

# EXTERIOR

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E51AA--

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## SPECIFICATIONS

## GENERAL SPECIFICATIONS

## WINDSHIELD WIPERS AND WASHER

Items	Specifications
Wiper motor	
Type	Ferrite magnet field motor
Revolution under load r/min [at 1 Nm (0.1 kgm, 0.7 ft.lbs.) load]	
Low speed	44–52
High speed	63–77
No load minimum start voltage V	8
No load current A	3.5
Wiper blade	
Wiping angle	
Driver's side	81.0°–84.0°
Passenger's side	98.0°–101.0°
Wiper blade length mm (in.)	
Vehicles for Europe and Australia	434 (17)
Vehicles for General Export	425.5 (16.8)
Window washer motor and pump	
Motor type	Direct current ferrite magnet type
Pump type	Centrifugal type
Power consumption A	3.0 or less
Allowable period of continuous use sec.	
With washer fluid	Max. 20
Nozzle jet pressure kPa (kg/cm <sup>2</sup> , psi)	70 (0.7, 12.8) or more
Tank capacity lit. (U.S.qts., Imp.qts)	1.5 (1.6, 1.3) or more

## REAR WIPER

Items	Specifications
Wiper motor	
No load characteristic	
Oscillating speed c/min.	50–60
Current A	2 or less
Wiper blade	
Wiping angle	105°–111°
Blade length mm (in.)	
Vehicles for Europe and Australia	384 (15.1)
Vehicles for General Export	359 (14.1)
Window washer motor and pump	
Motor type	Direct current ferrite magnet type
Pump type	Centrifugal type
Power consumption A	3.8 or less
Allowable period of continuous use sec.	
With washer fluid	Max. 60
Empty operation	Max. 20
Nozzle jet-spray pressure kPa (kg/cm <sup>2</sup> , psi)	120 (1.2, 17.1) or more
Tank capacity lit. (U.S.qts., Imp.qts.)	1.2 (1.3, 1.1) or more

**HEADLAMP WASHER (VEHICLES FOR EUROPE)**

Items	Specifications
Washer motor and pump	
Motor type	Direct current ferrite magnet type
Pump type	Centrifugal type
Power consumption	21 or less
Nozzle injection pressure	180 (1.8, 25.6) or more
Tank capacity	3.5 (3.7, 3.1) or more
Check valve	
Valve opening and closing pressure	50 – 110 (0.5 – 1.1, 7.1 – 15.6)

**SERVICE SPECIFICATIONS**

E51CB--

Items	Specifications
Standard value	
Windshield wiper blade stopping position (distance between blade tip and front deck garnish)	mm (in.) 35 – 45 (1.4 – 1.8)
Rear wiper blade stopping position (distance between blade tip and liftgate garnish)	mm (in.) 25 – 35 (1.0 – 1.4)

**TORQUE SPECIFICATIONS**

E51CC --

Items	Nm	kgm	ft.lbs.
Grille guard (Vehicles for General Export)	30 – 40	3.0 – 4.0	21 – 28
Mud guard	2.5 or less	0.25 or less	1.8 or less
Windshield wiper arm locking nuts	10 – 16	1.0 – 1.6	7 – 12
Windshield wiper pivot shaft installing nuts	10 – 16	1.0 – 1.6	7 – 12
Rear wiper arm locking nut	6 – 9	0.6 – 0.9	4.3 – 6.5



**SEALANTS AND ADHESIVES**

E51CE --

Items	Specified sealants and adhesives	Remarks
Moulding end	3M ATD Part No. 8001 or equivalent	Drying adhesive

**SPECIAL TOOLS**

E51DA --

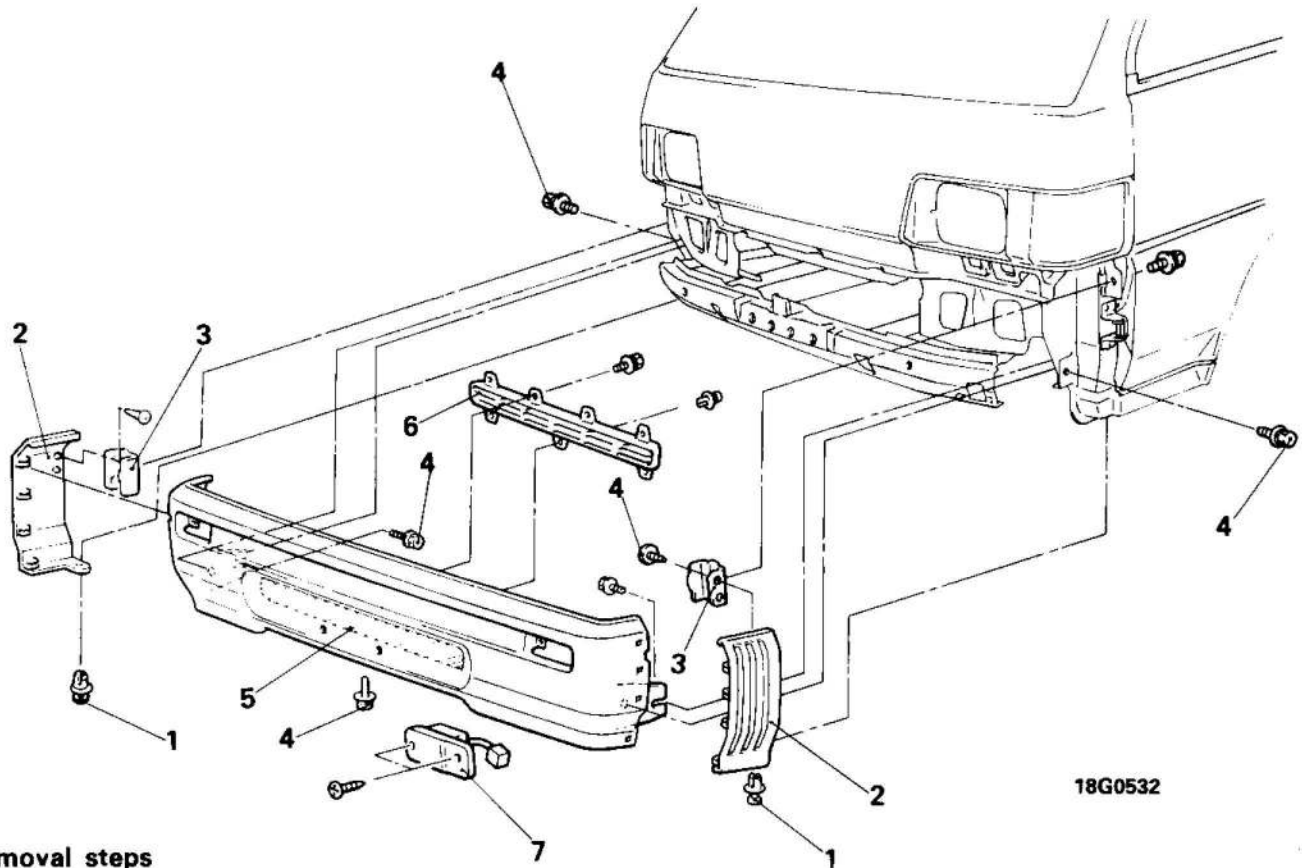
Tool (Number and name)	Use	Tool (Number and name)	Use
MB990784 Ornament remover 	Removal of the moulding and garnish	MB990528 Stripe tape spatula 	Bonding of the stripe tape

## FRONT BUMPER (TYPE A)

## REMOVAL AND INSTALLATION

**Pre-removal Operation (Vehicles with grille guard)**

- Removal of grille guard and bumper guard  
(Refer to P.51 – 15.)

**Removal steps**

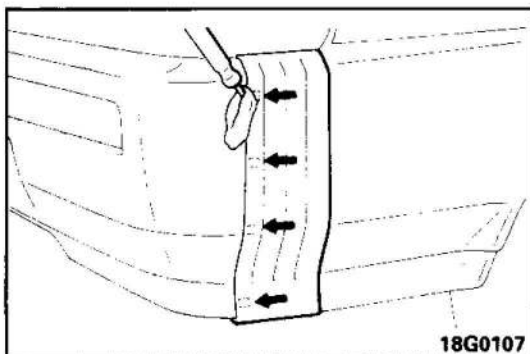
1. Trim bracket clip
- ◆◆ 2. Front bumper side
- ◆◆ 3. Front side bracket
- ◆◆ 4. Front bumper center assembly attaching bolt
5. Front bumper center assembly
6. Front bumper grille <4WD>
7. Front combination lamp  
(Vehicles with crystal light roof)

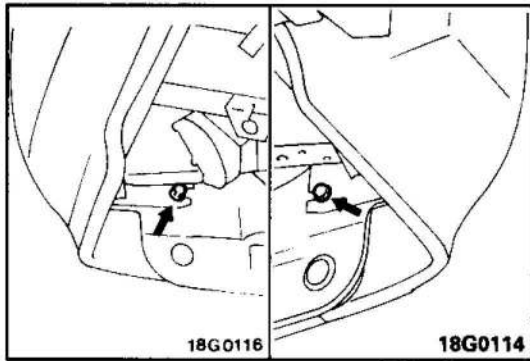
**NOTE**

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".

**SERVICE POINTS OF REMOVAL****2. REMOVAL OF FRONT BUMPER SIDE/3. FRONT SIDE BRACKET**

Pry off front bumper side clips (4) with screwdriver etc.





