

SECTION 501-11 Glass, Frames and Mechanisms

VEHICLE APPLICATION: 2011.00 Focus

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SPECIFICATIONS**Lubricants, Fluids, Sealers and Adhesives**

	Specificat ions
Cleaner	WSK- M2G342- A
Primer	WSK- M2G343- A

	Specificat ions
2K Adhesive	WSK- M11P57-A
2K Hardener	WSK- M2G322- B2

Torque Specifications

Item	Nm	lb-ft	lb-in
Door window regulator motor retaining screws	6	-	53
Front door window regulator motor retaining screws - Convertible	6	-	53
Front door window regulator upper retaining screws - Convertible	6	-	53
Front door window regulator lower retaining screws - Convertible	12	9	-
Door inner panel retaining screws	8	-	71
Door latch retaining screws	8	-	71
Door window glass clamp retaining bolts	8	-	71
Front door window glass clamp retaining screws - Convertible	5	-	44
Rear quarter window glass clamp retaining screws - Convertible	5	-	44
Rear quarter window regulator upper retaining screw - Convertible	6	-	53
Rear quarter window regulator upper retaining nut - Convertible	6	-	53
Rear quarter window regulator lower retaining nuts - Convertible	12	9	-
Windshield wiper arm retaining nut	15	11	-
Heated windshield glass ground cable retaining nut	11	8	-

DESCRIPTION AND OPERATION

Glass, Frames and Mechanisms

Fixed Glass

Fixed window glass is directly glazed to the window opening flange by means of a polyurethane (PU) adhesive bead. In addition to fixing the glass to the opening flange, the adhesive bead also forms a water tight seal around the inner edge of the glass.

All vehicles have a heated rear window, a heated windshield is available as an option.

Moving Glass - 3-Door, 4-Door, 5-Door and Wagon

The front power windows have a one-touch down and a one-touch up function, combined with anti-trap protection, which is active whenever the window is closing. The anti-trap function will automatically deactivate if operated more than twice consecutively. The anti-trap function will reset automatically when the window is closed, after 10 seconds, or if the ignition is switched OFF then ON.

Front power windows are installed as standard.

Global closing of the front power windows is standard. Global closing on the front power windows can only be operated by using the remote key.

Rear power windows do not have anti-trap functionality and are not part of global closing.

Vehicles equipped with front and rear power windows require an initialization process to be carried out on each window motor. The initialization process is carried out before the vehicle leaves the production plant. However the initialization process will need to be carried out again whenever the power supply has been disconnected.

The multiple switch on the driver door incorporates a safety switch which, when operated, prevents the rear power windows from being opened by the rear power window switches. However, the rear power windows can still be operated from the driver switch.

Moving Glass - Convertible

The front power windows have a one-touch down and a one-touch up function, combined with anti-trap protection, which is active whenever the window is closing. The anti-trap function will automatically deactivate if operated more than twice consecutively. The anti-trap function will reset automatically when the window is closed, after 10 seconds, or if the ignition is switched OFF then ON.

Front and rear quarter power windows are installed as standard.

Global closing of the front power windows is standard. Global closing on the front power windows can only be operated by using the remote key.

Rear quarter power windows do not have anti-trap functionality and are not part of global closing.

Vehicles require an initialization process to be carried out on each window motor. The initialization process is carried out before the vehicle leaves the production plant. However the initialization process will need to be carried out again whenever the power supply has been disconnected.

The multiple switch on the driver door incorporates a safety switch which, when operated, prevents the rear quarter power windows from being opened by the rear quarter power window switches. However, the rear quarter power windows can still be operated from the driver switch.

When the convertible roof is opened, the front and rear quarter power windows have a drop movement. When the convertible roof is closed, the front and rear quarter power windows move upwards to a fully closed position after the convertible roof has locked.

DIAGNOSIS AND TESTING

Glass, Frames and Mechanisms — Vehicles Without: Global Closing

Refer to Wiring Diagrams Section 501-11, 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
• Window seal • Door window frame	• Fuse(s) • Electrical connector(s) • Switch(es) • Grid wire(s) • Circuit(s)

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
• All power windows are inoperative - front power windows	• Circuit(s).	• GO to Pinpoint Test A.
• The left or right power window is inoperative - driver side	• Driver side power window control switch.	• CARRY OUT the Driver Side Power Window Control Switch Component Test. REFER to the Wiring Diagrams.
	• Driver side front door window regulator motor. • Circuit(s).	• GO to Pinpoint Test B.
• The left or right power window is inoperative - passenger side	• Passenger side power window control switch.	• CARRY OUT the Passenger Side Power Window Control Switch Component Test. REFER to the Wiring Diagrams.
	• Driver side power window control switch.	• CARRY OUT the Driver Side Power Window Control Switch Component Test. REFER to the Wiring Diagrams.
	• Passenger side front door window regulator motor. • Circuit(s).	• GO to Pinpoint Test C.
• The one-touch down feature is inoperative - front power windows	• Driver side power window control switch.	• CARRY OUT the Driver Side Power Window Control Switch Component Test. REFER to the Wiring Diagrams.

DIAGNOSIS AND TESTING

Symptom	Possible Sources	Action
• The defrost system is inoperative	• Central Junction Box (CJB).	• For additional information, REFER to WDS.
	• Heated windshield glass relay.	• For additional information, REFER to WDS.
	• Heated windshield glass control switch.	• CARRY OUT the Heated Windshield Glass Control Switch Component Test. REFER to the Wiring Diagrams.
	• Heated rear window glass relay.	• For additional information, REFER to WDS.
	• Heated rear window glass control switch.	• CARRY OUT the Heated Rear Window Glass Control Switch Component Test. REFER to the Wiring Diagrams .
	• Heated rear window glass grid wire. • Circuit(s).	• For additional information, REFER to WDS.
• The defrost system will not shut off automatically	• Central Junction Box (CJB). • Heated windshield glass relay. • Heated rear window glass relay.	• For additional information, REFER to WDS.

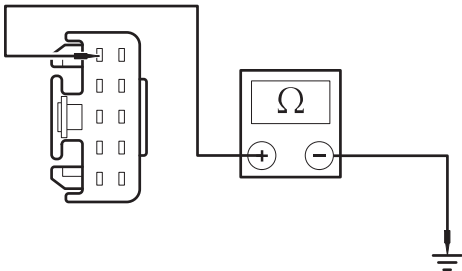
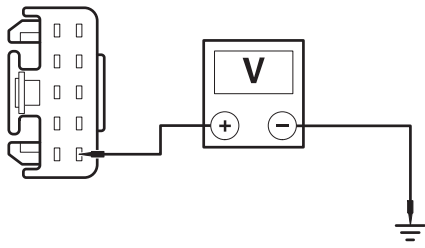
Pinpoint Tests

NOTE: Use a digital multimeter for all electrical measurements.

PINPOINT TEST A : ALL POWER WINDOWS ARE INOPERATIVE - FRONT POWER WINDOWS

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
A1: CHECK FOR VOLTAGE TO THE POWER WINDOW CONTROL SWITCHES	
	1 Ignition switch in position II. • Do the power window control switch LEDs illuminate? → Yes VERIFY the customer concern. → No GO to A2.
A2: CHECK FOR CONTINUITY BETWEEN THE DRIVER SIDE POWER WINDOW CONTROL SWITCH AND GROUND	
	1 Ignition switch in position 0. 2 Disconnect Driver Side Power Window Control Switch C488.

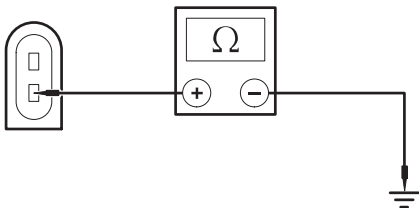
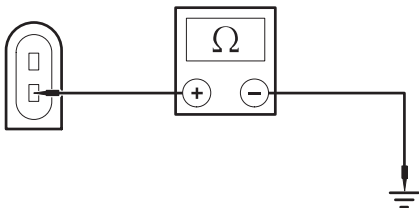
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 TIE0023402	3 Measure the resistance between the driver side power window control switch C488 pin 1, circuit 31-AJ7 (BK), harness side and ground. Is the resistance less than 5 ohms? → Yes GO to A3. → No REPAIR circuit 31-AJ7 (BK). TEST the system for normal operation.
A3: CHECK FOR VOLTAGE TO THE DRIVER SIDE POWER WINDOW CONTROL SWITCH	
 TIE0023403	1 Ignition switch in position II. 2 Measure the voltage between the driver side power window control switch C488 pin 10, circuit 15-AJ7 (GN/BU), harness side and ground. Is the voltage greater than 10 volts? → Yes VERIFY the customer concern. → No REPAIR circuit 15-AJ7 (GN/BU). TEST the system for normal operation.

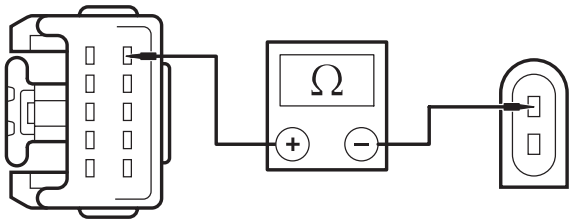
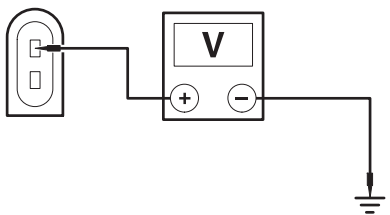
PINPOINT TEST B : THE LEFT OR RIGHT POWER WINDOW IS INOPERATIVE - DRIVER SIDE

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
NOTE: Use a digital multimeter for all electrical measurements.	
B1: CHECK FOR VOLTAGE TO THE DRIVER SIDE POWER WINDOW CONTROL SWITCH	
	1 Ignition switch in position II. Does the driver side power window control switch LED illuminate? → Yes Left-hand drive vehicles – 3-door or right-hand drive vehicles – 4-door/5-door GO to B2. Left-hand drive vehicles – 4-door/5-door or right-hand drive vehicles – 3-door GO to B5. → No GO to B8.

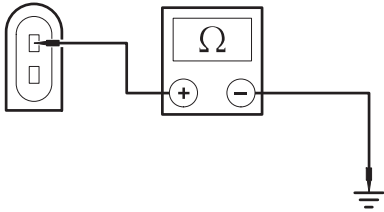
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
B2: CHECK FOR CONTINUITY BETWEEN THE DRIVER SIDE FRONT DOOR WINDOW REGULATOR MOTOR AND GROUND - LEFT-HAND DRIVE VEHICLES 3-DOOR AND RIGHT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR	
 TIE0010881	1 Ignition switch in position 0.
	2 Disconnect Driver Side Front Door Window Regulator Motor C782 or Driver Side Front Door Window Regulator Motor C783.
 TIE0010881	3 Measure the resistance between the: Left-hand drive vehicles – 3-door - Driver side front door window regulator motor C782 pin 2, circuit 33-AJ26B (YE), harness side and ground. Right-hand drive vehicles – 4-door/5-door - Driver side front door window regulator motor C783 pin 2, circuit 33-AJ26A (YE), harness side and ground. Is the resistance less than 5 ohms? → Yes GO to B3. → No REPAIR circuit 33-AJ26A (YE) or circuit 33-AJ26B (YE). TEST the system for normal operation.
B3: CHECK FOR CONTINUITY BETWEEN THE DRIVER SIDE WINDOW CONTROL SWITCH AND THE DRIVER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 3-DOOR AND RIGHT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR	
	1 Disconnect Driver Side Power Window Control Switch C488.

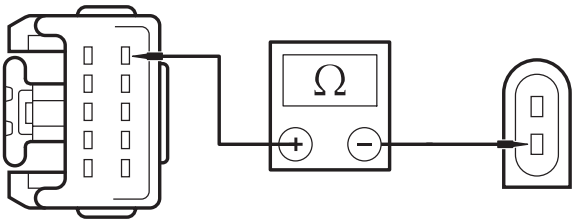
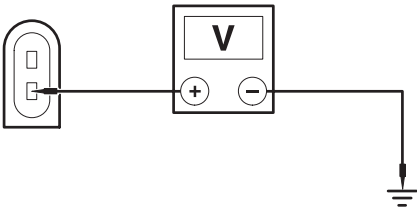
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E52014	2 Measure the resistance between the: Left-hand drive vehicles – 3-door - Driver side power window control switch, C488 pin 6, circuit 32-AJ26B (WH), harness side and the driver side front door window regulator motor C782 pin 1, circuit 32-AJ26B (WH) harness side. Right-hand drive vehicles – 4-door/5-door - Driver side power window control switch, C488 pin 6, circuit 32-AJ26A (WH), harness side and the driver side front door window regulator motor C783 pin 1, circuit 32-AJ26A (WH), harness side and ground. • Is the resistance less than 5 ohms? → Yes GO to B4. → No REPAIR circuit 32-AJ26A (WH) or circuit 32-AJ26B (WH). TEST the system for normal operation.
B4: CHECK FOR VOLTAGE TO THE DRIVER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 3-DOOR AND RIGHT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR	
	1 Connect Driver Side Power Window Control Switch C488. 2 Ignition switch in position II. 3 Operate the driver side power window control switch to the DOWN position.
 TIE0029413	4 Measure the voltage between the: Left-hand drive vehicles – 3-door - Driver side front door window regulator motor C782 pin 1, circuit 32-AJ26B (WH), harness side and ground. Right-hand drive vehicles – 4-door/5-door - Driver side front door window regulator motor C783 pin 1, circuit 32-AJ26A (WH), harness side and ground. • Is the voltage greater than 10 volts? → Yes Install a new driver side front door window regulator motor. TEST the system for normal operation. → No Install a new driver side power window control switch. TEST the system for normal operation.

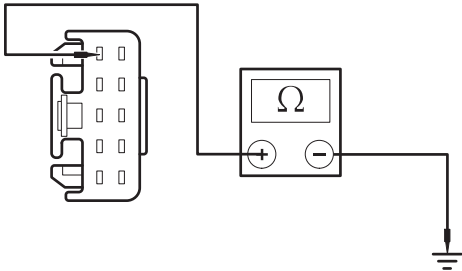
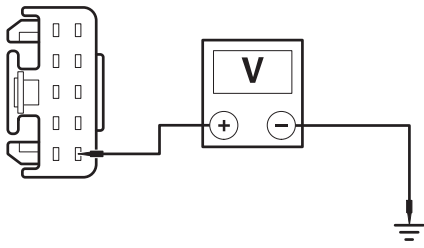
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
B5: CHECK FOR CONTINUITY BETWEEN THE DRIVER SIDE FRONT DOOR WINDOW REGULATOR MOTOR AND GROUND - LEFT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR AND RIGHT-HAND DRIVE VEHICLES 3-DOOR	
	1 Ignition switch in position 0.
	2 Disconnect Driver Side Front Door Window Regulator Motor C782 or Driver Side Front Door Window Regulator Motor C783.
 TIE0014344	3 Measure the resistance between the: Left-hand drive vehicles – 4-door/5-door • Driver side front door window regulator motor C782 pin 1, circuit 33-AJ26 (YE), harness side and ground. Right-hand drive vehicles – 3-door • Driver side front door window regulator motor C783 pin 1, circuit 33-AJ26C (YE), harness side and ground. • Is the resistance less than 5 ohms? → Yes GO to B6. → No REPAIR circuit 33-AJ26 (YE) or circuit 33-AJ26C (YE). TEST the system for normal operation.
B6: CHECK FOR CONTINUITY BETWEEN THE DRIVER SIDE POWER WINDOW CONTROL SWITCH AND THE DRIVER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR AND RIGHT-HAND DRIVE VEHICLES 3-DOOR	
	1 Disconnect Driver Side Power Window Control Switch C488.

DIAGNOSIS AND TESTING

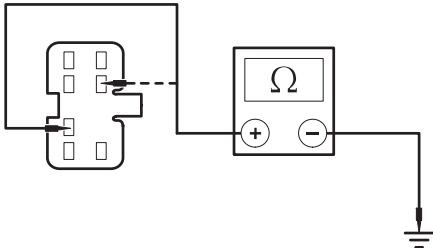
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E52015	2 Measure the resistance between the: Left-hand drive vehicles – 4-door/5-door - Driver side power window control switch, C488 pin 6, circuit 32-AJ26 (WH), harness side and the driver side front door window regulator motor C782 pin 2, circuit 32-AJ26 (WH) harness side. Right-hand drive vehicles – 3-door - Driver side power window control switch, C488 pin 6, circuit 32-AJ26B (WH), harness side and the driver side front door window regulator motor C783 pin 2, circuit 32-AJ26B (WH), harness side and ground. • Is the resistance less than 5 ohms? → Yes GO to B7. → No REPAIR circuit 32-AJ26A (WH) or circuit 32-AJ26B (WH). TEST the system for normal operation.
B7: CHECK FOR VOLTAGE TO THE DRIVER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR AND RIGHT-HAND DRIVE VEHICLES 3-DOOR	
	1 Connect Driver Side Power Window Control Switch C488. 2 Ignition switch in position II. 3 Operate the driver side power window control switch to the DOWN position.
 E0024115	4 Measure the voltage between the: Left-hand drive vehicles – 4-door/5-door - Driver side front door window regulator motor C782 pin 2, circuit 32-AJ26 (WH), harness side and ground. Right-hand drive vehicles – 3-door - Driver side front door window regulator motor C783 pin 2, circuit 32-AJ26C (WH), harness side and ground. • Is the voltage greater than 10 volts? → Yes Install a new driver side front door window regulator motor. TEST the system for normal operation. → No Install a new driver side power window control switch. TEST the system for normal operation.

DIAGNOSIS AND TESTING

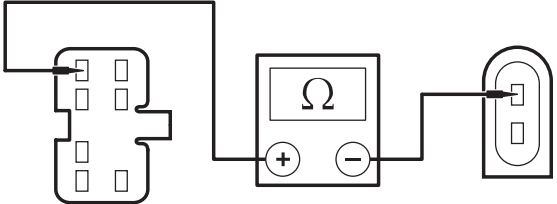
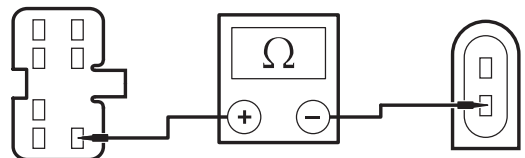
TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
B8: CHECK THE DRIVER SIDE POWER WINDOW CONTROL SWITCH FOR CONTINUITY TO GROUND	
	1 Ignition switch in position 0. 2 Disconnect Driver Side Power Window Control Switch C488.
 TIE0023402	3 Measure the resistance between the driver side power window control switch C488 pin 1, circuit 31-AJ7 (BK), harness side and ground. • Is the resistance less than 5 ohms? → Yes GO to B9. → No REPAIR circuit 31-AJ7 (BK). TEST the system for normal operation.
B9: CHECK FOR VOLTAGE TO THE DRIVER SIDE POWER WINDOW CONTROL SWITCH	
 TIE0023403	1 Ignition switch in position II. 2 Measure the voltage between the driver side power window control switch C488 pin 10, circuit 15-AJ7 (GN/BU), harness side and ground. • Is the voltage greater than 10 volts? → Yes VERIFY the customer concern. → No REPAIR circuit 15-AJ7 (GN/BU). TEST the system for normal operation.

DIAGNOSIS AND TESTING

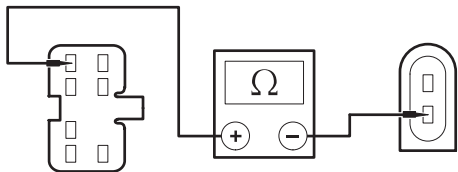
PINPOINT TEST C : THE LEFT OR RIGHT POWER WINDOW IS INOPERATIVE - PASSENGER SIDE

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
NOTE: Use a digital multimeter for all electrical measurements.	
C1: CHECK FOR VOLTAGE TO THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH	
	1 Ignition switch in position II. - Does the passenger side power window control switch LED illuminate? → Yes GO to C2. → No GO to C7.
C2: CHECK THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH GROUND CIRCUITS	
	1 Ignition switch in position 0. 2 Disconnect Passenger Side Power Window Control Switch C489.
 TIE0014346	3 Measure the resistance between the: - Passenger side power window control switch C489 pin 3, circuit 32-AJ18 (WH/VT), harness side and ground. - Passenger side power window control switch C489 pin 6, circuit 33-AJ18 (YE/VT), harness side and ground. - Are the resistances less than 5 ohms? → Yes Left-hand drive vehicles – 3-door or right-hand drive vehicles – 4-door/5-door GO to C3. Left-hand drive vehicles – 4-door/5-door or right-hand drive vehicles – 3-door GO to C5. → No Repair circuit 32-AJ18 (WH/VT) or circuit 33-AJ18 (YE/VT). TEST the system for normal operation.
C3: CHECK FOR CONTINUITY BETWEEN THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH DOWN CIRCUIT AND THE PASSENGER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 3-DOOR AND RIGHT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR	
	1 Disconnect Passenger Side Front Door Window Regulator Motor C782 or Passenger Side Front Door Window Regulator Motor C783.

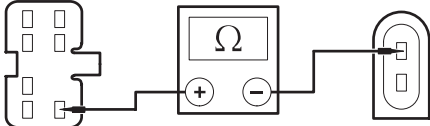
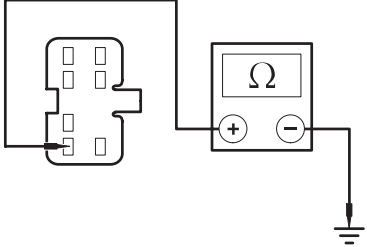
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 E51963	2 Measure the resistance between the: Left-hand drive vehicles – 3-door - Passenger side power window control switch C489 pin 1, circuit 33-AJ17B (YE/VT), harness side and the passenger side front door window regulator motor C783 pin 1, circuit 33-AJ17B (YE/VT), harness side. Right-hand drive vehicles – 4-door/5-door - Passenger side power window control switch C489 pin 1, circuit 33-AJ17A (YE/VT), harness side and the passenger side front door window regulator motor C782 pin 1, circuit 33-AJ17A (YE/VT), harness side. • Is the resistance less than 5 ohms? → Yes GO to C4. → No REPAIR circuit 33-AJ17A (YE/VT) or circuit 33-AJ17B (YE/VT). TEST the system for normal operation.
C4: CHECK FOR CONTINUITY BETWEEN THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH UP CIRCUIT AND THE PASSENGER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 3-DOOR AND RIGHT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR	
 E51964	1 Measure the resistance between the: Left-hand drive vehicles – 3-door - Passenger side power window control switch C489 pin 7, circuit 32-AJ17B (WH/VT), harness side and the passenger side front door window regulator motor C783 pin 2, circuit 32-AJ17B (WH/VT), harness side. Right-hand drive vehicles – 4-door/5-door - Passenger side power window control switch C489 pin 7, circuit 32-AJ17A (WH/VT), harness side and the passenger side front door window regulator motor C782 pin 2, circuit 32-AJ17A (WH/VT), harness side. • Is the resistance less than 5 ohms? → Yes INSTALL a new passenger side front door window regulator motor. TEST the system for normal operation. → No REPAIR circuit 32-AJ17A (WH/VT) or circuit 32-AJ17B (WH/VT). TEST the system for normal operation.

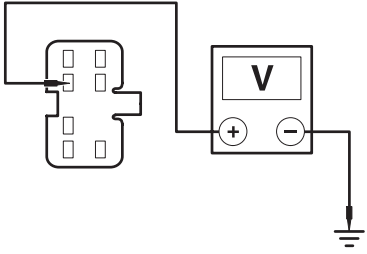
DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
C5: CHECK FOR CONTINUITY BETWEEN THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH DOWN CIRCUIT AND THE PASSENGER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR AND RIGHT-HAND DRIVE VEHICLES 3-DOOR	
	1 Disconnect Passenger Side Front Door Window Regulator Motor C782 or Passenger Side Front Door Window Regulator Motor C783.
 TIE0014347	2 Measure the resistance between the: Left-hand drive vehicles – 4-door/5-door - Passenger side power window control switch C489 pin 1, circuit 33-AJ17 (YE/VT), harness side and the passenger side front door window regulator motor C783 pin 2, circuit 33-AJ17 (YE/VT), harness side. Right-hand drive vehicles – 3-door - Passenger side power window control switch C489 pin 1, circuit 33-AJ17C (YE/VT), harness side and the passenger side front door window regulator motor C782 pin 2, circuit 33-AJ17C (YE/VT), harness side. - Is the resistance less than 5 ohms? → Yes GO to C6. → No REPAIR circuit 33-AJ17 (YE/VT) or circuit 33-AJ17C (YE/VT). TEST the system for normal operation.

DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
C6: CHECK FOR CONTINUITY BETWEEN THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH UP CIRCUIT AND THE PASSENGER SIDE FRONT DOOR WINDOW REGULATOR MOTOR - LEFT-HAND DRIVE VEHICLES 4-DOOR/5-DOOR AND RIGHT-HAND DRIVE VEHICLES 3-DOOR	
 TIE0014345	1 Measure the resistance between the: Left-hand drive vehicles – 4-door/5-door - Passenger side power window control switch C489 pin 7, circuit 32-AJ17 (WH/VT), harness side and the passenger side front door window regulator motor C783 pin 1, circuit 32-AJ17 (WH/VT), harness side. Right-hand drive vehicles – 3-door - Passenger side power window control switch C489 pin 7, circuit 32-AJ17C (WH/VT), harness side and the passenger side front door window regulator motor C782 pin 1, circuit 32-AJ17C (WH/VT), harness side. - Is the resistance less than 5 ohms? → Yes INSTALL a new passenger side front door window regulator motor. TEST the system for normal operation. → No REPAIR circuit 32-AJ17 (WH/VT) or circuit 32-AJ17C (WH/VT). TEST the system for normal operation.
C7: CHECK THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH GROUND CIRCUIT	
	1 Ignition switch in position 0. 2 Disconnect Passenger Side Power Window Control Switch C489.
 TIE0014349	3 Measure the resistance between the passenger side power window control switch C489 pin 4, circuit 31-LH31 (BK), harness side and ground. Is the resistance less than 5 ohms? → Yes GO to C8. → No REPAIR circuit 31-LH31 (BK). TEST the system for normal operation.
C8: CHECK FOR VOLTAGE TO THE PASSENGER SIDE POWER WINDOW CONTROL SWITCH	
	1 Ignition switch in position II.

DIAGNOSIS AND TESTING

TEST CONDITIONS	DETAILS/RESULTS/ACTIONS
 TIE0014348	2 Measure the voltage between the passenger side power window control switch C489 pin 2, circuit 15-AJ18 (GN/WH), harness side and ground. Is the voltage greater than 10 volts? → Yes VERIFY the customer concern. → No REPAIR circuit 15-AJ18 (GN/WH). TEST the system for normal operation.

DIAGNOSIS AND TESTING**Glass, Frames and Mechanisms — Vehicles With: Global Closing**

Refer to **Wiring Diagrams Section 501-11**, 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
• Window seal • Door window frame	• Fuse(s) • Electrical connector(s) • Switch(es) • Circuit(s)

3. Initialize the door window motors.

REFER to: Door Window Motor Initialization
(501-11 Glass, Frames and Mechanisms, General Procedures).

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

GENERAL PROCEDURES

Door Window Motor Initialization

 **WARNING:** The door window anti-trap function will not operate during the door window motor initialization procedure. Make sure that the door window opening is free of all foreign material. Failure to follow this instruction may result in personal injury.

NOTE: After the battery has been disconnected it is necessary to initialize each door window motor separately.

NOTE: If a single door window motor has been disconnected, it is necessary to initialize that door window motor.

NOTE: If the fuse for a front or rear door window motor has been disconnected, it is necessary to initialize that door window motor.

NOTE: If the battery junction box (BJB) fuse for the front power windows has been disconnected, it is necessary to initialize both front door window motors.

NOTE: If the battery junction box (BJB) fuse for the rear power windows has been disconnected, it is necessary to initialize both rear door window motors.

NOTE: Leave a period of at least one minute before connecting the battery, fuse or door window motor(s).

All vehicles

1. Press and hold the power window control switch close button until the door window is fully closed.
2. Release the power window control switch close button and press again for three seconds.
3. Briefly press the power window control switch open button to the second detent and release the button.
 - The door window should open automatically.
4. Briefly press the power window control switch close button to the second detent and release the button.
 - If the door window does not close automatically, repeat the complete procedure.
5. Repeat the door window motor initialization for each door window motor.

Convertible

6. Press and hold the convertible top switch CLOSE button until the convertible top is fully closed. Hold the switch closed for three seconds.

REMOVAL AND INSTALLATION

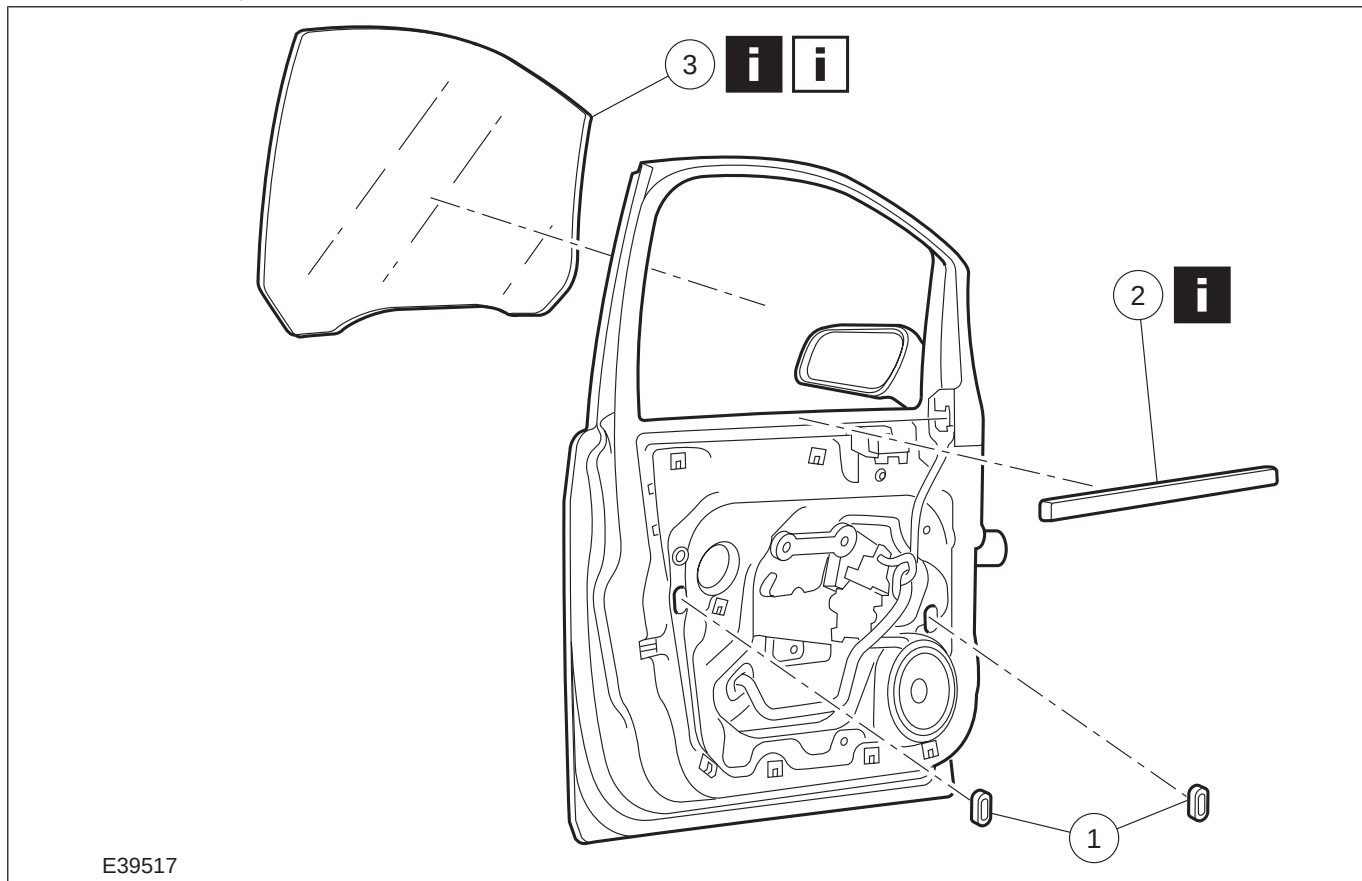
Front Door Window Glass

1. Remove the front door trim panel. For additional information, refer to: (501-05 Interior Trim and Ornamentation)

Front Door Trim Panel - 3-Door (Removal and Installation),

Front Door Trim Panel - 4-Door/5-Door/Wagon (Removal and Installation).

