

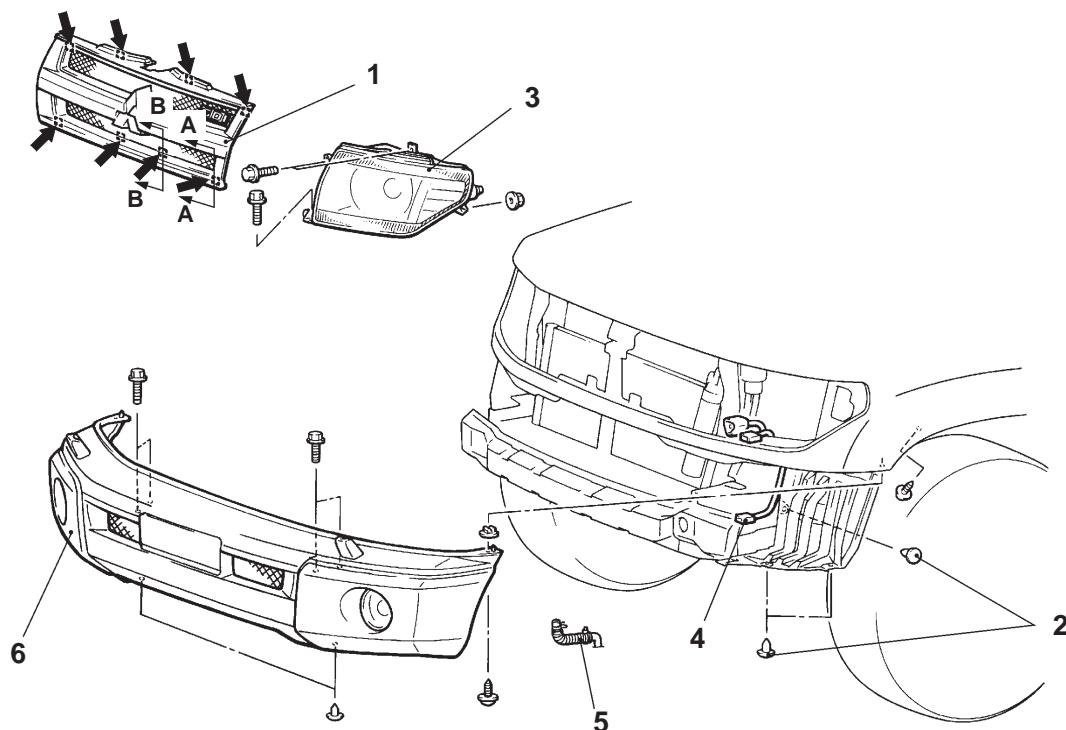
EXTERIOR

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FRONT BUMPER

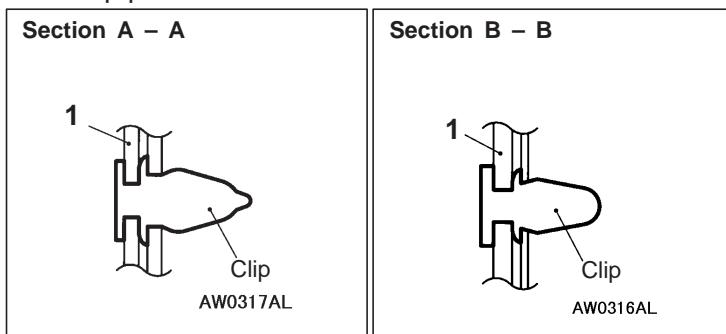
REMOVAL AND INSTALLATION



AX0087AL

NOTE

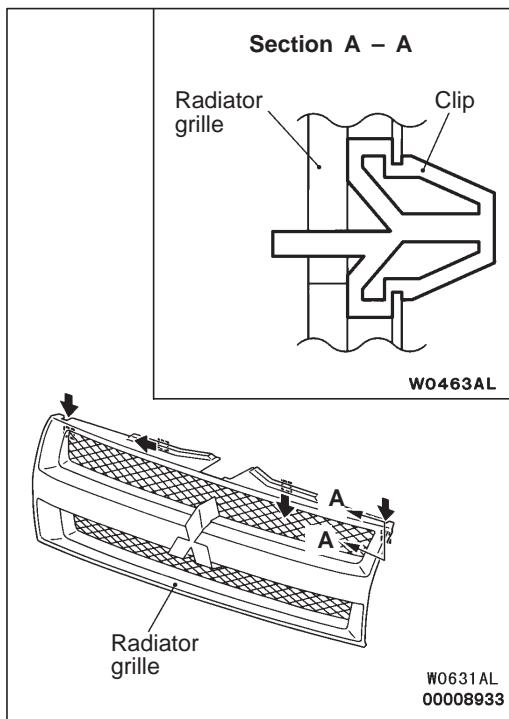
← : Clip positions



Removal steps



1. Radiator grille
2. Splash shield installation clips
3. Headlamps
4. Fog lamp connector
5. Headlamp washer hose connection
<Vehicles with headlamp washer>
6. Front bumper assembly

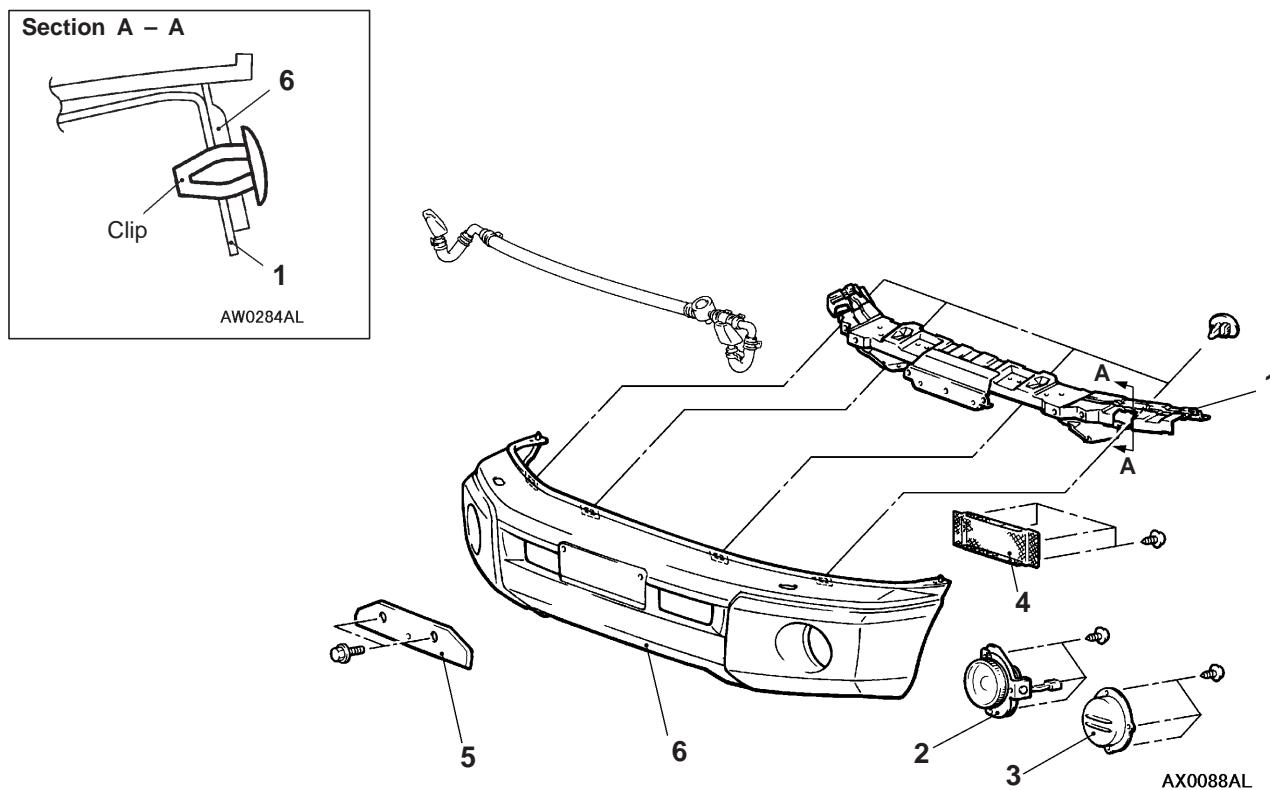


REMOVAL SERVICE POINT

◀▶ RADIATOR GRILLE REMOVAL

Remove the radiator grille by pushing the tab of the radiator grille clips in the direction of the arrows with a flat-tipped screwdriver, while lightly pulling the radiator grille towards you.