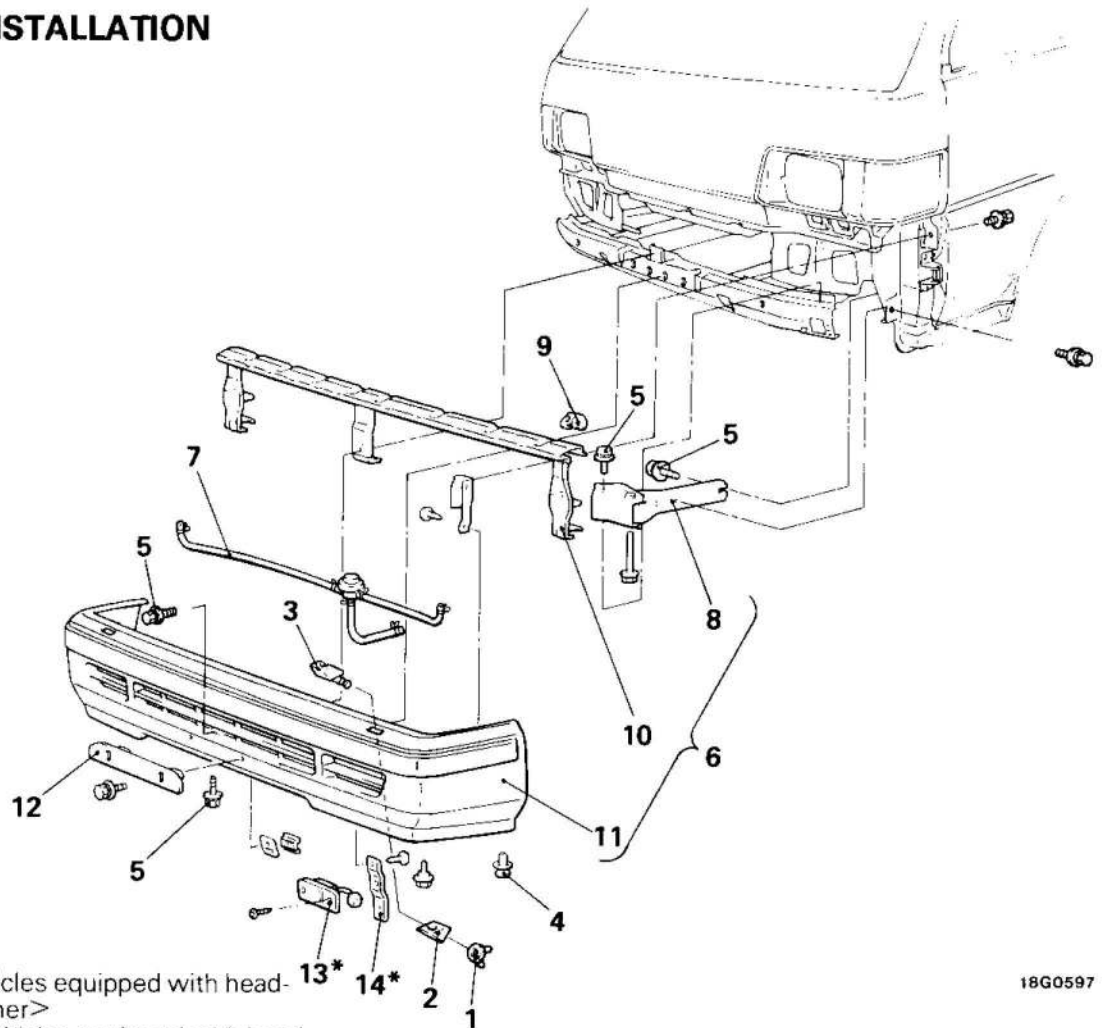
#### 4. REMOVAL OF FRONT BUMPER CENTER ASSEMBLY ATTACHING BOLTS

As a safety precaution, first remove front bumper center assembly installing bolt of front outer side seal.

## FRONT BUMPER (TYPE B)

E51GAAH

## REMOVAL AND INSTALLATION



## Removal steps

1. Nut <Vehicles equipped with headlamp washer>
2. Collar <Vehicles equipped with headlamp washer>
3. Headlamp washer nozzles <Vehicles equipped with headlamp washer>
4. Trim bracket clip
5. Front bumper assembly attaching bolt
6. Front bumper assembly
7. Hose assembly <Vehicles equipped with headlamp washer>
8. Stay assembly
9. Clip
10. Beam bracket assembly
11. Front bumper face
12. Licence plate bracket assembly
- 13\*. Front combination lamp assembly
- 14\*. Lamp bracket

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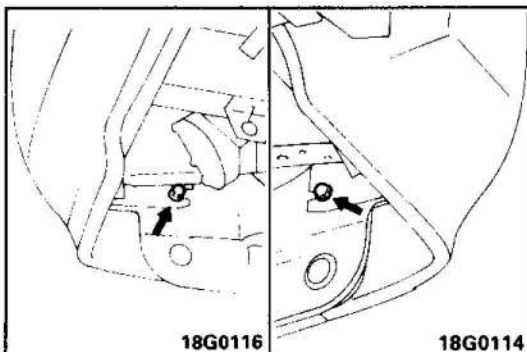
## NOTE

- (1) Reverse the removal procedures to reinstall.
- (2)  $\blacktriangleleft\blacktriangleright$  : Refer to "Service Points of Removal".
- (3) \* : Only for the model that the front combination lamp is of type incorporating the bumper.

## SERVICE POINTS OF REMOVAL

## 5. REMOVAL OF FRONT BUMPER ASSEMBLY ATTACHING BOLT

As a safety precaution, first remove front bumper assembly installing bolt of front outer side seal.

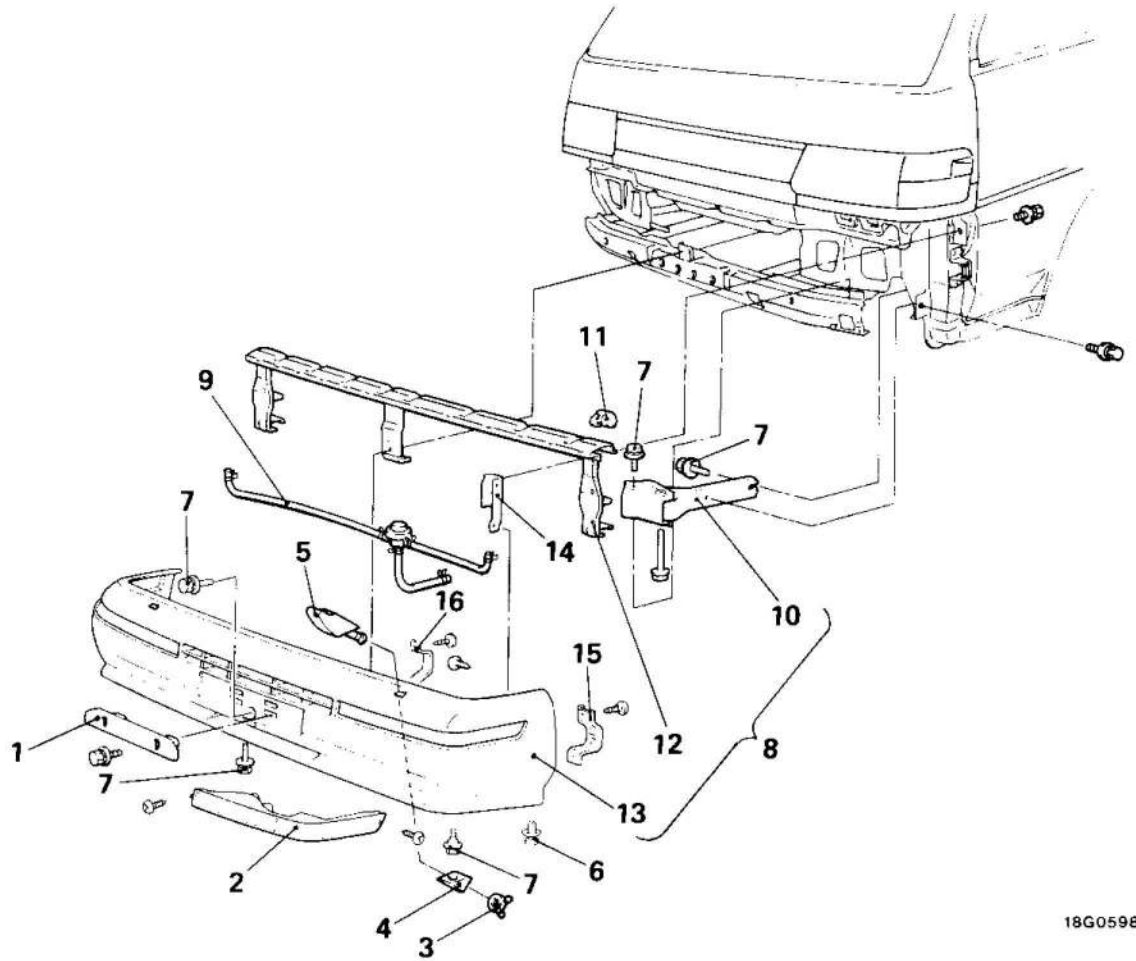


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**FRONT BUMPER (TYPE C)  
REMOVAL AND INSTALLATION**

E51GABH



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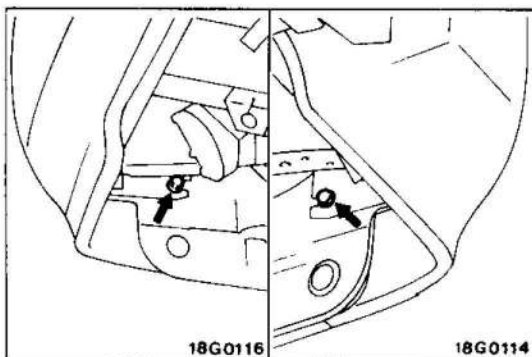
**Removal steps**

1. Licence plate bracket assembly
2. Front combination lamp assembly
3. Nut <Vehicles equipped with headlamp washer>
4. Collar <Vehicles equipped with headlamp washer>
5. Washer nozzles <Vehicles equipped with headlamp washer>
6. Trim bracket clip
- ◆◆ 7. Front bumper assembly attaching bolts
8. Front bumper assembly
9. Hose assembly <Vehicles equipped with headlamp washer>
10. Stay assembly

11. Clip
12. Beam bracket assembly
13. Front bumper face
14. Side bracket
15. Lamp bracket (A)
16. Lamp bracket (B)

**NOTE**

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".



