

GROUP 42Ac

LIFTGATE

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SPECIFICATION(S)

SEALANT

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ITEM	SPECIFIED SEALANT	REMARK
Liftgate hinge	3M™ AAD Part No. 8531 Heavy drip check sealer, 3M™ AAD Part No. 8646 Automotive joint and seam sealer or equivalent	Body sealer

LIFTGATE DIAGNOSIS

INTRODUCTION TO LIFTGATE DIAGNOSIS

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Difficult locking/unlocking, uneven clearance, and wind noise from the liftgate may be due to improper adjustment of the liftgate.

LIFTGATE DIAGNOSTIC TROUBLESHOOTING STRATEGY

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Use these steps to plan your diagnostic strategy. If you follow them carefully, you will be sure that you have exhausted most of the possible ways to find a liftgate fault.

1. Gather information from the customer.

2. Verify that the condition described by the customer exists.

3. Find the malfunction by following the Symptom Chart.

4. Verify malfunction is eliminated.

SYMPTOM CHART

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SYMPTOM	INSPECTION PROCEDURE	REFERENCE PAGE
Difficult locking and unlocking	1	P.42Ac-2
Uneven body clearance	2	P.42Ac-3
Uneven height	3	P.42Ac-3

SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Difficult Locking and Unlocking

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DIAGNOSIS

NO: Re-route the release cable. Then go to Step 2.

STEP 1. Check the release cable routing.

Q:Is the release cable routed correctly?

YES: Go to Step 3.

STEP 2. Check the engagement of the liftgate latch and liftgate striker.

Q:Are the liftgate latch and liftgate striker engaged correctly?

YES: Then go to Step 3.

NO: Align the liftgate latch and liftgate striker (Refer to P. 42Ac-4).

STEP 3. Retest the system.

Q:Does the liftgate lock operate easily?

YES: The procedure is complete.

NO: Return to Step 1.

INSPECTION PROCEDURE 2: Uneven Body Clearance

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DIAGNOSIS

STEP 1. Check the clearance around the liftgate.

Q:Is the liftgate installed correctly?

YES: Go to Step 2.

NO: Adjust clearance around liftgate (Refer to P. 42Ac-4).

STEP 2. Retest the system.

Q:Is the clearance with the body even?

YES: The procedure is complete.

NO: Return to Step 1.

INSPECTION PROCEDURE 3: Uneven Height

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DIAGNOSIS

STEP 1. Check the liftgate damper height.

Q:Is the liftgate damper height proper?

YES: Go to Step 2.

NO: Adjust the liftgate damper (Refer to P. 42Ac-6). Then go to Step2.

STEP 2. Retest the system.

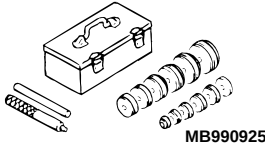
Q:Are the liftgate and body height even?

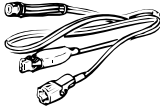
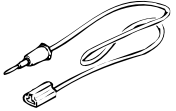
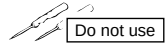
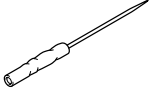
YES: The procedure is complete.

NO: Return to Step 1.

SPECIAL TOOLS

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TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB990925	MB990925 Bearing and oil seal installer set A: MB990939 Remover bar	MB990925-01 or General service tool	Adjustment of door striker

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
a  b  c  d  YB9912230000	MB991223 Harness set A: MB991219 Test harness B: MB991220 LED harness C: MB991221 LED harness adapter D: MB991222 Probe	General service tools	Measurement of terminal voltage and resistance A: Connector pin contact pressure inspection B: Power circuit inspection C: Power circuit inspection D: Commercial tester connection
 MB992006	MB992006 Extra fine probe	-	Measurement of terminal voltage and resistance

