

## GROUP 8

## REFERENCE MATERIAL

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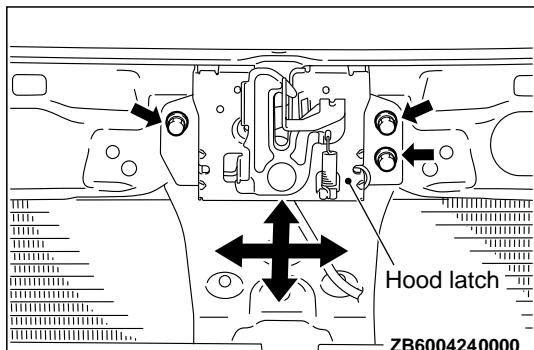
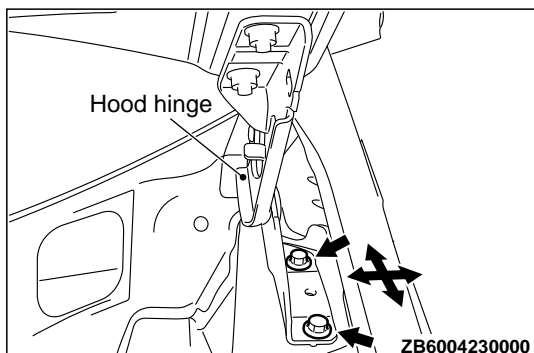
## SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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## BOLTED PANEL FIT AND ADJUSTMENT

## HOOD

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**Hood adjustment**

1. When the clearance between the hood and the body is uneven  
Remove the front deck garnish, and loosen the hood hinge mounting bolts shown in the figure but do not remove them. Then move the hood hinge up/down and left/right to adjust the clearance around the hood. After adjustment, install the front deck garnish.

**Hood hinge mounting bolt tightening torque:  $23 \pm 6$  N·m ( $17 \pm 5$  ft-lb)**

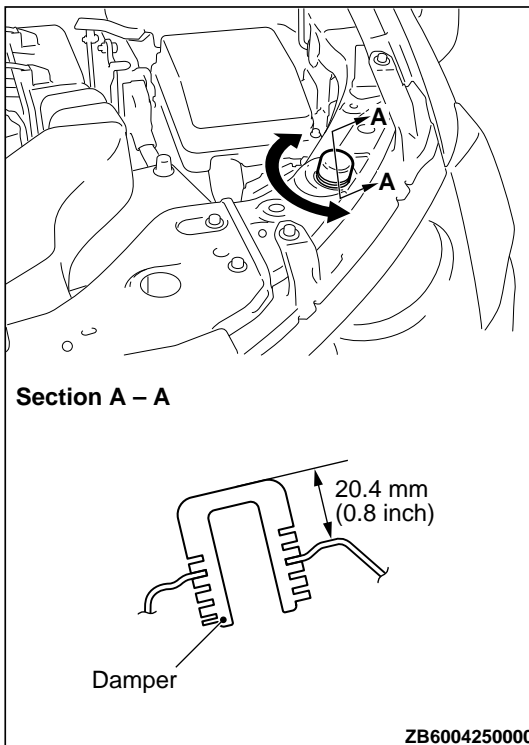
2. When adjusting hood level and hood striker linkage  
Remove the headlight support upper panel cover, and loosen the hood latch mounting bolts shown in the figure but do not remove them. Then move the hood latch up/down and left/right to adjust the hood level and hood striker linkage. After adjustment, install the headlight support upper panel cover.

**Hood latch mounting bolt tightening torque:  $9.0 \pm 1.0$  N·m ( $80 \pm 9$  in-lb)**

## ADJUSTMENT OF HOOD HEIGHT

Turn the damper to the dimension shown in the figure to adjust the hood height. If the hood height is still not even, turn the damper again until the height is even. The damper height is altered by roughly 3 mm (0.1 inch) when the damper is rotated once.

*NOTE: If a rattling noise is heard due to the vibration of the hood when the vehicle is being driven, adjust the damper height until the damper is seated on the hood.*



## FRONT DOOR FIT ADJUSTMENT

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### Required Special Tools:

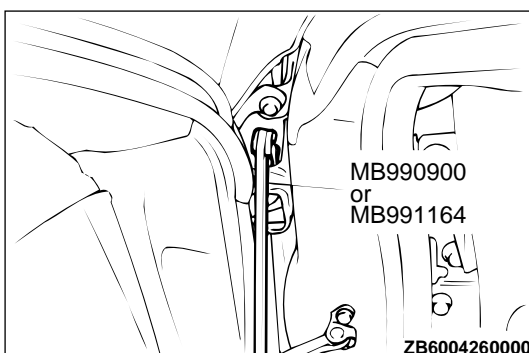
- MB990211: Slide Hammer
- MB990243: Body Puller
- MB990900 or MB991164: Door adjusting Wrench
- MB990939: Brass Bar