18G0116

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**SERVICE POINTS OF REMOVAL**

**7. REMOVAL OF FRONT BUMPER ASSEMBLY ATTACHING BOLT**

As a safety precaution, first remove front bumper assembly installing bolt of front outer side seal.

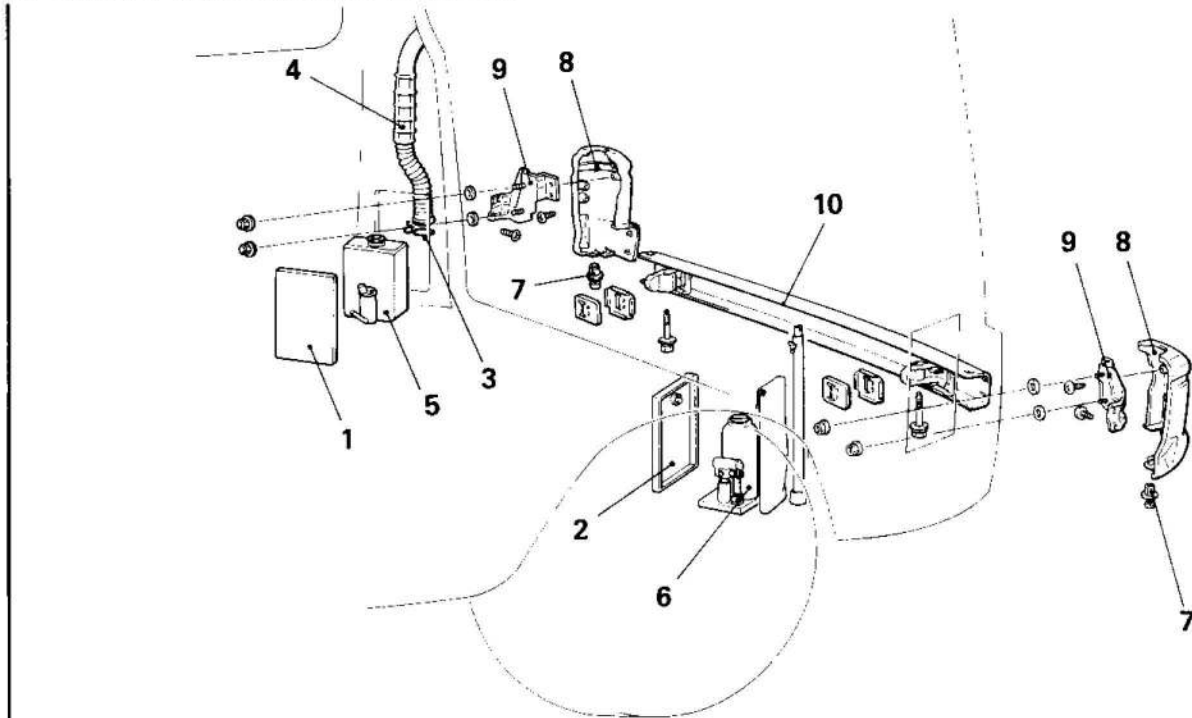
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NOTE



**REAR BUMPER (TYPE A)  
REMOVAL AND INSTALLATION**



**Removal steps**

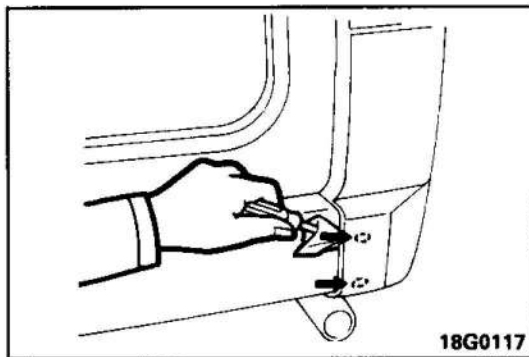
1. Lid (R.H.)
2. Lid (L.H.)
3. Clip (vehicles with a rear wiper)
4. Hose (vehicles with a rear wiper)
5. Washer tank assembly (vehicles with a rear wiper)
6. Stowage tool
7. Trim bracket clip

- ◆◆ 8. Rear bumper side
- ◆◆ 9. Rear side bracket
- ◆◆ 10. Rear bumper center

**NOTE**

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".

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18G0117

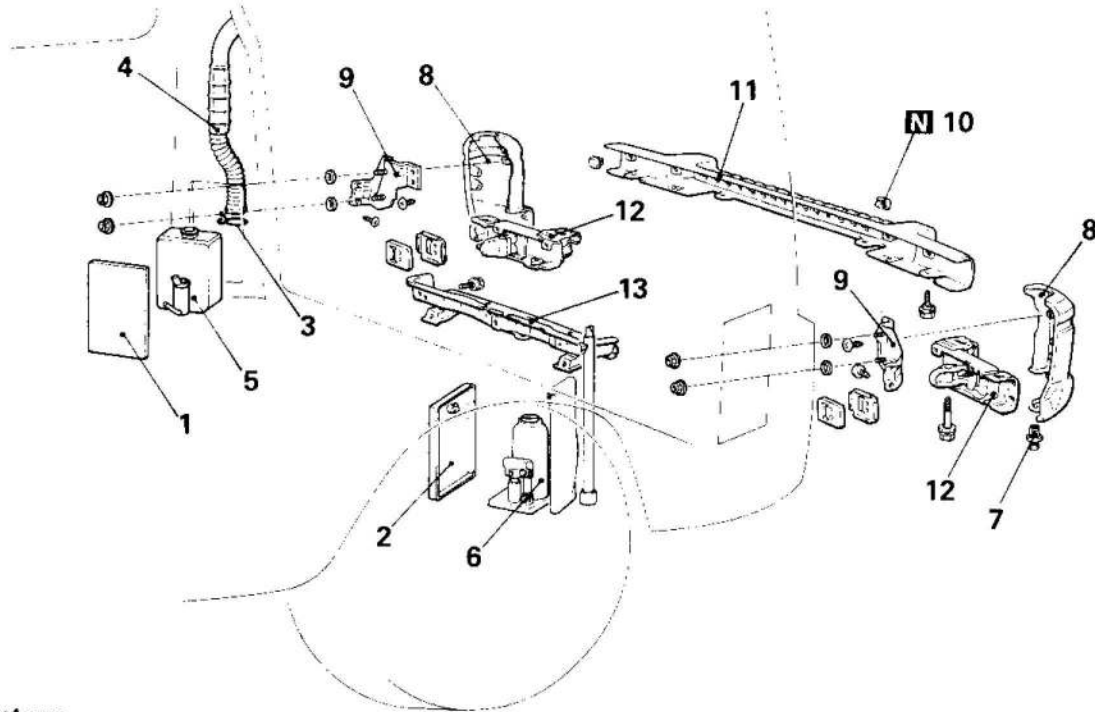
**SERVICE POINTS OF REMOVAL**

**8. REMOVAL OF REAR BUMPER SIDE/9. REAR SIDE BRACKET**

Pry off rear bumper side clips (2) with screwdriver etc.

## REAR BUMPER (TYPE B)

## REMOVAL



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## Removal steps

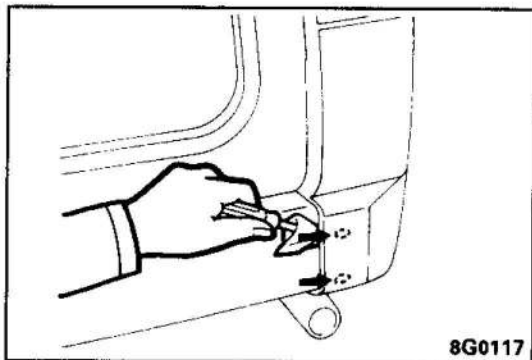
1. Lid (R.H.)
2. Lid (L.H.)
3. Clip (vehicles with a rear wiper)
4. Hose (vehicles with a rear wiper)
5. Rear washer tank assembly (vehicles with a rear wiper)
6. Stowage tool
7. Trim bracket clip
8. Rear bumper side



9. Rear side bracket
10. Clip
11. Rear bumper center
12. Rear bumper back beam assembly
13. Rear bumper reinforce

## NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) : Refer to "Service Points of Removal".
- (3) **N** : Non-reusable parts

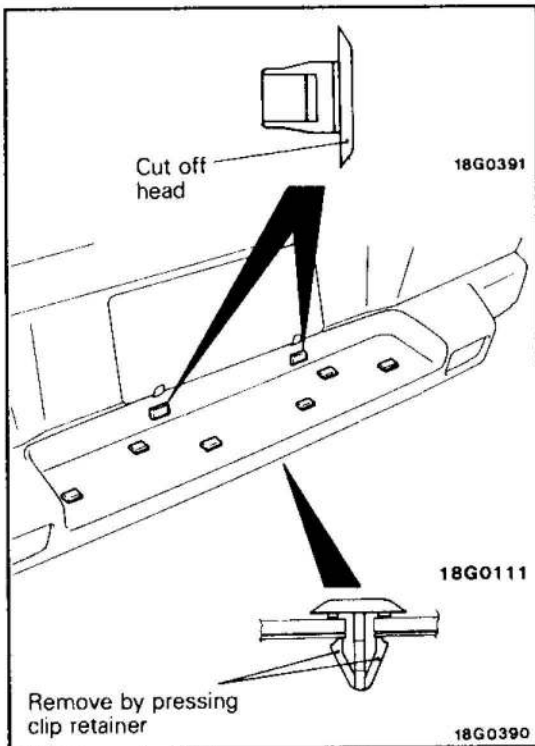


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## SERVICE POINTS OF REMOVAL

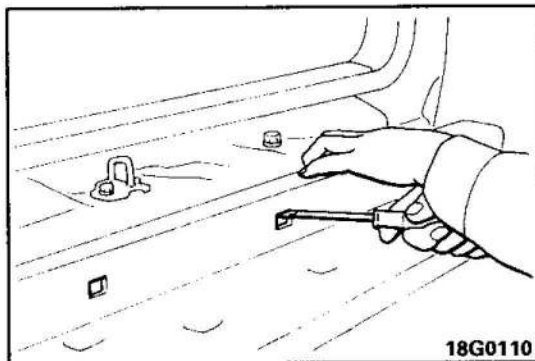
## 8. REMOVAL OF REAR BUMPER SIDE/9. REAR SIDE BRACKET

Pry off rear bumper side clips (2) with screwdriver etc.