ON-VEHICLE SERVICE

LIFTGATE ALIGNMENT

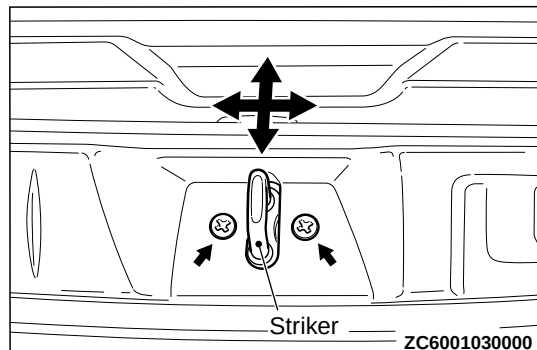
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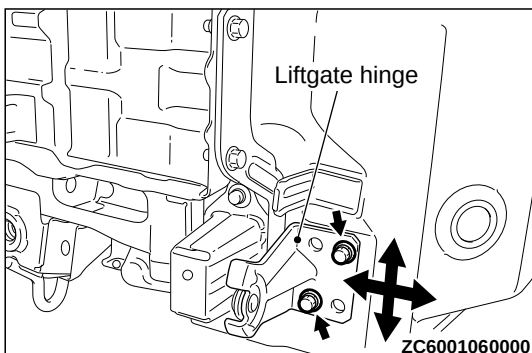
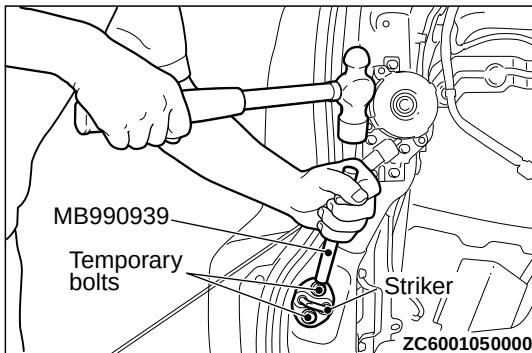
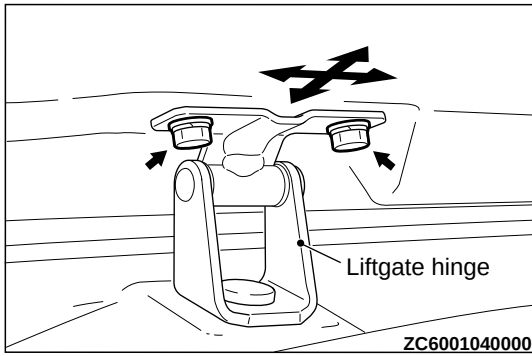
Required Special Tool:

- MB990939: Brass Bar

LIFTGATE UPPER ALIGNMENT

- If the striker is not engaged with the latch properly, adjust by loosening the striker mounting screws.
- If the clearance between the liftgate and the body is uneven, loosen the liftgate-side liftgate hinge mounting bolts to adjust it.





LIFTGATE LOWER ALIGNMENT

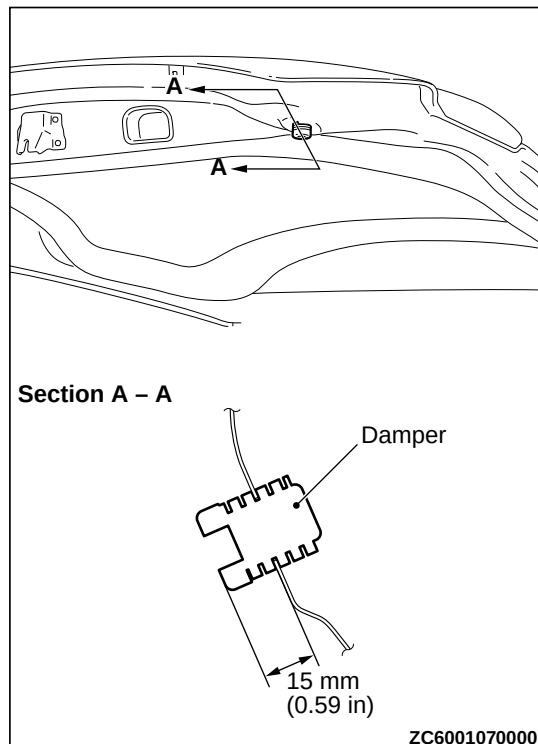
- If the striker is not engaged with the latch properly, remove the quarter trim lower (Refer to GROUP 52A, Interior Trim P. 52A-10). Replace the striker mounting screw with an adequate bolt, and use the special tool MB990939 and a hammer to tap the bolt head in the desired direction to adjust the striker.
- If the clearance between the liftgate and the vehicle body is uneven, remove the rear bumper assembly (Refer to GROUP 51, Rear Bumper Assembly P.51A-5) and loosen the body-side liftgate hinge mounting nuts to adjust the liftgate lower so that the clearance between the liftgate and body becomes even.

ADJUSTMENT OF LIFTGATE HEIGHT

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Rotate the damper by using the arrow mark on the damper as a guide to adjust the liftgate height. The damper height is altered by roughly 4 mm (0.16 inch) when the damper is rotated once.

NOTE: If a rattling noise is heard due to the vibration of the liftgate when the vehicle is being driven, adjust the damper height until the damper is seated on the vehicle body. The damper should be seated on the vehicle body regardless of a rattling noise.