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



Item	Description
1	Front door panel grommets
2	Front door interior weatherstrip See Removal Detail
3	Front door window glass See Removal Detail See Installation Detail

3. To install, reverse the removal procedure.

Removal Details

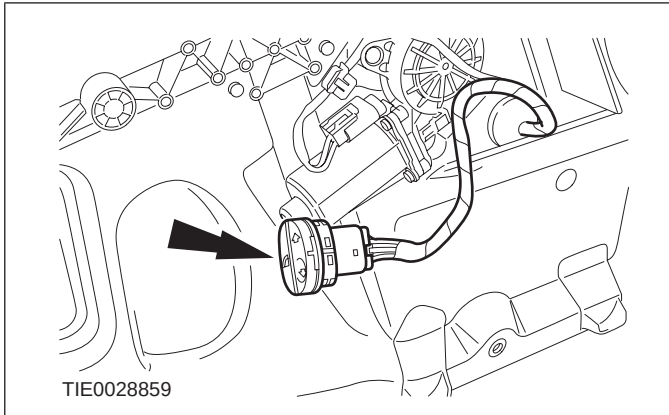
Item 2 Front door interior weatherstrip

CAUTION: To avoid damage, care must be taken when removing the front door interior weatherstrip.

REMOVAL AND INSTALLATION

Item 3 Front door window glass

1. Connect the front door power window control switch electrical connector.

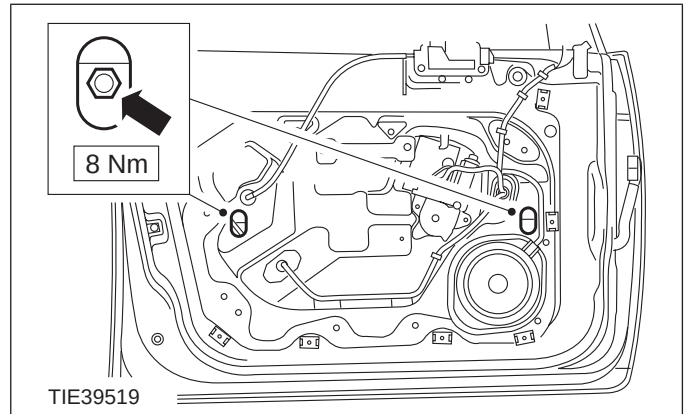


2. Connect the battery ground cable.

For additional information, refer to: **Battery Disconnect and Connect** (414-01 Battery, Mounting and Cables, General Procedures).

3. Loosen the front door window glass clamp retaining bolts by two turns.

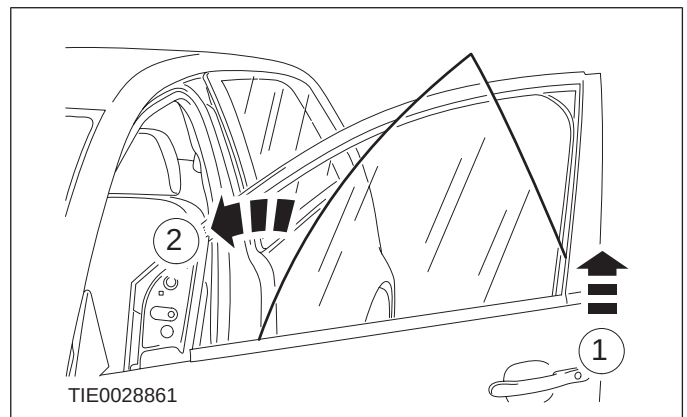
- Align the front door window glass clamp retaining bolts with the access holes.



4. **NOTE:** The front door window glass must be removed towards the outside of the window opening.

Remove the front door window glass.

1. Lift the front door window glass.
2. Tip the front door window glass forwards and remove it from the front door.



Installation Details

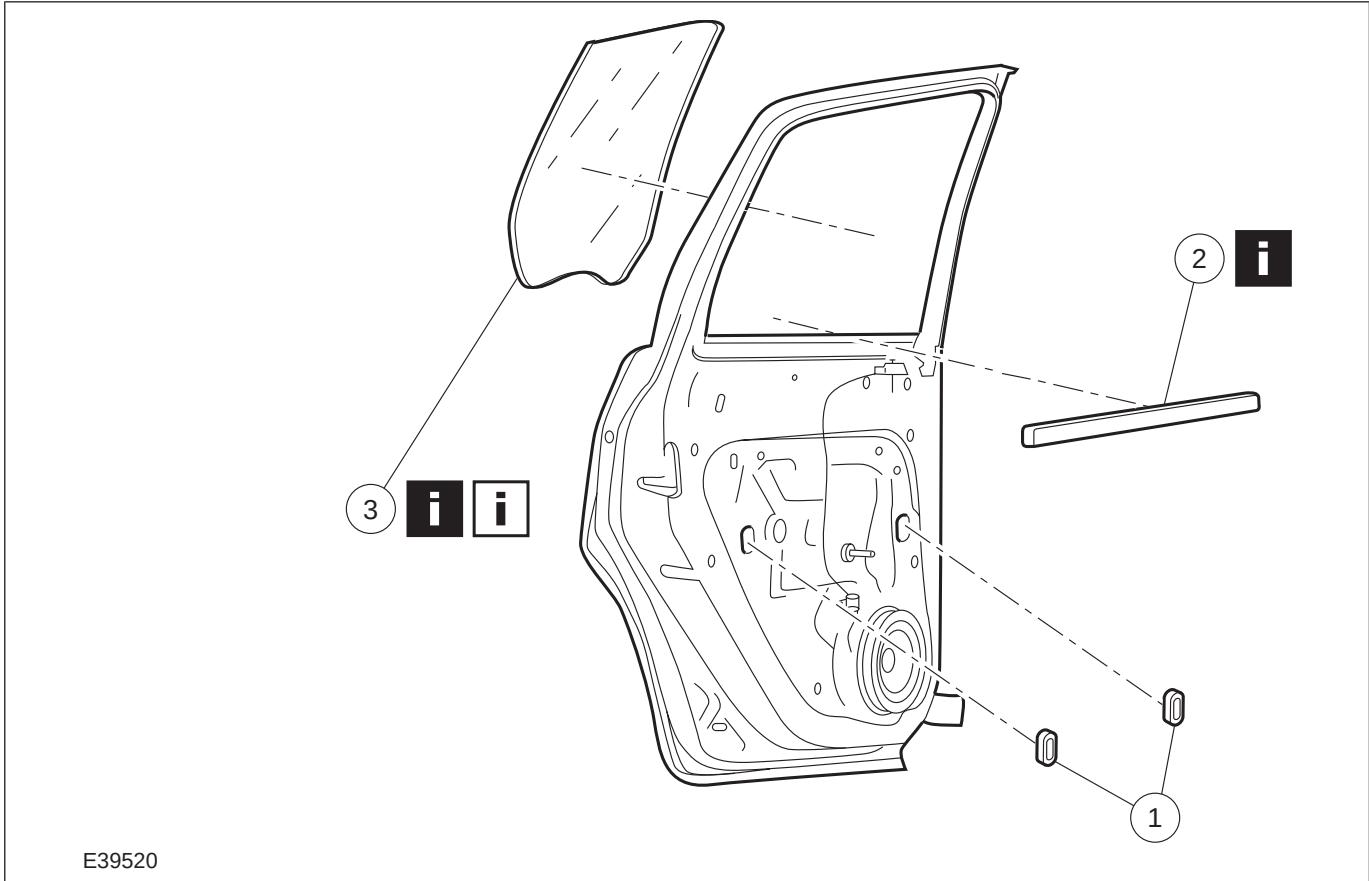
Item 3 Front door window glass

NOTE: The front door window glass must be installed from the outside of the window opening.

REMOVAL AND INSTALLATION

Rear Door Window Glass — Vehicles With: Manual Windows

1. Remove the rear door trim panel.
For additional information, refer to: **Rear Door Trim Panel - Vehicles With: Manual**
- Windows** (501-05 Interior Trim and Ornamentation, Removal and Installation).
2. Remove the components in the order indicated in the following illustration(s) and table(s).



Item	Description
1	Grommets
2	Interior weatherstrip See Removal Detail
3	Window glass See Removal Detail See Installation Detail

3. To install, reverse the removal procedure.

Removal Details

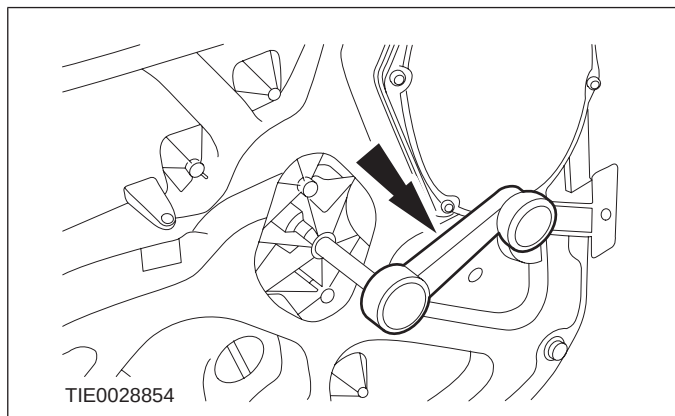
Item 2 Interior weatherstrip

CAUTION: Carefully remove the interior weatherstrip to avoid damage.

REMOVAL AND INSTALLATION

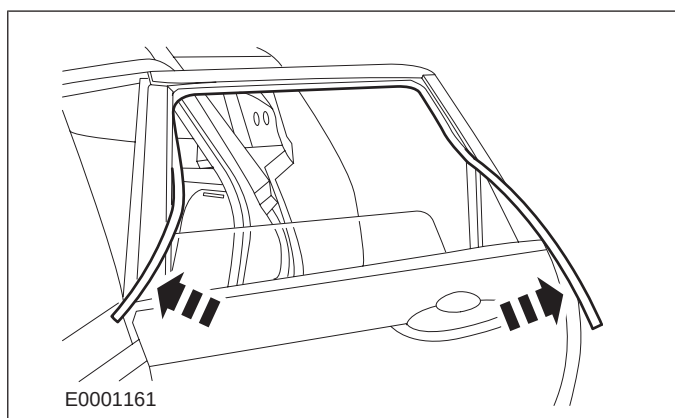
Item 3 Window glass

1. Install the window regulator handle.



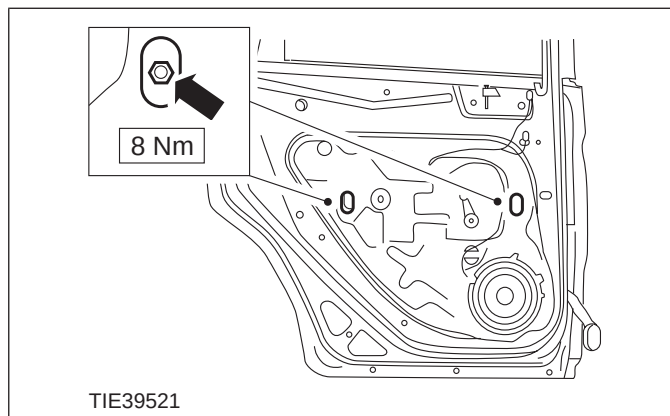
2. Fully lower the window glass.

3. Position the lower part of the door glass top run outside the door.



4. Loosen the rear door window glass clamp retaining bolts two complete turns.

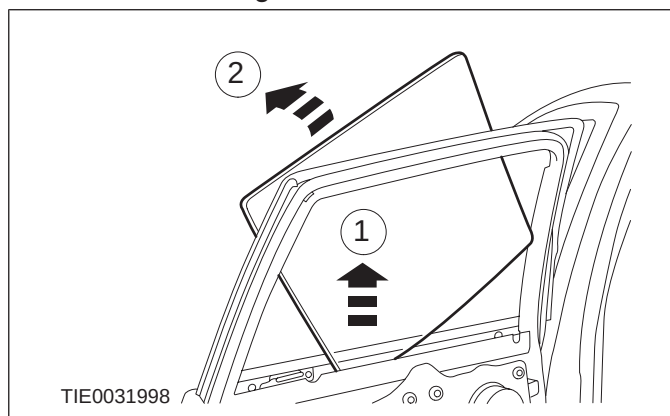
- Align the window glass clamp retaining bolts with the access holes.



5. NOTE: The rear door window glass must be removed towards the outside of the window opening.

Remove the rear door window glass.

- Lift the window glass.
- Tip the window glass outwards and remove the window glass from the rear door.



Installation Details

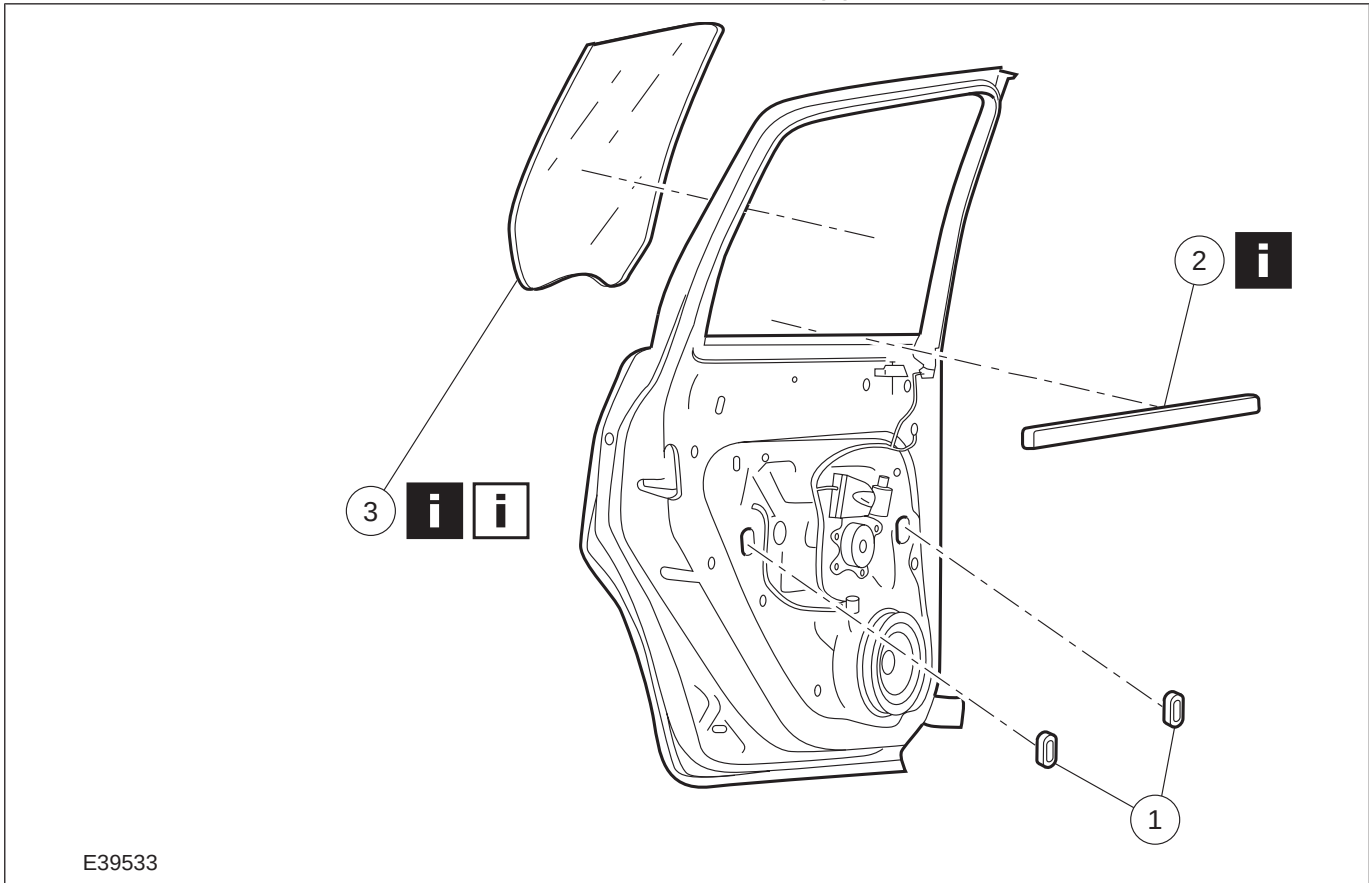
Item 3 Window glass

NOTE: The rear door window glass must be installed from the outside of the window opening.

REMOVAL AND INSTALLATION

Rear Door Window Glass — Vehicles With: Power Windows

1. Remove the rear door trim panel.
For additional information, refer to: **Rear Door Trim Panel - Vehicles With: Power**
- Windows** (501-05 Interior Trim and Ornamentation, Removal and Installation).
2. Remove the components in the order indicated in the following illustration(s) and table(s).



Item	Description
1	Grommets
2	Interior weatherstrip See Removal Detail
3	Window glass See Removal Detail See Installation Detail

3. To install, reverse the removal procedure.

Removal Details

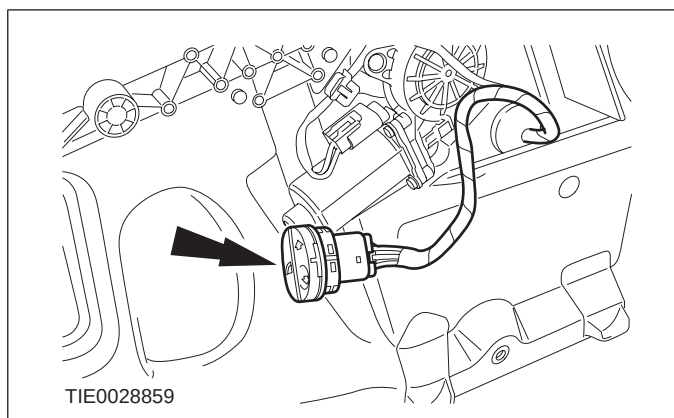
Item 2 Interior weatherstrip

CAUTION: Carefully remove the interior weatherstrip to avoid damage.

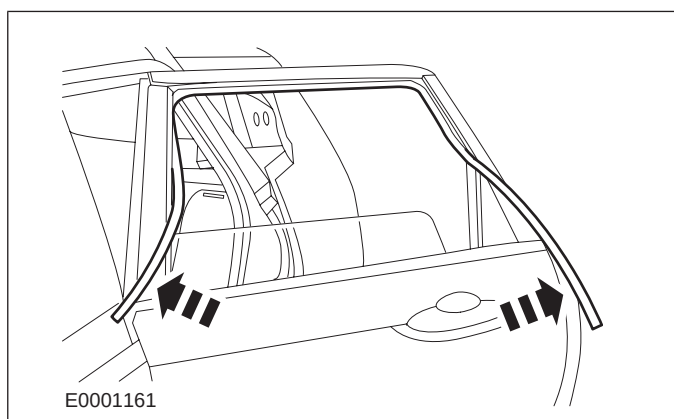
REMOVAL AND INSTALLATION

Item 3 Window glass

1. Connect the power window control switch electrical connector.

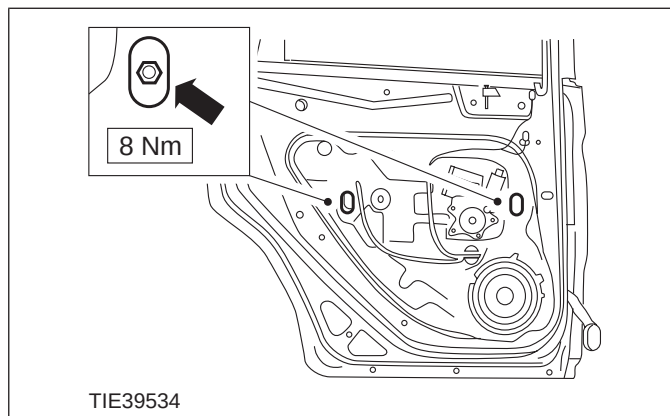


2. Fully lower the window glass.
3. Position the lower part of the door glass top run outside the door.



4. Loosen the rear door window glass clamp retaining bolts two complete turns.

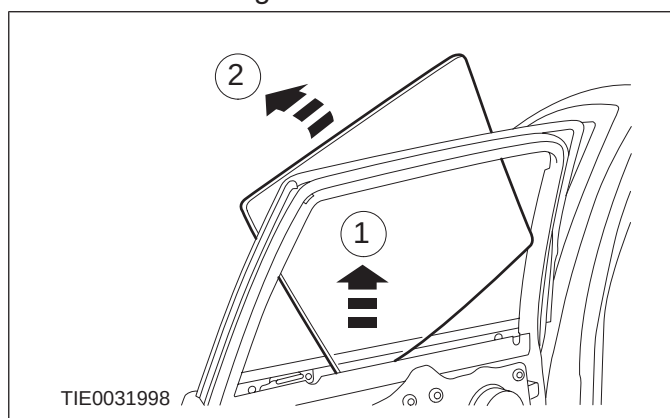
- Align the window glass clamp retaining bolts with the access holes.



5. **NOTE: The rear door window glass must be removed towards the outside of the window opening.**

Remove the rear door window glass.

1. Lift the window glass.
2. Tip the window glass outwards and remove the window glass from the rear door.



Installation Details

Item 3 Window glass

NOTE: The rear door window glass must be installed from the outside of the window opening.

REMOVAL AND INSTALLATION

Rear Quarter Window Glass — 3-Door/5-Door(42 514 0)

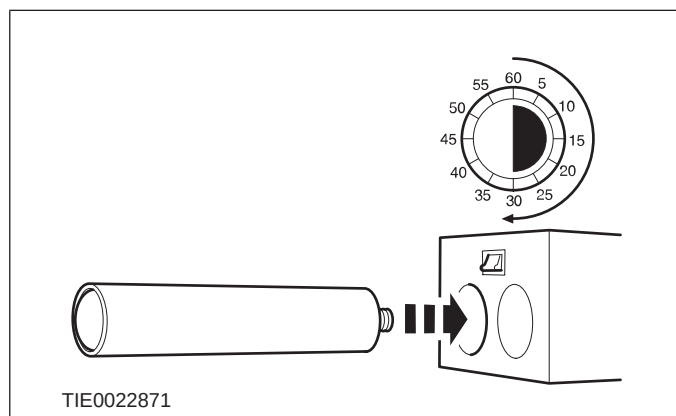
General Equipment

Hot air gun
Direct glazing cutter for bonded glass
Direct glazing adhesive kit
Direct glazing adhesive oven
Glazing suction cups

Removal

All vehicles

1. Remove the polyurethane (PU) adhesive cap and heat the PU adhesive for a minimum of 30 minutes.



3-door

2. Remove the B-pillar trim panel.

For additional information, refer to: **B-Pillar Trim Panel - 4-Door/5-Door** (501-05 Interior Trim and Ornamentation, Removal and Installation).

3. **WARNING:** Wear gloves and eye protection when working with the glass cutting tool as the cutting operation may produce splinters. When using the cutter wear ear protectors. Failure to follow these instructions may result in personal injury.

CAUTIONS:

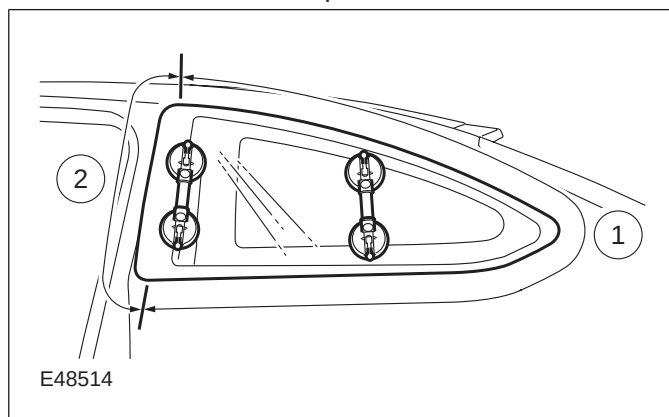
- WARNING:** Place a suitable piece of flexible plastic card between the direct glazing cutter blade and vehicle body to avoid damage to the vehicle body when cutting from outside the vehicle.

- WARNING:** Make sure the cutting blades are changed where the cutting depth changes to avoid damage to the body and trim panels when cutting from inside the vehicle.

NOTE: Some resistance may be encountered when cutting through the glass locating pegs in the corners of the glass.

Using a suitable direct glazing cutter, cut the PU adhesive and, with the aid of another technician, use glazing suction cups to remove the rear quarter window glass.

1. From outside the vehicle, cut the PU adhesive.
2. From inside the vehicle, cut the PU adhesive to a maximum depth of 55 mm.



5-door

4. Remove the C-pillar trim panel.

For additional information, refer to: **C-Pillar Trim Panel - 4-Door/5-Door** (501-05 Interior Trim and Ornamentation, Removal and Installation).

5. **WARNING:** Wear gloves and eye protection when working with the glass cutting tool as the cutting operation may produce splinters. When using the cutter wear ear protectors. Failure to follow these instructions may result in personal injury.

CAUTIONS:

- WARNING:** Place a suitable piece of flexible plastic card between the direct glazing cutter blade and vehicle body to avoid damage to the vehicle body when cutting from outside the vehicle.

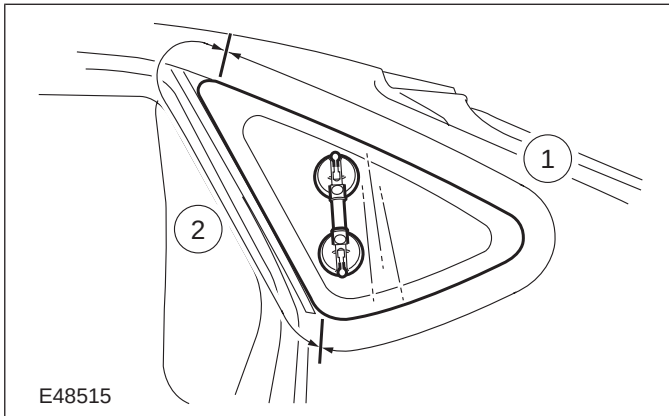
REMOVAL AND INSTALLATION

⚠ Make sure the cutting blades are changed where the cutting depth changes to avoid damage to the body and trim panels when cutting from inside the vehicle.

NOTE: Some resistance may be encountered when cutting through the glass locating pegs in the corners of the glass.

Using a suitable direct glazing cutter, cut the PU adhesive and, with the aid of another technician, use glazing suction cups to remove the rear quarter window glass.

1. From outside the vehicle, cut the PU adhesive.
2. From inside the vehicle, cut the PU adhesive to a maximum depth of 25 mm.

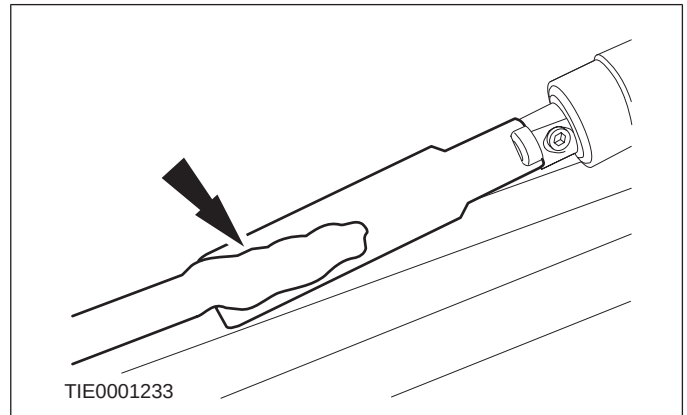


Installation

All vehicles

1. Carefully remove the remaining part of the locating pegs from the rear quarter window glass flange.
2. **⚠ CAUTION:** Do not touch the adhesive surface as re-bonding will be impaired.
Carefully trim the remaining PU adhesive from the rear quarter window glass flange to

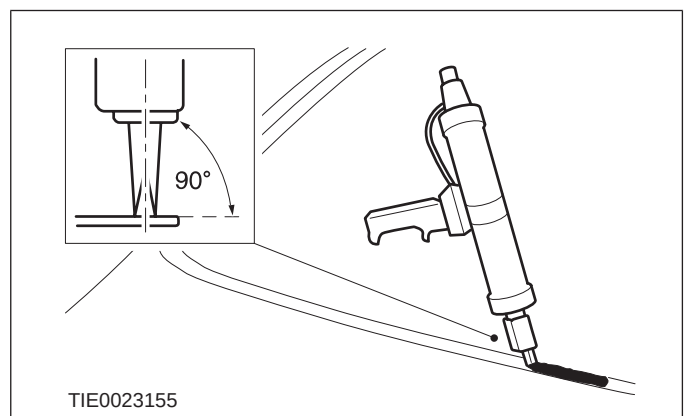
leave approximately 1 mm of trimmed PU adhesive adhered to the flange.



3. Check the rear quarter window glass flange for damaged sheet metal, rust or foreign material which may have caused, or may cause, glass breakage.
4. **⚠ CAUTION:** To make sure that the PU adhesive cures, it is essential that all bonding surfaces are free of moisture.
Using a hot air gun, apply warm air (25°C) to the rear quarter window glass flange and glass bond line to remove all traces of moisture.
5. Prepare the glass, rear quarter window glass flange and trimmed PU adhesive in accordance with the instructions supplied with the PU adhesive kit.
6. **NOTE:** Discard the first 100 mm of PU adhesive as this may have a reduced working time.

NOTE: To avoid water leaks, any breakage in the continuous bead should be overlapped by 20 mm.

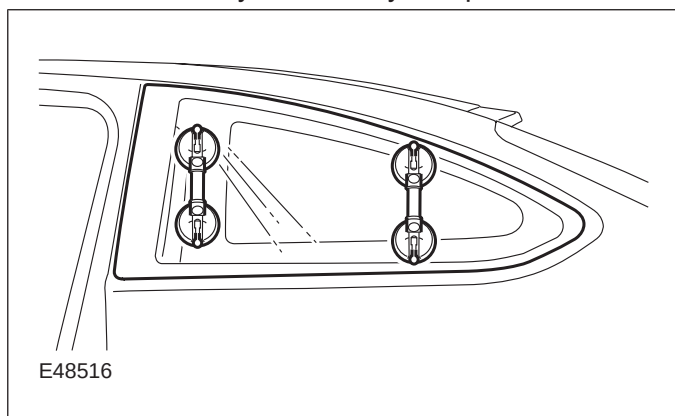
Apply the PU adhesive in a continuous bead of between 8 and 10 mm in height to the rear quarter window glass flange along the bond line.



REMOVAL AND INSTALLATION

7. Use glazing suction cups to install the rear quarter window glass (3 door shown).

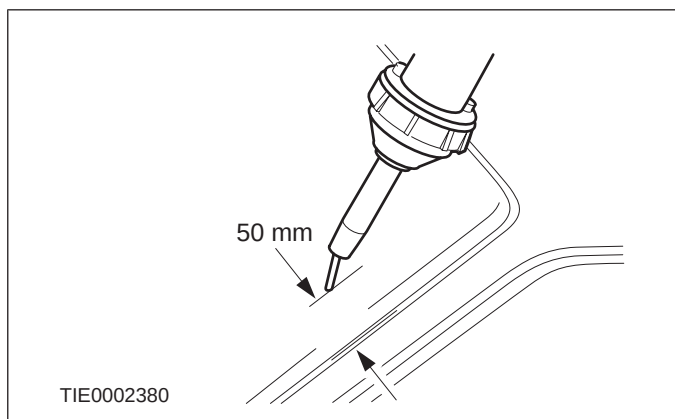
- Press firmly and evenly into position.



8. **⚠ CAUTION:** During the curing period of the PU adhesive, the door windows must be left open to avoid a build up of pressure when the doors are opened and closed.

Using suitable tape, secure the rear quarter window glass in the correct position until the PU adhesive has cured.

9. If the ambient temperature falls below 10°C, use a hot air gun and apply warm air (25°C) continuously for 15 minutes (inside or outside the vehicle).



3-door

10. Install the B-pillar trim panel.

For additional information, refer to: **B-Pillar Trim Panel - 4-Door/5-Door** (501-05 Interior Trim and Ornamentation, Removal and Installation).

5-door

11. Install the C-pillar trim panel.

For additional information, refer to: **C-Pillar Trim Panel - 4-Door/5-Door** (501-05 Interior Trim and Ornamentation, Removal and Installation).

