

SECTION 501-09 Rear View Mirrors

VEHICLE APPLICATION: 2011.00 Focus

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SPECIFICATIONS**Torque Specifications**

Item	Nm	lb-ft	lb-in
Exterior mirror retaining bolt	10	-	89

DESCRIPTION AND OPERATION

Rear View Mirrors

Auto-dimming Interior Mirror

When the ignition is switched on the auto-dimming interior mirror will darken automatically depending on the amount of light shining into the vehicle through the rear window glass. The auto-dimming feature will turn off when reverse gear is selected.

The auto-dimming feature on the interior rear view mirror will not operate correctly if light through the rear window glass is obstructed.

Exterior Mirror Foldback Relay

NOTE: On left-hand drive vehicles, the exterior mirror foldback relay is positioned on the left-hand side of the vehicle under the rear seat cushion. On right-hand drive vehicles, the exterior mirror foldback relay is positioned on the right-hand side of the vehicle under the rear seat cushion.

To gain access to the exterior mirror foldback relay, the C-pillar lower trim panel and the rear scuff plate trim panel must be removed to allow the carpet to be detached from the floor panel.



DIAGNOSIS AND TESTING

Rear View Mirrors — Vehicles Without: Global Closing

Refer to Wiring Diagrams Section 501-09, for schematic and connector information.

Inspection and Verification

1. Verify the customer concern.
2. Visually inspect for obvious signs of mechanical or electrical damage.

Visual Inspection Chart

Mechanical	Electrical
• Exterior mirror(s) • Auto-dimming interior mirror	• Fuse(s) • Relay • Electrical connector(s) • Exterior mirror control switch • Heated rear window control switch

3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step.
4. If the cause is not visually evident, verify the symptom and refer to the Symptom Chart.

Symptom Chart

Symptom Chart

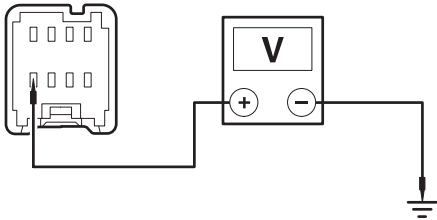
Symptom	Possible Sources	Action
• The exterior mirrors are inoperative	• Exterior mirror control switch.	• CARRY OUT the Exterior Mirror Control Switch Component Test. REFER to the Wiring Diagrams.
	• Circuit(s).	• GO to Pinpoint Test A.
• A single exterior mirror is inoperative	• Exterior mirror control switch.	• CARRY OUT the Exterior Mirror Control Switch Component Test. REFER to the Wiring Diagrams.
	• Exterior mirror motor(s). • Circuit(s).	• GO to Pinpoint Test B.
• A single exterior mirror does not function with switch logic	• Exterior mirror control switch.	• CARRY OUT the Exterior Mirror Control Switch Component Test. REFER to the Wiring Diagrams.
	• Exterior mirror motor(s). • Circuit(s).	• GO to Pinpoint Test C.
• The heated exterior mirror is inoperative	• Heated rear window control switch.	• CARRY OUT the Heated Rear Window Control Switch Component Test. REFER to the Wiring Diagrams.
	• Relay. • Heated mirror element(s). • Circuit(s).	• GO to Pinpoint Test D.

DIAGNOSIS AND TESTING

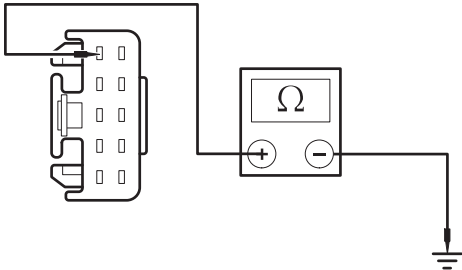
Symptom	Possible Sources	Action
The auto-dimming interior mirror does not operate correctly	- Auto-dimming interior mirror. - Circuit(s).	GO to Pinpoint Test E.

Pinpoint Tests

PINPOINT TEST A : THE EXTERIOR MIRRORS ARE INOPERATIVE

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
NOTE: Use a digital multimeter for all electrical measurements.	
A1: CHECK THE INTERIOR LAMP DELAY FUNCTION	
	- CHECK the interior lamp delay function. - Does the interior lamp delay function operate correctly? → Yes GO to A2. → No CHECK the battery saver relay operation.
A2: CHECK THE VOLTAGE TO THE EXTERIOR MIRROR CONTROL SWITCH CIRCUIT	
	- Disconnect Exterior Mirror Control Switch C741. - Ignition switch in position II.
 TIE0037297	- Measure the voltage between the exterior mirror control switch C741 pin 1, circuit 29-AD12 (OG/YE), harness side and ground. - Is the voltage greater than 10 volts? → Yes GO to A3. → No REPAIR circuit 29-AD12 (OG/YE). TEST the system for normal operation.
A3: CHECK THE EXTERIOR MIRROR CONTROL SWITCH GROUND CIRCUIT FOR CONTINUITY	
NOTE: The circuit number changes at soldered joint S197.	
NOTE: The exterior mirror control switch and the driver side exterior window control switch have a common ground circuit.	
	Ignition switch in position 0.

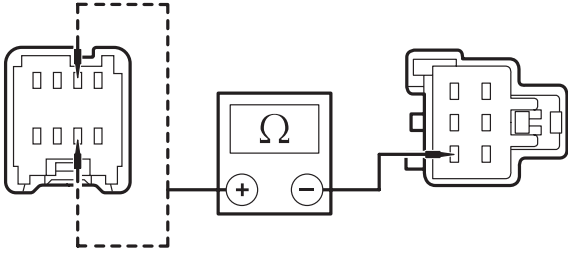
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	2 Disconnect Driver Side Exterior Window Control Switch C488.
 TIE0023402	3 Measure the resistance between the driver side exterior mirror control switch C488 pin 1, circuit 31-AJ7 (BK), harness side and ground. • Is the resistance less than 5 ohms? → Yes VERIFY the customer concern. → No REPAIR circuit 31-AJ7 (BK). TEST the system for normal operation.

PINPOINT TEST B : A SINGLE EXTERIOR MIRROR IS INOPERATIVE

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
NOTE: Use a digital multimeter for all electrical measurements.	
B1: CHECK FOR CONTINUITY BETWEEN THE EXTERIOR MIRROR CONTROL SWITCH AND THE INOPERATIVE EXTERIOR MIRROR	
	1 Disconnect Exterior Mirror Control Switch C741. 2 Disconnect Inoperative Exterior Mirror C808 or C822.

DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E0037298	3 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 7, circuit 32-AD6 (WH), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6 (WH), harness side. - Exterior mirror control switch C741 pin 3, circuit 32-AD9 (WH/GN), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 3, circuit 32-AD6C (WH), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6C (WH), harness side. - Exterior mirror control switch C741 pin 7, circuit 32-AD9C (WH/GN), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. - Is the resistance less than 5 ohms? → Yes INSTALL a new exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No REPAIR circuit 32-AD6 (WH), or circuit 32-AD6C (WH), or circuit 32-AD9 (WH/GN) or circuit 32-AD9C (WH/GN). TEST the system for normal operation.

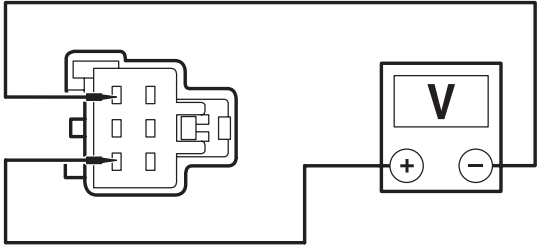
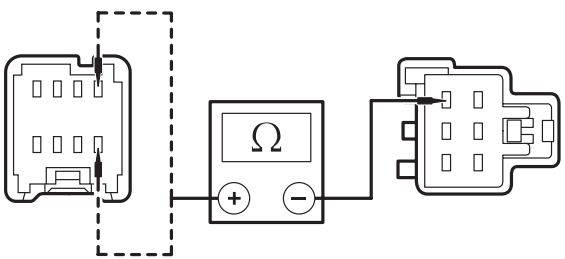
PINPOINT TEST C : A SINGLE EXTERIOR MIRROR DOES NOT FUNCTION WITH SWITCH LOGIC

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
NOTE: Use a digital multimeter for all electrical measurements.	
C1: CHECK THE EXTERIOR MIRROR FUNCTIONS WITH SWITCH LOGIC	
	1 Ignition switch in position II.

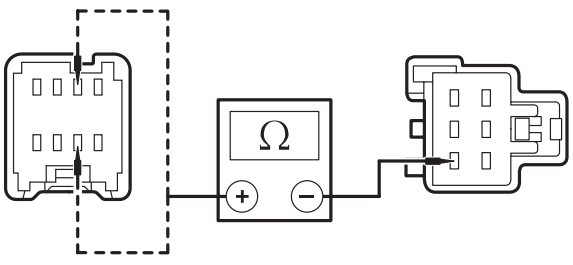
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	2 Operate the exterior mirror control switch. Does the exterior mirror function with switch logic? → Yes VERIFY the customer concern. → No Driver side exterior mirror UP/DOWN inoperative - GO to C2. Driver side exterior mirror LEFT/RIGHT inoperative - GO to C5. Passenger side exterior mirror UP/DOWN inoperative - GO to C8. Passenger side exterior mirror LEFT/RIGHT inoperative - GO to C11.
C2: CHECK THE DRIVER SIDE EXTERIOR MIRROR UP/DOWN CIRCUIT	
	1 Ignition switch in position 0.
	2 Disconnect Driver Side Exterior Mirror C808.
	3 Ignition switch in position II.
	4 Select the driver side exterior mirror. While operating the exterior mirror control switch UP and DOWN, measure the voltage between the:

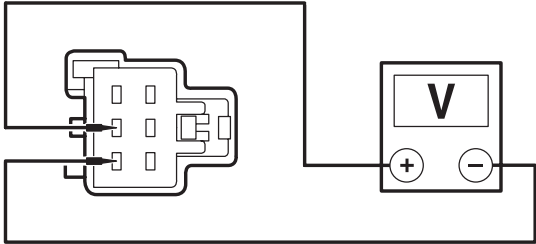
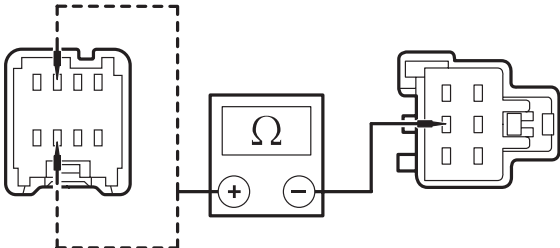
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E55391	Left-hand drive vehicles - Driver side exterior mirror C808 pin 1, circuit 34-AD7 (BU/RD), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6 (WH), harness side. Right-hand drive vehicles - Driver side exterior mirror C808 pin 1, circuit 34-AD7C (BU/RD), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6C (WH), harness side. - Is the voltage greater than 10 volts when the exterior mirror control switch is moved to the UP position and is the polarity reversed when moved to the DOWN position? → Yes INSTALL a new driver side exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No GO to C3.
C3: CHECK CIRCUIT 34-AD7 (BU/RD) FOR CONTINUITY	
 E0037300	1 Ignition switch in position 0. 2 Disconnect Exterior Mirror Control Switch C741. 3 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 8, circuit 34-AD7 (BU/RD), harness side and the driver side exterior mirror C808 pin 1, circuit 34-AD7 (BU/RD), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 4, circuit 34-AD7C (BU/RD), harness side and the driver side exterior mirror C822 pin 1, circuit 34-AD7C (BU/RD), harness side. - Is the resistance less than 5 ohms? → Yes GO to C4. → No REPAIR circuit 34-AD7 (BU/RD) or circuit 34-AD7C (BU/RD). TEST the system for normal operation.

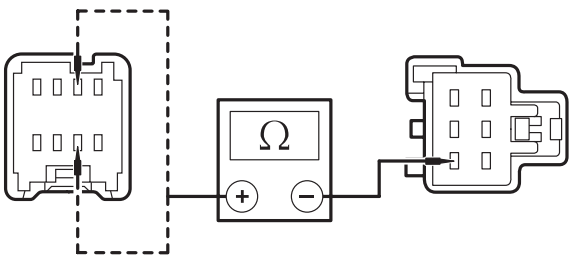
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
C4: CHECK CIRCUIT 32-AD6 (WH) FOR CONTINUITY	
 E0037298	1 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 7, circuit 32-AD6 (WH), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6 (WH), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 3, circuit 32-AD6C (WH), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6C (WH), harness side. - Is the resistance less than 5 ohms? → Yes INSTALL a new driver side exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No REPAIR circuit 32-AD6 (WH) or circuit 32-AD6C (WH). TEST the system for normal operation.
C5: CHECK THE DRIVER SIDE EXTERIOR MIRROR LEFT/RIGHT CIRCUIT	
	1 Ignition switch in position 0.
	2 Disconnect Driver Side Exterior Mirror C808.
	3 Ignition switch in position II.