LIFTGATE

REMOVAL AND INSTALLATION <LIFTGATE UPPER>

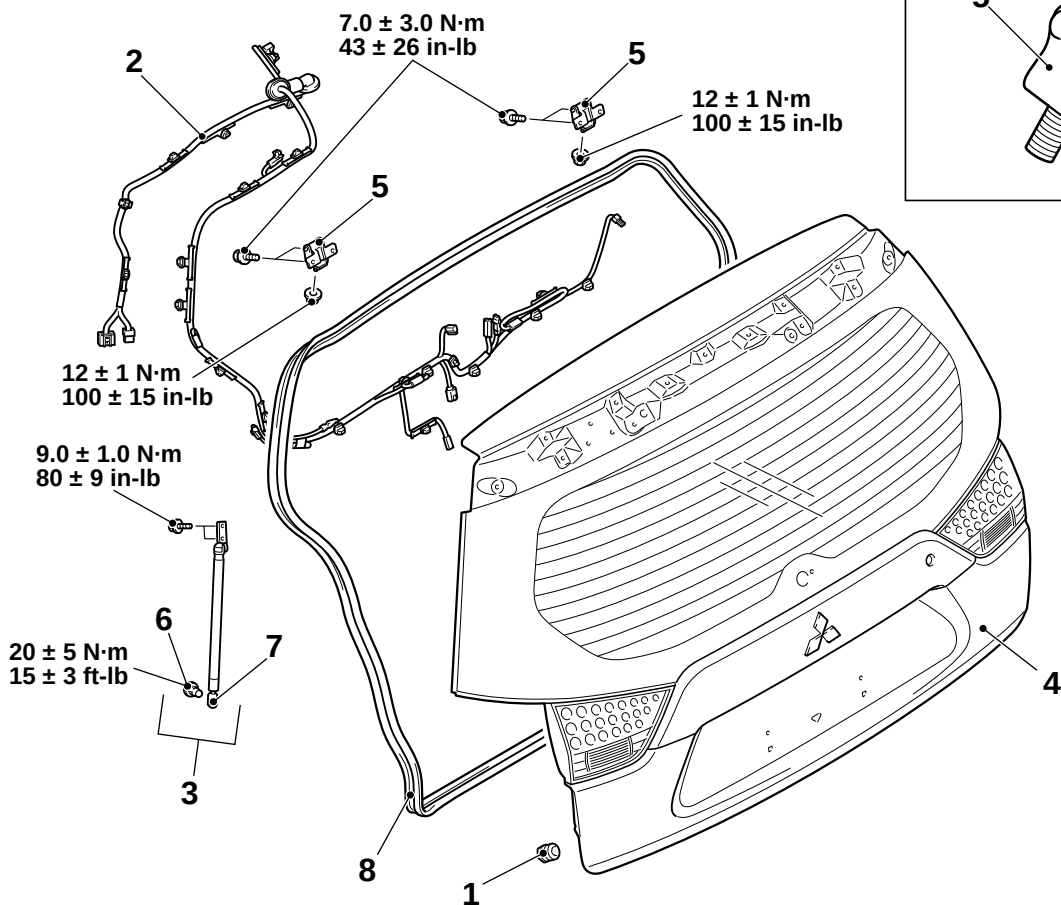
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Pre-removal operation

- Liftgate spoiler assembly removal (Refer to GROUP 51A, Liftgate Spoiler P.51A-20).
- Liftgate trim assembly removal (Refer to GROUP 52A, Liftgate Trim P.52A-14).
- Rear wiper motor removal (Refer to GROUP 51B, Rear Wiper and Washer P.51B-57).

Post-installation operation

- Liftgate alignment (Refer to P.42Ac-4).
- Adjustment of liftgate height (Refer to P.42Ac-6).
- Rear wiper motor installation (Refer to GROUP 51B, Rear Wiper and Washer P.51B-57).
- Liftgate trim assembly installation (Refer to GROUP 52A, Liftgate Trim P.52A-14).
- Liftgate spoiler assembly installation (Refer to GROUP 51A, Liftgate Spoiler P.51A-20).



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Liftgate upper assembly removal steps

1. Damper
2. Harness connector
- Rear combination light assembly (Refer to GROUP 52Ac, Rear Combination Light P.52A-15.)
3. Liftgate gas spring assembly
4. Liftgate upper assembly
- Headlining assembly (Refer to GROUP 52A, Headlining P.52A-15.)

<<A>>

<<A>>

Liftgate upper assembly removal steps

5. Liftgate hinge
6. Ball joint

Liftgate opening weatherstrip removal steps

7. Liftgate gas spring assembly
8. Liftgate opening weatherstrip

>>B<<

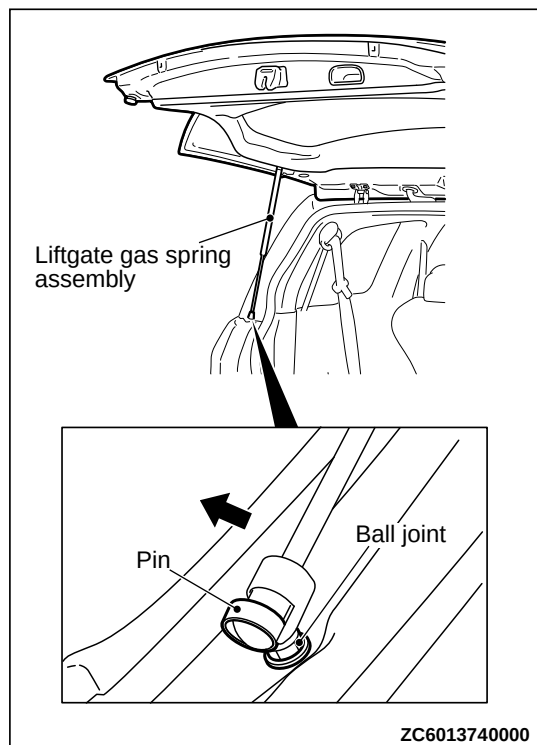
>>A<<

REMOVAL SERVICE POINT

<<A>> LIFTGATE GAS SPRING ASSEMBLY REMOVAL

CAUTION

- Do not disassemble or throw the liftgate gas spring into the fire.
- Before disposal, make a hole to remove the gas.
- Make sure that the piston rod should not collect any foreign particles.