DISASSEMBLY AND REASSEMBLY

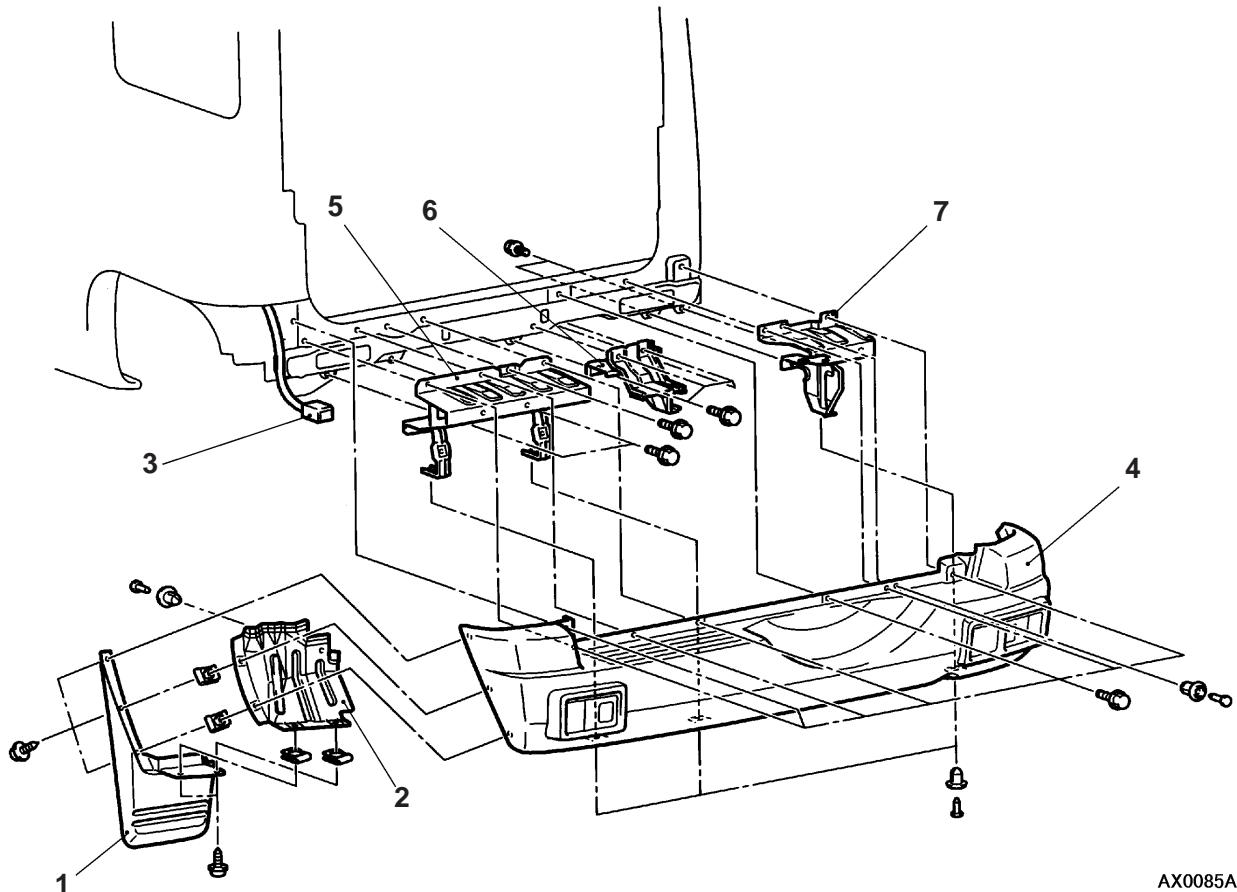


Disassembly steps

1. Front bumper reinforcement assembly
- Headlamp washer assembly
<Vehicles with headlamp washer>
(Refer to P.51-17)
2. Fog lamp
3. Fog lamp cover
<Vehicles without fog lamp>
4. Bumper net
5. Licence plate bracket
6. Front bumper face

REAR BUMPER

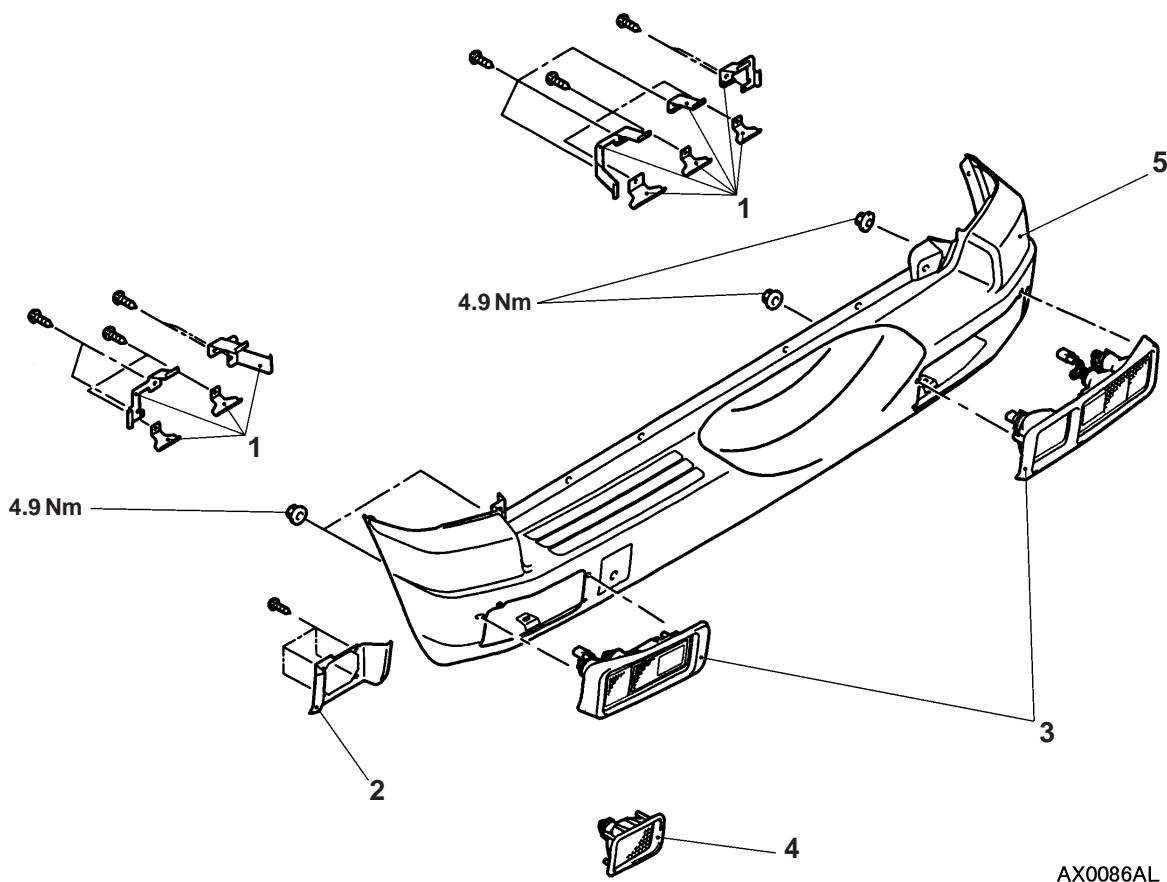
REMOVAL AND INSTALLATION



Removal steps

1. Rear mud guard
2. Rear splash shield
3. Rear combination lamp or rear fog lamp connection
4. Rear bumper assembly
5. Bumper step reinforcement assembly
6. Bumper center reinforcement assembly
7. Bumper side reinforcement assembly

DISASSEMBLY AND REASSEMBLY

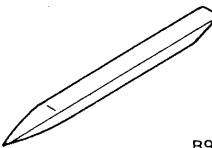


Disassembly steps

1. Bracket <R.H. drive vehicles>	4. Rear fog assembly <L.H. drive vehicles>
2. Bracket <L.H. drive vehicles>	5. Rear bumper face
3. Rear combination lamp assembly <R.H. drive vehicles>	

