

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey

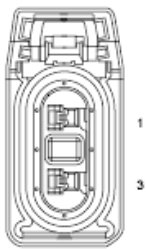
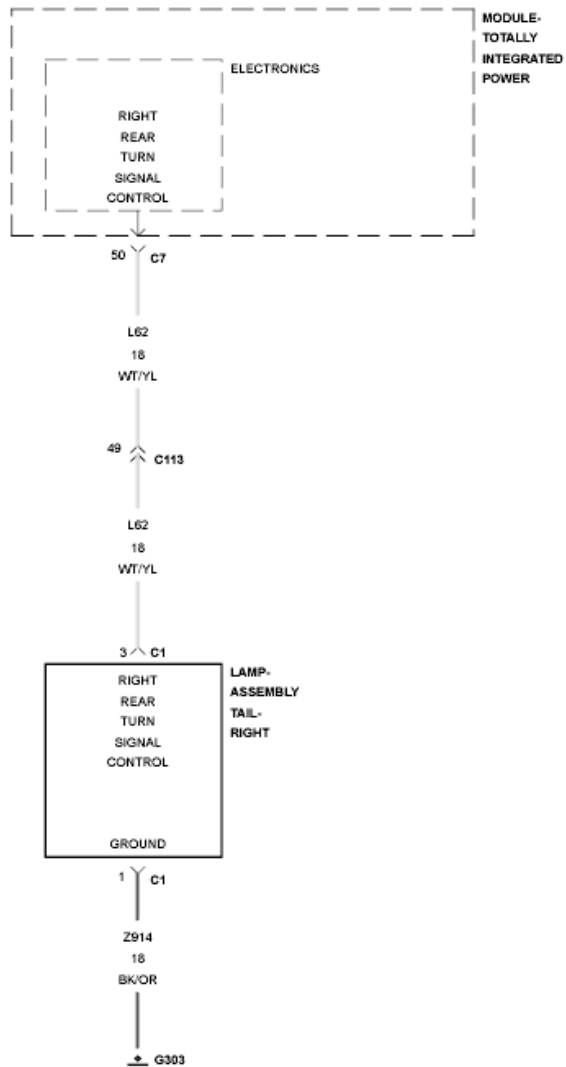
2009 ACCESSORIES AND EQUIPMENT

Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey

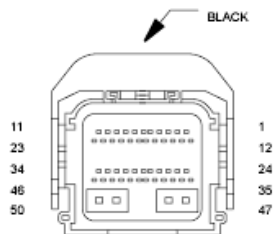
B1648-REAR RIGHT TURN LAMP CONTROL CIRCUIT HIGH

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey



LAMP-
ASSEMBLY
TAIL-
RIGHT C1
(EXCEPT
TRAILER TOW)



MODULE-
TOTALLY
INTEGRATED
POWER C7

Fig. 1: Rear Right Turn Signal Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

Continuously.

• **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a HIGH condition.

Possible Causes

CHECK (Z910) GROUND CIRCUIT
(Z910) GROUND CIRCUIT OPEN
CHECK (L62) RIGHT REAR TURN SIGNAL CONTROL CIRCUIT
(L62) RIGHT REAR TURN SIGNAL CONTROL CIRCUIT OPEN
(L62) RIGHT REAR TURN SIGNAL CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTC's.
3. Turn the Right Turn Signal on.
4. With the scan tool, read DTC's.

Does the scan tool display active: B1648-REAR RIGHT TURN LAMP CONTROL CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. CHECK (Z910) GROUND CIRCUITS

1. Turn the ignition off.
2. Disconnect the Right Rear Turn Signal Lamp assembly harness connector.
3. With a 12-volt test light connected to 12-volts, probe each (Z910) Ground circuit.

Does the test light illuminate brightly on each ground circuit?

Yes

- Go to Step 4.

No

- Go to Step 3.

3. (Z910) GROUND CIRCUIT OPEN

1. Measure the resistance of the appropriate (Z910) Ground circuit(s) at the Right Rear Turn Signal Lamp assembly harness connector.

Is the resistance below 10.0 Ohms?

Yes

- Replace the Inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the appropriate (Z910) Ground circuit(s) for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. CHECK (L62) RIGHT REAR TURN SIGNAL CONTROL CIRCUIT

1. Turn the ignition on.
2. With the Right Turn Signal still on and a 12-volt test light connected to ground, check the (L62) Right Rear Turn Signal Control circuit.

Does the test light blink brightly from on to off with the turn signal indicator?

Yes

- Replace the Inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 5.

5. (L62) RIGHT REAR TURN SIGNAL CONTROL CIRCUIT OPEN

1. Turn the ignition off.

2. Disconnect the TIPM C4 harness connector.
3. Measure the resistance of the (L62) Right Rear Turn Signal Control circuit between the Right Rear Tail Lamp assembly harness connector and the TIPM C4 harness connector.

Is the resistance below 10.0 Ohms?

Yes

- Go to Step 6.

No

- Repair the (L62) Right Rear Turn Lamp Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

6. (L62) RIGHT REAR TURN SIGNAL CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L62) Right Rear Turn Signal Control circuit.

Is there any voltage present?

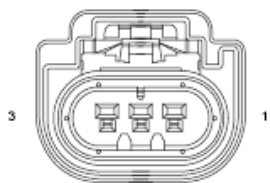
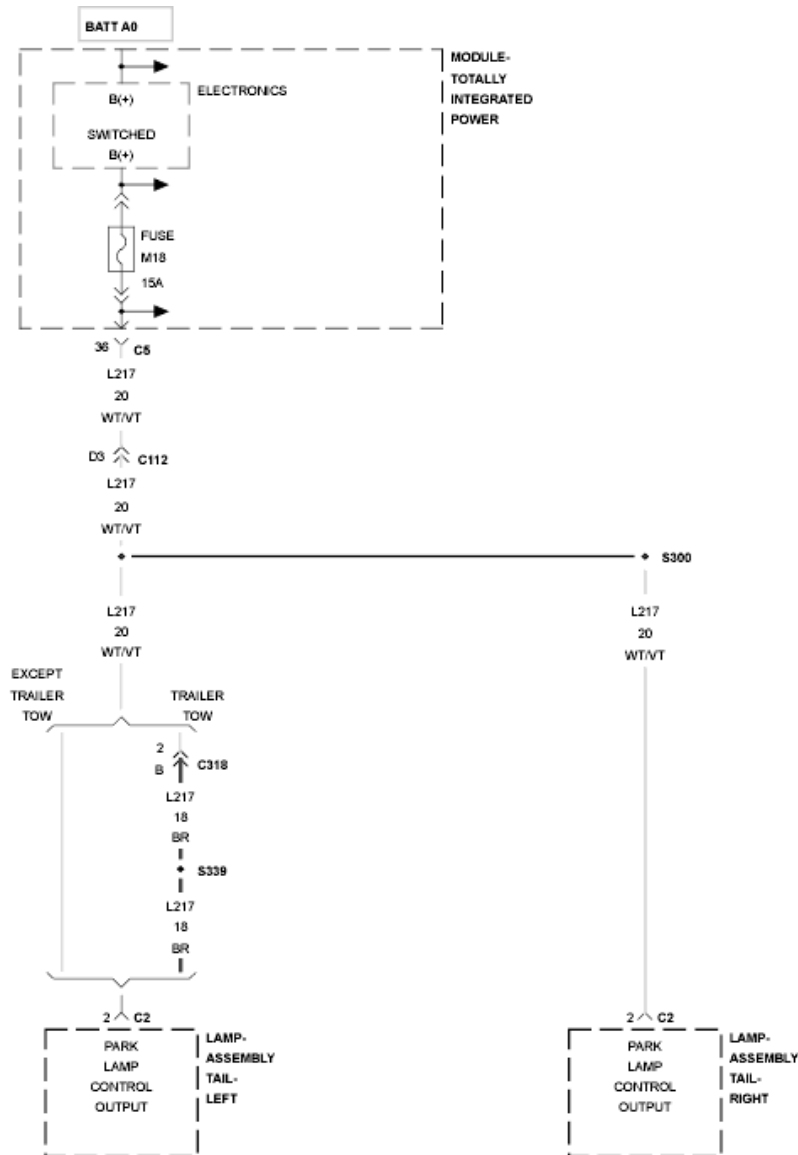
Yes

- Repair the (L62) Right Rear Turn Signal Control circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

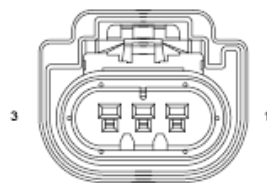
No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

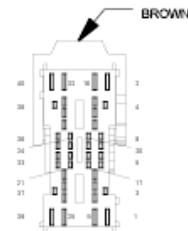
B165C-PARK LAMP CONTROL CIRCUIT LOW



LAMP-
ASSEMBLY
TAIL-
LEFT C2



LAMP-
ASSEMBLY
TAIL-
RIGHT C2



MODULE-
TOTALLY
INTEGRATED
POWER C5

Fig. 2: Park Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the Park Lamps activated.

- **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a LOW condition.

Possible Causes
(L7) FUSED PARK LAMP CONTROL CIRCUIT SHORT TO GROUND TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTC's.
3. Turn the Park Lamps on.
4. With the scan tool, read DTC's.

Does the scan tool display active: B165C-PARK LAMP CONTROL CIRCUIT LOW?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST-VER1. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. (L7) FUSED PARK LAMP CONTROL CIRCUIT SHORT TO GROUND

1. Turn the ignition off.
2. Disconnect the TIPM C5 harness connector.
3. Disconnect the Park Lamp harness connectors.
4. Measure the resistance between ground and the (L7) Fused Park Lamp Control circuit.

Is the resistance above 10k Ohms?

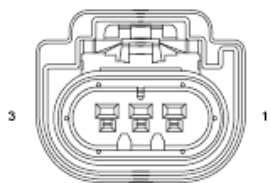
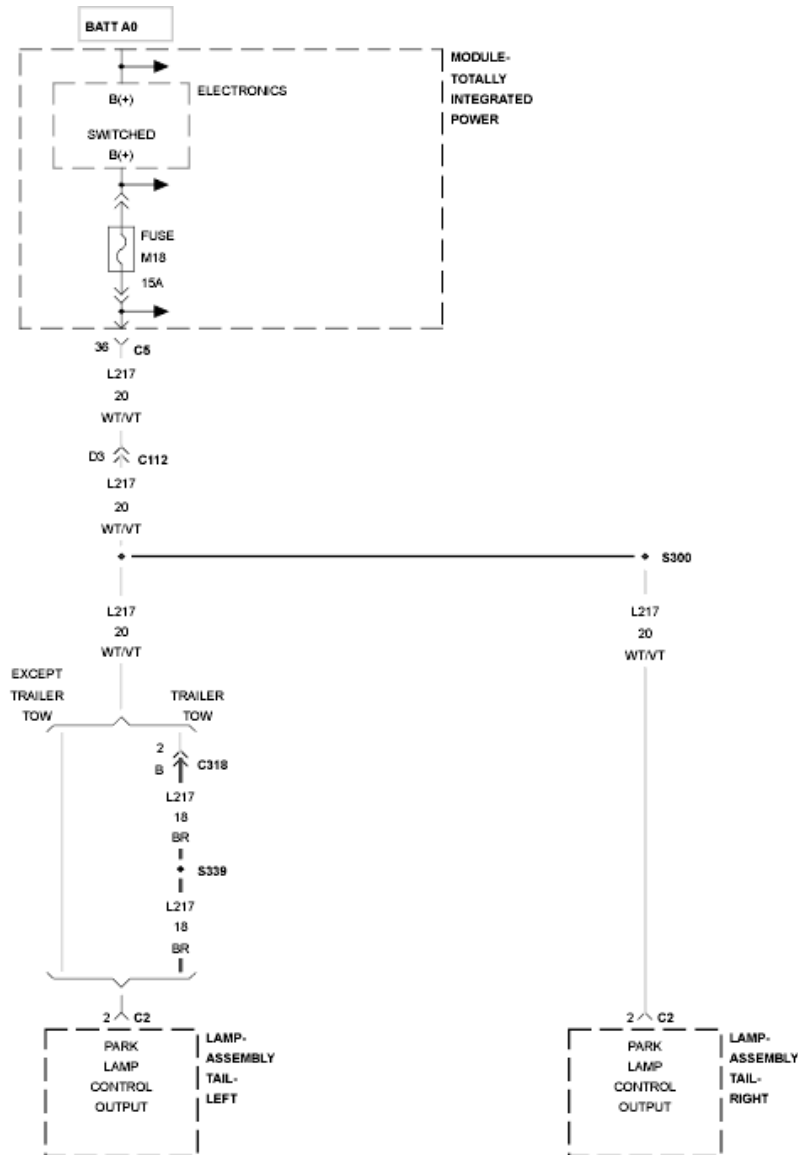
Yes

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST-VER1. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

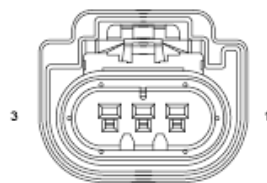
No

- Repair the (L7) Fused Park Lamp Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST-VER1. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

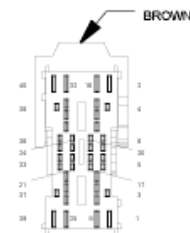
B165D-PARK LAMP CONTROL CIRCUIT HIGH



LAMP-
ASSEMBLY
TAIL-
LEFT C2



LAMP-
ASSEMBLY
TAIL-
RIGHT C2



MODULE-
TOTALLY
INTEGRATED
POWER C5

Fig. 3: Park Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a HIGH condition.

Possible Causes
(L7) FUSED PARK LAMP CONTROL CIRCUIT OPEN
(L7) FUSED PARK LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTC's
3. Turn the Park Lamps on.
4. With the scan tool, read DTC's.

Does the scan tool display active: B165D-PARK LAMP CONTROL CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. (L7) FUSED PARK LAMP CONTROL CIRCUIT OPEN

1. Turn the ignition off.
2. Disconnect the TIPM C5 harness connector.
3. Disconnect the Park Lamp harness connector.
4. Measure the resistance of the (L7) Fused Park Lamp Control circuit between the Park Lamp Harness Connector and the TIPM C5 harness connector.

Does the Ohm meter read open circuit?

Yes

- Repair the (L7) Fused Park Lamp Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 3.

3. (L7) FUSED PARK LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L7) Fused Park Lamp Control circuit.

Is there any voltage present?

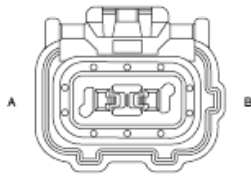
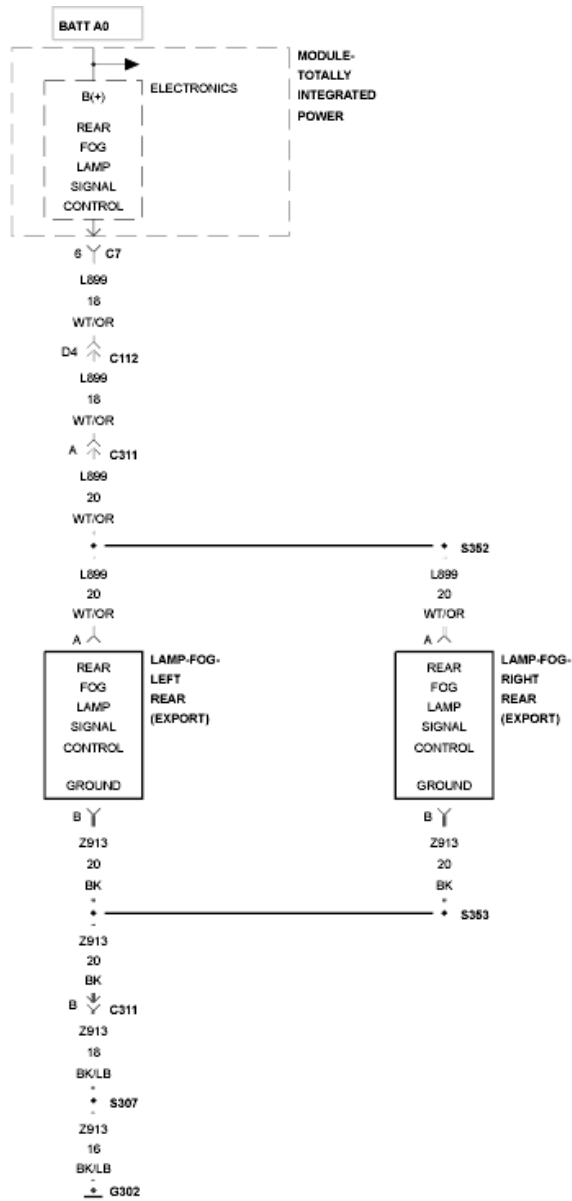
Yes

- Repair the (L7) Fused Park Lamp Control circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

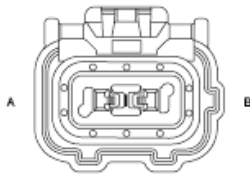
No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

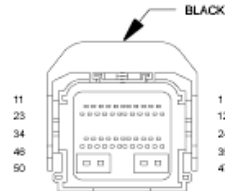
B1663-REAR FOG LAMP CONTROL CIRCUIT LOW



LAMP-FOG-
LEFT
REAR
(EXPORT)



LAMP-FOG-
RIGHT
REAR
(EXPORT)



MODULE-
TOTALLY
INTEGRATED
POWER C7

8011ca77

Fig. 4: Rear Fog Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to SYSTEM WIRING DIAGRAMS .

• **When Monitored:**

With the Rear Fog Lamps activated.

• **Set Condition:**

The Totally Integrated Power Module (TIPM) Detects a low condition.

Possible Causes

(L239) REAR FOG LAMP CONTROL CIRCUIT SHORTED TO GROUND
LEFT REAR FOG LAMP BULB
RIGHT REAR FOG LAMP BULB
TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn the Rear Fog Lamps on.
4. With the scan tool, read DTCs.

Does the scan tool display active: B1663-REAR FOG LAMP CONTROL CIRCUIT LOW?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. LEFT REAR FOG LAMP BULB

1. Turn the ignition off.
2. Disconnect the Left Rear Fog Lamp Bulb.
3. Turn the ignition on.
4. With the scan tool, read DTCs.

Does the DTC reset?

Yes

- Go to Step 3.

No

- Replace the Left Rear Fog Lamp Bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. RIGHT REAR FOG LAMP BULB

1. Turn the ignition off.
2. Disconnect the Right Rear Fog Lamp Bulb.
3. Turn the ignition on.
4. With the scan tool, read DTCs.

Does the DTC reset?

Yes

- Go to Step 4.

No

- Replace the Right Rear Fog Lamp Bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (L239) REAR FOG LAMP CONTROL CIRCUIT SHORTED TO GROUND

1. Turn the ignition off.
2. Disconnect the TIPM C6 harness connector.
3. Disconnect the Left and Right Rear Fog Lamp harness connectors.
4. Measure the resistance between ground and the (L239) Rear Fog Lamp Control circuit.

Is the resistance above 10k Ohms?

Yes

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

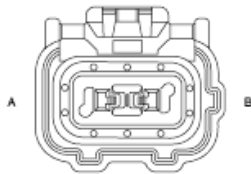
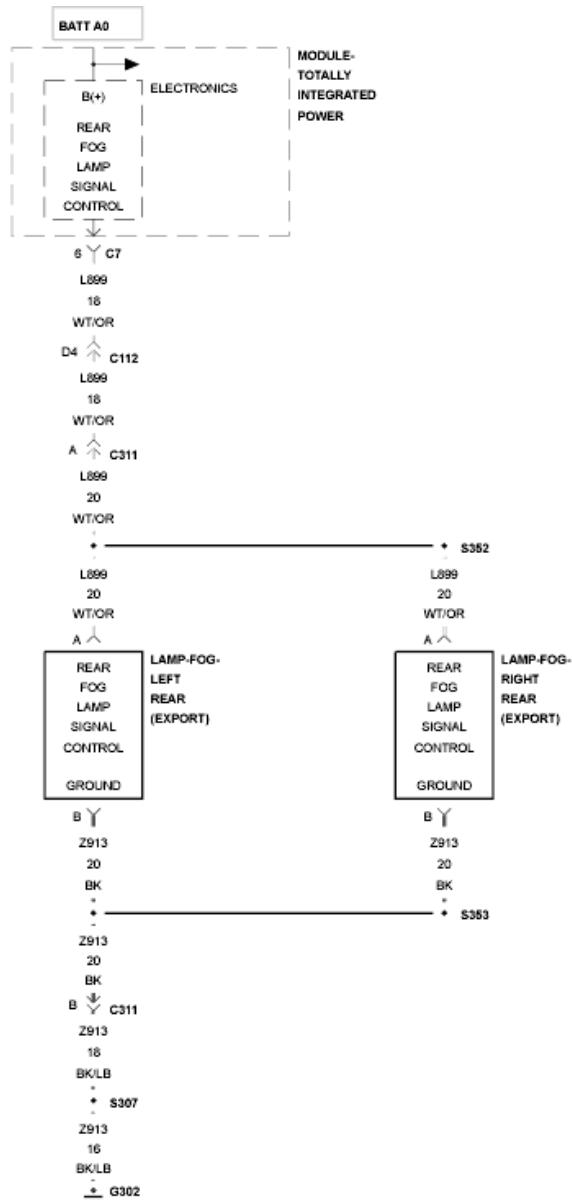
No

- Repair the (L239) Rear Fog Lamp Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

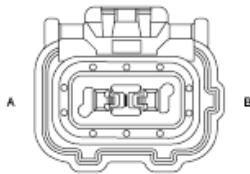
B1664-REAR FOG LAMP CONTROL CIRCUIT HIGH

2009 Dodge Journey R/T

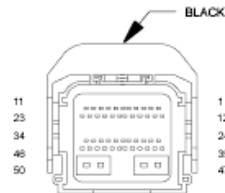
2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey



LAMP-FOG-
LEFT
REAR
(EXPORT)



LAMP-FOG-
RIGHT
REAR
(EXPORT)



MODULE-
TOTALLY
INTEGRATED
POWER C7

8011ca77

Fig. 5: Rear Fog Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to SYSTEM WIRING DIAGRAMS.

- **When Monitored:**

Continuously.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) Detects a HIGH condition.

Possible Causes
(L239) REAR FOG LAMP CONTROL CIRCUIT OPEN
(L239) REAR FOG LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
LEFT AND/OR RIGHT REAR FOG LAMP BULBS
TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST**1. INTERMITTENT CONDITION**

1. Turn the ignition on.
2. With the scan tool, clear all DTC's.
3. Turn the Rear Fog Lamps on.
4. With the scan tool, read DTC's.

Does the scan tool display active: B1664-REAR FOG LAMP CONTROL CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. LEFT AND RIGHT REAR FOG LAMP BULBS

1. Turn the ignition off.
2. Remove the Left and Right Fog Lamp Bulbs.
3. Inspect the Left and Right Fog Lamp Bulbs.

Are the inoperative bulbs OK?

Yes

- Go to Step 3.

No

- Replace the Inoperative bulb(s) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. (L239) REAR FOG LAMP CONTROL CIRCUIT OPEN

1. Disconnect the TIPM C6 harness connector.
2. Disconnect the Left and Right Rear Fog Lamp harness connectors.
3. Measure the resistance of the (L239) Rear Fog Lamp Control circuit between the Left and Right Rear Fog Lamp harness connectors and the TIPM C6 harness connector.

Is the resistance below 10.0 Ohms?

Yes

- Go to Step 4.

No

- Repair the (L239) Rear Fog Lamp Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (L239) REAR FOG LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L239) Rear Fog Lamp Control circuit.

Is there any voltage present?

Yes

- Repair the (L239) Rear Fog Lamp Control circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B166B-LEFT TRAILER TOW LAMP CONTROL CIRCUIT LOW

For complete wiring diagrams refer to SYSTEM WIRING DIAGRAMS .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) Detects a LOW condition.