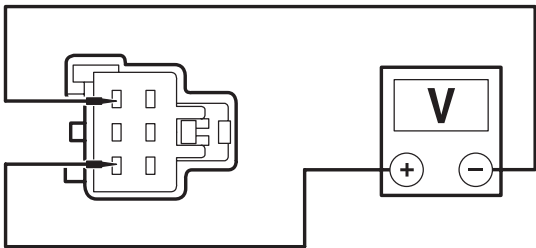
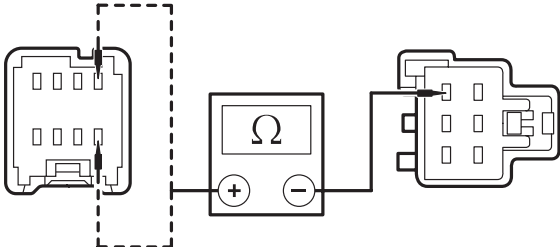
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E0037449	4 Select the driver side exterior mirror. While operating the exterior mirror control switch LEFT and RIGHT, measure the voltage between the: Left-hand drive vehicles - Driver side exterior mirror C808 pin 2, circuit 33-AD8 (YE/BU), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6 (WH), harness side. Right-hand drive vehicles - Driver side exterior mirror C808 pin 2, circuit 33-AD8C (YE/BU), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6C (WH), harness side. - Is the voltage greater than 10 volts when the exterior mirror control switch is moved to the LEFT position and is the polarity reversed when moved to the RIGHT position? → Yes INSTALL a new driver side exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No GO to C6.
C6: CHECK CIRCUIT 33-AD8 (YE/BU) FOR CONTINUITY	
 E0037302	1 Ignition switch in position 0. 2 Disconnect Exterior Mirror Control Switch C741. 3 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 6, circuit 33-AD8 (YE/BU), harness side and the driver side exterior mirror C808 pin 2, circuit 33-AD8 (YE/BU), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 2, circuit 33-AD8C (YE/BU), harness side and the driver side exterior mirror C808 pin 2, circuit 33-AD8C (YE/BU), harness side. - Is the resistance less than 5 ohms? → Yes GO to C7. → No REPAIR circuit 33-AD8 (YE/BU) or circuit 33-AD8C (YE/BU). TEST the system for normal operation.

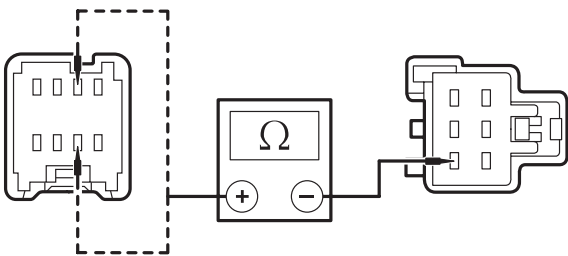
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
C7: CHECK CIRCUIT 32-AD6 (WH) FOR CONTINUITY	
 E0037298	1 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 7, circuit 32-AD6 (WH), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6 (WH), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 3, circuit 32-AD6C (WH), harness side and the driver side exterior mirror C808 pin 3, circuit 32-AD6C (WH), harness side. Is the resistance less than 5 ohms? → Yes INSTALL a new driver side exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No REPAIR circuit 32-AD6 (WH) or circuit 32-AD6 (WH). TEST the system for normal operation.
C8: CHECK THE PASSENGER SIDE MIRROR UP/DOWN CIRCUIT	
	1 Ignition switch in position 0.
	2 Disconnect Passenger Side Exterior Mirror C822.
	3 Ignition switch in position II.

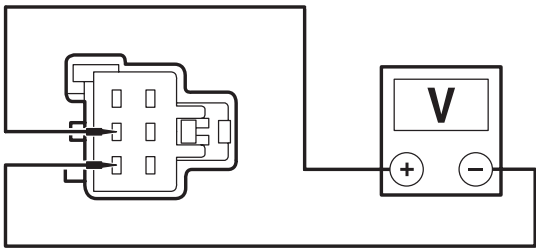
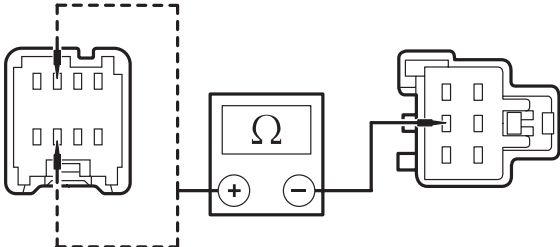
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E55391	4 Select the passenger side exterior mirror. While operating the exterior mirror control switch UP and DOWN, measure the voltage between the passenger side exterior mirror C822 pin 1, circuit 34-AD10 (BU/YE), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. Is the voltage greater than 10 volts when the exterior mirror control switch is moved to the UP position and is the polarity reversed when moved to the DOWN position? → Yes INSTALL a new passenger side exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No GO to C9.
C9: CHECK CIRCUIT 34-AD10 (BU/YE) FOR CONTINUITY	
	1 Ignition switch in position 0. 2 Disconnect Exterior Mirror Control Switch C741.
 E0037300	3 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 4, circuit 34-AD10 (BU/YE), harness side and the passenger side exterior mirror C822 pin 1, circuit 34-AD10 (BU/YE), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 8, circuit 34-AD10C (BU/YE), harness side and the passenger side exterior mirror C822 pin 1, circuit 34-AD10 (BU/YE), harness side. - Is the resistance less than 5 ohms? → Yes GO to C10. → No REPAIR circuit 34-AD10 (BU/YE) or circuit 34-AD10C (BU/YE). TEST the system for normal operation.

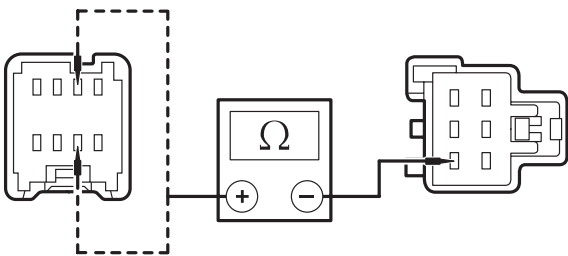
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
C10: CHECK CIRCUIT 32-AD9 (WH/GN) FOR CONTINUITY	
 E0037298	1 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 3, circuit 32-AD9 (WH/GN), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 7, circuit 32-AD9C (WH/GN), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. • Is the resistance less than 5 ohms? → Yes INSTALL a new passenger side exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No REPAIR circuit 32-AD9 (WH/GN) or circuit 32-AD9C (WH/GN). TEST the system for normal operation.
C11: CHECK THE PASSENGER SIDE EXTERIOR MIRROR LEFT/RIGHT CIRCUIT	
	1 Ignition switch in position 0.
	2 Disconnect Passenger Side Exterior Mirror C822.
	3 Ignition switch in position II.

DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E0037449	4 Select the passenger side exterior mirror. While operating the exterior mirror control switch LEFT and RIGHT, measure the voltage between the passenger side exterior mirror C822 pin 2, circuit 33-AD11 (YE/VT), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. Is the voltage greater than 10 volts when the exterior mirror control switch is moved to the LEFT position and is the polarity reversed when moved to the RIGHT position. → Yes INSTALL a new passenger side exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No GO to C12.
C12: CHECK CIRCUIT 33-AD11 (YE/VT) FOR CONTINUITY	
 E0037302	1 Ignition switch in position 0. 2 Disconnect Exterior Mirror Control Switch C741. 3 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 2, circuit 33-AD11 (YE/VT), harness side and the passenger side exterior mirror C822 pin 2, circuit 33-AD11 (YE/VT), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 6, circuit 33-AD11C (YE/VT), harness side and the passenger side exterior mirror C822 pin 2, circuit 33-AD11 (YE/VT), harness side. - Is the resistance less than 5 ohms? → Yes GO to C13. → No REPAIR circuit 33-AD11 (YE/VT) or circuit 33-AD11C (YE/VT). TEST the system for normal operation.

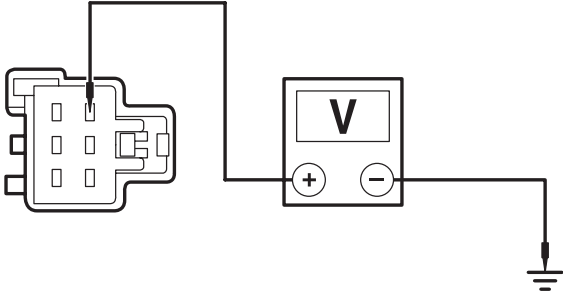
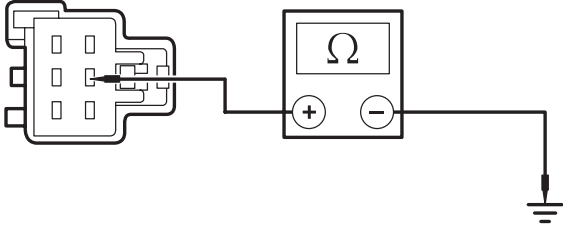
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
C13: CHECK CIRCUIT 32-AD9 (WH/GN) FOR CONTINUITY	
 E0037298	1 Measure the resistance between the: Left-hand drive vehicles - Exterior mirror control switch C741 pin 3, circuit 32-AD9 (WH/GN), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. Right-hand drive vehicles - Exterior mirror control switch C741 pin 7, circuit 32-AD9C (WH/GN), harness side and the passenger side exterior mirror C822 pin 3, circuit 32-AD9 (WH/GN), harness side. - Is the resistance less than 5 ohms? → Yes INSTALL a new passenger side exterior mirror. → REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No REPAIR circuit 32-AD9 (WH/RD) or circuit 32-AD9C (WH/RD). TEST the system for normal operation.

PINPOINT TEST D : THE HEATED EXTERIOR MIRROR IS INOPERATIVE

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
NOTE: Use a digital multimeter for all electrical measurements.	
D1: CHECK THE OPERATION OF THE HEATED REAR WINDOW	
	1 Ignition switch in position II. 2 Operate the heated rear window control switch. - Does the heated rear window function correctly? → Yes GO to D2. → No REPAIR the heated rear window. REFER to: Glass, Frames and Mechanisms - Vehicles With: Global Closing (501-11 Glass, Frames and Mechanisms, Diagnosis and Testing).
D2: CHECK THE VOLTAGE TO THE INOPERATIVE EXTERIOR MIRROR	
	1 Ignition switch in position 0.

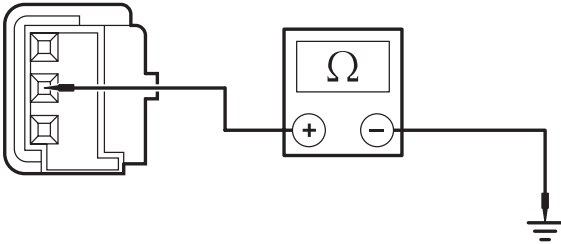
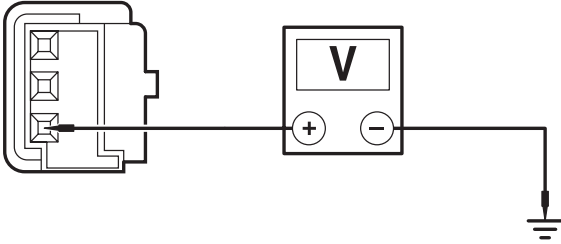
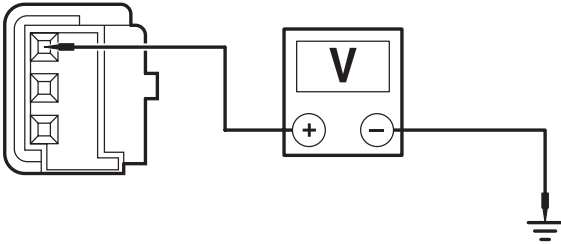
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
	2 Disconnect Inoperative Exterior Mirror C808 or C822. 3 Ignition switch in position II. 4 Operate the heated rear window control switch.
 E55392	5 Measure the voltage between the: • Driver side exterior mirror C808 pin 4, circuit 15S-HB35 (GN/BK), harness side and ground. • Passenger side exterior mirror C822 pin 4, circuit 15S-HB36 (GN/OG), harness side and ground. • Is the voltage greater than 10 volts? → Yes GO to D3. → No REPAIR circuit 15S-HB35 (GN/BK) or circuit 15S-HB36 (GN/OG). TEST the system for normal operation.
D3: CHECK THE INOPERATIVE EXTERIOR MIRROR GROUND CIRCUIT FOR CONTINUITY	
	1 Ignition switch in position 0.
 E55393	2 Measure the resistance between the: • Driver side exterior mirror C808 pin 5, circuit 31-HB35 (BK), harness side and ground. • Passenger side exterior mirror C822 pin 5, circuit 31-HB36 (BK), harness side and ground. • Is the resistance less than 5 ohms? → Yes INSTALL a new heated exterior mirror glass. TEST the system for normal operation. → No REPAIR circuit 31-HB35 (BK) or circuit 31-HB36 (BK). TEST the system for normal operation.