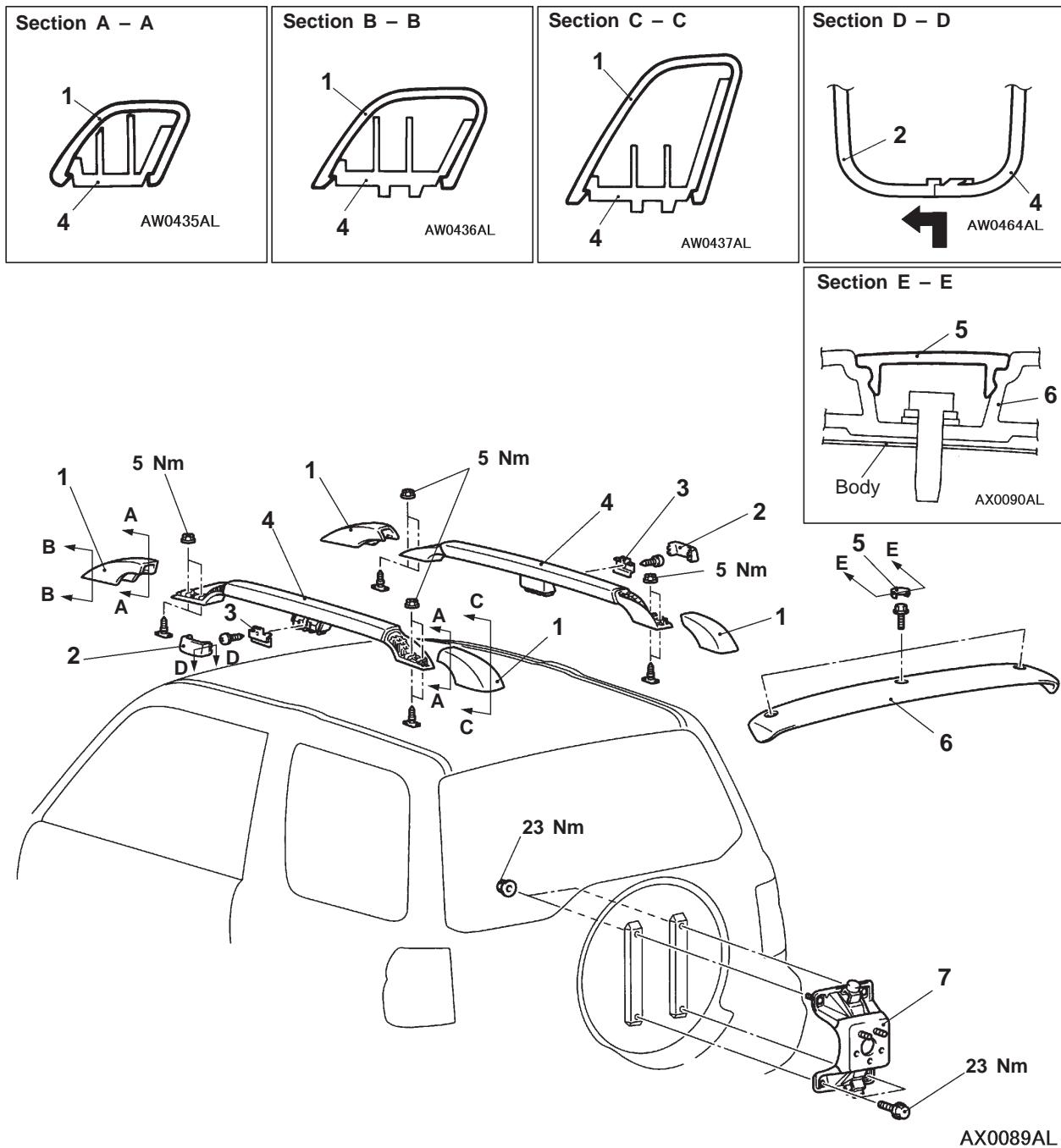
EXTERIOR PARTS

SPECIAL TOOL

Tool	Number	Name	Use
	MB990784	Ornament remover	Removal of roof rack cover.

EXTERIOR PARTS

REMOVAL AND INSTALLATION



Roof rail removal steps

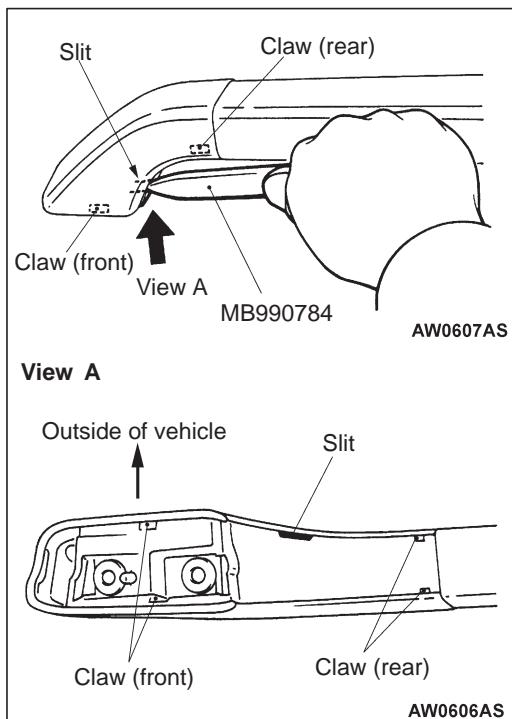
◀▶ 1. Roof rack cover (front, rear)
2. Roof rack cover (side)
3. Center bracket
4. Roof bar

Roof spoiler removal steps

5. cover
6. Roof spoiler

Spare tyre carrier removal steps

- Spare tyre cover
(Refer to GROUP 31.)
- Spare tyre
- Back door trim and waterproof film
(Refer to GROUP 42.)
- 7. Spare tyre carrier



REMOVAL SERVICE POINT

◀▶ ROOF RACK COVER (FRONT, REAR) REMOVAL

1. Insert the special tool into the slit.

NOTE

The roof rack assembly has the slit.

2. Insert the special tool as far as possible and remove the claw (front) by prying the roof rack cover toward you.
3. Remove the claw (rear).

Caution

Spread out the roof rack cover sufficiently and pull it upward, otherwise the claws will be broken.

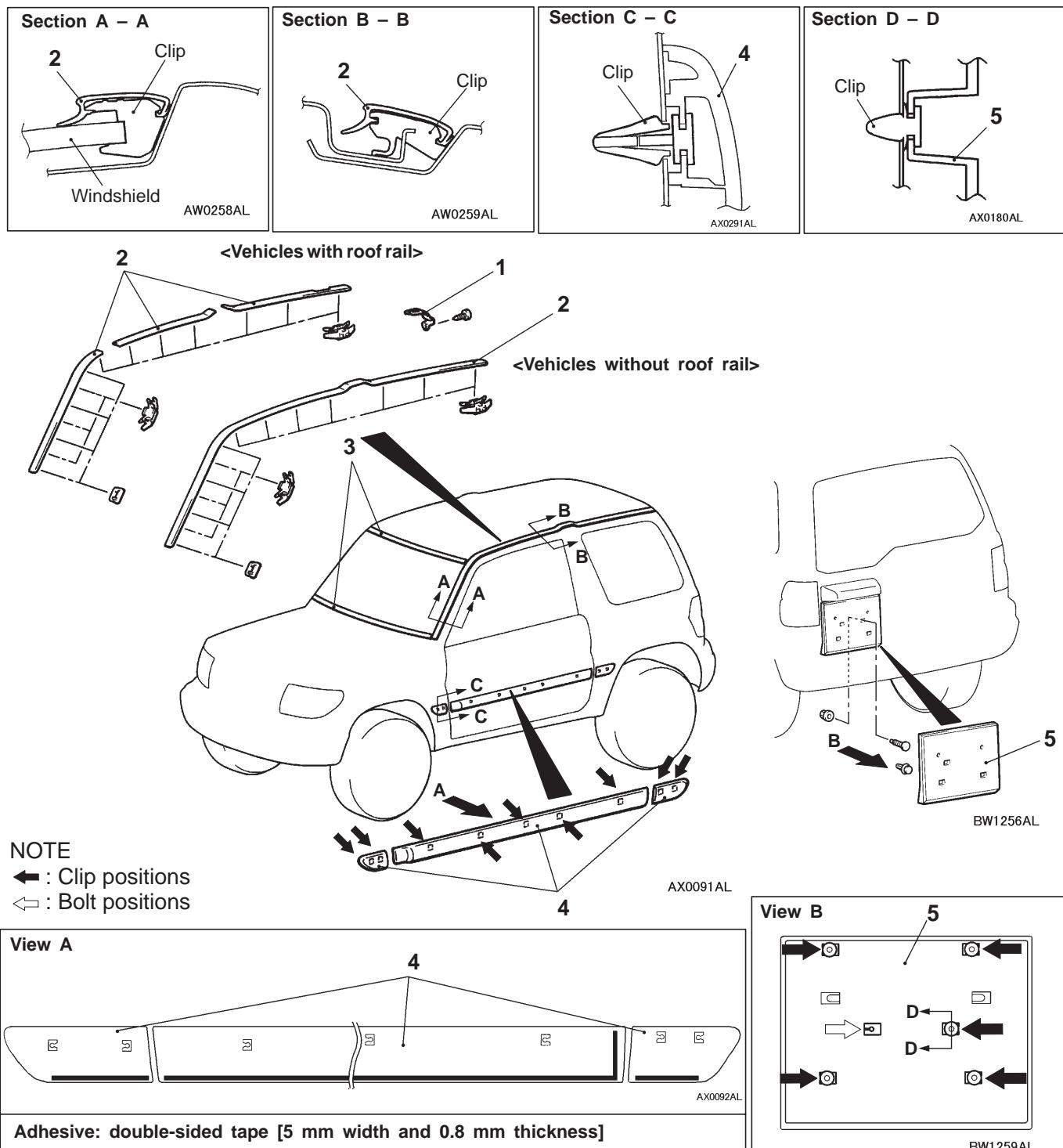
MOULDING AND GARNISH

SPECIAL TOOL

Tool	Number	Name	Use
	MB990449 B990449	Window moulding remover	Removal of roof drip moulding.