REMOVAL AND INSTALLATION

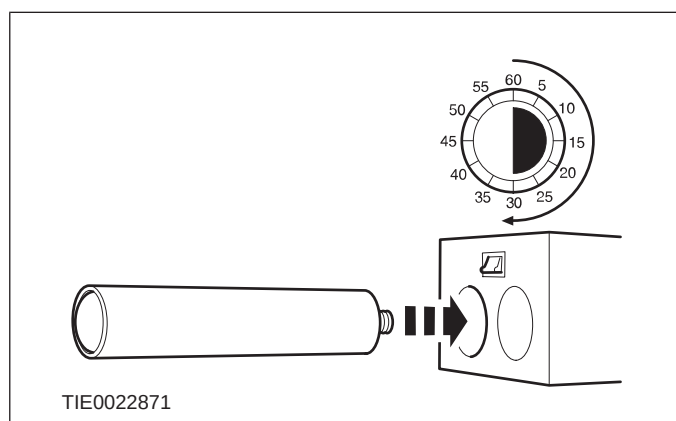
Rear Quarter Window Glass — 4-Door(42 514 0)

General Equipment

Hot air gun
Direct glazing cutter for bonded glass
Direct glazing adhesive kit
Direct glazing adhesive oven
Glazing suction cups

Removal

1. Remove the polyurethane (PU) adhesive cap and heat the PU adhesive for a minimum of 30 minutes.



2. Remove the C-pillar trim panel.

For additional information, **refer to: C-Pillar Trim Panel - 4-Door/5-Door** (501-05 Interior Trim and Ornamentation, Removal and Installation).

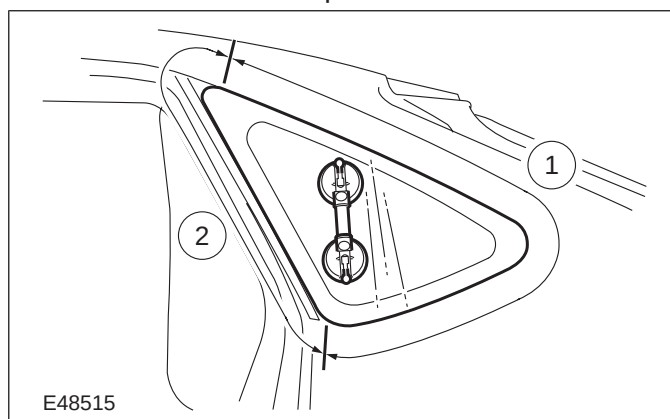
3. **WARNING:** Wear gloves and eye protection when working with the direct glazing cutter for bonded glass as the cutting operation may produce splinters. When using the direct glazing cutter for bonded glass wear ear protectors. Failure to follow these instructions may result in personal injury.

CAUTION: Place a piece of flexible plastic card between the direct glazing cutter for bonded glass cutting blade and vehicle body to avoid damage to the vehicle body when cutting from outside the vehicle.

NOTE: Some resistance may be encountered when cutting through the glass locating pegs in the corners of the rear quarter window glass.

Using a direct glazing cutter for bonded glass, cut the PU adhesive and, with the aid of another technician, use glazing suction cups to remove the rear quarter window glass.

1. From outside the vehicle, cut the PU adhesive.
2. From inside the vehicle, cut the PU adhesive to a maximum depth of 25 mm.

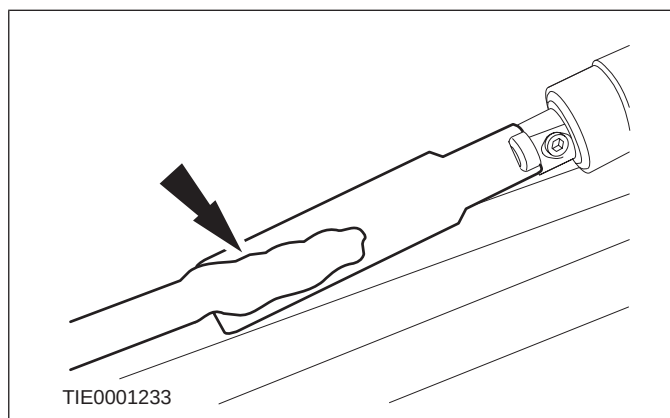


Installation

1. Carefully remove the remaining part of the locating pegs from the rear quarter window glass flange.

2. **CAUTION:** Do not touch the adhesive surface as re-bonding will be impaired.

Carefully trim the remaining PU adhesive from the rear quarter window glass flange to leave approximately 1 mm of trimmed PU adhesive adhered to the flange.



3. Check the rear quarter window glass flange for damaged sheet metal, rust or foreign material which may have caused, or may cause, glass breakage.

REMOVAL AND INSTALLATION

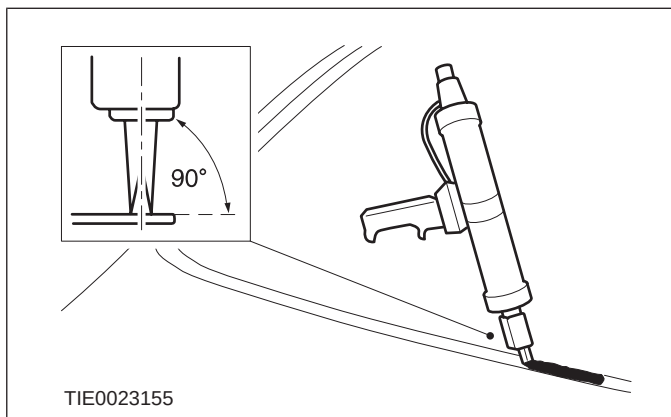
4. **⚠ CAUTION:** To make sure that the PU adhesive cures, it is essential that all bonding surfaces are free of moisture.
- Using a hot air gun, apply warm air (25°C) to the rear quarter window glass flange and rear quarter window glass bond line to remove all traces of moisture.

5. Prepare the rear quarter window glass, rear quarter window glass flange and trimmed PU adhesive in accordance with the instructions supplied with the direct glazing adhesive kit.

6. **NOTE:** Discard the first 100 mm of PU adhesive as this may have a reduced working time.

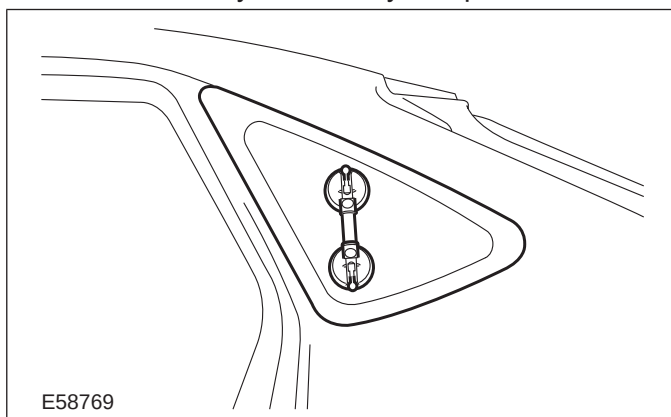
NOTE: To avoid water leaks, any breakage in the continuous bead should be overlapped by 20 mm.

Apply the PU adhesive in a continuous bead of between 8 and 10 mm in height to the rear quarter window glass flange along the bond line.



7. Using glazing suction cups, install the rear quarter window glass.

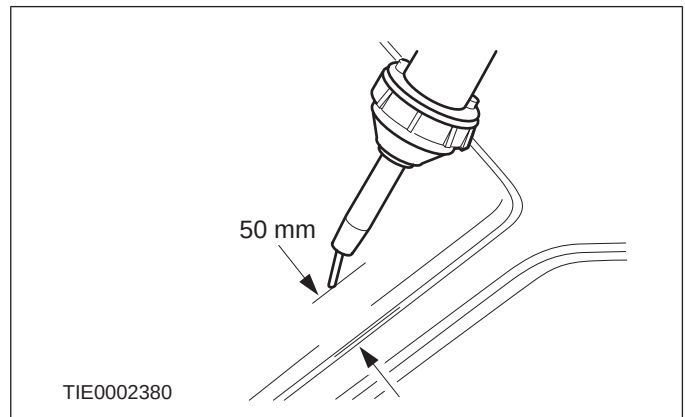
- Press firmly and evenly into position.



8. **⚠ CAUTION:** During the curing period of the PU adhesive, the door windows must be left open to avoid a build up of pressure when the doors are opened and closed.

Using tape, secure the rear quarter window glass in the correct position until the PU adhesive has cured.

9. If the ambient temperature falls below 10°C, use a hot air gun and apply warm air (25°C) continuously for 15 minutes (inside or outside the vehicle).



10. Install the C-pillar trim panel.

For additional information, refer to: **C-Pillar Trim Panel - 4-Door/5-Door** (501-05 Interior Trim and Ornamentation, Removal and Installation).

REMOVAL AND INSTALLATION

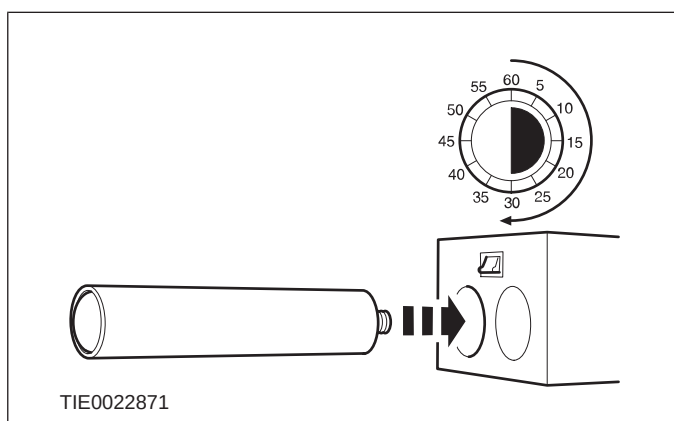
Liftgate Window Glass — 3-Door/5-Door

General Equipment

Hot air gun
Direct glazing cutter for bonded glass
Direct glazing adhesive kit
Direct glazing adhesive oven
Glazing suction cups

Removal

1. Remove the polyurethane (PU) adhesive cap and heat the PU adhesive for a minimum of 30 minutes.



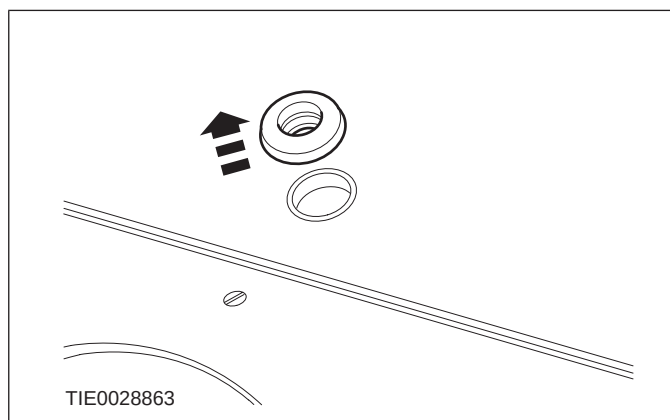
2. Remove the rear spoiler.

For additional information, refer to: **Rear Spoiler - 2.5L Duratec-ST (VI5)** (501-08 Exterior Trim and Ornamentation, Removal and Installation).

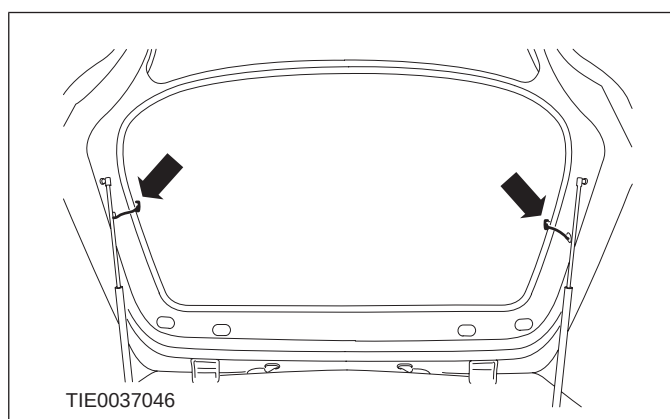
3. Remove the rear window wiper motor.

For additional information, refer to: **Rear Window Wiper Motor** (501-16 Wipers and Washers, Removal and Installation).

4. Remove the rear window wiper motor spindle grommet.



5. Disconnect the heated liftgate window glass electrical connectors.



6. **WARNING:** Wear gloves and eye protection when working with the glass cutting tool as the cutting operation may produce splinters. When using the cutter wear ear protectors. Failure to follow these instructions may result in a personal injury.

CAUTION: Make sure the cutting blades are changed where the cutting depth changes to avoid damage to the body and trim panels.

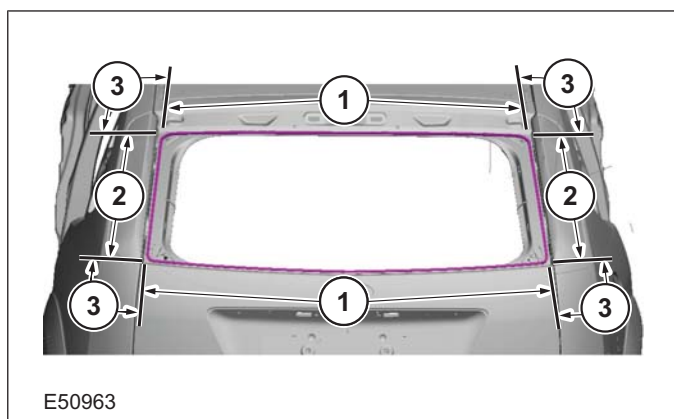
NOTE: Some resistance may be encountered when cutting through the glass locating pegs in the corners of the glass.

From inside the vehicle using a suitable direct glazing cutter, cut the PU adhesive to the given maximum depths.

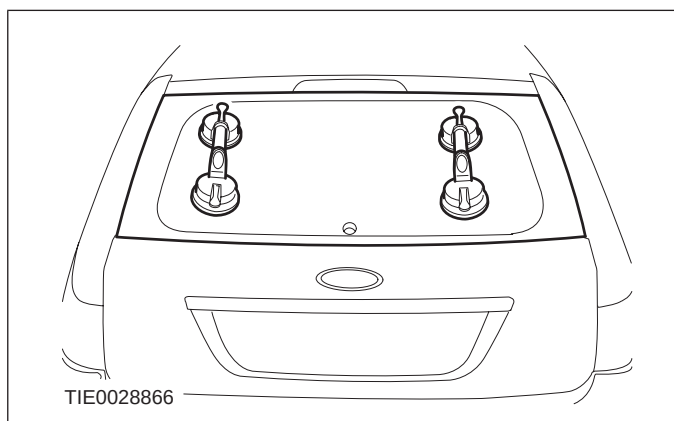
1. 25 mm.
2. 60 mm.

REMOVAL AND INSTALLATION

3. 110 mm.



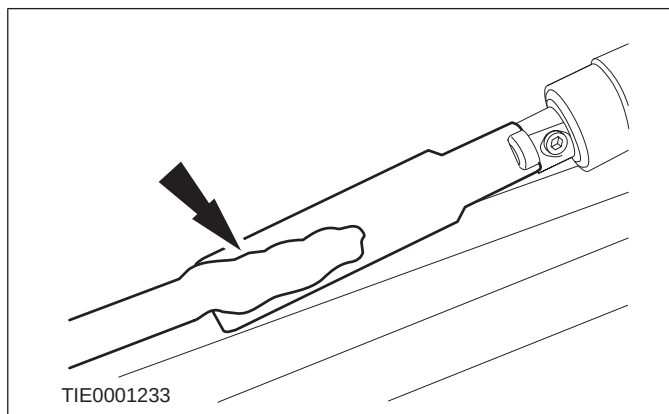
7. With the aid of another technician, use glazing suction cups to remove the liftgate window glass.



Installation

1. Carefully remove the remaining part of the locating pegs from the liftgate window glass flange.
2. **CAUTION:** Do not touch the adhesive surface as re-bonding will be impaired.
Carefully trim the remaining polyurethane (PU) adhesive from the liftgate window glass

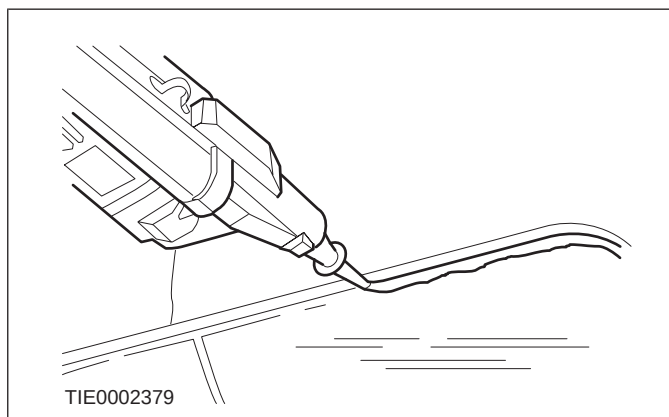
flange to leave approximately 1 mm of trimmed PU adhesive adhered to the flange.



3. Check the liftgate window glass flange for damaged sheet metal, rust or foreign material which may have caused, or may cause, glass breakage.
4. **CAUTION:** To make sure that the PU adhesive cures, it is essential that all the bonding surfaces are free of moisture.
Using a hot air gun, apply warm air (25°C) to the liftgate window glass flange and glass bond line to remove all traces of moisture.
5. Prepare the glass, liftgate window glass flange and trimmed PU adhesive in accordance with the instructions supplied with the PU adhesive kit.
6. **NOTE:** Discard the first 100 mm of PU adhesive as this may have a reduced working time.

NOTE: To avoid water leaks, any breakage in the continuous bead must be overlapped by 20 mm.

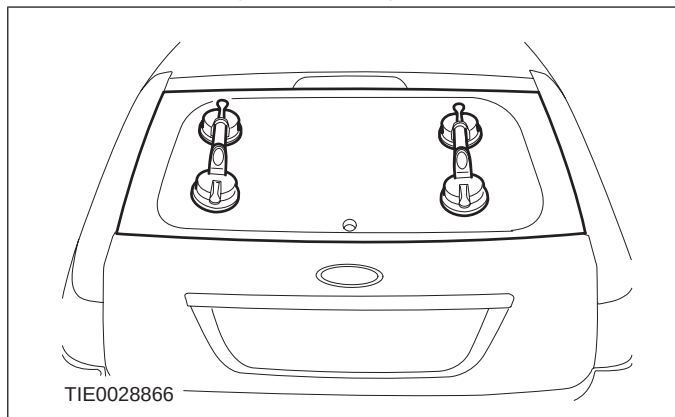
Apply the PU adhesive in a continuous bead of between 8 and 10 mm in height to the liftgate window glass flange along the bond line.



REMOVAL AND INSTALLATION

7. With the aid of another technician, use glazing suction cups to install the liftgate window glass.

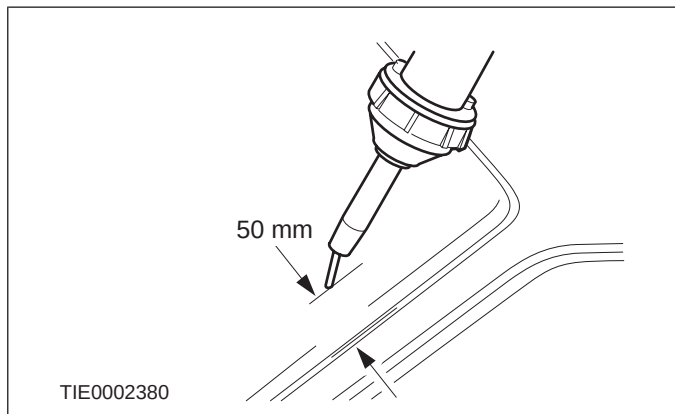
- Press firmly and evenly into position.



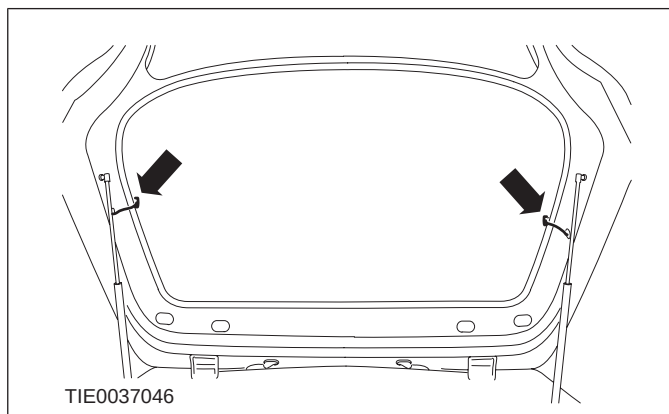
8. **⚠ CAUTION:** During the curing period of the PU adhesive, the door windows must be left open to avoid a build up of pressure when the doors are opened and closed.

Using suitable tape, secure the liftgate window glass in the correct position until the PU adhesive has cured.

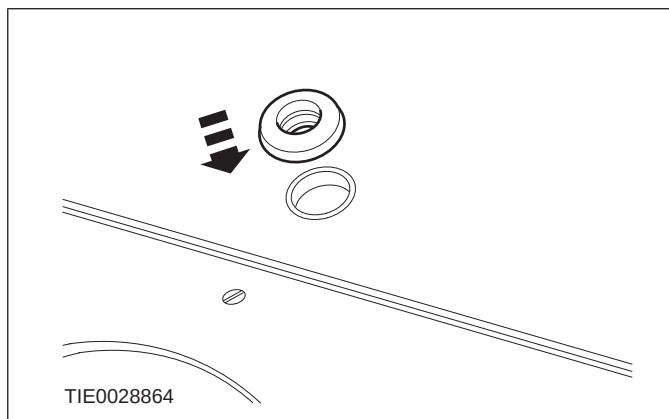
9. If the ambient temperature falls below 10°C, use a hot air gun and apply warm air (25°C) continuously for 15 minutes (inside or outside the vehicle).



10. Connect the heated liftgate window glass electrical connectors.



11. Install the rear window wiper motor spindle grommet.



12. Install the rear spoiler.

For additional information, refer to: **Rear Spoiler - 2.5L Duratec-ST (VI5)** (501-08 Exterior Trim and Ornamentation, Removal and Installation).

13. Install the rear window wiper motor.

For additional information, refer to: **Rear Window Wiper Motor** (501-16 Wipers and Washers, Removal and Installation).

REMOVAL AND INSTALLATION

Front Door Window Regulator — 3-Door

General Equipment

Electric hand drill

Blind rivet gun-hand

Materials

Name	Specification
Adhesive - Loctite 243	WSK-M2G349-A7

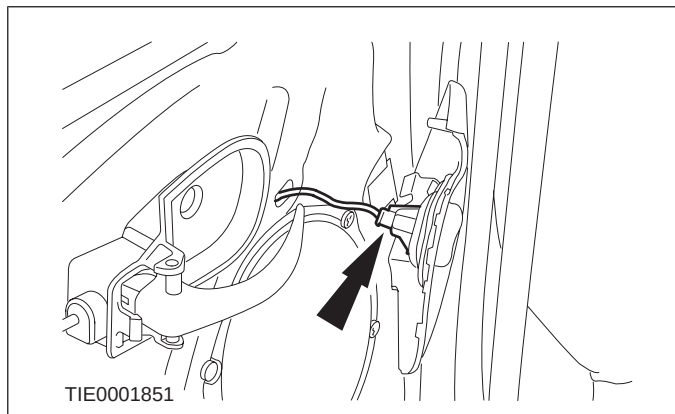
1. Remove the front door window glass.

For additional information, refer to: **Front Door Window Glass** (501-11 Glass, Frames and Mechanisms, Removal and Installation).

2. Remove the front door window regulator motor.

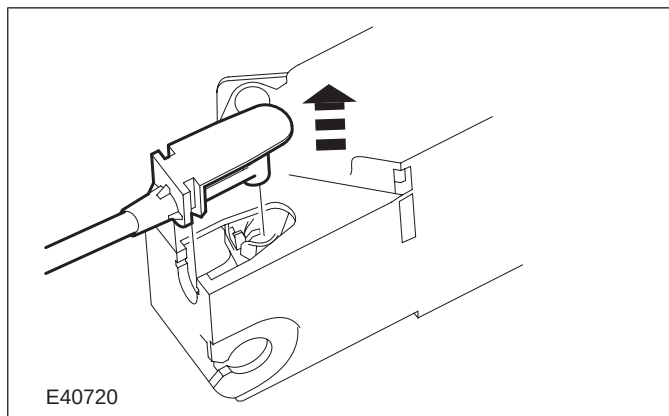
For additional information, refer to: **Front Door Window Regulator Motor - Vehicles With: Global Closing** (501-11 Glass, Frames and Mechanisms, Removal and Installation).

3. Disconnect the power window control switch electrical connector.



4. Disconnect the door latch remote control cable from the door latch remote control.

- Operate the door latch remote control handle lock to the lock position.

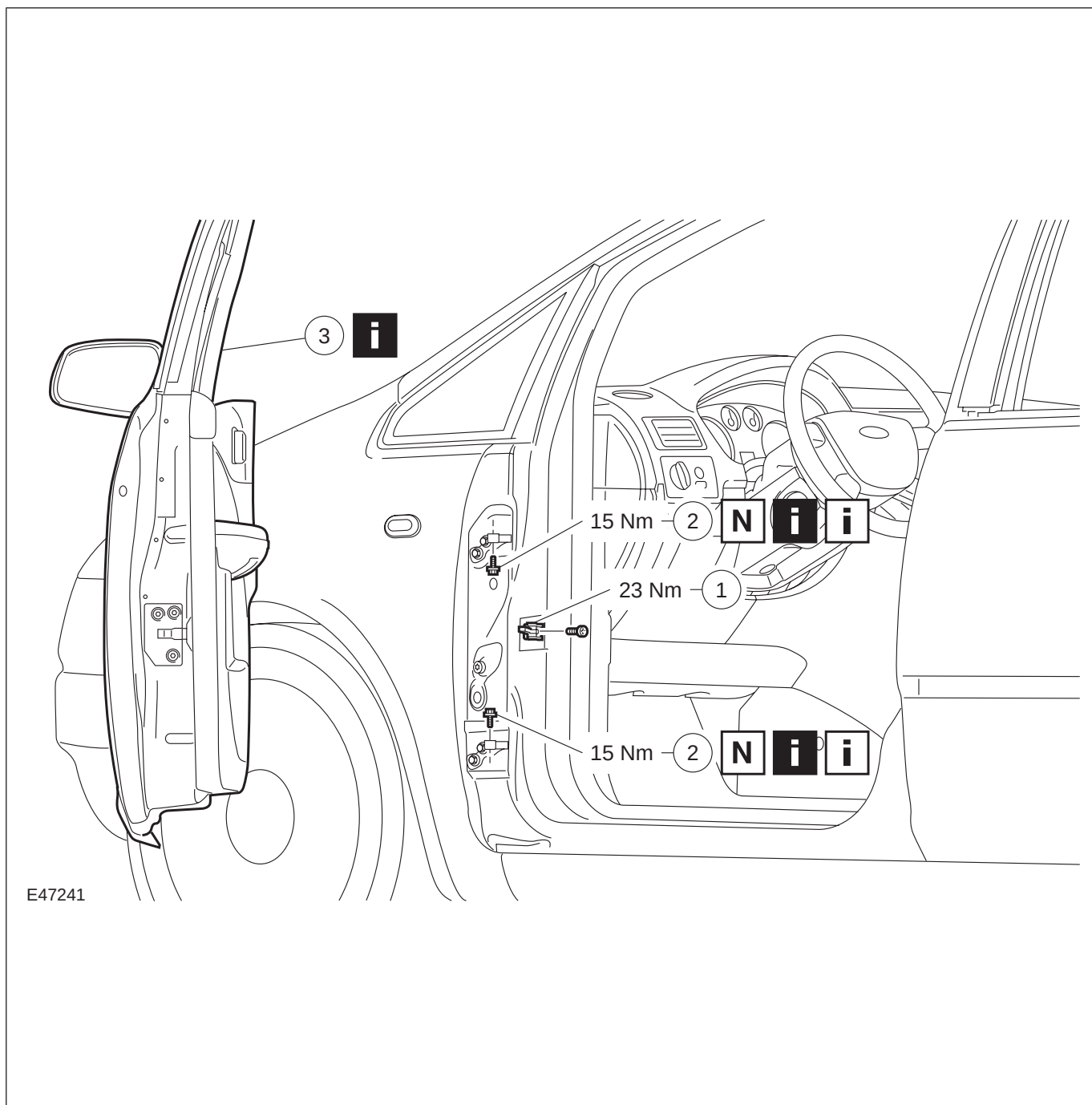


5. Remove the exterior front door handle.

For additional information, refer to: **Exterior Front Door Handle** (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

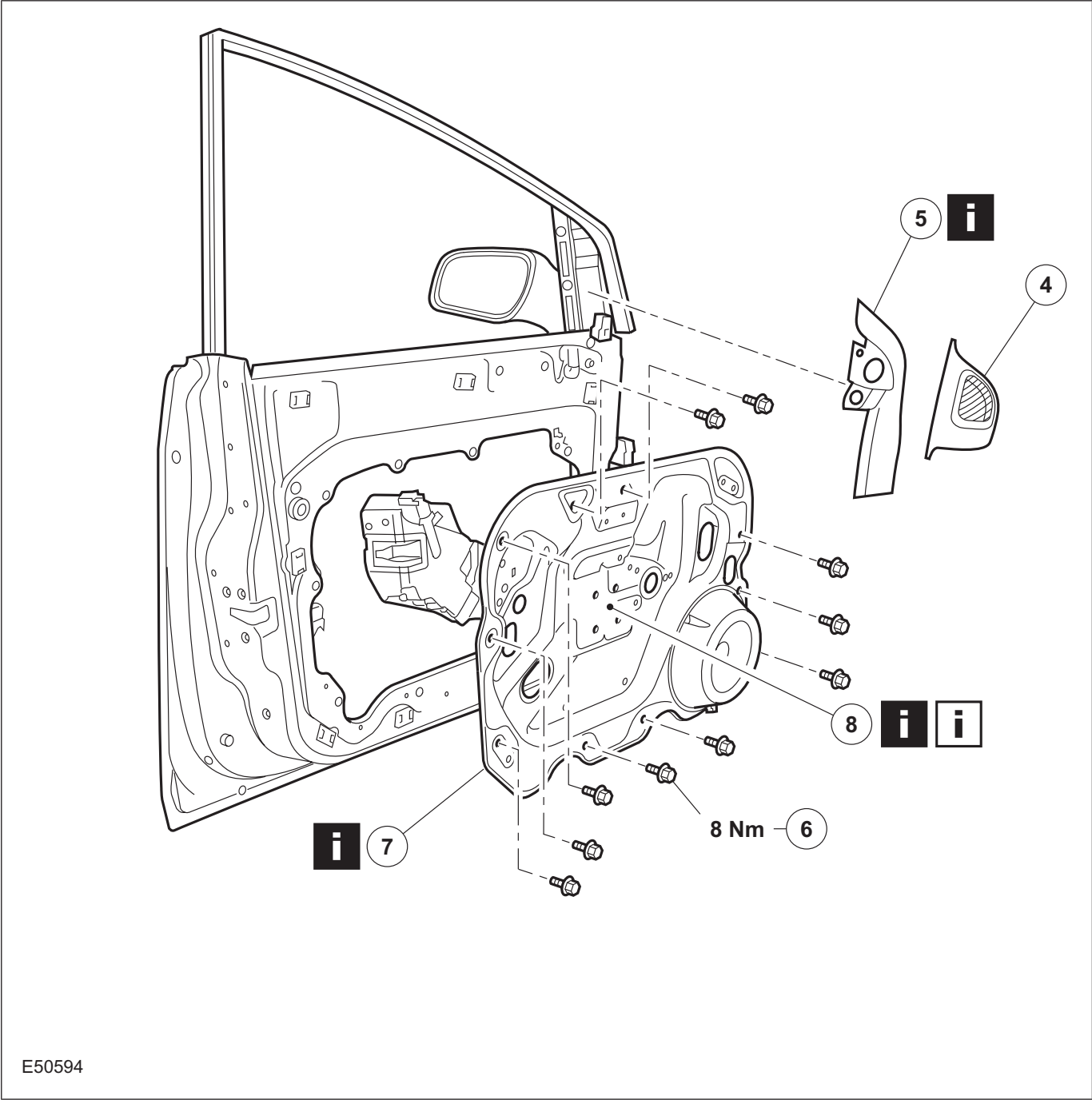
6. Remove the components in the order indicated in the following illustration(s) and table(s).

