

12. Using the recorded Environmental Data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.
13. With the scan tool, read ACC DTCs.

Did the DTC return?

Yes

- Replace the Adaptive Cruise Control (ACC) Module in accordance with the Service Information. Refer to **MODULE, ADAPTIVE CRUISE CONTROL (ACC), REMOVAL AND INSTALLATION** .
- Perform the ADAPTIVE CRUISE CONTROL VERIFICATION TEST. Refer to **ADAPTIVE CRUISE CONTROL (ACC) VERIFICATION TEST** .

No

- Repairing the wiring or connectors corrected the condition.
- Perform the ADAPTIVE CRUISE CONTROL VERIFICATION TEST. Refer to **ADAPTIVE CRUISE CONTROL (ACC) VERIFICATION TEST** .

C14A3-00-XBW RULE VIOLATION

For a complete ADAPTIVE SPEED CONTROL SYSTEM wiring diagram, **refer to the Appropriate Wiring Information** .

THEORY OF OPERATION

For an in-depth explanation of the Adaptive Cruise Control (ACC) system. Refer to **MODULE, ADAPTIVE CRUISE CONTROL (ACC), DESCRIPTION AND OPERATION** .

For an in-depth explanation of the Forward Collision Warning system and the Lane Departure Warning system, refer to **DESCRIPTION AND OPERATION** .

WHEN MONITORED

This diagnostic runs continuously when the following conditions are met:

- With the engine running.
- System voltage between 10.0 - 16.0 volts.
- No CAN Bus DTCs present.
- Adaptive Cruise Control (ACC) Module is not in Plant-Mode.
- ESP is not in diagnostic mode.
- ACC or Forward Collision Warning (FCW) system is enabled.

SET CONDITION

- The module detects a sudden, externally induced deceleration or acceleration.
- ESP detects a functionality rule violation.
- ACC violates a functionality rule requirement.

DEFAULT ACTION

- The Electronic Vehicle Information Center (EVIC) will display "ACC/FCW Unavailable Service Required".
- The Adaptive Cruise Control (ACC) system will be disabled.

POSSIBLE CAUSES

3. Connect one lead of the DVOM to the circuit being tested at the ECU harness connector.
4. With the other lead of the DVOM probe all other circuits at the ECU harness connector.

NOTE: When probing a circuit at an Electronic Control Unit (ECU) harness connector, always use an appropriate back probing tool to prevent any possible damage to the ECU terminals.

NOTE: With the circuit isolated there should be no continuity between the circuit being tested and any other circuit.

Is there continuity between the circuit being tested and any other circuit?

Yes

- Repair the short between the circuits that have continuity. Use the wiring diagram as a guide to trace the circuits and look for any in-line connectors to help isolate the location of the short.
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#).

No

- Go To [7](#)

7. CHECK THE REMOTE RADIO SWITCHES

1. The ignition must be off.
2. Remove the remote radio switches from the steering wheel. Refer to [SWITCH, REMOTE RADIO, REMOVAL AND INSTALLATION](#).
3. Use an ohmmeter to check the switch resistances as shown in the Remote Radio Switch Test chart below.

REMOTE RADIO SWITCH TEST				
Switch	Switch Position	Minimum Resistance (kilohms)	Nominal Resistance (kilohms)	Maximum Resistance (kilohms)
Right	Volume Up	6.732	6.8	6.868
Right	Volume Down	14.850	15	15.151
Right	Mode Advance	0	0	0
Left	Seek Up	1.188	1.2	1.212
Left	Seek Down	3.267	3.3	3.333
Left	Pre-Set Station Advance	0.465	0.47	0.474

Are the remote radio switch resistances in specifications?

Yes

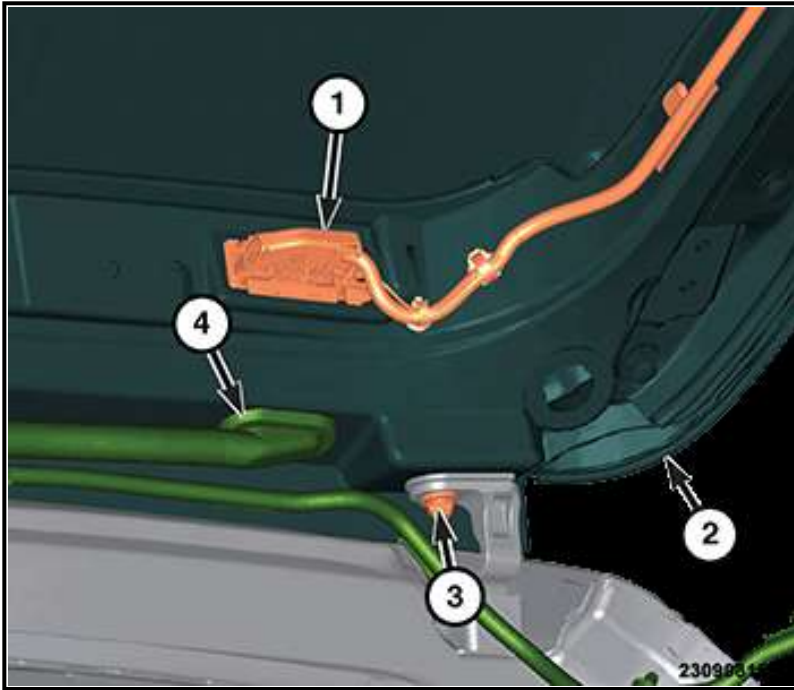
- Go To [8](#)