MOULDING AND GARNISH

REMOVAL AND INSTALLATION



Roof drip moulding removal steps

- Roof rail assembly <Vehicles with roof rail> (Refer to P.51-6)

1. Roof drip cover
2. Roof drip moulding
3. Windshield moulding
(Refer to GROUP 42 – Windshield.)

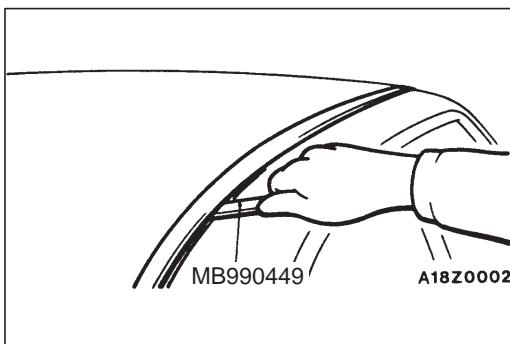


Side protector moulding removal

4. Side protector moulding

Rear licence plate garnish removal steps

- Back door trim (Refer to GROUP 42 – Back door.)
- 5. Rear licence plate garnish



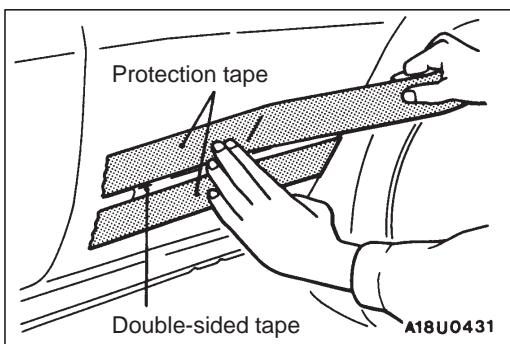
REMOVAL SERVICE POINT

◀A▶ ROOF DRIP MOULDING REMOVAL

Use the special tool to lever out the moulding.

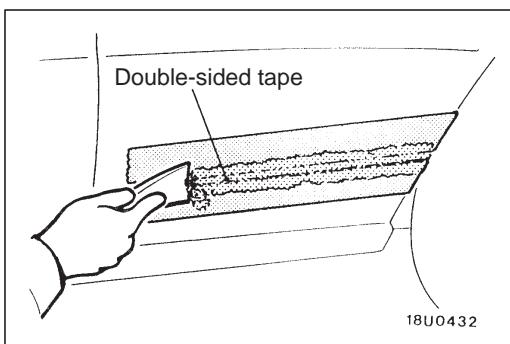
Caution

If the moulding has become warped, it should not be reused.

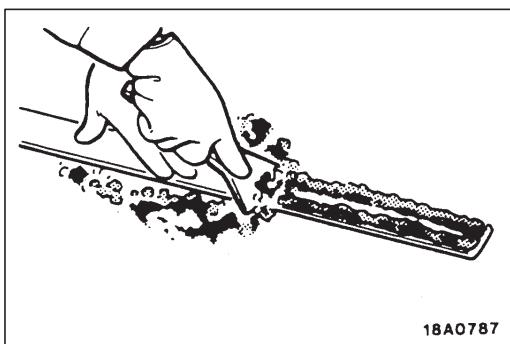


◀B▶ SIDE PROTECT MOULDING REMOVAL

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



2. Use a resin spatula to scrape off the double-sided tape.
3. Peel off the protection tape.
4. Wipe the body surface and clean it with a rag moistened with isopropyl alcohol.



INSTALLATION SERVICE POINTS

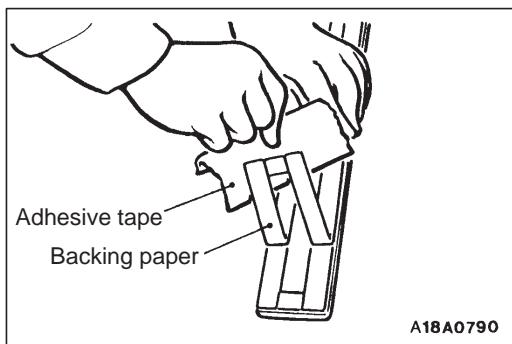
►A◀ SIDE PROTECT MOULDING INSTALLATION

Double-sided tape affixing to the side protect moulding (when reusing)

1. Scrape off the double-sided tape with a resin spatula or gasket scraper.
2. Wipe off the side protect moulding adhesion surface and clean it with a shop towel moistened with isopropyl alcohol.
3. Affix the specified double sided tape to the side protect moulding. (Refer to P.51-8.)

Specified adhesive tape:

Double-sided tape: 5 mm width and 0.8 mm thickness



4. Remove strip paper from the pressure sensitive double-sided tape.

NOTE

Affix double-sided tape to the end of strip paper for ease of strip paper removal. (Refer to P.51-8.)

5. Install the side protect moulding.

NOTE

If it is hard to affix the double-sided tape in winter, heat the application surfaces at both the vehicle body and the side protect moulding.

Body 40 – 60°C

Side protect moulding 20 – 30 °C

Apply pressure fully to the side protect moulding.

WINDSHIELD WIPER AND WASHER

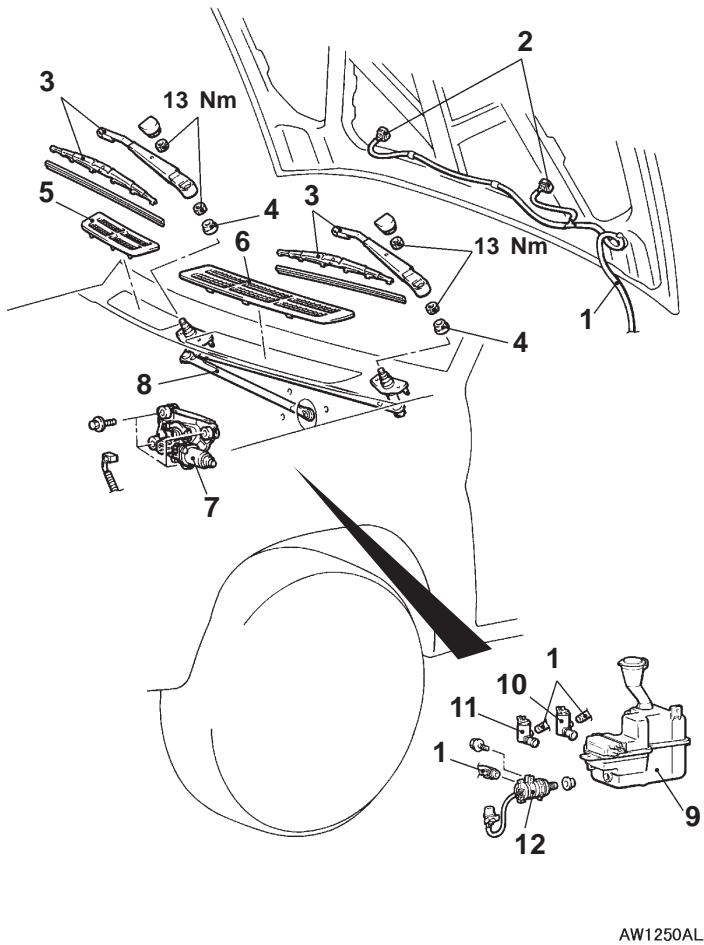
SERVICE SPECIFICATIONS

Items	Standard value	
Park position of windshield wiper arm and blade assembly (Distance between wiper blade and windshield lower moulding) mm	Driver's side	20 ± 5 < L.H. drive vehicles > 30 ± 5 < R.H. drive vehicles >
	Passenger's side	20 ± 5 < L.H. drive vehicles > 30 ± 5 < R.H. drive vehicles >

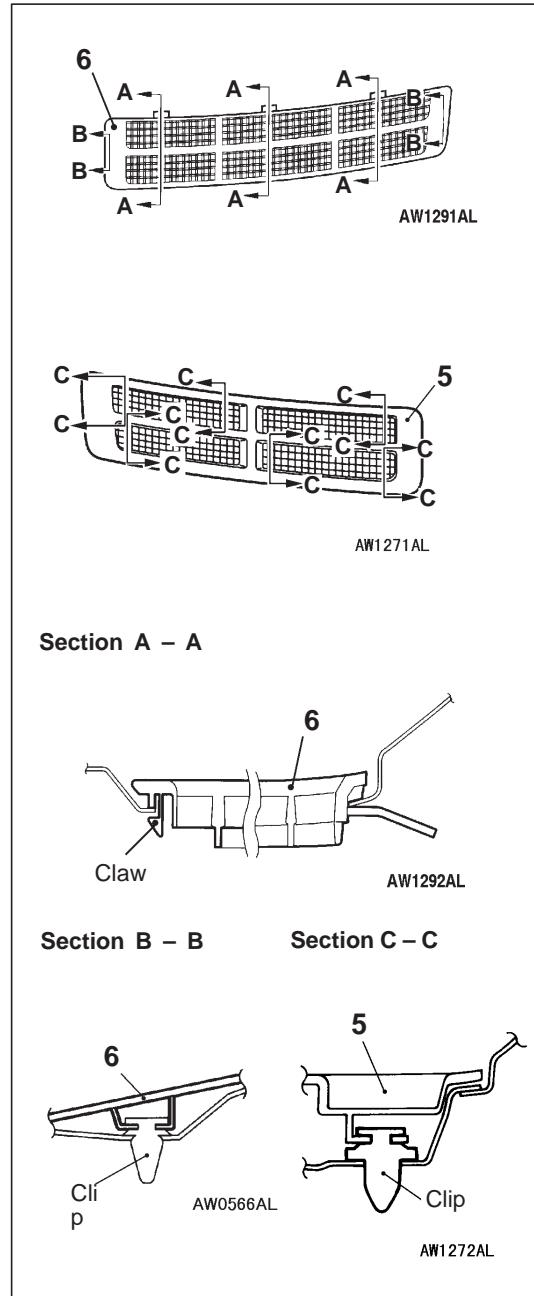
TROUBLESHOOTING

The windshield wiper and washer is controlled by the Smart Wiring System (SWS). For troubleshooting, refer to GROUP 54B – Troubleshooting.