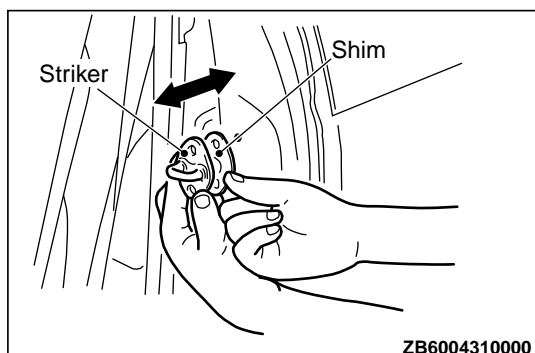
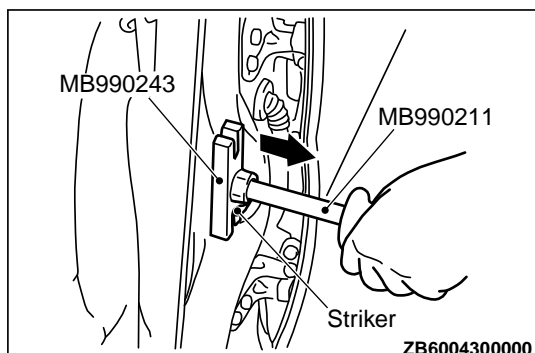
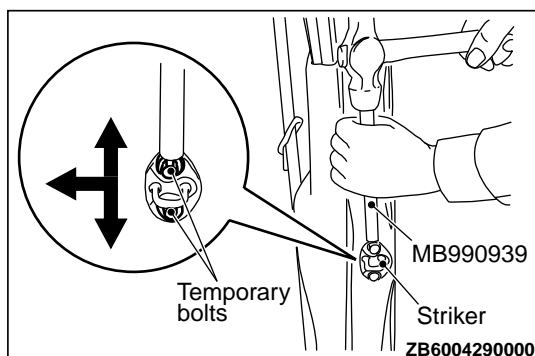
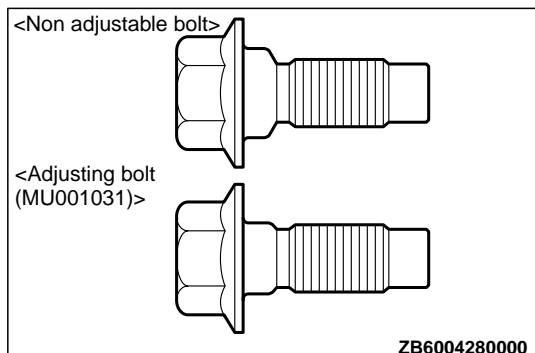
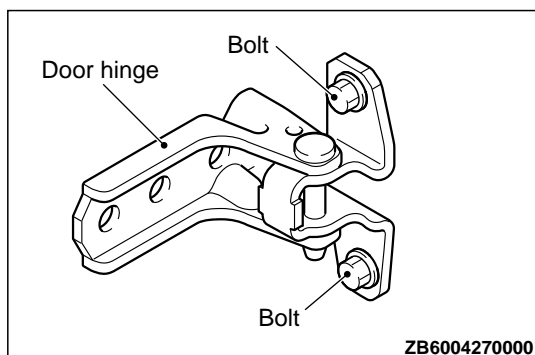
### ⚠ CAUTION

•Do not rotate special tool MB991164 with a torque of over 98 N·m (72 ft-lb).

1. When the clearance between the door and the body is uneven
  - (1) Apply protective tape to the fender around the hinge installation position and door edge.
  - (2) Remove the splash shield front <Front door only>.
  - (3) Remove the center pillar trim <Rear door only>.
  - (4) Use special tool MB990900 or MB991164 to loosen the hinge mounting bolts on the body side, and then adjust the clearance around the door so that it is uniform on all sides.
  - (5) Move the door to adjust until the clearance around the door is even.

**Door hinge mounting bolt tightening torque: 26 ± 6 N·m (19 ± 5 ft-lb)**





2. When the door is not flush with the vehicle body surface.
  - (1) Loosen the door-side hinge mounting bolts.
  - (2) Move the door to adjust so that the door is flush with the vehicle body.
  - (3) If adjustment is not possible, replace the door-side door hinge mounting bolt with the adjustment bolt (MU001031).

*NOTE: If the adjustment bolt has been already installed, reuse it.*

- (4) Move the door to adjust so that the door is flush with the vehicle body.
- (5) Tighten the door-side door hinge mounting bolt to the specified torque.

**Tightening torque:  $26 \pm 6 \text{ N}\cdot\text{m}$  ( $19 \pm 5 \text{ ft}\cdot\text{lb}$ )**

3. When the door is stiff to close and open
  - (1) Adjustment using the striker (toward the inside of the vehicle and vertical direction)
 

Install a temporary bolt instead of the striker mounting bolt, and use special tool MB990939 and a hammer to tap the bolt in the desired direction.
  - (2) Adjustment by using the striker (toward the outside of the vehicle)
 

Use special tools MB990211 and MB990243 to pull the striker toward the outside of the vehicle.
  - (3) Adjustment using shims (forward and rearward)
 

Increase or decrease the number of shims so that the striker engages with the door latch properly.

**Door striker mounting bolt tightening torque:  $20 \pm 5 \text{ N}\cdot\text{m}$  ( $15 \pm 3 \text{ ft}\cdot\text{lb}$ )**

## LIFTGATE ALIGNMENT

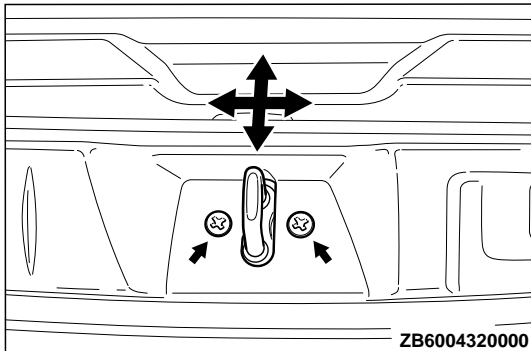
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Required Special Tool:

•MB990939: Brass Bar

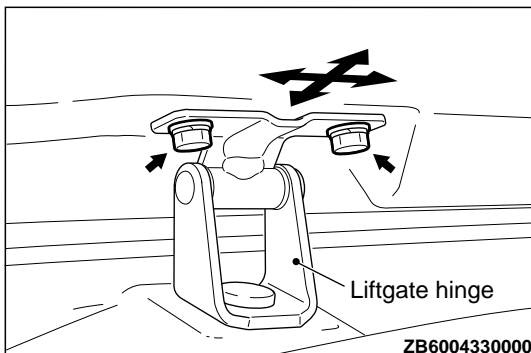
### LIFTGATE UPPER ALIGNMENT

1. If the striker is not engaged with the latch properly, adjust by loosening the striker mounting screws.



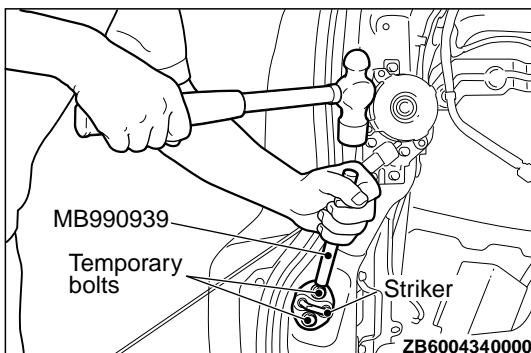
2. If the clearance between the liftgate and the body is uneven, loosen the liftgate-side liftgate hinge mounting bolts to adjust it.