No

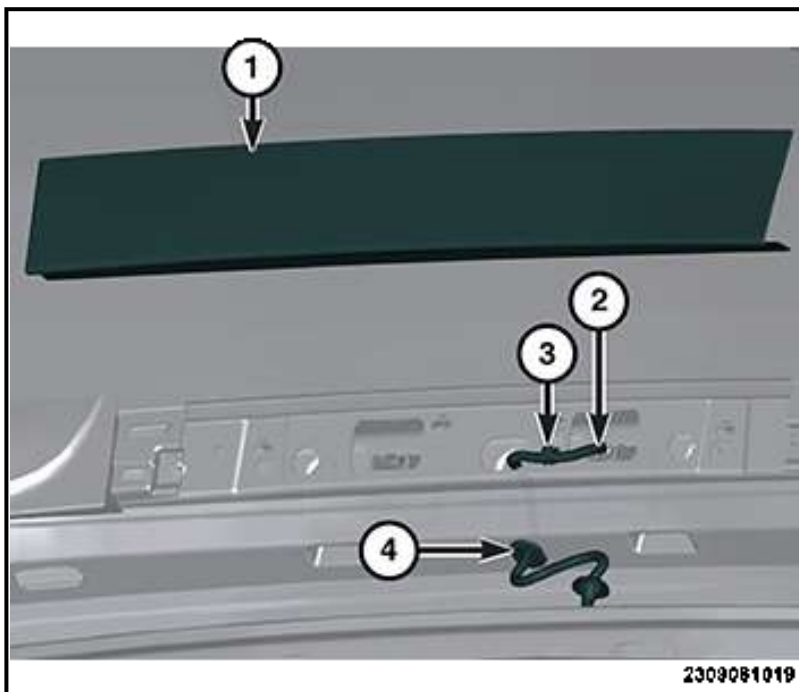
- Replace the Remote Radio Switches in accordance with Service Information. Refer to [SWITCH, REMOTE RADIO, REMOVAL AND INSTALLATION](#).
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#).

8. CHECK RELATED HARNESS CONNECTIONS

1. Disconnect all Steering Column Control Module (SCCM) harness connectors.
2. Disconnect all related in-line harness connections (if equipped).



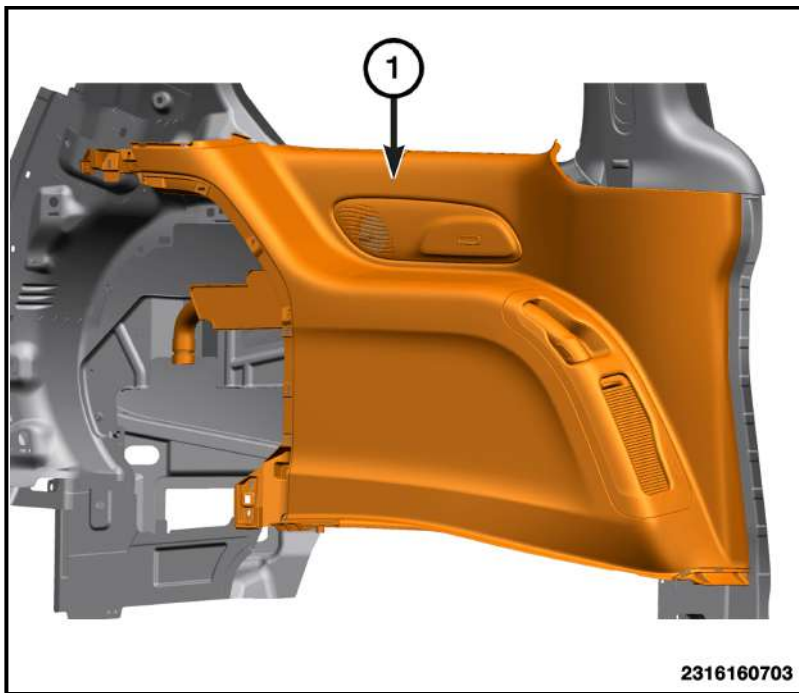
1. With aid of an assistant holding the liftgate (2), position the liftgate and loosely install the fasteners (3).
2. Align the liftgate with the reference mark made previously and tighten the liftgate hinge to liftgate fasteners to the proper specification. Refer to [TECHNICAL SPECIFICATIONS](#).
3. Install the gas prop to the liftgate.
4. Install the power liftgate drive unit.
5. Route the wiring harness into the liftgate and attach the grommet (4) into the liftgate.
6. Connect the wire harness connectors (1).



7. Route the rear washer hose (3) into the liftgate and install the grommet (4). Connect it to the fitting (2).
8. Check and adjust the liftgate if necessary.
9. Install the liftgate trim panels. Refer to [PANEL, TRIM, REMOVAL AND INSTALLATION](#).
10. Perform the liftgate calibration procedure. Refer to [STANDARD PROCEDURE](#).