WINDSHIELD WIPER AND WASHER REMOVAL AND INSTALLATION



AW1250AL



1. Washer hose connection
2. Washer nozzle

Wiper motor and linkage removal steps

►A◀

3. Wiper arm and blade assembly
4. Washer
5. Front deck garnish
<R.H. drive vehicles>
6. Front deck garnish
<L.H. drive vehicles>
7. Wiper motor
8. Linkage assembly

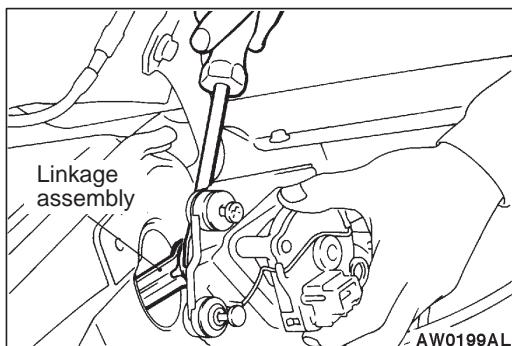
◀A►

Washer tank removal steps

- Air cleaner
- Intake duct
- 1. Washer hose connection
- 9. Headlamp washer motor
<Vehicles with headlamp washer>
- 10. Front washer motor
- 11. Rear washer motor
- 12. Washer tank assembly

NOTE

For removal and installation of the column switch assembly (wiper and washer switch), refer to GROUP 37A – Steering Wheel and Shaft.



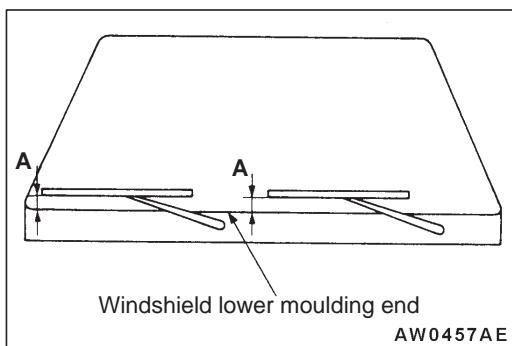
REMOVAL SERVICE POINT

◀▶ WIPER MOTOR REMOVAL

1. Remove the wiper motor mounting bolts.
2. Use a flat-tipped screwdriver to separate the wiper motor crank arm from the linkage assembly, and then remove the wiper motor.

Caution

Because the installation angle of the crank arm and the wiper motor has been set, do not remove them unless it is necessary to do so. If they must be removed, remove them only after marking their mounting positions.



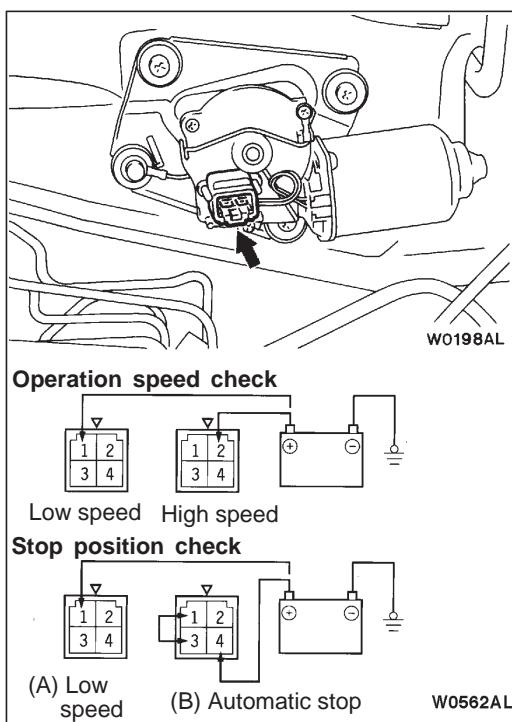
INSTALLATION SERVICE POINTS

▶◀ WIPER ARM AND BLADE ASSEMBLY INSTALLATION

Install the wiper blade so that the wipers stops at the specified stop position (standard value) as shown in the illustration.

Standard value (A): 20 ± 5 mm <L.H. drive vehicles>

30 ± 5 mm <R.H. drive vehicles>



INSPECTION

WIPER MOTOR CHECK

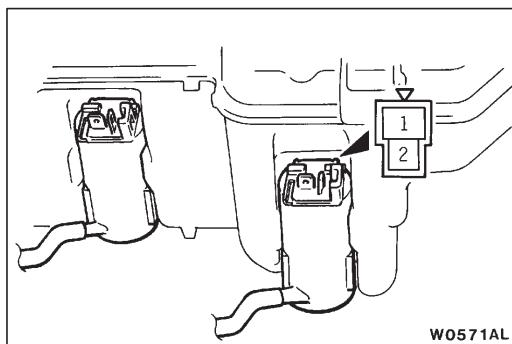
Disconnect the wiring harness connector, and then check the wiper motor operation with the wiper motor remaining installed to the body.

Wiper Motor Operation Speed

Connect a battery to the wiper motor as shown in the illustration and check the operation speed.

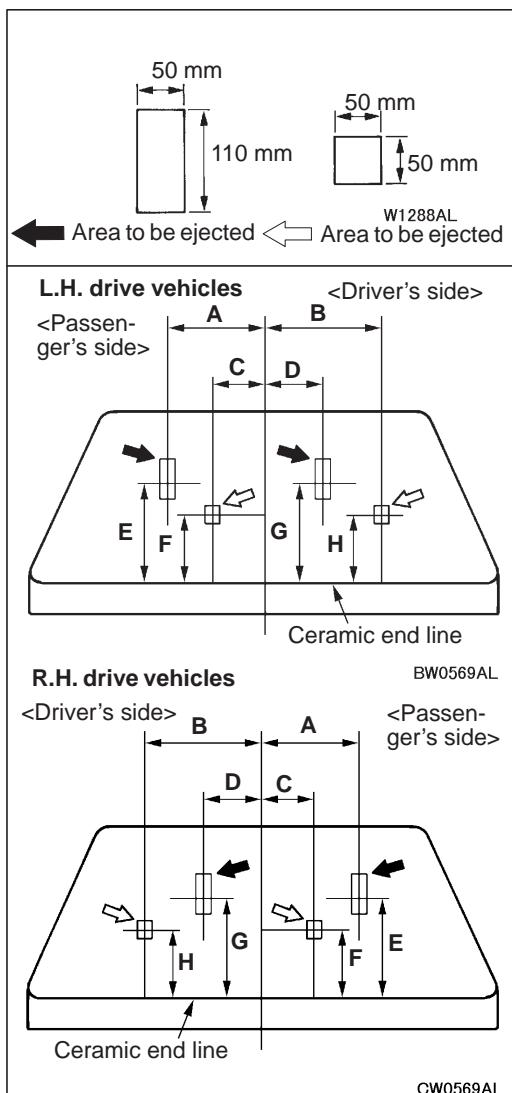
Stop Position

1. Connect a battery to the wiper motor as shown in the (A) of the illustration. While the wiper motor operates at low speed, disconnect the battery to stop the wiper motor.
2. Connect the terminals via a jumper wire and a battery to the wiper motor as shown in the (B) of the illustration. After the motor starts turning at low speed, it should stop at the automatic stop position.



WASHER MOTOR CHECK

1. With the washer motor installed to the washer tank, fill the washer tank with water.
2. Check that the water squirts out strongly when battery voltage is applied to terminal (2) and terminal (1) is earthed.



WASHER FLUID EJECTION POINT CHECK

Adjust the ejection angle by moving the nozzle.