REMOVAL AND INSTALLATION



Item	Description
1	Door check strap
2	Door hinge center retaining bolts See Removal Detail See Installation Detail
3	Door (left-hand door shown) See Removal Detail

REMOVAL AND INSTALLATION



Item	Description
4	Speaker cover
5	Exterior mirror trim panel See Removal Detail
6	Door inner panel retaining bolts

Item	Description
7	Door inner panel See Removal Detail
8	Front door window regulator See Removal Detail See Installation Detail

7. To install, reverse the removal procedure.

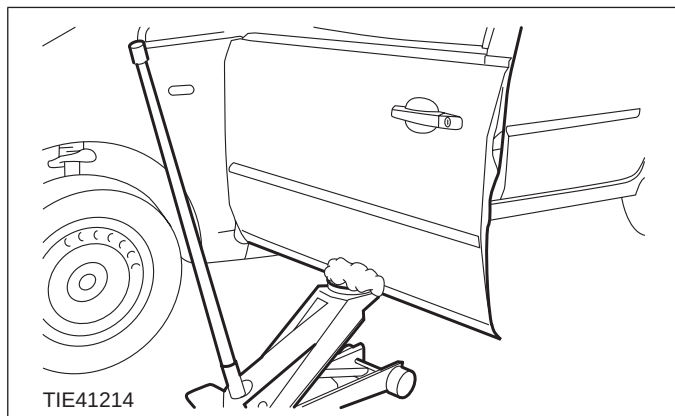
Removal Details

REMOVAL AND INSTALLATION

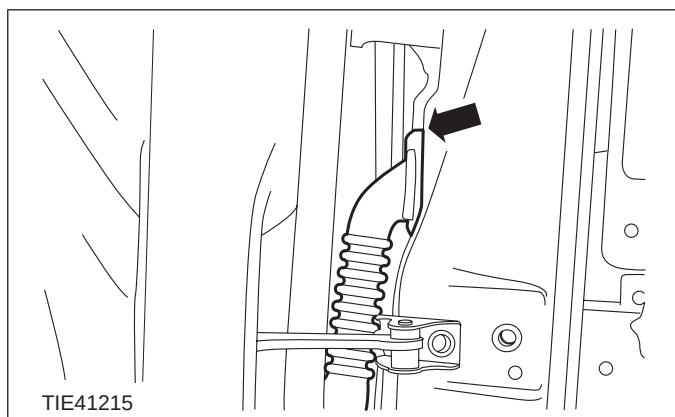
Item 2 Door hinge center retaining bolts

1. **CAUTION:** Protect the door using a soft cloth to prevent damage.

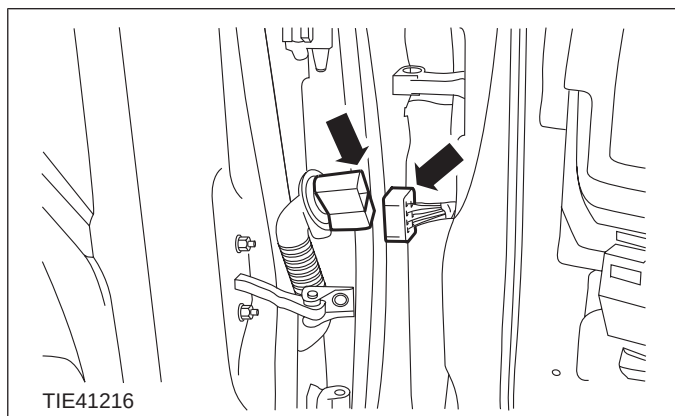
With the aid of another technician and a suitable trolley jack, support the door.

**Item 3 Door (left-hand door shown)**

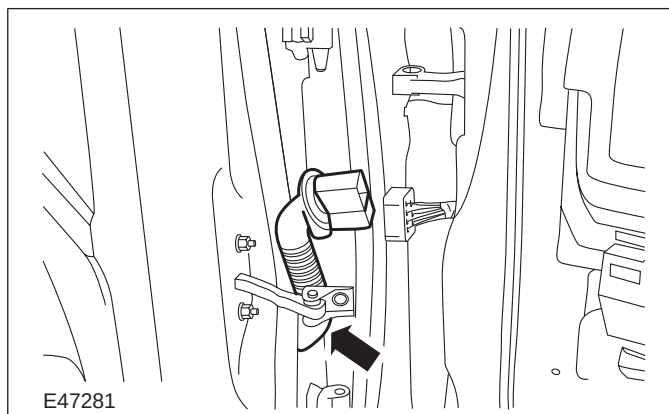
1. Detach the electrical connector from the A-pillar.

**2. Remove the front door.**

- Disconnect the electrical connector.

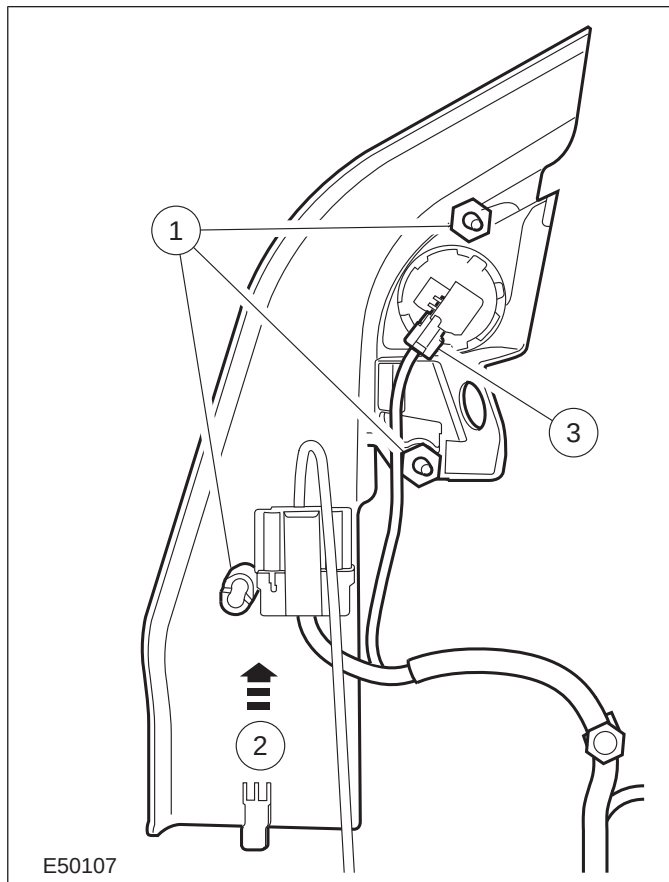


3. Push the front door wiring harness into the door.

**Item 5 Exterior mirror trim panel**

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

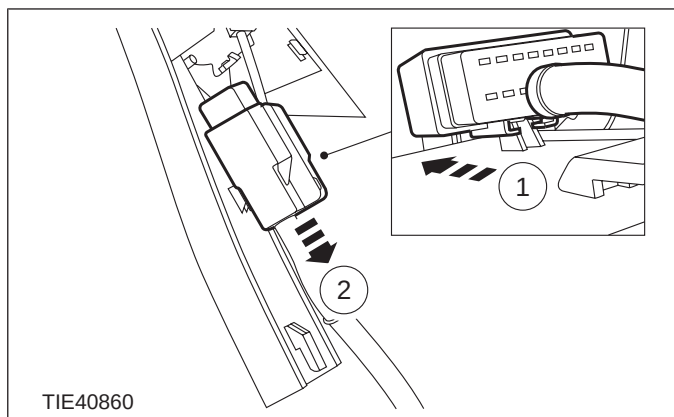
1. Detach the clips.
2. Detach the trim panel.
3. Disconnect the speaker electrical connector (if equipped).

**2. Remove the exterior mirror trim panel.**

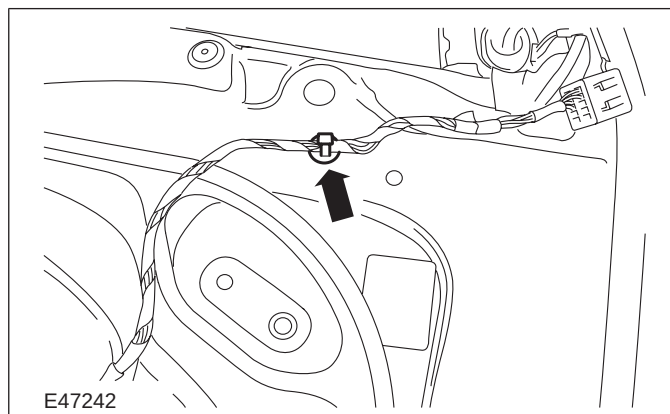
1. Detach the mirror electrical connector from the trim panel.

REMOVAL AND INSTALLATION

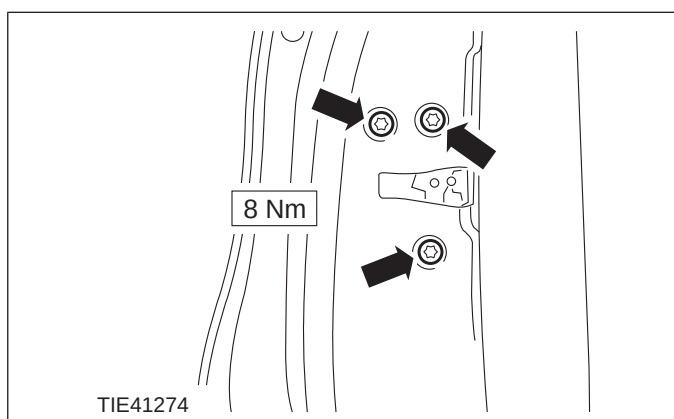
2. Disconnect the mirror electrical connector.



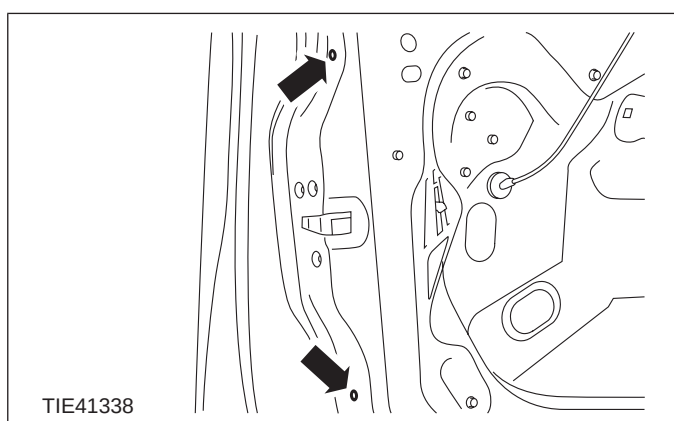
3. Detach the exterior mirror wiring harness retaining clip.

**Item 7 Door inner panel**

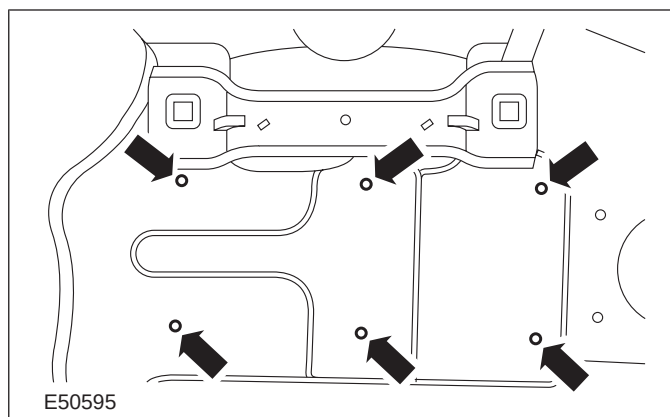
1. Remove the front door latch retaining screws.



2. Remove the front door latch bracket retaining screws.

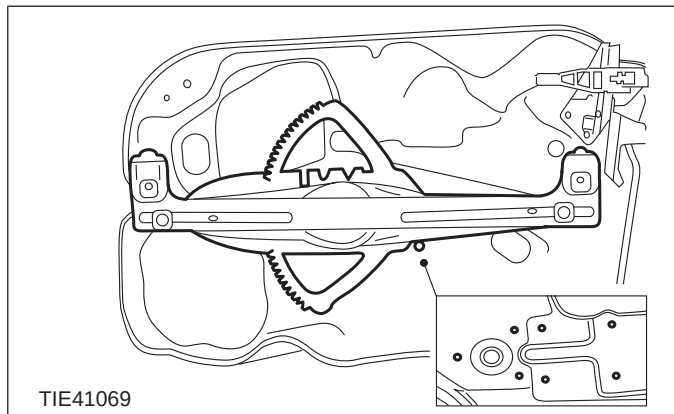
**Item 8 Front door window regulator**

1. Using a suitable electric hand drill, remove the rivets.

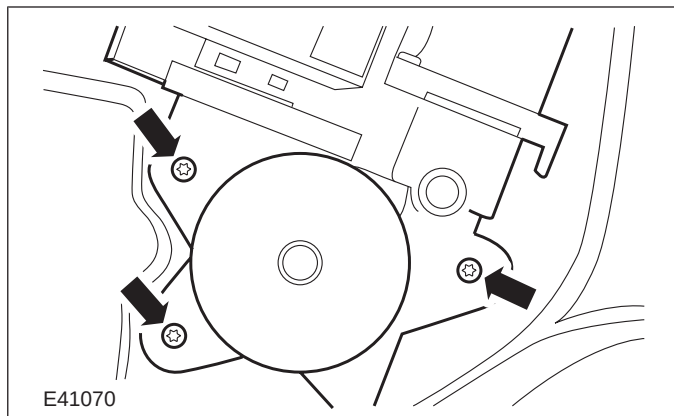
**Installation Details**

REMOVAL AND INSTALLATION**Item 8 Front door window regulator**

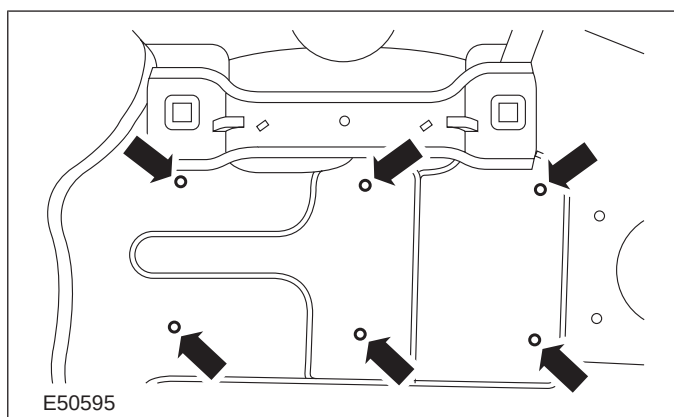
1. Align the window regulator with the window regulator motor retaining screw holes and rivet holes in the door inner panel.



2. Install the window regulator motor.



3. Using a suitable blind rivet gun-hand, install new rivets in a diagonally opposed pattern.

**Item 2 Door hinge center retaining bolts**

1. Apply a coating of adhesive to the door hinge center retaining bolts.

REMOVAL AND INSTALLATION

Front Door Window Regulator — 4-Door/5-Door/Wagon

General Equipment

Electric hand drill

Blind rivet gun-hand

Materials

Name	Specification
Adhesive - Loctite 243	WSK-M2G349-A7

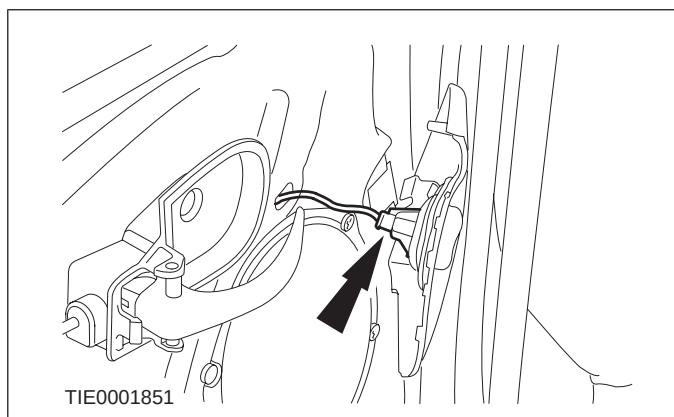
1. Remove the front door window glass.

For additional information, refer to: **Front Door Window Glass** (501-11 Glass, Frames and Mechanisms, Removal and Installation).

2. Remove the front door window regulator motor.

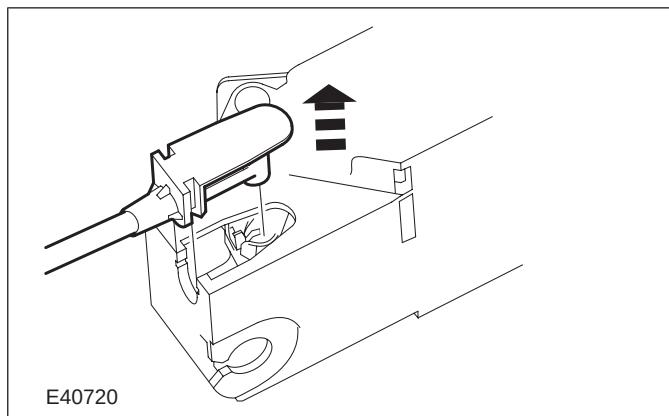
For additional information, refer to: **Front Door Window Regulator Motor - Vehicles With: Global Closing** (501-11 Glass, Frames and Mechanisms, Removal and Installation).

3. Disconnect the power window control switch electrical connector.



4. Disconnect the door latch remote control cable from the door latch remote control.

- Operate the door latch remote control handle lock to the lock position.

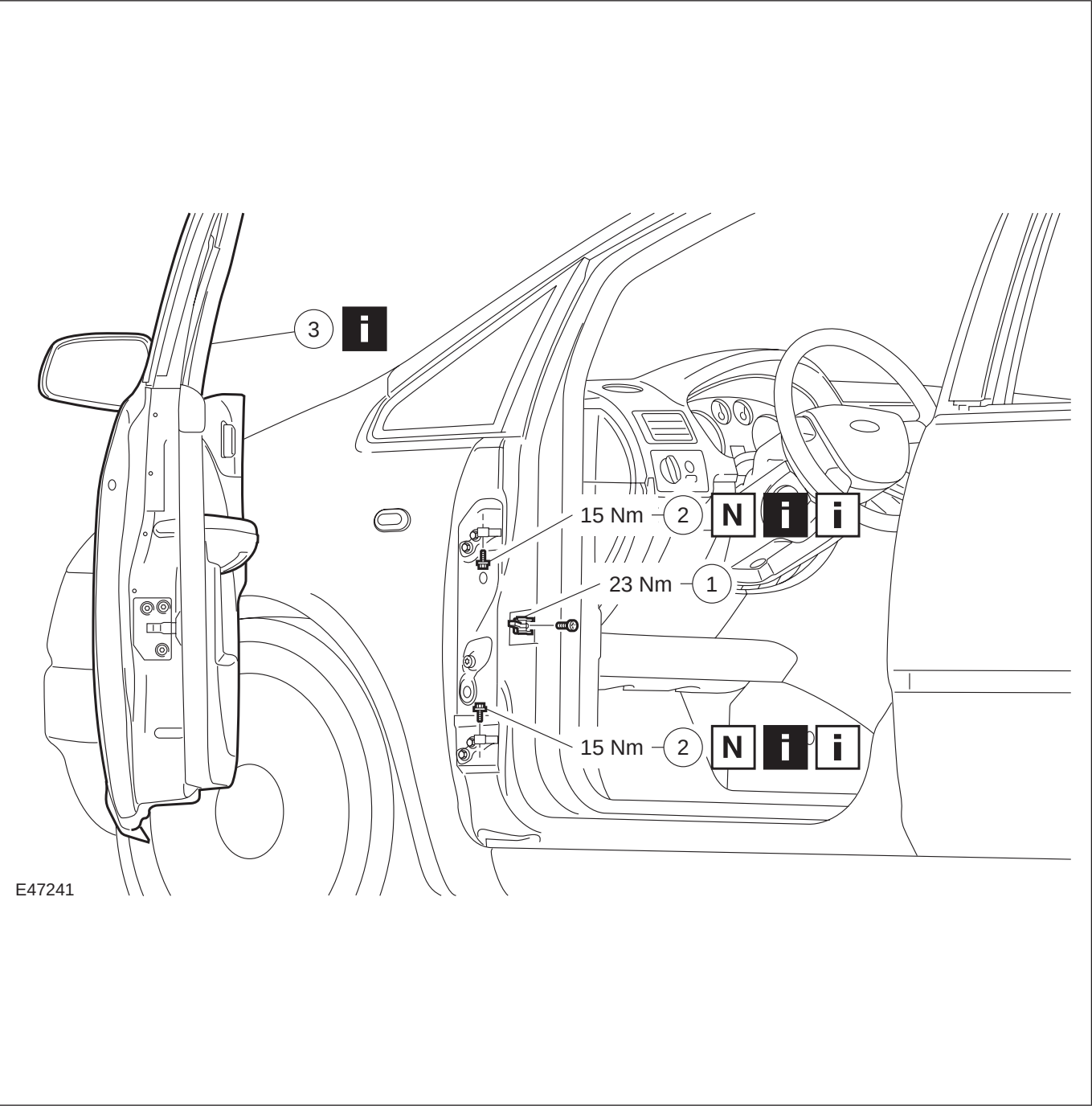


5. Remove the exterior front door handle.

For additional information, refer to: **Exterior Front Door Handle** (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

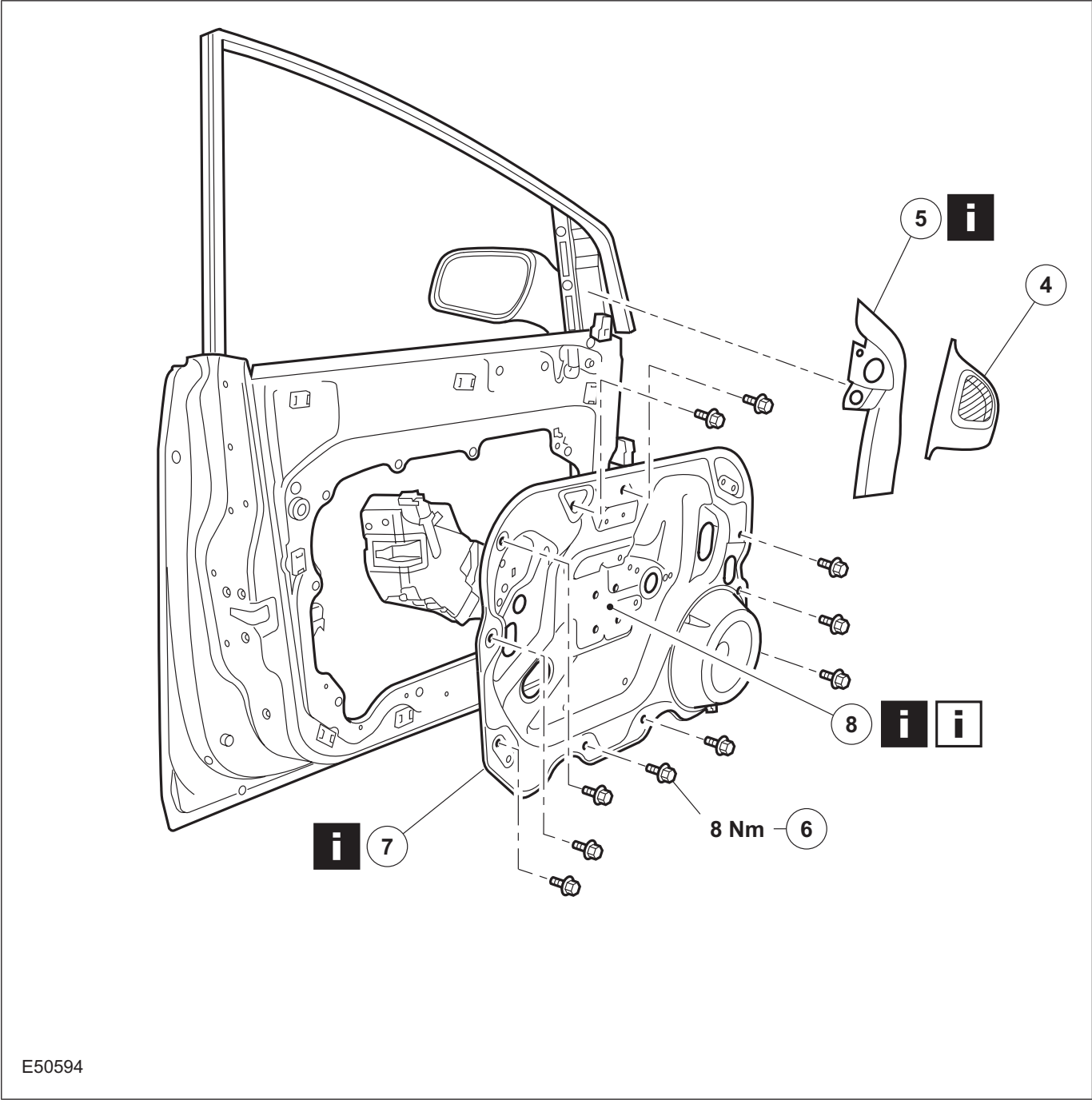
6. Remove the components in the order indicated in the following illustration(s) and table(s).

REMOVAL AND INSTALLATION



Item	Description
1	Door check strap
2	Door hinge center retaining bolts See Removal Detail See Installation Detail
3	Door (left-hand door shown) See Removal Detail

REMOVAL AND INSTALLATION



Item	Description
4	Speaker cover
5	Exterior mirror trim panel See Removal Detail
6	Door inner panel retaining bolts

Item	Description
7	Door inner panel See Removal Detail
8	Front door window regulator See Removal Detail See Installation Detail

7. To install, reverse the removal procedure.

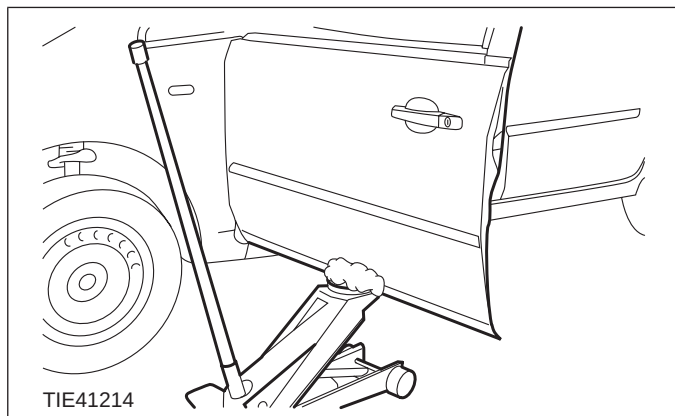
Removal Details

REMOVAL AND INSTALLATION

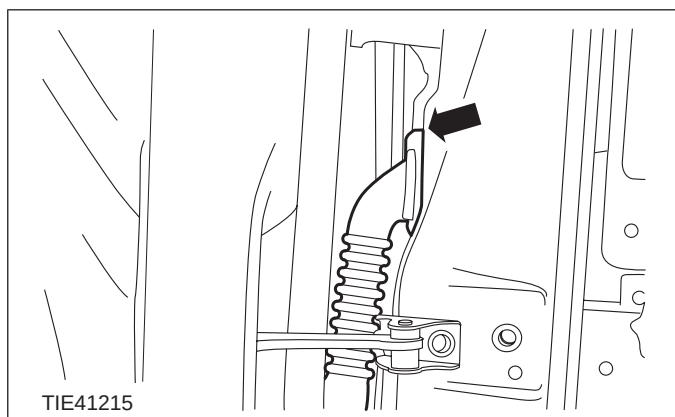
Item 2 Door hinge center retaining bolts

1. **CAUTION:** Protect the door using a soft cloth to prevent damage.

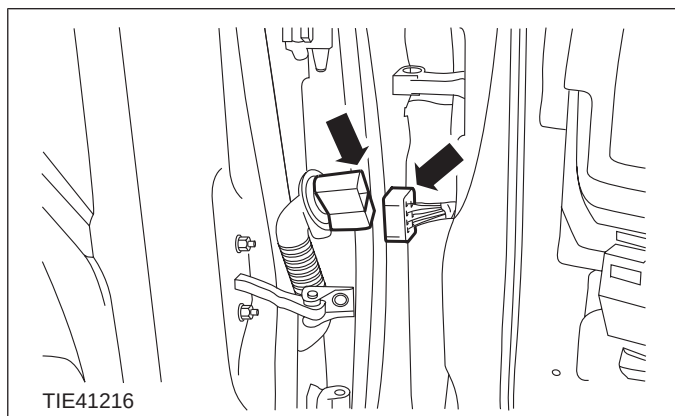
With the aid of another technician and a suitable trolley jack, support the door.

**Item 3 Door (left-hand door shown)**

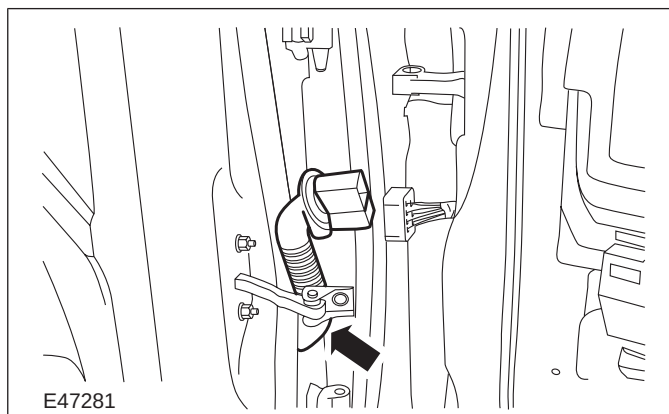
1. Detach the electrical connector from the A-pillar.

**2. Remove the front door.**

- Disconnect the electrical connector.

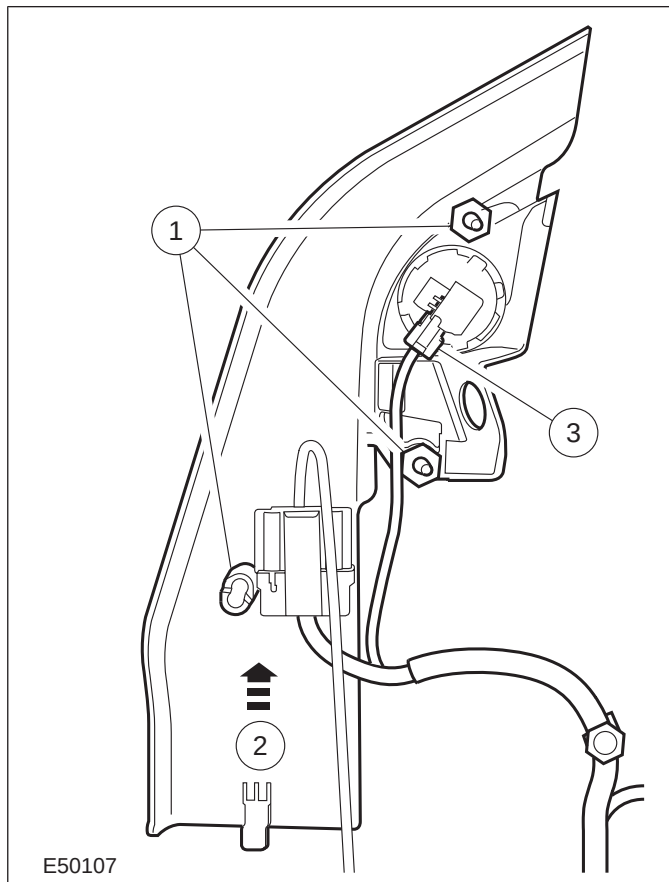


3. Push the front door wiring harness into the door.

**Item 5 Exterior mirror trim panel**

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

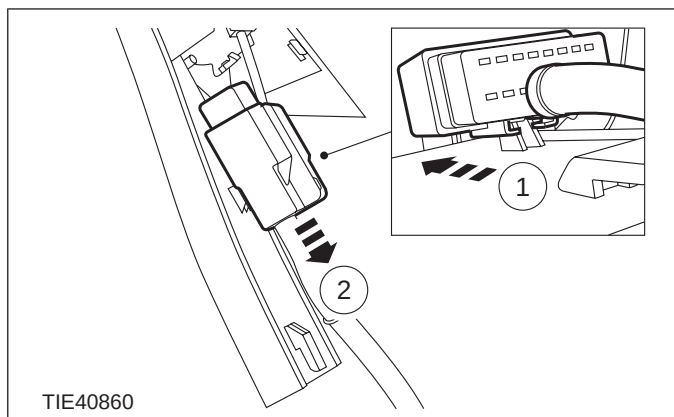
1. Detach the clips.
2. Detach the trim panel.
3. Disconnect the speaker electrical connector (if equipped).