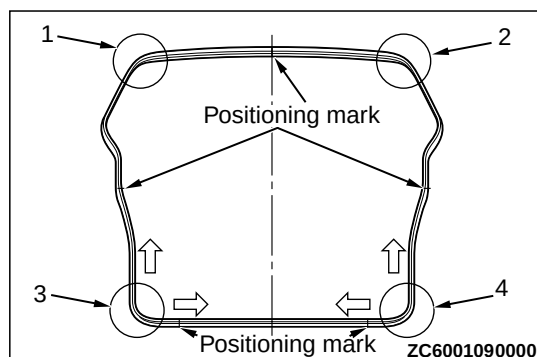


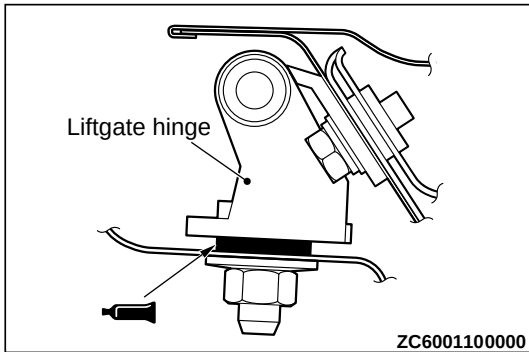
As shown in the figure, slide the pin and remove the liftgate gas spring assembly from the ball joint in the direction of the arrow.

INSTALLATION SERVICE POINTS

>>A<< LIFTGATE OPENING WEATHERSTRIP INSTALLATION

1. The marking on the upper center of the liftgate opening weatherstrip should be positioned at the center of the vehicle body.
2. Install according to the order shown in the figure.
3. Install according to the direction shown by the arrow in the figure.





>>B<< LIFTGATE HINGE INSTALLATION

Apply the specified sealant to the liftgate hinge mounting surface, and install the liftgate hinge.

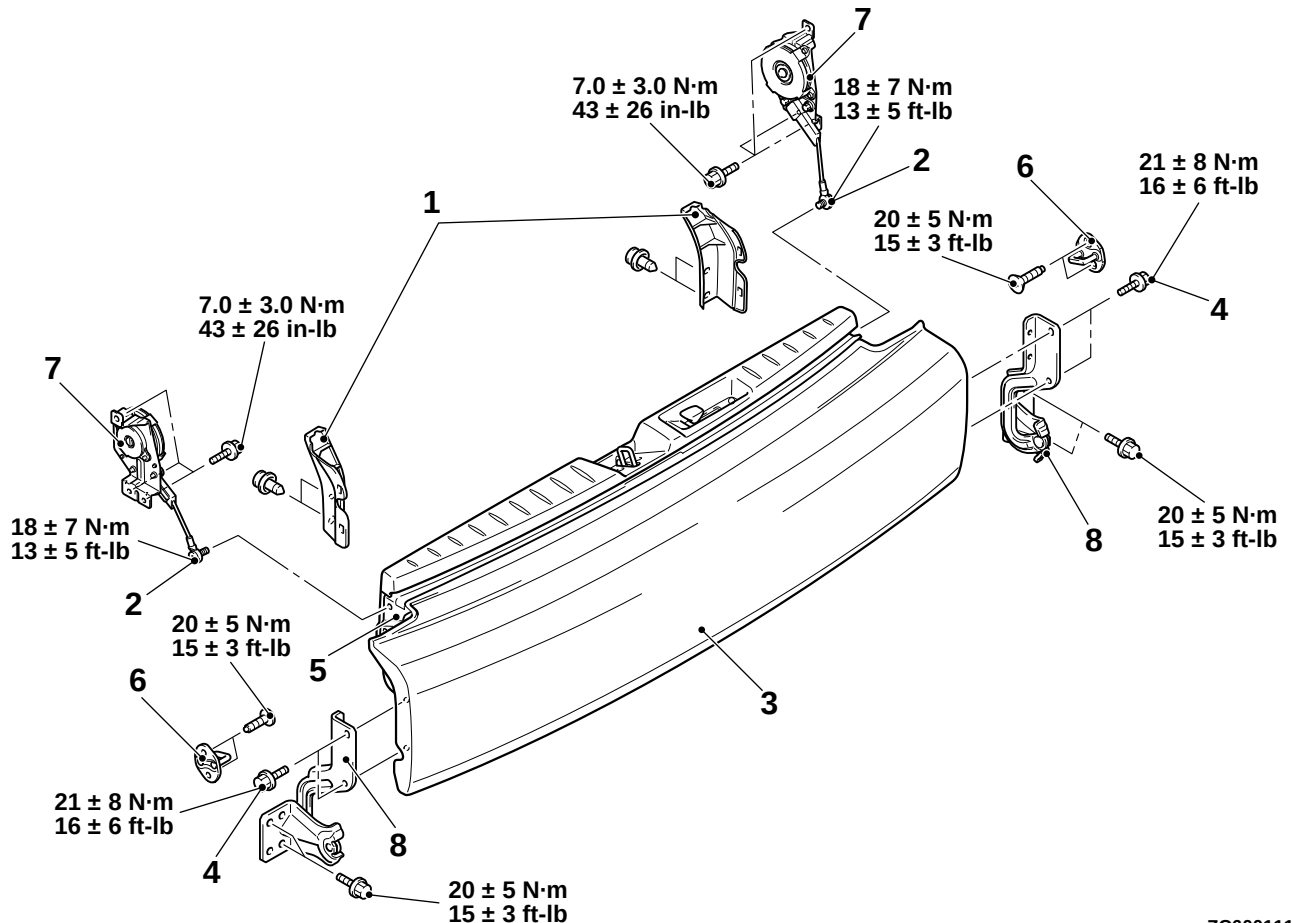
Specified Sealant: 3M™ AAD Part No. 8531 Heavy drip check sealer, 3M™ AAD Part No. 8646 Automotive joint and seam sealer or equivalent