Possible Causes
(L673) LEFT TRAILER TOW LAMP CONTROL CIRCUIT SHORT TO GROUND TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTC's.
3. Turn on the Left Turn Signal.
4. With the scan tool, read DTC's.

Does the scan tool display active: B166B-LEFT TRAILER TOW LAMP CONTROL CIRCUIT LOW?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .

2. (L673) LEFT TRAILER TOW LAMP CONTROL CIRCUIT SHORT TO GROUND

1. Turn the ignition off.
2. Disconnect the TIPM C6 harness connector.
3. Measure the resistance between ground and the (L673) Left Trailer Tow Lamp Control circuit.

Is the resistance above 10k Ohms?

Yes

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (L673) Left Trailer Tow Lamp Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B166C-LEFT TRAILER TOW LAMP CONTROL CIRCUIT HIGH

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

• **When Monitored:**

With the ignition on.

• **Set Condition:**

The Totally Integrated Power Module (TIPM) detects an high condition.

Possible Causes

(L673) LEFT TRAILER TOW LAMP CONTROL CIRCUIT OPEN
(L673) LEFT TRAILER TOW LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn on the Left Turn Signal.
4. With the scan tool, read DTCs.

Does the scan tool display active: B166C-LEFT TRAILER TOW LAMP CONTROL CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. (L673) LEFT TRAILER TOW LAMP CONTROL CIRCUIT OPEN

1. Turn the ignition off.
2. Disconnect the TIPM C6 harness connector.
3. Disconnect the Left Trailer Tow Lamp harness connectors.
4. Measure the resistance of the (L673) Left Trailer Tow Lamp Control circuit between the Left Trailer Tow Lamp harness connectors and the TIPM C6 harness connector.

Does the Ohm meter read open circuit?

Yes

- Repair the (L673) Left Trailer Tow Lamp Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 3.

3. (L673) LEFT TRAILER TOW LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure the voltage on the (L673) Left Trailer Tow Lamp Control circuit.

Is there any voltage present?

Yes

- Repair the (L673) Left Trailer Tow Lamp Control circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B166F-RIGHT TRAILER TOW LAMP CONTROL CIRCUIT LOW

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

With the ignition on.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) Detects a LOW condition.

Possible Causes
(L674) RIGHT TRAILER TOW LAMP CONTROL CIRCUIT SHORT TO GROUND TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTC's.
3. Turn on the Right Turn Signal.
4. With the scan tool, read DTC's.

Does the scan tool display active: B166F-RIGHT TRAILER TOW LAMP CONTROL CIRCUIT LOW?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. (L674) RIGHT TRAILER TOW LAMP CONTROL CIRCUIT SHORT TO GROUND

1. Turn the ignition off.

2. Disconnect the TIPM C6 harness connector.
3. Measure the resistance between ground and the (L674) Right Trailer Tow Lamp Control circuit.

Is the resistance above 10k Ohms?

Yes

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (L674) Right Trailer Tow Lamp Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1670-RIGHT TRAILER TOW LAMP CONTROL CIRCUIT HIGH

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously

- **Set Condition:**

The Totally Integrated Power Module (TIPM) Detects a high condition.

Possible Causes
(L674) RIGHT TRAILER TOW LAMP CONTROL CIRCUIT OPEN
(L674) RIGHT TRAILER TOW LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn on the Right Turn Signal.
4. With the scan tool, read DTCs.

Does the scan tool display active: B1670-RIGHT TRAILER TOW LAMP CONTROL CIRCUIT

HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. (L674) RIGHT TRAILER TOW LAMP CONTROL CIRCUIT OPEN

1. Turn the ignition off.
2. Disconnect the TIPM C6 harness connector.
3. Disconnect the Right Trailer Tow Lamp harness connectors.
4. Measure the resistance of the (L674) Right Trailer Tow Lamp Control circuit between the Right Trailer Tow Lamp harness connectors and the TIPM C6 harness connector.

Does the Ohm meter read open circuit?

Yes

- Repair the (L674) Right Trailer Tow Lamp Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to Step 3.

3. (L674) RIGHT TRAILER TOW LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure the voltage on the (L674) Right Trailer Tow Lamp Control circuit.

Is there any voltage present?

Yes

- Repair the (L674) Right Trailer Tow Lamp Control circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

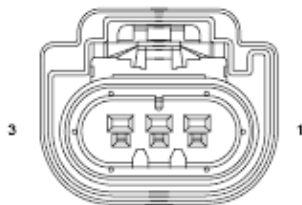
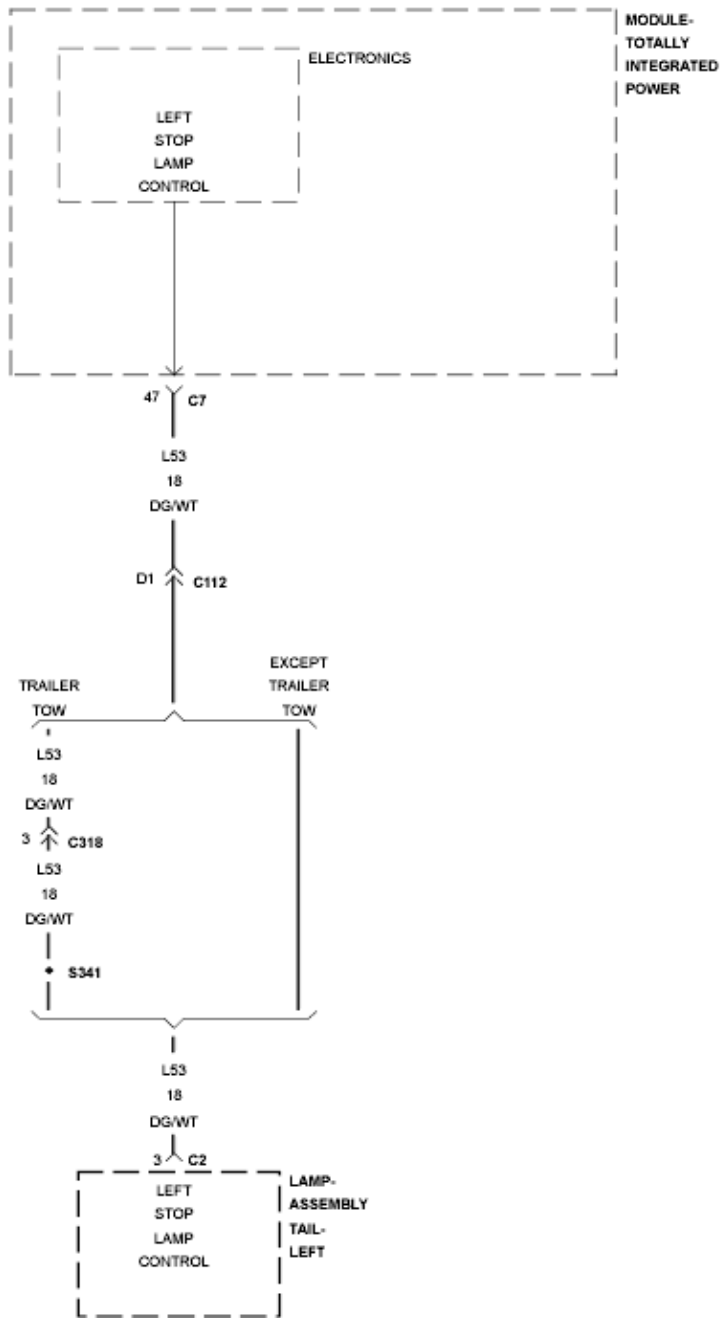
No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

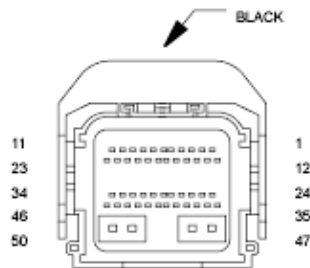
B17B8-LEFT STOP LAMP CONTROL CIRCUIT OVERCURRENT

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey



LAMP-
ASSEMBLY



MODULE-
TOTAL I V

Fig. 6: Left Stop Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a OVERCURRENT condition.

Possible Causes
(L53) LEFT STOP LAMP CONTROL CIRCUIT SHORTED TO GROUND (L53) LEFT STOP LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn the Left Turn Signals on.
4. With the scan tool, read DTCs.

Does the scan tool read active: B17B8-LEFT STOP LAMP CONTROL CIRCUIT OVERCURRENT?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. LEFT STOP LAMP BULB

1. Turn the ignition off.
2. Remove Left Stop Lamp Bulb.

3. Inspect the Left Stop Lamp Bulb.

Is the inoperative bulb OK?

Yes

- Go to Step 3.

No

- Replace the Inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. (L53) LEFT STOP LAMP CONTROL CIRCUIT SHORTED TO GROUND

1. Disconnect the TIPM C7 harness connector.
2. Disconnect the Left Stop Lamp harness connector.
3. Measure the resistance between ground and the (L53) Left Stop Lamp Control circuit.

Is the resistance above 10k Ohms?

Yes

- Go to Step 4.

No

- Repair the (L53) Left Stop Lamp Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (L53) LEFT STOP LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L53) Left Stop Lamp Control circuit.

Is there any voltage present?

Yes

- Repair the (L543) Left Stop Lamp Control circuit short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

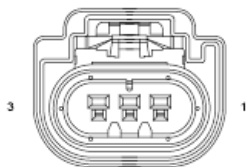
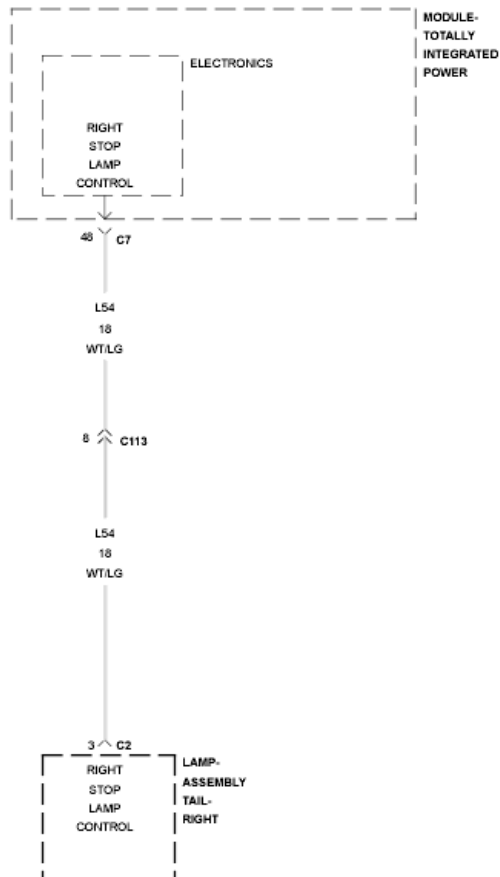
No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service

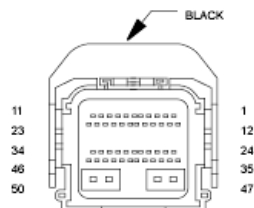
Information.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

B17B9-RIGHT STOP LAMP CONTROL CIRCUIT OVERCURRENT



LAMP-
ASSEMBLY
TAIL-
RIGHT C2



MODULE-
TOTALLY
INTEGRATED
POWER C7

Fig. 7: Right Stop Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a OVERCURRENT condition.

Possible Causes
(L54) RIGHT STOP LAMP CONTROL CIRCUIT SHORTED TO GROUND
(L54) RIGHT STOP LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn the Left Turn Signal on.
4. With the scan tool, read DTCs.

Does the scan tool display active: B17B9-RIGHT STOP LAMP CONTROL CIRCUIT OVERCURRENT?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. RIGHT STOP LAMP BULB

1. Turn the ignition off.
2. Remove Right Stop Lamp Bulb.

3. Inspect the Right Stop Lamp Bulb.

Is the inoperative bulb OK?

Yes

- Go to Step 3.

No

- Replace the Inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. (L54) RIGHT STOP LAMP CONTROL CIRCUIT SHORTED TO GROUND

1. Disconnect the TIPM C7 harness connector.
2. Disconnect the Right Stop Lamp harness connector.
3. Measure the resistance between ground and the (L54) Right Stop Lamp Control circuit.

Is the resistance above 10k Ohms?

Yes

- Go to Step 4.

No

- Repair the (L54) Right Stop Lamp Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (L54) RIGHT STOP LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L54) Right Stop Lamp Control circuit.

Is there any voltage present?

Yes

- Repair the (L54) Right Stop Lamp Control circuit short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service

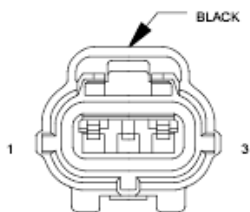
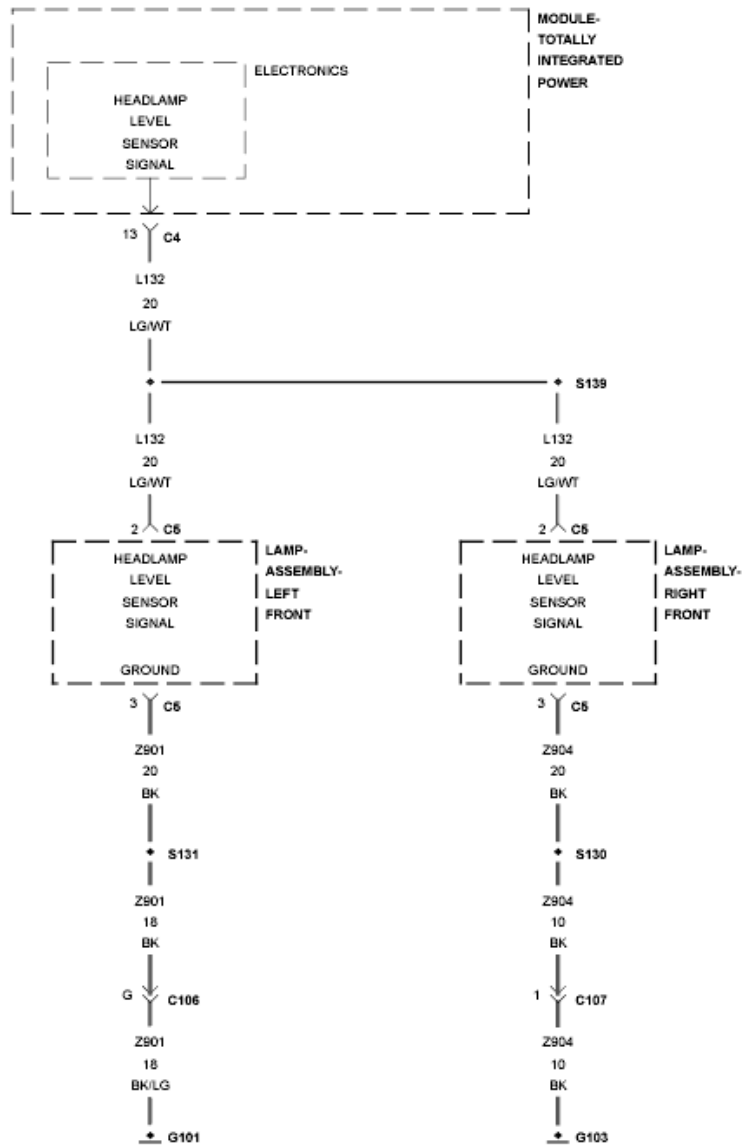
Information.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

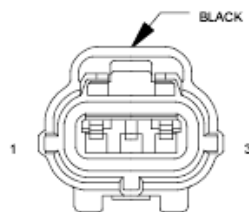
B17BA-HEADLAMP LEVELING MOTOR CONTROL CIRCUIT OVERCURRENT

2009 Dodge Journey R/T

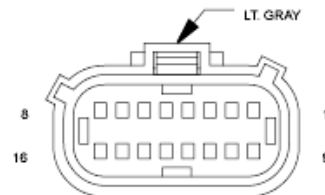
2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey



LAMP-
ASSEMBLY-
LEFT
FRONT C5
(EXPORT)



LAMP-
ASSEMBLY-
RIGHT
FRONT C5
(EXPORT)



MODULE-
TOTALLY
INTEGRATED
POWER C4

Fig. 8: Headlamp Leveling Motor Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

• **When Monitored:**

Continuously.

• **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a OVERCURRENT condition.

Possible Causes

(L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT SHORTED TO GROUND
(L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn the Headlamps on.
4. With the scan tool, read DTCs.

Does the scan tool display active: B17BA-HEADLAMP LEVELING MOTOR CONTROL CIRCUIT OVERCURRENT?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. (L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT SHORTED TO GROUND

1. Turn the ignition off.
2. Disconnect the TIPM C7 harness connector.
3. Disconnect the Headlamp harness connector.
4. Measure the resistance between ground and the (L133) Headlamp Leveling Motor Control circuit.

Is the resistance above 10k Ohms?

Yes

- Go to Step 3.

No

- Repair the (L133) Headlamp Leveling Motor Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. (L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L133) Headlamp Leveling Motor Control circuit.

Is there any voltage present?

Yes

- Repair the (L133) Headlamp Leveling Motor Control circuit short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B17BD-LEFT SIDEMARKER LAMP CONTROL CIRCUIT HIGH

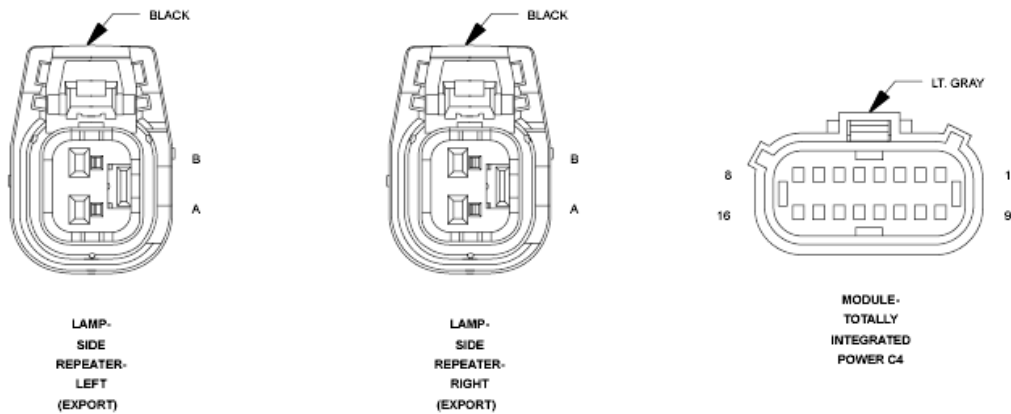
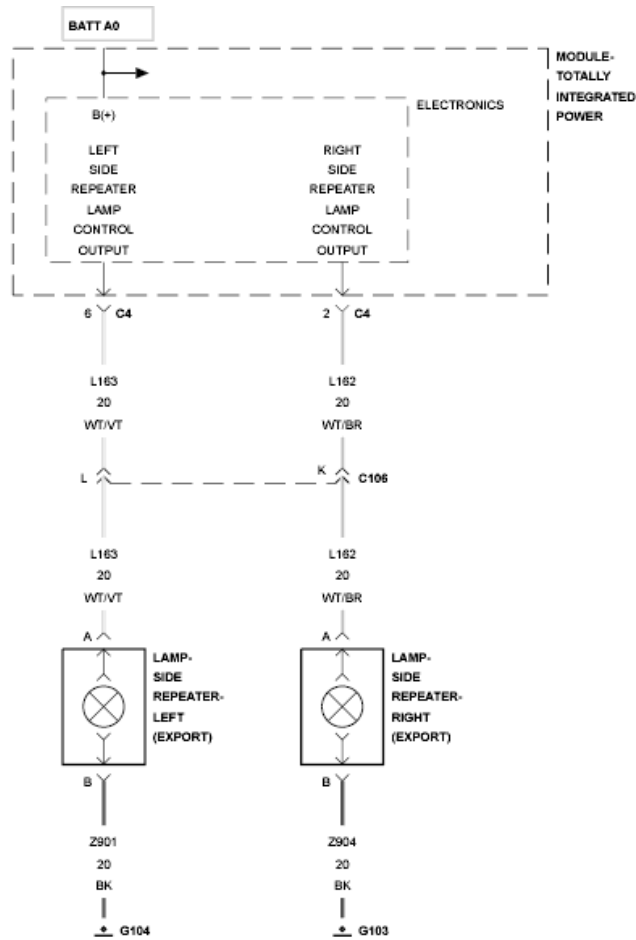


Fig. 9: Sidemarker Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS**.

• **When Monitored:**

Continuously.

• **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a HIGH condition.

Possible Causes

(L163) LEFT SIDEMARKER LAMP CONTROL CIRCUIT OPEN
(L163) LEFT SIDEMARKER LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTC's
3. Turn the Left Turn Signal on.
4. With the scan tool, read DTC's.

Does the scan tool display active: B17BD-LEFT SIDEMARKER LAMP CONTROL CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. LEFT REAR TURN SIGNAL BULB

1. Turn the ignition off.
2. Remove Left Rear Turn Signal Bulb.
3. Inspect the Left Rear Turn Signal Bulb.

Is the inoperative bulb OK?

Yes

- Go to Step 3.

No

- Replace the Inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. (L163) LEFT SIDEMARKER LAMP CONTROL CIRCUIT OPEN

1. Disconnect the TIPM C4 harness connector.
2. Disconnect the Left Sidemarker Lamp assembly harness connector.
3. Measure the resistance of the (L163) Left Sidemarker Lamp Control circuit between the Left Sidemarker Lamp assembly harness connector and the TIPM C4 harness connector.

Does the Ohm meter read open circuit?

Yes

- Repair the (L163) Left Sidemarker Lamp Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 4.

4. (L163) LEFT SIDEMARKER LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L163) Left Sidemarker Lamp Control circuit.

Is there any voltage present?

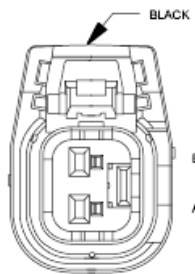
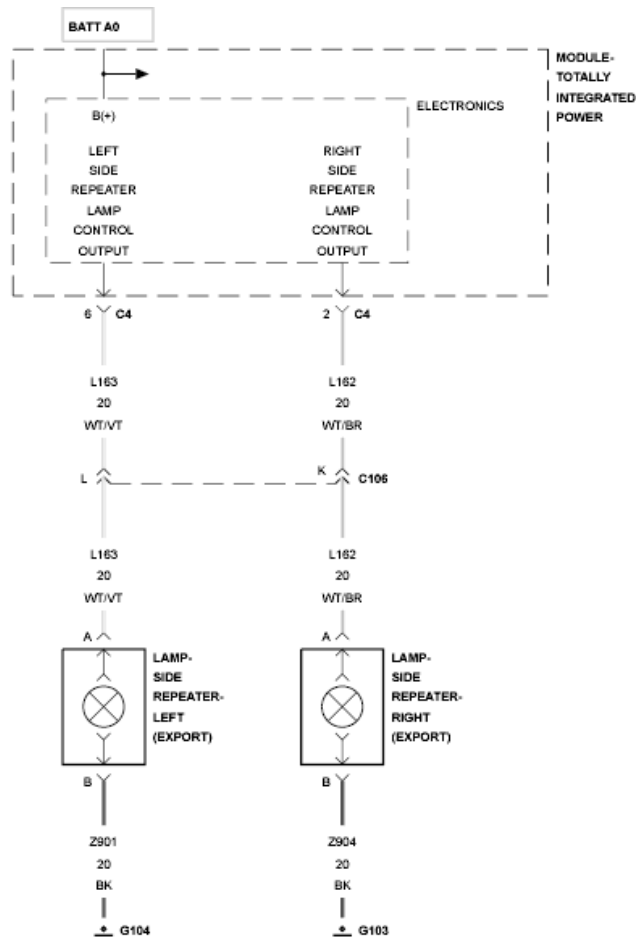
Yes

- Repair the (L163) Left Sidemarker Lamp Control circuit short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

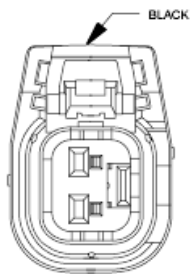
No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

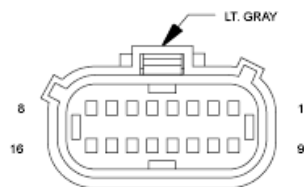
B17BF-LEFT SIDEMARKER LAMP CONTROL CIRCUIT OVERCURRENT



LAMP-
SIDE
REPEATER-
LEFT
(EXPORT)



LAMP-
SIDE
REPEATER-
RIGHT
(EXPORT)



MODULE-
TOTALLY
INTEGRATED
POWER C4

02/480350

Fig. 10: Sidemarker Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a overcurrent condition.