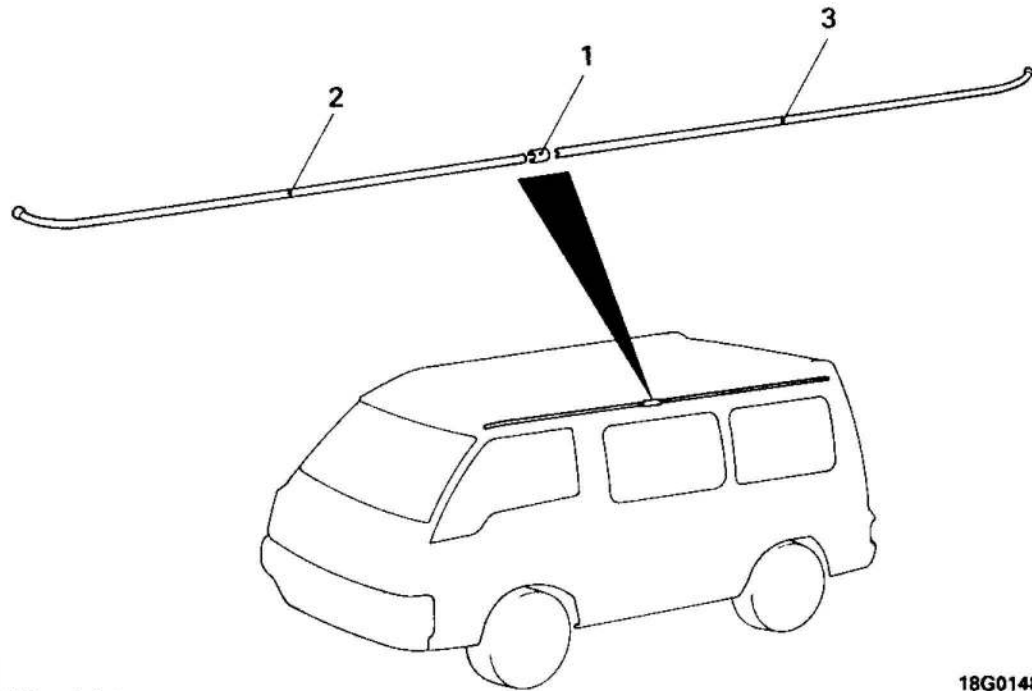
**10. REMOVAL OF CLIP**

Remove rear bumper center upper clips (6) by pressing clip retainers.

Remove rear bumper center side clips (2) by cutting off heads.

**11. REMOVAL OF REAR BUMPER CENTER/12. REAR BUMPER BACK BEAM ASSEMBLY**

Remove by inserting screwdriver into rear bumper center step clip installing hole (either of the side two) and push up.

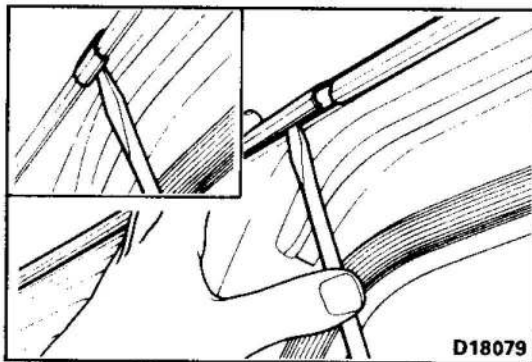
**DRIP MOULDING****REMOVAL AND INSTALLATION****Removal steps**

- ◆◆ ◆◆ 1. Moulding joint
- ◆◆ 2. Front drip moulding
- ◆◆ 3. Rear drip moulding

18G0148

**NOTE**

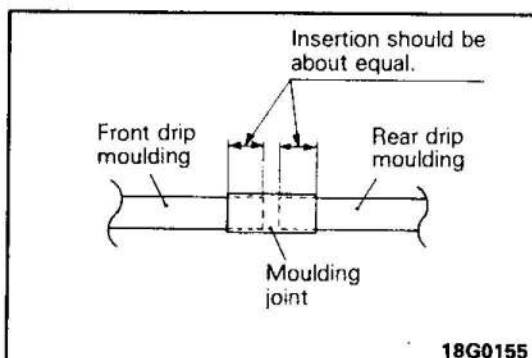
- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".
- (3) ◆◆ : Refer to "Service Points of Installation".



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**SERVICE POINTS OF REMOVAL****1. REMOVAL OF MOULDING JOINT/2. FRONT DRIP MOULDING/3. REAR DRIP MOULDING**

Remove moulding joint with screwdriver etc. Remove front and rear drip moulding.

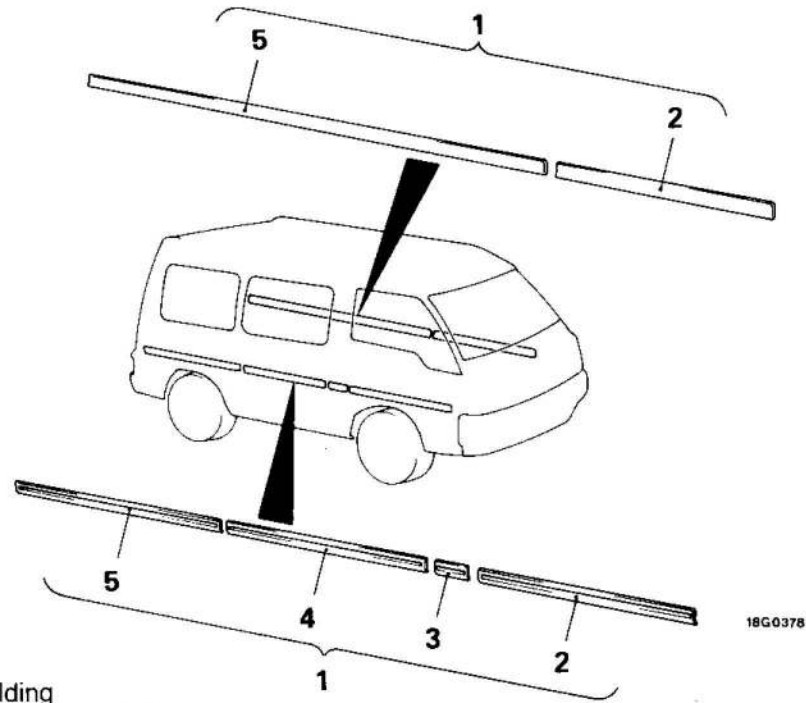


18G0155

**SERVICE POINTS OF INSTALLATION****1. INSTALLATION OF MOULDING JOINT**

Install moulding joint so that both rear and front drip mouldings are inserted equally.

**SIDE PROTECT MOULDING  
REMOVAL AND INSTALLATION**



18G0378

- ◆◆◆◆ 1. Side protect moulding
- 2. Front door side protect moulding
- 3. Fuel lid side protect moulding (passenger side only)
- 4. Rear door side protect moulding (passenger side only)
- 5. Quarter side protect moulding

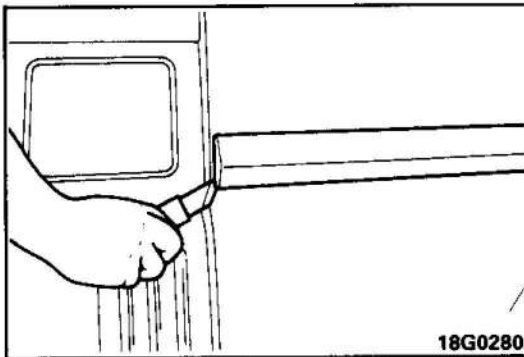
**NOTE**

- (1) ◆◆ : Refer to "Service Points of Removal".
- (2) ◆◆ : Refer to "Service Points of Installation".

**SERVICE POINTS OF REMOVAL**

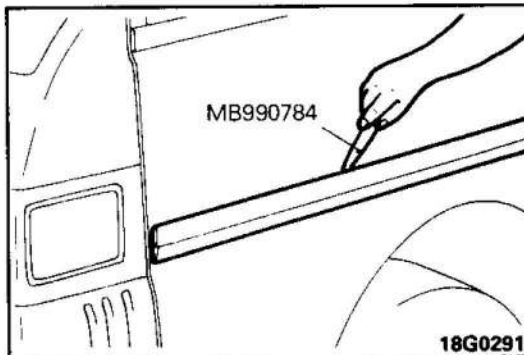
**1. REMOVAL OF SIDE PROTECT MOULDING**

- (1) Cut off adhesive from edge of side protect moulding with a cutter knife.