Item	Distance mm	Item	Distance mm
A	350	E	320
B	475	F	200
C	165	G	310
D	200	H	200

REAR WIPER AND WASHER

SERVICE SPECIFICATION

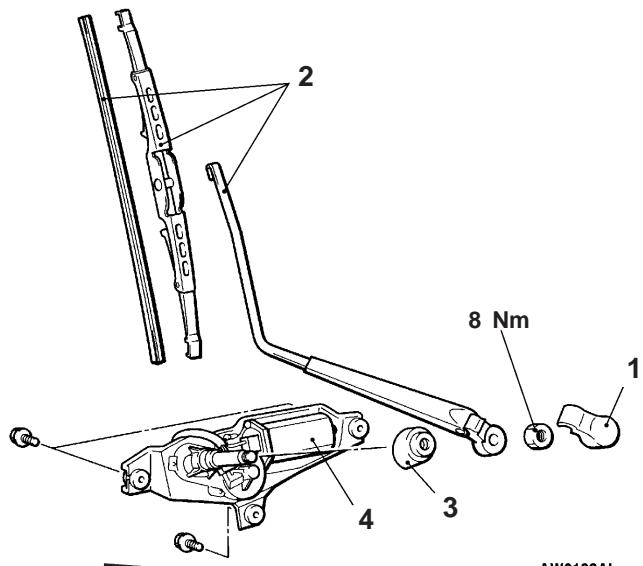
Items	Standard value
Park position of rear wiper arm and blade assembly (Distance between wiper blade and back door glass ceramic end line) mm	33 ± 5

TROUBLESHOOTING

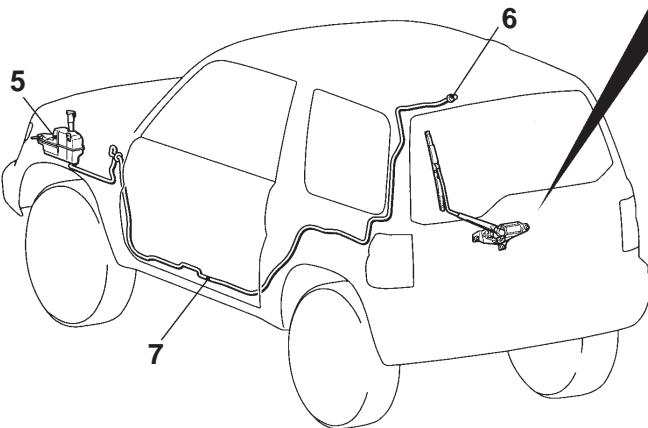
The rear wiper and washer is controlled by the Smart Wiring System (SWS). For troubleshooting, refer to GROUP 54B – Troubleshooting.

REAR WIPER AND WASHER

REMOVAL AND INSTALLATION



AW0193AL



AW0192AL

Wiper motor assembly removal steps

- Back door trim (Refer to GROUP 42.)
- 1. Cover
- 2. Wiper arm and blade assembly
- 3. Grommet
- 4. Wiper motor assembly



Washer tank and washer motor removal

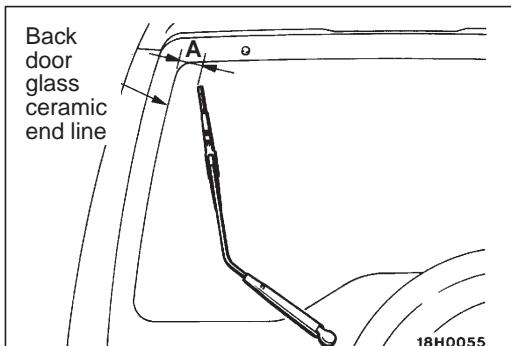
- 5. Washer tank and washer motor (Refer to P.51-11.)

Rear washer hose removal steps

- Rear seat (Refer to GROUP 52A.)
- Scuff plate and quarter trim (Refer to GROUP 52A.)
- Headlining (Refer to GROUP 52A.)
- 6. Washer nozzle
- 7. Washer hose

NOTE

For removal and installation of the column switch assembly (wiper and washer switch), refer to GROUP 37A – Steering Wheel and Shaft.

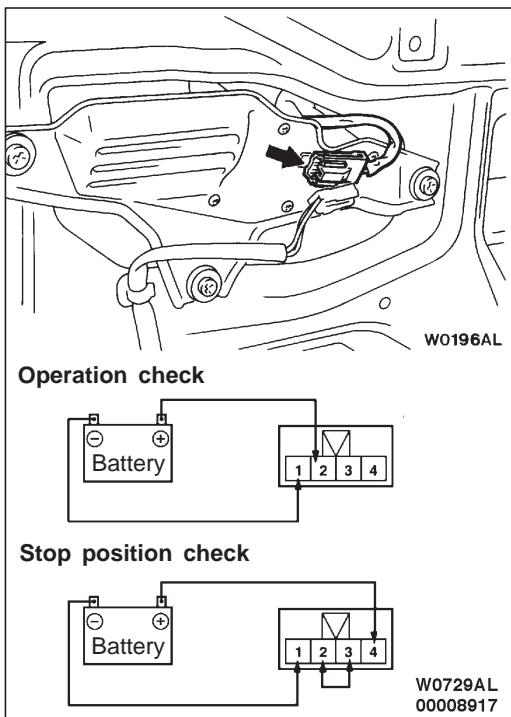
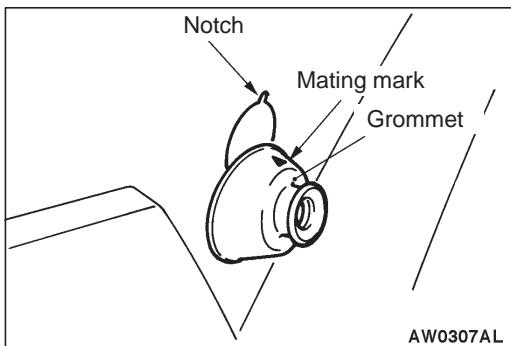


INSTALLATION SERVICE POINT

►A◀ WIPER ARM AND BLADE ASSEMBLY INSTALLATION

Install so that the wiper blade is positioned at the shown position when the wiper arm stops.

Standard value (A): 33 ± 5 mm



INSPECTION

WIPER MOTOR CHECK

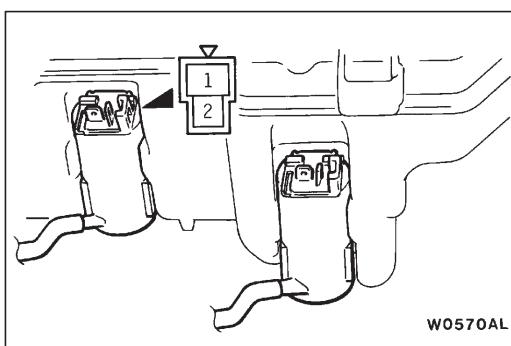
Disconnect the wiring harness connector, and check the wiper motor operation with the wiper motor remaining installed to the body.

Wiper Motor Operation

Connect a battery to the wiper motor as shown in the illustration and check the motor operation.

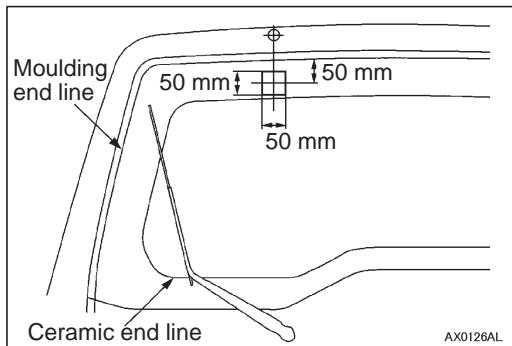
Wiper Motor Stop Position

1. Operate the wiper motor, and then disconnect the battery to stop the wiper motor while the wiper motor is operating.
2. Reconnect the battery as shown in the illustration, and confirm that after the motor starts turning, it stops at the automatic stop position.



WASHER MOTOR CHECK

1. With the washer motor installed to the washer tank, fill the washer tank with water.
2. Check that the water squirts out strongly when system voltage is applied to terminal 2 and terminal 1 is earthed.



WASHER FLUID EJECTION POINT CHECK

Adjust the ejection angle by moving the nozzle.

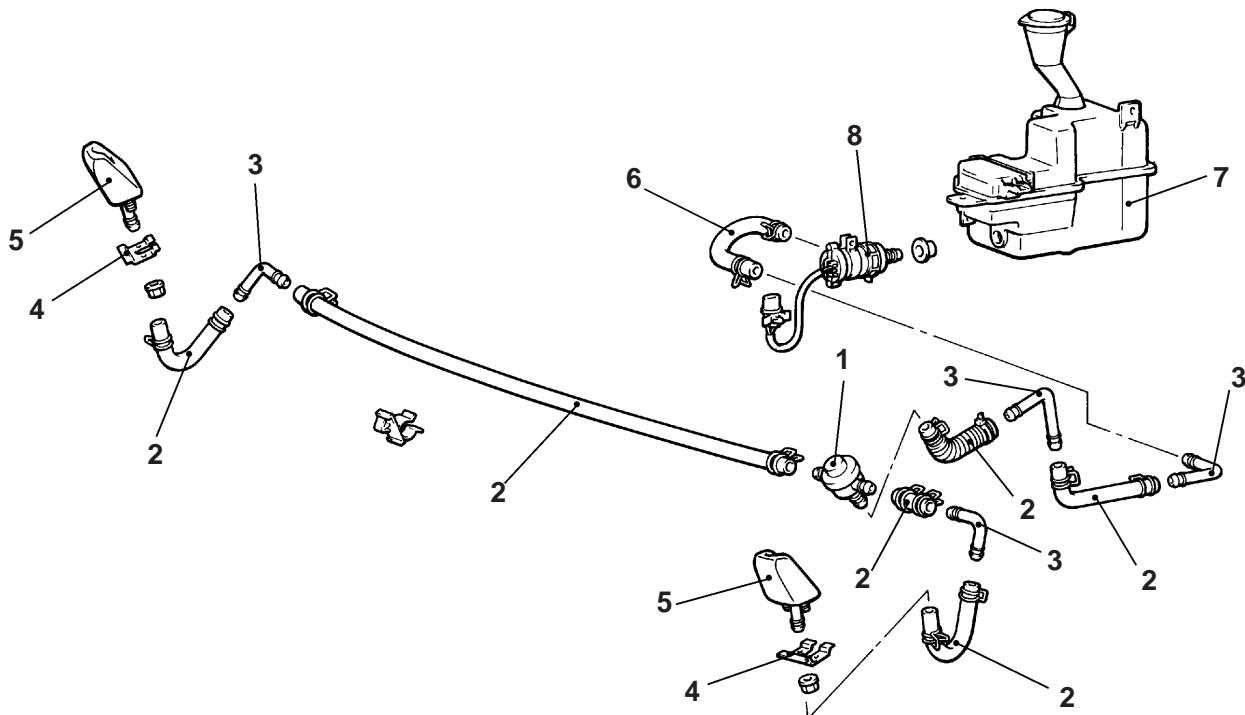
HEADLAMP WASHER

TROUBLESHOOTING

The headlamp washer is controlled by the Smart Wiring System (SWS). For troubleshooting, refer to GROUP 54B – Troubleshooting.