Possible Causes
(L163) LEFT SIDE REPEATER LAMP CONTROL OUTPUT CIRCUIT SHORTED TO GROUND
(L163) LEFT SIDE REPEATER LAMP CONTROL OUTPUT CIRCUIT SHORTED TO VOLTAGE
LEFT SIDE REPEATER LAMP BULB
TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn the Left Turn Signal on.
4. With the scan tool, read DTCs.

Does the scan tool display active DTC B17BF-LEFT SIDEMARKER LAMP CONTROL CIRCUIT OVERCURRENT?

Yes

- Go to Step 2.

No

- Test complete, the condition or conditions that originally set this DTC are not present at this time. Using **Fig. 10** 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. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. LEFT SIDE REPEATER LAMP BULB

1. Turn the ignition off.
2. Remove Left Side Repeater Lamp.
3. Inspect the Left Side Repeater Lamp bulb.

Is the inoperative bulb OK?

Yes

- Go to Step 3.

No

- Replace the inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. (L163) LEFT SIDE REPEATER LAMP CONTROL OUTPUT CIRCUIT SHORTED TO GROUND

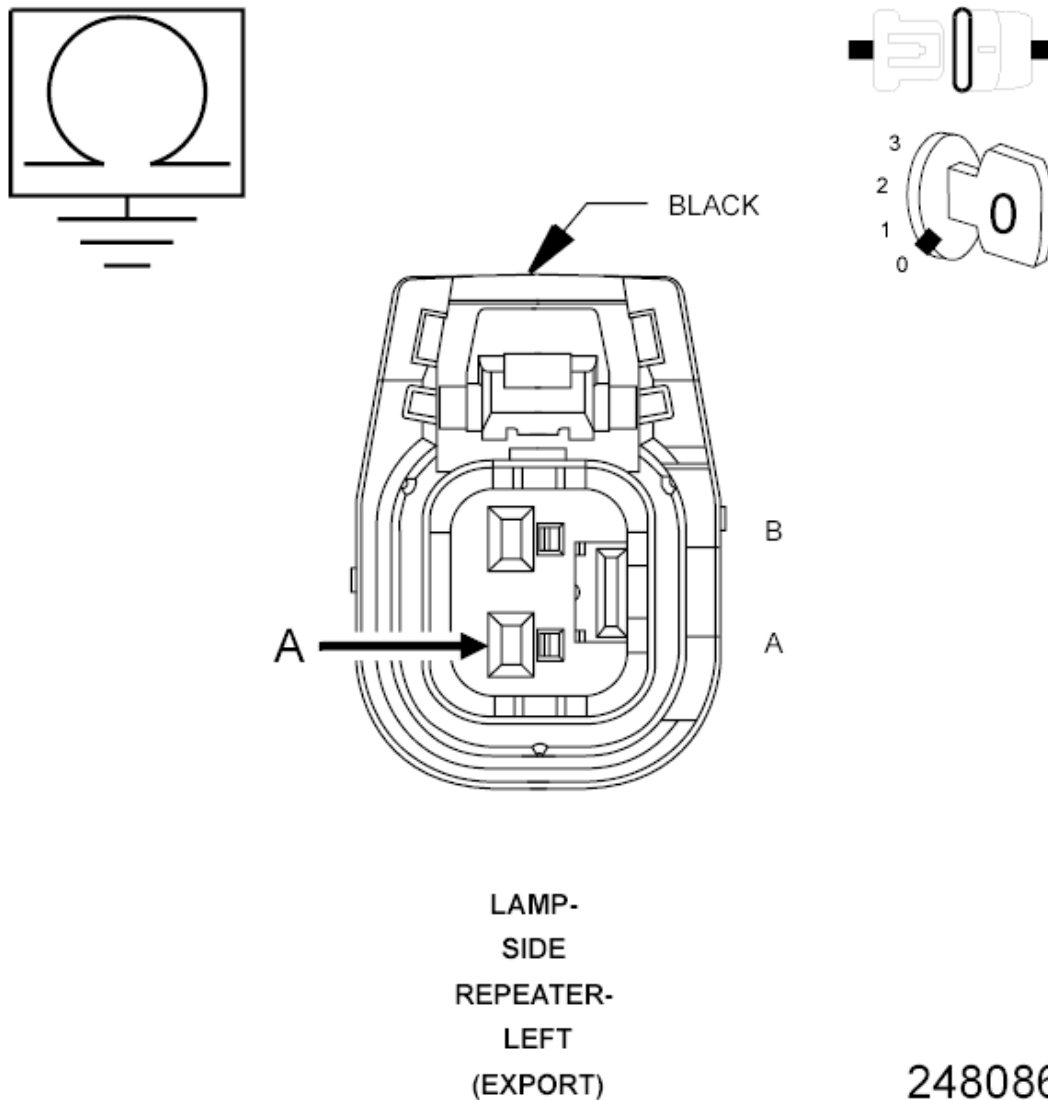


Fig. 11: Measuring Resistance Between Ground & Left Side Repeater Lamp Control Output Circuit

Courtesy of CHRYSLER LLC

1. Disconnect the TIPM C4 harness connector.
2. Disconnect the Left Side Repeater Lamp harness connector.
3. Measure the resistance between ground and the (L163) Left Side Repeater Lamp Control Output circuit.

Is the resistance above 10k Ohms?

Yes

- Go to Step 4.

No

- Repair the short to ground in the (L163) Left Side Repeater Lamp Control Output circuit.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. **(L163) LEFT SIDE REPEATER LAMP CONTROL OUTPUT CIRCUIT SHORTED TO VOLTAGE**

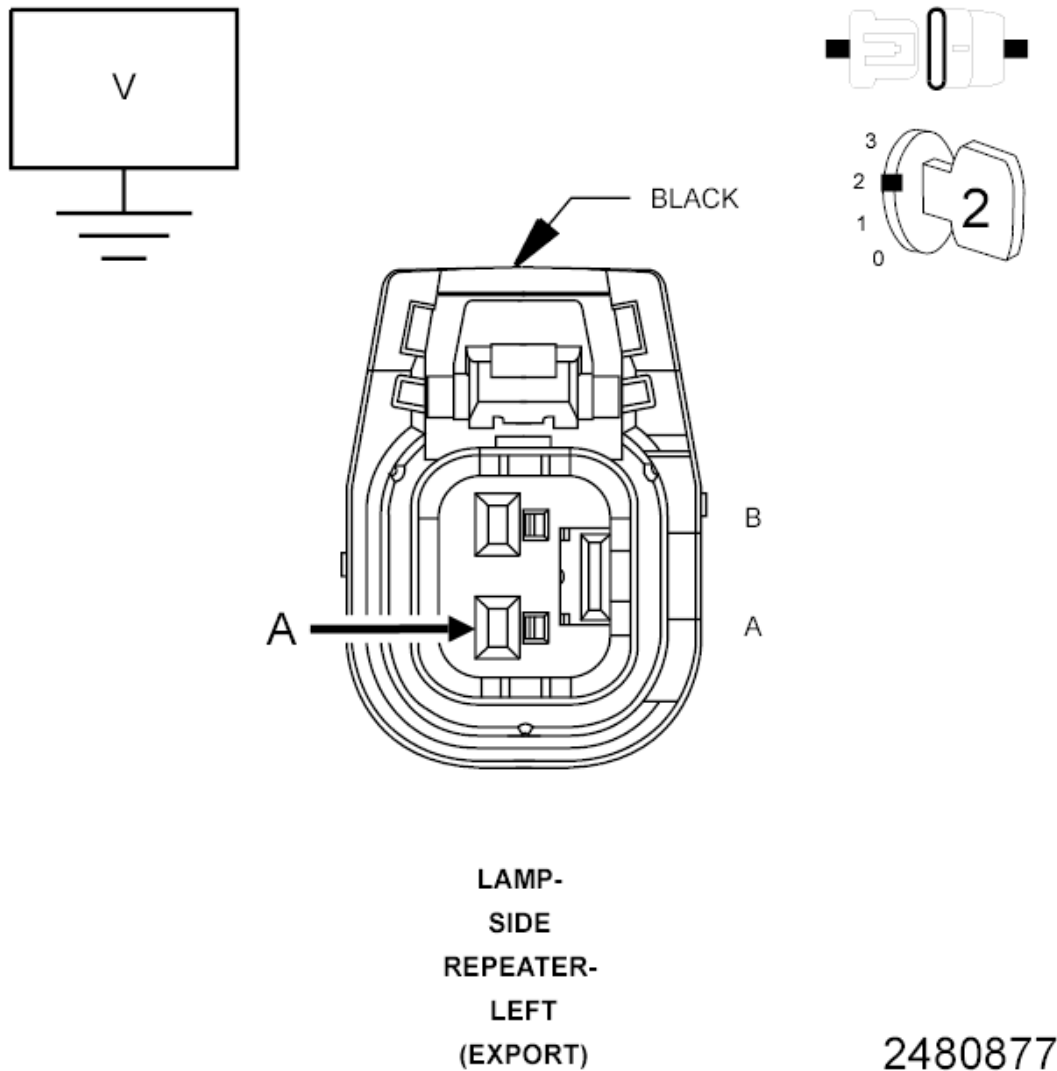


Fig. 12: Measuring Voltage Of Left Side Repeater Lamp Control Output Circuit
Courtesy of CHRYSLER LLC

1. Turn the ignition on.
2. Measure the voltage of the (L163) Left Side Repeater Lamp Control Output circuit.

Is there any voltage present?

Yes

- Repair the short to voltage in the (L163) Left Side Repeater Lamp Control Output circuit.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

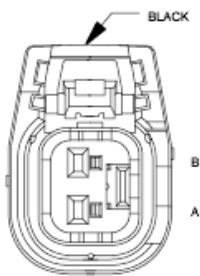
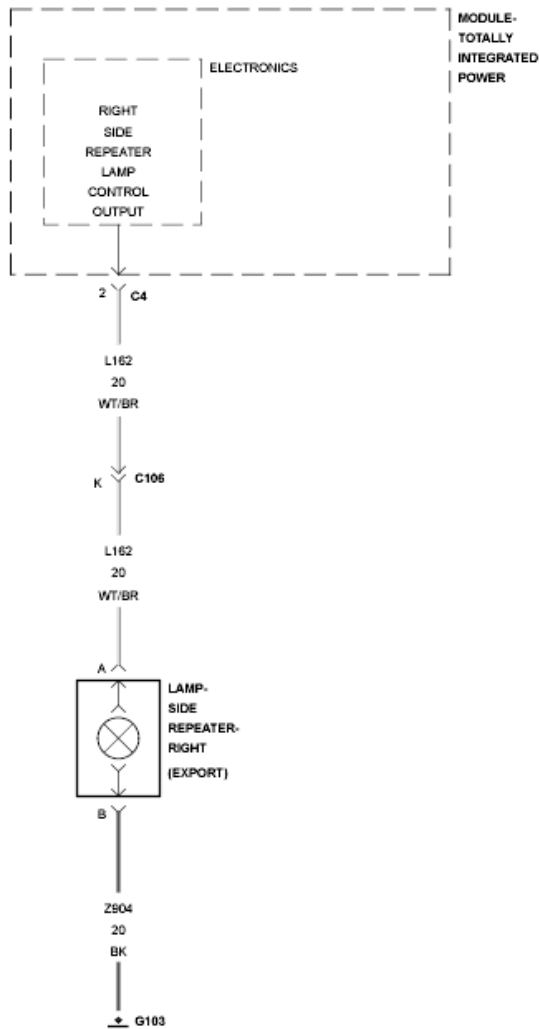
No

- Replace the TIPM in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

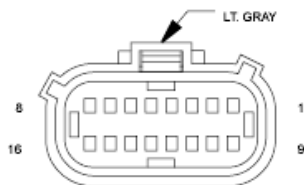
B17C2-RIGHT SIDEMARKER LAMP CONTROL CIRCUIT HIGH

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey



LAMP-SIDE
REPEATER-
RIGHT
(EXPORT)



MODULE-TOTALLY
INTEGRATED
POWER C4

Fig. 13: Right Sidemarker Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to SYSTEM WIRING DIAGRAMS.

• **When Monitored:**

Continuously.

• **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a HIGH condition.

Possible Causes

(L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT OPEN
(L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTC's
3. Turn the Right Turn Signal on.
4. With the scan tool, read DTC's.

Does the scan tool display active: B17C2-RIGHT SIDEMARKER LAMP CONTROL CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. RIGHT REAR TURN SIGNAL BULB

1. Turn the ignition off.
2. Remove Right Rear Turn Signal Bulb.
3. Inspect the Right Rear Turn Signal Bulb.

Is the inoperative bulb OK?

Yes

- Go to Step 3.

No

- Replace the Inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. (L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT OPEN

1. Disconnect the TIPM C4 harness connector.
2. Disconnect the Right Sidemarker Lamp assembly harness connector.
3. Measure the resistance of the (L162) Right Sidemarker Lamp Control circuit between the Right Sidemarker Lamp assembly harness connector and the TIPM C4 harness connector.

Does the Ohm meter read open circuit?

Yes

- Repair the (L162) Right Sidemarker Lamp Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 4.

4. (L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L162) Right Sidemarker Lamp Control circuit.

Is there any voltage present?

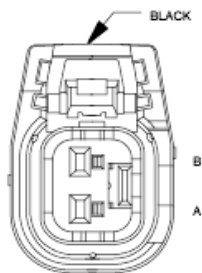
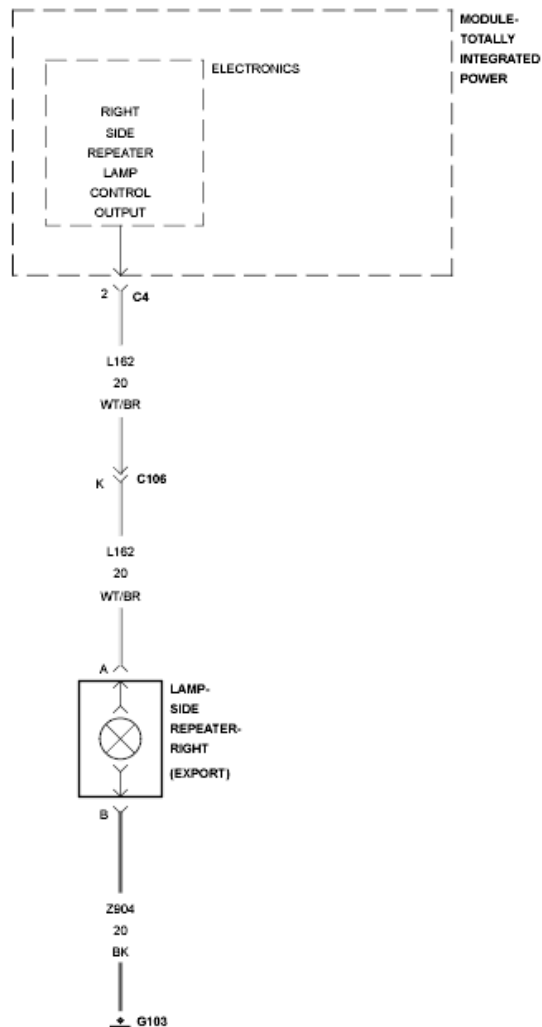
Yes

- Repair the (L162) Right Sidemarker Lamp Control circuit short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

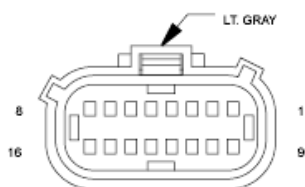
No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B17C4-RIGHT SIDEMARKER LAMP CONTROL CIRCUIT OVERCURRENT



LAMP-SIDE
REPEATER-RIGHT
(EXPORT)



MODULE-TOTALLY
INTEGRATED
POWER C4

Fig. 14: Right Sidemarker Lamp Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a OVERCURRENT condition.

Possible Causes
(L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT SHORTED TO GROUND
(L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE
TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs.
3. Turn the Left Turn Signal on.
4. With the scan tool, read DTCs.

Does the scan tool display active: B17C4-RIGHT SIDEMARKER LAMP CONTROL CIRCUIT OVERCURRENT?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. RIGHT REAR TURN SIGNAL BULB

1. Turn the ignition off.
2. Remove Right Rear Turn Signal Bulb.
3. Inspect the Right Rear Turn Signal Bulb.

Is the inoperative bulb OK?

Yes

- Go to Step 3.

No

- Replace the Inoperative bulb in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. (L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT SHORT TO GROUND

1. Disconnect the TIPM C4 harness connector.
2. Disconnect the Right Sidemarkers Lamp harness connector.
3. Measure the resistance between ground and the (L162) Right Sidemarkers Lamp Control circuit.

Is the resistance above 10k Ohms?

Yes

- Go to Step 4.

No

- Repair the (L162) Right Sidemarkers Lamp Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (L162) RIGHT SIDEMARKER LAMP CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L162) Right Sidemarkers Lamp Control circuit.

Is there any voltage present?

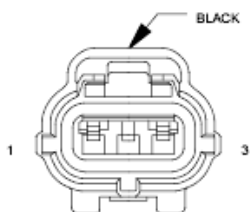
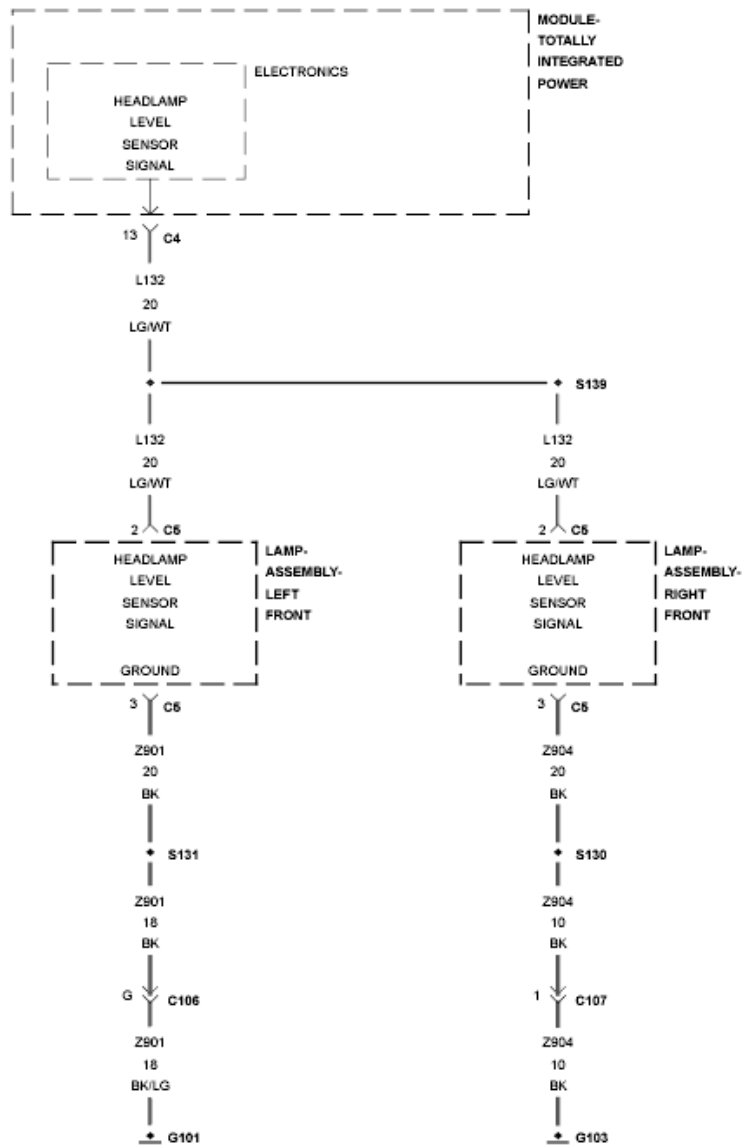
Yes

- Repair the (L162) Right Sidemarkers Lamp Control circuit short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

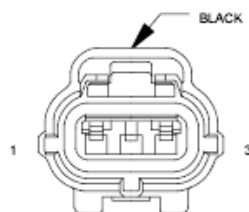
No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

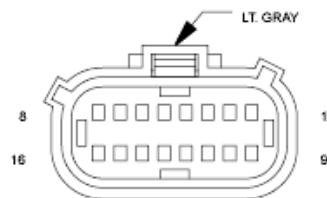
B1789-HEADLAMP LEVELING MOTOR CONTROL CIRCUIT HIGH



LAMP-
ASSEMBLY-
LEFT
FRONT C5
(EXPORT)



LAMP-
ASSEMBLY-
RIGHT
FRONT C5
(EXPORT)



MODULE-
TOTALLY
INTEGRATED
POWER C4

Fig. 15: Headlamp Leveling Motor Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously.

- **Set Condition:**

When the Totally Integrated Power Module (TIPM) detects a high condition.

Possible Causes
(L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT OPEN (L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT SHORTED TO VOLTAGE TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. Turn the ignition on.
2. With the scan tool, clear all DTCs
3. Turn the Headlamps on.
4. With the scan tool, read DTCs.

Does the scan tool display active: B1789-HEADLAMP LEVELING MOTOR CONTROL CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The condition that caused this symptom is currently not present. Check for an intermittent condition by inspecting the related wiring harness for chafed, pierced, pinched, and partially broken wires. Also, inspect the related connectors for broken, bent, pushed out, spread, corroded, or contaminated terminals. Repair as necessary.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. (L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT OPEN

1. Turn the ignition off.
2. Disconnect the TIPM C7 harness connector.

3. Disconnect the Headlamp assembly harness connector.
4. Measure the resistance of the (L133) Headlamp Leveling Motor Control circuit between the Headlamp assembly harness connector and the TIPM C7 harness connector.

Does the Ohm meter read open circuit?

Yes

- Repair the (L133) Headlamp Leveling Motor Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 3.

3. (L133) HEADLAMP LEVELING MOTOR CONTROL CIRCUIT SHORTED TO VOLTAGE

1. Turn the ignition on.
2. Measure for voltage on the (L133) Headlamp Leveling Motor Control circuit.

Is there any voltage present?