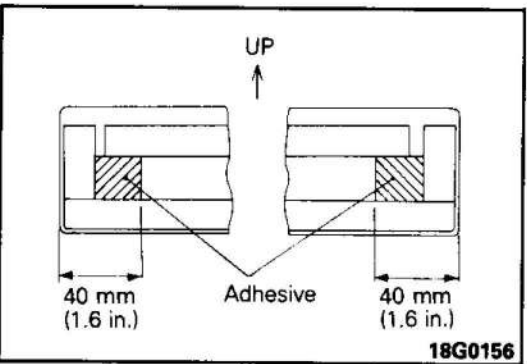
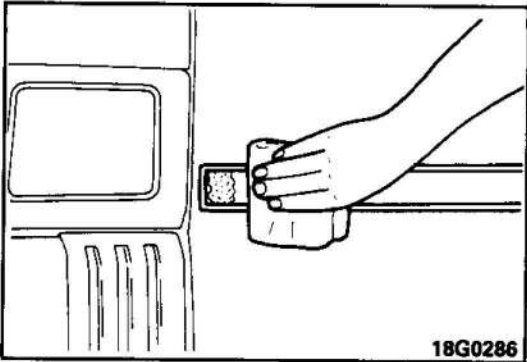
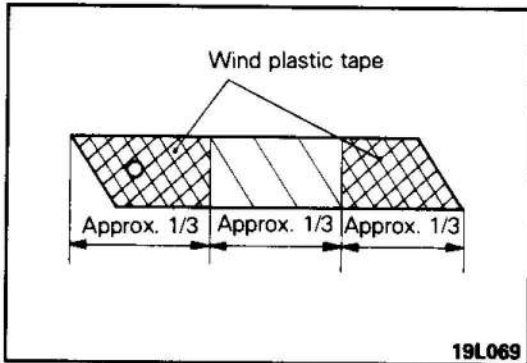


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- (2) Pry off side protect moulding with special tool.



18G0291



- (3) Scrape off remaining adhesive so that new moulding can be adhered with adhesive or double sided adhesive tape.

**Caution**

**Be careful not to scratch the body. Use touch-up paint to repair.**

**NOTE**

18 mm (0.7 in.) cutter knife blade is appropriate. For safety, wind plastic tape where held.

**SERVICE POINTS OF INSTALLATION**

**1. INSTALLATION OF SIDE PROTECT MOULDING**

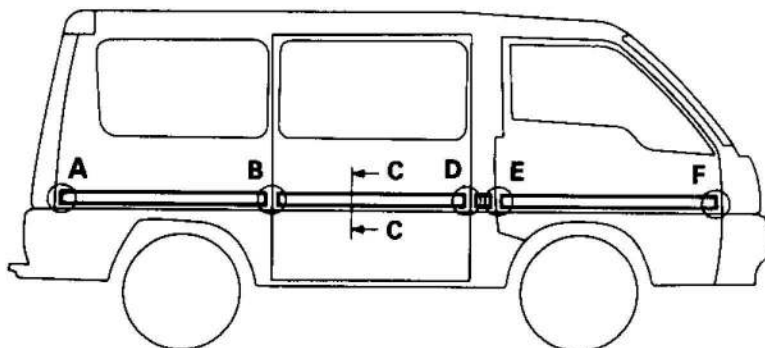
- (1) Use unleaded gasoline or toluene to wipe off oil from side protect moulding adhering area.

- (2) Remove protective paper from double sided tape on side protect moulding. Apply adhesive to places indicated on the figure.

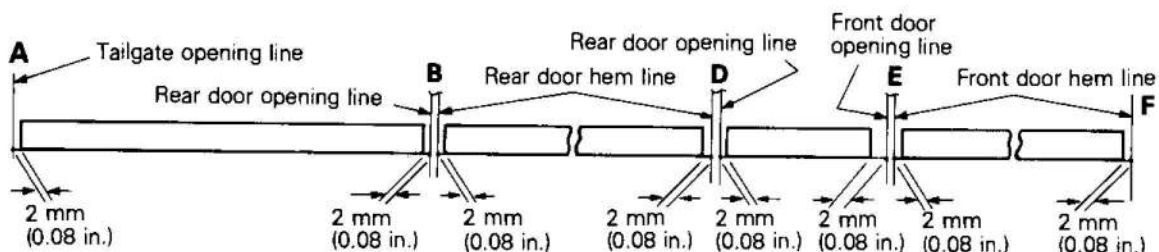
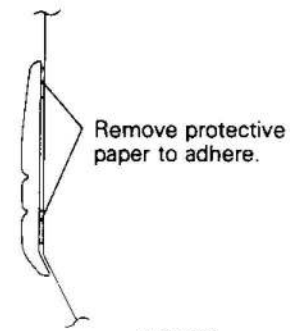
**Specified adhesive: 3M ATD Part No. 8001 or equivalent**

- (3) Adhere side protect moulding to following places.

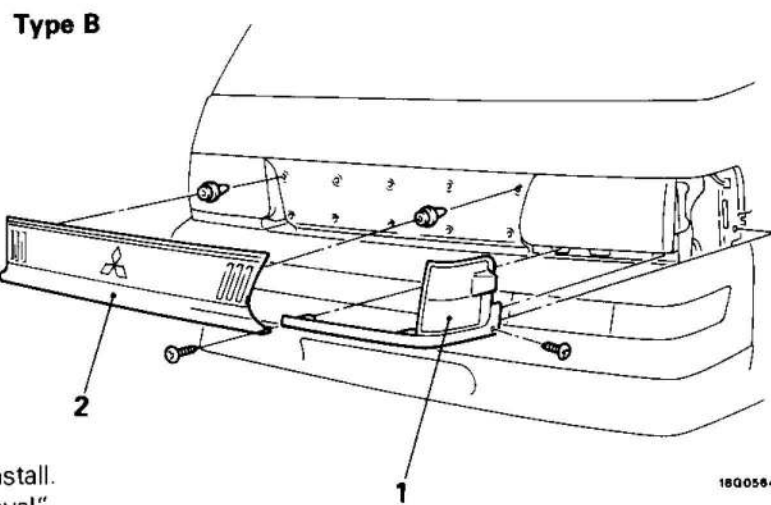
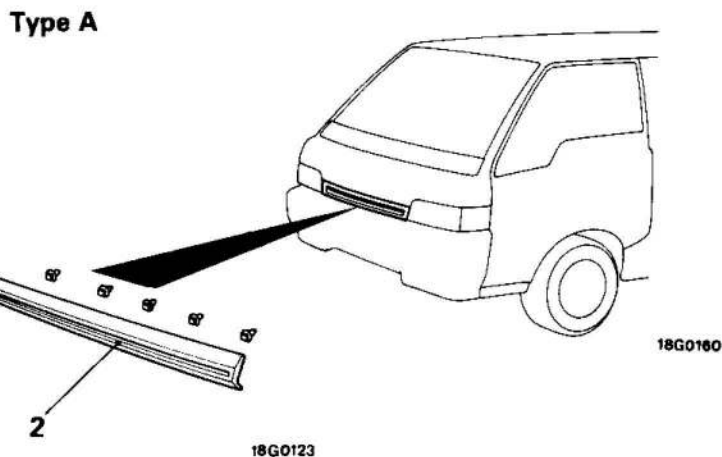
**Moulding adhesion locations**



**Cross-section C-C**



# FRONT END GARNISH REMOVAL AND INSTALLATION

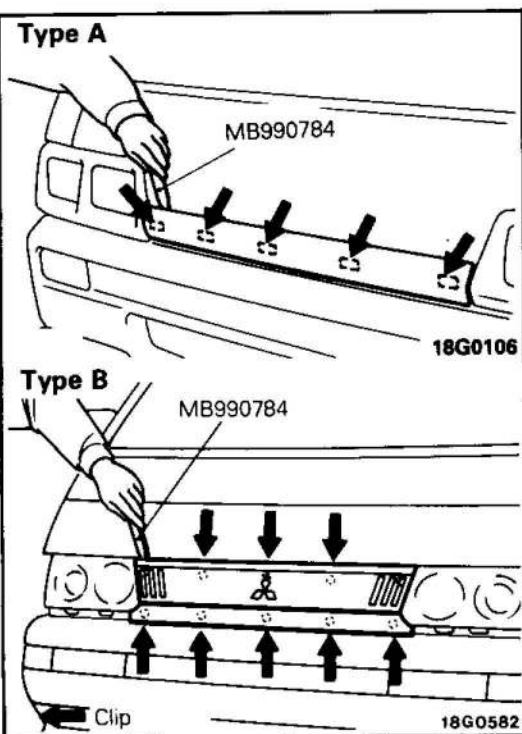


**Removal steps**

- 1. Front combination lamp
- ◆◆ 2. Front end garnish

**NOTE**

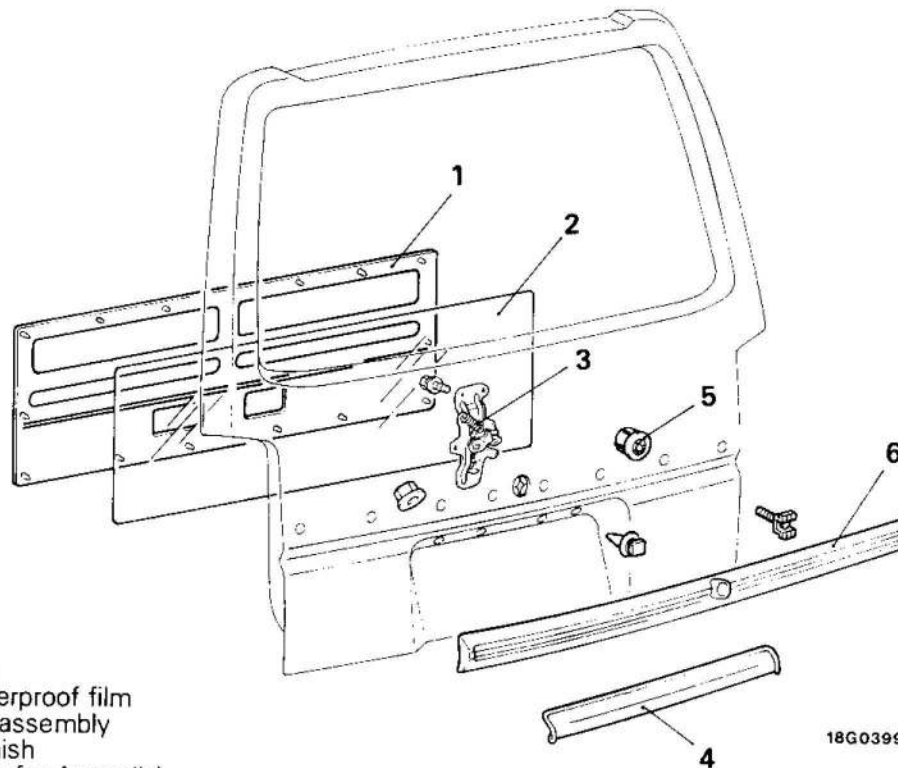
- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".