PANEL, TRIM

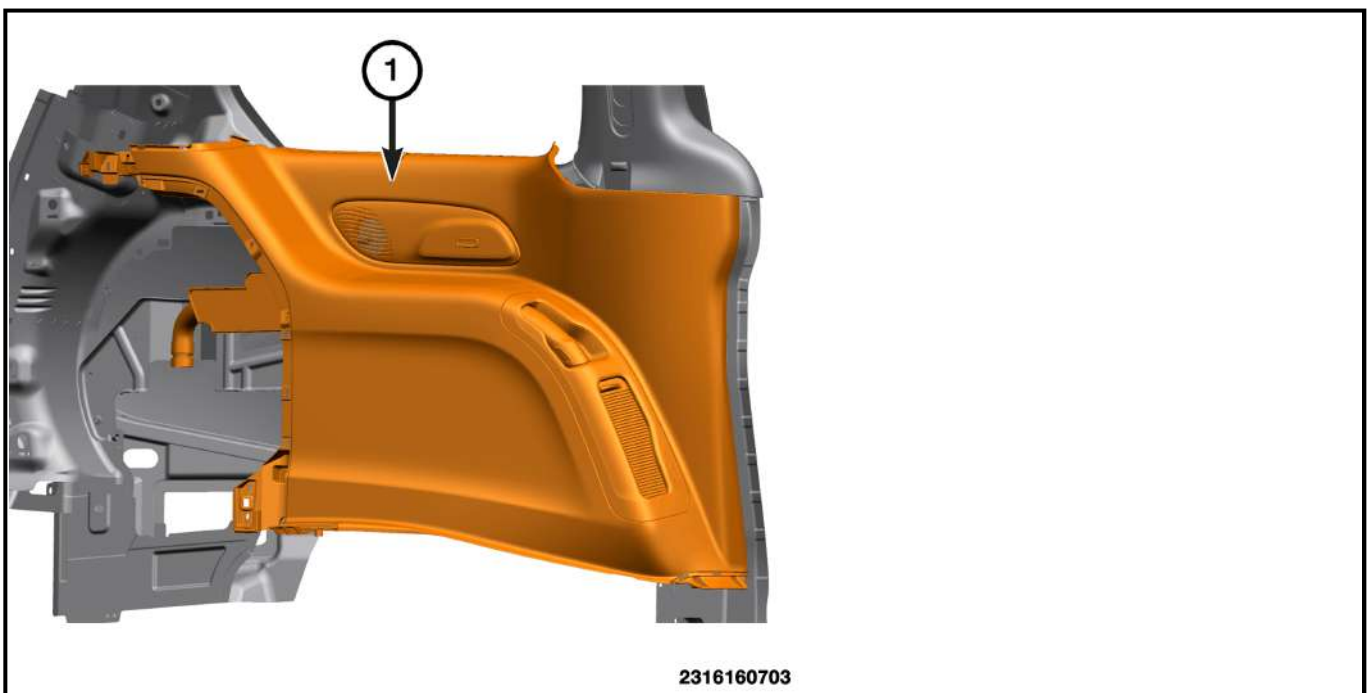
REMOVAL AND INSTALLATION



NOTE: It is very important to follow the removal steps closely in order to prevent damage to the quarter trim panel.

13. Using a trim stick or equivalent, **carefully** release the top of the quarter trim panel (1) from the C-pillar trim panel.
14. Using a trim stick or equivalent, starting at the top and release the retainers at the front edge the quarter trim panel.
15. Using a trim stick or equivalent, release the fasteners at the lower edge the quarter trim panel.
16. Pull straight away at the center of the quarter trim panel and partial remove.
17. If necessary, disconnect the wire harness connectors and remove the quarter trim panel.

INSTALLATION



1. Position the front portion of the quarter trim panel (1) in the vehicle and if equipped, connect the wire harness connectors.
2. Carefully locate the clips, then hand tap the quarter trim panel to engage the retaining clips.
3. Engage the top of the quarter trim panel (1) to the C-pillar trim panel.

Yes

- Replace the Body Control Module (BCM) in accordance with the Service Information. Refer to [MODULE, BODY CONTROL \(BCM\), REMOVAL AND INSTALLATION](#) .
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#) .

No

- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#) .
- Test complete.

B2103-11-IGNITION RUN/START 1 CONTROL-CIRCUIT SHORT TO GROUND

For a complete STARTING SYSTEM wiring diagram, refer to the appropriate Wiring Information .

THEORY OF OPERATION

The Body Control Module (BCM) receives the network communication message from the Radio Frequency (RF Hub) Module indicating run/start operation is requested. The BCM provides a voltage output through the Run/Start Relay Control circuit to the coil side of the RUN/START Relay in the Power Distribution Center (PDC) Assembly. A ground path for the RUN/START Relay is provided through the PDC Assembly.

WHEN MONITORED

- This diagnostic runs continuously when the ignition is on.

SET CONDITION

- When the Body Control Module (BCM) detects greater than 1.0 amp on the Run/Start Relay Control circuit.
- Four retry attempts have failed.

DEFAULT ACTION

- The Run/Start Relay is inoperative.

POSSIBLE CAUSES

Possible Causes
RUN/START RELAY CONTROL CIRCUIT SHORTED TO GROUND
RUN/START RELAY
POWER DISTRIBUTION CENTER (PDC) ASSEMBLY
BODY CONTROL MODULE (BCM)

Always perform the PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE before proceeding. Refer to [PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE](#) .

DIAGNOSTIC TEST

1. CHECK FOR AN ACTIVE DTC

1. With the scan tool, read Body Control Module (BCM) DTCs and record on the repair order.
2. Record the Environmental Data and any DTCs.
3. With the scan tool, erase DTCs.
4. Using the recorded Environmental Data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.
5. With the scan tool, read BCM DTCs.

2. Connect the BCM C6/F harness connector.
3. Turn the ignition on.
4. With the brakes firmly applied, shift the gear selector into REVERSE.

NOTE: **The test light must illuminate brightly. Compare the brightness to that of a direct connection to the battery.**

5. Connect a 12-volt test light between the (L15) Left Backup Lamp Driver circuit and the (Z922) Ground circuit at the Left Backup Lamp harness connector.

Does the test light illuminate brightly?

Yes

- Replace the Left Backup Lamp Bulb in accordance with the Service Information. Refer to [LAMP, TAIL, REMOVAL AND INSTALLATION](#) .
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#) .

No

- Go To [6](#)

6. CHECK RELATED HARNESS CONNECTIONS

1. Disconnect all BCM harness connectors.
2. Disconnect all related in-line harness connections (if equipped).
3. Disconnect the related component harness connectors.
4. Inspect harness connectors, component connectors, and all male and female terminals for the following conditions:
 - Proper connector installation.
 - Damaged connector locks.
 - Corrosion.
 - Other signs of water intrusion.
 - Weather seal damage (if equipped).
 - Bent terminals.
 - Overheating due to a poor connection (terminal may be discolored due to excessive current draw).
 - Terminals that have been pushed back into the connector cavity.
 - Perform a terminal drag test on each connector terminal to verify proper terminal tension.

Repair any conditions that are found.