Yes

- Repair the (L133) Headlamp Leveling Motor Control circuit short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with the Service Information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1801-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW

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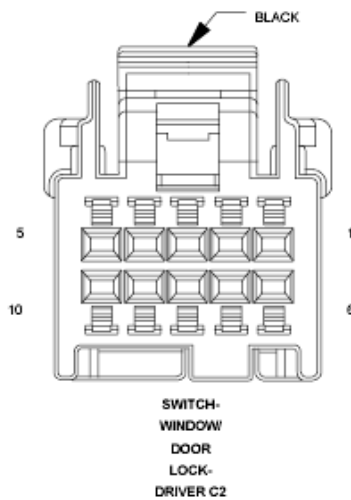
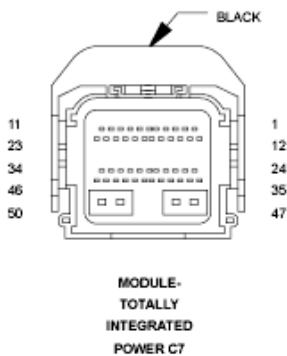
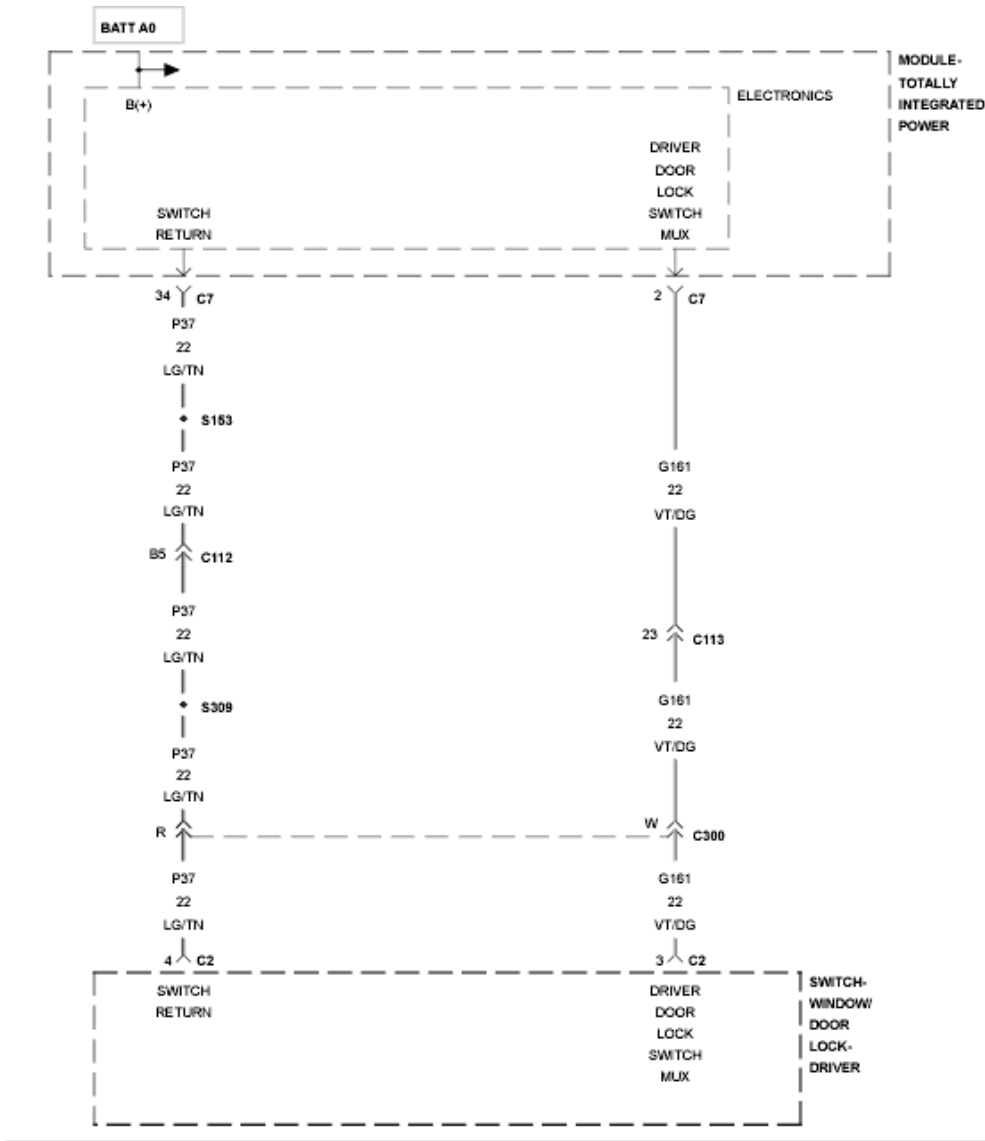


Fig. 16: Driver Door Lock/Unlock Switch - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously

- **Set Condition:**

When the Driver Door Lock Switch MUX circuit is below 0.8 volts for over 10 seconds.

Possible Causes
(G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO GROUND (G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO THE (P37) SWITCH RETURN CIRCUIT WINDOW/DOOR LOCK SWITCH TOTALLY INTEGRATED POWER MODULE (TIPM)

This test is only applicable for vehicles that do not have "Express Up" Power Windows.

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. With the scan tool, record and erase DTCs.
2. Operate the Driver Door Lock Switch in all positions several times.
3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display B1801-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW?

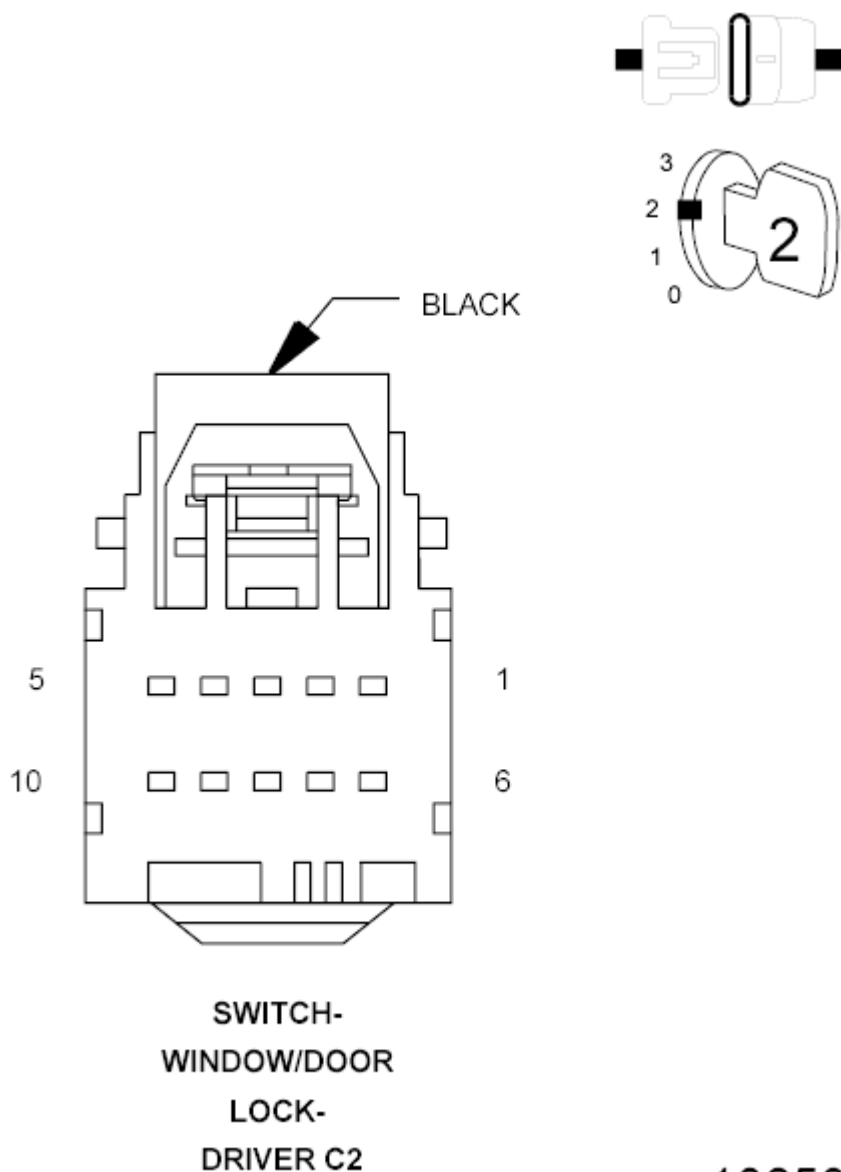
Yes

- Go to Step 2.

No

- The conditions that caused this code to set are not present at this time. Using **Fig. 16** as a guide, inspect the wiring and connectors.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. DOOR LOCK SWITCH SHORTED



106533

Fig. 17: Identifying Driver Window/Door Lock Switch C2 Connector
Courtesy of CHRYSLER LLC

1. With the scan tool, erase DTCs.
2. Disconnect the Driver Window/Door Lock Switch C2 connector.
3. With the scan tool, read DTCs.

Does the scan tool display B1801-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW?

Yes

- Go to Step 3.

No

- Replace the Driver Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. See DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .

3. (G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT SHORT TO GROUND

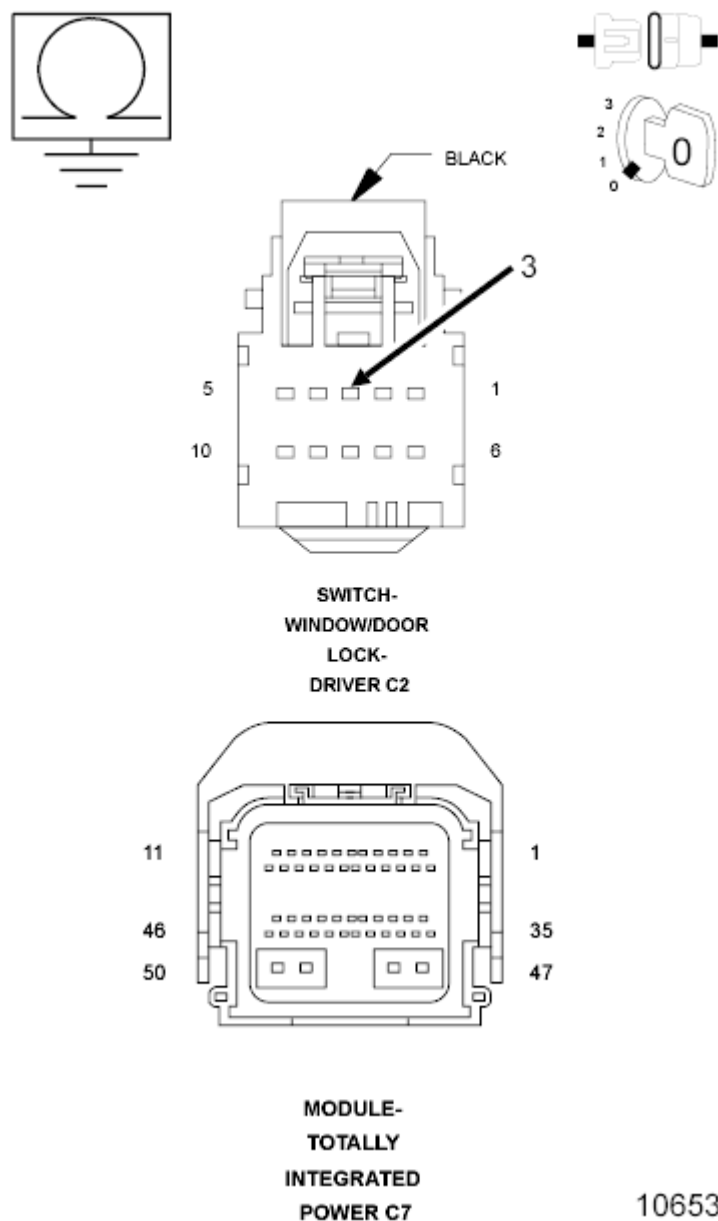


Fig. 18: Measuring Resistance Between Ground & Driver Door Lock Switch MUX Circuit
Courtesy of CHRYSLER LLC

1. Turn the ignition off.

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2. Disconnect the TIPM C7 connector.
3. Measure the resistance between ground and the (G161) Driver Door Lock Switch MUX circuit.

Is the resistance below 1,000.0 Ohms?

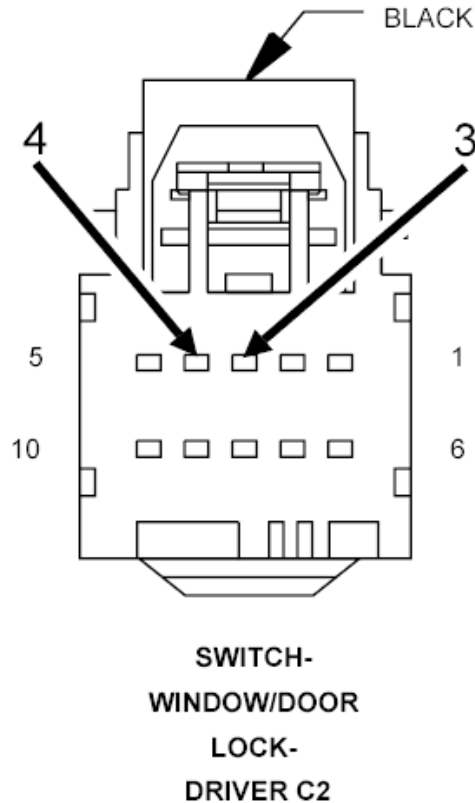
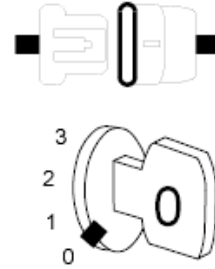
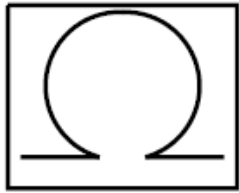
Yes

- Repair the (G161) Driver Door Lock Switch MUX circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 4.

4. **(G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT SHORT TO THE (P37) DOOR LOCK SWITCH RETURN CIRCUIT**



106537

Fig. 19: Measuring Resistance Between Driver Door Lock Switch MUX Circuit & Switch Return Circuit In Switch C2 Connector
Courtesy of CHRYSLER LLC

1. Measure the resistance between the (G161) Driver Door Lock Switch MUX circuit and the (P37) Switch Return circuit in the switch C2 connector.

Is the resistance below 1,000.0 Ohms?

Yes

- Repair the (G161) Driver Door Lock Switch MUX circuit for a short to the (P37) Switch Return circuit.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1806-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW

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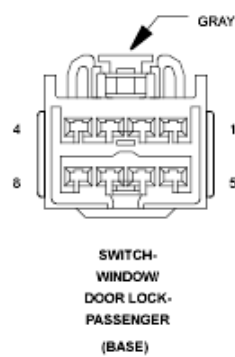
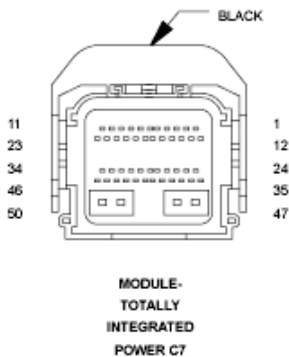
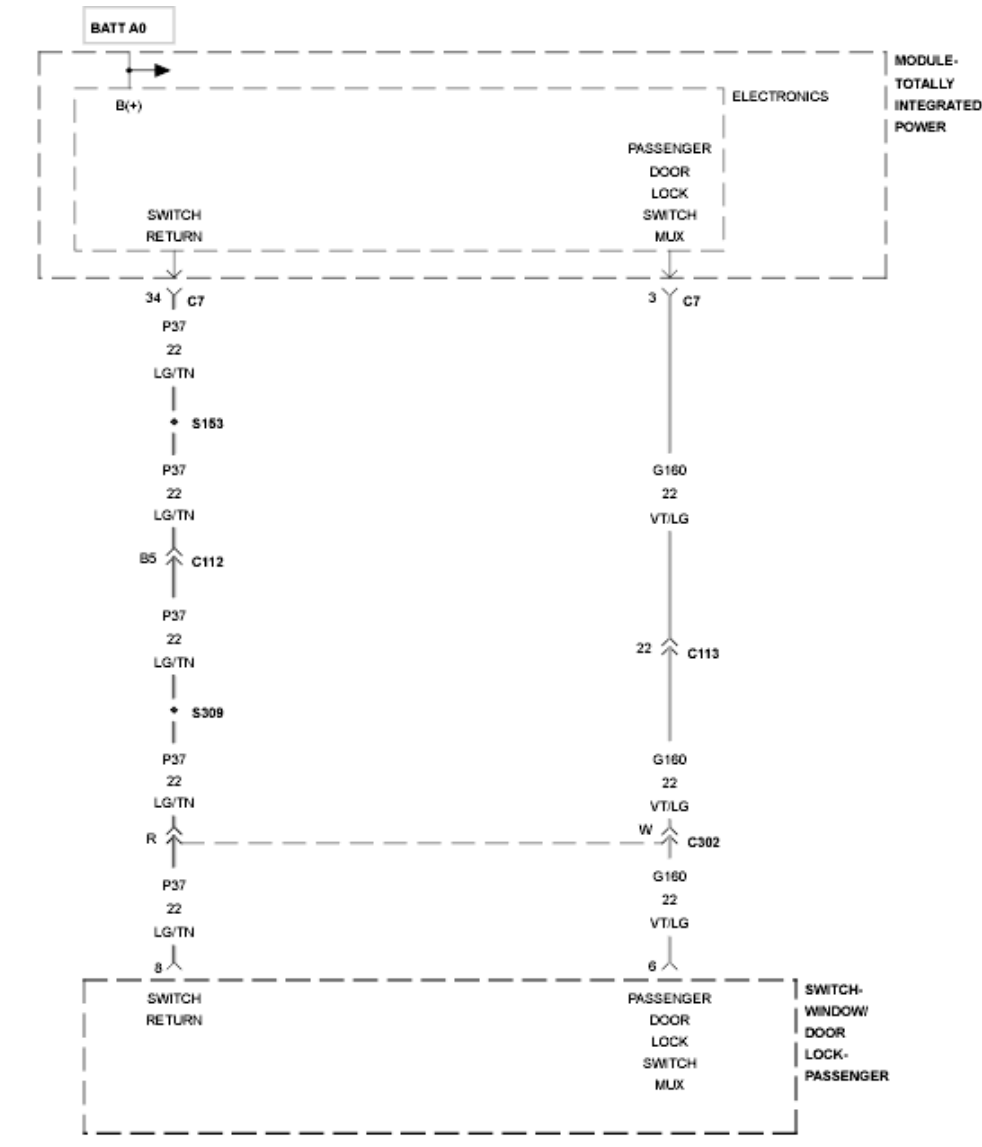


Fig. 20: Passenger Door Lock/Unlock Switch - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously

- **Set Condition:**

When the Passenger Door Lock Switch MUX circuit is below of a 0.8 volt for over 10 seconds.

Possible Causes
(G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO GROUND (G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO THE (P37) DOOR LOCK SWITCH RETURN CIRCUIT WINDOW/DOOR LOCK SWITCH TOTALLY INTEGRATED POWER MODULE (TIPM)

This test is only applicable for vehicles that do not have "Express Up" Power Windows.

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. With the scan tool, record and erase DTCs.
2. Operate the Driver Door Lock Switch in all positions several times.
3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display B1806-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW?

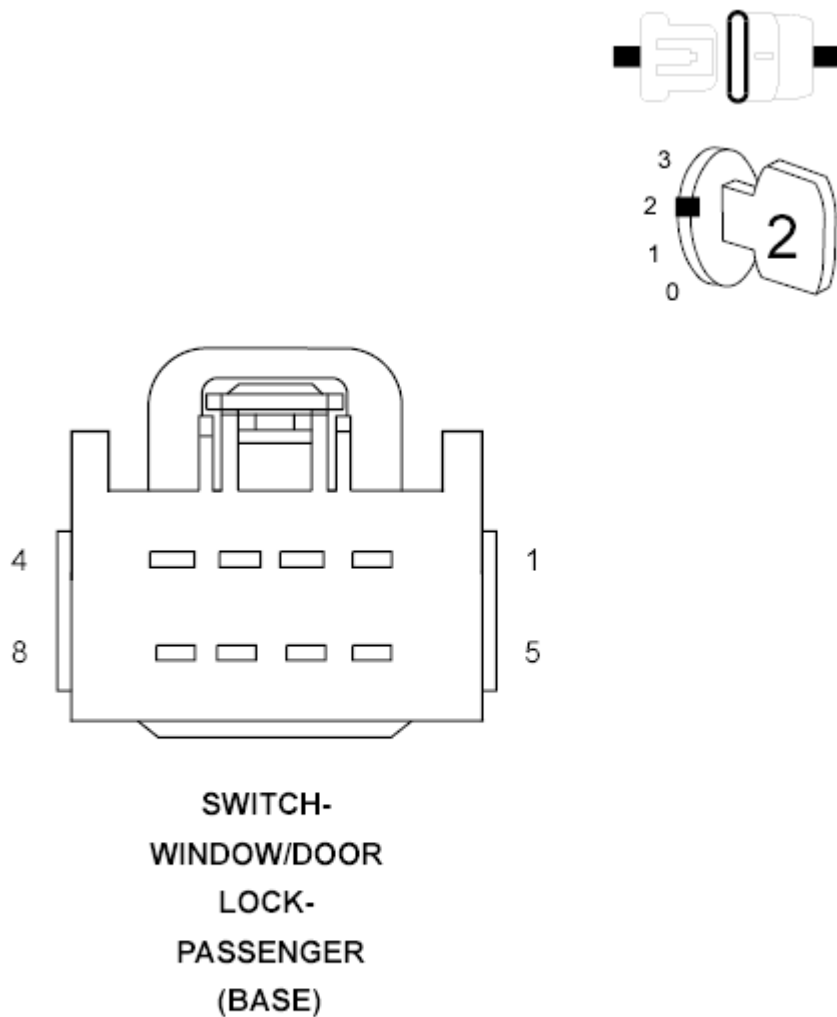
Yes

- Go to Step 2.

No

- The conditions that caused this code to set are not present at this time. Using **Fig. 20** as a guide, inspect the wiring and connectors.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. DOOR LOCK SWITCH SHORTED



106543

Fig. 21: Identifying Passenger Window/Door Lock Switch C2 Connector
Courtesy of CHRYSLER LLC

1. With the scan tool, erase DTCs.
2. Disconnect the Passenger Window/Door Lock Switch C2 connector.
3. With the scan tool, read DTCs.

Does the scan tool display B1806-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT LOW?

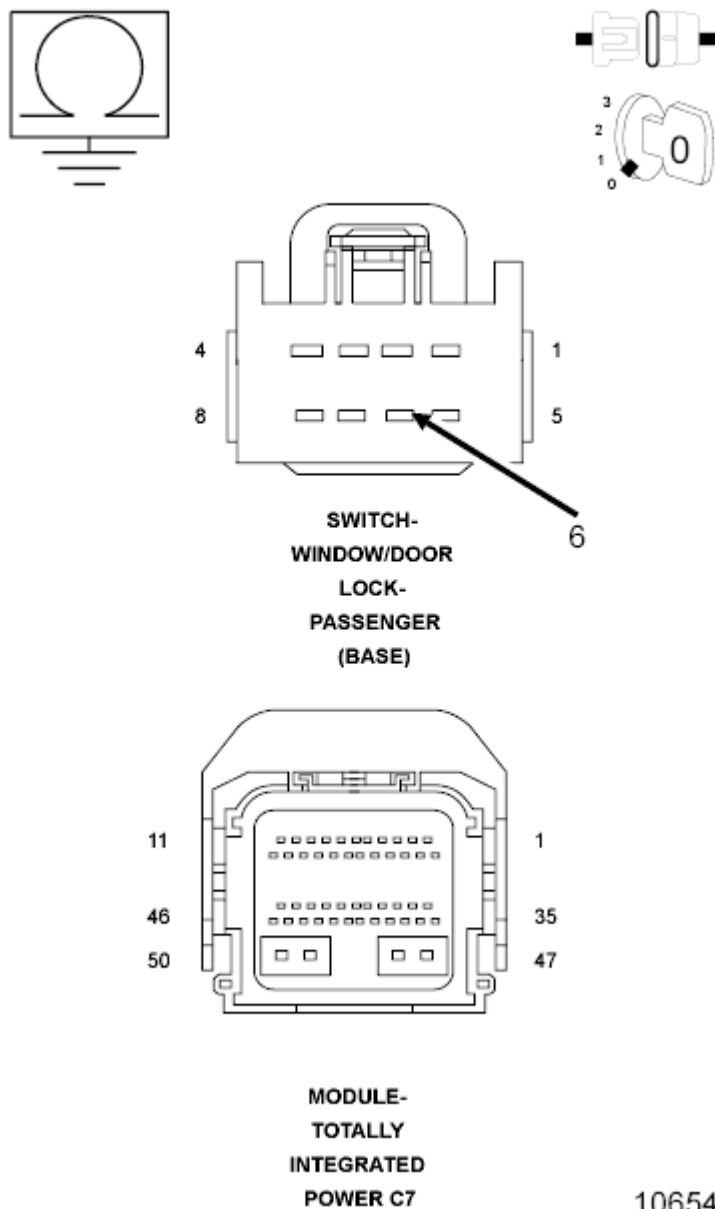
Yes

- Go to Step 3.

