

11. Start the engine and allow it to idle for at least 2 minutes.

12. With the scan tool, read ACC DTCs.

Did the DTC return?

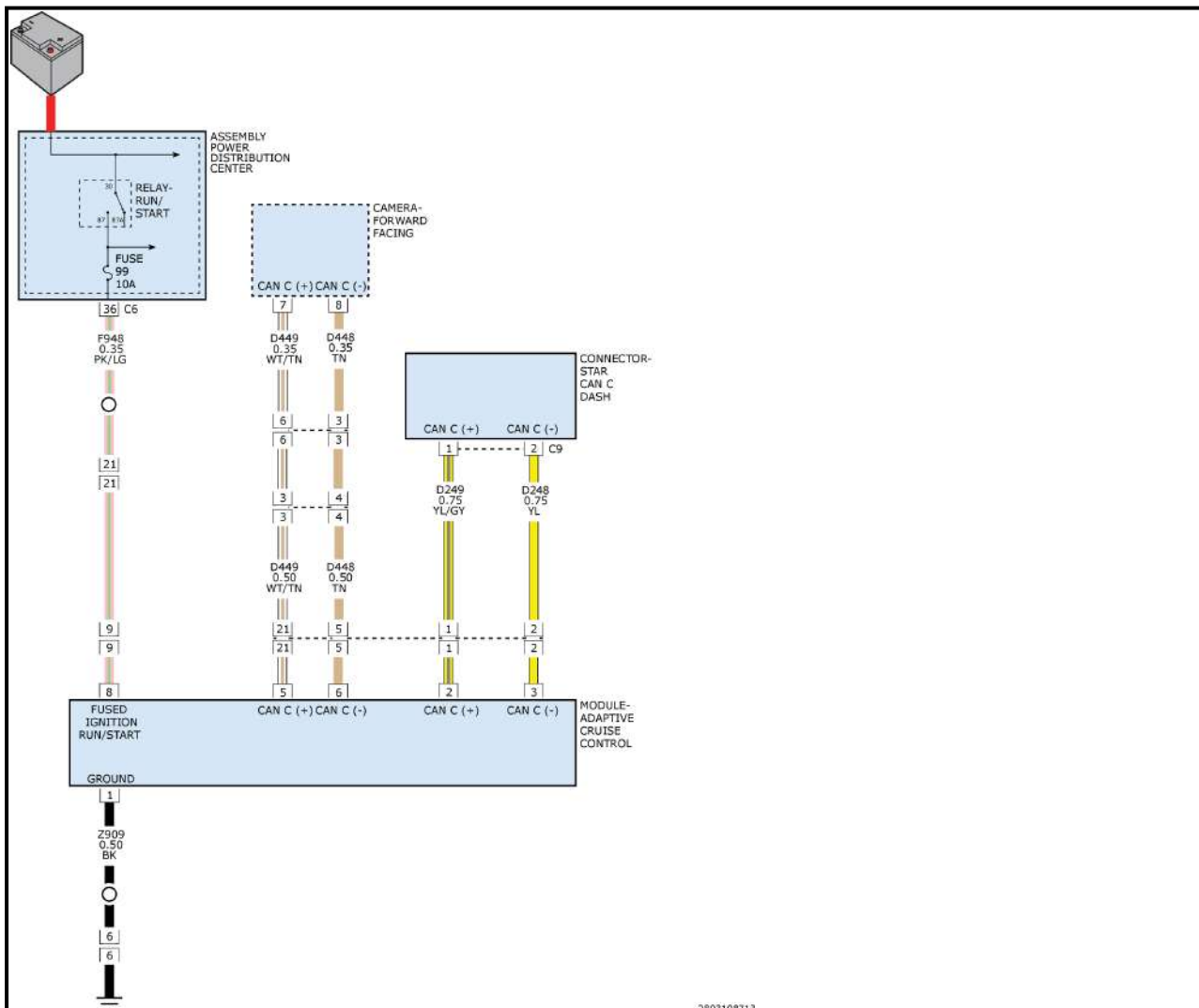
Yes

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

No

- Repairing the wiring or the connectors corrected the condition.
- Perform the ADAPTIVE CRUISE CONTROL VERIFICATION TEST. Refer to **STANDARD PROCEDURE**.

C2129-16-BATTERY VOLTAGE - CIRCUIT VOLTAGE BELOW THRESHOLD



WHEN MONITORED

This diagnostic runs continuously when the following conditions are met:

- Engine running.
- Engine not cranking.
- Adaptive Cruise Control (ACC) Module is not in Plant-Mode.
- ESP is not in diagnostic mode.

SET CONDITION

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

No

- Repair the open in the (D402) LIN Bus circuit.
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#).

U0232-00-LOST COMMUNICATION WITH BLIND SPOT DETECTION MODULE

WHEN MONITORED

This diagnostic runs continuously when the following conditions are met:

- The bus is awake.
- The Battery voltage is between 10.0 and 16.0 volts.
- The Body Control Module (BCM) is configured correctly.

SET CONDITION

- The Door Module detects CAN Interior bus messages not received from the Blind Spot Detection Module.

DEFAULT ACTION

- The Blind Spot warning indicator of the Mirror is not operational.