**2. Remove the exterior mirror trim panel.**

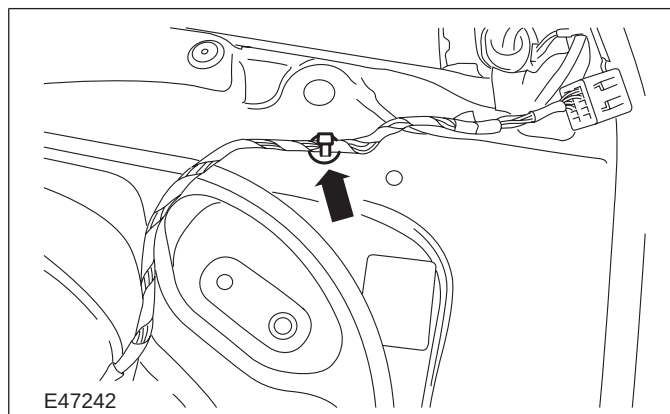
1. Detach the mirror electrical connector from the trim panel.

REMOVAL AND INSTALLATION

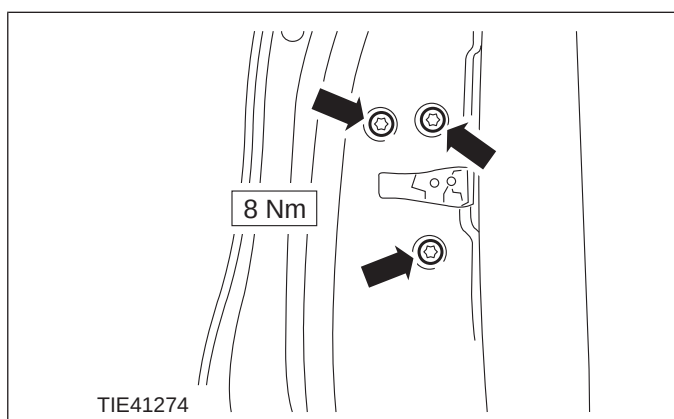
2. Disconnect the mirror electrical connector.



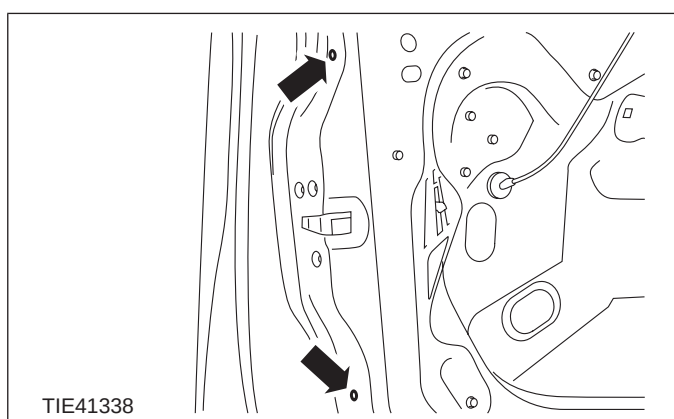
3. Detach the exterior mirror wiring harness retaining clip.

**Item 7 Door inner panel**

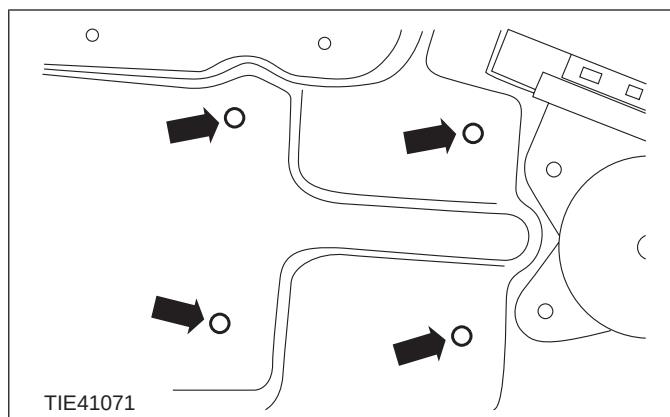
1. Remove the front door latch retaining screws.



2. Remove the front door latch bracket retaining screws.

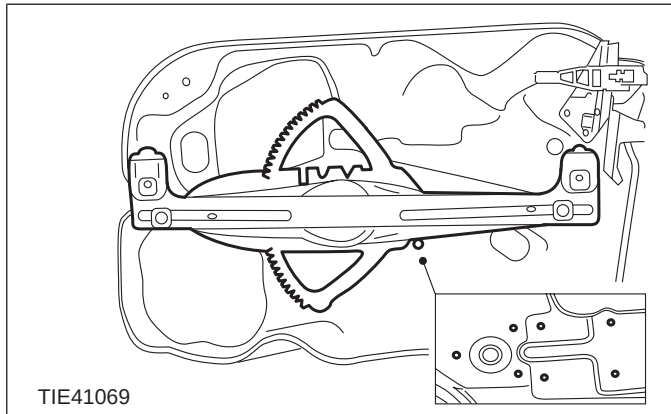
**Item 8 Front door window regulator**

1. Using a suitable electric hand drill, remove the rivets.

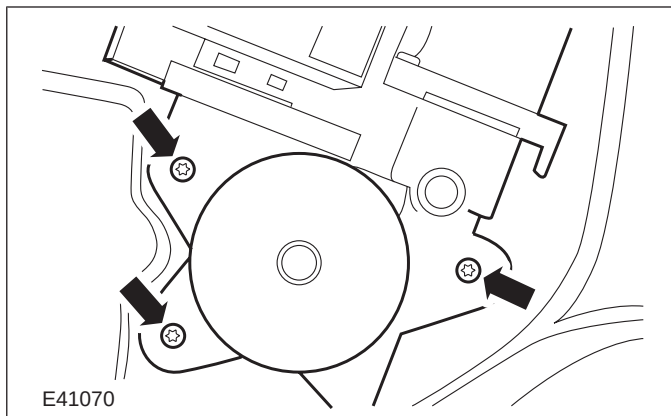
**Installation Details**

REMOVAL AND INSTALLATION**Item 8 Front door window regulator**

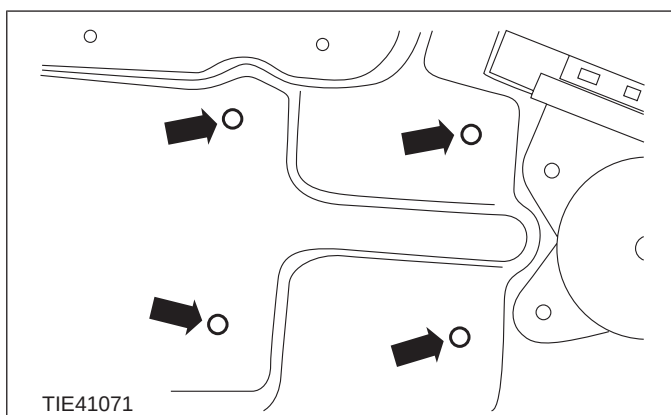
1. Align the window regulator with the window regulator motor retaining screw holes and rivet holes in the door inner panel.



2. Install the window regulator motor.



3. Using a suitable blind rivet gun-hand, install new rivets in a diagonally opposed pattern.

**Item 2 Door hinge center retaining bolts**

1. Apply a coating of adhesive to the door hinge center retaining bolts.

REMOVAL AND INSTALLATION

Rear Door Window Regulator — Vehicles With: Power Windows

General Equipment

Electric hand drill

Blind rivet gun-hand

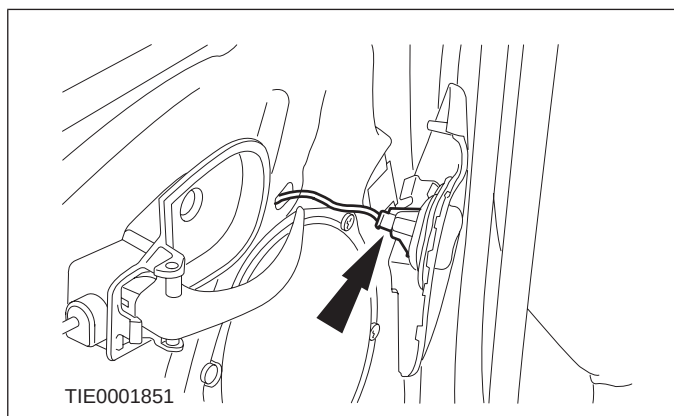
1. Remove the rear door window glass.

For additional information, refer to: **Rear Door Window Glass - Vehicles With: Power Windows** (501-11 Glass, Frames and Mechanisms, Removal and Installation).

2. Remove the rear door window regulator motor.

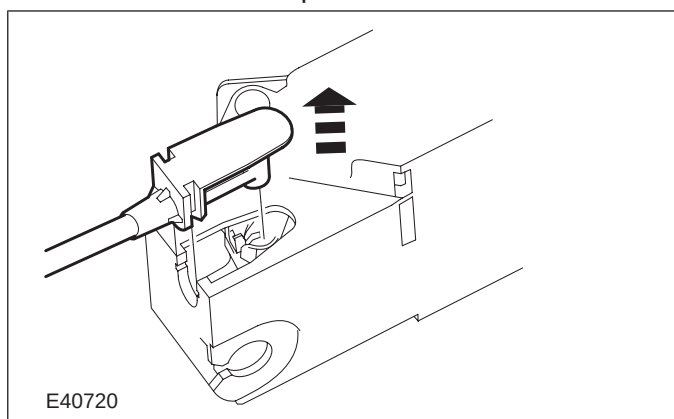
For additional information, refer to: **Rear Door Window Regulator Motor** (501-11 Glass, Frames and Mechanisms, Removal and Installation).

3. Disconnect the power window control switch electrical connector.



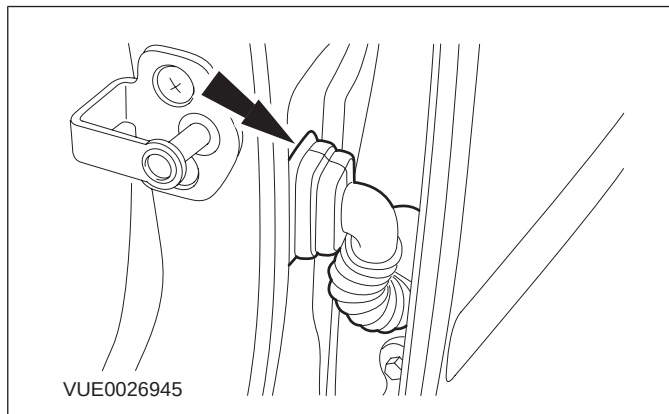
4. Disconnect the door latch remote control cable from the door latch remote control.

- Operate the door latch remote control handle lock to the lock position.

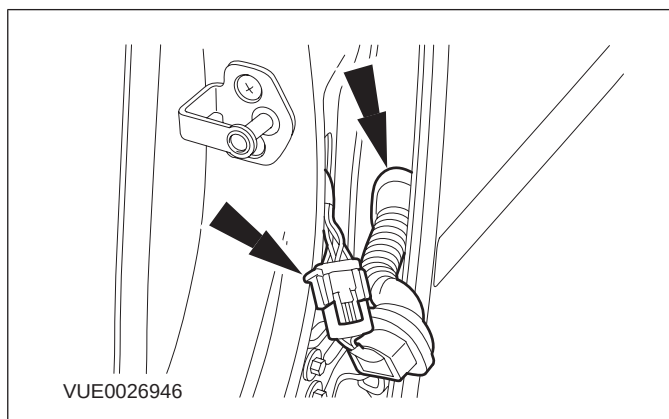


5. Close the rear door.

6. Detach the wiring harness from the B-pillar.



7. Disconnect the wiring harness at the B-pillar and push it into the door.



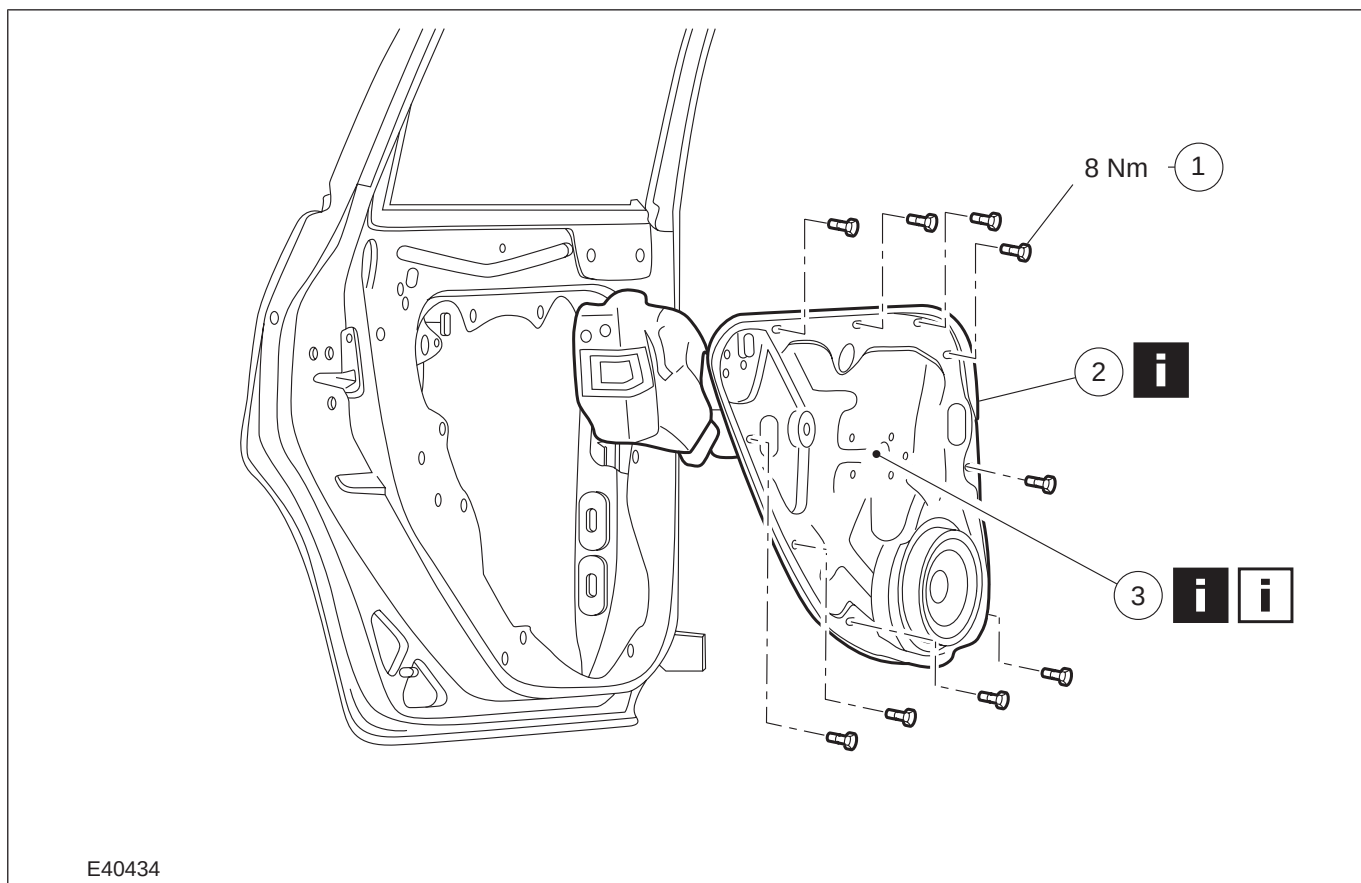
8. Open the rear door.

9. Remove the exterior rear door handle.

For additional information, refer to: **Exterior Rear Door Handle** (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

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

REMOVAL AND INSTALLATION



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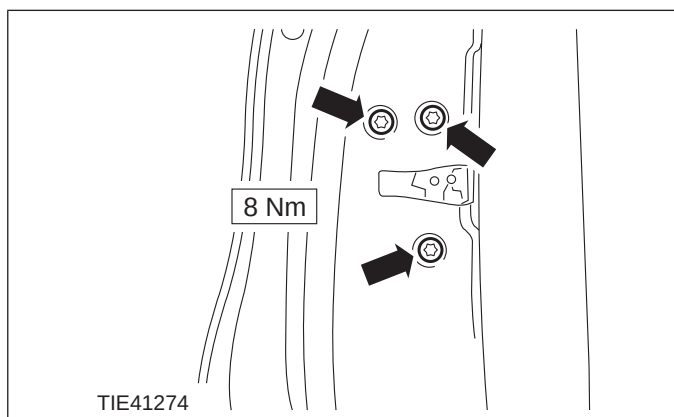
Item	Description
1	Door inner panel retaining bolts
2	Door inner panel See Removal Detail
3	Rear door window regulator See Removal Detail See Installation Detail

11. To install, reverse the removal procedure.

Removal Details

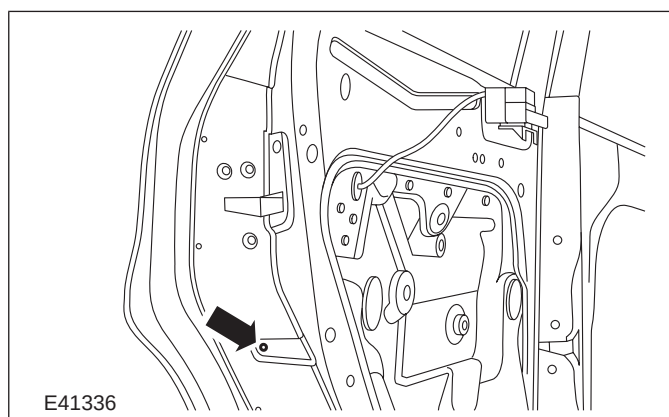
Item 2 Door inner panel

1. Remove the rear door latch retaining screws.



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2. Remove the rear door latch bracket retaining screw.

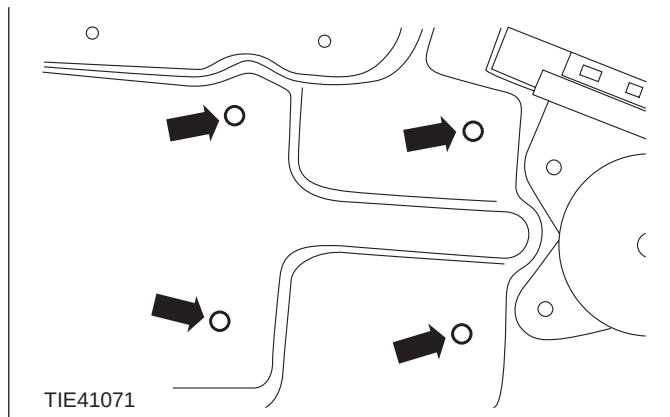


E41336

REMOVAL AND INSTALLATION

Item 3 Rear door window regulator

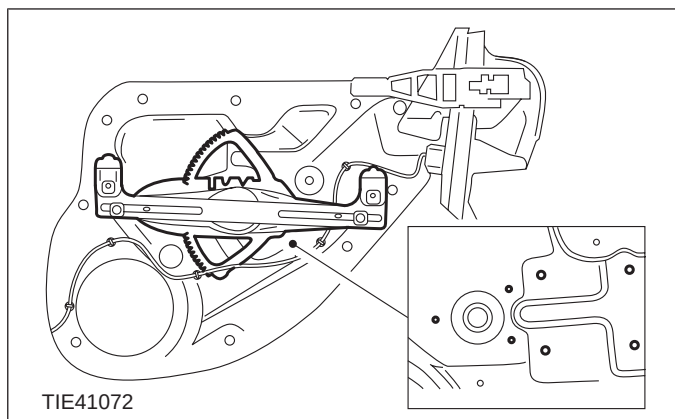
1. Using a suitable electric hand drill, remove the rivets.



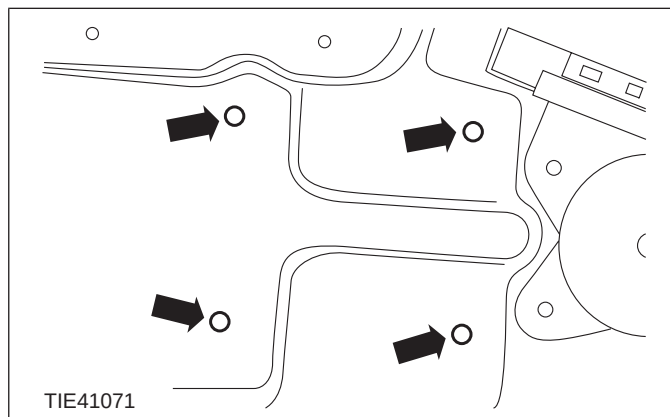
Installation Details

Item 3 Rear door window regulator

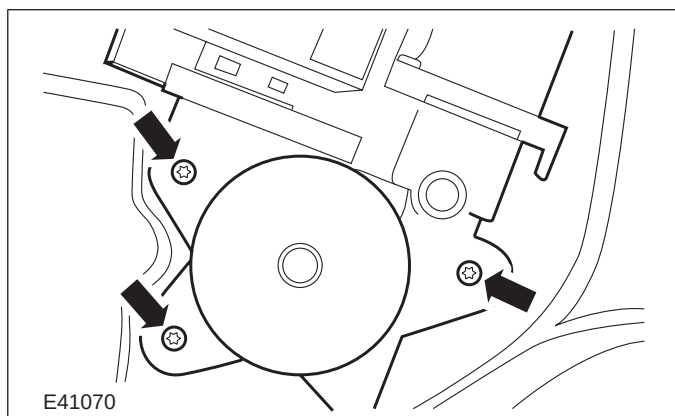
1. Align the window regulator with the window regulator motor retaining screw holes and rivet holes in the door inner panel.



3. Using a suitable blind rivet gun-hand, install new rivets in a diagonally opposed pattern.



2. Install the window regulator motor.



REMOVAL AND INSTALLATION

Rear Door Window Regulator — Vehicles With: Manual Windows

General Equipment

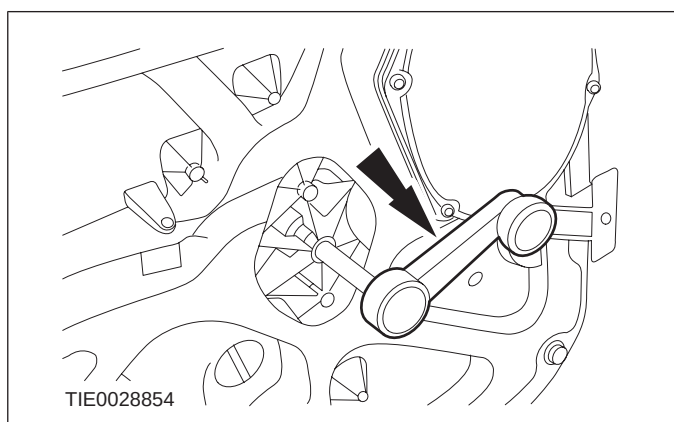
Electric hand drill

Blind rivet gun-hand

1. Remove the rear door window glass.

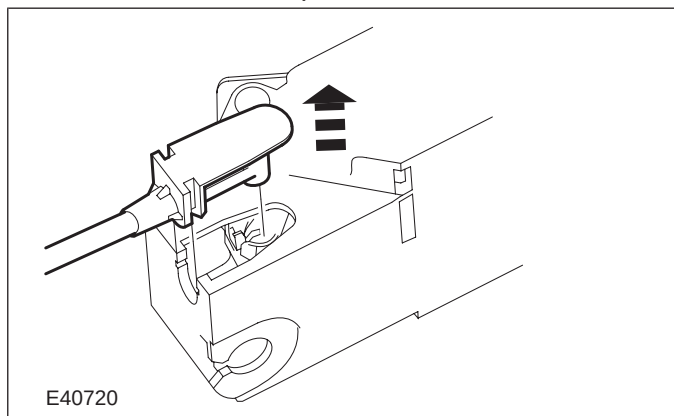
For additional information, refer to: **Rear Door Window Glass - Vehicles With: Manual Windows** (501-11 Glass, Frames and Mechanisms, Removal and Installation).

2. Remove the window regulator handle.



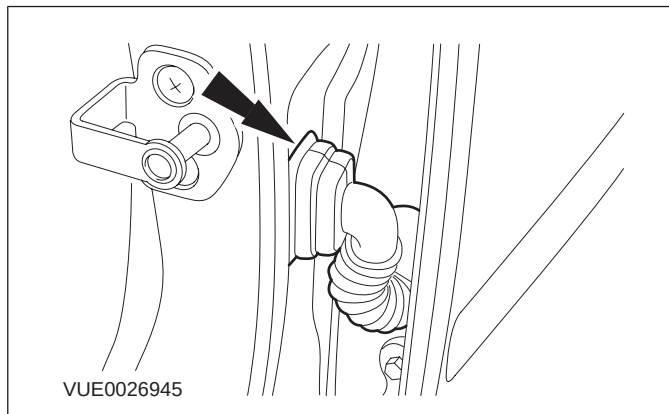
3. Disconnect the door latch remote control cable from the door latch remote control.

- Operate the door latch remote control handle lock to the lock position.

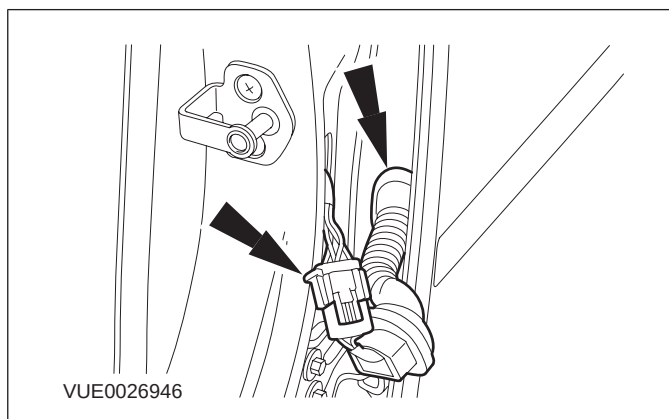


4. Close the rear door.

5. Detach the wiring harness from the B-pillar.



6. Disconnect the wiring harness at the B-pillar and push it into the door.



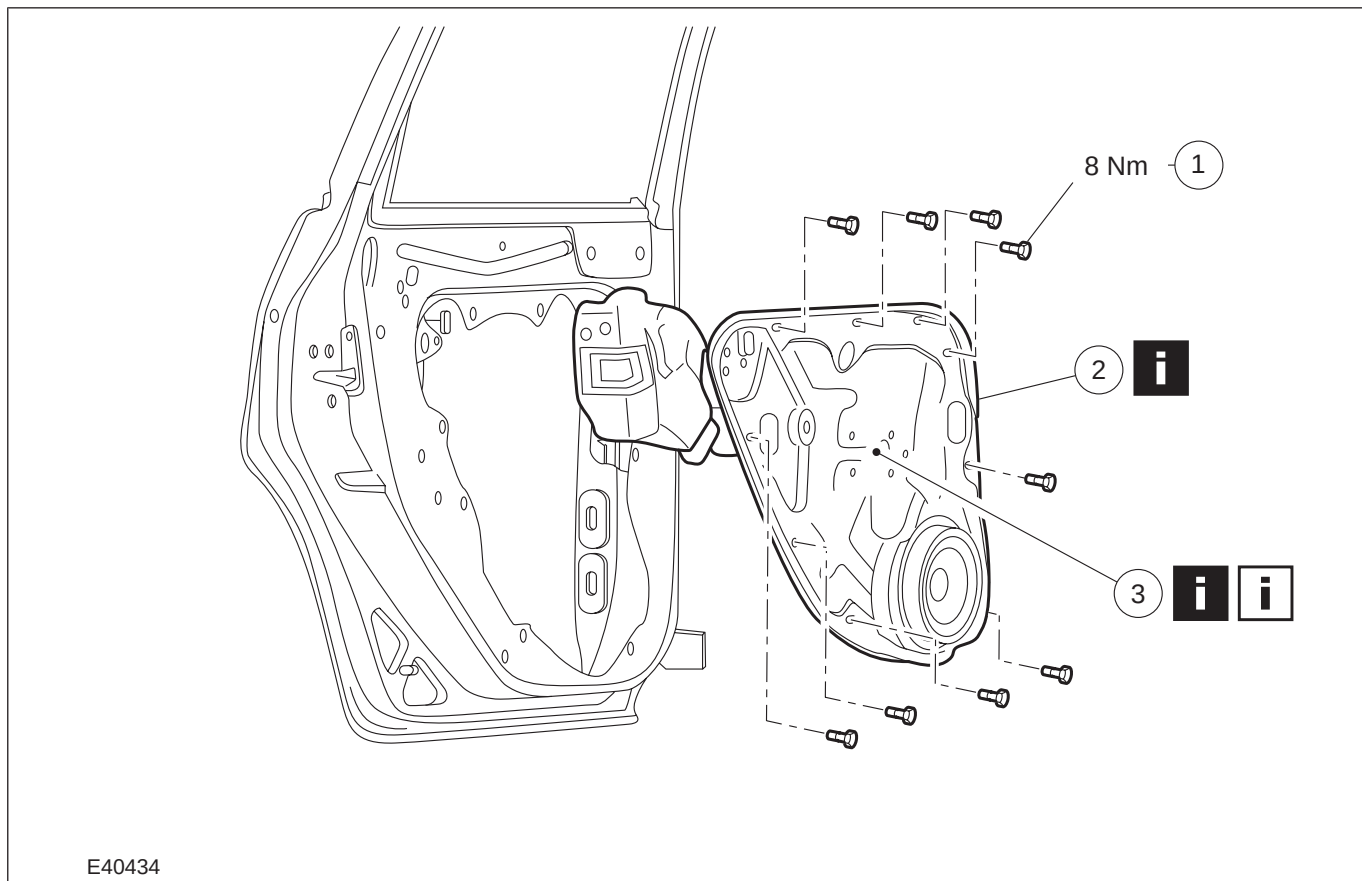
7. Open the rear door.

8. Remove the exterior rear door handle.

For additional information, refer to: **Exterior Rear Door Handle** (501-14 Handles, Locks, Latches and Entry Systems, Removal and Installation).

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

REMOVAL AND INSTALLATION



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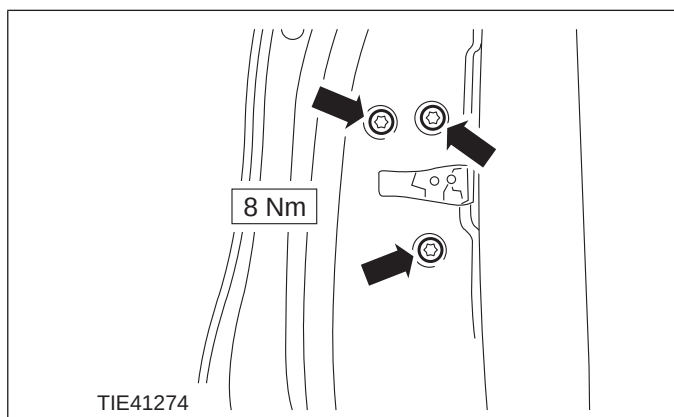
Item	Description
1	Door inner panel retaining bolts
2	Door inner panel See Removal Detail
3	Rear door window regulator See Removal Detail See Installation Detail

10. To install, reverse the removal procedure.

Removal Details

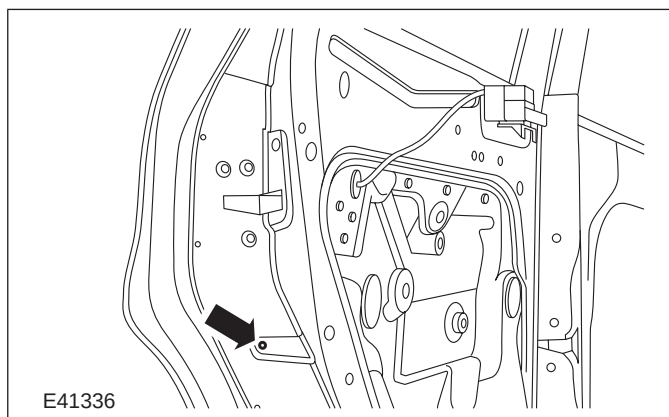
Item 2 Door inner panel

1. Remove the rear door latch retaining screws.



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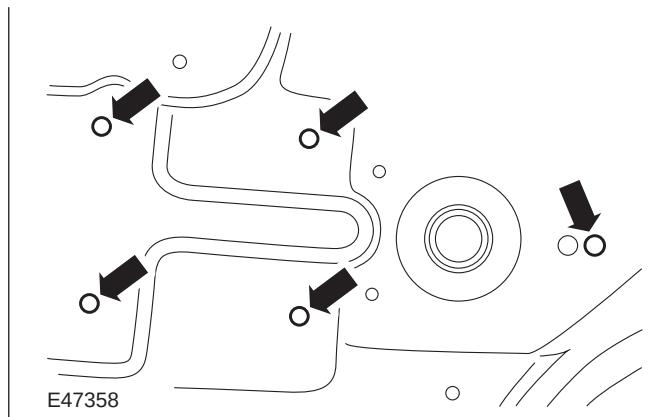
2. Remove the rear door latch bracket retaining screws.