No

- Replace the Passenger Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. (G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORT TO GROUND



106545

Fig. 22: Measuring Resistance Between Ground & Passenger DL Switch MUX Circuit In Passenger

Window/DL Switch C2 Connector

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the TIPM C7 connector.
3. Measure the resistance between ground and the (G160) Passenger Door Lock Switch MUX circuit in the Passenger Window/Door Lock Switch C2 connector.

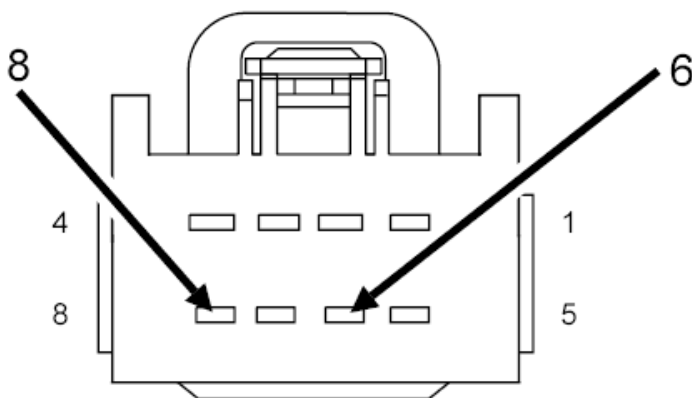
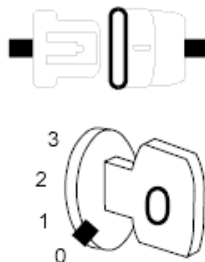
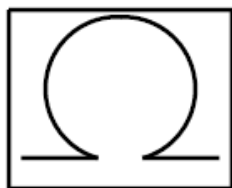
Is the resistance below 1,000.0 Ohms?

Yes

- Repair the (G160) Passenger Door Lock Switch MUX circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 4.
4. **(G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORT TO THE (P37) DOOR LOCK SWITCH RETURN CIRCUIT**



SWITCH-
WINDOW/DOOR
LOCK-
PASSENGER
(BASE)

106547

Fig. 23: Measuring Resistance Between Passenger DL Switch MUX Circuit & DL Switch Return Circuit In Switch C2 Connector
Courtesy of CHRYSLER LLC

1. Measure the resistance between the (G160) Passenger Door Lock Switch MUX circuit and the (P37) Door Lock Switch Return circuit in the switch C2 connector.

Is the resistance below 1,000.0 Ohms?

Yes

- Repair the (G160) Passenger Door Lock Switch MUX circuit for a short to the (P37) Door Lock Switch Return circuit.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1820-HOOD AJAR INPUT CIRCUIT HIGH

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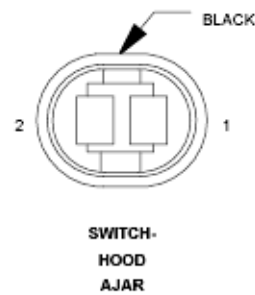
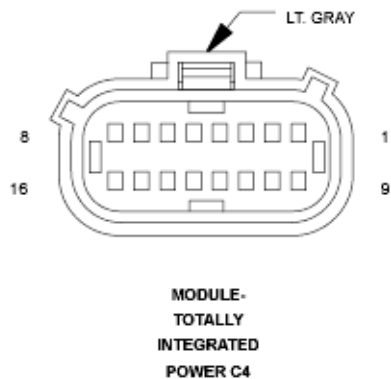
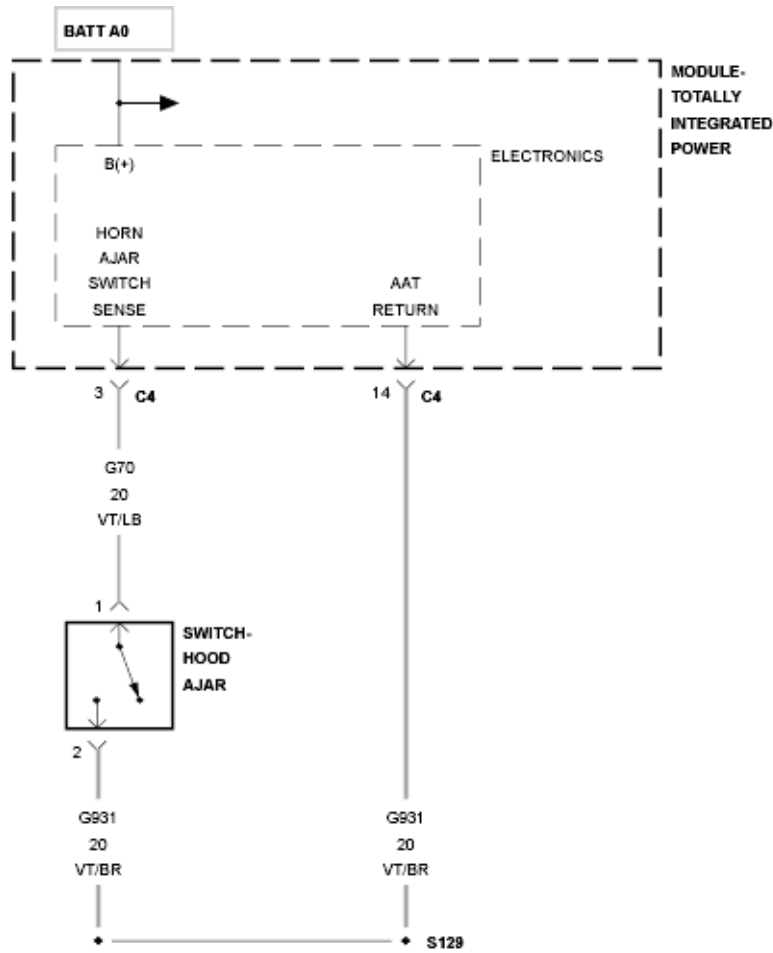


Fig. 24: Hood Ajar Switch - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

Continuously

- **Set Condition:**

When the Totally Integrated Power Module senses 12 volts on the Hood Ajar Switch Sense circuit for over 10 seconds, this code will set.

Possible Causes
(G931) GROUND CIRCUIT OPEN (G70) HOOD AJAR SWITCH SENSE CIRCUIT SHORT TO VOLTAGE (G70) HOOD AJAR SWITCH SENSE CIRCUIT OPEN HOOD AJAR SWITCH OPEN TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

NOTE: Open the hood and ensure the Hood Ajar Switch is connected before proceeding

1. With the scan tool, record and erase DTCs
2. Close the hood.
3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. Open then close the hood.
6. With the scan tool, read DTCs.

Does the scan tool display B1820-HOOD AJAR INPUT CIRCUIT HIGH?

Yes

- Go to Step 2.

No

- The conditions that caused this code to set are not present at this time. Using **Fig. 24** as a

guide, inspect the wiring and connectors.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. INCORRECT HOOD AJAR SWITCH INSTALLED

1. Inspect the retainer ring on the hood ajar switch.
2. A dark brown retainer ring identifies the hood ajar switch used for certain export applications, while a white retainer ring identifies the remote starter system application.

Is the correct switch installed?

Yes

- Go to Step 3.

No

- Replace the Hood Ajar Switch.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. HOOD AJAR SWITCH OPEN

1. Disconnect the Hood Ajar Switch harness connector.
2. Depress the plunger of the hood ajar switch and measure the resistance between the two terminals of the switch.

Is the resistance approximately 1k Ohms?

Yes

- Go to Step 4.

No

- Replace the Hood Ajar Switch.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

4. (G931) GROUND CIRCUIT OPEN

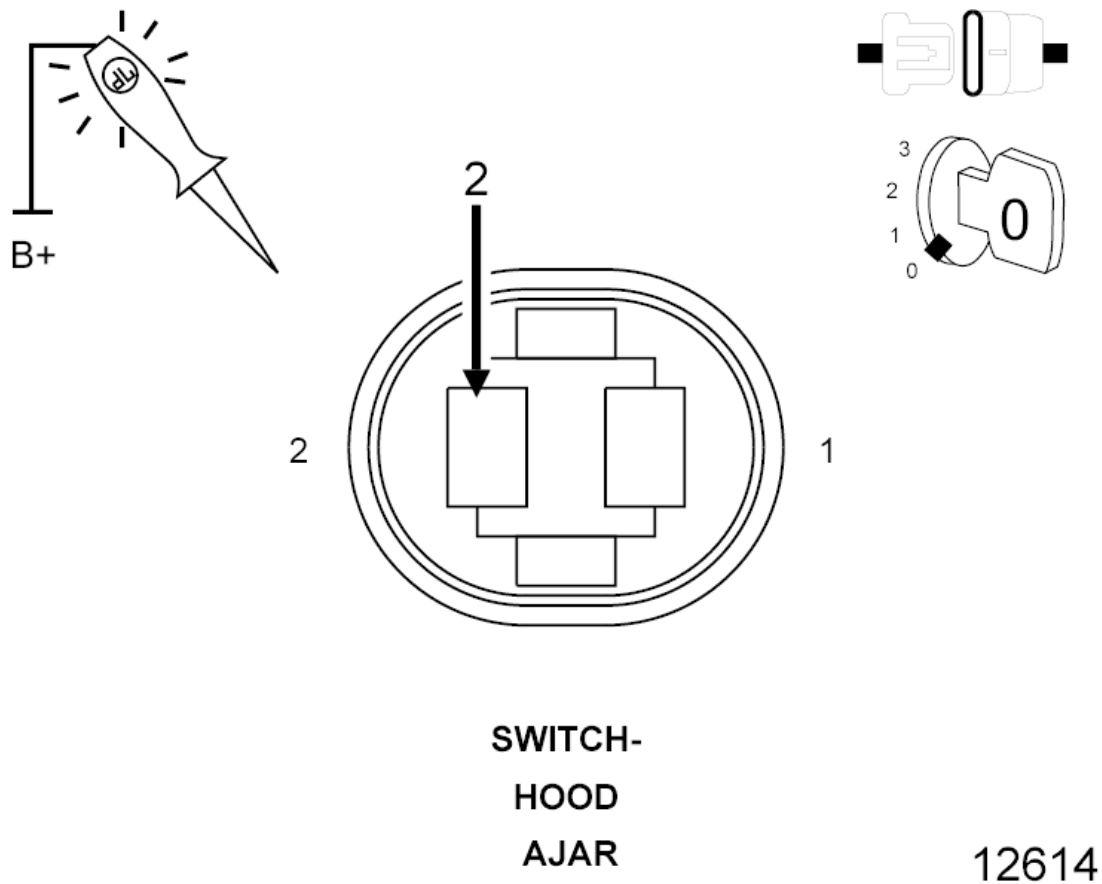


Fig. 25: Checking Ground Circuit For Open
Courtesy of CHRYSLER LLC

1. Using a 12-volt test light connected to 12-volts, check the (G931) Ground circuit.

Does the test light illuminate?

Yes

- Go to Step 5.

No

- Repair the (G931) Ground circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

5. (G70) HOOD AJAR SWITCH SENSE CIRCUIT SHORT TO VOLTAGE

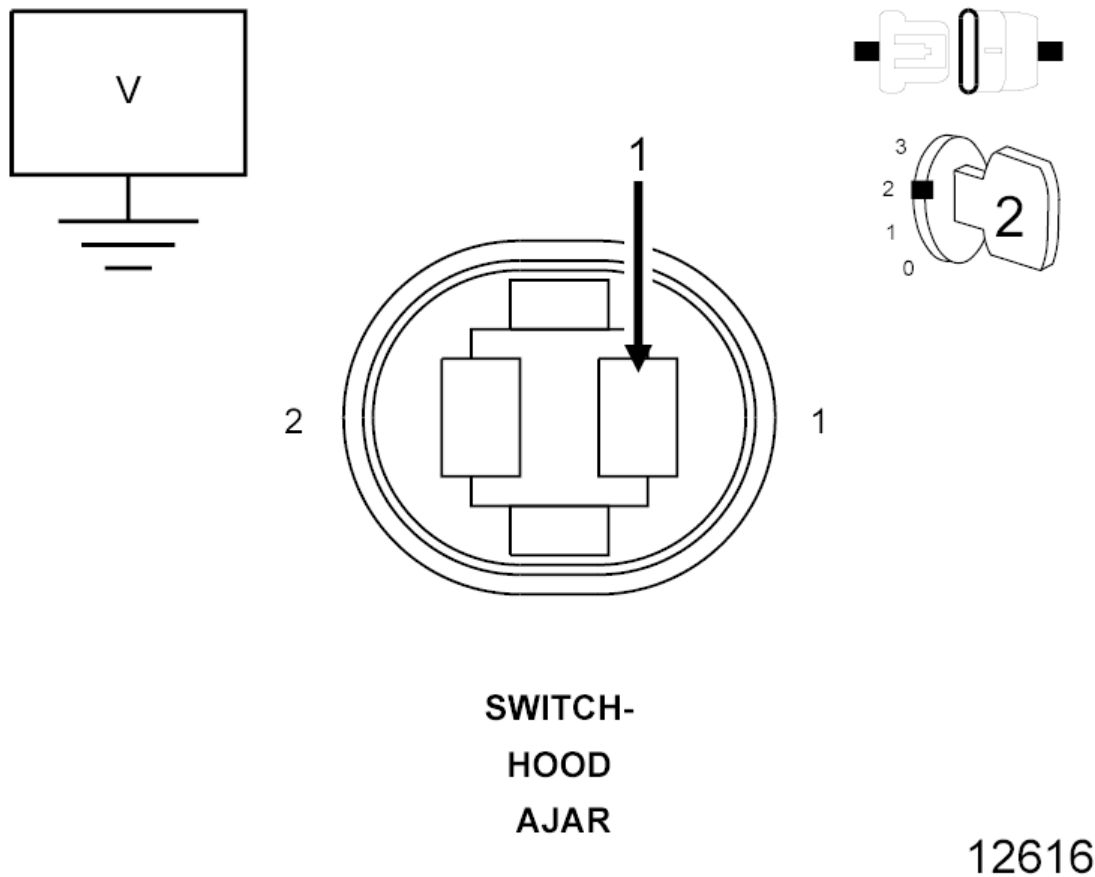


Fig. 26: Measuring Voltage Between Hood Ajar Switch Sense Circuit & Ground

Courtesy of CHRYSLER LLC

1. Disconnect the TIPM C4 connector.
2. Turn the ignition on.
3. Measure the voltage between the (G70) Hood Ajar Switch Sense circuit and ground.

Is there any voltage present?

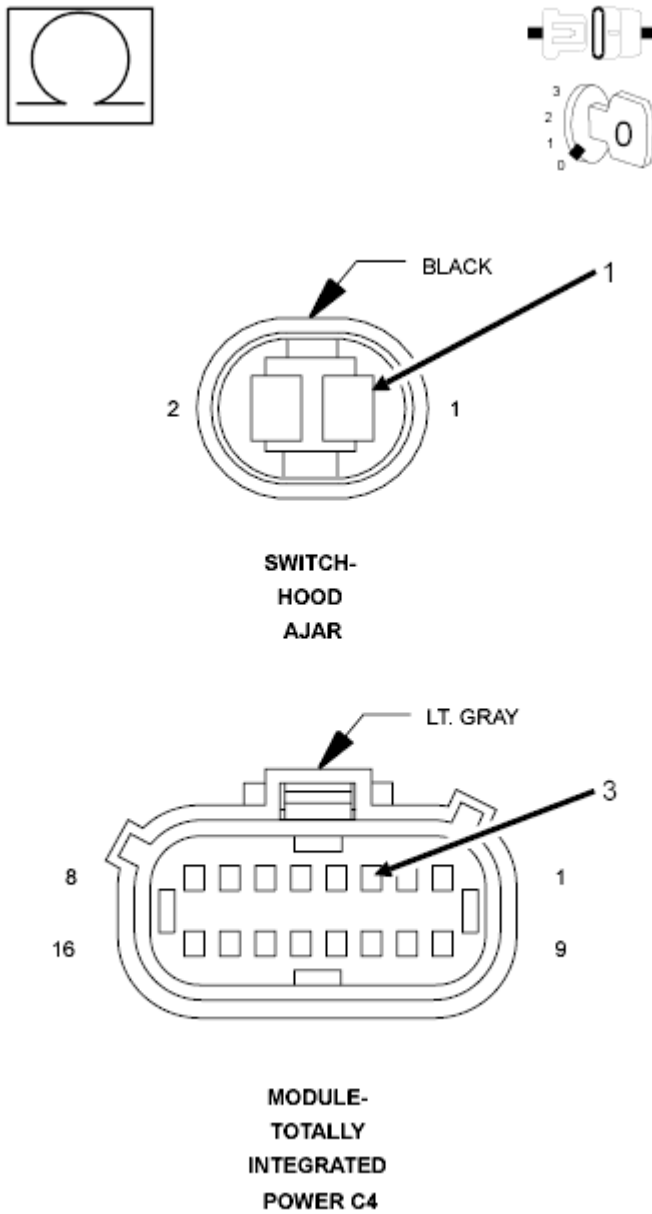
Yes

- Repair the (G70) Hood Ajar Switch Sense circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

No

- Go to Step 6.

6. (G70) HOOD AJAR SWITCH SENSE CIRCUIT OPEN



106497

Fig. 27: Measuring Resistance Of Hood Ajar Switch Sense Circuit Between TIPM C4 Connector & Hood Ajar Switch Connector

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Measure the resistance of the (G70) Hood Ajar Switch Sense circuit between the TIPM C4 connector and the Hood Ajar Switch connector.

Is the resistance below 2.0 Ohms?

Yes

- Replace the Totally Integrated Power Module (TIPM) in accordance with the service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (G70) Hood Ajar Switch Sense circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B186F-ALL DOOR SECONDARY LOCK CONTROL CIRCUIT LOW

2009 Dodge Journey R/T

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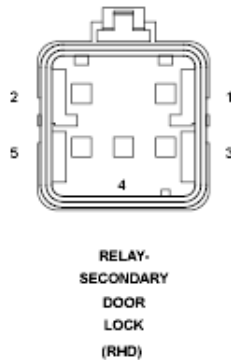
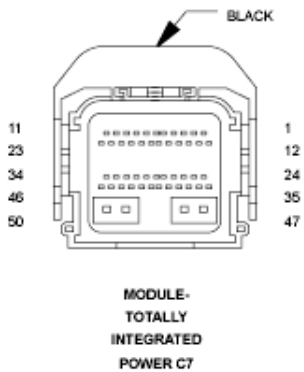
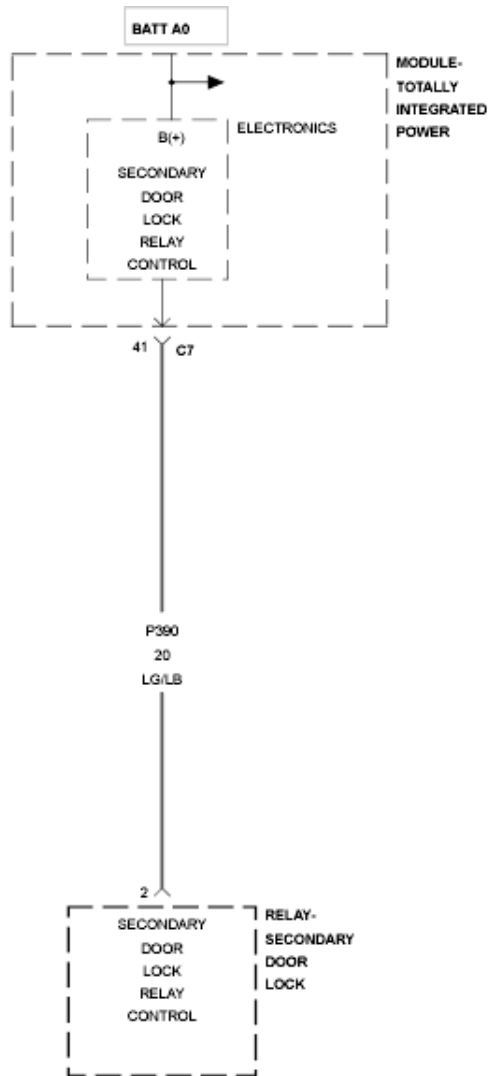


Fig. 28: All Door Secondary Lock Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS**.

- **When Monitored:**

At all times.

- **Set Condition:**

The TIPM detects a low circuit on the Secondary Door Lock Relay Control circuit even though it is not attempting to lock the doors for more than 5 seconds.

Possible Causes
RELAY OPEN OR SHORTED (P390) SECONDARY DOOR LOCK RELAY CONTROL CIRCUIT SHORTED TO GROUND (P390) SECONDARY DOOR LOCK RELAY CONTROL CIRCUIT OPEN TOTALLY INTEGRATED POWER MODULE (TIPM)

This test is only for Right Hand Drive (RHD) vehicles.

DIAGNOSTIC TEST

1. CHECK TROUBLE CODE

1. Turn the ignition on.
2. Record all trouble codes.
3. With the scan tool, erase DTCs.
4. Turn ignition off and remove the key.
5. Lock all doors and wait two minutes.
6. Turn the ignition on.
7. With the scan tool, read DTCs.

Does the scan tool display B186F-ALL DOOR SECONDARY LOCK CONTROL CIRCUIT LOW?

Yes

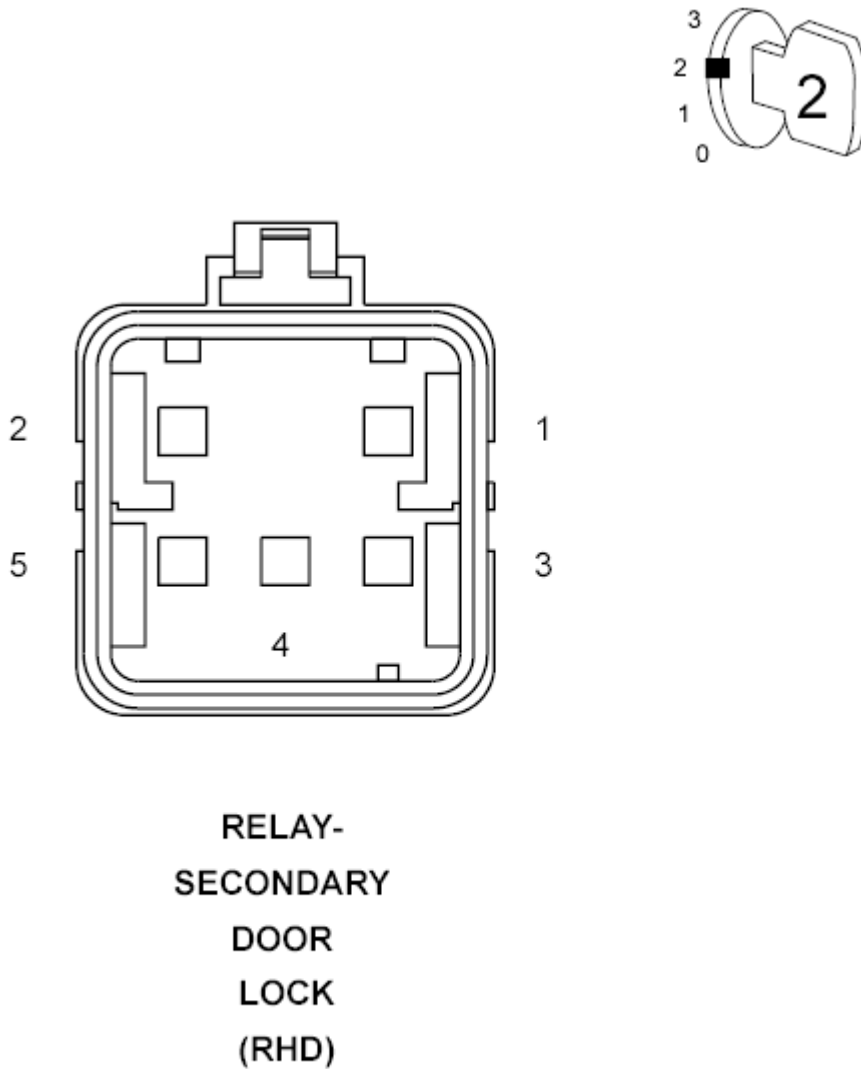
- Go to Step 2.