REMOVAL AND INSTALLATION <LIFTGATE LOWER>

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Post-installation operation

- Liftgate alignment (Refer to P.42Ac-4).



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Liftgate lower assembly removal steps

1. Cover
2. Liftgate cable mounting bolt
3. Liftgate lower garnish (Refer to GROUP 51A, Garnish P.52A-14.)
4. Liftgate hinge mounting bolt

Liftgate lower assembly removal steps

5. Liftgate lower assembly
6. Striker

>>A<<

Striker removal steps

- Quarter trim lower (Refer to GROUP 52A, Interior Trim P.52A-10.)

Liftgate cable removal steps

- Quarter trim lower (Refer to GROUP 52A, Interior Trim P.52A-10.)
- 7. Liftgate cable

Liftgate hinge removal steps

- 1. Cover

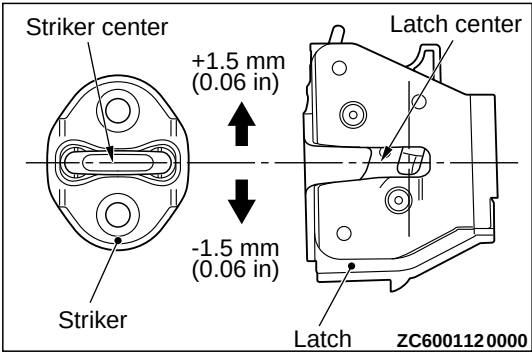
Liftgate hinge removal steps

- Rear bumper assembly (Refer to GROUP 51A, Rear Bumper P. 51A-5.)
- 8. Liftgate hinge

INSTALLATION SERVICE POINT

>>A<< STRIKER INSTALLATION

Install the striker so that the striker center does not deviate more than ± 1.5 mm (0.06 inch) from the latch center.

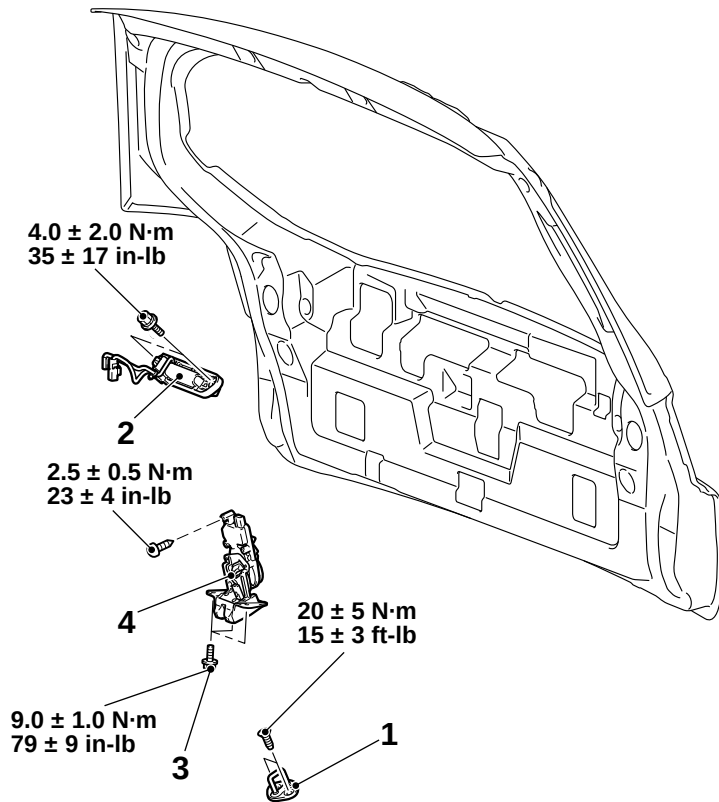


LIFTGATE HANDLE AND LATCH

REMOVAL AND INSTALLATION <LIFTGATE UPPER>

Post-installation operation

- Liftgate alignment (Refer to P.42Ac-4.)