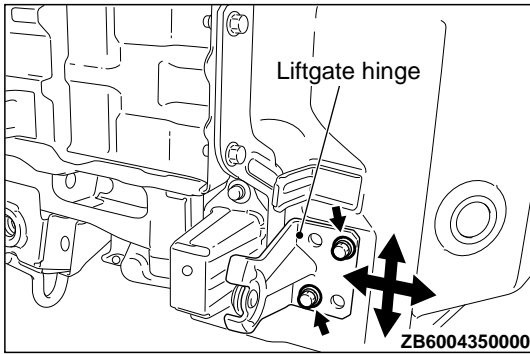
**Liftgate hinge mounting nut tightening torque:  $7.0 \pm 3.0$  N·m ( $43 \pm 26$  in-lb)**



### LIFTGATE LOWER ALIGNMENT

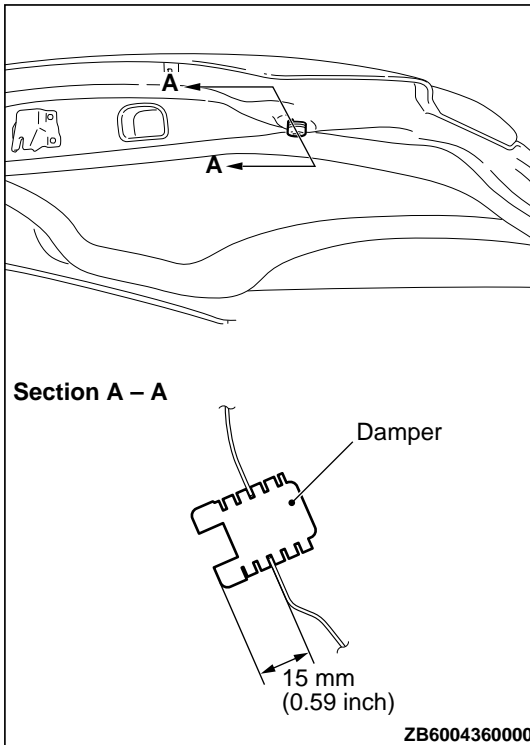
1. If the striker is not engaged with the latch properly, remove the quarter trim lower. Replace the striker mounting screw with an adequate bolt, and use the special tool MB990939 and a hammer to tap the bolt head in the desired direction to adjust the striker.





2. If the clearance between the liftgate and the vehicle body is uneven, remove the rear bumper assembly 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.

**Liftgate hinge mounting nut tightening torque:  $20 \pm 5$  N·m ( $15 \pm 3$  ft-lb)**



### ADJUSTMENT OF LIFTGATE HEIGHT

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 3 mm (0.12 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.*

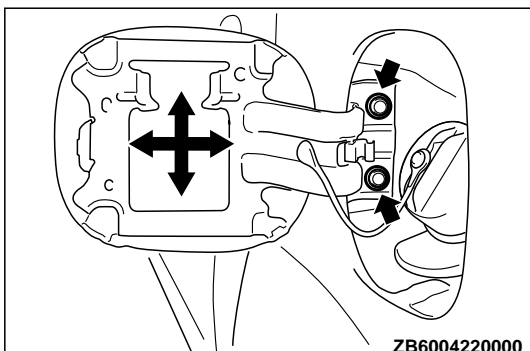
### FUEL FILLER LID

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### FUEL FILLER LID ADJUSTMENT

If the leveling and clearance of the fuel filler lid is uneven, loosen the fuel filler lid mounting bolt, then move and adjust the fuel filler lid.

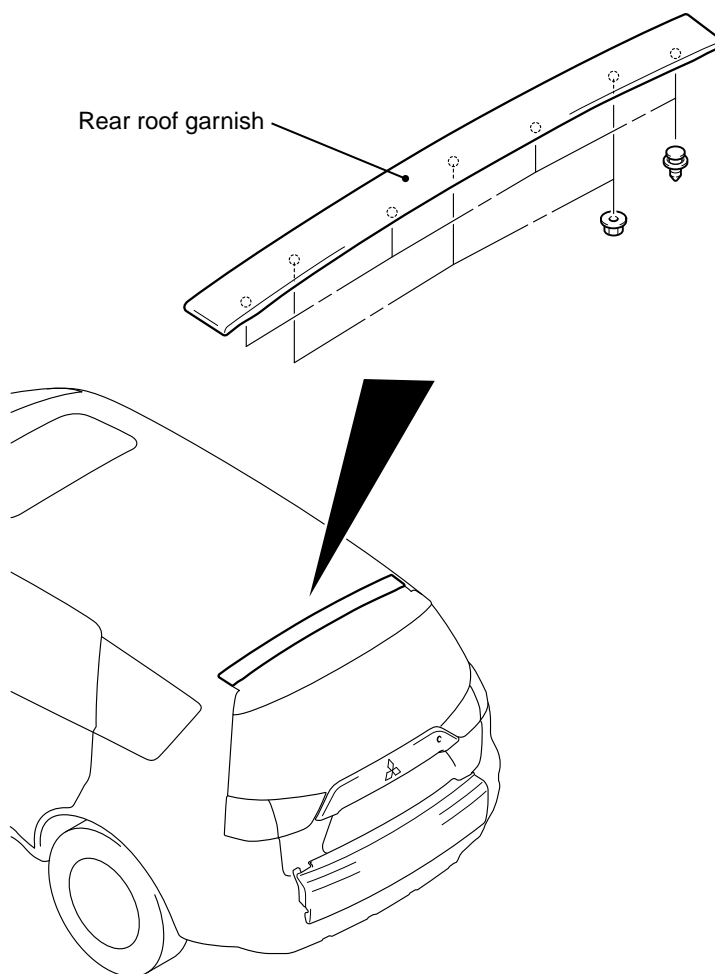
**Fuel filler lid mounting bolt tightening torque:  $7.0 \pm 3.0$  N·m ( $43 \pm 26$  in-lb)**