No

- Problem is intermittent and not present at this time. Using **Fig. 28** as a guide, inspect the wiring and connectors and repair as necessary. Make sure the relay is completely plugged in.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK FOR RELAY OPEN OR SHORTED



106553

Fig. 29: Identifying Secondary Door Lock Relay

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Lock Relay.

NOTE: The secondary lock relay is taped to the headlamp/dash harness bundle. It is located below the TIPM and between the TIPM and the

left fender.

3. Install a substitute relay in place of the Secondary Door Lock Relay.
4. Turn the ignition on.
5. With the scan tool, erase DTCs.
6. Turn ignition off and remove the key.
7. Lock all doors and wait two minutes.
8. Turn the ignition on.
9. With the scan tool, read DTCs.

Does the scan tool display B186F-ALL DOOR SECONDARY LOCK CONTROL CIRCUIT LOW?

Yes

- Go to Step 3.

No

- Replace the original relay.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. **CHECK THE (P390) SECONDARY DOOR LOCK RELAY CONTROL CIRCUIT FOR A SHORT TO GROUND**

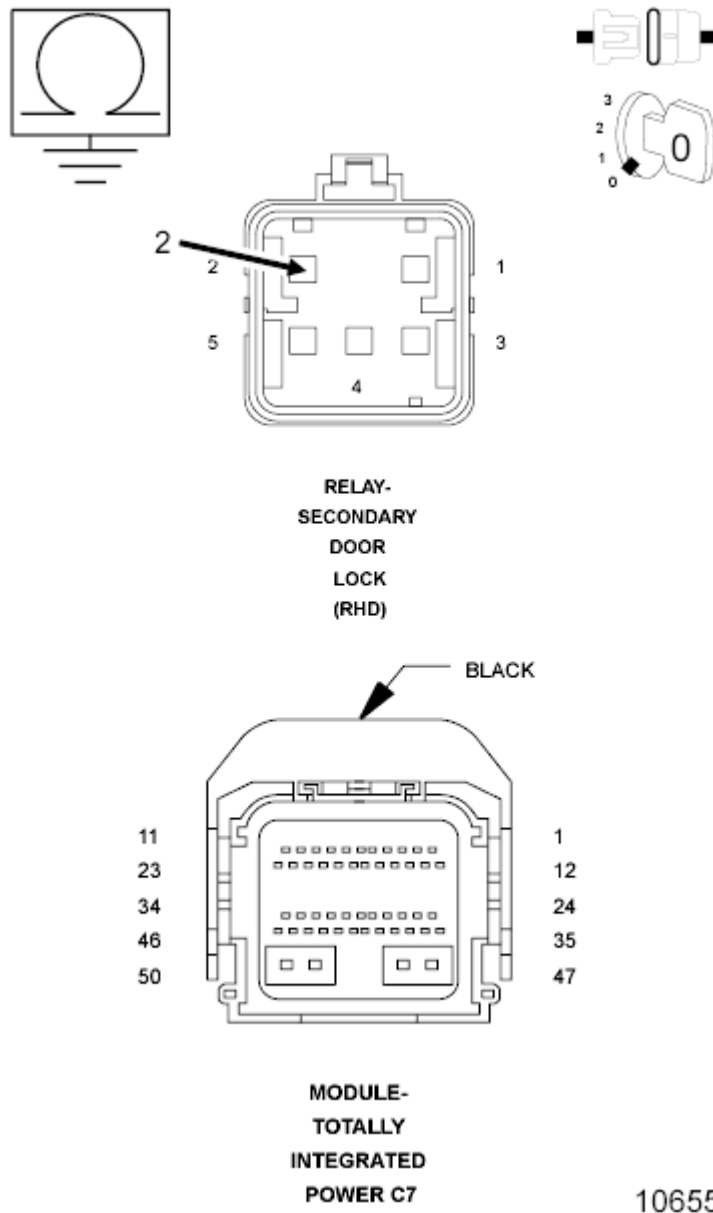


Fig. 30: Measuring Resistance Between Ground & Secondary Door Lock Relay Control Circuit In Relay Connector

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Lock Relay.
3. Disconnect the TIPM C7 connector.
4. Measure the resistance between ground and the (P390) Secondary Door Lock Relay Control circuit in the relay connector.

Is the resistance below 1,000.0 Ohms?

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Yes

- Repair the (P390) Secondary Door Lock Relay Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 4.

4. CHECK THE (P390) SECONDARY DOOR LOCK RELAY CONTROL CIRCUIT FOR AN OPEN

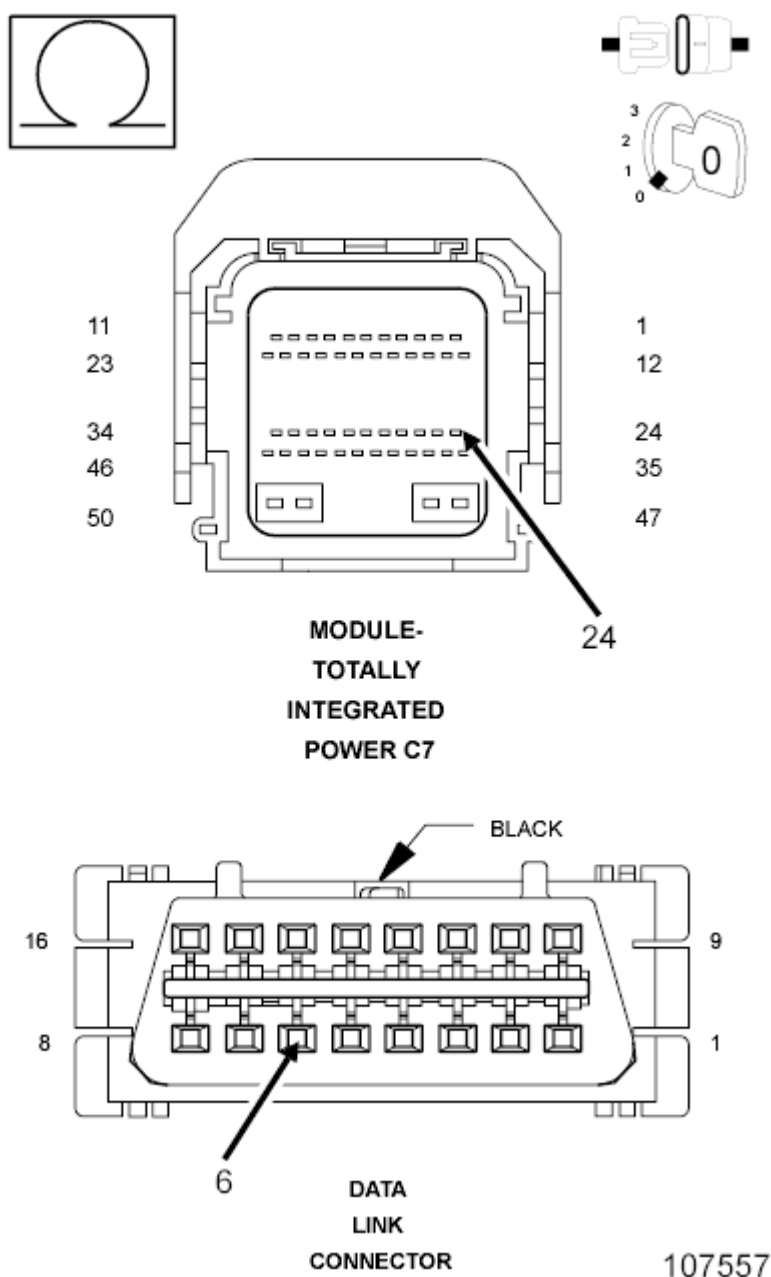


Fig. 31: Measuring Resistance Of Secondary Door Lock Relay Control Circuit Between Relay Connector & TIPM C7 Connector

Courtesy of CHRYSLER LLC

1. Measure the resistance of the (P390) Secondary Door Lock Relay Control circuit between the Relay connector and the TIPM C7 connector.

Is the resistance below 2.0 Ohms?

Yes

- Replace the Totally Integrated Power Module in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P390) Secondary Door Lock Relay Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1870-ALL DOOR SECONDARY LOCK CONTROL CIRCUIT HIGH

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey

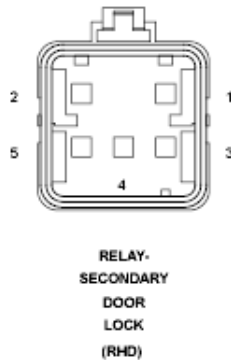
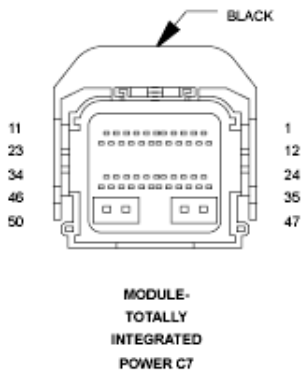
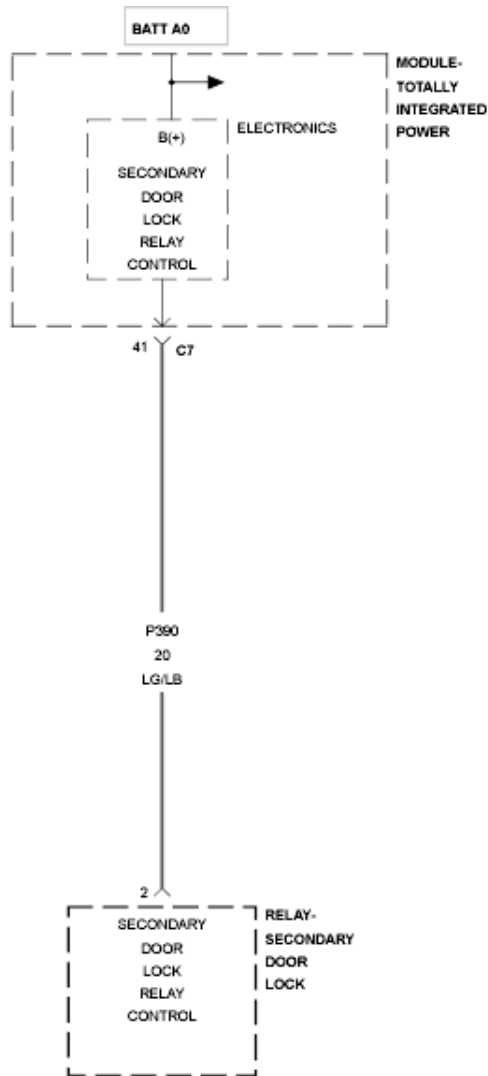


Fig. 32: All Door Secondary Lock Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

At all times.

- **Set Condition:**

The TIPM detects a high circuit on the Secondary Door Lock Relay Control circuit even though it is not attempting to lock the doors for more than five seconds.

Possible Causes
RELAY SHORTED (P390) SECONDARY DOOR LOCK RELAY CONTROL CIRCUIT SHORTED TO VOLTAGE TOTALLY INTEGRATED POWER MODULE (TIPM)

This test is only for Right Hand Drive (RHD) vehicles.

DIAGNOSTIC TEST

1. CHECK TROUBLE CODE

1. Turn the ignition on.
2. Record all trouble codes.
3. With the scan tool, erase DTCs.
4. Turn ignition off and remove the key.
5. Lock all doors and wait two minutes.
6. Turn the ignition on.
7. With the scan tool, read DTCs.

Does the scan tool display B1870-ALL DOOR SECONDARY LOCK CONTROL CIRCUIT HIGH?

Yes

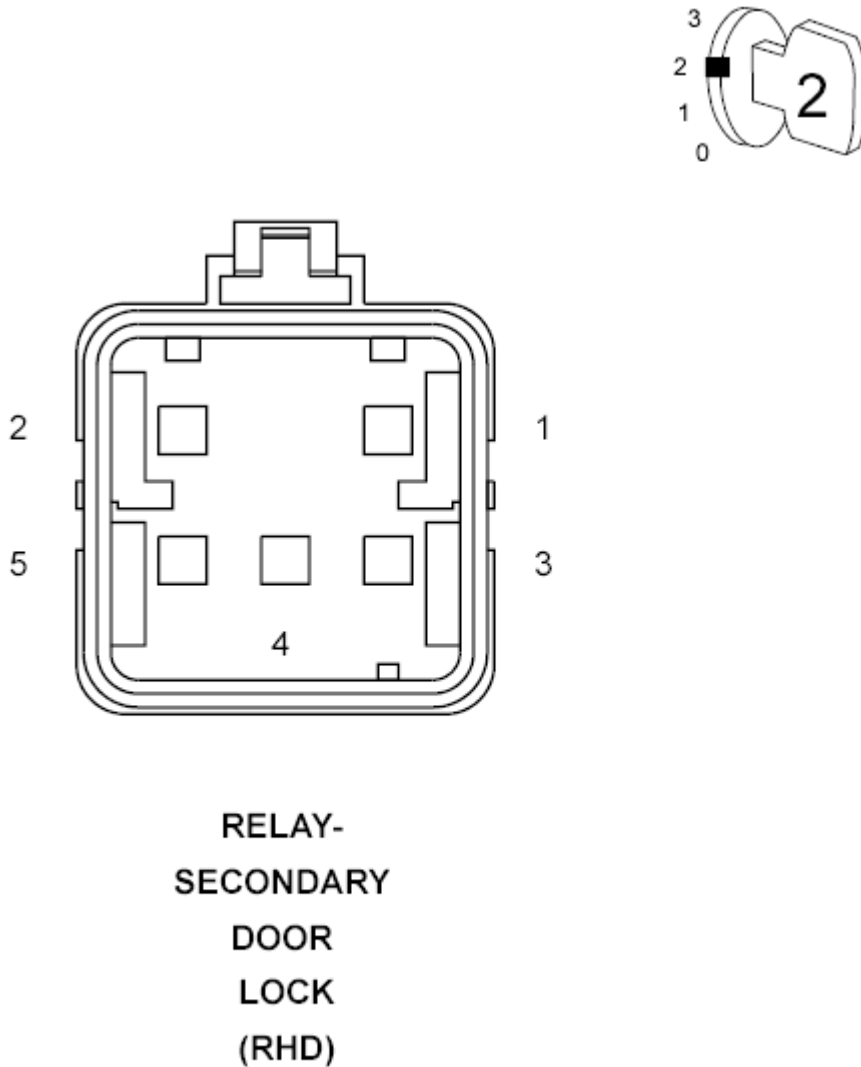
- Go to Step 2.

No

- Problem is intermittent and not present at this time. Using **Fig. 32** as a guide, inspect the wiring and connectors and repair as necessary. Make sure the relay is completely plugged in.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE**,

Totally Integrated Power (TIPM) - Standard Procedure .

2. CHECK FOR RELAY SHORTED



106553

Fig. 33: Identifying Secondary Door Lock Relay
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Lock Relay.

NOTE: The secondary lock relay is taped to the headlamp/dash harness bundle. It is located below the TIPM and between the TIPM and the left fender.

3. Install a substitute relay in place of the Secondary Door Lock Relay.
4. Turn the ignition on.
5. With the scan tool, erase DTCs.
6. Turn ignition off and remove the key.
7. Lock all doors and wait two minutes.
8. Turn the ignition on.
9. With the scan tool, read DTCs.

Does the scan tool display B1870-ALL DOOR SECONDARY LOCK CONTROL CIRCUIT HIGH?

Yes

- Go to Step 3.

No

- Replace the original relay.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. **CHECK THE (P390) SECONDARY DOOR LOCK RELAY CONTROL CIRCUIT FOR A SHORT TO VOLTAGE**

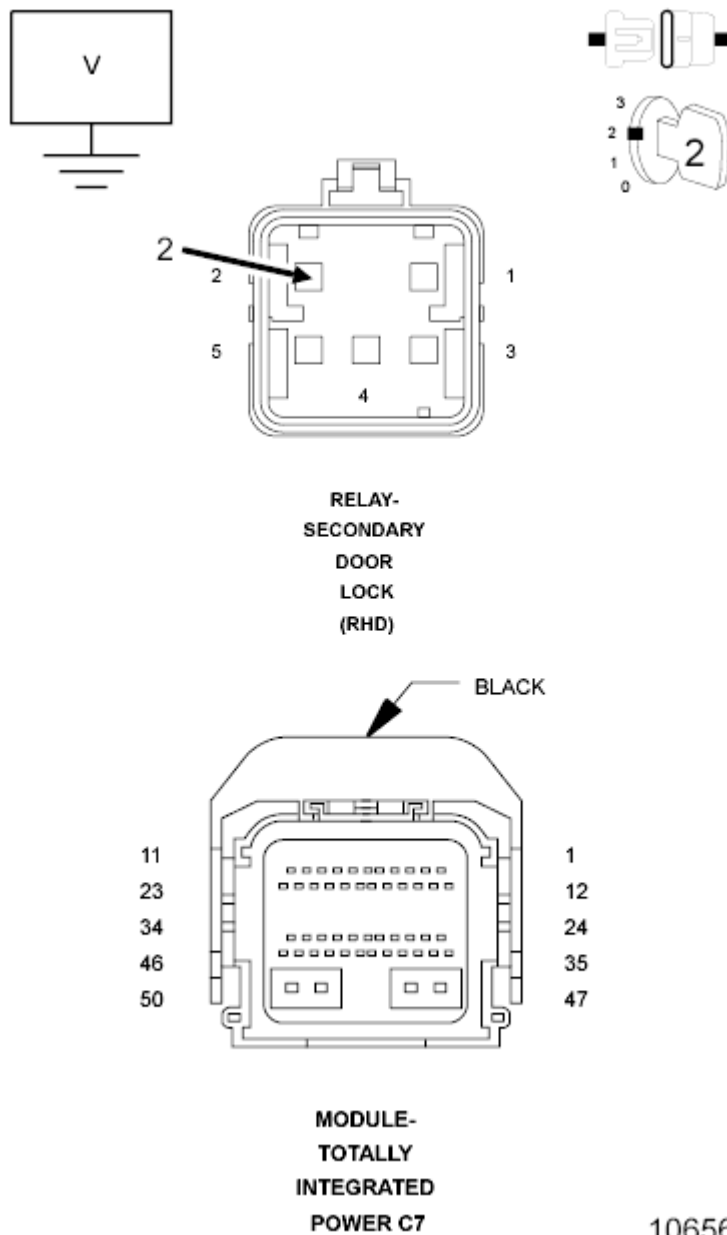


Fig. 34: Measuring Voltage Between Ground & Secondary Door Lock Relay Control Circuit In Relay Connector

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Lock Relay.
3. Disconnect the TIPM C7 connector.
4. Turn the ignition on.
5. Measure the voltage between ground and the (P390) Secondary Door Lock Relay Control circuit in the relay connector.

Is there any voltage present?

Yes

- Repair the (P390) Secondary Door Lock Relay Control circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1934-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey

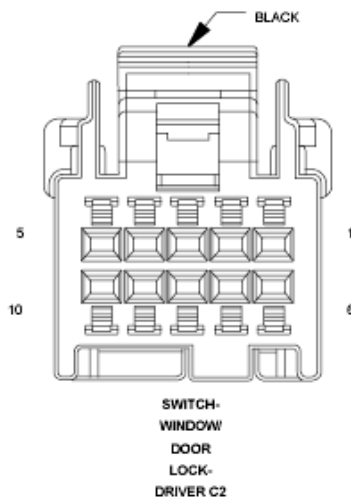
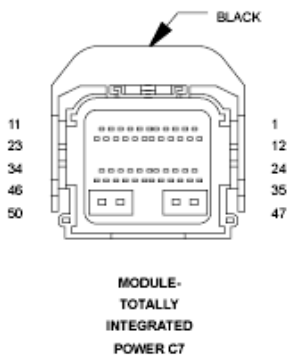
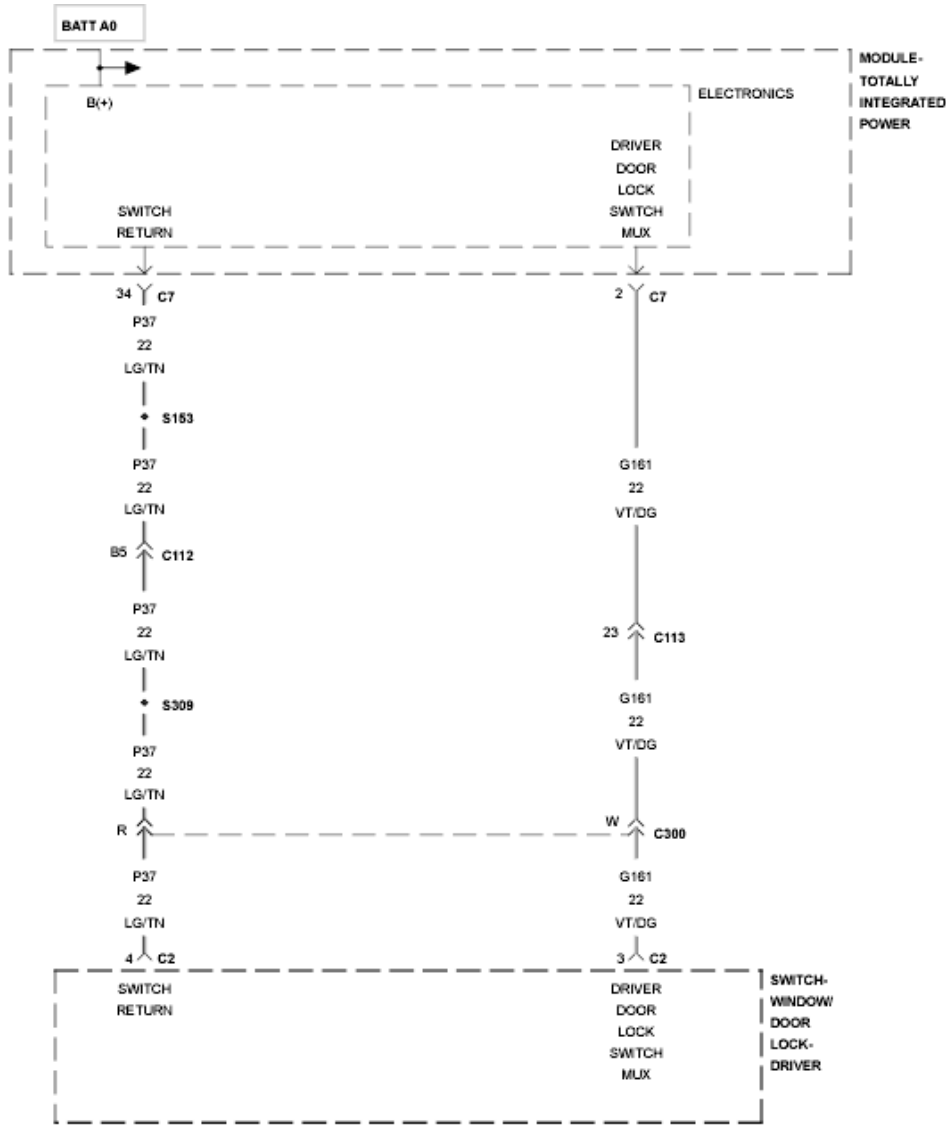


Fig. 35: Driver Door Lock/Unlock Switch - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously

- **Set Condition:**

When the Driver Door Lock Switch MUX circuit is between 0.8 and 3.5 volts for over 10 seconds.

Possible Causes
(G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORTED TO GROUND (G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO THE (P37) SWITCH RETURN CIRCUIT WINDOW/DOOR LOCK SWITCH TOTALLY INTEGRATED POWER MODULE (TIPM)

This test is only applicable for vehicles that do not have "Express Up" Power Windows.