POSSIBLE CAUSES

Possible Causes
CAN BUS CIRCUITS OPEN OR SHORTED
DTCS RELATED TO BATTERY VOLTAGE, IGNITION, OR VIN MESSAGES
BLIND SPOT DETECTION MODULE POWER AND GROUND
BCM NOT CONFIGURED CORRECTLY
BLIND SPOT DETECTION MODULE
MODULE THAT SET THIS DTC

DIAGNOSTIC TEST

VERIFY THE DIAGNOSTIC TROUBLE CODE (DTC) IS ACTIVE

1. Cycle the ignition on.
2. With the scan tool, read the active DTCs.

Is the DTC active?

Yes

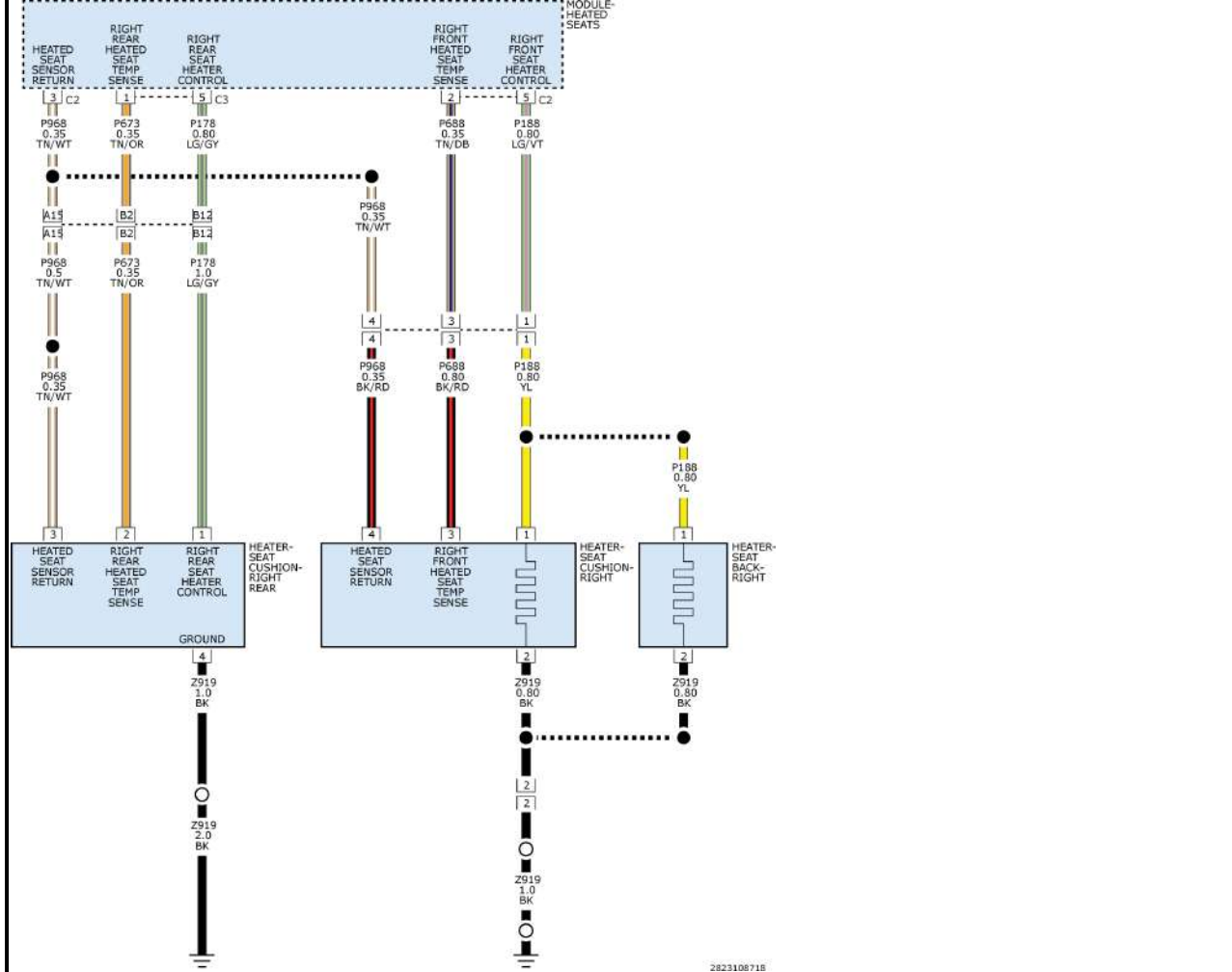
- Refer to [DTC INDEX](#) and perform the U0232-00 Lost Communication with Blind Spot Detection Module diagnostic procedure.

No

- Refer to [STORED LOST COMMUNICATION DTCS](#) and perform the Stored Lost Communication DTCs diagnostic procedure.

U0264-00-LOST COMMUNICATION WITH CAMERA MODULE-REAR

--



THEORY OF OPERATION

The Heated Seat Module (HSM) provides a variable Pulse Width Modulation (PWM) signal to the Heated Seat element in each seat cushion and seat back. The HSM provides a power and return to a thermistor in order to monitor and regulate Heated Seat element function.