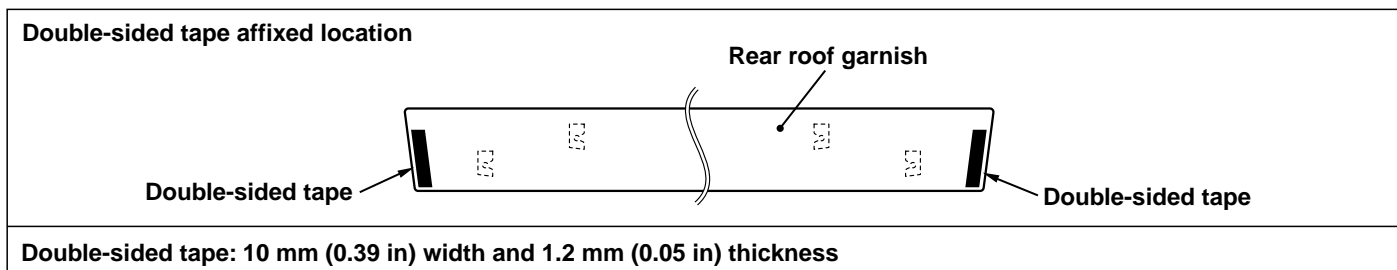
## INSTALLATION AND REMOVAL OF ADHESIVE COMPONENTS

### GARNISH

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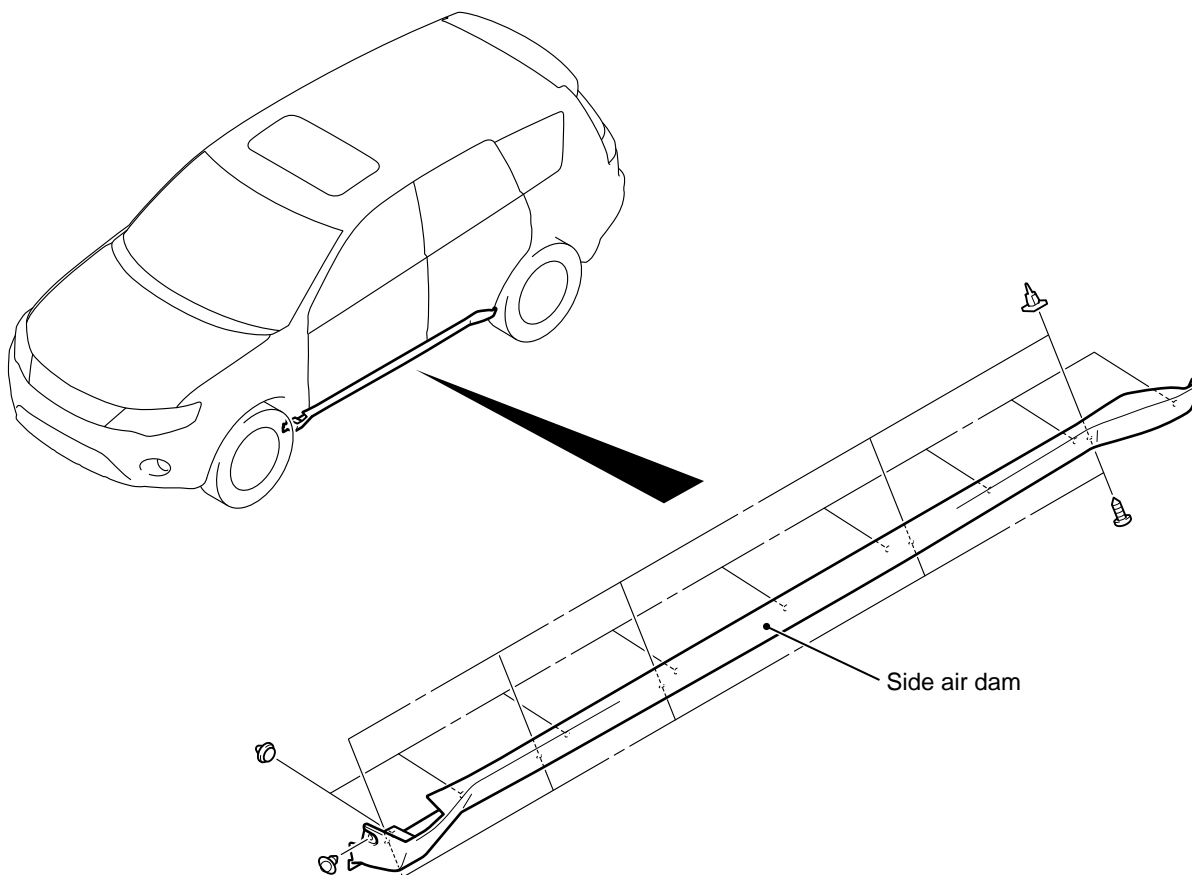
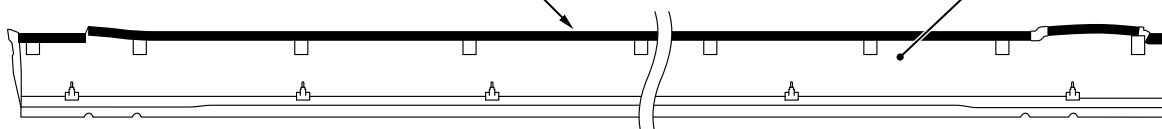
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**REAR ROOF GARNISH REMOVAL****BOTH-SIDE TAPE**

The removal and adherence procedures of the both-side tape are the same as for the side air dam.