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. With the scan tool, record and erase DTCs.
2. Operate the Driver Door Lock Switch in all positions several times.
3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display B1934-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK?

Yes

- Go to Step 2.

No

- The conditions that caused this code to set are not present at this time. Using **Fig. 35** as a guide, inspect the wiring and connectors.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. DOOR LOCK SWITCH SHORTED

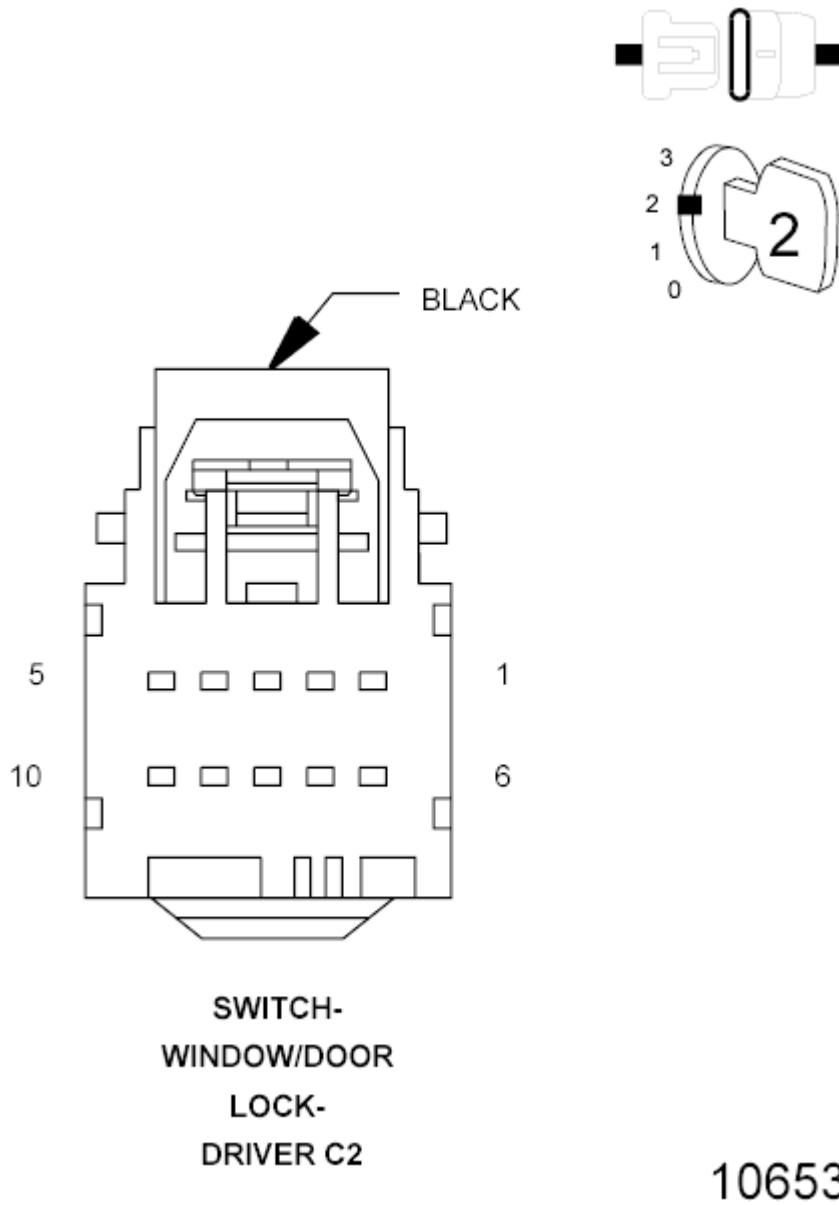


Fig. 36: Identifying Driver Window/Door Lock Switch C2 Connector
 Courtesy of CHRYSLER LLC

1. With the scan tool, erase DTCs.
2. Disconnect the Driver Window/Door Lock Switch C2 connector.
3. With the scan tool, read DTCs.

Does the scan tool display B1934-DRIVER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK?

Yes

- Go to Step 3.

No

- Replace the Driver Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. (G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORTED TO GROUND

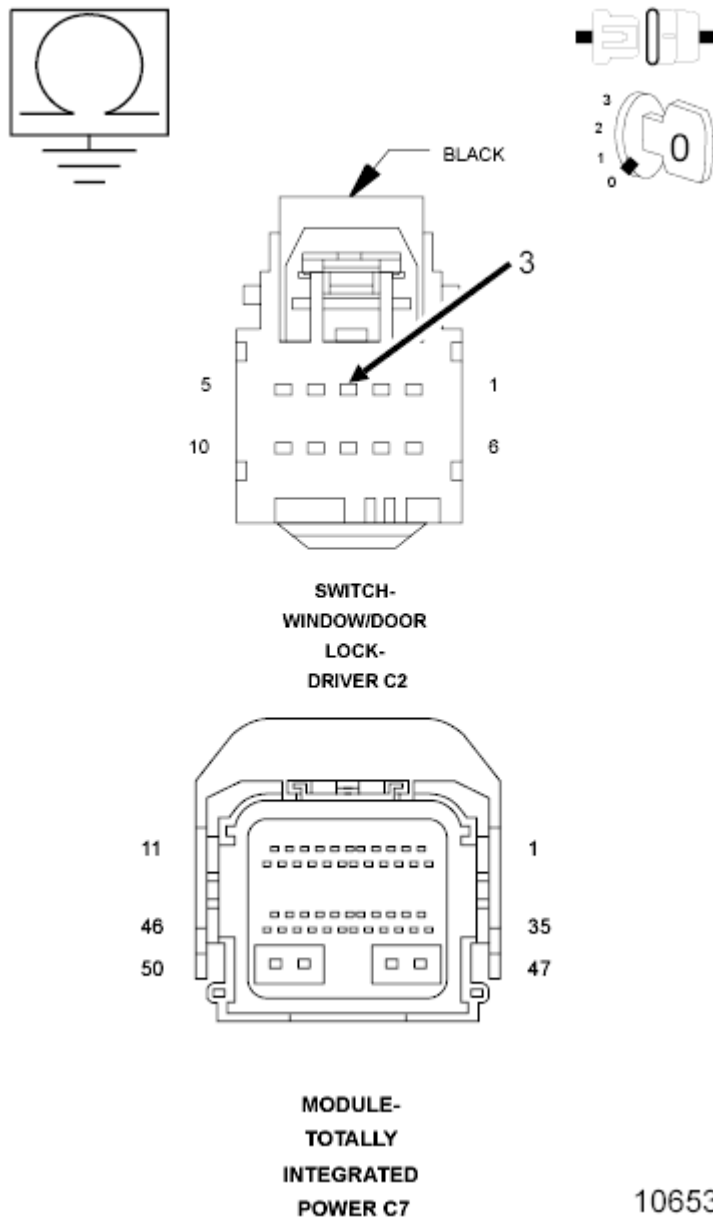


Fig. 37: Measuring Resistance Between Ground & Driver Door Lock Switch MUX Circuit

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the TIPM C7 connector.
3. Measure the resistance between ground and the (G161) Driver Door Lock Switch MUX circuit in the Driver Window/Door Lock Switch C2 connector.

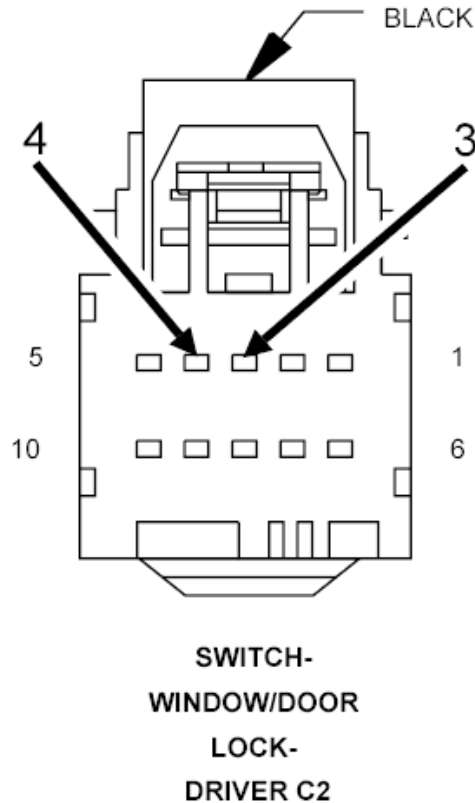
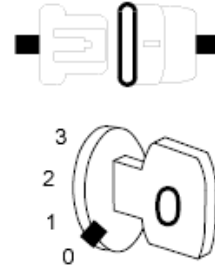
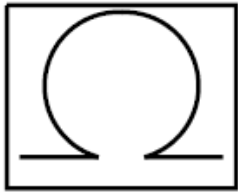
Is the resistance below 1,000.0 Ohms?

Yes

- Repair the (G161) Driver Door Lock Switch MUX circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 4.
4. **(G161) DRIVER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO THE (P37) SWITCH RETURN CIRCUIT**



106537

Fig. 38: Measuring Resistance Between Driver Door Lock Switch MUX Circuit & Switch Return Circuit In Switch C2 Connector
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Disconnect the TIPM C7 connector.
3. Measure the resistance between the (G161) Driver Door Lock Switch MUX circuit and the (P37) Switch Return circuit in the switch C2 connector.

Is the resistance below 1,000.0 Ohms?

Yes

- Repair the (G161) Driver Door Lock Switch MUX circuit for a short to the (P37) Switch Return circuit.

- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B1935-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK

2009 Dodge Journey R/T

2009 ACCESSORIES AND EQUIPMENT Totally Integrated Power Module (TIPM) - Electrical Diagnostics - Journey

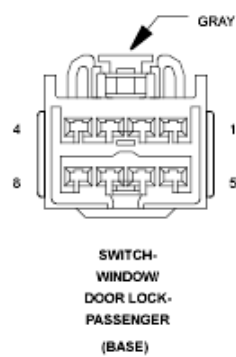
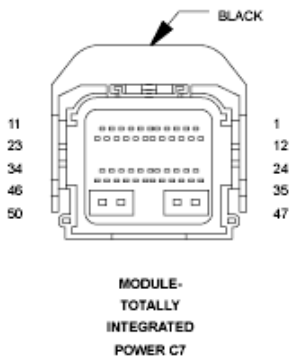
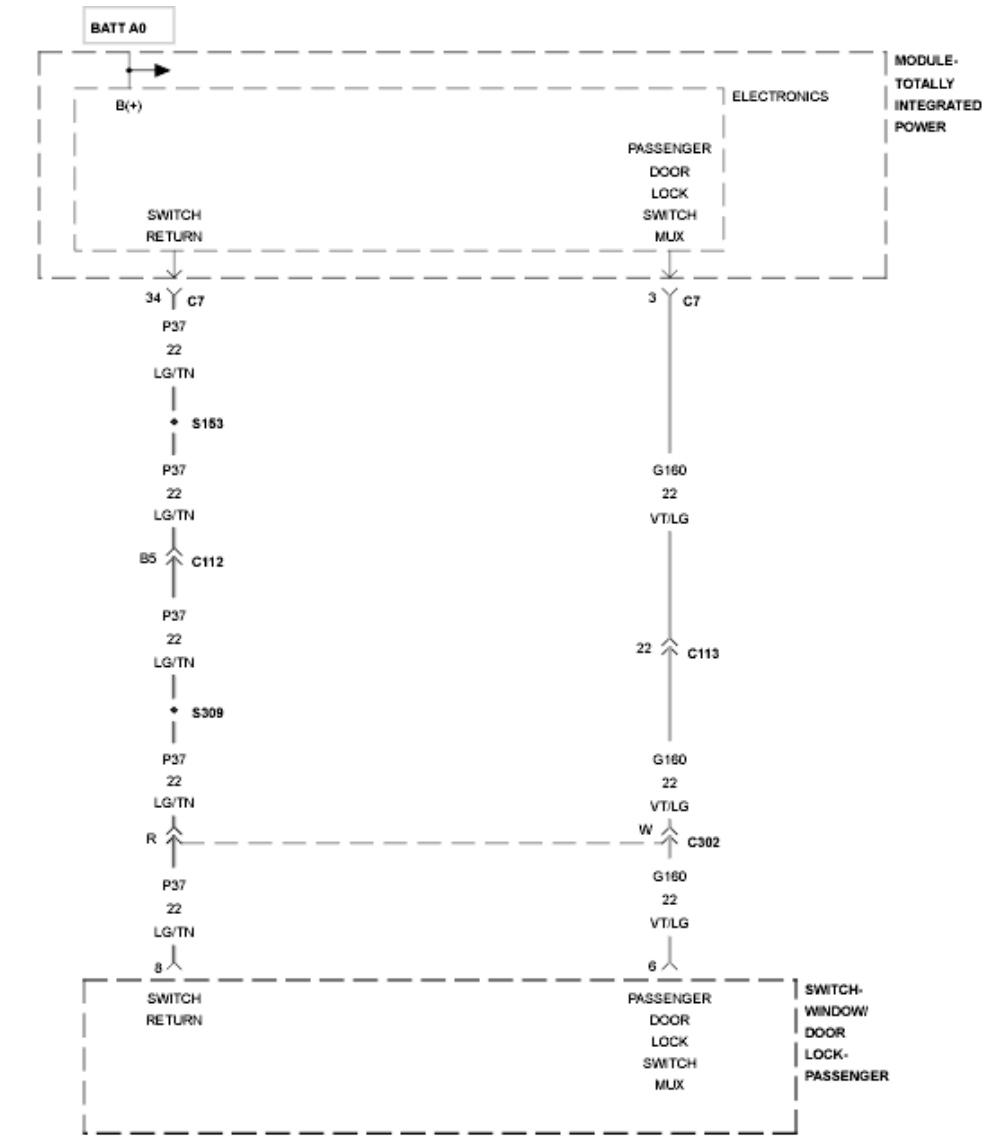


Fig. 39: Passenger Door Lock/Unlock Switch - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

Continuously

- **Set Condition:**

When the Passenger Door Lock Switch MUX circuit is between 0.8 and 3.5 volts for over 10 seconds.

Possible Causes
(G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORTED TO GROUND (G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO THE (P37) DOOR LOCK SWITCH RETURN CIRCUIT WINDOW/DOOR LOCK SWITCH TOTALLY INTEGRATED POWER MODULE (TIPM)

DIAGNOSTIC TEST

1. TEST FOR INTERMITTENT CONDITION

1. With the scan tool, record and erase DTCs.
2. Operate the Driver Door Lock Switch in all positions several times.
3. Cycle the ignition from on to off.
4. Turn the ignition on.
5. With the scan tool, read DTCs.

Does the scan tool display B1935-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK?

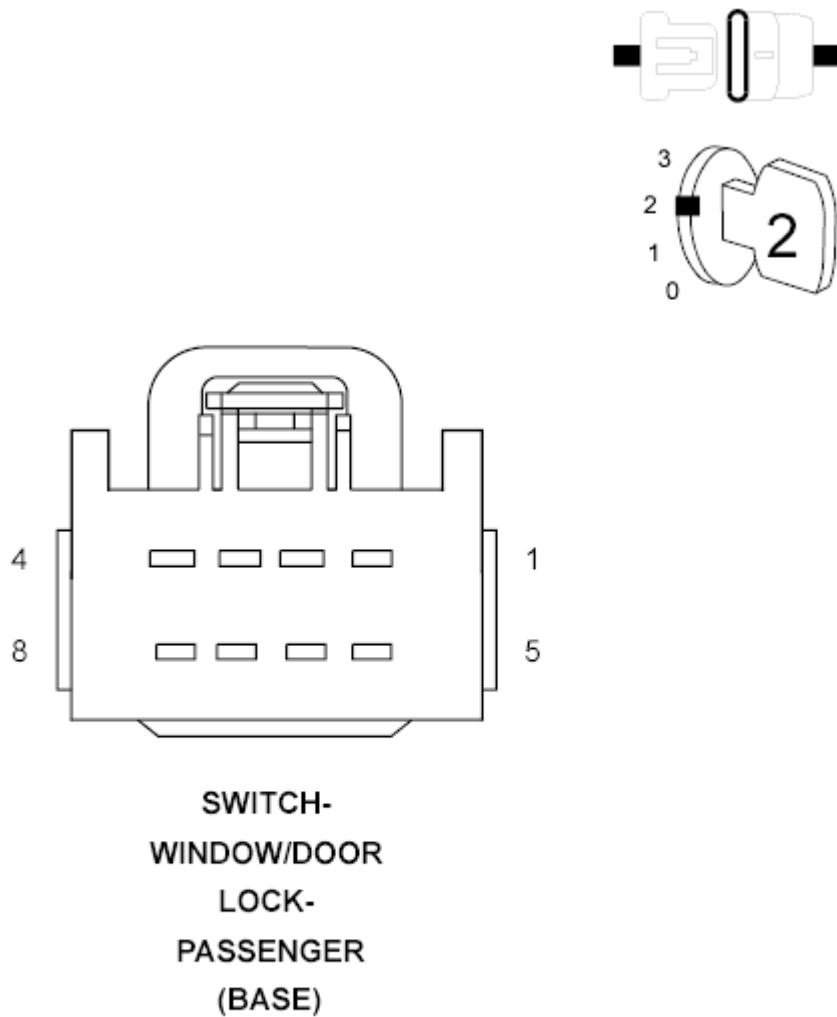
Yes

- Go to Step 2.

No

- The conditions that caused this code to set are not present at this time. Using **Fig. 39** as a guide, inspect the wiring and connectors.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

2. DOOR LOCK SWITCH SHORTED



106543

Fig. 40: Identifying Passenger Window/Door Lock Switch C2 Connector
 Courtesy of CHRYSLER LLC

1. With the scan tool, erase DTCs.
2. Disconnect the Passenger Window/Door Lock Switch C2 connector.
3. With the scan tool, read DTCs.

Does the scan tool display B1935-PASSENGER DOOR LOCK/UNLOCK SWITCH CIRCUIT STUCK?

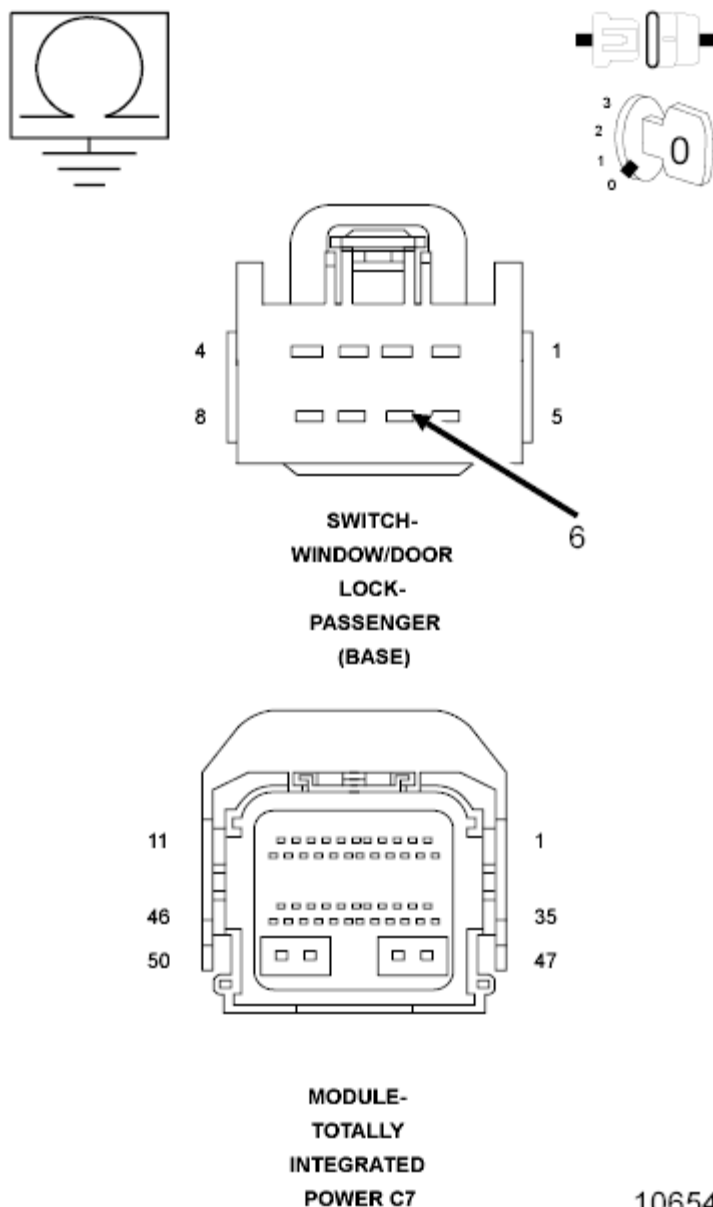
Yes

- Go to Step 3.

No

- Replace the Passenger Window/Door Lock Switch.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

3. (G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT PARTIAL SHORTED TO GROUND



106545

Fig. 41: Measuring Resistance Between Ground & Passenger DL Switch MUX Circuit In Passenger

Window/DL Switch C2 Connector**Courtesy of CHRYSLER LLC**

1. Turn the ignition off.
2. Disconnect the TIPM C7 connector.
3. Measure the resistance between ground and the (G160) Passenger Door Lock Switch MUX circuit.

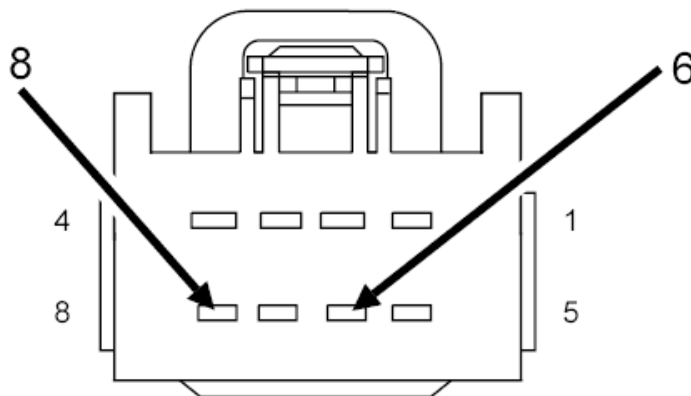
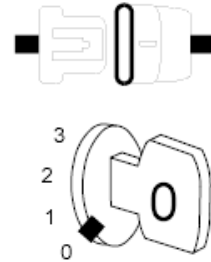
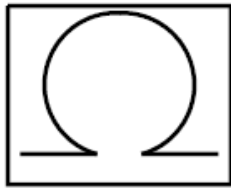
Is the resistance below 1,000.0 Ohms?

Yes

- Repair the (G160) Passenger Door Lock Switch MUX circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Go to Step 4.
4. **(G160) PASSENGER DOOR LOCK SWITCH MUX CIRCUIT SHORTED TO THE (P37) SWITCH RETURN CIRCUIT**



SWITCH-
WINDOW/DOOR
LOCK-
PASSENGER
(BASE)

106547

Fig. 42: Measuring Resistance Between Passenger DL Switch MUX Circuit & DL Switch Return Circuit In Switch C2 Connector

Courtesy of CHRYSLER LLC

1. Measure the resistance between the (G160) Passenger Door Lock Switch MUX circuit and the (P37) Switch Return circuit in the switch C2 connector.

Is the resistance below 1,000.0 Ohms?