WHEN MONITORED

This diagnostic runs continuously when the following conditions are met:

- Engine running.
- Controller voltage between 9.0 and 16.0 volts.
- Heated seat is turned on.

SET CONDITION

- Module detects on the Right Front Seat Heater Control circuit a resistance equal to or above 7.0 Ohms for more than 2 seconds.

DEFAULT ACTION

- When the Right Front Heated Seat is turned on, the indicator turns on for 2 seconds and turns off.
- The Right Front Seat Heater output driver will be disabled.

POSSIBLE CAUSES

Possible Causes
ONE HEATING ELEMENT NOT CONNECTED
RIGHT FRONT SEAT HEATER CONTROL CIRCUIT HIGH RESISTANCE
GROUND CIRCUIT RESISTANCE HIGH
SEAT CUSHION HEATER ELEMENT
SEAT BACK HEATER ELEMENT

1. Turn the ignition on.

2. With the scan tool, read Park Assist Module DTCs.

Does the scan tool display this DTC as active?

Yes

- Go To [2](#)

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using the wiring diagrams as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals, and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#).

2. CHECK PARK ASSIST SENSOR 10 FOR INTERNAL SHORT

1. Disconnect Park Assist Sensor 10.

2. With the scan tool, read Park Assist Module DTCs.

Does the scan tool display this DTC as active?

Yes

- Go To [3](#)

No

- Replace Park Assist Sensor 10 in accordance with the Service Information. Refer to [SENSOR, PARK ASSIST, REMOVAL](#).
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#).

3. CHECK THE (D704) PARK ASSIST SENSOR 10 SIGNAL CIRCUIT FOR A SHORT TO GROUND

1. Turn the ignition off.

2. Disconnect the Park Assist Module C2 harness connector.

3. Using a 12-volt test light connected to 12-volts check the (D704) Park Assist Sensor 10 Signal circuit at the Park Assist Module C2 harness connector.

Does the test light illuminate brightly?

Yes

- Repair the (D704) Park Assist Sensor 10 Signal circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. Refer to [BODY VERIFICATION TEST](#).

No

- Go To [4](#)

4. CHECK THE (D704) PARK ASSIST SENSOR 10 SIGNAL CIRCUIT FOR A SHORT TO BATTERY

1. Turn the ignition on.

2. Using a 12-volt test light connected to ground check the (D704) Park Assist Sensor 10 Signal circuit at the Park Assist Module C2 harness connector for a short to battery.

Does the test light illuminate brightly?

Yes

No

- Test complete. The condition or conditions that originally set this DTC are not present at this time. Using the wiring diagrams as a guide, check all related splices and connectors for signs of water intrusion, corrosion, pushed out or bent terminals and correct pin tension.
- Perform the BODY VERIFICATION TEST. Refer to [**BODY VERIFICATION TEST**](#).

2. CHECK THE (X911) AND (X912) CIRCUITS FOR A SHORT TO VOLTAGE

1. Turn the ignition off.
2. Disconnect the EDM harness connectors.
3. Disconnect the VES2 module connector.
4. Turn the ignition on.
5. Check for voltage present on the (X911) and (X912) circuits.

Is there any voltage present?

Yes

- Repair the circuit with the short to voltage.
- Perform the BODY VERIFICATION TEST. Refer to [**BODY VERIFICATION TEST**](#).

No

- Go To [**3**](#)

3. CHECK THE (X911) AND (X912) CIRCUITS FOR A SHORT TO GROUND IN THE HARNESS

1. Turn the ignition off.
2. Measure the resistance between ground and the (X911) and (X912) circuits.

Is the resistance below 10K Ohms?

Yes

- Repair the circuit with the short to ground.
- Perform the BODY VERIFICATION TEST. Refer to [**BODY VERIFICATION TEST**](#).

No

- Go To [**4**](#)

4. CHECK THE (X911) AND (X912) CIRCUITS FOR A SHORT TOGETHER

1. Measure the resistance between the (X911) and (X912) circuits.

Is the resistance below 10K Ohms?