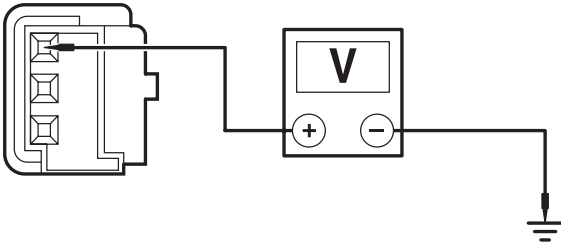
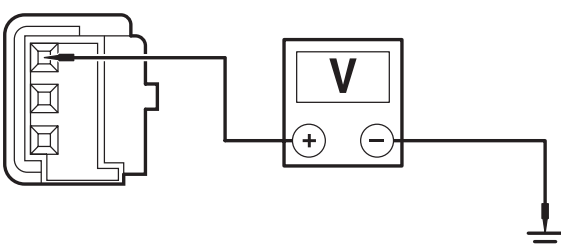
PINPOINT TEST E : THE AUTO-DIMMING INTERIOR MIRROR DOES NOT OPERATE CORRECTLY

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
NOTE: Use a digital multimeter for all electrical measurements.	
E1: CHECK FOR CONTINUITY BETWEEN THE AUTO-DIMMING INTERIOR MIRROR AND GROUND	
	1 Disconnect Auto-dimming Interior Mirror C742.

DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E55394	2 Measure the resistance between the auto-dimming interior mirror C742 pin 2, circuit 91-AD15 (BK/OG), harness side and ground. Is the resistance less than 5 ohms? → Yes GO to E2. → No REPAIR circuit 91-AD15 (BK/OG). TEST the system for normal operation.
E2: CHECK THE VOLTAGE TO THE AUTO-DIMMING INTERIOR MIRROR	
 E55395	1 Ignition switch in position II. 2 Measure the voltage between the auto-dimming interior mirror C742 pin 1, circuit 29-AD15 (OG), harness side and ground. Is the voltage greater than 10 volts? → Yes GO to E3. → No REPAIR circuit 29-AD15 (OG). TEST the system for normal operation.
E3: CHECK THE REVERSE CUT-OUT VOLTAGE TO THE AUTO-DIMMING INTERIOR MIRROR	
 E55396	NOTE: Make sure the selector lever is in the 'N' (NEUTRAL) position. 1 Measure the voltage between the auto-dimming interior mirror C742 pin 3, circuit 15S-AD15 (GN/RD), harness side and ground. Is any voltage present? → Yes GO to E4. → No GO to E5.
E4: CHECK FOR VOLTAGE TO THE AUTO-DIMMING INTERIOR MIRROR	
	1 Ignition switch in position 0. 2 Disconnect Transmission Switch C864 or Transmission Switch C866 or Reversing Lamps Relay C1003.

DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E55396	3 Ignition switch in position II. 4 Measure the voltage between the auto-dimming interior mirror C742 pin 3, circuit 15S-AD15 (GN/RD), harness side and ground. Is any voltage present? → Yes INSTALL a new transmission switch or reversing lamp relay. TEST the system for normal operation. → No REPAIR circuit 15S-AD15 (GN/RD). TEST the system for normal operation.
E5: CHECK THE REVERSE CUT-OUT VOLTAGE TO THE AUTO-DIMMING INTERIOR MIRROR	
 E55396	1 Select R (REVERSE). 2 Measure the voltage between the auto-dimming interior mirror C742 pin 3, circuit 15S-AD15 (GN/RD), harness side and ground. Is the voltage greater than 10 volts? → Yes INSTALL a new auto-dimming interior mirror. REFER to: Auto-Dimming Interior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No REPAIR circuit 15S-AD15 (GN/RD). TEST the system for normal operation.

DIAGNOSIS AND TESTING

Rear View Mirrors — Vehicles With: Global Closing

Refer to Wiring Diagrams Section 501-09, for schematic and connector information.

General Equipment

Worldwide Diagnostic System (WDS)

Inspection and Verification

1. Verify the customer concern.
2. Visually inspect for obvious signs of mechanical or electrical damage.

Visual Inspection Chart

Mechanical	Electrical
• Exterior mirror(s)	• Fuse(s) • Relay • Electrical connector(s) • Switch

3. If an obvious cause for an observed or reported concern is found, correct the cause (if possible) before proceeding to the next step.
4. If the cause is not visually evident, verify the symptom and refer to the Symptom Chart.

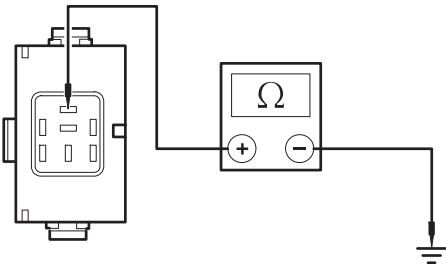
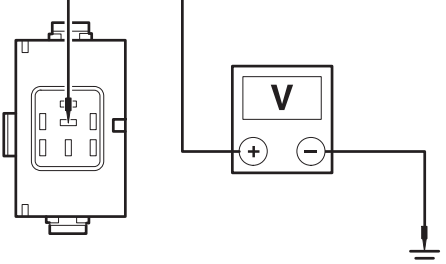
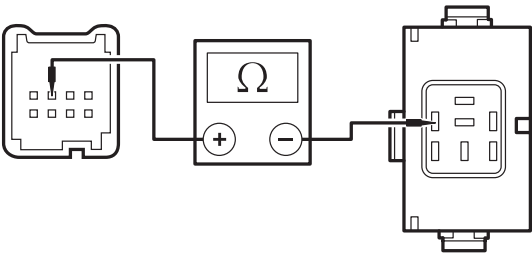
Symptom Chart

Symptom	Possible Sources	Action
• The mirrors are inoperative	• Exterior mirror control switch. • Circuit(s).	• REFER to WDS.
• A single mirror is inoperative	• Exterior mirror control switch. • Circuit(s). • Exterior mirror motor(s).	• REFER to WDS.
• A single mirror does not function with switch logic	• Exterior mirror control switch. • Circuit(s). • Exterior mirror motor(s).	• REFER to WDS.
• The heated exterior mirror does not defrost	• Heated rear window control switch. • Relay. • Circuit(s). • Heated mirror element(s).	• REFER to WDS.
• The power folding mirrors do not operate	• Power fold mirror control switch. • Circuit(s).	• GO to Pinpoint Test A.
• The power folding mirrors do not operate correctly	• Power fold mirror(s). • Power fold mirror control switch. • Circuit(s).	• GO to Pinpoint Test B.