5. Reconnect all BCM harness connectors. Be certain that all harness connectors are fully seated and the connector locks are fully engaged.
6. Reconnect all in-line harness connectors (if equipped). Be certain that all connectors are fully seated and the connector locks are fully engaged.
7. Reconnect all related component harness connectors. Be certain that all connectors are fully seated and the connector locks are fully engaged.
8. With the scan tool, erase DTCs.
9. Using the recorded Environmental Data, along with the When Monitored and Set Conditions above, operate the vehicle in the conditions that set the DTC.
10. With the scan tool, read BCM DTCs.

Did the DTC return?

2021 ACCESSORIES & EQUIPMENT

Driver Memory Seat Module (MSMD) - Electrical Diagnostics - Pacifica

DIAGNOSTIC CODE INDEX

DIAGNOSTIC CODE INDEX

DTC	Description
<u>B1D5E-13</u>	POWER SEAT SWITCH - CIRCUIT OPEN
<u>B1D5E-15</u>	POWER SEAT SWITCH-CIRCUIT SHORT TO BATTERY OR OPEN
<u>B1D5F-13</u>	STOW N GO ASSIST SEAT SWITCH-CIRCUIT OPEN
<u>B1D5F-15</u>	STOW N GO ASSIST SEAT SWITCH-CIRCUIT SHORT TO BATTERY OR OPEN
<u>B1D5F-2A</u>	STOW N GO ASSIST SEAT SWITCH-STUCK
<u>B1D62-2A</u>	POWER SEAT SWITCH STUCK-STUCK
<u>B1D6B-11</u>	SEAT HORIZONTAL POSITION SENSOR - CIRCUIT SHORT TO GROUND
<u>B1D6B-12</u>	SEAT HORIZONTAL POSITION SENSOR - CIRCUIT SHORT TO BATTERY
<u>B1D6F-11</u>	SEAT FRONT VERTICAL POSITION SENSOR - CIRCUIT SHORT TO GROUND
<u>B1D6F-12</u>	SEAT FRONT VERTICAL POSITION SENSOR - CIRCUIT SHORT TO BATTERY
<u>B1D73-11</u>	SEAT REAR VERTICAL POSITION SENSOR - CIRCUIT SHORT TO GROUND
<u>B1D73-12</u>	SEAT REAR VERTICAL POSITION SENSOR - CIRCUIT SHORT TO BATTERY
<u>B1D77-11</u>	SEAT RECLINER POSITION SENSOR - CIRCUIT SHORT TO GROUND
<u>B1D77-12</u>	SEAT RECLINER POSITION SENSOR - CIRCUIT SHORT TO BATTERY
<u>B1D7B-00</u>	SEAT HORIZONTAL MOTOR CONTROL CIRCUIT PERFORMANCE
<u>B1D7F-00</u>	SEAT FRONT VERTICAL MOTOR CONTROL CIRCUIT PERFORMANCE
<u>B1D83-00</u>	SEAT REAR VERTICAL MOTOR CONTROL CIRCUIT PERFORMANCE
<u>B1D87-00</u>	SEAT BACKREST MOTOR CONTROL - CIRCUIT PERFORMANCE
<u>B1D9B-54</u>	SEAT HORIZONTAL FRONT STOP NOT LEARNED-MISSING CALIBRATION
<u>B210A-84</u>	SYSTEM VOLTAGE LOW-SIGNAL BELOW ALLOWABLE RANGE
<u>B210B-85</u>	SYSTEM VOLTAGE HIGH - SIGNAL ABOVE ALLOWABLE RANGE
<u>B210D-21</u>	BATTERY VOLTAGE LOW - SIGNAL AMPLITUDE MINIMUM
<u>B210E-22</u>	BATTERY VOLTAGE HIGH - SIGNAL AMPLITUDE > MAXIMUM
<u>B221C-42</u>	(MSM) MEMORY SEAT MODULE INTERNAL-GENERAL MEMORY FAILURE
<u>B222D-00</u>	ECU UNABLE TO CONFIGURE/CONFIGURATION NOT LEARNED
<u>B233C-00</u>	COMMANDED POSITION NOT REACHABLE
<u>U0011-00</u>	CAN INTERIOR BUS OFF PERFORMANCE
<u>U0140-00</u>	LOST COMMUNICATION WITH BODY CONTROL MODULE
<u>U0199-00</u>	LOST COMMUNICATION WITH DRIVER DOOR MODULE
<u>U1143-00</u>	LOST COMMUNICATION WITH POWER SLIDING DOOR MODULE
<u>U1144-00</u>	LOST COMMUNICATION WITH POWER SLIDING DOOR MODULE

DTC TROUBLESHOOTING

B1D5E-13-POWER SEAT SWITCH - CIRCUIT OPEN

For a complete MEMORY SEAT SYSTEM wiring diagram, refer to the **Appropriate Wiring Information** .