Yes

- Repair the (G160) Passenger Door Lock Switch MUX circuit for a short to the (P37) Switch Return circuit.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module (TIPM) in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B198A-ALL DOOR SECONDARY UNLOCK CONTROL CIRCUIT LOW

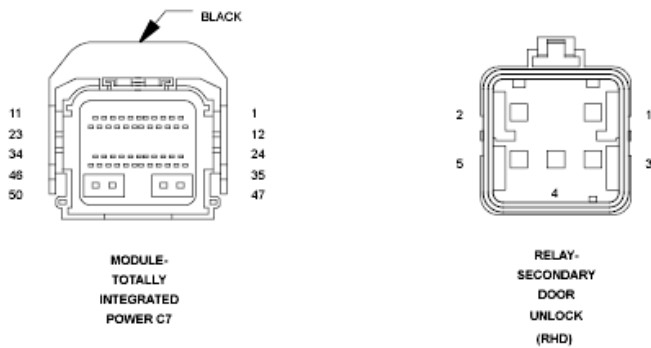
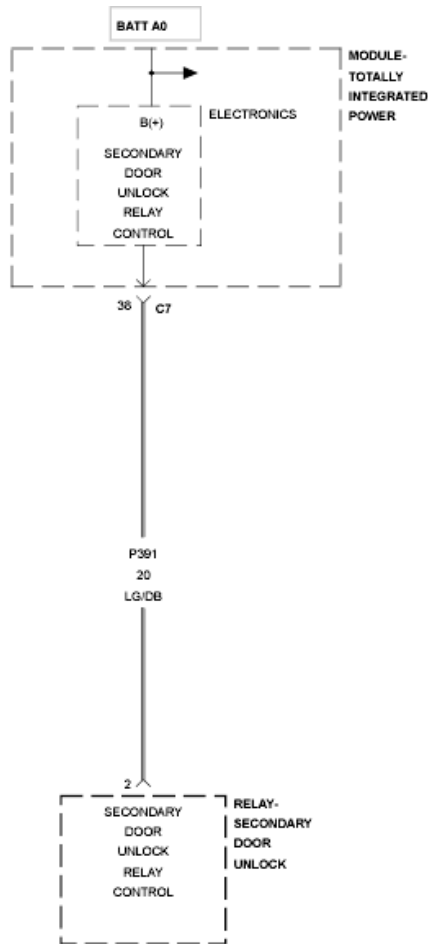


Fig. 43: All Door Secondary Unlock Control - Circuit Schematic
Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

At all times.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) detects a low circuit on the Secondary Door Unlock Relay Control circuit for more than 5 seconds, even though it is not attempting to unlock the doors.

Possible Causes
RELAY OPEN OR SHORTED (P391) SECONDARY DOOR UNLOCK RELAY CONTROL CIRCUIT SHORTED TO GROUND (P391) SECONDARY DOOR UNLOCK RELAY CONTROL CIRCUIT OPEN TOTALLY INTEGRATED POWER MODULE (TIPM)

NOTE: This test is only for Right Hand Drive vehicles.

DIAGNOSTIC TEST

1. CHECK TROUBLE CODE

1. Turn the ignition on.
2. Record all trouble codes.
3. With the scan tool, erase DTCs.
4. Turn ignition off and remove the key.
5. Lock all doors and wait two minutes.
6. Turn the ignition on.
7. With the scan tool, read DTCs.

Does the scan tool display B198A-ALL DOOR SECONDARY UNLOCK CONTROL CIRCUIT LOW?

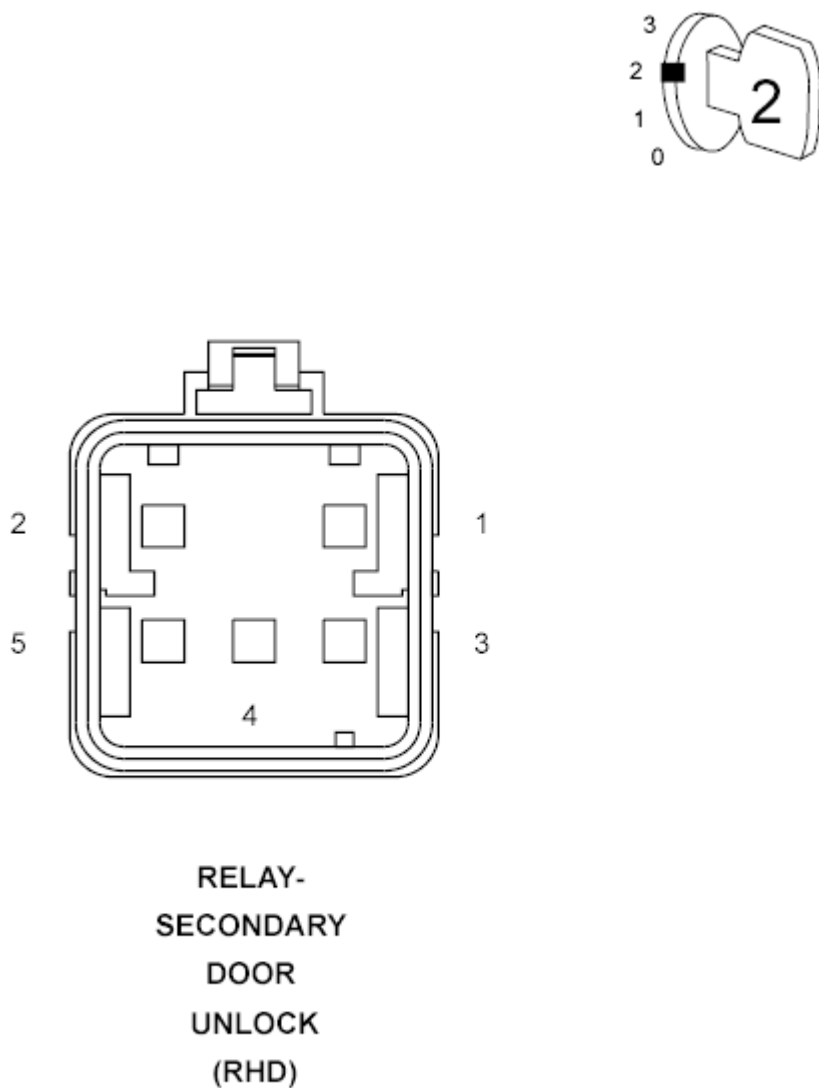
Yes

- Go to Step 2.

No

- Problem is intermittent and not present at this time. Using **Fig. 43** as a guide, inspect the wiring and connectors and repair as necessary. Make sure the relay is completely plugged in.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK FOR RELAY OPEN OR SHORTED



106571

Fig. 44: Identifying Secondary Door Unlock Relay
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Unlock Relay.

NOTE: The secondary unlock relay is taped to the headlamp/dash harness bundle. It is located between the left shock tower and the rear of the TIPM.

3. Install a substitute relay in place of the Secondary Door Unlock Relay.
4. Turn the ignition on.

5. With the scan tool, erase DTCs.
6. Turn ignition off and remove the key.
7. Lock all doors and wait two minutes.
8. Turn the ignition on.
9. With the scan tool, read DTCs.

Does the scan tool display B198A-ALL DOOR SECONDARY UNLOCK CONTROL CIRCUIT LOW?

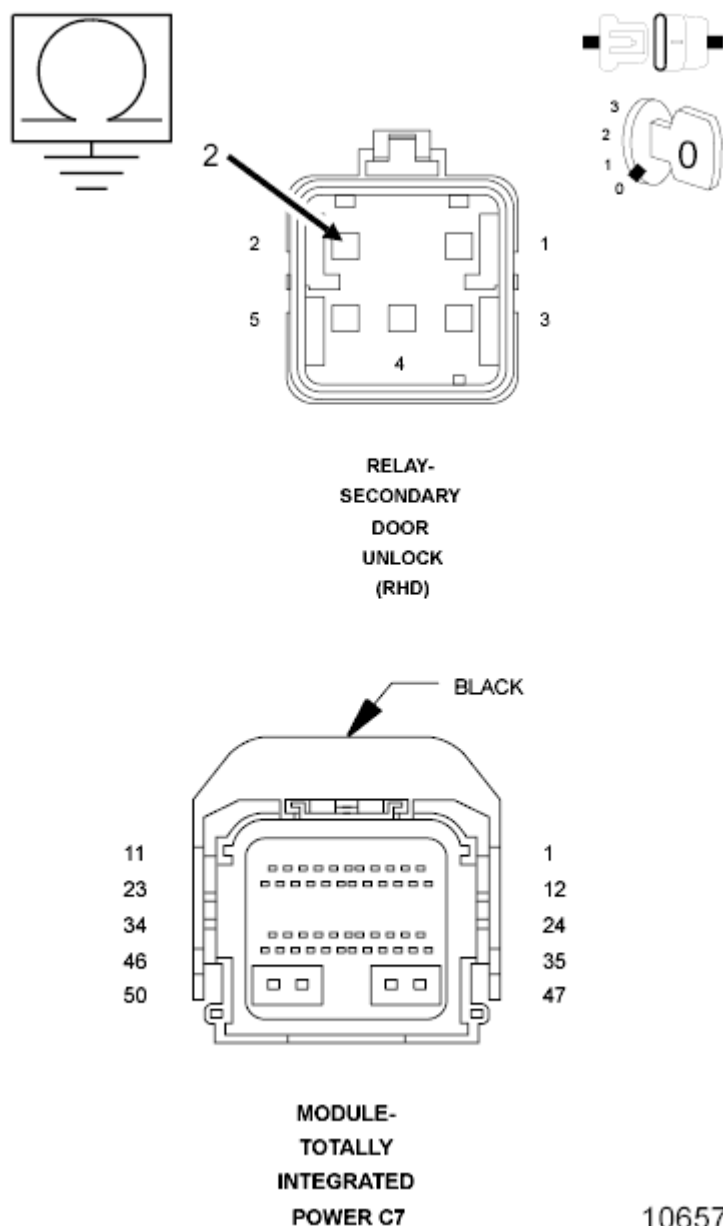
Yes

- Go to Step 3.

No

- Replace the original relay.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. **CHECK THE (P391) SECONDARY DOOR UNLOCK RELAY CONTROL CIRCUIT FOR A SHORT TO GROUND**



106573

Fig. 45: Measuring Resistance Between Ground & Secondary Door Unlock Relay Control Circuit In Relay Connector

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Unlock Relay.
3. Disconnect the TIPM C7 connector.
4. Measure the resistance between ground and the (P391) Secondary Door Unlock Relay Control circuit in the relay connector.

Is the resistance below 1,000.0 Ohms?

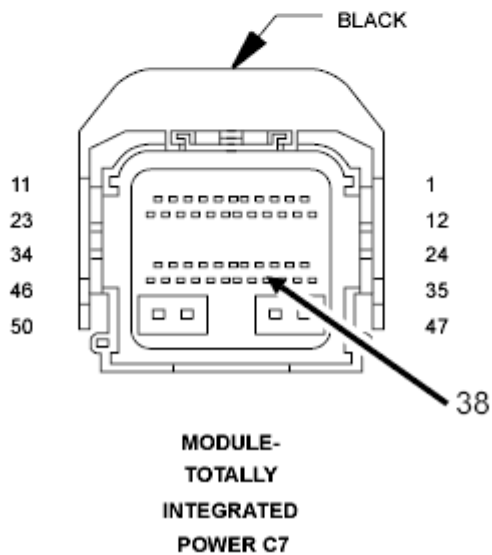
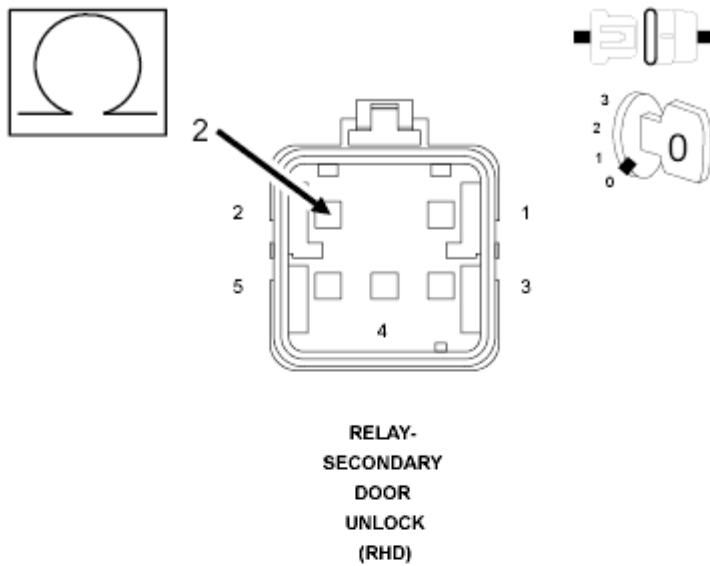
Yes

- Repair the (P391) Secondary Door Unlock Relay Control circuit for a short to ground.
- Perform the BODY VERIFICATION TEST. See DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure .

No

- Go to Step 4.

4. CHECK THE (P391) SECONDARY DOOR LOCK RELAY CONTROL CIRCUIT FOR AN OPEN



106575

Fig. 46: Measuring Resistance Of Secondary Door Unlock Relay Control Circuit Between Relay Connector & TIPM C7 Connector
Courtesy of CHRYSLER LLC

1. Measure the resistance of the (P391) Secondary Door Unlock Relay Control circuit between the Relay connector and the TIPM C7 connector.

Is the resistance below 2.0 Ohms?

Yes

- Replace the Totally Integrated Power Module in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Repair the (P391) Secondary Door Unlock Relay Control circuit for an open.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

B198B-ALL DOOR SECONDARY UNLOCK CONTROL CIRCUIT HIGH

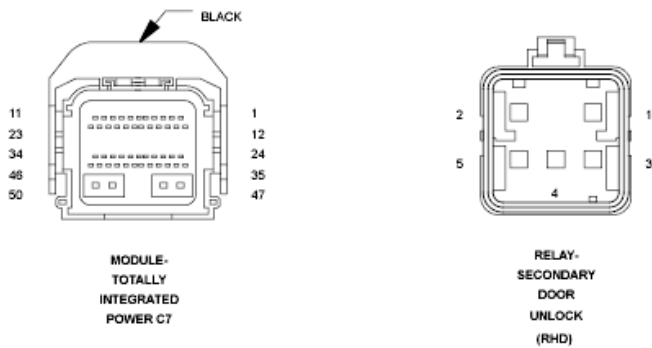
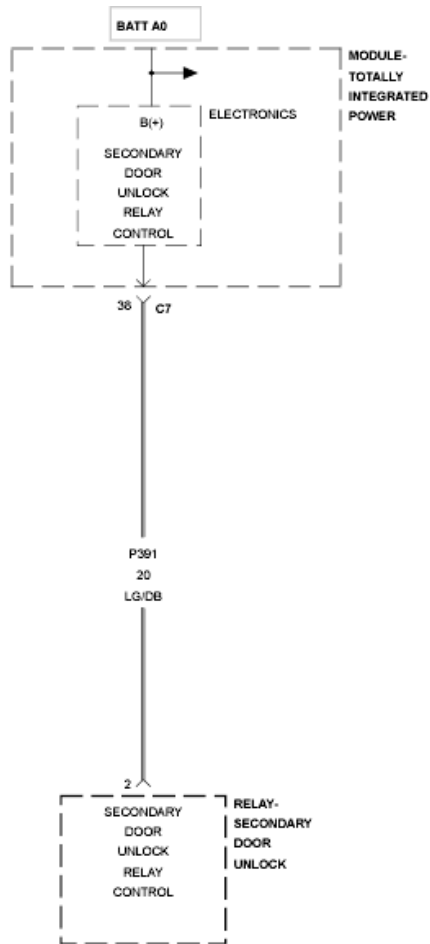


Fig. 47: All Door Secondary Unlock Control - Circuit Schematic
 Courtesy of CHRYSLER LLC

For complete wiring diagrams refer to **SYSTEM WIRING DIAGRAMS** .

- **When Monitored:**

At all times.

- **Set Condition:**

The Totally Integrated Power Module (TIPM) detects a high circuit on the Secondary Door Unlock Relay Control circuit for more than five seconds, even though it is not attempting to unlock the doors.

Possible Causes
RELAY SHORTED (P391) SECONDARY DOOR UNLOCK RELAY CONTROL CIRCUIT SHORTED TO VOLTAGE TOTALLY INTEGRATED POWER MODULE (TIPM)

NOTE: This test is only for Right Hand Drive vehicles.

DIAGNOSTIC TEST

1. CHECK TROUBLE CODE

1. Turn the ignition on.
2. Record all trouble codes.
3. With the scan tool, erase DTCs.
4. Turn ignition off and remove the key.
5. Lock all doors and wait two minutes.
6. Turn the ignition on.
7. With the scan tool, read DTCs.

Does the scan tool display B109B-ALL DOOR SECONDARY UNLOCK CONTROL CIRCUIT HIGH?

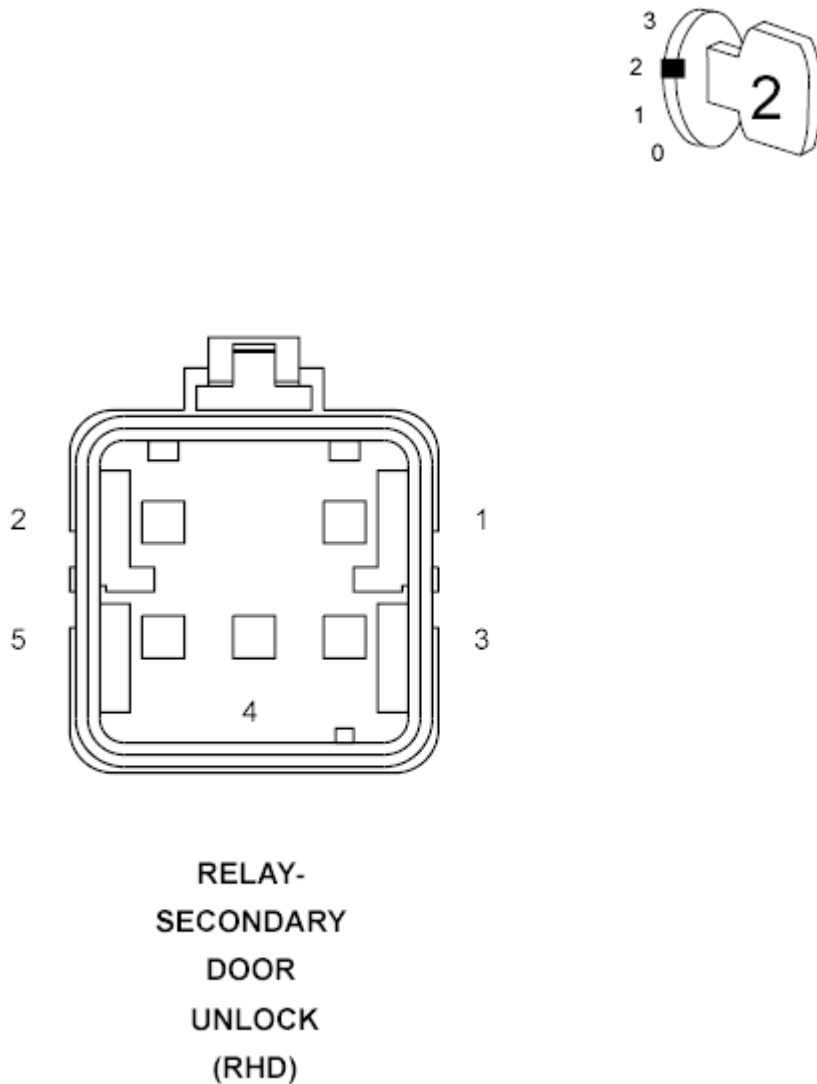
Yes

- Go to Step 2.

No

- Problem is intermittent and not present at this time. Using **Fig. 47** as a guide, inspect the wiring and connectors and repair as necessary. Make sure the relay is completely plugged in.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure**.

2. CHECK FOR RELAY SHORTED



106571

Fig. 48: Identifying Secondary Door Unlock Relay
Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Unlock Relay.

NOTE: The secondary unlock relay is taped to the headlamp/dash harness bundle. It is located between the left shock tower and the rear of the TIPM.

3. Install a substitute relay in place of the Secondary Door Unlock Relay.
4. Turn the ignition on.

5. With the scan tool, erase DTCs.
6. Turn ignition off and remove the key.
7. Lock all doors and wait two minutes.
8. Turn the ignition on.
9. With the scan tool, read DTCs.

Does the scan tool display B198B-ALL DOOR SECONDARY UNLOCK CONTROL CIRCUIT HIGH?

Yes

- Go to Step 3.

No

- Replace the original relay.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

3. **CHECK THE (P391) SECONDARY DOOR UNLOCK RELAY CONTROL CIRCUIT FOR A SHORT TO VOLTAGE**

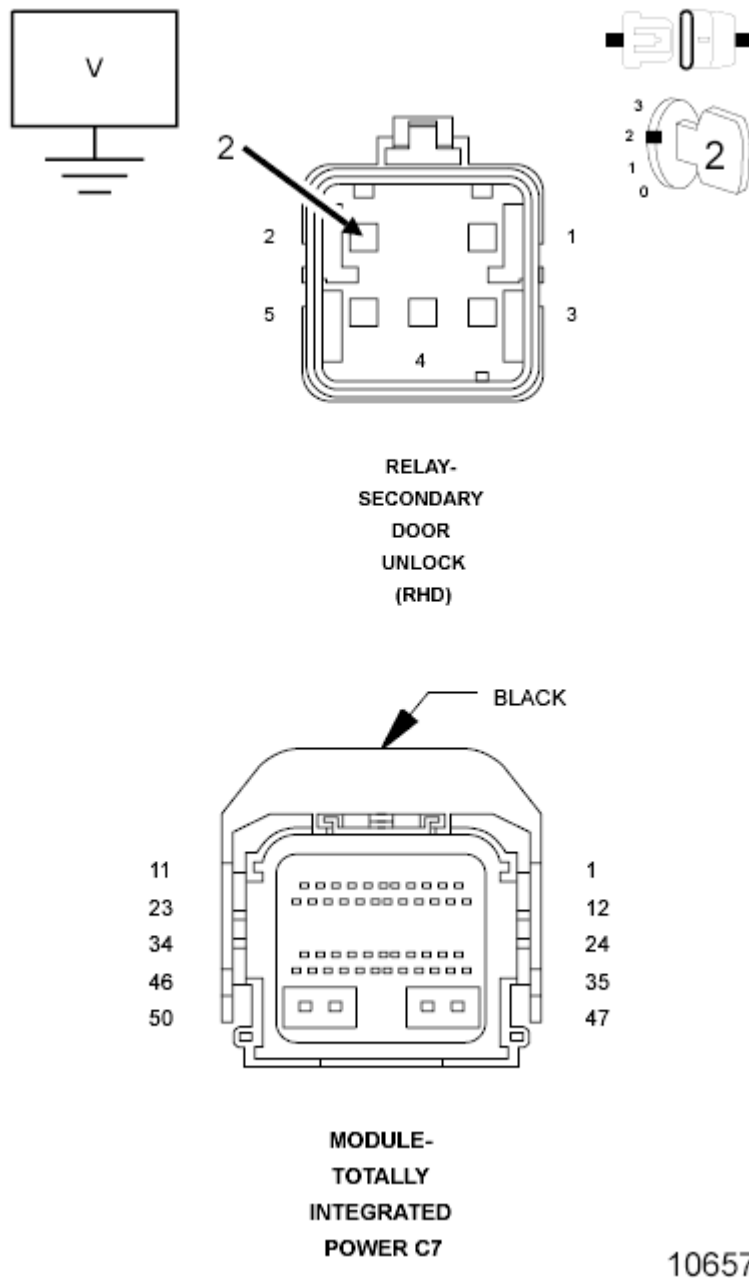


Fig. 49: Measuring Voltage Between Ground & Secondary Door Unlock Relay Control Circuit In Relay Connector

Courtesy of CHRYSLER LLC

1. Turn the ignition off.
2. Remove the Secondary Door Unlock Relay.
3. Disconnect the TIPM C7 connector.
4. Turn the ignition on.
5. Measure the voltage between ground and the (P391) Secondary Door Unlock Relay Control circuit in the relay connector.

Is there any voltage present?

Yes

- Repair the (P391) Secondary Door Unlock Relay Control circuit for a short to voltage.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .

No

- Replace the Totally Integrated Power Module in accordance with service information.
- Perform the BODY VERIFICATION TEST. See **DTC-Based Diagnostics/MODULE, Totally Integrated Power (TIPM) - Standard Procedure** .