Yes

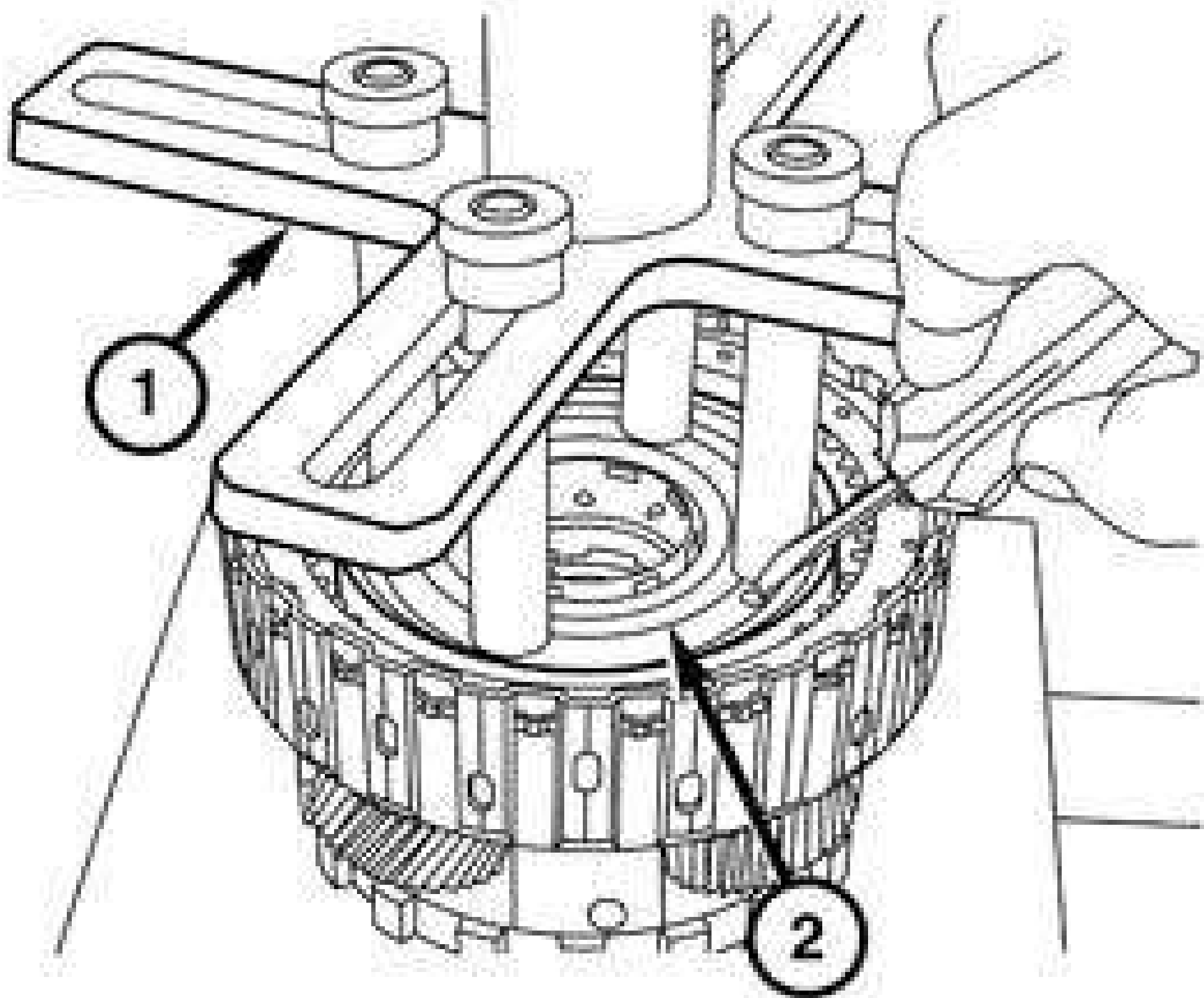
- Repair the circuits that are shorted together.
- Perform the BODY VERIFICATION TEST. Refer to [**BODY VERIFICATION TEST**](#).

No

- Go To [**5**](#)

5. CHECK THE (X911) AND (X912) CIRCUITS FOR AN OPEN

1. Measure the resistance of the (X911) and (X912) circuit between the VES2 Module harness connectors and the EDM harness connector.



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- 11. Compress the oil baffle (2) enough to clear the lock tabs, and rotate the baffle to the locked position.
- 12. Release the arbor press.

SHIFT SOLENOID D

TRANSMISSION CONTROL MODULE (TCM)

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

DIAGNOSTIC TEST

1. CHECK FOR AN ACTIVE DIAGNOSTIC TROUBLE CODE (DTC)

1. With the scan tool, read Transmission Control Module (TCM) DTCs and record on the repair order.
2. Record the Event Data and Environmental Data.
3. With the scan tool, erase DTCs.
4. Using the recorded Event and 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 TCM DTCs.

Did the DTC return?

Yes

- Using the schematics as a guide, check the Transmission Control Module (TCM) connector and all related in-line connector terminals for corrosion, damage, or pushed out terminals. Pay particular attention to power and ground circuits. Check Service Bulletins for possible causes that may apply. Remove the Transmission oil pan and the TCM. Refer to **REMOVAL, VALVE BODY, 845RE** . Inspect and clean the solenoid terminals at the wiring harness leadframe for metallic contamination. Reinstall the TCM. Refer to **INSTALLATION, VALVE BODY, 845RE** . Connect the scan tool and erase the DTCs. Road test the vehicle and check for DTCs. If the DTC returns, replace and program the TCM in accordance with the Service Information. Refer to **REMOVAL, VALVE BODY, 845RE** .
- Perform the TRANSMISSION VERIFICATION TEST. Refer to **TRANSMISSION VERIFICATION TEST** .

No

- Go To [2](#)

2. CHECK WIRING AND CONNECTORS

1. The conditions necessary to set the DTC are not present at this time.
2. Using the schematics as a guide, inspect the wiring and connectors specific to this circuit.
3. Wiggle the wires while checking for shorted and open circuits.
4. Check for any Service Bulletins that may apply.

Were any problems found?

Yes

- Repair as necessary.
- Perform the TRANSMISSION VERIFICATION TEST. Refer to **TRANSMISSION VERIFICATION TEST** .

No

- Test complete.

P0984-00-SHIFT SOLENOID 5 CONTROL CIRCUIT RANGE-PERFORMANCE

4. Using the recorded Event and 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 TCM DTCs.

Did the DTC return?