**SIDE AIR DAM**

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**Double-sided tape affixed location****Double-sided tape****Side air dam**

**Double-sided tape:**  
4 mm (0.16 in) width and 1.2 mm (0.05 in) thickness

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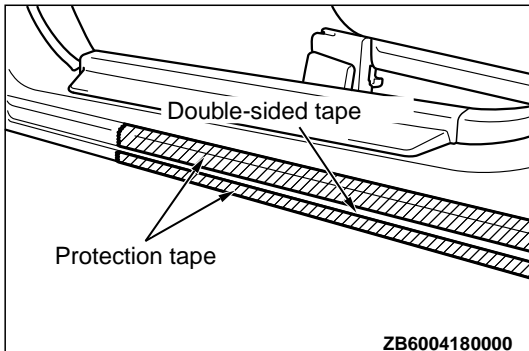
## REMOVAL SERVICE POINT

### A SIDE AIR DAM REMOVAL

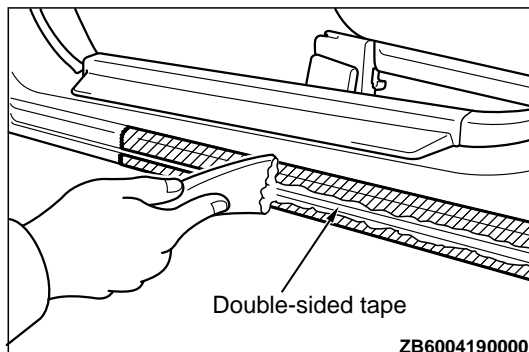
Gently lift and remove the side air dam. If there is any double-sided tape remaining on the side air dam, remove according to the following instructions.

Remove double-sided tape remaining on the body surface

1. Attach protection tape all the way along the edges of the double-sided tape which is still adhering to the body.

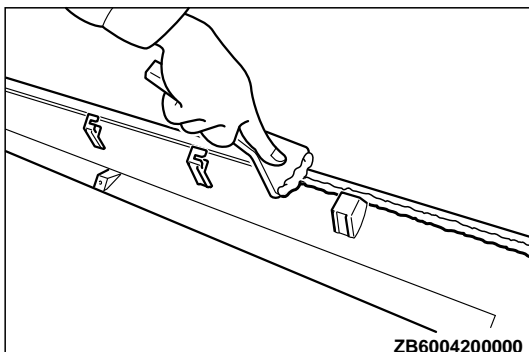


2. Scrape off the double-sided tape with a resin spatula as much as possible.
3. Peel off the protection tape.
4. Wipe the body surface and clean it with a rag moistened with isopropyl alcohol.



Remove double-sided tape remaining on side air dam and adhere double-sided tape (when re-using side air dam)

1. Scrape off the double-sided tape on the side air dam with a resin spatula as much as possible.
2. Wipe the side air dam surface and clean it with a rag moistened with isopropyl alcohol.
3. Remove only a small portion of the residual adhesive.
4. Adhere the double-sided tape as specified on the side air dam.



## INSTALLATION SERVICE POINT

## A SIDE AIR DAM INSTALLATION

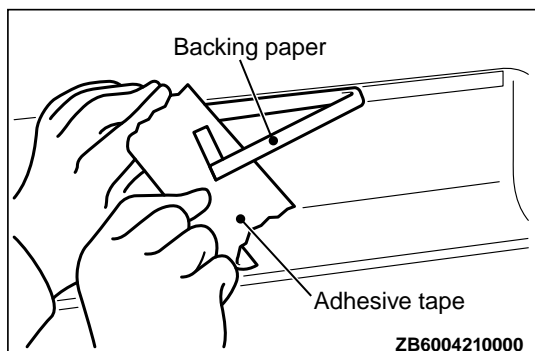
1. Tear off the double-sided tape backing paper.

*NOTE: If attach the adhesive tape to the edge of the backing paper, it will be easy to tear off.*

2. Install the side air dam.

*NOTE: If the double-sided tape is difficult to affix in cold temperature, etc., warm the bonding surfaces of the body and side air dam to about 40– 60° C before affixing the tape.*

3. Firmly press in the side air dam.



## ADJUSTMENT OF OTHER PARTS

## FRONT WHEEL ALIGNMENT CHECK AND ADJUSTMENT

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Measure wheel alignment with alignment equipment on a level surface. The front suspension, steering system, wheels, and tires should be serviced to normal condition before measuring wheel alignment.

## TOE-IN

**Standard value:  $1 \pm 2$  mm ( $0.04 \pm 0.09$  inch)**

1. Adjust the toe-in by undoing the clip and jam nut, and turning the left and right tie rod turnbuckles by the same amount (in opposite directions).

*NOTE: The toe will move out as the left turnbuckle is turned toward the front of the vehicle and the right turnbuckle is turned toward the rear of the vehicle.*

2. Install the clip and tighten the jam nut to the specified torque.

**Tightening torque:  $52 \pm 2$  N·m ( $38 \pm 2$  ft·lb)**

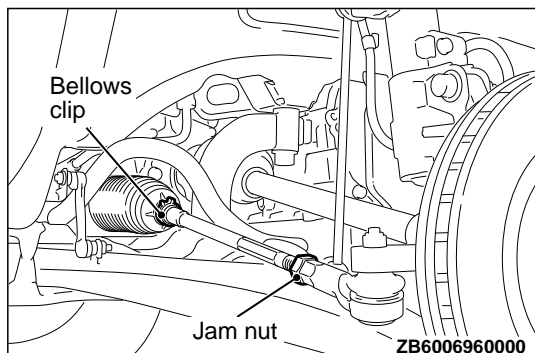
3. Confirm that the toe-in is at the standard value.
4. Use a turning radius gauge to check that the steering angle is at the standard value.

