM	Comes on	DTC stored	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P050B	Cold Start Ignition Timing Performance	 Throttle body assembly Mass air flow meter sub-assembly Intake system PCV hose connections VVT system Air cleaner filter element sub-assembly EGR valve assembly ECM 	Comes on	DTC stored	-
P0560	System Voltage	Open in back up power source circuitBatteryBattery terminalsEFI MAIN fuseECM	Comes on	DTC stored	Applies
P0604	Random Access Memory (RAM)	ECM	Comes on	DTC stored	Applies
P0606	ECM / PCM Processor	ECM	Comes on	DTC stored	Applies
P0607	Control Module Performance	- ECM - Heated oxygen sensor - Exhaust gas leak	Comes on	DTC stored	Applies
P060A	Internal Control Module Monitoring Processor Performance	ECM	Comes on	DTC stored	Applies
P060B	Internal Control Module A/D Processing Performance	ECM	Comes on	DTC stored	Applies
P060E	Internal Control Module Throttle Position Performance	ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P062F	Internal Control Module EEPROM Error	ECM	Comes on	DTC stored	Applies
P0657	Actuator Supply Voltage Circuit / Open	ECM	Comes on	DTC stored	Applies
P101D	A/F Sensor Heater Circuit Performance Bank 1 Sensor 1 Stuck ON	ECM	Comes on	DTC stored	Applies
P102D	O2 Sensor Heater Circuit Performance Bank 1 Sensor 2 Stuck ON	ECM	Comes on	DTC stored	Applies
P106A	Evaporative Emission System Pressure Sensor - Manifold Absolute Pressure Correlation	Canister pressure sensor(canister assembly)Manifold absolute pressure sensor	Comes on	DTC stored	-
P2102	Throttle Actuator Control Motor Circuit Low	- Open in throttle actuator circuit - Throttle actuator - ECM	Comes on	DTC stored	Applies
P2103	Throttle Actuator Control Motor Circuit High	 Short in throttle actuator circuit Throttle actuator Throttle valve Throttle body assembly ECM 	Comes on	DTC stored	Applies
P2111	Throttle Actuator Control System - Stuck Open	- Throttle actuator - Throttle body assembly - Throttle valve - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P2112	Throttle Actuator Control System - Stuck Closed	- Throttle actuator - Throttle body assembly - Throttle valve - ECM	Comes on	DTC stored	Applies
P2118	Throttle Actuator Control Motor Current Range / Performance	- Open in electronic throttle control system power source circuit - Battery - Battery terminals - ETCS fuse - ECM	Comes on	DTC stored	Applies
P2119	Throttle Actuator Control Throttle Body Range / Performance	- Electronic throttle control system - ECM	Comes on	DTC stored	Applies
P2135	Throttle / Pedal Position Sensor / Switch "A" / "B" Voltage Correlation	- Short between VTA1 and VTA2 circuits - Throttle position sensor (built into throttle body assembly) - ECM	Comes on	DTC stored	Applies
P2195	Oxygen (A/F) Sensor Signal Stuck Lean (Bank 1 Sensor 1)	- Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - Air fuel ratio sensor (sensor 1) heater - Air fuel ratio sensor heater circuit - Intake system - Fuel pressure - Fuel injector assembly - EGR valve assembly	Comes on	DTC stored	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P2196	Oxygen (A/F) Sensor Signal Stuck Rich (Bank 1 Sensor 1)	- Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - Air fuel ratio sensor (sensor 1) heater - Air fuel ratio sensor heater circuit - Intake system - Fuel pressure - Fuel injector assembly - EGR valve assembly	Comes on	DTC stored	-
P2237	Oxygen (A/F) Sensor Pumping Current Circuit / Open (Bank 1 Sensor 1)	- Open in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - ECM	Comes on	DTC stored	Applies
P2238	Oxygen (A/F) Sensor Pumping Current Circuit Low (Bank 1 Sensor 1)	- Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - ECM	Comes on	DTC stored	Applies
P2239	Oxygen (A/F) Sensor Pumping Current Circuit High (Bank 1 Sensor 1)	- Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - ECM	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P2252	Oxygen (A/F) Sensor Reference Ground Circuit Low (Bank 1 Sensor 1)	- Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - ECM	Comes on	DTC stored	Applies
P2253	Oxygen (A/F) Sensor Reference Ground Circuit High (Bank 1 Sensor 1)	- Open or short in air fuel ratio sensor (sensor 1) circuit - Air fuel ratio sensor (sensor 1) - ECM	Comes on	DTC stored	Applies
P2401	Evaporative Emission System Leak Detection Pump Control Circuit Low	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P2402	Evaporative Emission System Leak Detection Pump Control Circuit High	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P2419	Evaporative Emission System Switching Valve Control Circuit Low	- Canister pump module - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-
P2420	Evaporative Emission System Switching Valve Control Circuit High	- Canister pump module (0.02 inch orifice, vacuum pump, vent valve) - Connector/wire harness (canister pump module - ECM) - ECM	Comes on	DTC stored	-

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P2610	ECM / PCM Internal Engine Off Timer Performance	ECM	Comes on	DTC stored	Applies
P261B	Coolant Pump "B" Control Malfunction	- Open or short in water pump assembly circuit - Water pump assembly - ECM	Comes on	DTC stored	Applies
P261C	Short in Coolant Pump "B" Control Circuit	Short in water pump assembly circuitWater pump assemblyECM	Comes on	DTC stored	Applies
P261D	Open in Coolant Pump "B" Control Circuit	Open in water pump assembly circuitWater pump assemblyECM	Comes on	DTC stored	Applies
P2A00	A/F Sensor Circuit Slow Response (Bank 1 Sensor 1)	Air fuel ratio sensorAir fuel ratio sensor heaterEGR valve assemblyECM	Comes on	DTC stored	-
P3190	Poor Engine Power	 Intake system Throttle body assembly Fuel pressure Engine Mass air flow meter sub-assembly Out of fuel Engine coolant temperature sensor Crankshaft position sensor Camshaft position sensor EGR valve assembly ECM 	Comes on	DTC stored	Applies

DTC CODE	DETECTION ITEM	TROUBLE AREA	MIL	MEMORY	DTC FOR MEXICO MODELS
P3191	Engine does not Start	 Intake system Throttle body assembly Fuel pressure Engine Mass air flow meter sub-assembly Out of fuel Engine coolant temperature sensor Crankshaft position sensor Camshaft position sensor EGR valve assembly ECM 	Comes on	DTC stored	Applies
P3193	Fuel Run Out	- Out of fuel - ECM	Does not come on	DTC stored	Applies
U0293	Lost Communication with HV ECU	- Wire harness - Power management control ECU	Comes on	DTC stored	Applies

^{*1:} The MIL flashes when a catalyst damaging misfire is detected

^{*2:} Only for MEXICO models