Yes

- Go To [2](#)

No

- Go To [3](#)

2. CHECK TRANSMISSION FLUID CONDITION

1. Check the Transmission fluid condition.

Is the Transmission fluid burnt?

Yes

- Remove the Transmission and perform the appropriate repair for this DTC in accordance with the Service Information. Refer to **REMOVAL** .
- Perform the TRANSMISSION VERIFICATION TEST. Refer to **TRANSMISSION VERIFICATION TEST** .

No

- Replace the Valve Body in accordance with the Service information. Refer to **VALVE BODY, REMOVAL** .
- Perform the TRANSMISSION VERIFICATION TEST. Refer to **TRANSMISSION VERIFICATION TEST** .

3. CHECK WIRING AND CONNECTORS

1. The conditions necessary to set the DTC are not present at this time.
2. Using the schematics as a guide, inspect the wiring and connectors specific to this circuit.
3. Wiggle the wires while checking for shorted and open circuits.
4. Check for any Service Bulletins that may apply.

Were any problems found?

Yes

- Repair as necessary.
- Perform the TRANSMISSION VERIFICATION TEST. Refer to **TRANSMISSION VERIFICATION TEST** .

No

- Test complete.

P1DA4-00-INCORRECT GEAR RATIO CLUTCH B C OR D DEFECTIVE



DTC	Description
<u>P1D9A-00</u>	INCORRECT GEAR RATIO CLUTCH C OR D DEFECTIVE
<u>P1D9B-00</u>	INCORRECT GEAR RATIO CLUTCH A OR E DEFECTIVE
<u>P1D9C-00</u>	INCORRECT GEAR RATIO CLUTCH A OR C DEFECTIVE
<u>P1D9D-00</u>	INCORRECT GEAR RATIO CLUTCH B OR C DEFECTIVE
<u>P1D9E-00</u>	INCORRECT GEAR RATIO CLUTCH C OR E DEFECTIVE
<u>P1D9F-00</u>	INCORRECT GEAR RATIO CLUTCH D OR E DEFECTIVE
<u>P1DA0-00</u>	INCORRECT GEAR RATIO CLUTCH A B OR C DEFECTIVE
<u>P1DA1-00</u>	INCORRECT GEAR RATIO CLUTCH A B OR E DEFECTIVE
<u>P1DA2-00</u>	INCORRECT GEAR RATIO CLUTCH B C OR E DEFECTIVE
<u>P1DA3-00</u>	INCORRECT GEAR RATIO CLUTCH B D OR E DEFECTIVE
<u>P1DA4-00</u>	INCORRECT GEAR RATIO CLUTCH B C OR D DEFECTIVE
<u>P1DA5-00</u>	INCORRECT GEAR RATIO CLUTCH C D OR E DEFECTIVE
<u>P1DA6-00</u>	INCORRECT GEAR RATIO CLUTCH A C OR D DEFECTIVE
<u>P1DA7-00</u>	INCORRECT GEAR RATIO CLUTCH A D OR E DEFECTIVE
<u>P1DA8-00</u>	INCORRECT GEAR RATIO CLUTCH A B OR D DEFECTIVE
<u>P1DA9-00</u>	TRANSMISSION FLUID TEMPERATURE RATIONALITY
<u>P1DAA-00</u>	TRANS TEMP UNDETERMINED
<u>P1DAB-00</u>	VEHICLE SPEED UNDETERMINED
<u>P1DAC-00</u>	ENGINE SPEED UNDETERMINED
<u>P1DAD-00</u>	INPUT SHAFT-OUTPUT SHAFT DIRECTION CORRELATION
<u>P1DAE-00</u>	POSITION VALVE STUCK 2ND GEAR TRANS LIMP IN
<u>P1DAF-00</u>	INCOMPATIBLE LIMP IN ACTION REQUESTED
<u>P1DB0-00</u>	IMPLAUSIBLE TORQUE REQUEST SIGNAL SENT
<u>P1DB1-00</u>	TCM SYSTEM VOLTAGE EXCESSIVELY LOW
<u>P1DB2-00</u>	ACTUATOR SUPPLY VOLTAGE A CIRCUIT
<u>P1DB3-00</u>	TCM ECU RESET-RECOVERY OCCURRED
<u>P1DB6-00</u>	VEHICLE SPEED SIGNAL PERFORMANCE
<u>P1DB7-00</u>	TORQUE CONVERTER CLUTCH PERFORMANCE
<u>P1DB8-00</u>	UNINTENDED TORQUE APPLIED WHILE IN NEUTRAL
<u>P1DB9-00</u>	TCM ECU RESET EXTENDED LOW VOLTAGE
<u>P1DC7-00</u>	CLUTCH TEMP THRESHOLD ACHIEVED SHIFT TIME REDUCTION
<u>P1DC8-00</u>	CLUTCH TEMP THRESHOLD ACHIEVED AUTOSTICK INHIBIT
<u>P1DC9-00</u>	CLUTCH TEMP THRESHOLD ACHIEVED SKIP SHIFT DOWN INHIBIT
<u>P1DCA-00</u>	PARK SENSE CIRCUIT OPEN
<u>P1DCD-00</u>	TCM MONITORING PROCESSOR PERFORMANCE MULTIPLE CLUTCHES LOCKED UP
<u>P1DCE-00</u>	TCM MONITORING PROCESSOR PERFORMANCE INCORRECT DRIVING DIRECTION
<u>P1DCF-00</u>	TCM MONITORING PROCESSOR PERFORMANCE UNALLOWED PARK ENGAGEMENT DUE TO ABS FAILURE
<u>P1DD0-00</u>	TCM MONITORING PROCESSOR PERFORMANCE UNALLOWED PARK ENGAGEMENT
<u>P1DD1-00</u>	INPUT-TURBINE SPEED SENSOR 1 GRADIENT FAULT
<u>P1DD2-00</u>	TORQUE REQUEST SIGNAL FROM TCM DENIED
<u>P1DDC-00</u>	TCM MONITORING PROCESSOR PERFORMANCE UNALLOWED REVERSE ENGAGEMENT
<u>P1DDD-00</u>	TCM MONITORING PERFORMANCE UNABLE TO DISENGAGE DRIVE OR REVERSE
<u>P1DDE-00</u>	IGNITION RUN-START INPUT 1-2 CORRELATION
<u>P1DEB-00</u>	INCORRECT GEAR DISPLAYED DUE TO INCORRECT GEAR RATIO
<u>P1DF3-00</u>	ECU NOT INITIALIZED
<u>P1DF7-00</u>	ACTUAL DECREASE OF ENGINE TORQUE LOW
<u>P1DF8-00</u>	ACTUAL DECREASE OF ENGINE TORQUE HIGH