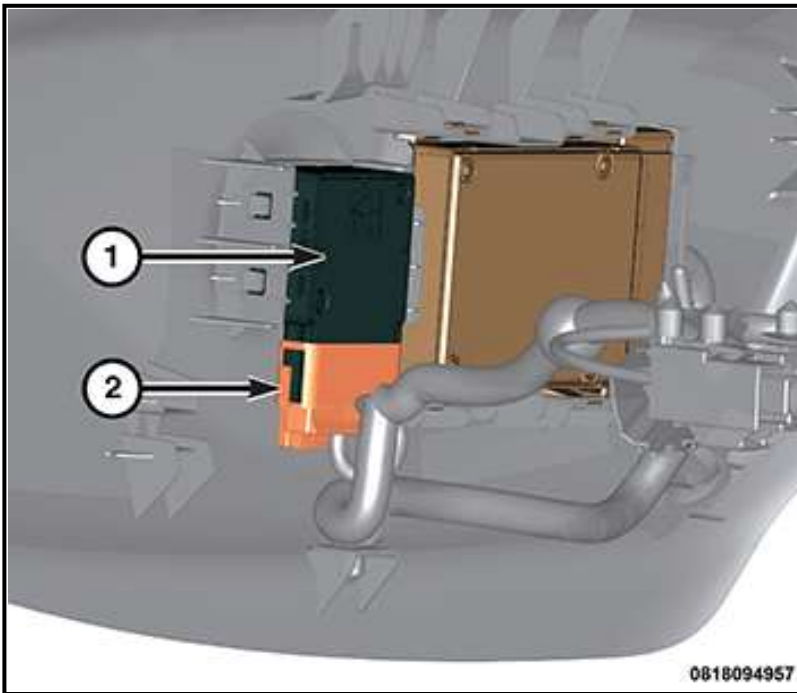
THEORY OF OPERATION

REMOVAL AND INSTALLATION

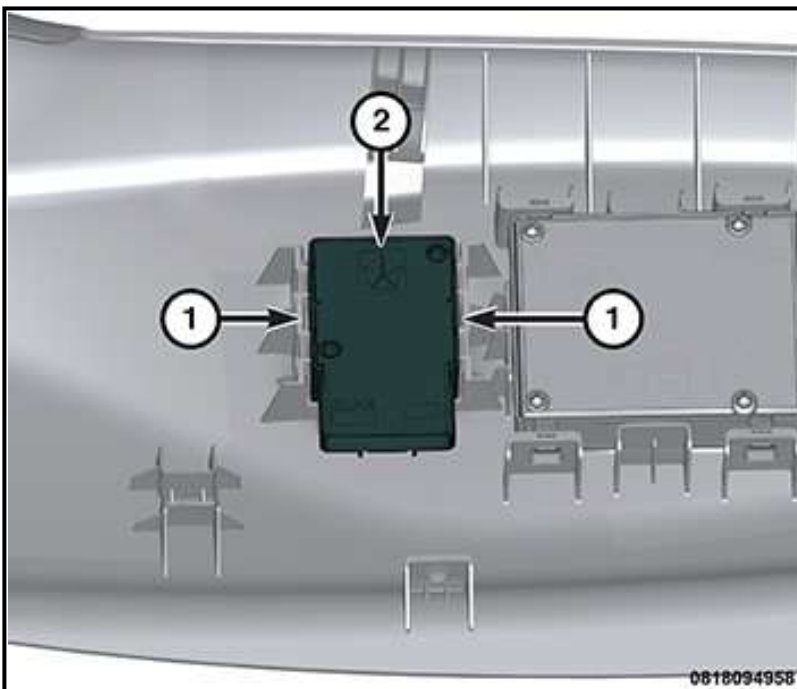
REMOVAL

WARNING: Disable the airbag system before attempting any front seat diagnosis or service. Disconnect and isolate the negative battery (ground) cable and wait two minutes for the airbag system capacitor to discharge before performing further diagnosis or service. This is the only sure way to disable the airbag system. Failure to follow these instructions may result in accidental airbag deployment and possible serious or fatal injury.

1. Position the seat being serviced all the way forward.
2. Remove the outboard seat cushion side trim panel from the seat. Refer to [SIDE SHIELDS, SEAT CUSHION, FRONT, REMOVAL AND INSTALLATION](#).



3. Disconnect the electric connector (2) from the lumbar control switch (1).



THEORY OF OPERATION

The Park Assist Sensors are ultrasonic transceivers that are monitored by the Park Assist Module (PAM). The sensors transmit ultrasonic signals to the PAM which allow it to detect if obstacles are in the path of the vehicle. Each sensor has a dedicated signal circuit and shared sensor supply and return circuit from the PAM. The PAM monitors the electrical integrity of the sensors and circuits and if a fault is detected a Diagnostic Trouble Code (DTC) will set.

NOTE: The numbering system for the park assist sensors allows for up to twelve sensors on the vehicle consisting of six front and six rear sensors. The sensors are numbered in a clockwise manner starting at the left front bumper. If equipped with front park assist, the left front sensor is the number 1 sensor. The numbering continues in a clockwise direction around the vehicle.

WHEN MONITORED

This diagnostic runs continuously when the following conditions are met:

- ParkTronics (PTS) supply voltage is between 9.6-16.0 volts.
- System voltage between 10.0-16.0 volts.
- Ignition in the run position.
- During the self-test while the vehicle is in drive between 22 mph (35 km/h) and 37 mph (60 km/h) and is active during deceleration until 19 mph (30 km/h).
- System is not turned off by the PTS switch.

SET CONDITION

- The ParkTronics (PTS) Module detects an internal Sensor error.

DEFAULT ACTION

- The Electronic Vehicle Information Center (EVIC) will display WIPE OFF REAR PARK ASSIST SENSORS.
- Rear Park Assist is disabled.
- Parallel/Perpendicular Park Assist is disabled.

POSSIBLE CAUSES

Possible Causes
PARK ASSIST SENSOR MEMBRANE OBSTRUCTION (ICE, SNOW, FROST, MUD, DIRT COVERING FASCIA)
PARK ASSIST SENSOR CONNECTOR OBSTRUCTION (ICE, SNOW, MUD, DIRT)
DECOUPLING RING MISSING/MOUNTED WRONG
OBJECTS - SUCH AS LICENSE PLATES - IN CLOSE RANGE TO THE SENSOR
PARK ASSIST SENSOR

Always perform the PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE before proceeding. Refer to [**PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE**](#) .

DIAGNOSTIC TEST

1. CHECK FOR AN ACTIVE DTC

NOTE: Before proceeding with this diagnostic procedure, remove any ice, snow, mud, dirt, or other obstructions from the front/rear fascia/bumper. Also remove any ice, snow, dirt, mud, or other obstructions from the underside of the Fascia/Bumper surrounding the sensors.

- With the ignition On.
- Power supply is greater than 10.0 volts and less than 16.0 volts.