PINPOINT TEST F : THE POWER FOLDING MIRRORS DO NOT OPERATE

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
A1: CHECK THE POWER FOLDING MIRROR MODULE GROUND CIRCUIT FOR CONTINUITY	
	1 Disconnect Power Folding Mirror Module C743.

DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 TIE0024495	2 Measure the resistance between the power folding mirror module C743 pin 5, circuit 31-AD27 (BK), harness side and ground. Is the resistance less than 5 ohms? → Yes GO to A2. → No REPAIR circuit 31-AD27 (BK). TEST the system for normal operation.
A2: CHECK THE VOLTAGE TO THE POWER FOLDING MIRROR MODULE	
 TIE0024535	1 Measure the voltage between the power folding mirror module C743 pin 4, circuit 29-AD27 (OG/BK), harness side and ground. Is the voltage greater than 10 volts? → Yes GO to A3. → No REPAIR circuit 29-AD27 (OG). TEST the system for normal operation.
A3: CHECK FOR CONTINUITY BETWEEN THE POWER FOLDING MIRROR CONTROL SWITCH AND THE POWER FOLDING MIRROR MODULE	
 E53185	1 Disconnect Power Fold Mirror Control Switch C222. 2 Measure the resistance between the power folding mirror control switch C222 pin 2, circuit 91S-AD24 (BK/RD), harness side and the power folding mirror module C743 pin 2, circuit 31S-AD24 (BK/RD), harness side. Is the resistance less than 5 ohms? → Yes GO to A4. → No REPAIR circuit 31S-AD24 (BK/RD) or circuit 91S-AD24 (BK/RD). TEST the system for normal operation.

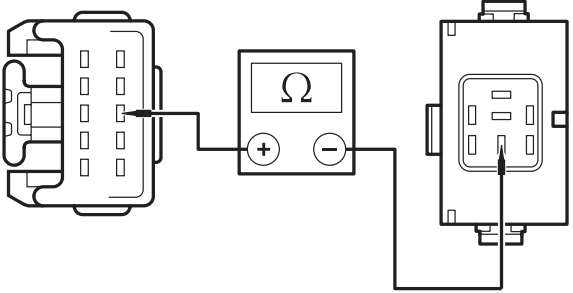
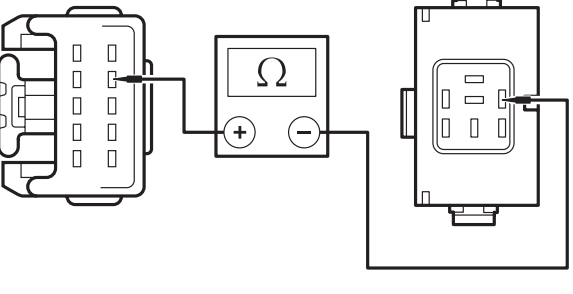
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
A4: CHECK FOR CONTINUITY BETWEEN THE POWER FOLDING MIRROR MODULE AND THE DRIVER POWER FOLDING MIRROR MOTOR	
E53186	1 Measure the resistance between the driver power folding mirror motor C807 pin 8, circuit 32-AD27 (WH/GN), harness side and the power folding mirror module C743 pin 3, circuit 32-AD27 (WH/GN), harness side. • Is the resistance less than 5 ohms? → Yes GO to A5. → No REPAIR circuit 32-AD27 (WH/GN). TEST the system for normal operation.
A5: CHECK FOR CONTINUITY BETWEEN THE POWER FOLDING MIRROR MODULE AND THE DRIVER POWER FOLDING MIRROR MOTOR	
E53187	1 Measure the resistance between the driver power folding mirror motor C807 pin 9, circuit 33-AD27 (YE/GN), harness side and the power folding mirror module C743 pin 1, circuit 33-AD27 (YE/GN), harness side. • Is the resistance less than 5 ohms? → Yes INSTALL a new power folding mirror module. TEST the system for normal operation. → No REPAIR circuit 33-AD27 (YE/GN). TEST the system for normal operation.

PINPOINT TEST G : THE POWER FOLDING MIRRORS DO NOT OPERATE CORRECTLY

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
B1: CHECK FOR CONTINUITY BETWEEN THE POWER FOLDING MIRROR MODULE AND THE INOPERATIVE POWER FOLDING MIRROR MOTOR	
	1 Disconnect Inoperative Power Folding Mirror Motor C807 or C821. 2 Disconnect Power Folding Mirror Module C743.