6. With the scan tool, read DTCs.

Is the DTC active or pending?

Yes

- Go To [2](#)

No

- Perform the INTERMITTENT CONDITION diagnostic procedure. Refer to [INTERMITTENT CONDITION](#).

2. CHECK FOR OTHER DTCS

1. Refer to the recorded DTCs.

Are the P0340 or P0344 DTCs present?

Yes

- Perform the applicable diagnostic procedure(s) before continuing with this test procedure. Refer to [3.6L - DIAGNOSTIC CODE INDEX](#).

No

- Go To [3](#)

3. CHECK FOR OTHER DTCS

1. Refer to the recorded DTCs.

Are there any VVT Solenoid Circuit Open or Slow Response DTCs active or pending?

Yes

- Perform the applicable diagnostic procedure(s). Refer to [3.6L - DIAGNOSTIC CODE INDEX](#).

No

- Go To [4](#)

4. VERIFY THE CAM/CRANK LEARNED VALUES ARE WITHIN TOLERANCE

1. With the scan tool, read the Cam/Crank Difference Learned values in the Data Display.

NOTE: When the Cam/Crank Learn is performed the Camshaft position is learned in High Lift and Low Lift modes on the Variable Valve Lift (VVL) equipped engines. The difference between the High Lift and Low Lift learned values should be less than 2°, for each Camshaft.

Are the Exhaust Cam 1 High Lift and Low Lift learned values within 2° of each other?

Yes

- Go To [5](#)

No

- With the scan tool perform the **Cam/Crank Relearn** procedure and retest for DTC.
- Perform the POWERTRAIN VERIFICATION TEST. Refer to [POWERTRAIN VERIFICATION TEST](#).

5. ENGINE OIL/ENGINE MECHANICAL

NOTE: The following items should be checked before continuing with this procedure. Failure to do so may lead to misdiagnosis.

- The Powertrain Control Module (PCM) detects an open condition in the Starter Relay 2 Control circuit.

DEFAULT ACTION

- This is a non MIL fault.
- If the vehicle is equipped with the stop/start feature, the system will be disabled when this DTC is active.

POSSIBLE CAUSES

Possible Causes
RUN/START RELAY OUTPUT CIRCUIT OPEN
STARTER SOLENOID RELAY 2 CONTROL CIRCUIT OPEN/HIGH RESISTANCE
STARTER SOLENOID RELAY 2 CONTROL CIRCUIT SHORTED TO GROUND
STARTER SOLENOID RELAY 2
POWER DISTRIBUTION CENTER (PDC)
POWERTRAIN CONTROL MODULE (PCM)

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

DIAGNOSTIC TEST

1. CHECK FOR AN ACTIVE DTC

1. Attempt to start the engine. If the engine will not crank, turn the ignition switch to the crank position for five seconds.

WARNING: When the engine is operating, do not stand in direct line with the fan. Do not put your hands near the pulleys, belts or fan. Do not wear loose clothing. Failure to follow these instructions may result in possible serious or fatal injury.

2. With the scan tool, read DTCs and record on the repair order.

Is the DTC active or pending?

Yes

- Go To [2](#)

No

- Perform the INTERMITTENT CONDITION diagnostic procedure. Refer to **INTERMITTENT CONDITION** .

2. CHECK THE BATTERY SUPPLY AT THE STARTER RELAY

1. Turn the ignition off.
2. Remove Starter Relay 1 from the Power Distribution Center (PDC).
3. Turn the ignition on.
4. Measure the voltage at terminal 85 of the Starter Relay connector in the PDC.

Is the voltage equal to Battery voltage?