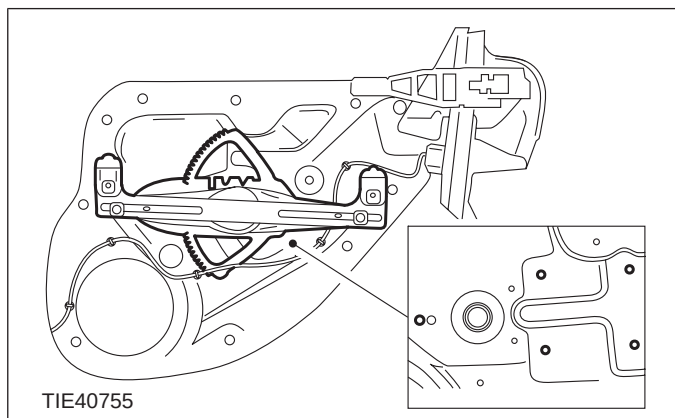
E41336

REMOVAL AND INSTALLATION**Item 3 Rear door window regulator**

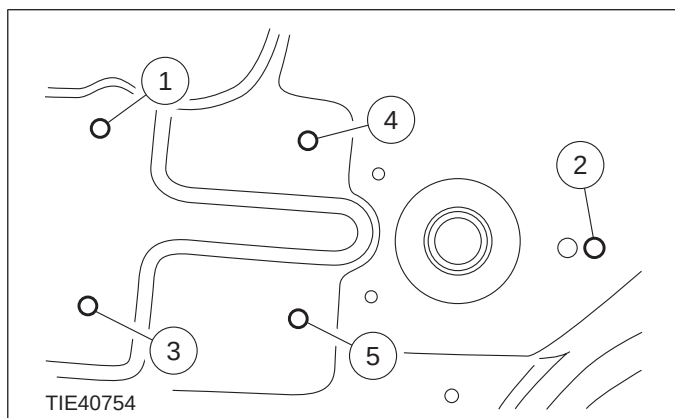
1. Using a suitable electric hand drill, remove the rivets.

**Installation Details****Item 3 Rear door window regulator**

1. Align the window regulator with the rivet holes in the door inner panel.



2. Using a suitable blind rivet gun-hand, install new rivets in the sequence shown.



REMOVAL AND INSTALLATION

Front Door Window Regulator Motor — Vehicles With: Global Closing

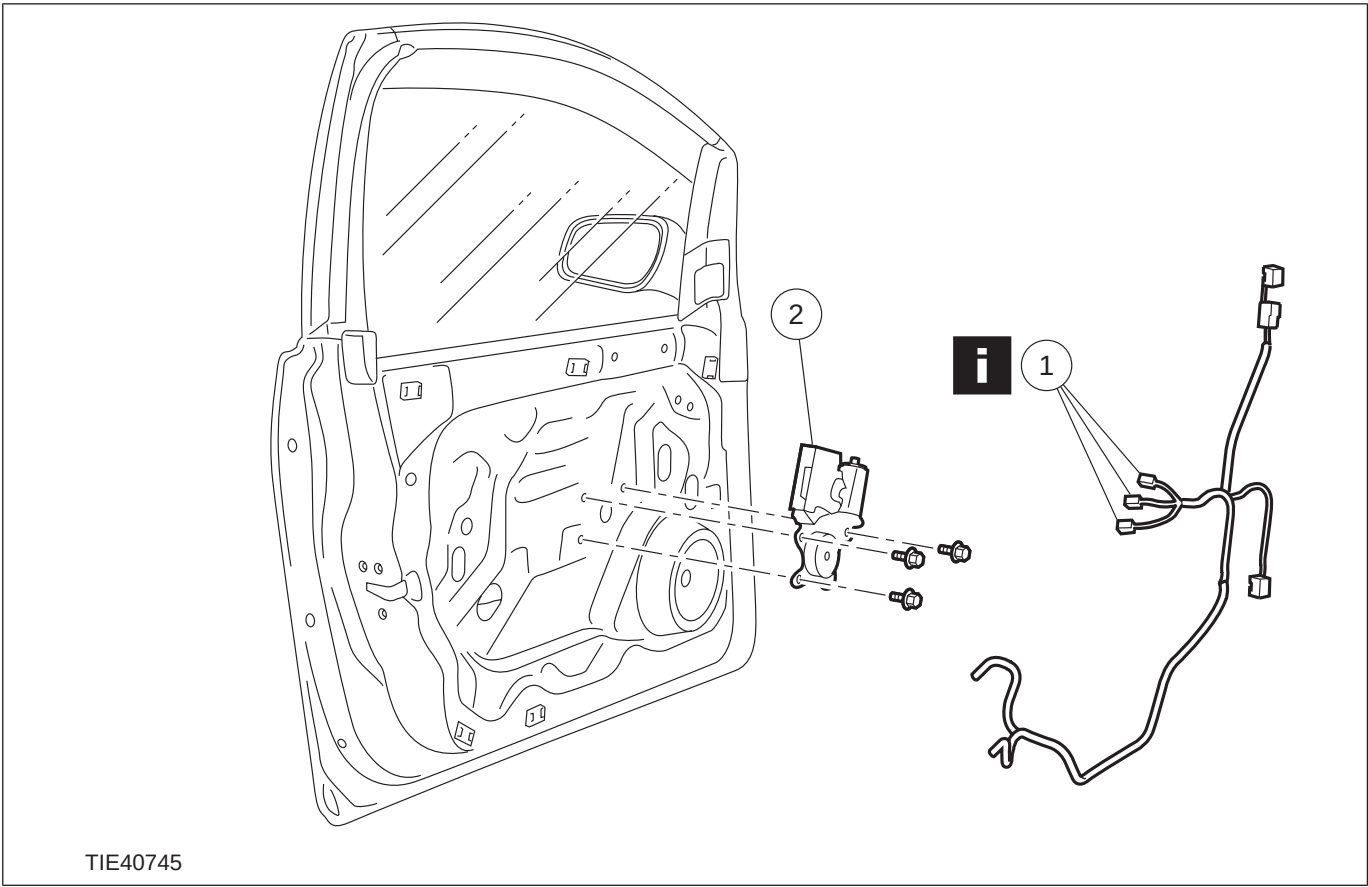
General Equipment

Worldwide diagnostic system (WDS)

1. Remove the front door trim panel. For additional information, refer to: (501-05 Interior Trim and Ornamentation)

Front Door Trim Panel - 3-Door (Removal and Installation),
Front Door Trim Panel - 4-Door/5-Door/Wagon (Removal and Installation).

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



Item	Description
1	Front door window regulator motor electrical connectors See Removal Detail
2	Front door window regulator motor

3. To install, reverse the removal procedure.

4. NOTE: This step must be carried out if installing a new front door window regulator motor.

Configure the front door window regulator motor control module using WDS.

5. Initialize the door window motors.

For additional information, refer to: Door Window Motor Initialization (501-11 Glass, Frames and Mechanisms, General Procedures).

REMOVAL AND INSTALLATION**Removal Details****Item 1 Front door window regulator motor electrical connectors**

NOTE: The driver side front door window regulator motor has three electrical connectors, the passenger side front door window regulator motor has two.

REMOVAL AND INSTALLATION

Rear Door Window Regulator Motor

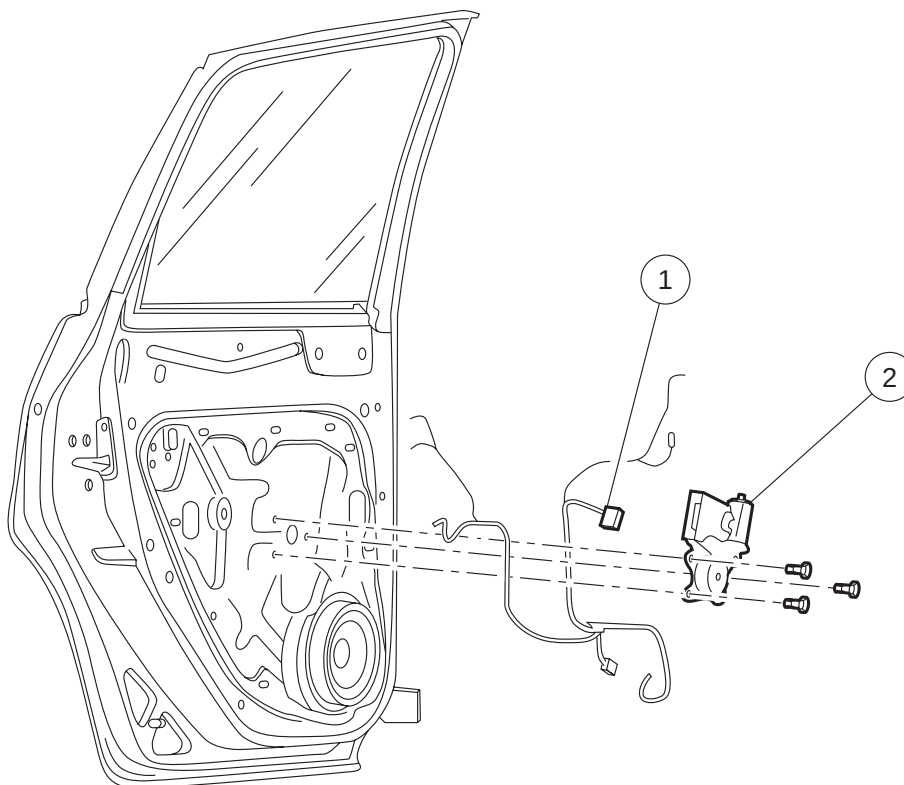
General Equipment

Worldwide diagnostic system (WDS)

Section **501-05 [Interior Trim and Ornamentation]**.

1. Remove the rear door trim panel. For additional information, refer to

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



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Item	Description
1	Window regulator motor electrical connector
2	Window regulator motor

3. To install, reverse the removal procedure.

4. **NOTE:** This step should only be carried out if installing a new window regulator motor.

Configure the window regulator motor control module using worldwide diagnostic system (WDS).

5. Initialize the door window motors.

For additional information, refer to **Door Window Motor Initialization** in this section.

REMOVAL AND INSTALLATION

Windshield Glass

Materials	
Name	Specification
Windscreen Adhesive Kit - 1 Component	WSK-M11P57-A3 / 7U7J-T03863-AA
Windshield Adhesive Kit	WSS-M11P57-A5

General Equipment

Adhesive Tape
Direct Glazing Removal/Replacement Equipment
Knife
Two Leg Puller

Removal

1. CAUTION:

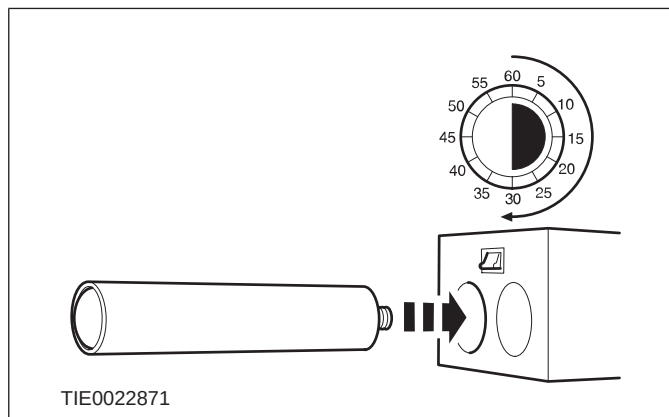
Refer to: Window Glass Health and Safety Precautions (100-00 General Information, Description and Operation).

2. 1. Material: Windshield Adhesive Kit (WSS-M11P57-A5)
2. Remove the polyurethane (PU) adhesive cap and heat the 2K-PU adhesive for a minimum of 30 minutes.

General Equipment: Direct Glazing Removal/Replacement Equipment

3. Repairs under warranty:

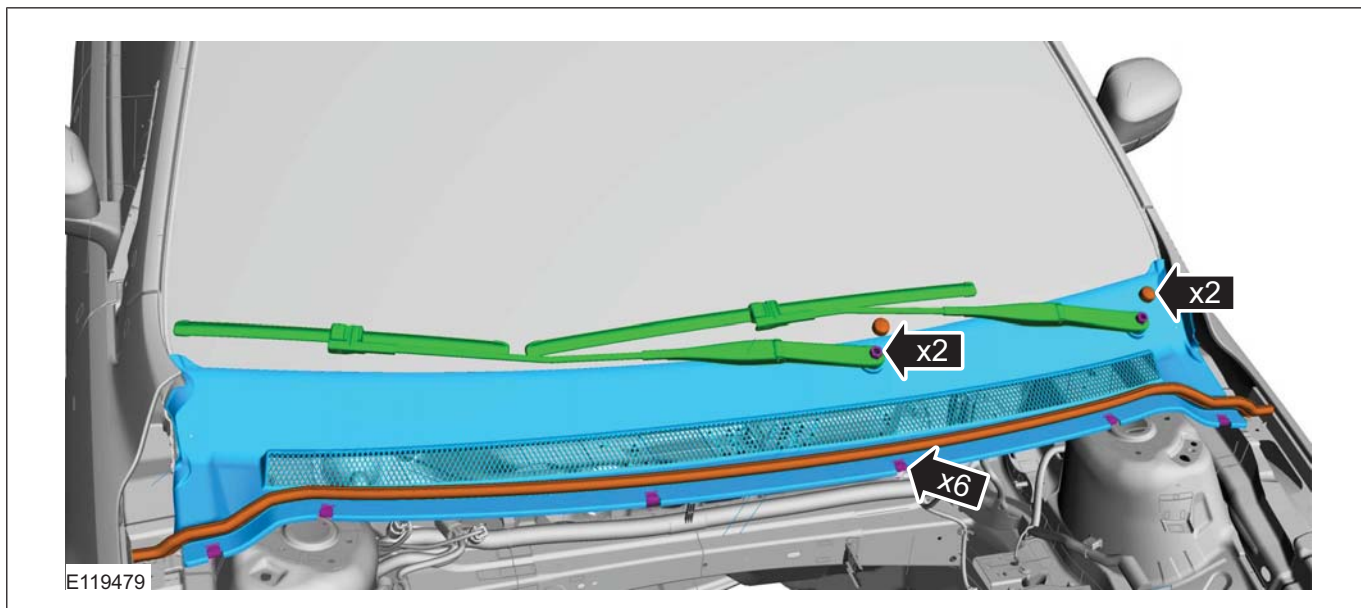
Material: Windscreen Adhesive Kit - 1 Component (WSK-M11P57-A3 / 7U7J-T03863-AA)



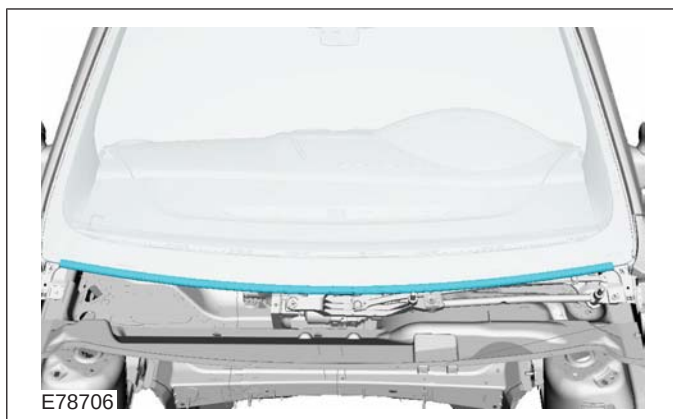
3.  CAUTION: Make sure that the motor is in the park position.

General Equipment: Two Leg Puller

REMOVAL AND INSTALLATION

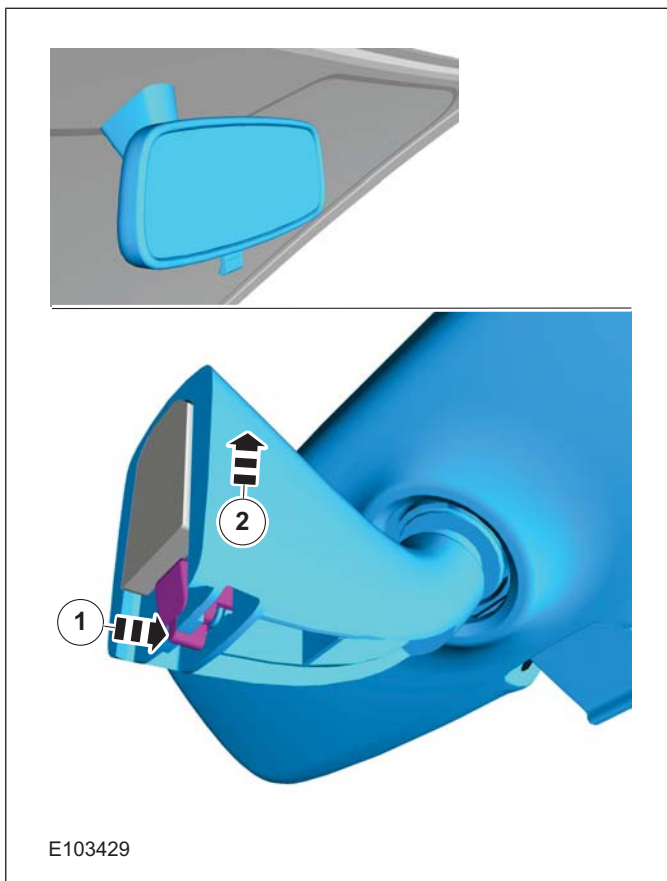


4.



Vehicles with manual dimming interior mirror

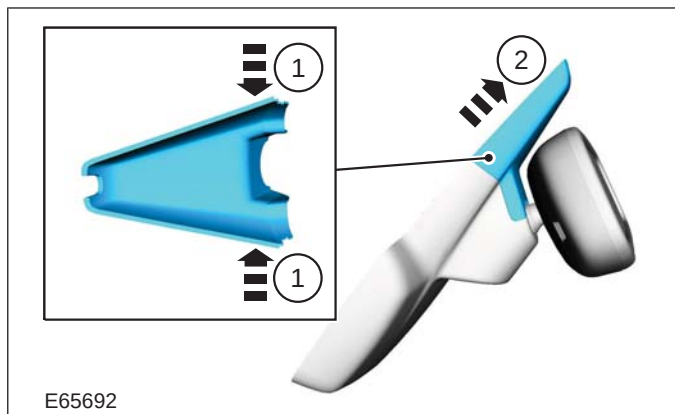
5.



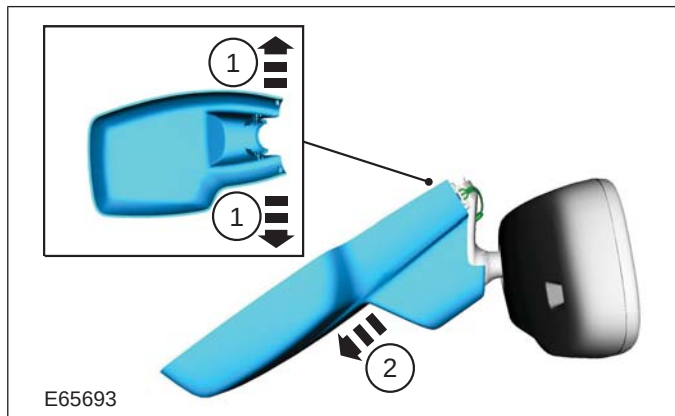
REMOVAL AND INSTALLATION

Vehicles with autolamps and rain sensor

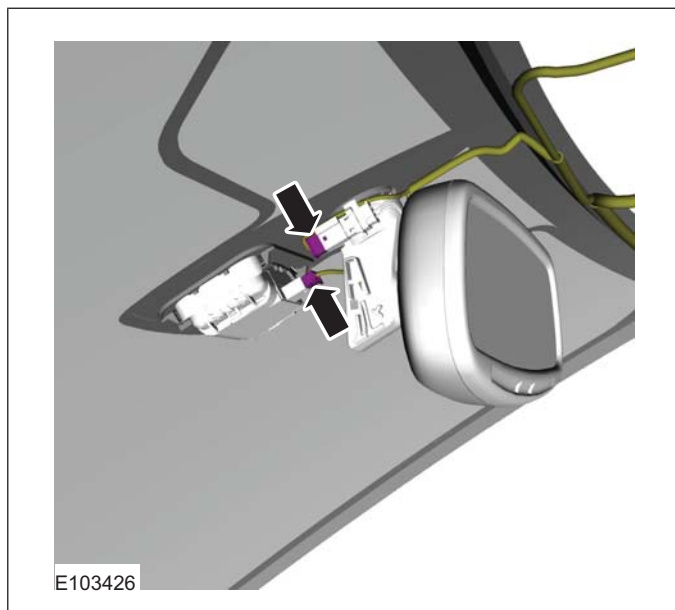
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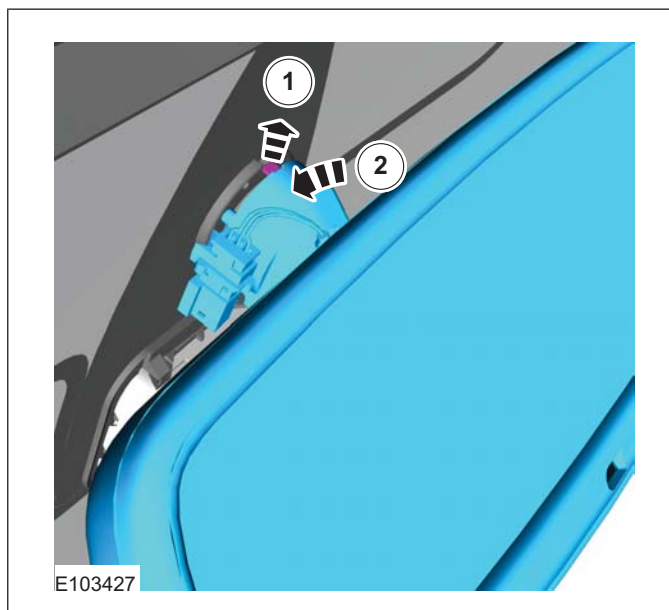
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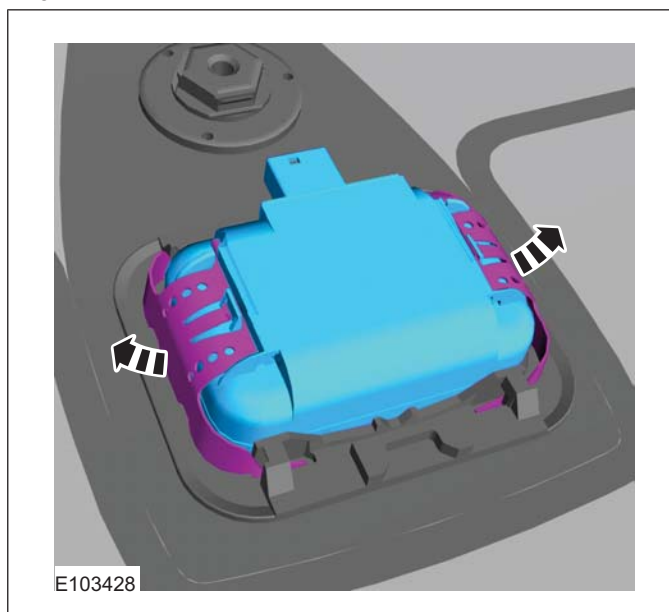
8.



9.



10.



REMOVAL AND INSTALLATION

Vehicles with heated windshield

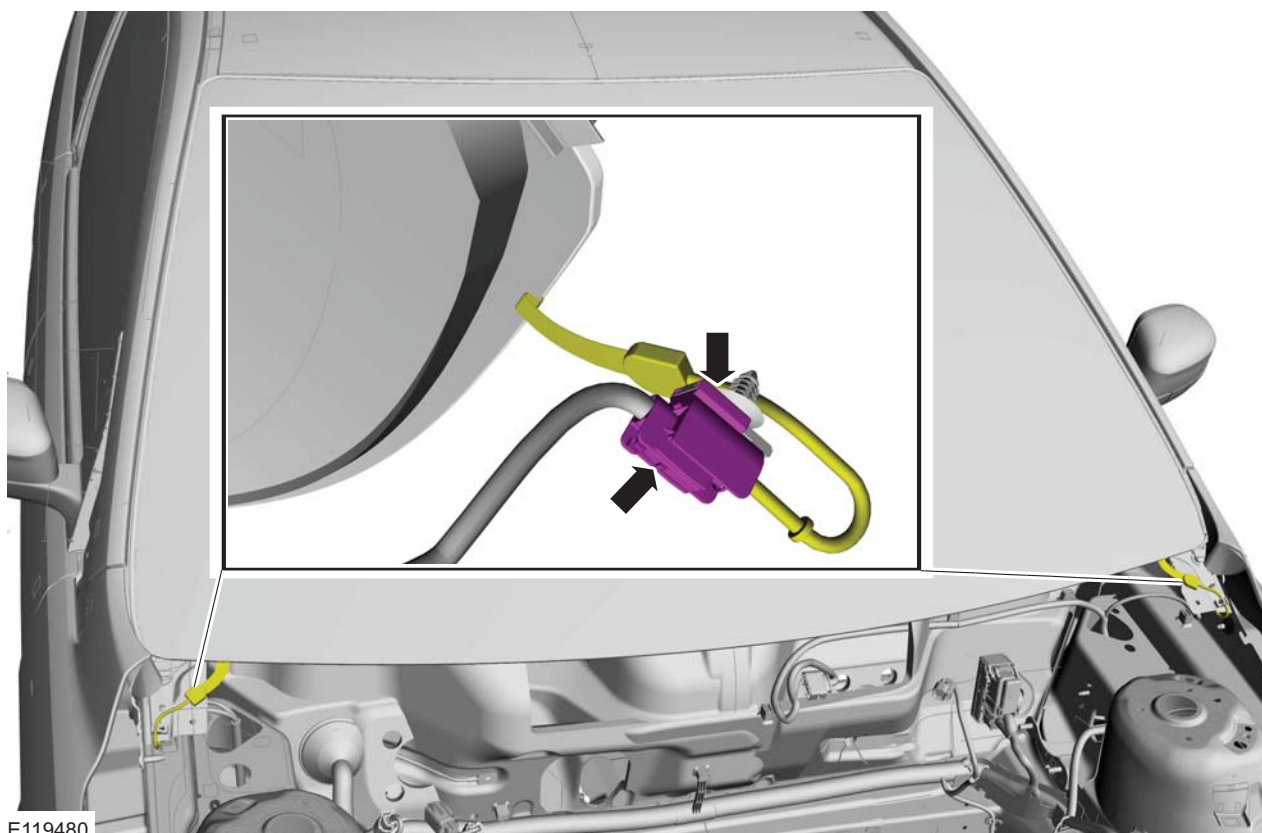
11. **Refer to: Overhead Console** (501-12 Instrument Panel and Console, Removal and Installation).

12



E72736

13.



E119480

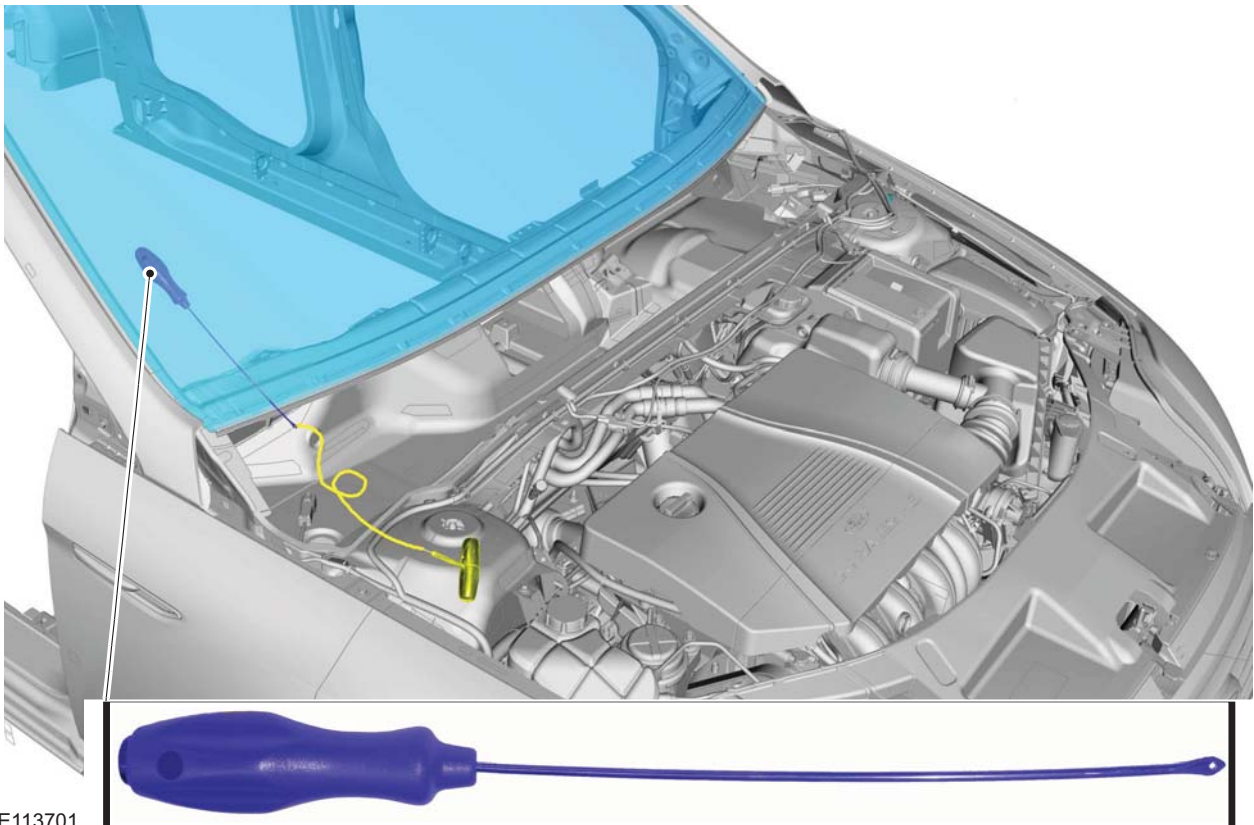
All vehicles



Use a suitable awl to thread the cutting wire.

General Equipment: Direct Glazing
Removal/Replacement Equipment

REMOVAL AND INSTALLATION



15.



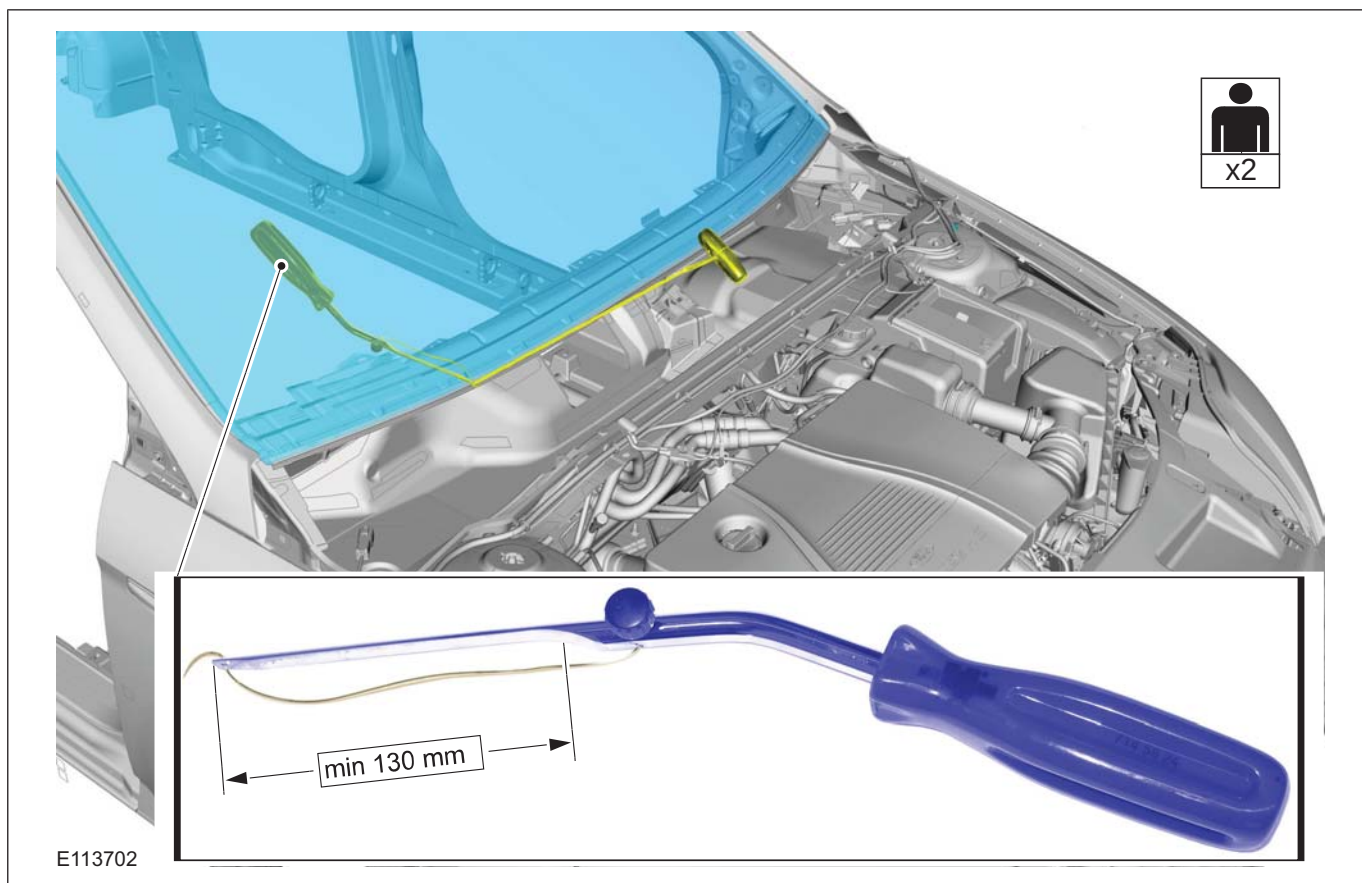
CAUTION: If the original window glass is to be installed, take care not to

damage the electrical connectors and the weatherstrip (if equipped).