SET CONDITION

- The Security Gateway Module (SGW) detects an internal hardware failure.

DEFAULT ACTION

- Radio functions and audio may be inoperative.

POSSIBLE CAUSES

Possible Causes
SECURITY GATEWAY MODULE (SGW)

Always perform the **PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE** before proceeding. Refer to **PRE-DIAGNOSTIC TROUBLESHOOTING PROCEDURE**.

DIAGNOSTIC TEST

READ AND RECORD DTCS AND ENVIRONMENTAL DATA - ERASE DTCS AND CHECK FOR DTC TO RETURN

1. With the scan tool, read DTCs in all Electronic Control Units (ECUs) and record on the repair order.
2. With the scan tool, run a vehicle Scan Report, or record the Environmental Data related to the DTCs.
3. With the scan tool, erase all DTCs.
4. Turn the ignition off for a minimum of 10.0 seconds.
5. Turn the ignition on.
6. Using the recorded Environmental Data and the When Monitored Conditions above, operate the vehicle in the conditions that set the DTC.
7. With the scan tool, read DTCs.

Did the DTC return?

Yes

- Replace the Security Gateway Module (SGW) in accordance with the Service Information. Refer to **MODULE, SECURITY GATEWAY (SGW), REMOVAL AND INSTALLATION**.
- Perform the BODY VERIFICATION TEST. Refer to **BODY VERIFICATION TEST**.

No

- Perform the appropriate INTERMITTENT CONDITION diagnostic procedure. Refer to **TESTING FOR AN INTERMITTENT CONDITION**.

B235A-00-ECU IN-PLANT MODE

THEORY OF OPERATION

The Security Gateway Module (SGW) has three calibration files (flashes), default (blank-new module), Assembly (fully communicating without authentication only in assembly plant), Customer (Secured data that requires authentication).

WHEN MONITORED

This diagnostic runs continuously when the following conditions are met:

with the bolts.

24. Using the sequence shown in illustration, remove the cylinder head retaining bolts.



WARNING: The multi-layered steel head gaskets have very sharp edges that could cause personal injury if not handled carefully.

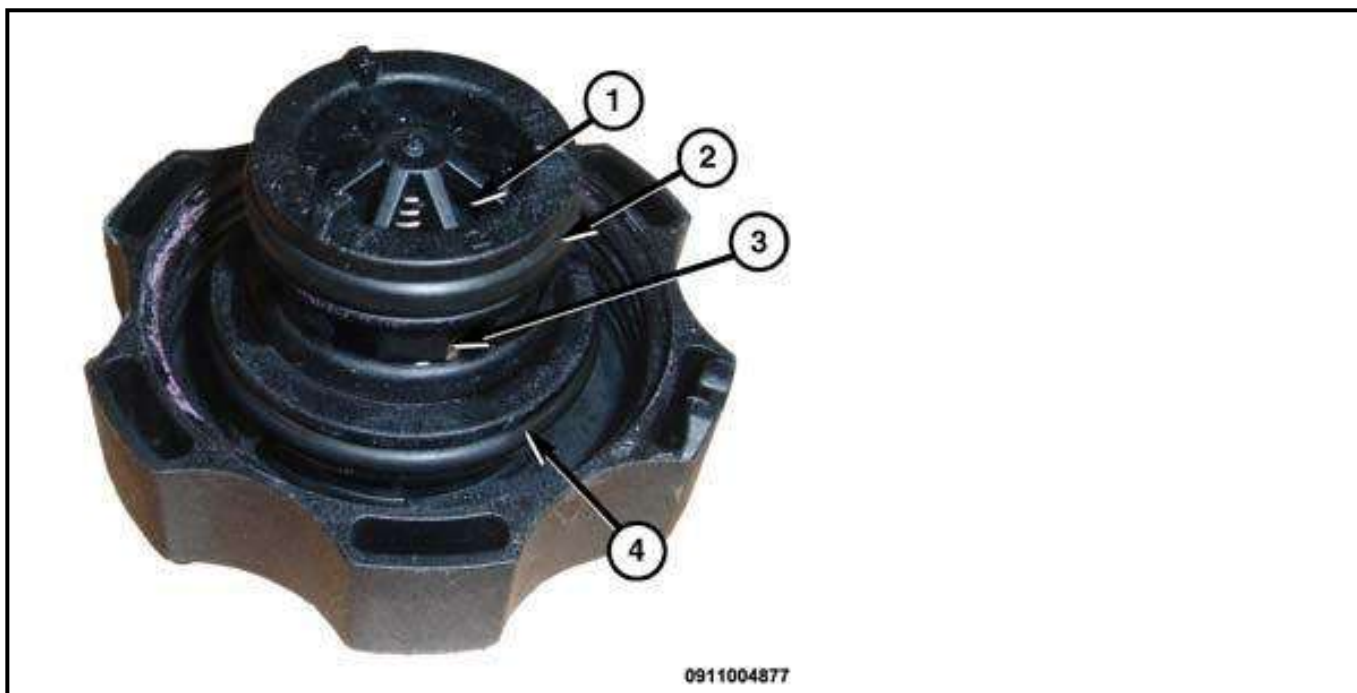
NOTE: The head gasket (1) crimps the locating dowels (2) and the dowels may pull out of the engine block when the head gasket is removed.

25. Remove the cylinder head and gasket (1). Discard the gasket.

CAUTION: Do not lay the cylinder head on its gasket sealing surface, due to the design of the cylinder head gasket, any distortion to the cylinder head sealing surface may prevent the gasket from properly sealing resulting in leaks.

INSTALLATION

1. If removed, install the ignition coil capacitor and the engine wire harness retainer bracket, then tighten to the proper torque specification. Refer to **TECHNICAL SPECIFICATIONS**.



The vent valve in the cap is normally closed.

If the O-ring seal (1) is damaged, replace the cap.