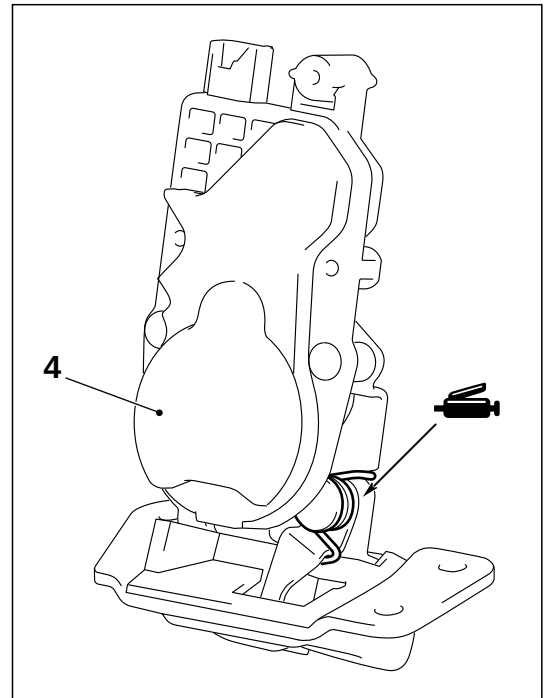


Striker removal steps

- Liftgate trim (Refer to GROUP 52A, Liftgate Trim P.52A-14.)
- >>A<< 1. Striker

Liftgate lock release handle removal steps

- Liftgate trim (Refer to GROUP 52A, Liftgate Trim P.52A-14.)
- Rear wiper motor assembly (Refer to GROUP 51B, Rear Wiper and Washer P.51B-57.)



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Liftgate lock release handle removal steps

2. Liftgate lock release handle

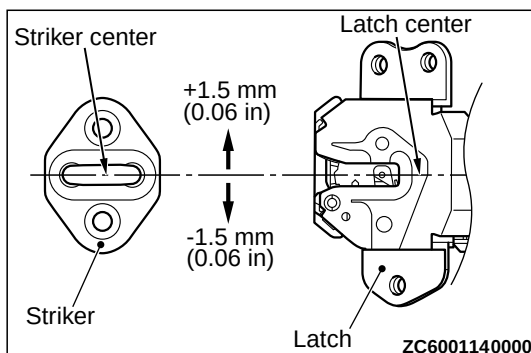
Liftgate latch removal steps

- Liftgate trim (Refer to GROUP 52A, Liftgate Trim P.52A-14.)
- 3. Ground bolt
- 4. Liftgate latch assembly

INSTALLATION SERVICE POINT

>>A<< STRIKER INSTALLATION

Install the striker so that the striker center does not deviate more than ± 1.5 mm (0.06 inch) from the latch center.