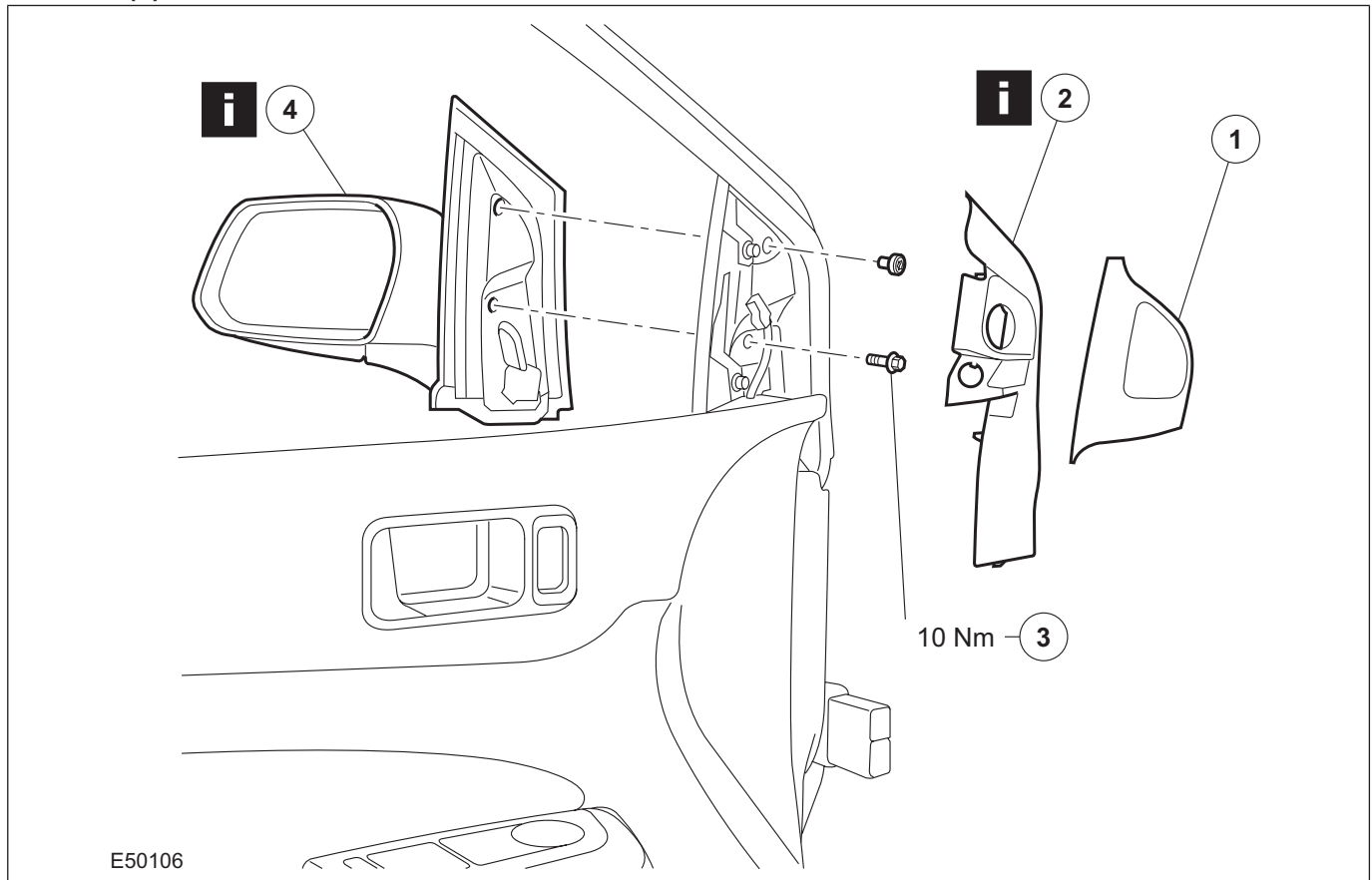
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E53186	3 Measure the resistance between the: • Driver power folding mirror - power folding mirror motor C807 pin 8, circuit 32-AD27 (WH/GN), harness side and the power folding mirror module C743 pin 3, circuit 32-AD27 (WH/GN), harness side. • Passenger power folding mirror - power folding mirror motor C821 pin 8, circuit 32-AD28 (WH/GN), harness side and the power folding mirror module C743 pin 3, circuit 32-AD28 (WH/GN), harness side. • Is the resistance less than 5 ohms? → Yes GO to B2. → No REPAIR circuit 32-AD27 (WH/GN) or circuit 32-AD28 (WH/GN). TEST the system for normal operation.
B2: CHECK FOR CONTINUITY BETWEEN THE POWER FOLDING MIRROR MODULE AND THE INOPERATIVE POWER FOLDING MIRROR MOTOR	
 E53187	1 Measure the resistance between the: • Driver power folding mirror - power folding mirror motor C807 pin 9, circuit 33-AD27 (YE/GN), harness side and the power folding mirror module C743 pin 1, circuit 33-AD27 (YE/GN), harness side. • Passenger power folding mirror - power folding mirror motor C821 pin 9, circuit 33-AD28 (YE/GN), harness side and the power folding mirror module C743 pin 1, circuit 33-AD28 (YE/GN), harness side. • Is the resistance less than 5 ohms? → Yes INSTALL a new power folding exterior mirror. REFER to: Exterior Mirror (501-09 Rear View Mirrors, Removal and Installation). TEST the system for normal operation. → No REPAIR circuit 33-AD27 (YE/GN) or circuit 33-AD28 (YE/GN). TEST the system for normal operation.

REMOVAL AND INSTALLATION

Exterior Mirror

1. Remove the components in the order indicated in the following illustration(s) and table(s).



Item	Description
1	Speaker cover
2	Exterior mirror trim panel See Removal Detail

Item	Description
3	Exterior mirror retaining bolt
4	Exterior mirror See Removal Detail

2. To install, reverse the removal procedure.

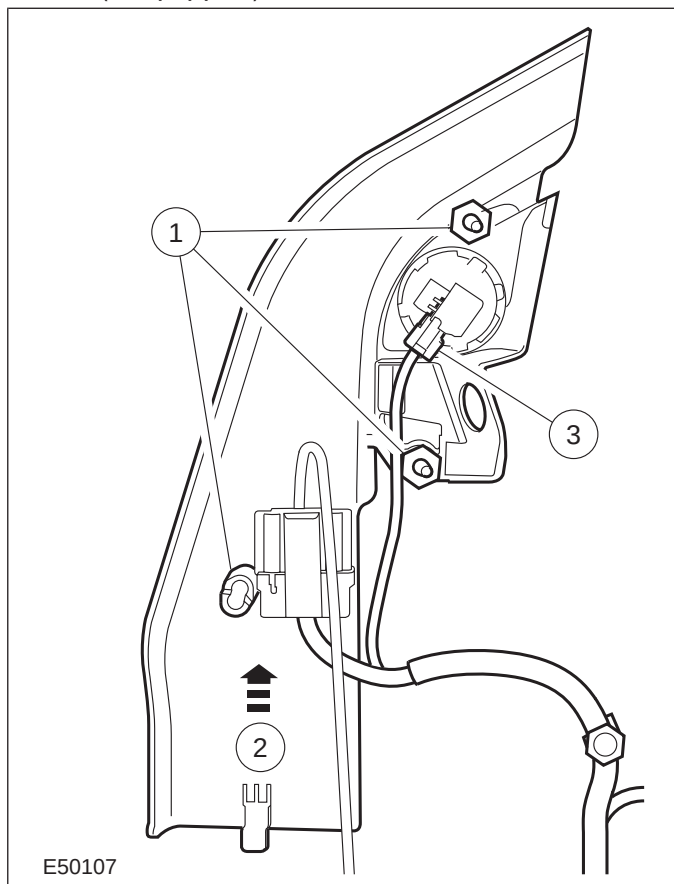
Removal Details

Item 2 Exterior mirror trim panel

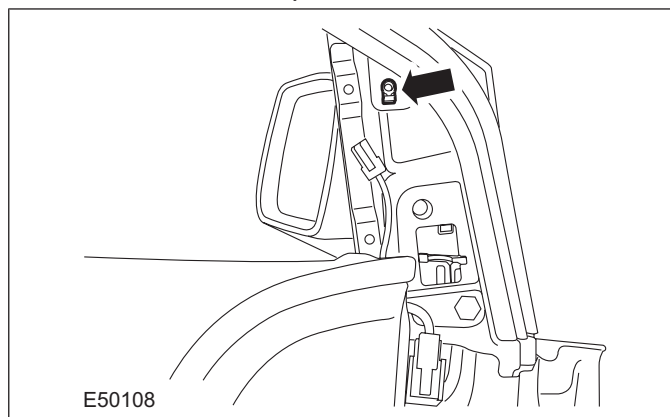
1. Detach the exterior mirror trim panel from the door panel.
 1. Detach the clips.
 2. Detach the trim panel.