A replacement cap must be the type designed for use on a pressurized coolant bottle.

COOLANT

DESCRIPTION AND OPERATION

WARNING: Antifreeze is an ethylene-glycol base coolant and is harmful if swallowed or inhaled. If swallowed, drink two glasses of water and induce vomiting. If inhaled, move to fresh air area. Seek medical attention immediately. Do not store in open or unmarked containers. Wash skin and clothing thoroughly after coming in contact with ethylene-glycol. Keep out of reach of children. Dispose of glycol base coolant properly, contact your dealer or government agency for location of collection center in your area. Do not open a cooling system when the engine is at operating temperature or hot under pressure, personal injury can result. Avoid radiator cooling fan when engine compartment related service is performed, personal injury can result.

CAUTION: MoparB® Antifreeze/Coolant, is a Lifetime of Engine Formula. IT MAY NOT BE MIXED WITH ANY OTHER TYPES OF ANTIFREEZE. Mixing of coolants other than specified (non-OAT or other OAT), may result in engine damage that may not be covered under the new vehicle warranty, and decreased corrosion protection.

CAUTION: Mixing of engine coolant (antifreeze) other than specified Organic Additive Technology (OAT) engine coolant (antifreeze), may result in engine damage and may decrease corrosion protection. Organic Additive Technology (OAT) engine coolant is different and should not be mixed with Hybrid Organic Additive Technology (HOAT) engine coolant (antifreeze). If a non-OAT engine coolant (antifreeze) is introduced into the cooling system in an emergency, it should be replaced with the specified engine coolant (antifreeze) as soon as possible.

Only use the coolant specified for this vehicle. Refer to [CAPACITIES AND RECOMMENDED FLUIDS, SPECIFICATIONS](#) .

The Engine Oil Pump is operated in low mode during most operating conditions to reduce engine load, increasing the efficiency of the engine. The pump is switched to high mode when engine operating conditions require a higher oil pressure. This is achieved by de-energizing the solenoid.

The minimum engine oil pressure is 80 kPa (11.6 psi) for any operating condition. Anything less than this pressure could result in damage to critical moving parts. The maximum engine oil pressure is limited to 1000 kPa (145 psi) by the pressure relief valve. The oil pressure in the main oil galley of the engine can be checked by monitoring the Engine Oil Pressure (EOP) Sensor on the scan tool or using a mechanical oil pressure gauge.

COMPONENT FUNCTIONAL DESCRIPTION - OIL PUMP SOLENOID

The mechanical Engine Oil Pump operates in two pressure modes described below. The Powertrain Control Module (PCM) switches the pump between modes based on the oil temperature, coolant temperature, and engine operating conditions.

- **Low Mode:** To operate the pump in low mode the PCM commands the High Side Driver (HSD) control on, energizing the Oil Pump Solenoid. The Engine Oil Pump is operated in low mode between idle and approximately 2600 RPM.
- **High Mode:** To operate the pump in high mode the PCM commands the HSD control off, de-energizing the Oil Pump Solenoid. The PCM will typically switch the pump from low to high mode when the engine speed increases over approximately 2650 to 2800 RPM.
- In some instances the system can change to high pressure mode before the engine speed listed when the PCM detects that the engine load increases above a calibrated threshold. This can sometimes be determined by monitoring the oil pressure reading. Typically pressure will increase in relation to engine speed. When the system changes modes the pressure may spike suddenly up or down depending on which mode is being commanded.

See the oil pressure specifications in the table below:

OIL PRESSURE SPECIFICATIONS		
ENGINE SPEED	OIL PUMP MODE	OIL PRESSURE SPECIFICATION
Idle (750 RPM)	Low Pressure Mode (Solenoid on)	80-160 kPa (11.6-23.2 psi)
1000 - 2650 RPM	Low Pressure Mode (Solenoid on)	110-200 kPa (16-29 psi)
Above 2800 RPM	High Pressure Mode (Solenoid off)	310-390 kPa (45-56.6 psi)

DIAGNOSTIC OVERVIEW - DUAL STAGE ENGINE OIL PUMP SOLENOID

NOTE: It is important to note that the Stuck On and Stuck Off diagnostic calibrations are reversed from the fault code descriptions. Reading what the diagnostic is checking for as a failure mode will appear to be opposite of what the fault description is calling out. Meaning that the Stuck Off diagnostic test is actually checking for a Stuck On condition, and the Stuck On diagnostic test is actually checking for a Stuck Off condition. This IS NOT incorrect.

The PCM performs multiple diagnostics for the Dual Stage Engine Oil Pump and solenoid. The HSD control circuit is monitored for opens and shorts. The PCM also performs diagnostics to detect if the pump is stuck in the high or low operating mode. The PCM checks the rationality of the Engine Oil Pressure Sensor before the Oil Pump Solenoid stuck on/off diagnostic runs. Typically a faulty EOP Sensor will set a fault and disable the Oil Pump Solenoid stuck on/off diagnostic.