Yes

- Go To [4](#)

No

- Go To [3](#)

Using the Scan Tool for Diagnostics:

P1621-O2 Sensor Reference (Return) Circuit Low Diagnosis:	The O2 Sensor Reference Circuit Low/High diagnostic is used to monitor the O2 Sensor Return circuits. If any of the return circuits are shorted to ground the raw signal voltage readings for all O2 Sensors will read between 0-1 volts instead of 2.5-3.5 volts. This will happen because the bias voltage on the return circuit is pulled low for all sensors. As mentioned in the O2 Sensor Signal Low Diagnosis above, a short to ground in one of the sensor signal circuits will also pull the sensor return low for all sensors. However, this will cause the voltage reading on the sensor that has the shorted signal to read 0.0 volts on both the raw signal voltage and (0-1) differential voltage reading when the sensor is warm.
P1622-O2 Sensor Reference (Return) Circuit High Diagnosis:	A short to voltage in any of the sensor return circuits will cause the fault to set. The affected O2 Sensors will read 5.0 volts on the raw signal voltage. The (0-1) differential voltage reading will be 0.0 volts because the signal circuit voltage and return circuit voltage are both 5.0 volts. A short to voltage on one of the O2 Sensor signal circuits will cause the same fault condition and scan tool readings when the sensor is warm. If the condition is present when the engine is started and the sensor is cold, the (0-1) differential voltage reading will start at 2.5 volts and decrease to 0.0 volts as the sensor warms up.

WHEN MONITORED

This diagnostic runs continuously when the following conditions are met:

- Battery voltage between 11.0 and 15.75 volts.
- With the engine running.

SET CONDITION

- The Oxygen Sensor 1/1 signal voltage is less than 0.0 volts for 9.0 seconds.

DEFAULT ACTION

- The MIL will illuminate.

POSSIBLE CAUSES

Possible Causes
O2 SENSOR 1/1 SIGNAL CIRCUIT SHORTED TO GROUND
O2 SENSOR 1/1 SIGNAL CIRCUIT SHORTED TO THE O2 SENSOR 1/1 HEATER GROUND CIRCUIT
O2 SENSOR 1/1
POWERTRAIN CONTROL MODULE (PCM)

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

DIAGNOSTIC TEST

1. CHECK FOR ANY SERVICE BULLETINS OR PCM SOFTWARE UPDATES

1. Check for any applicable Service Bulletins or Flash updates related to the DTC.

Are there any applicable Service Bulletins or Flash updates?

Yes

- Perform the applicable repair.
- Perform the POWERTRAIN VERIFICATION TEST. Refer to **POWERTRAIN VERIFICATION TEST** .



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

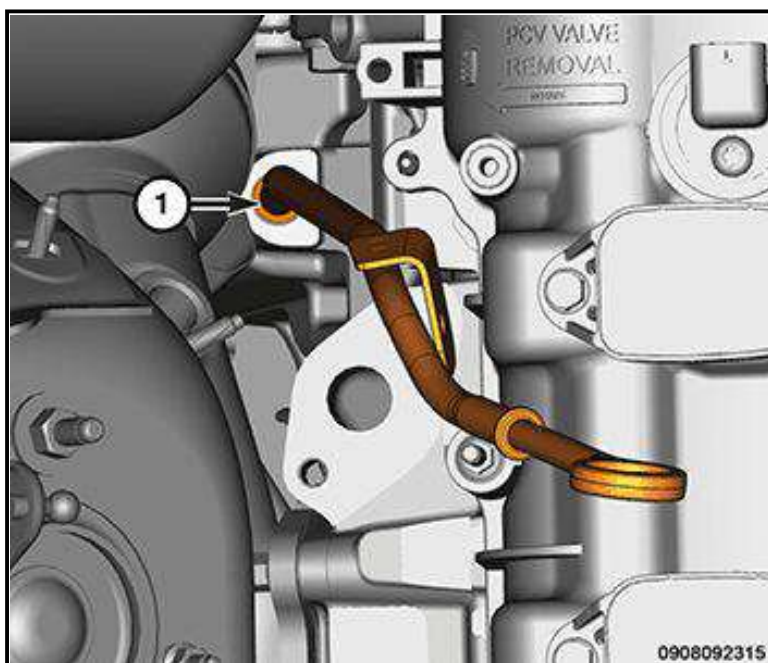
NOTE: The head gasket (1) crimps the locating dowels (2) and the dowels may pull out of the engine block when the head gasket is removed.