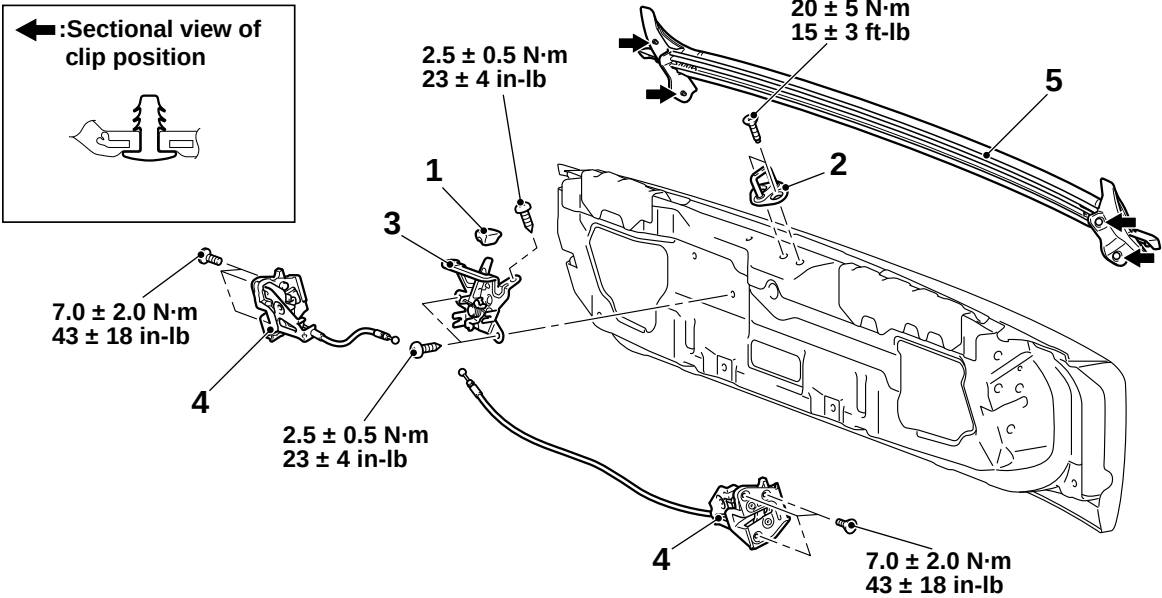


REMOVAL AND INSTALLATION <LIFTGATE LOWER>

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Post-installation operation

- Liftgate alignment (Refer to P.42Ac-4).



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Liftgate lock release handle knob removal

1. Liftgate lock release handle knob

Striker removal steps

1. Liftgate lock release handle knob
2. Liftgate lower trim (Refer to GROUP 52A, Liftgate Trim P.52A-14.)

>>B<<

2. Striker

Liftgate latch removal steps

1. Liftgate lock release handle knob

Liftgate latch removal steps

- Liftgate lower trim (Refer to GROUP 52A, Liftgate Trim P.52A-14.)
- 3. Liftgate handle controller
- 4. Liftgate latch

Liftgate weatherstrip removal

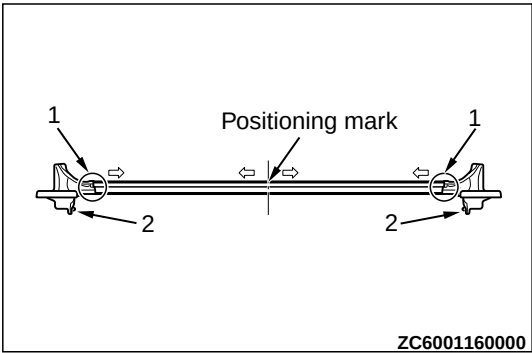
>>A<<

5. Liftgate weatherstrip

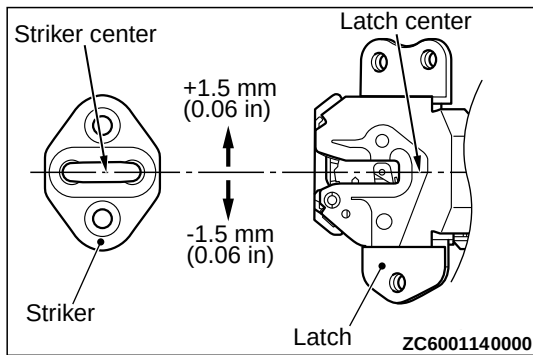
INSTALLATION SERVICE POINTS

>>A<< LIFTGATE WEATHERSTRIP INSTALLATION

1. The marking on the liftgate weatherstrip should be positioned at the center of the liftgate lower.
2. Install according to the order shown in the figure.
3. Install according to the direction shown by the arrow in the figure.



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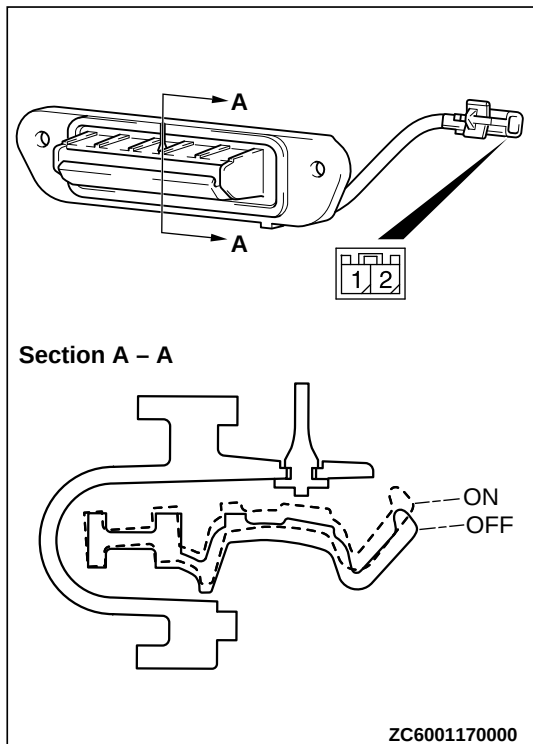
>>B<< STRIKER INSTALLATION

Install the striker so that the striker center does not deviate more than ± 1.5 mm (0.06 in) from the latch center.