REMOVAL AND INSTALLATION

3. Disconnect the speaker electrical connector (if equipped).

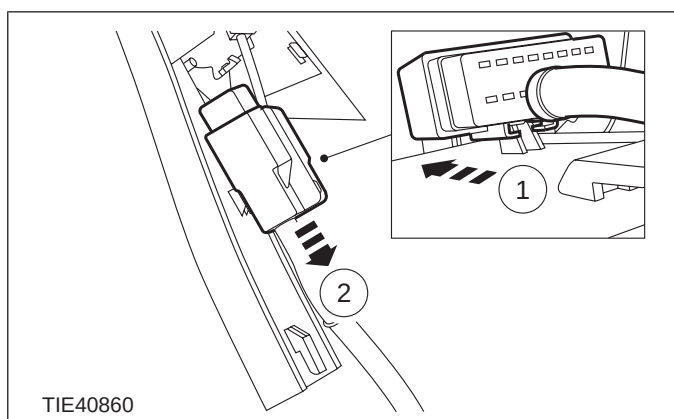


- Release the clip.



2. Remove the exterior mirror trim panel.

1. Detach the mirror electrical connector from the trim panel.
2. Disconnect the mirror electrical connector.



Item 4 Exterior mirror

1. Remove the exterior mirror.

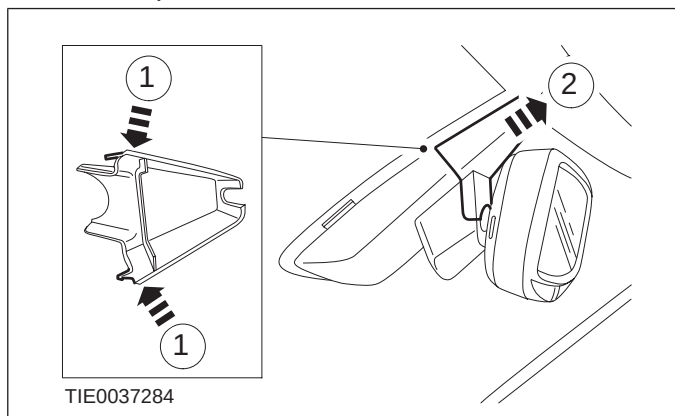
REMOVAL AND INSTALLATION

Auto-Dimming Interior Mirror

Removal

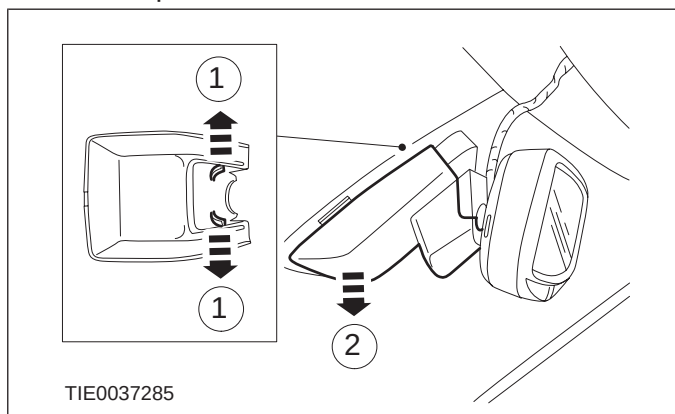
1. Remove the auto-dimming interior mirror upper trim panel.

1. Release the clips.
2. Pull the auto-dimming interior mirror upper trim panel rearwards.

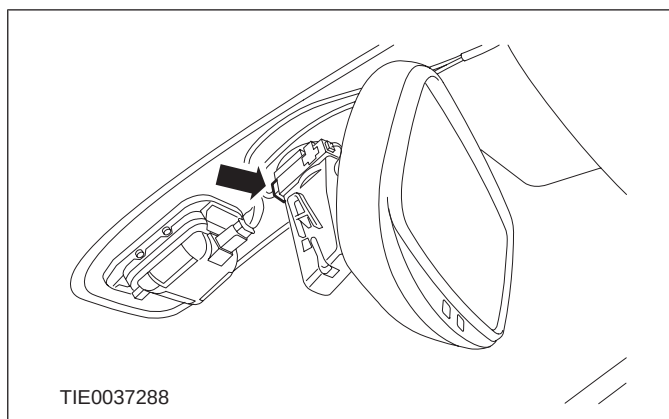


2. Remove the auto-dimming interior mirror lower trim panel.

1. Release the clips.
2. Pull the auto-dimming interior mirror lower trim panel downwards.

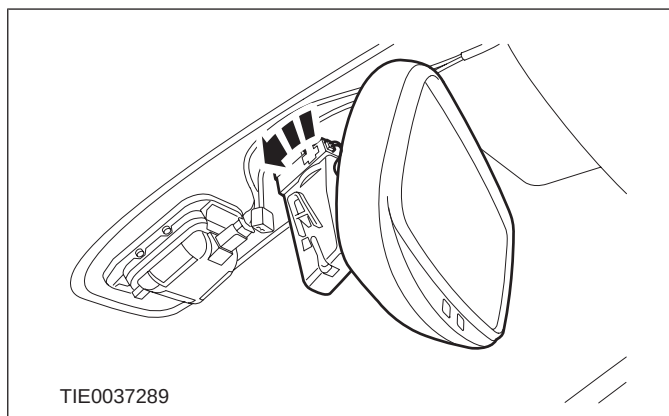


3. Disconnect the auto-dimming interior mirror electrical connector.



4. Remove the auto-dimming interior mirror.

- Rotate the mirror bracket 60 degrees counterclockwise.



Installation

1. To install, reverse the removal procedure.