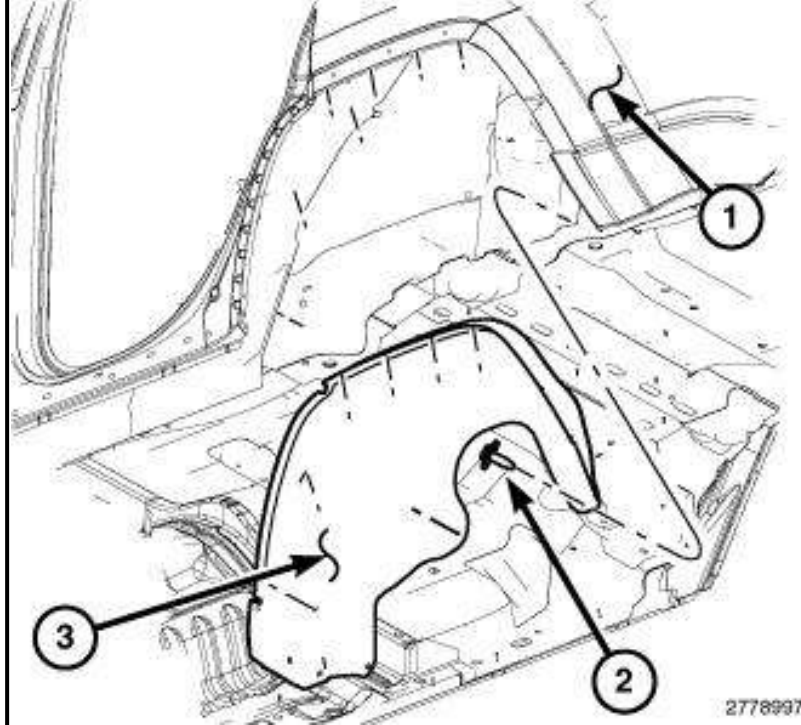
27. Remove the cylinder head and gasket (1). Discard the gasket.

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.

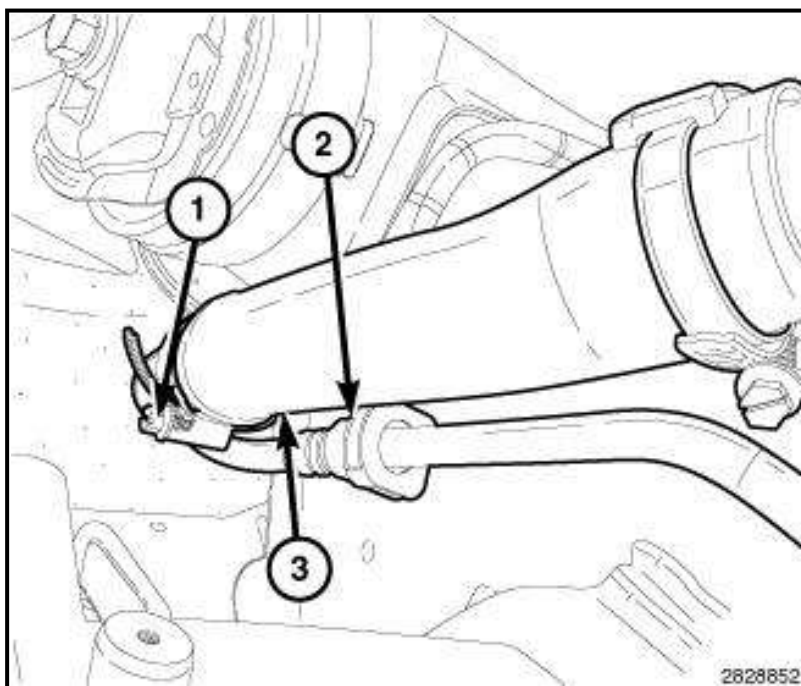
RIGHT

1. Perform the fuel pressure release procedure. Refer to [FUEL DELIVERY, GAS, STANDARD PROCEDURE](#).
2. Disconnect and isolate the negative battery cable.
3. Remove the upper and lower intake manifolds and insulator. Refer to [MANIFOLD, INTAKE, REMOVAL](#).
4. Remove the Exhaust Gas Recirculation (EGR) cooler and upper intake manifold support bracket. Refer to [COOLER, EXHAUST GAS RECIRCULATION \(EGR\), REMOVAL](#).
5. Raise and support the vehicle. Refer to [HOISTING, STANDARD PROCEDURE](#).
6. Drain the engine oil. Refer to [STANDARD PROCEDURE](#).
7. Remove the right side catalytic converter and position aside. Refer to [CONVERTER, CATALYTIC, REMOVAL](#).





10. Install the left rear wheelhouse splash shield (3). Refer to [SHIELD, SPLASH, WHEELHOUSE, INSTALLATION](#).
11. Install the left rear wheel and tire.



12. Connect the fuel filler hose (3) to the fuel filler tube.
13. Connect the fuel tank vapor line quick-connect fitting (2).
14. Position the fuel filler tube hose clamp (1) and tighten to 3 N.m (30 in. lbs.).



- Go To [6](#)

No

- The new Front Mode Door Actuator repaired the problem.
- Perform the HVAC VERIFICATION TEST. Refer to [HVAC VERIFICATION TEST](#).

6. CHECK RELATED HARNESS CONNECTIONS

1. Disconnect all HVAC Module 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 HVAC Module 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 HVAC Module DTCs.

Did the DTC return?

Yes

- Replace the HVAC Module in accordance with the Service information. Refer to [MODULE, HVAC, REMOVAL](#).
- Perform the HVAC VERIFICATION TEST. Refer to [HVAC VERIFICATION TEST](#).

No

- The wiring or poor connection problem has been repaired.
- Perform the HVAC VERIFICATION TEST. Refer to [HVAC VERIFICATION TEST](#).

B11C3-00-FRONT MODE DOOR 1 TRAVEL RANGE TOO SMALL

THEORY OF OPERATION