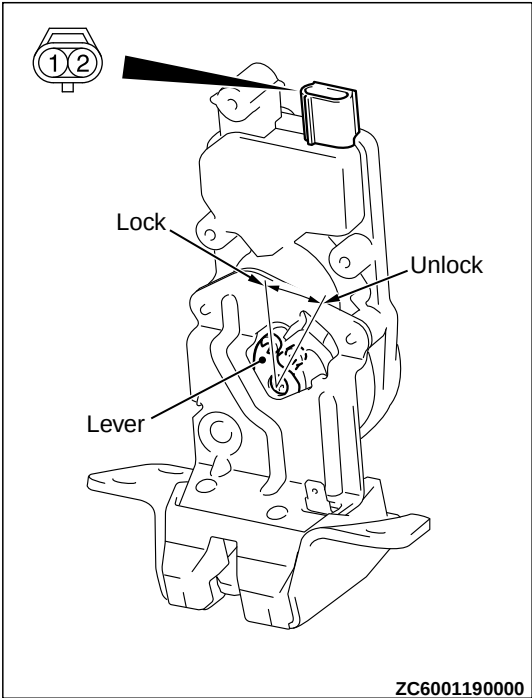
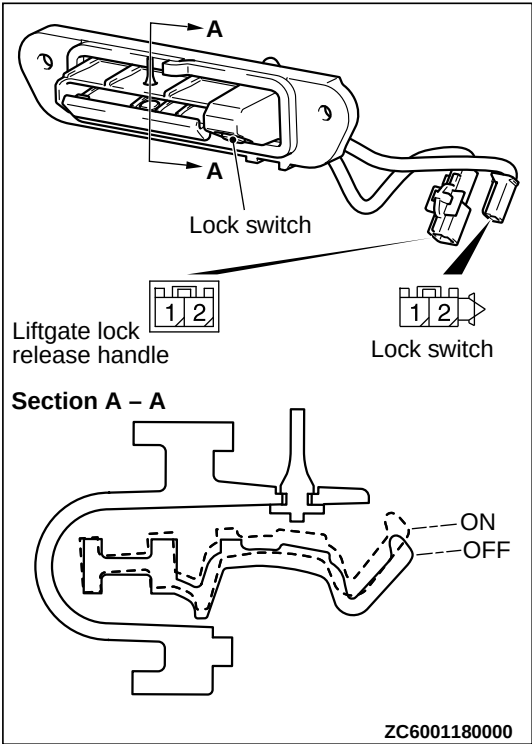
INSPECTION

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LIFTGATE LOCK RELEASE HANDLE CHECK <VEHICLES WITHOUT KEYLESS OPERATION SYSTEM (KOS)>



Handle position	Terminal number	Normal value
ON	1 - 2	Continuity exists (2 Ω or less)
OFF	1 - 2	Open circuit



LIFTGATE LOCK RELEASE HANDLE CHECK
<VEHICLES WITH KEYLESS OPERATION
SYSTEM (KOS)>

LIFTGATE LOCK RELEASE HANDLE

Handle position	Terminal number	Normal value
ON	1 - 2	Continuity exists (2 Ω or less)
OFF	1 - 2	Open circuit

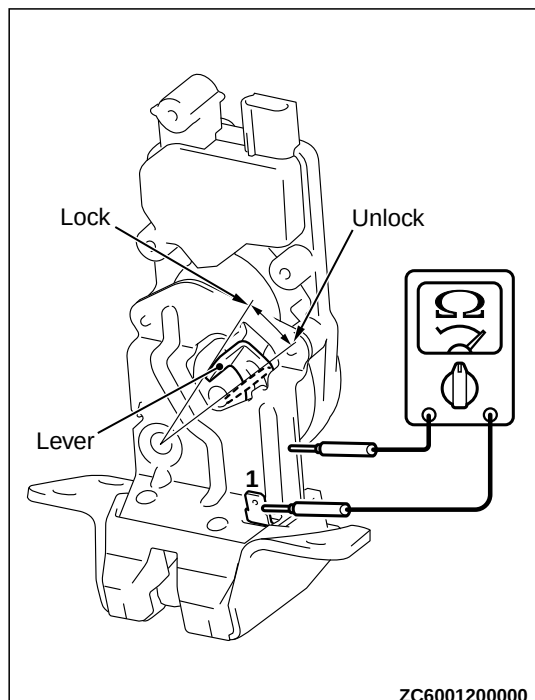
LOCK SWITCH

Switch position	Terminal number	Normal value
ON	1 - 2	Continuity exists (2 Ω or less)
OFF	1 - 2	Open circuit

CHECK THE LIFTGATE LOCK ACTUATOR.

Lever position	Battery connecting terminal number	Lever operation
Lock	▪Connect terminal No. 2 and the negative battery terminal. ▪Connect terminal No. 1 and the positive battery terminal.	The lever moves from the "LOCK" position to the "UNLOCK" position.

LIFTGATE LATCH SWITCH CHECK



Lever position	Terminal number	Normal value
Lock	1 - Ground	Open circuit
Unlock	1 - Ground	Continuity exists (2 Ω or less)

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