## SERVICE POINTS OF REMOVAL 2. REMOVAL OF FRONT END GARNISH

Pry front end garnish clips with special tool and remove front end garnish.

## TAILGATE GARNISH REMOVAL AND INSTALLATION

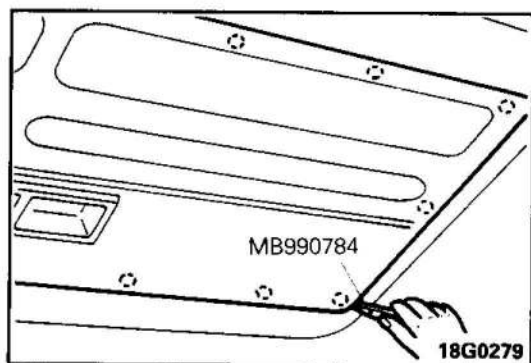


### Removal steps

- ◆◆ 1. Tailgate trim
- 2. Tailgate waterproof film
- 3. Tailgate link assembly
- 4. Tailgate garnish
- ◆◆ 5. Clip (vehicles for Australia)
- 6. Tailgate garnish, upper (vehicles for Australia)

### NOTE

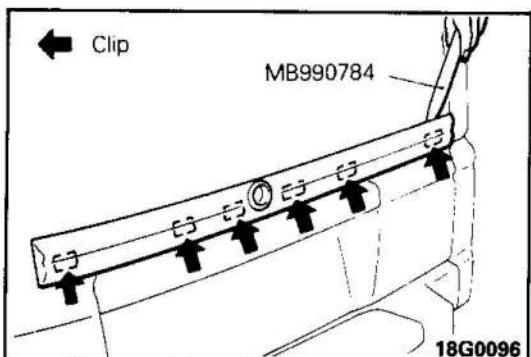
- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".



### SERVICE POINTS OF REMOVAL

#### 1. REMOVAL OF TAILGATE TRIM

Pry tailgate trim clip (14) with special tool and remove tailgate trim.



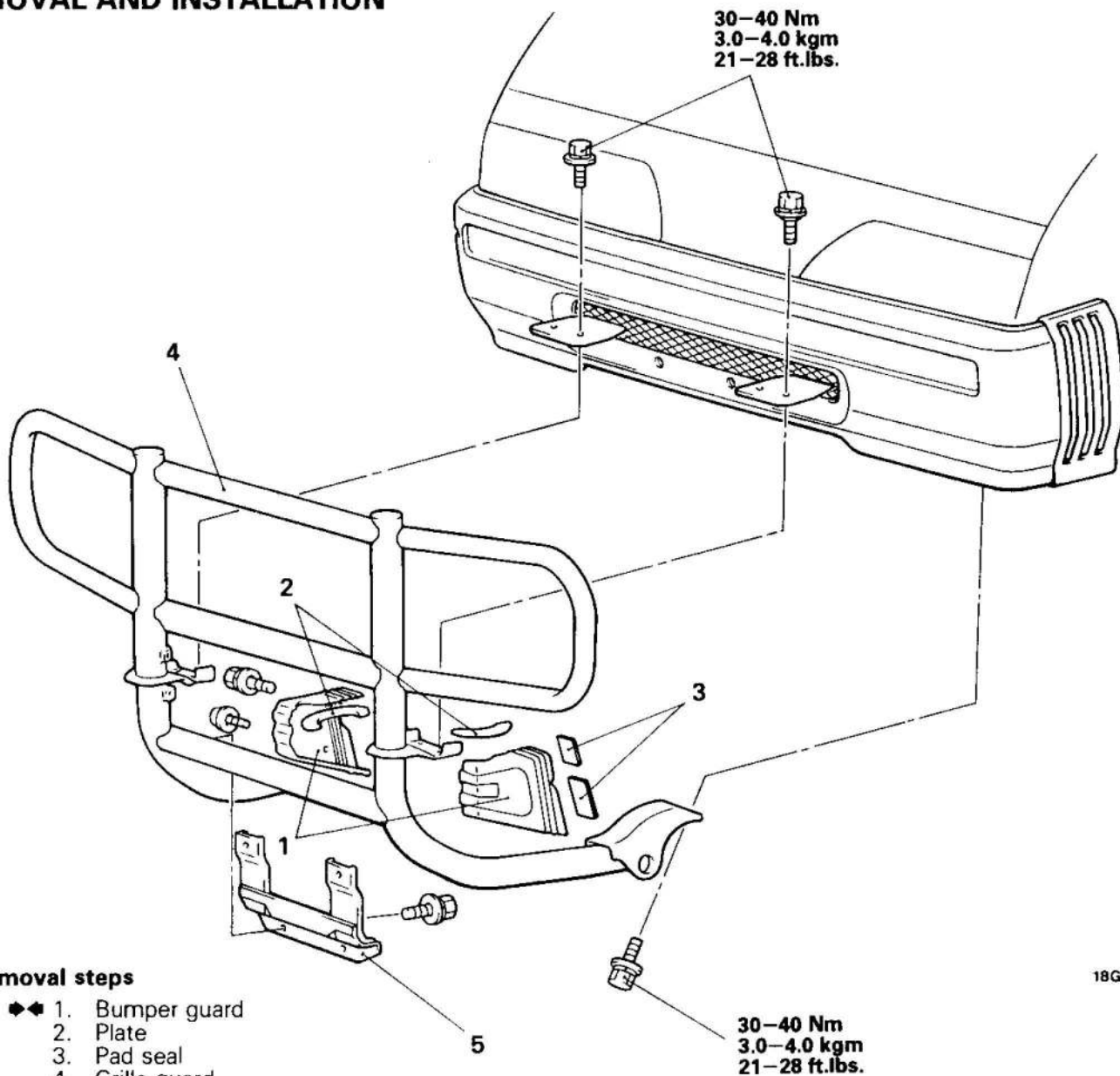
#### 6. REMOVAL OF TAILGATE GARNISH, UPPER

Pry tailgate garnish upper clips (6) with special tool and remove tailgate garnish upper.



# GRILLE GUARD

## REMOVAL AND INSTALLATION



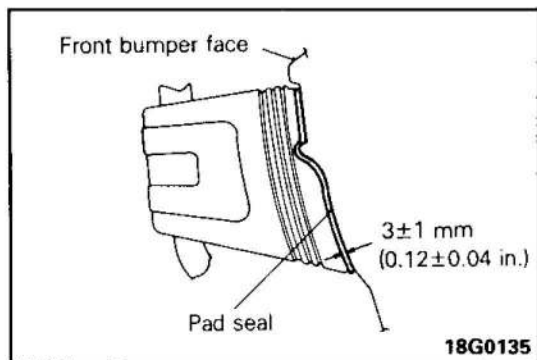
18G0398

### Removal steps

- ◆◆ 1. Bumper guard
- 2. Plate
- 3. Pad seal
- 4. Grille guard
- 5. License plate bracket

### NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆: Refer to "Service Points of Installation".

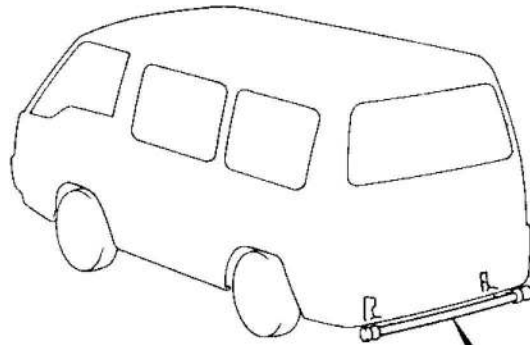


### SERVICE POINTS OF INSTALLATION

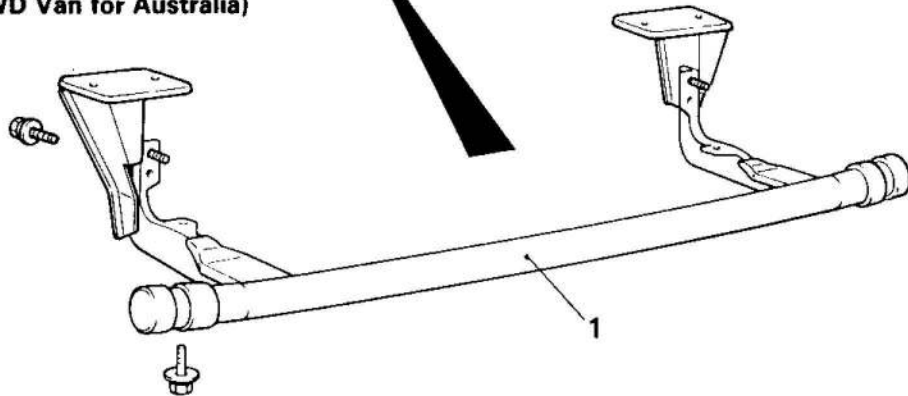
#### 1. INSTALLATION OF BUMPER GUARD

Push bumper guard so that pad seal is as the measurements shown in the figure and tighten bumper guard installing bolt.