## STEERING ANGLE

**Standard value:**

**$38^{\circ}40' \pm 1^{\circ}30'$  Inner wheel**

**$32^{\circ}20'$  Outer wheel (reference)**



## CAMBER, CASTER AND KINGPIN INCLINATION

**Required Special Tool:**

- MB991004: Wheel Alignment Gauge Attachment

Vehicles with aluminum wheels

**Standard value:**

**Camber  $0^{\circ}20' \pm 0^{\circ}30'$  (Left/right deviation within  $30'$ )**

**Caster  $2^{\circ}57' \pm 0^{\circ}30'$  (Left/right deviation within  $30'$ )**

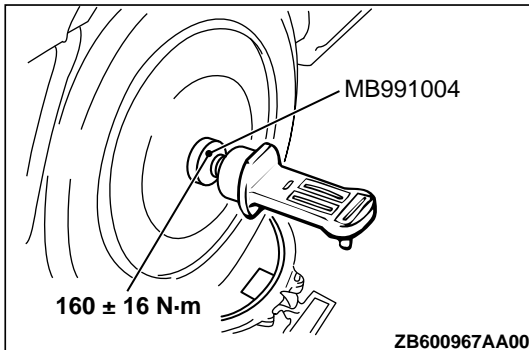
**Kingpin inclination  $12^{\circ}44' \pm 1^{\circ}30'$**

*NOTE: Camber and caster are preset at the factory and cannot be adjusted.*

**⚠ CAUTION**

**Never subject the wheel bearings to the vehicle load when the drive shaft nuts are loosened.**

*NOTE: For vehicles with aluminum type wheels, attach the camber/caster/kingpin gauge to the driveshaft by using the special tool MB991004. Tighten the special tool MB991004 to the same torque  $245 \pm 29 \text{ N}\cdot\text{m}$  ( $181 \pm 21 \text{ ft}\cdot\text{lb}$ ) as the driveshaft nut.*



## REAR WHEEL ALIGNMENT CHECK AND ADJUSTMENT

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1. Before the wheel alignment measurement, adjust the rear suspension, wheel, and tires in good condition.
2. Park the vehicle on a level surface to measure the wheel alignment.

### TOE-IN

**Standard value:  $3 \pm 2 \text{ mm}$  ( $0.12 \pm 0.08 \text{ inch}$ )**

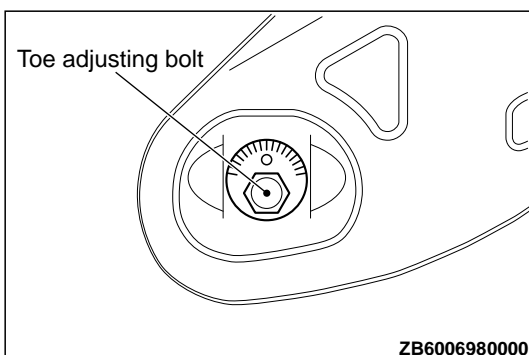
If it is out of the standard range, adjust as follows:

Turn the toe adjusting bolt (the mounting bolt inside the body on the control link) to adjust.

**Left wheels: Clockwise → (+) Toe in**

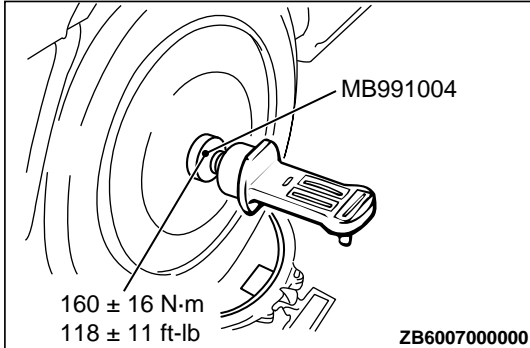
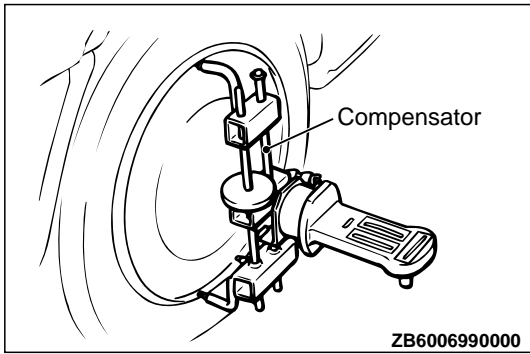
**Right wheels: Clockwise → (-) Toe in**

Toe-in varies approximately 2.6 mm (0.10inch) (equivalent to  $0^{\circ}16'$  of the toe angle for one side) for each scale mark.



### CAMBER

**Standard value:  $-0^{\circ}25' \pm 0^{\circ}30'$  (left/right difference  $0^{\circ}30'$  max)**

**NOTE:**

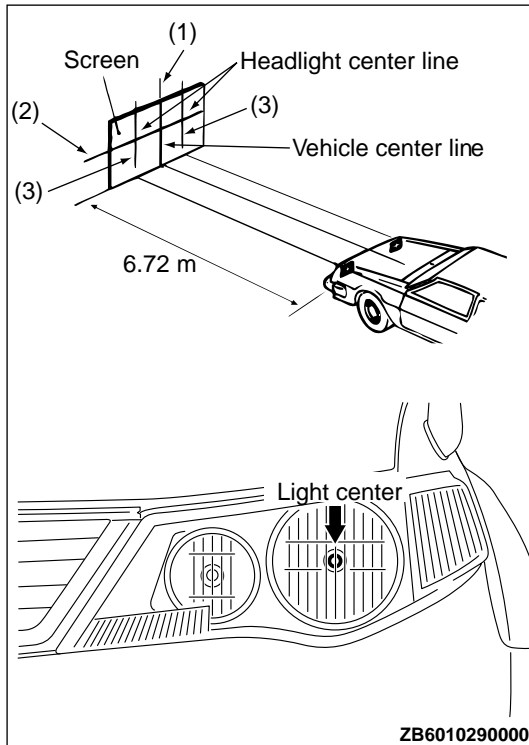
- For FWD vehicles with aluminum wheels, attach the camber/caster/kingpin gauge by using a compensator.
- For AWD vehicles with aluminum wheels, tighten the wheel alignment gauge attachment (Special tool: MB991004) to the specified torque, then measure the camber.
- The camber is pre-adjusted at factory and is not adjustable.