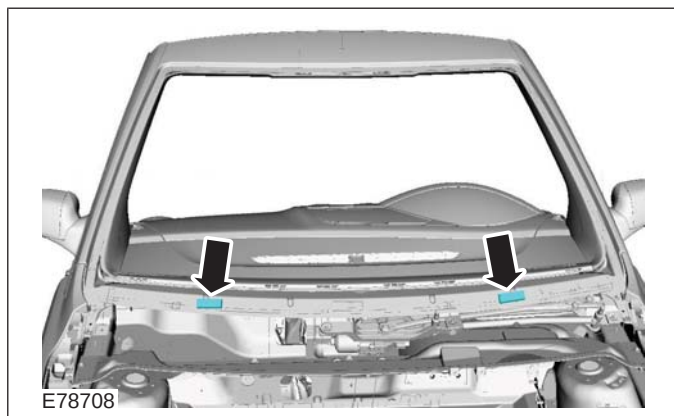
Use a suitable brace to prevent trim damages.

General Equipment: Direct Glazing
Removal/Replacement Equipment

REMOVAL AND INSTALLATION



16. NOTE: Note the position of each glass locating spacer.



Installation

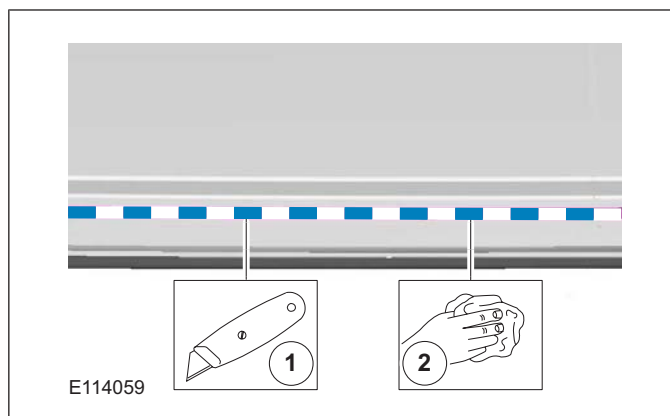
1. **NOTE:** Minimum 1 mm bead thickness.

General Equipment: Knife

2. **NOTE:** Make sure that the mating faces are clean and free of foreign material.

3. **NOTE:** Touching the adhesive surface will impair rebonding.

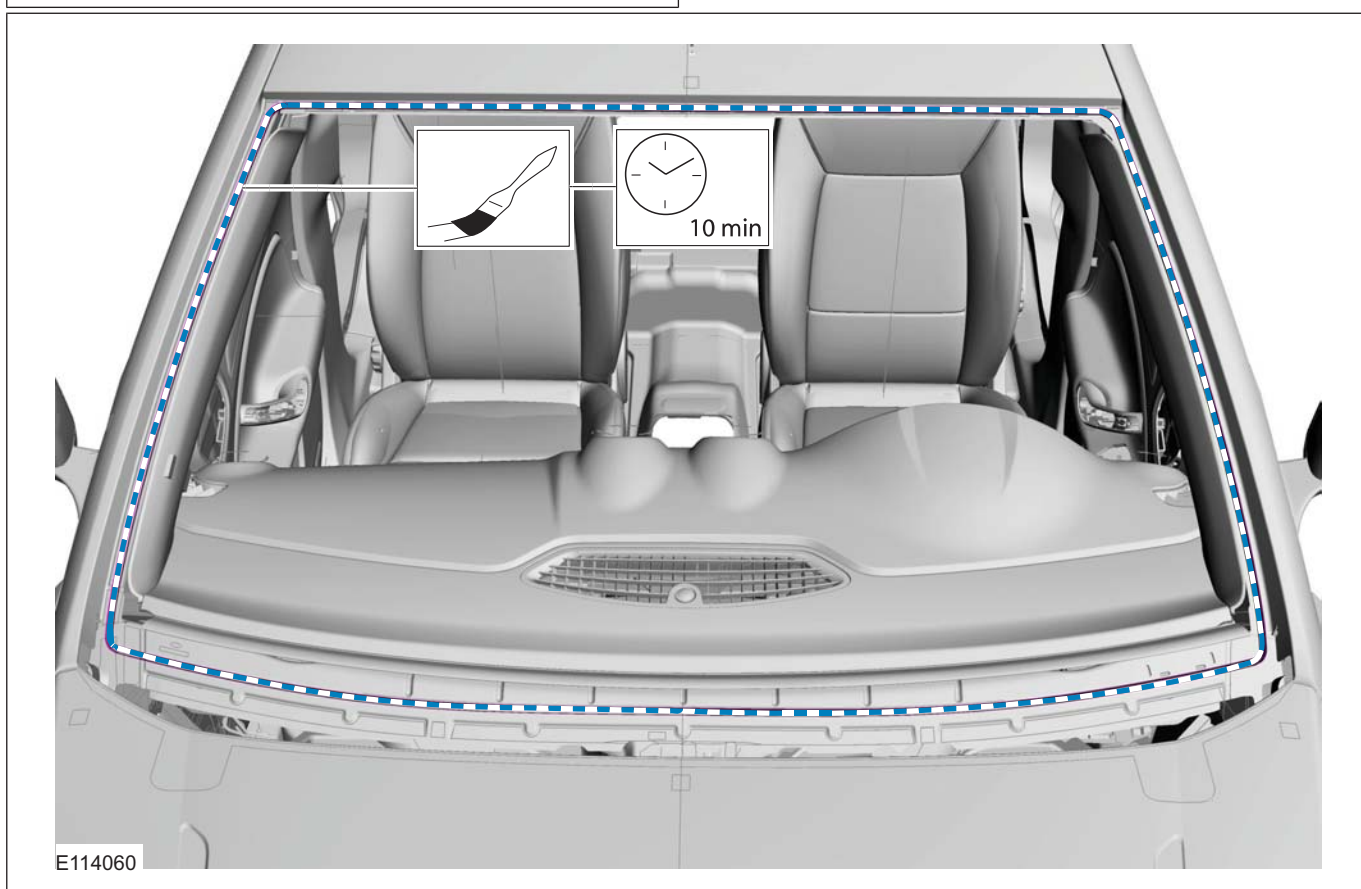
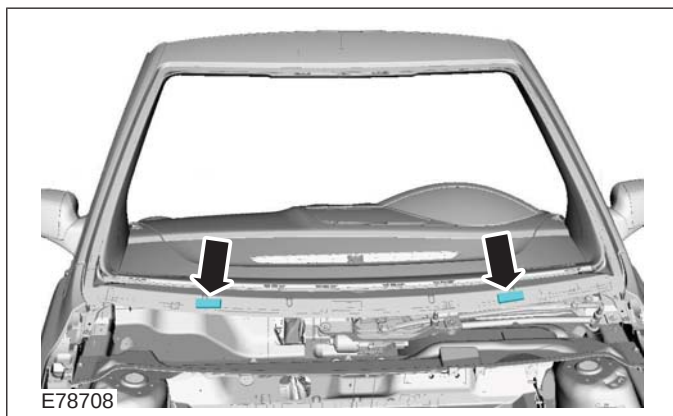
Prepare the windshield glass, windshield glass flange and trimmed PU adhesive in accordance with the instructions supplied with the glass adhesive kit.



REMOVAL AND INSTALLATION

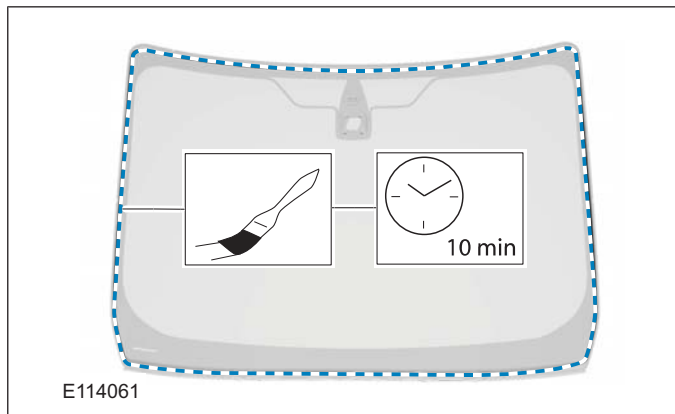
2. **NOTE:** Make sure that new components are installed.

3. Apply the activator/ primer in accordance with the instructions supplied with the glass adhesive kit.



REMOVAL AND INSTALLATION

4. Apply the activator/ primer in accordance with the instructions supplied with the glass adhesive kit.



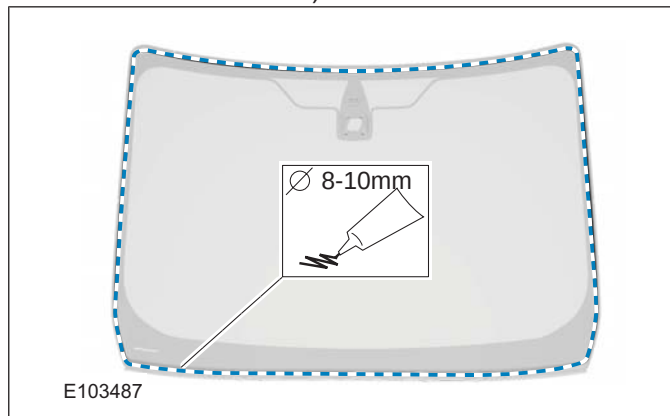
5. **NOTE:** Discard the first 100 mm of adhesive as this may have a reduced working time.

NOTE: Make sure that any breakage in the continuous bead of adhesive is overlapped by 20 mm.

General Equipment: Direct Glazing
Removal/Replacement Equipment

Material: Windshield Adhesive Kit
(WSS-M11P57-A5)

Material: Windscreen Adhesive Kit - 1
Component (WSK-M11P57-A3 /
7U7J-T03863-AA)



6. • Press firmly and evenly into position.

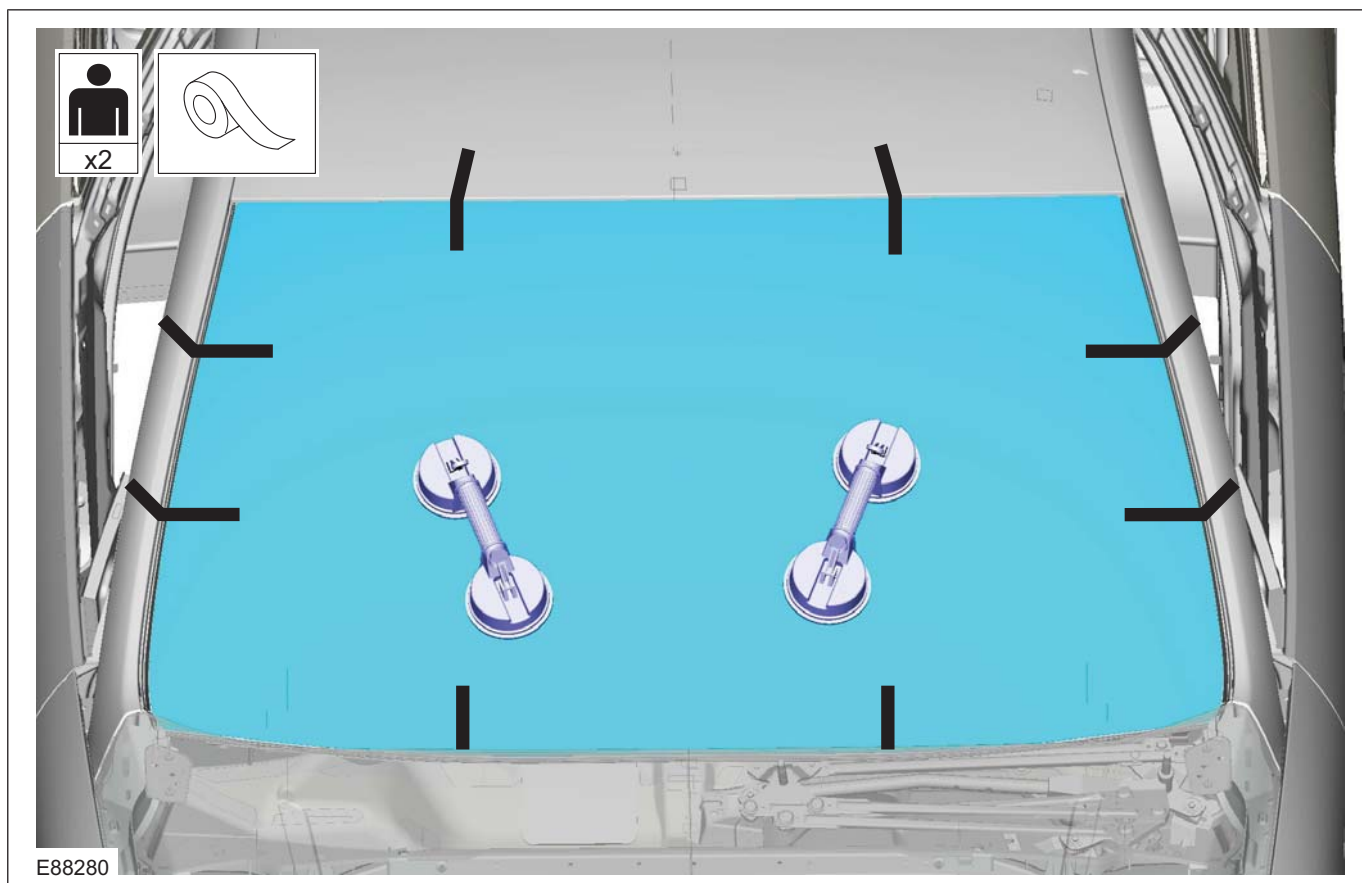
General Equipment: Direct Glazing
Removal/Replacement Equipment

- **CAUTION:** During the curing time of the polyurethane (PU) adhesive, the door windows must be left open.

Using tape, secure the windshield glass in the correct position until the PU adhesive has cured.

General Equipment: Adhesive Tape

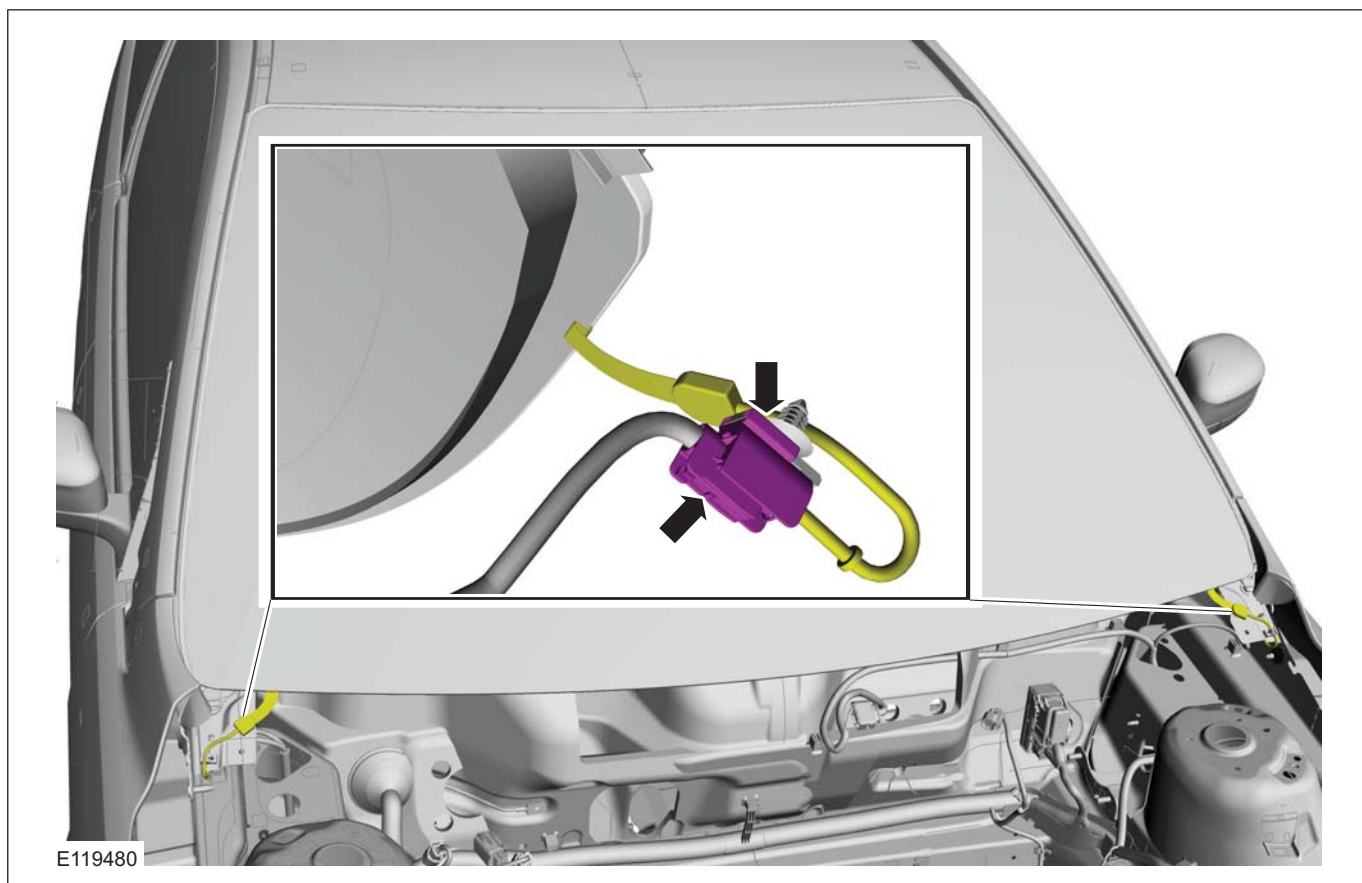
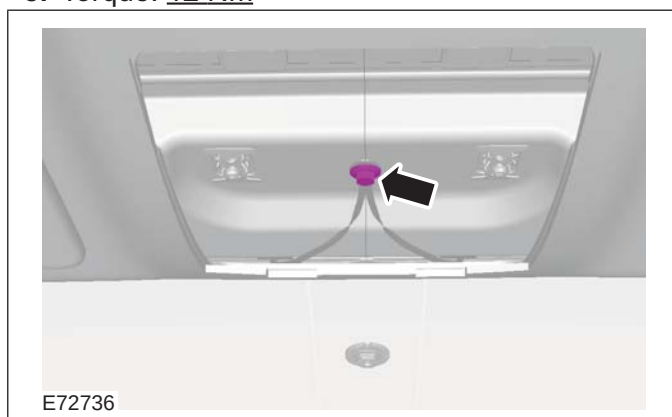
REMOVAL AND INSTALLATION



Vehicles with heated windshield

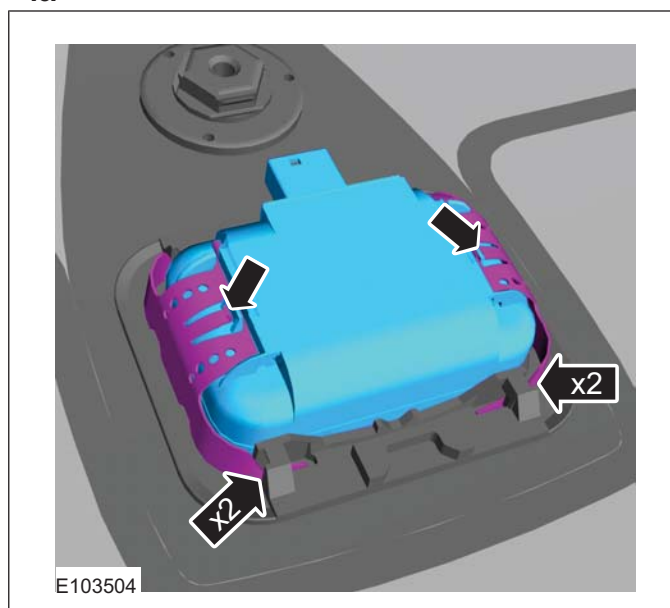
7.

REMOVAL AND INSTALLATION

8. Torque: 12 Nm9. Refer to: **Overhead Console** (501-12 Instrument Panel and Console, Removal and Installation).

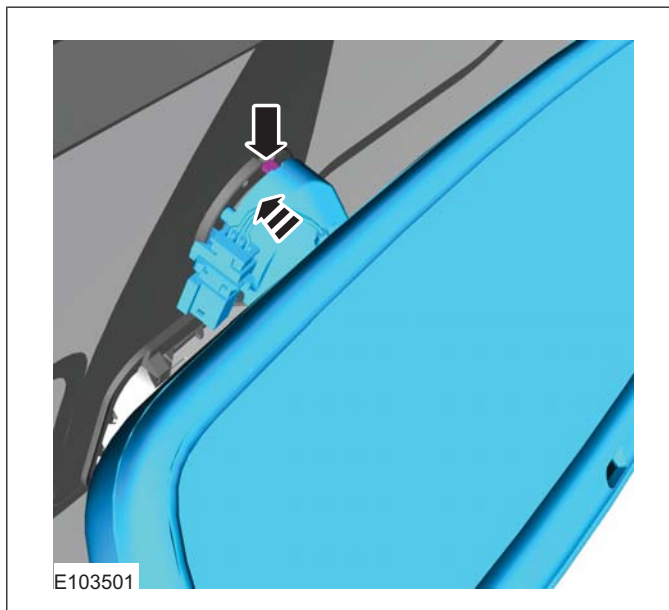
Vehicles with autolamps and rain sensor

10.

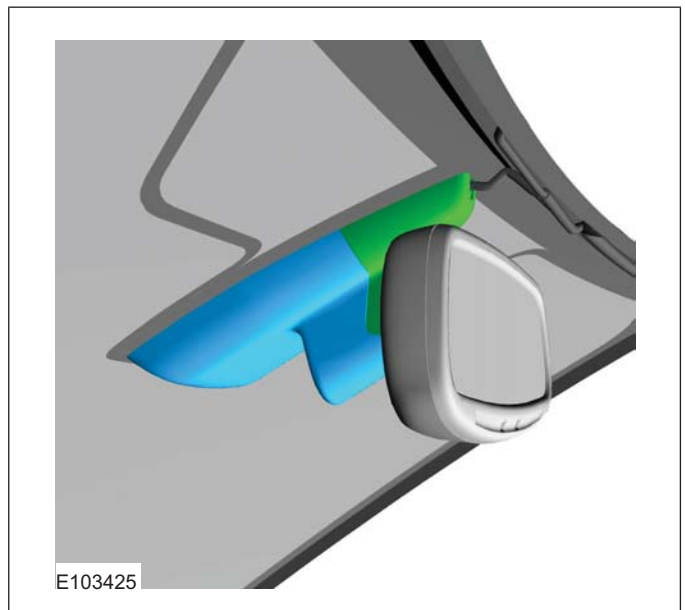


REMOVAL AND INSTALLATION

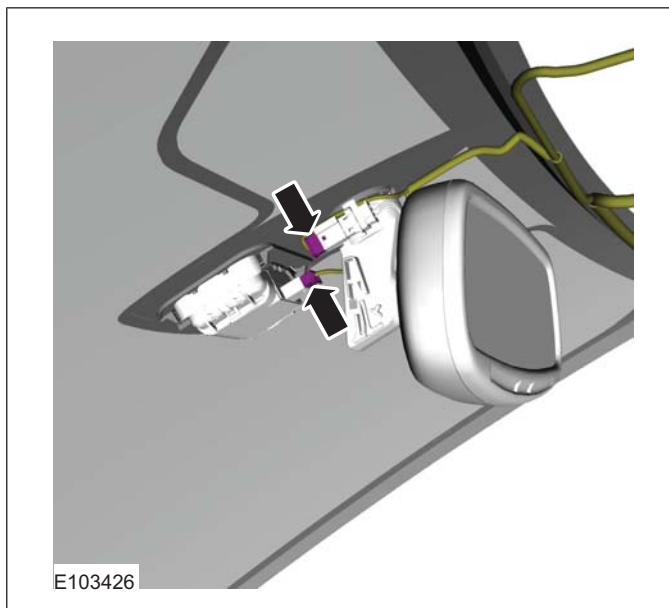
11.



13.

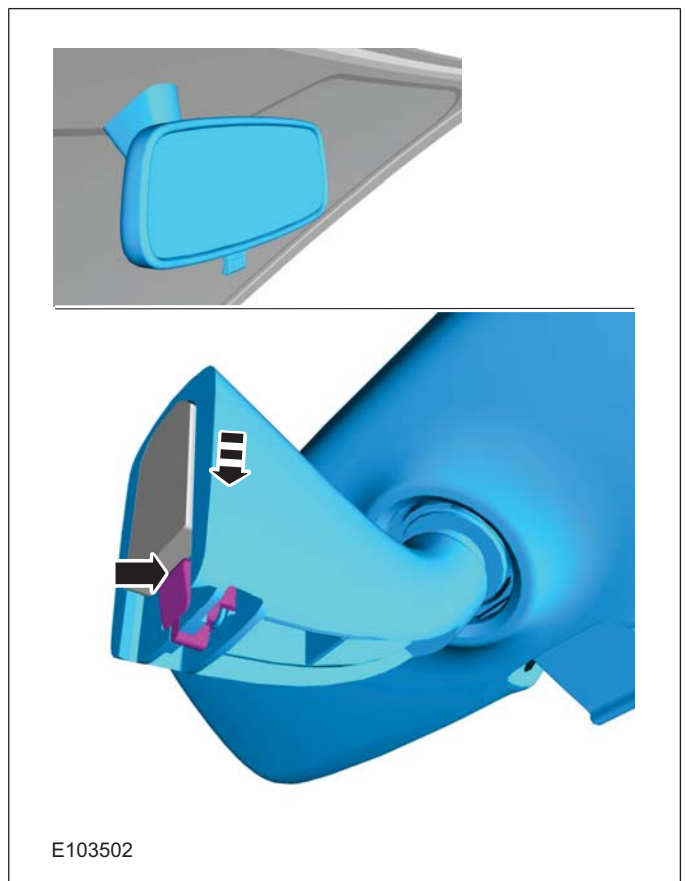


12.



Vehicles with manual dimming interior mirror

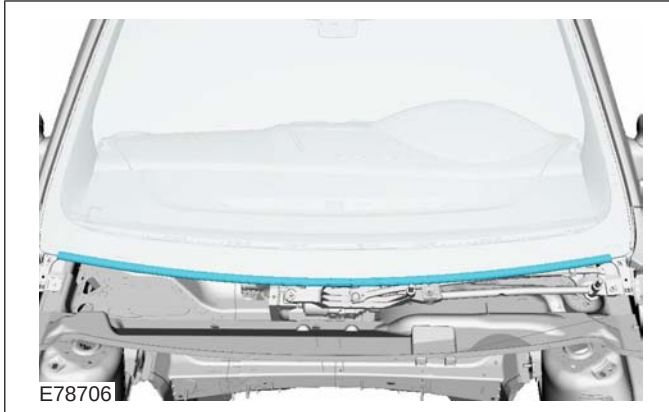
14.



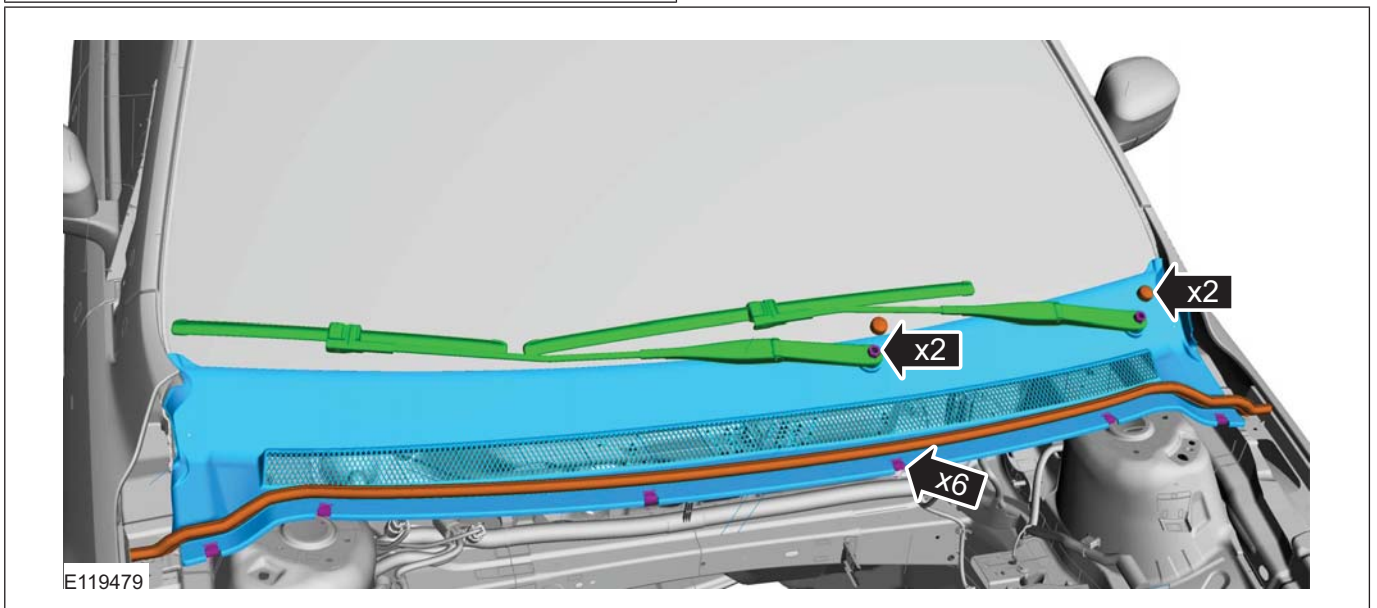
REMOVAL AND INSTALLATION

All vehicles

15.



16.  **CAUTION:** Make sure that the motor is in the park position.

Torque: 15 Nm

REMOVAL AND INSTALLATION

Rear Quarter Window Glass — 3-Door/5-Door

Materials	
Name	Specification
Windscreen Adhesive Kit - 1 Component	WSK-M11P57-A3 / 7U7J-T03863-AA
Windshield Adhesive Kit	WSS-M11P57-A5

General Equipment

Adhesive Tape
Direct Glazing Removal/Replacement Equipment
Knife
Laminated Card

Removal

1. CAUTION:

Refer to: Window Glass Health and Safety Precautions (100-00 General Information, Description and Operation).

2. 1. Material: Windshield Adhesive Kit (WSS-M11P57-A5)
2. Remove the polyurethane (PU) adhesive cap and heat the 2K-PU adhesive for a minimum of 30 minutes.