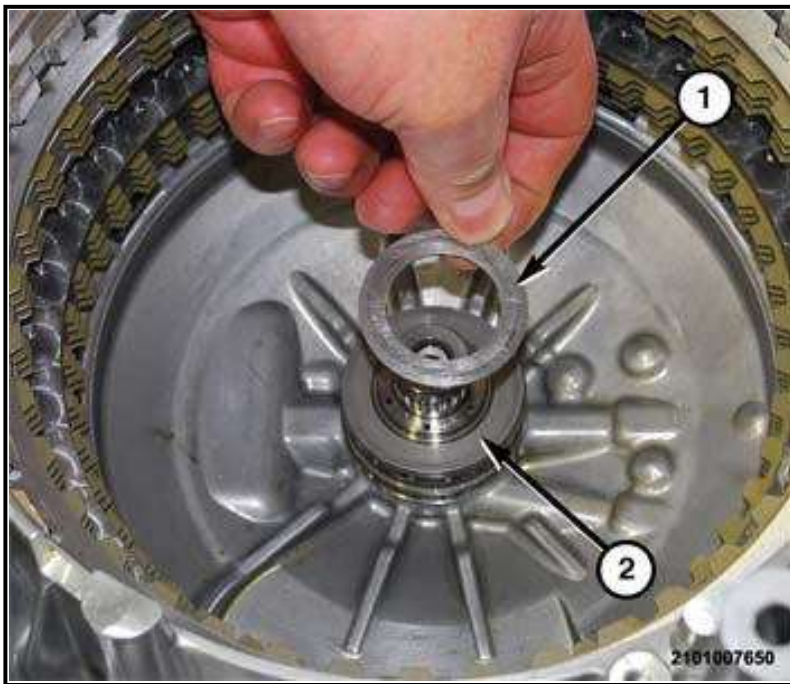
- **Stuck off Diagnostic:** During higher engine speeds the PCM commands the Oil Pump Solenoid off (high mode) and monitors for the engine oil pressure to be too low.
- **Stuck on Diagnostic:** At idle, or lower engine speeds the PCM commands the Oil Pump Solenoid on (low mode) and monitors for the engine oil pressure to be too high.

Application ⁽¹⁾	Idle HC ppm (CO %)	⁽²⁾ Loaded/Cruise HC ppm (CO %)
1975-78 More Than 4-Cyl.	250 (2.00)	250 (1.50)
Light Duty Vehicles (8500 GVWR Or Less)		
1979 4-Cyl. Or Less	220 (2.20)	220 (1.65)
1979 More Than 4-Cyl.	220 (2.20)	220 (1.50)
1980	220 (1.20)	220 (1.20)
1981 & Newer	220 (1.20)	
Light Duty Trucks (6000 GVWR Or Less)		
1967-80	⁽³⁾	⁽³⁾
Light Duty Trucks (6001-8500 GVWR)		
1967-74	⁽³⁾	⁽³⁾
1975-78	350 (4.00)	350 (3.00)
1979 4-Cyl. Or Less	220 (2.20)	220 (1.65)
1979 More Than 4-Cyl.	220 (2.00)	220 (1.50)
1980	220 (1.20)	220 (1.20)
1981 & Newer	220 (1.20)	
Heavy Duty Trucks (Greater Than 8500 GVWR)		
1967-74	⁽³⁾	⁽³⁾
1975-78	350 (4.00)	350 (3.00)
1979 & Newer	300 (4.00)	300 (3.00)
Motorcycles		
1967 & Newer	1800 (5.50)	
(1) 4-stroke engines only.		
(2) Except AWD, non-defeatable traction control and motorcycles.		
(3) Same as light duty vehicles.		

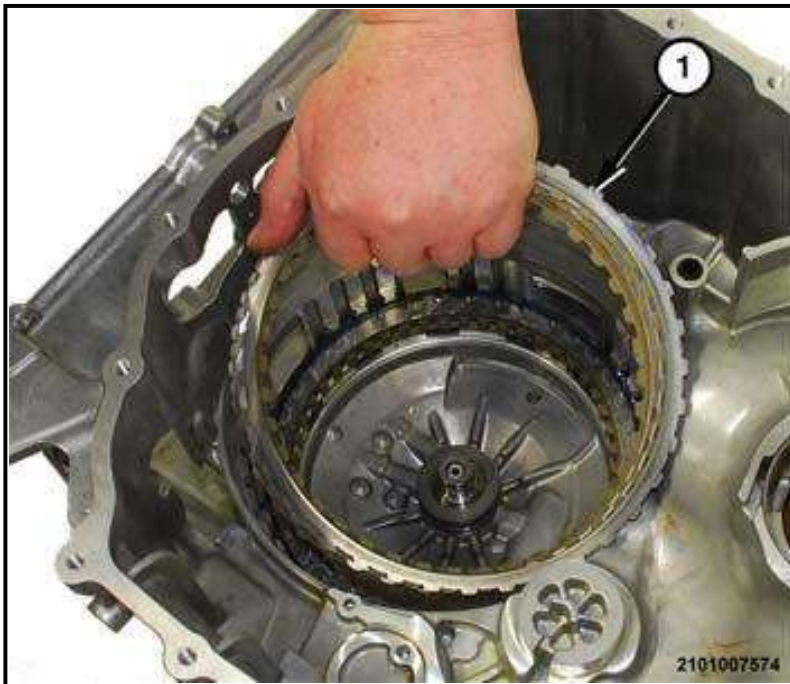
ARIZONA EMISSION STANDARDS - PHOENIX AREA (IM147 TEST)

Application	HC gpm (CO gpm)	NOx gpm
Light Duty Vehicles		
1981-82	3.0 (25.0)	3.5
1983-85	2.4 (20.0)	3.5
1986-89	1.6 (15.0)	2.5
1990-93	1.0 (12.0)	2.5
1994 & Newer	0.8 (12.0)	2.0
Light Trucks (6000 GVWR Or Less)		
1981-85	4.0 (40.0)	5.5
1986-89	3.0 (25.0)	4.5
1990-93	2.0 (20.0)	4.0
1994 & Newer	1.6 (20.0)	3.0
Light Duty Trucks (6000-8500 GVWR)		
1981-85	4.4 (48.0)	7.0
1986-87	4.0 (40.0)	5.5
1988-89	3.0 (25.0)	5.5
1990-93	3.0 (25.0)	5.0
1994 & Newer	2.4 (25.0)	4.0

NOTE: Curb idle test only for 1967-80 light-duty gasoline vehicles, all vehicles with full-time 4WD and/or non-defeatable traction control and motorcycles. Curb idle



65. Remove the input shaft rear support selective thrust washer (1).



66. Separate the D-clutch friction discs and steel plates (1) from the transmission housing.