**HEADLIGHT AIMING**

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**PRE-AIMING INSTRUCTIONS (LOW-BEAM)**

1. Inspect for badly rusted or faulty headlight assemblies.
2. These conditions must be corrected before a satisfactory adjustment can be made.
3. Inspect tire inflation, and adjust if it is necessary.
4. If the fuel tank is not full, place a weight in the trunk of the vehicle to simulate weight of a full tank [3 kg (6.6 pounds) per gallon].
5. There should be no other load in the vehicle other than driver or substituted weight of approximately 68 kg (150 pounds) placed in driver's position.
6. Thoroughly clean headlight lenses.
7. Place the vehicle on a level floor, perpendicular to a flat screen 7.62 m (25.0 ft) away from the bulb center-marks on the headlight lens.
8. Rock vehicle sideways to allow vehicle to assume its normal position.
9. Bounce the front suspension through three (3) oscillations by applying the body weight to hood or bumper.



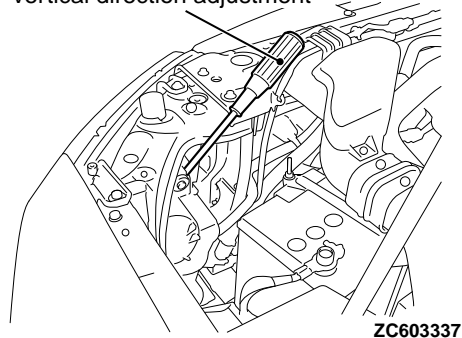
10. Set the distance between the screen and the bulb center marks of the headlight as shown in the illustration.
11. Four lines of adhesive tape (or equivalent markings) are required on screen or wall:
  - (1) Position a vertical tape or mark so that it is aligned with the vehicle center line.
  - (2) Measure the distance from the center-marks on the headlight lens to the floor [reference value: 828 mm (3.26 inches)]. Transfer the measurement to the screen. Horizontal tape or mark on the screen is for reference of vertical adjustment.
  - (3) Measure the distance from the center line of the vehicle to the center of each headlight. Transfer the measurement to the screen. Vertical tape or mark on the screen with reference to the center line of each headlight bulb.

## HEADLIGHT ADJUSTMENT (LOW-BEAM)

*NOTE: When adjusting headlight, disconnect the other headlight harness.*

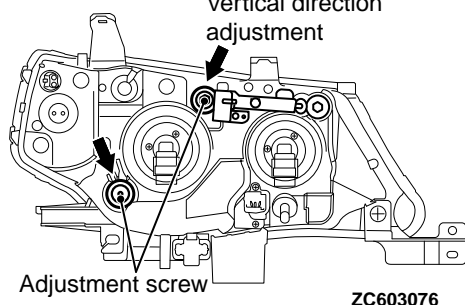
1. The low beam headlight will project on the screen upper edge of the beam (cut-off).

Vertical direction adjustment



&lt;Halogen headlight&gt;

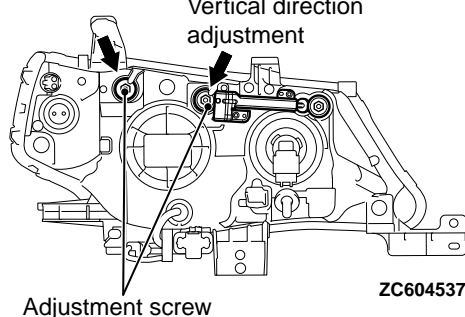
Vertical direction adjustment



Adjustment screw

&lt;Discharge headlight&gt;

Vertical direction adjustment



Adjustment screw

ZC604537

ZB6010300000

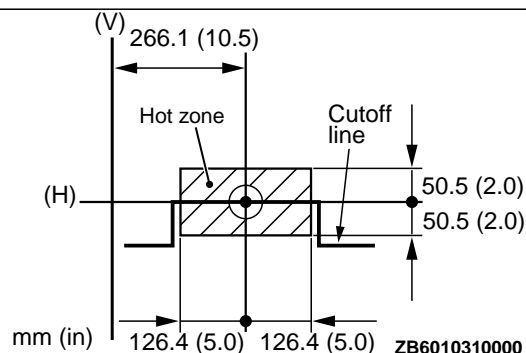
- Turn the adjusting screws to achieve the specified low-beam cut-off location on the aiming screen.

Standard value:

(Vertical direction) Horizontal line (H)  $\pm 50.5$  mm ( $\pm 2.0$  inches) (0.38 degrees angle)(Horizontal direction):  $\pm 126.4$  mm ( $\pm 5.0$  inches) ( $\pm 0.95$  degrees angle) from the axis, which is 266.1 mm (10.5 inches) (2 degrees angle) rightward from the vertical line (V)**CAUTION**

Do not cover a headlight for more than three minutes to prevent the plastic headlight lens deformation.

*NOTE:* High-beam pattern should be correct when the low-beams are adjusted properly.