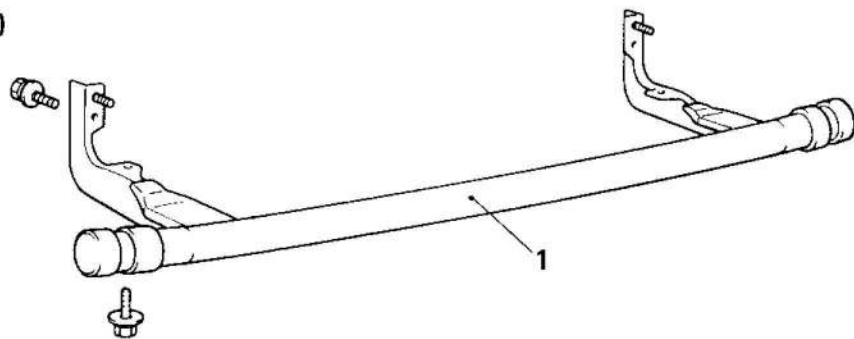
# REAR UNDER GUARD REMOVAL AND INSTALLATION



(4WD for Europe and 4WD Van for Australia)



(4WD Mini-bus for Australia)

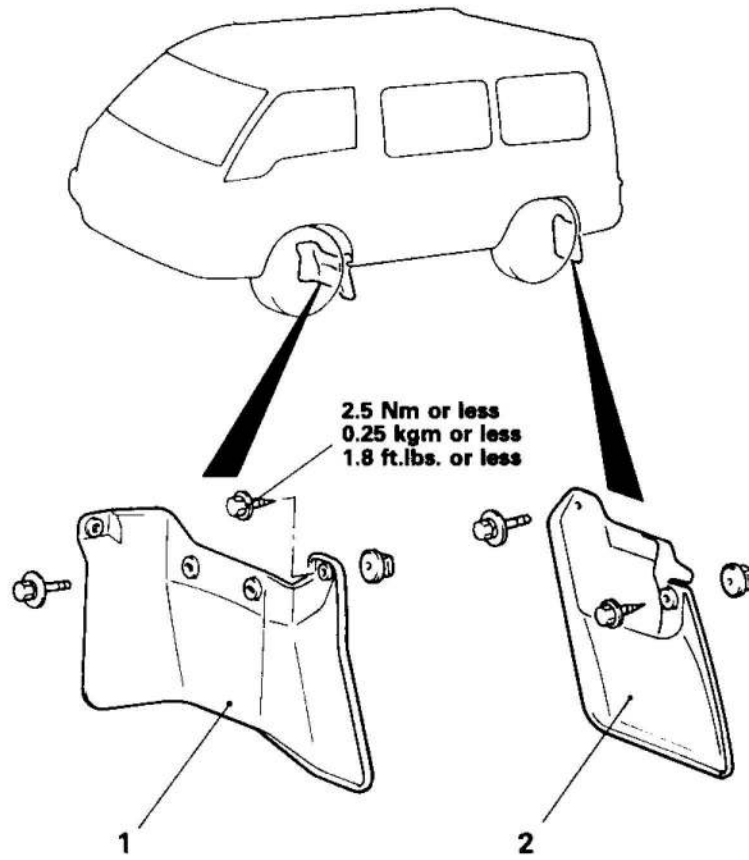


18G0411

1. Rear under guard

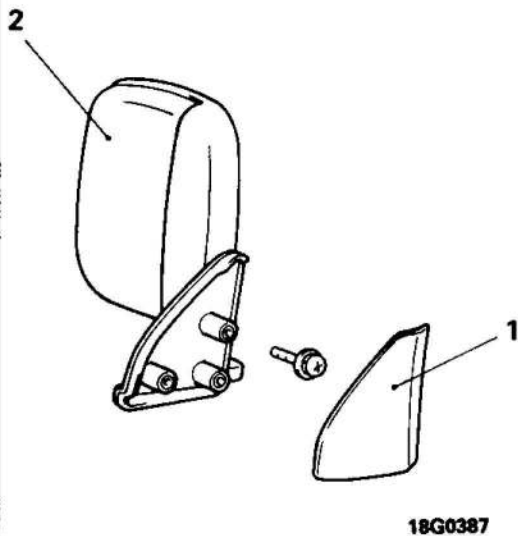
# MUD GUARD

## REMOVAL AND INSTALLATION



18G0161

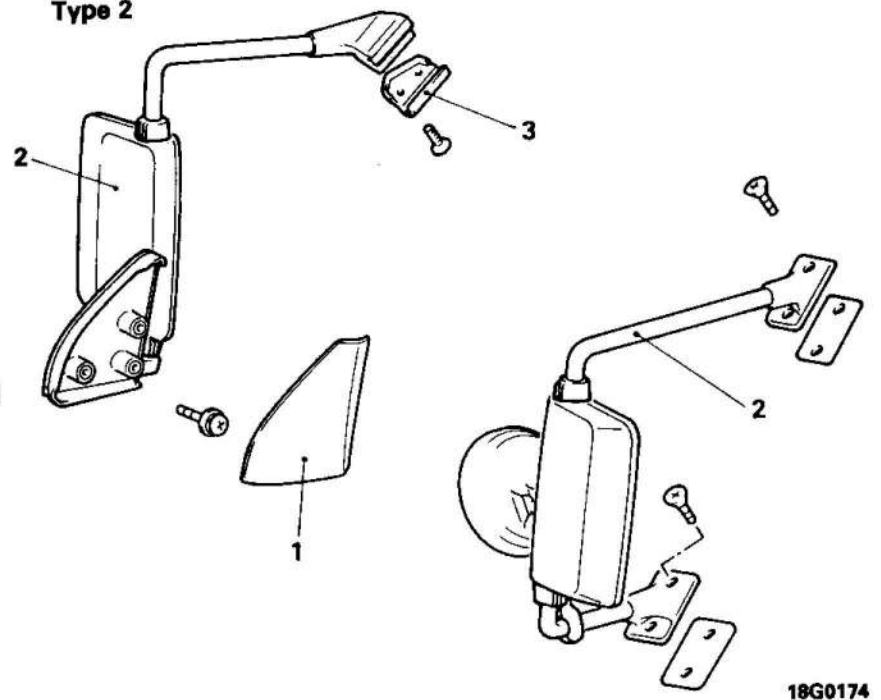
- 1. Front mud guard
- 2. Rear mud guard

**OUTSIDE MIRROR****REMOVAL AND INSTALLATION****Type 1****Type 1 removal steps**

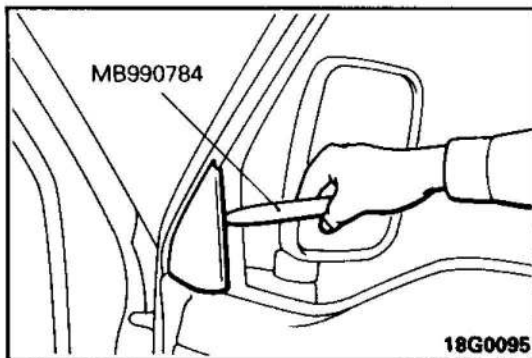
- ◆◆ 1. Front door corner cover (inner)
- ◆◆ 2. Door mirror

**NOTE**

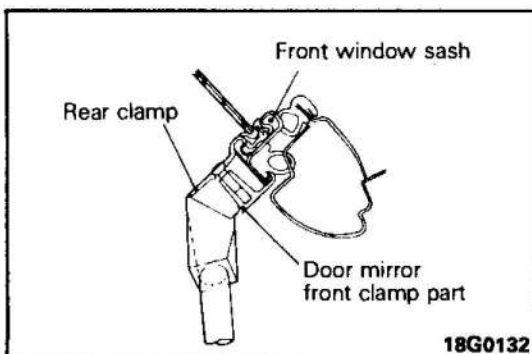
- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆: Refer to "Service Points of Removal".
- (3) ◆◆: Refer to "Service Points of Installation".

**Type 2****Type 2 removal steps**

- ◆◆ 3. Rear clamp
- ◆◆ 1. Front door corner cover (inner)
- ◆◆ 2. Door mirror

**SERVICE POINTS OF REMOVAL****1. REMOVAL OF FRONT DOOR CORNER COVER (INNER)**

Pry off front door corner cover (inner) with special tool.

**SERVICE POINTS OF INSTALLATION****3. INSTALLATION OF REAR CLAMP/2. DOOR MIRROR**

Hold the front door window sash with the rear clamp and the door mirror front clamp and tighten with the installation bolt so that it doesn't rattle.

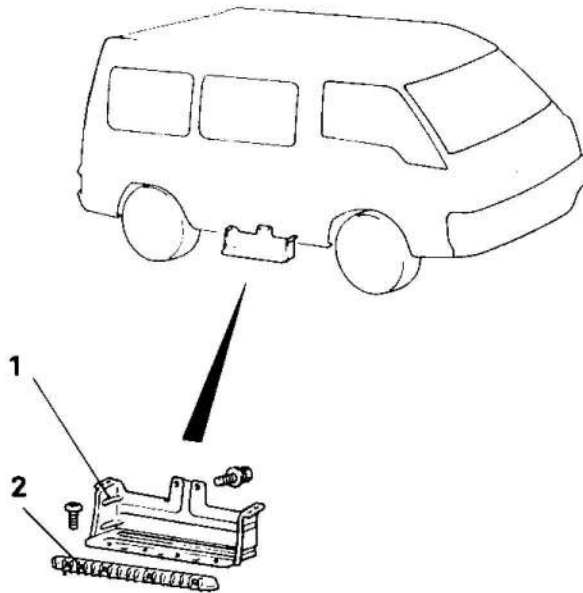
## REAR DOOR STEP (4WD) REMOVAL AND INSTALLATION

### Removal steps

1. Rear door step
2. Rear door step cover

### NOTE

Reverse the removal procedures to reinstall.