General Equipment: Direct Glazing Removal/Replacement Equipment

3. Repairs under warranty:

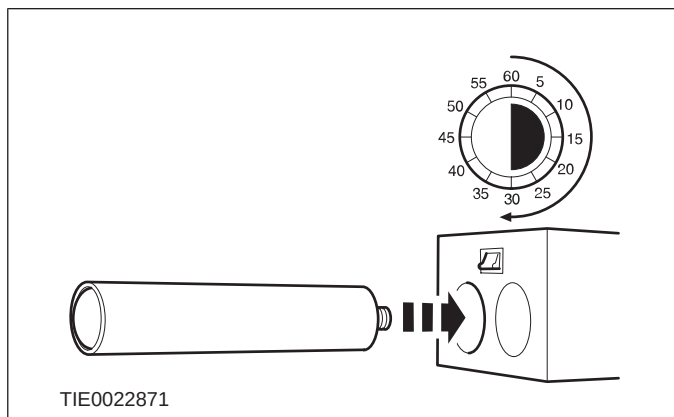
Material: Windscreen Adhesive Kit - 1 Component (WSK-M11P57-A3 / 7U7J-T03863-AA)

3-door

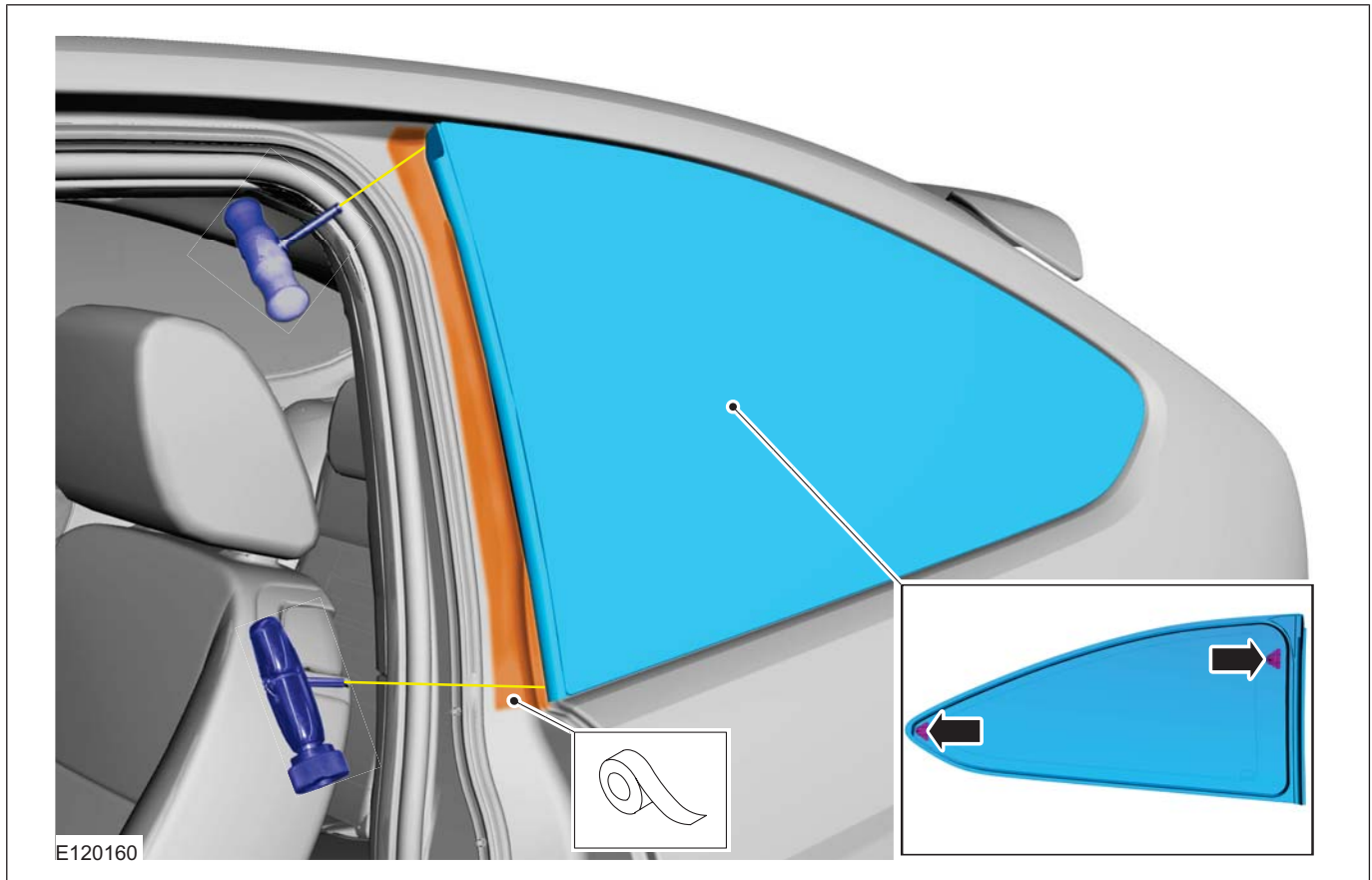
3.  **WARNING:** Make sure that the component paintwork is not damaged.

NOTE: Some resistance may be encountered when cutting through the glass locating spacers.

General Equipment: Adhesive Tape
General Equipment: Laminated Card
General Equipment: Direct Glazing Removal/Replacement Equipment



REMOVAL AND INSTALLATION



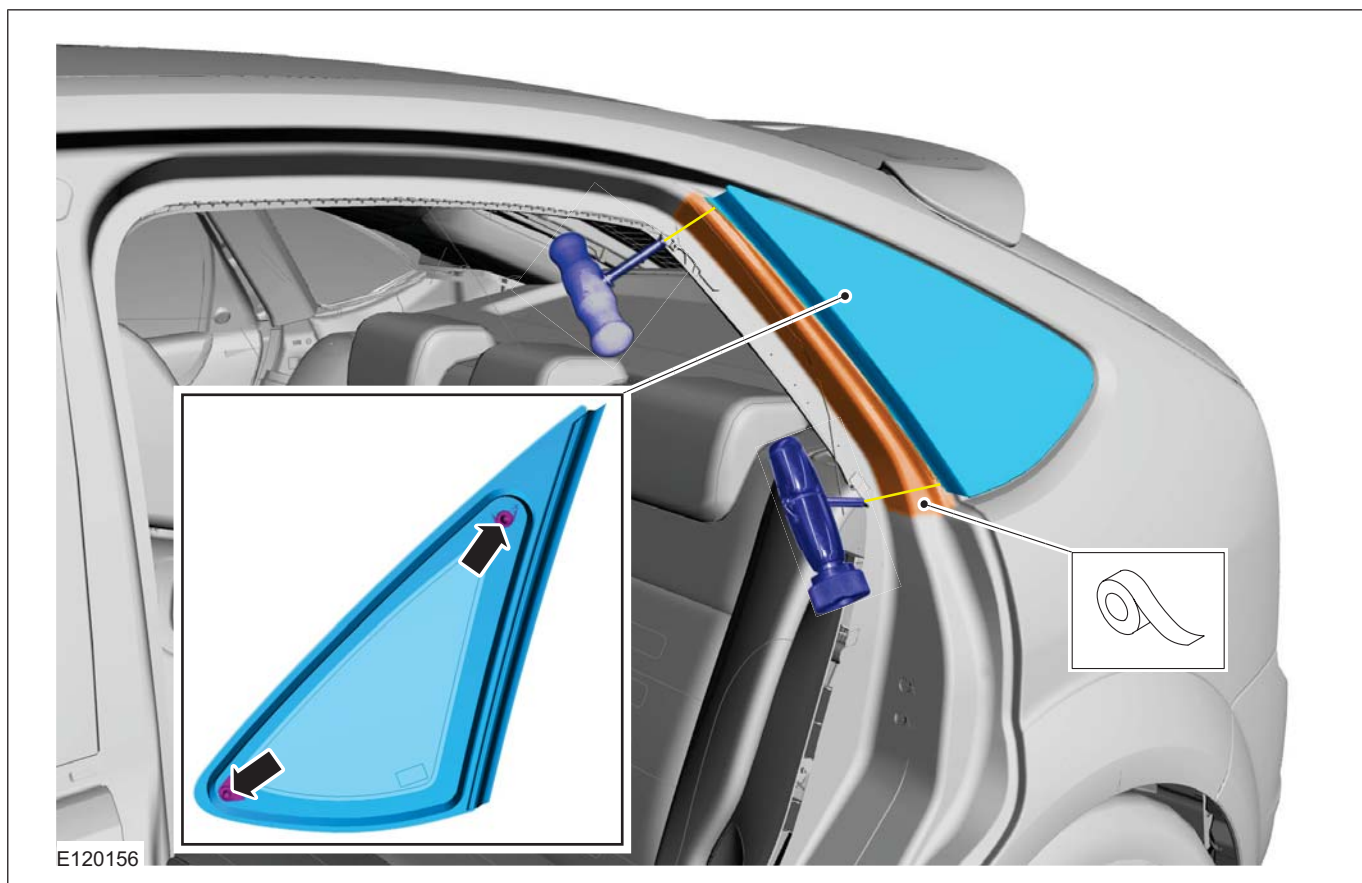
5-door

4. **Refer to: C-Pillar Trim Panel - 4-Door/5-Door** (501-05 Interior Trim and Ornamentation, Removal and Installation).
Refer to: D-Pillar Trim Panel - 5-Door (501-05 Interior Trim and Ornamentation, Removal and Installation).
5. **⚠ WARNING: Make sure that the component paintwork is not damaged.**

NOTE: Some resistance may be encountered when cutting through the glass locating spacers.

General Equipment: Adhesive Tape
 General Equipment: Laminated Card
 General Equipment: Direct Glazing Removal/Replacement Equipment

REMOVAL AND INSTALLATION



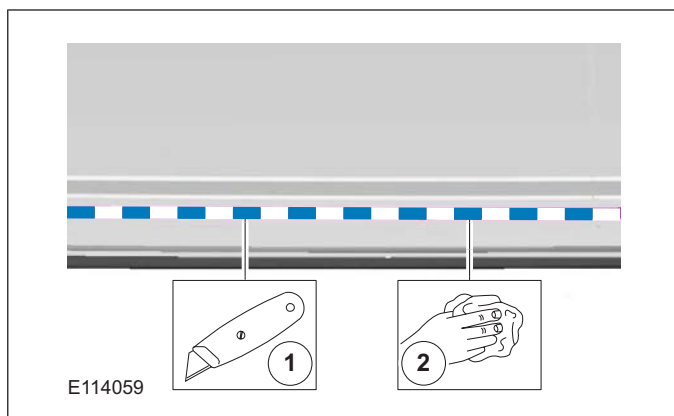
Installation

1. **NOTE:** Minimum 1 mm bead thickness.
General Equipment: Knife
2. **NOTE:** Make sure that the mating faces are clean and free of foreign material.
3. **NOTE:** Touching the adhesive surface will impair rebonding.

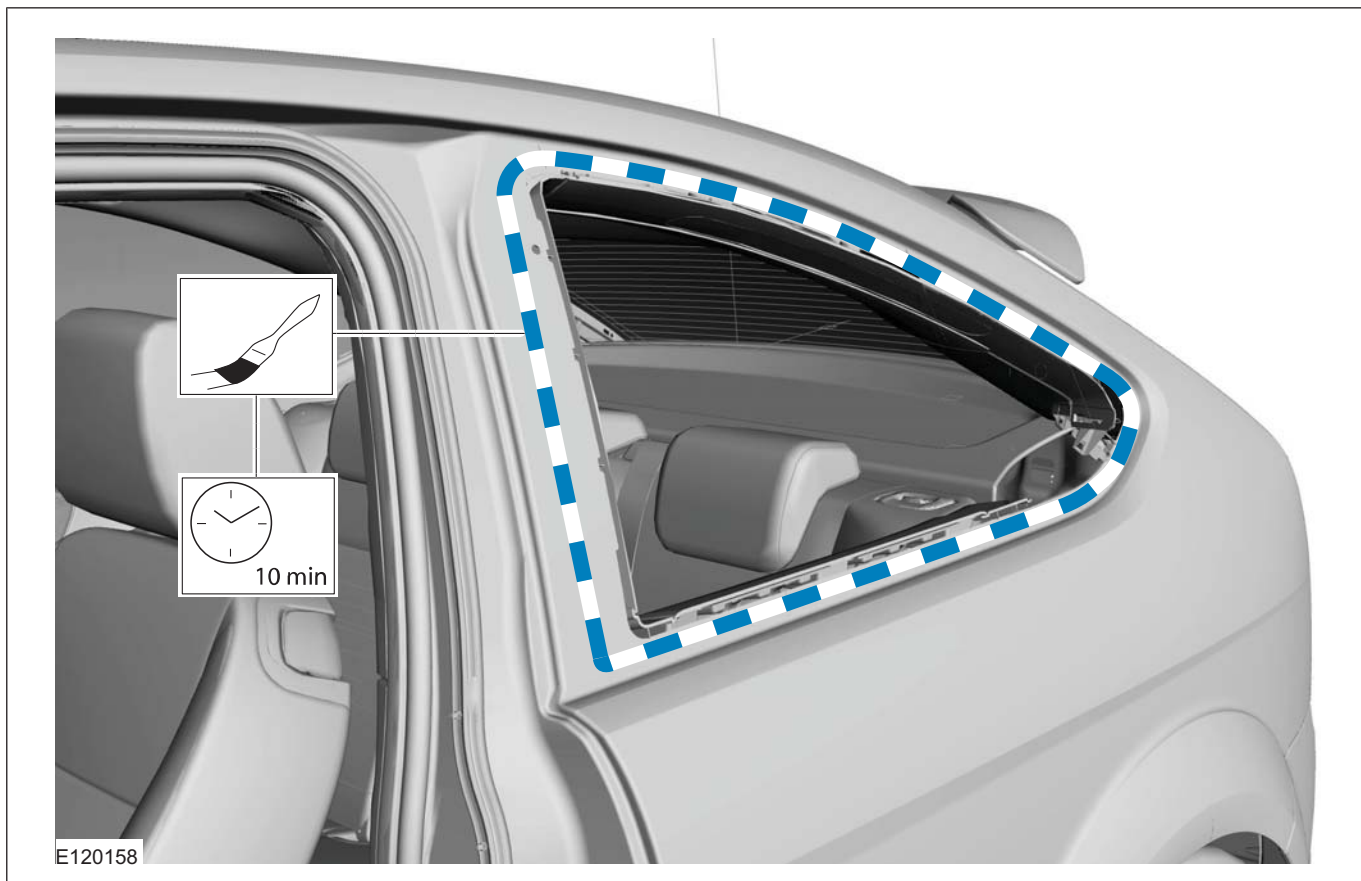
Prepare the rear quarter window glass, rear quarter window glass flange and trimmed PU adhesive in accordance with the instructions supplied with the glass adhesive kit.

3-door

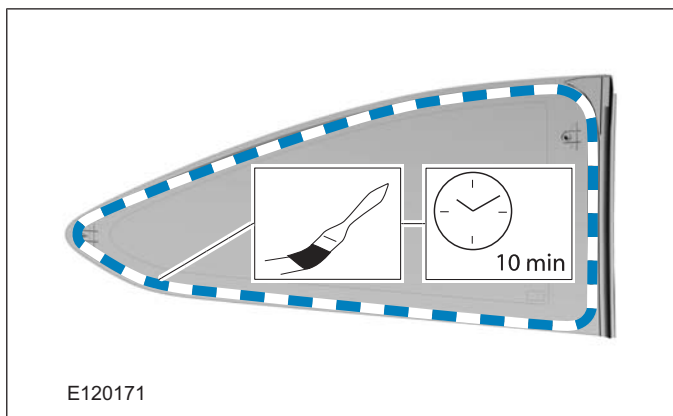
2. Apply the activator/ primer in accordance with the instructions supplied with the glass adhesive kit.



REMOVAL AND INSTALLATION



3. Apply the activator/ primer in accordance with the instructions supplied with the glass adhesive kit.



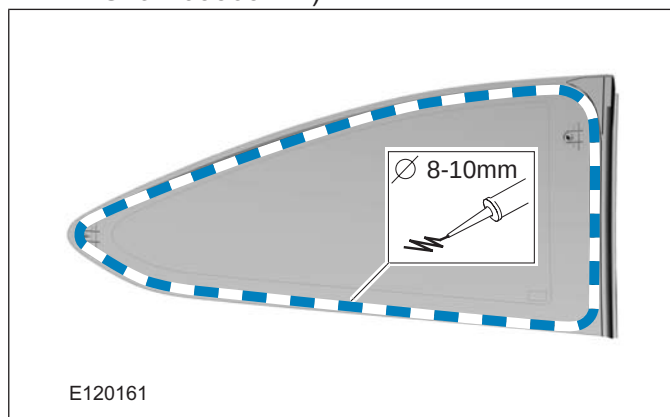
4. **NOTE:** Discard the first 100 mm of adhesive as this may have a reduced working time.

NOTE: Make sure that any breakage in the continuous bead of adhesive is overlapped by 20 mm.

General Equipment: Direct Glazing
Removal/Replacement Equipment

Material: Windshield Adhesive Kit
(WSS-M11P57-A5)

Material: Windscreen Adhesive Kit - 1
Component (WSK-M11P57-A3 /
7U7J-T03863-AA)



REMOVAL AND INSTALLATION

5. • Press firmly and evenly into position.

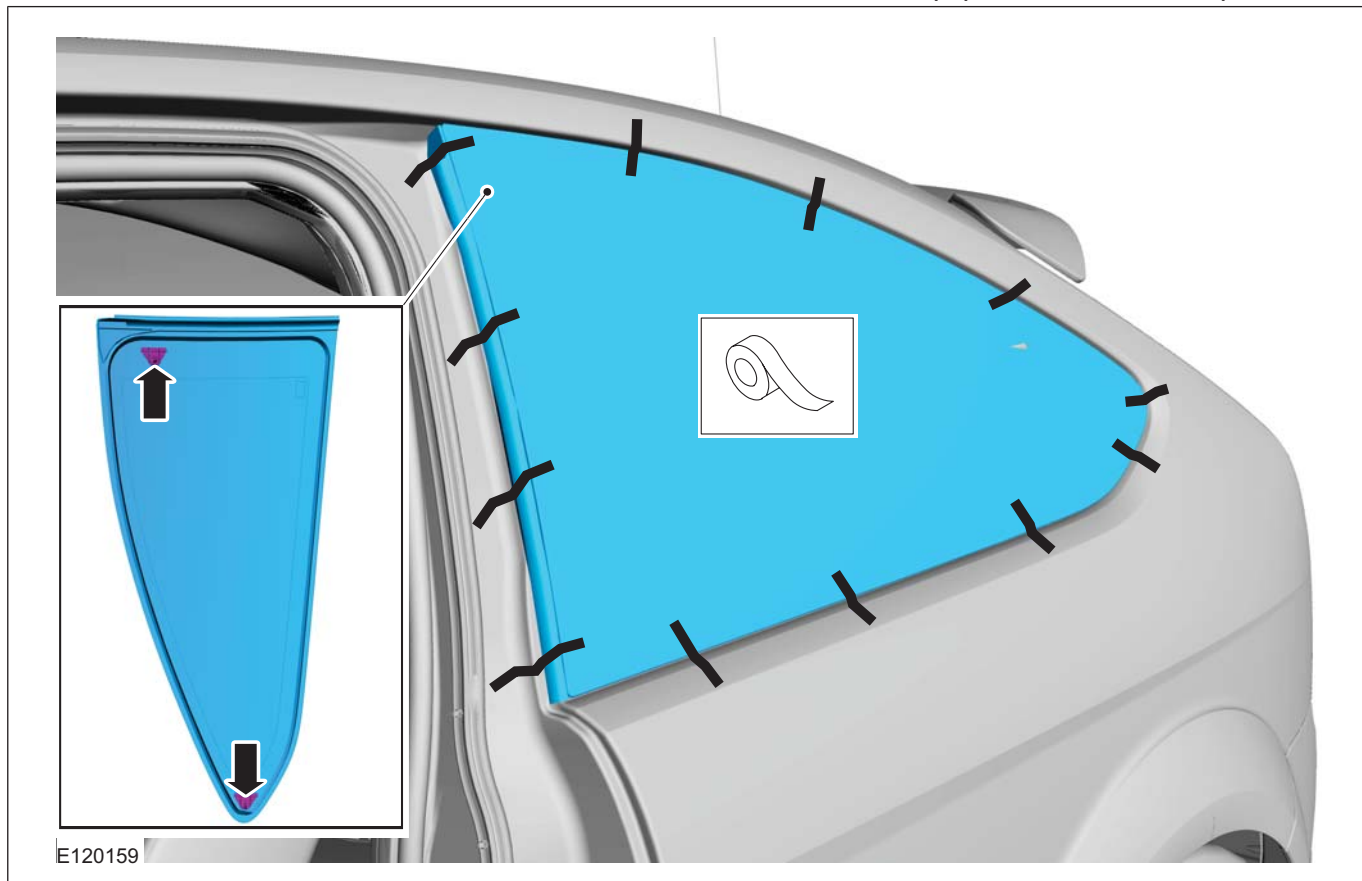
General Equipment: Direct Glazing
Removal/Replacement Equipment

-  **CAUTION: During the curing time of the polyurethane (PU) adhesive, the**

door windows must be left open.

Using tape, secure the rear quarter window glass in the correct position until the PU adhesive has cured.

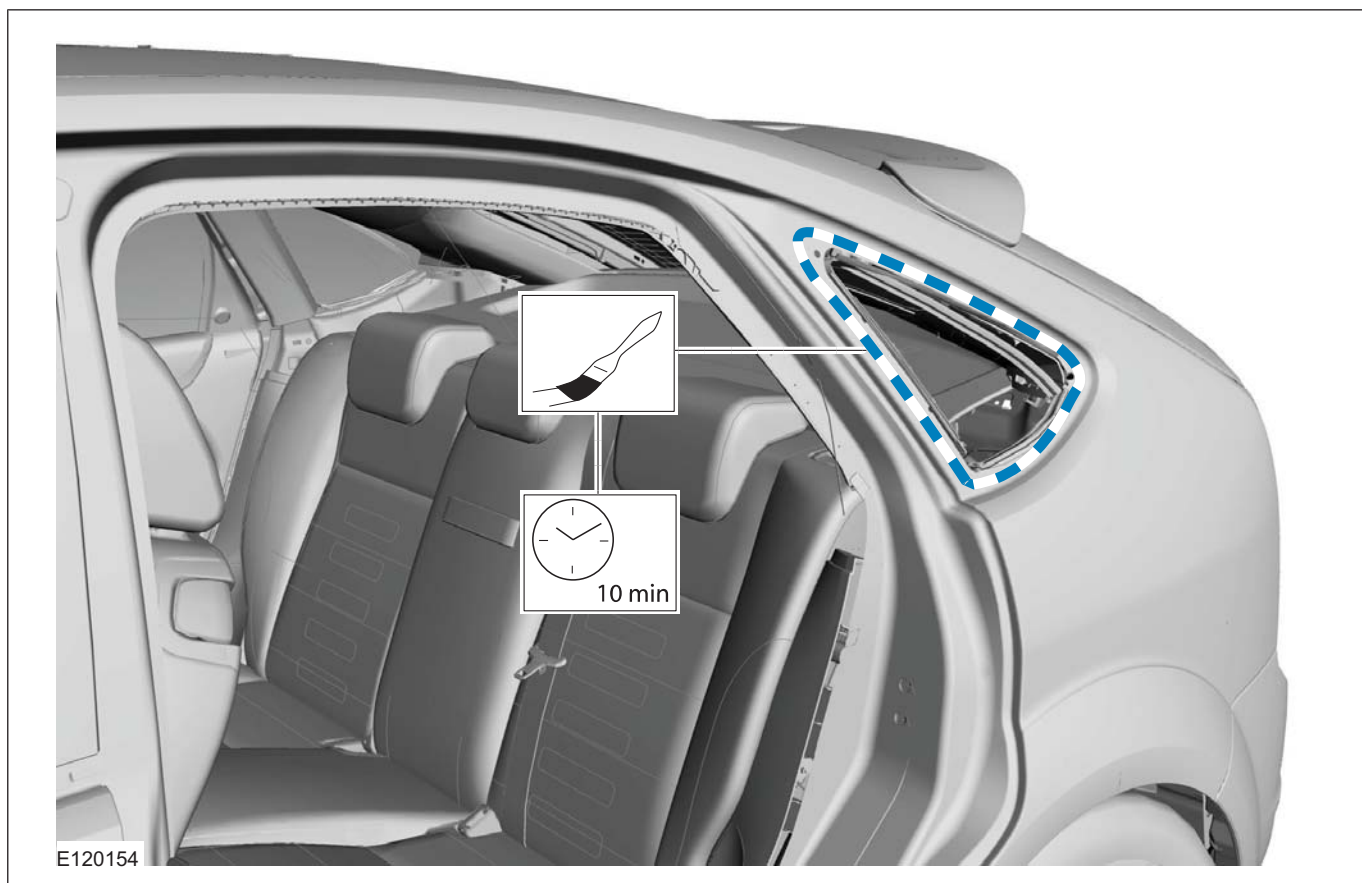
General Equipment: Adhesive Tape



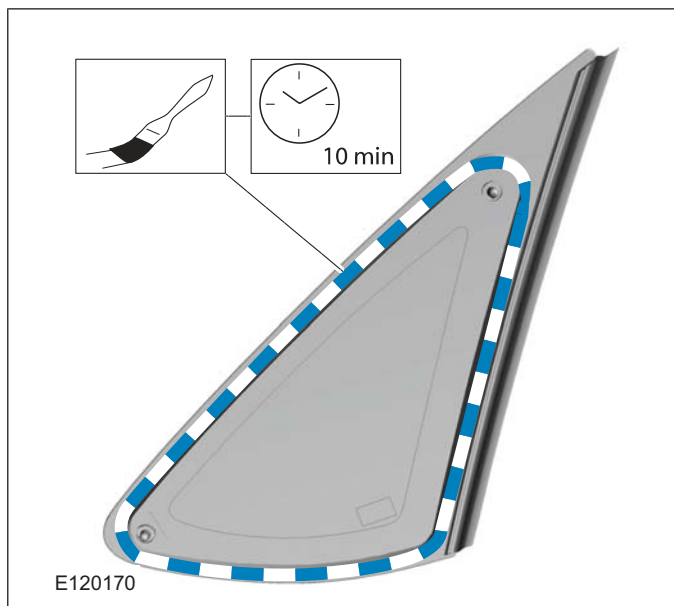
5-door

6. Apply the activator/ primer in accordance with the instructions supplied with the glass adhesive kit.

REMOVAL AND INSTALLATION



7. Apply the activator/ primer in accordance with the instructions supplied with the glass adhesive kit.



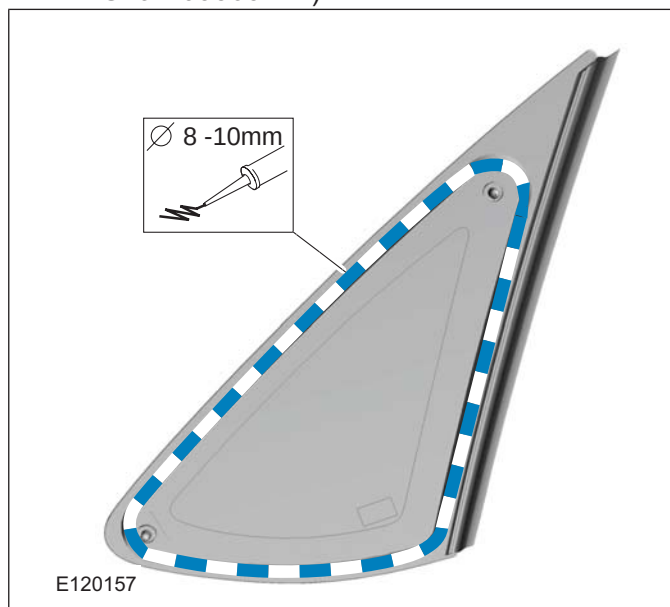
8. **NOTE:** Discard the first 100 mm of adhesive as this may have a reduced working time.

NOTE: Make sure that any breakage in the continuous bead of adhesive is overlapped by 20 mm.

General Equipment: Direct Glazing Removal/Replacement Equipment

Material: Windshield Adhesive Kit (WSS-M11P57-A5)

Material: Windscreen Adhesive Kit - 1 Component (WSK-M11P57-A3 / 7U7J-T03863-AA)



REMOVAL AND INSTALLATION

9. • Press firmly and evenly into position.

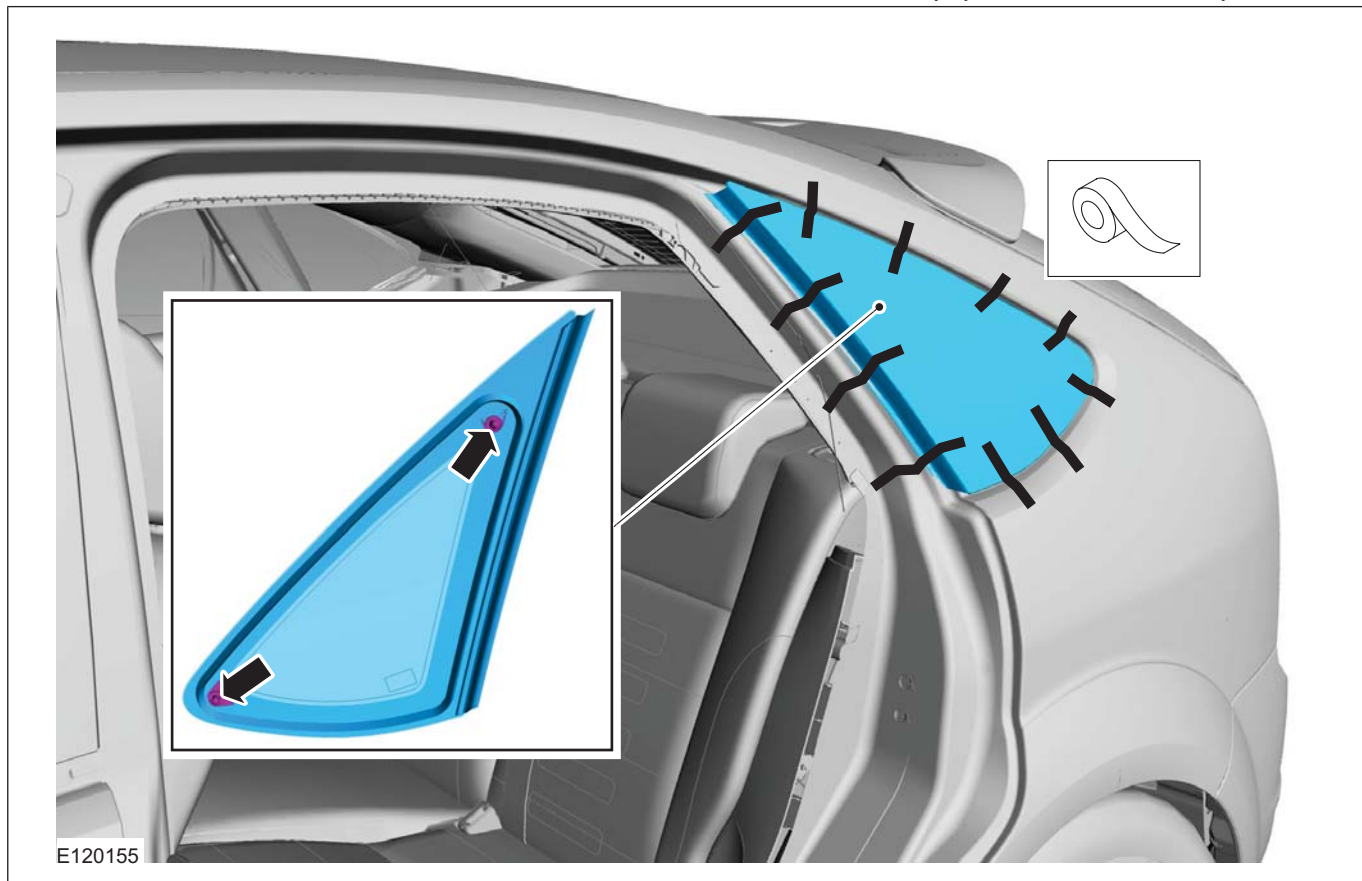
General Equipment: Direct Glazing
Removal/Replacement Equipment

-  **CAUTION:** During the curing time of the polyurethane (PU) adhesive, the

door windows must be left open.

Using tape, secure the rear quarter window glass in the correct position until the PU adhesive has cured.

General Equipment: Adhesive Tape



10. **Refer to: C-Pillar Trim Panel - 4-Door/5-Door**
(501-05 Interior Trim and Ornamentation, Removal and Installation).

Refer to: D-Pillar Trim Panel - 5-Door (501-05 Interior Trim and Ornamentation, Removal and Installation).