HEADLAMP WASHER

REMOVAL AND INSTALLATION



AW1249AL

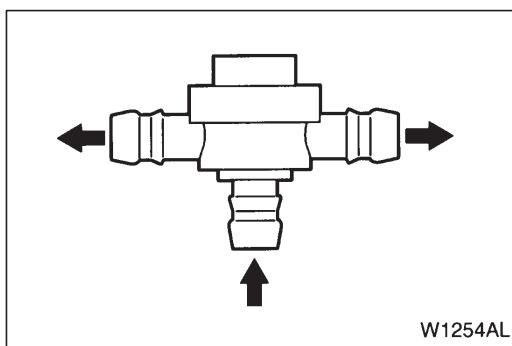
Nozzle and check valve removal steps

- Draining of washer fluid
- Front bumper (Refer to P.51-2.)

1. Check valve
2. Washer hose
3. Joint
4. Bracket
5. Nozzle

Washer tank removal steps

- Draining of washer fluid
- Air cleaner
- Intake duct
- 6. Washer hose
- 7. Washer tank assembly
- 8. Headlamp washer motor

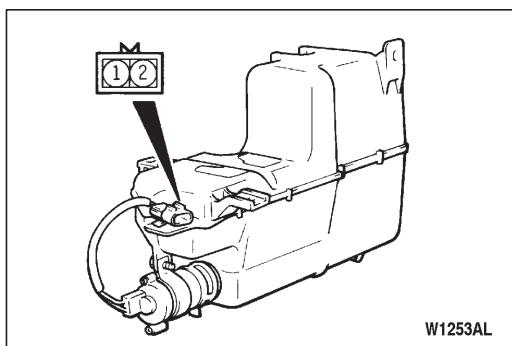


INSPECTION

CHECK VALVE CHECK

Apply pressure to the inlet of the check valve to check its opening pressure.

Opening pressure: 78 kPa

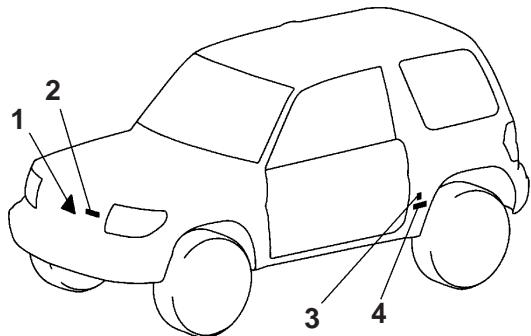


HEADLAMP WASHER MOTOR CHECK

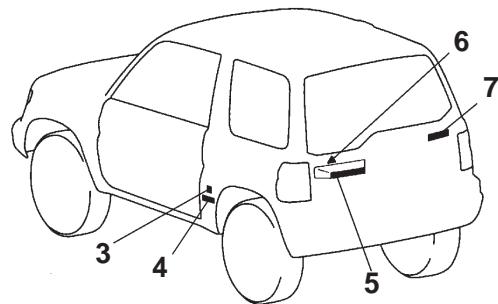
1. With the washer motor installed to the washer tank, fill the washer tank with water.
2. Connect battery (+) and (-) cables to terminals (1) and (2) respectively to see that the washer motor runs and water is injected.

MARKS

REMOVAL AND INSTALLATION



AW0242AL



AW0243AL

- 1. Three diamonds mark
- 2. "GDI" mark
- 3. Pininfarina mark
- 4. Pininfarina logo mark

- A 5. Vehicle name decal
- A 6. Three diamonds mark
- A 7. "GDI" mark

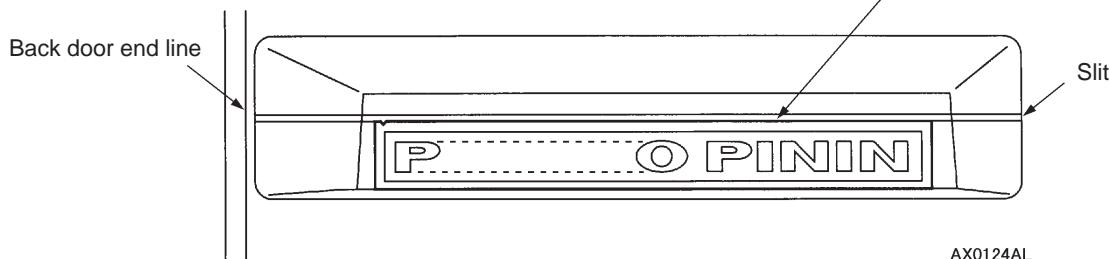
INSTALLATION SERVICE POINT

►A◀INSTALLATION OF MARKS

1. APPLICATION POSITION

(5) Vehicle name decal <Vehicles except for Spain>

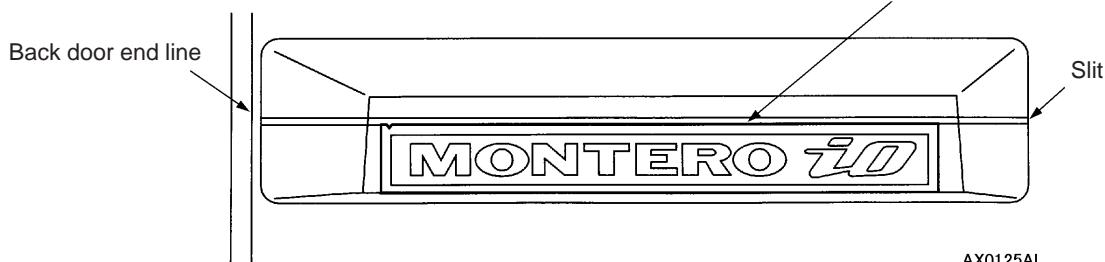
Align the application tape end with this slit.



AX0124AL

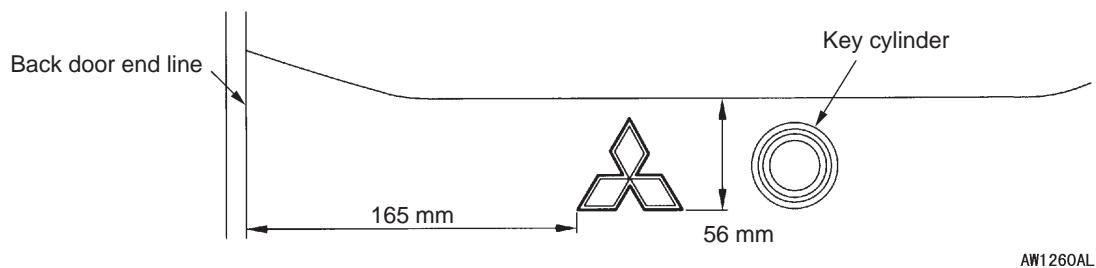
<Vehicles for Spain>

Align the application tape end with this slit.



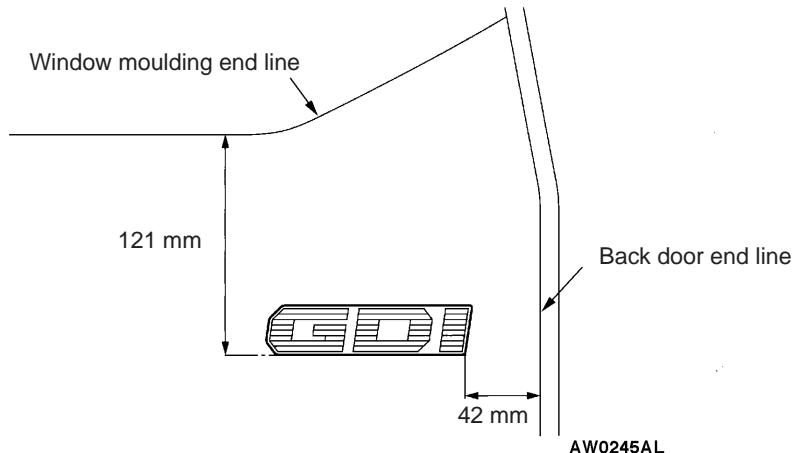
AX0125AL

(6) Three diamonds mark



AW1260AL

(7) GDI mark



AW0245AL

2. INSTALLATION PROCEDURE

- (1) Clean the mark installation surfaces on the body with unleaded petrol.
- (2) Peel off the backing paper from the reverse side of the marks, and then attach the marks to the vehicle body so that they fit properly into position.