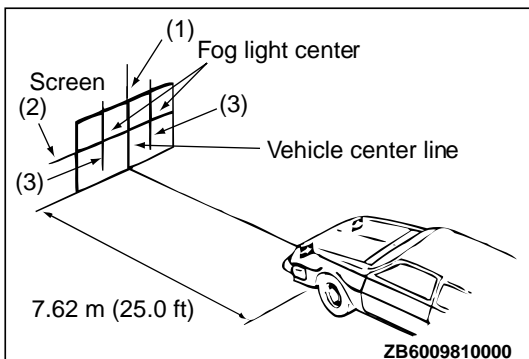
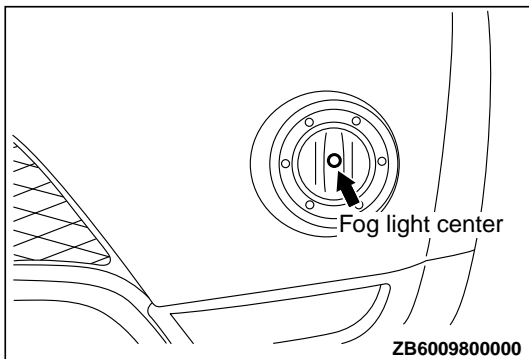
**FOG LIGHT AIMING**

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**PRE-AIMING INSTRUCTIONS**

- Inspect for badly rusted or faulty front fog light assemblies.
- These conditions must be corrected before a satisfactory adjustment can be made.

3. Inspect tire inflation, and adjust if necessary.
4. If the fuel tank is not full, place a weight in the trunk of the vehicle to simulate weight of a full tank [3 kg (6.5 pounds) per gallon].
5. There should be no other load in the vehicle other than driver or substituted weight of approximately 68 kg (150 pounds) placed in driver's position.
6. Thoroughly clean the front fog light lenses.
7. Place the vehicle on a level floor, perpendicular to a flat screen 7.62 meters (25.0 ft) away from the bulb center-marks on the fog light lens.
8. Rock the vehicle sideways to allow the vehicle to assume its normal position.
9. Bounce the front suspension through three (3) oscillations by applying the body weight to the hood or bumper.
10. Measure the center of the front fog lights as shown in the illustration.



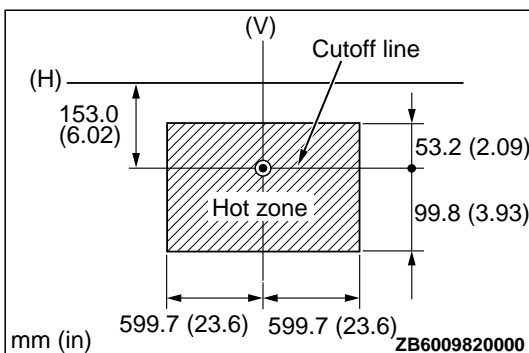
11. Four lines of adhesive tape (or equivalent markings) are required on screen or wall:
  - (1) Position a vertical tape or mark so that it is aligned with the vehicle center line.
  - (2) Measure the distance from the center of the front fog light lens to the floor. Transfer the measurement to the screen. Horizontal tape or mark on the screen is for reference of vertical adjustment.
  - (3) Measure the distance from the center line of the vehicle to the center of each front fog light. Transfer the measurement to the screen. Vertical tape or mark on the screen is for reference to the center line of each front fog light.

## FOG LIGHT ADJUSTMENT

1. Check if the beam shining onto the screen is at the standard value.

Standard value:

**(Cutoff line direction): The horizontal line 153.0 mm (6.02 inches) (1.15 degrees angle) below the horizontal line (H)**



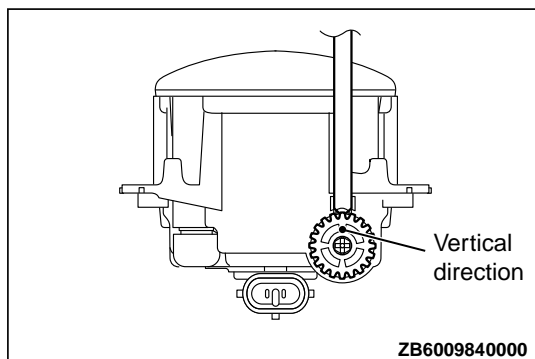
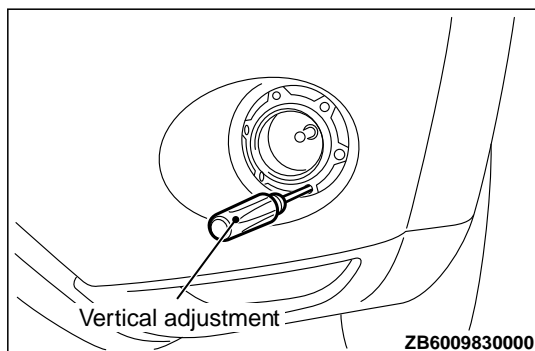
**Limit:**

(Vertical direction): Area from 53.2 mm (2.09 inches) (0.4 degrees angle) above the cutoff line to 99.8 mm (3.93 inches) (0.75 degrees angle) below the cutoff line

(Horizontal direction): Vertical line (V)  $\pm$  599.7 mm ( $\pm$  23.6 inches) ( $\pm$  4.5 degrees angle)

2. If it is not within the standard value range, adjust by turning the adjusting screw.

*NOTE: The horizontal direction is non-adjustable. If deviation of the light beam axis exceeds the standard value, check that the mounting location or some other points are not faulty.*



## SUPPLEMENTAL RESTRAINT SYSTEM (SRS) - AIR BAG

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### ⚠ WARNING

- **Improper service or maintenance of any component of the SRS and any SRS-related component, can lead to personal injury or death to service personnel (from inadvertent firing of the air bag) or to the driver and passenger (from rendering the SRS inoperative).**
- **The SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, driver's and front passenger's air bag modules, clock spring, side-airbag modules, Curtain air bag modules, front and side impact sensor and seat belt pre-tensioner before drying or baking the vehicle after painting.**
  - **SRS-ECU, air bag modules, clock spring, impact sensor: 93° C (200° F) or more**
  - **Seat belt with pre-tensioner 90°C (194° F) or more**

- **Service or maintenance of any SRS component and SRS-related component must be performed only at an authorized MITSUBISHI dealer.**
- **MITSUBISHI dealer personnel must thoroughly review workshop manual, and especially its GROUP 52B - Supplemental Restraint System (SRS), before beginning any service or maintenance of any component of the SRS and any SRS-related component.**