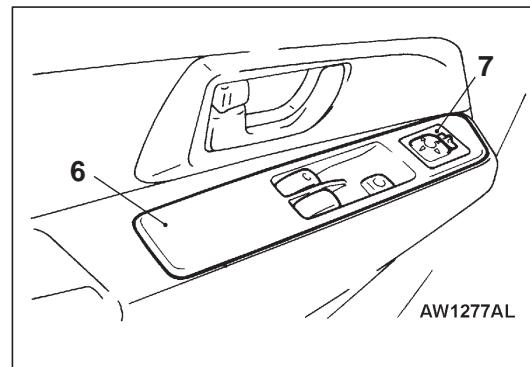
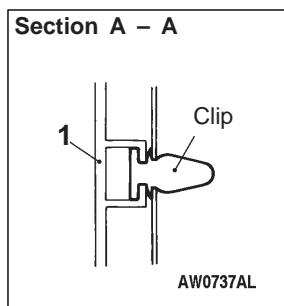
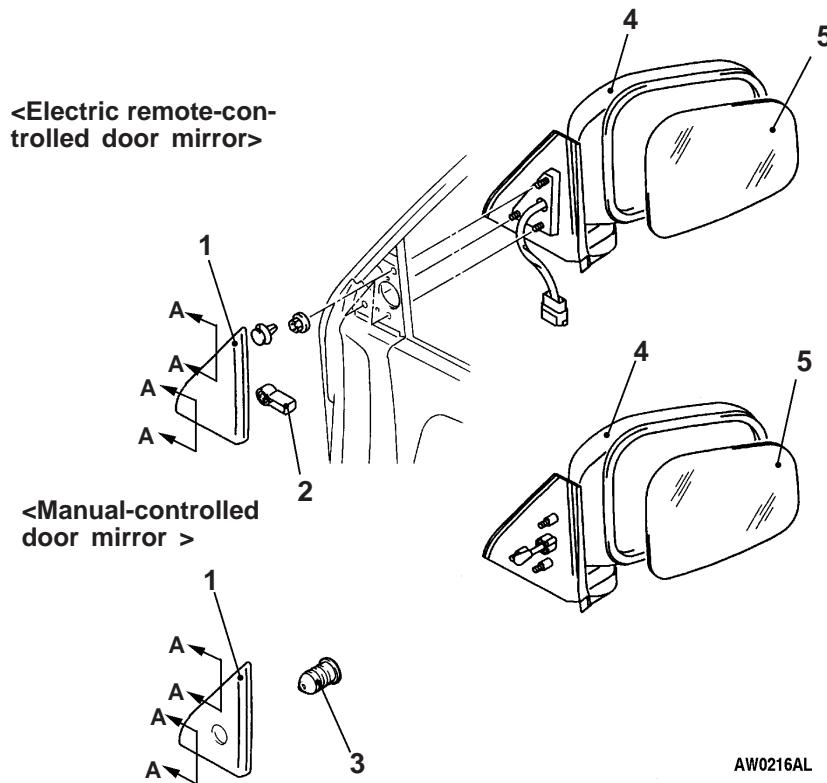
Caution

When attaching the marks, the surrounding temperature should be 20–38°C and the air should be completely free from dust.

If the surrounding temperature is lower than 20°C, the marks and the places on the body where the marks are to be attached should be heated to 20–38°C. When the marks are attached, care should be used not to allow bubble to enter between tape and the body.

OUTSIDE DOOR MIRROR

REMOVAL AND INSTALLATION



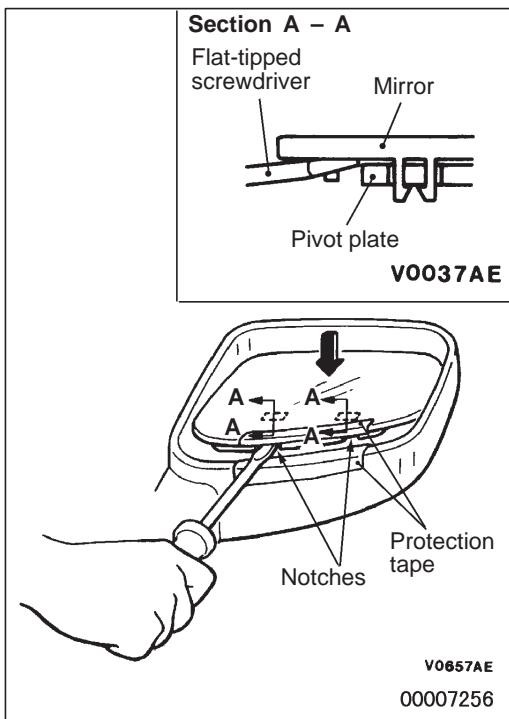
Door mirror removal steps

1. Delta inner cover
2. Clip
3. Boot
4. Mirror assembly
5. Mirror



Electric remote-controlled mirror switch removal steps

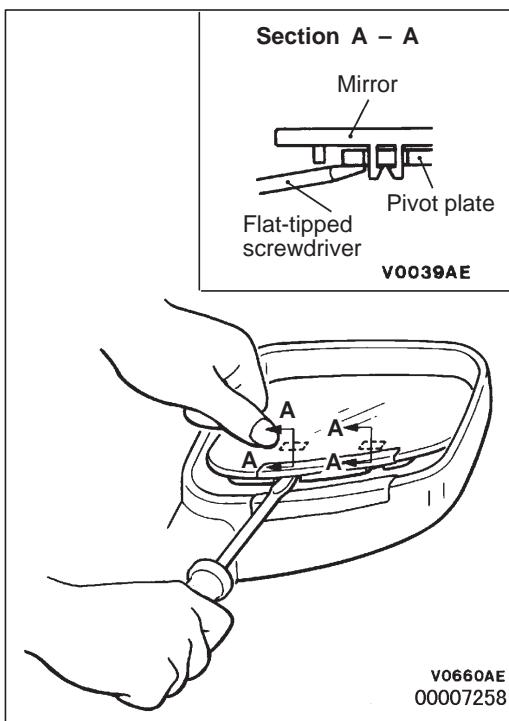
6. Power window and remote-controlled mirror switch assembly (Refer to GROUP 42 – Door trim and water proof film.)
7. Electric remote-controlled mirror switch



REMOVAL SERVICE POINT

◀▶ MIRROR REMOVAL

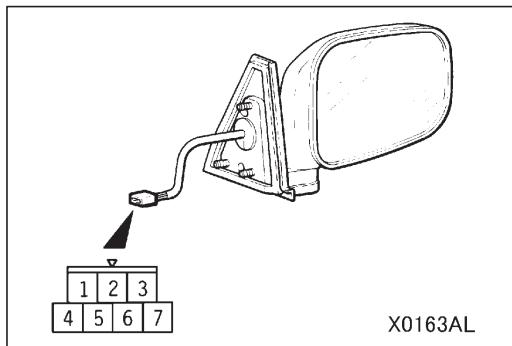
Using a hand, push the upper part of mirror to tilt it. Apply a protection tape as shown in the illustration. Insert a flat-tipped screwdriver between a notch behind the mirror and the pivot plate, and then pry off the lower part of mirror from the pivot plate.



INSTALLATION SERVICE POINT

▶◀ MIRROR INSTALLATION

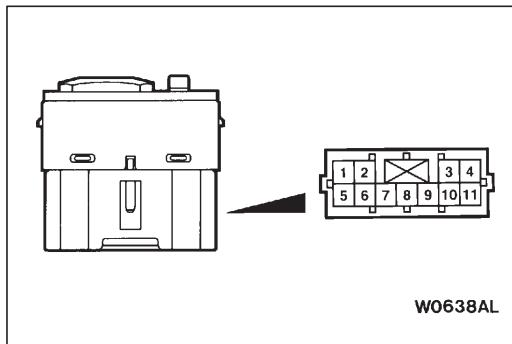
While holding the pivot plate with a flat-tipped screwdriver, push the mirror to engage the clips at its lower part with the pivot plate.



INSPECTION

ELECTRIC REMOTE-CONTROLLED MIRROR OPERATION CHECK

Battery connection terminal					Direction of operation	
1	2	3	6	7		
⊕		⊖			UP	
⊖		⊕			DOWN	
⊕	⊖				LEFT	
⊖	⊕				RIGHT	
				⊖	⊕	Vehicles with heater mirror



ELECTRIC REMOTE-CONTROLLED MIRROR SWITCH CONTINUITY CHECK

Switch	Switch position	Terminal No.									
		Left mirror					Right mirror				
		1	6	9	10	11	1	2	3	6	9
Adjustment switch	UP	⊖	⊖	⊖			⊖	⊖	⊖	⊖	⊖
	DOWN	⊖	⊖	⊖			⊖	⊖	⊖	⊖	⊖
	RIGHT	⊖	⊖	⊖	⊖		⊖	⊖		⊖	⊖
	LEFT	⊖	⊖	⊖	⊖		⊖	⊖		⊖	⊖

NOTES