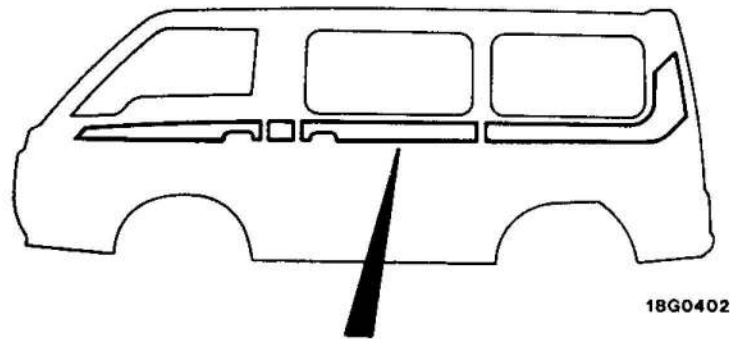


18G0383

**STRIPE TAPE**

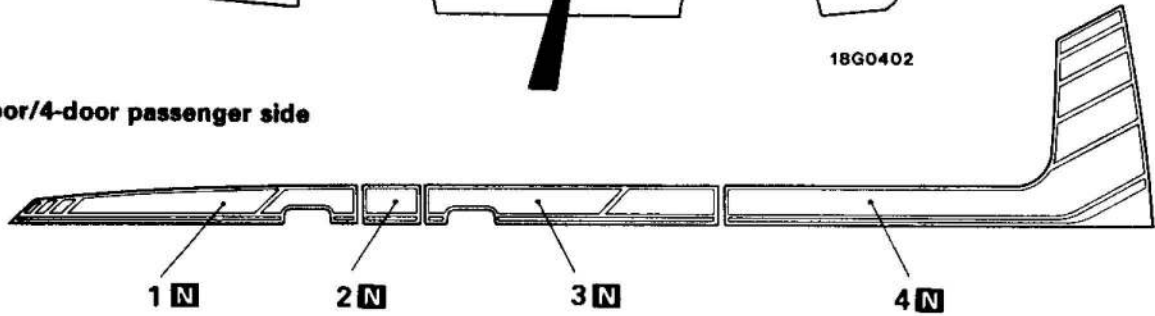
**REMOVAL AND INSTALLATION**

**Type A**

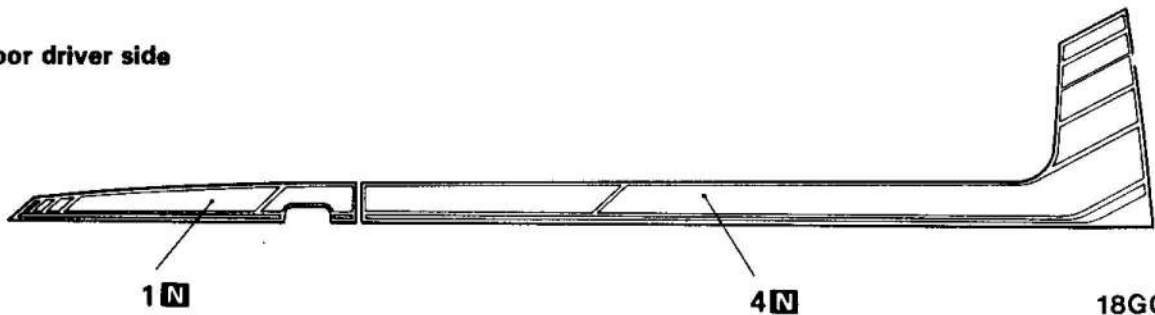


18G0402

**5-door/4-door passenger side**

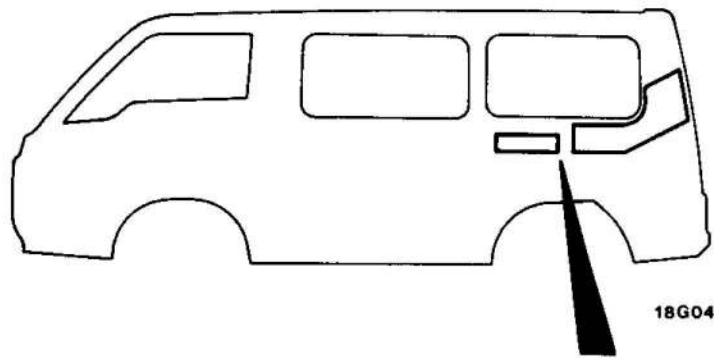


**4-door driver side**



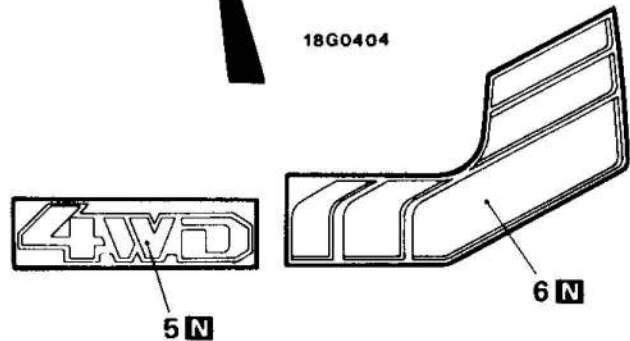
18G0403

**Type B**



18G0404

- ◆◆ 1. Front door stripe tape
- ◆◆ 2. Center pillar stripe tape
- ◆◆ 3. Rear door stripe tape
- ◆◆ 4. Quarter stripe tape
- ◆◆ 5. 4WD stripe tape
- ◆◆ 6. Rear side stripe tape



**NOTE**

- (1) ◆◆ : Refer to "Service Points of Installation".
- (2) **N** : Non-reusable parts

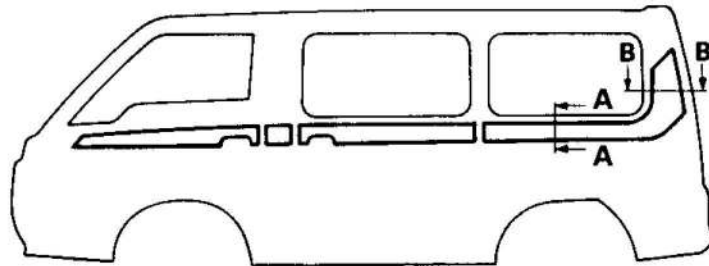
18G0405

**SERVICE POINTS OF INSTALLATION**

1. INSTALLATION OF FRONT DOOR STRIPE TAPE/2. CENTER PILLAR STRIPE TAPE/3. REAR DOOR STRIPE TAPE/4. QUARTER STRIPE TAPE/5. 4WD STRIPE TAPE/6. REAR SIDE STRIPE TAPE

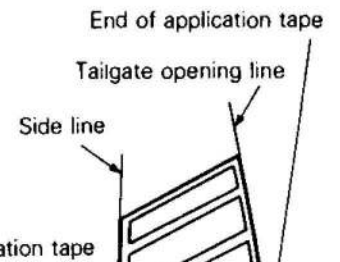
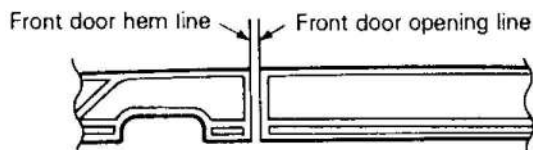
Adhere stripe tapes to following locations.

**Type A**

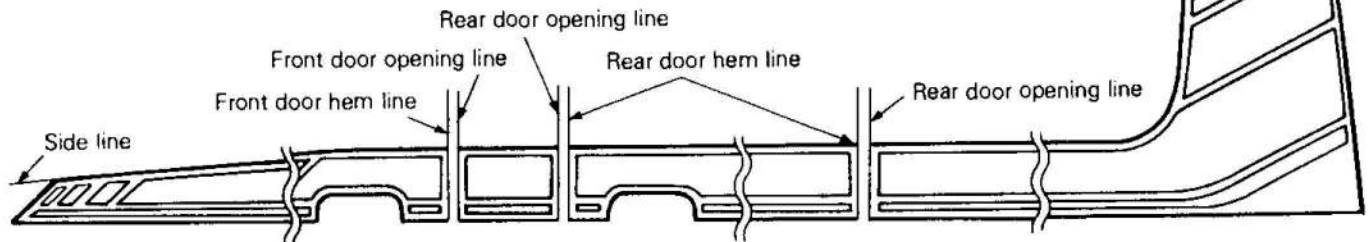


18G0402

**4-door driver side**

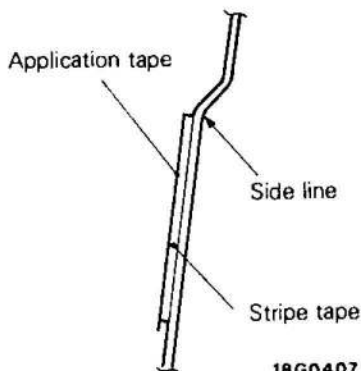


**5-door/4-door passenger side**



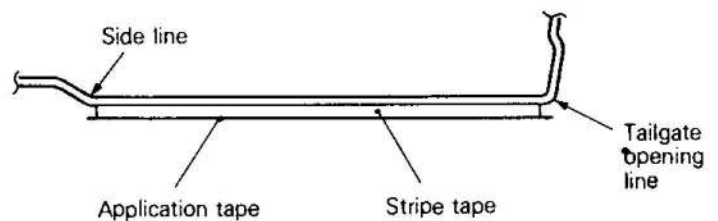
18G0406

**Section A-A**



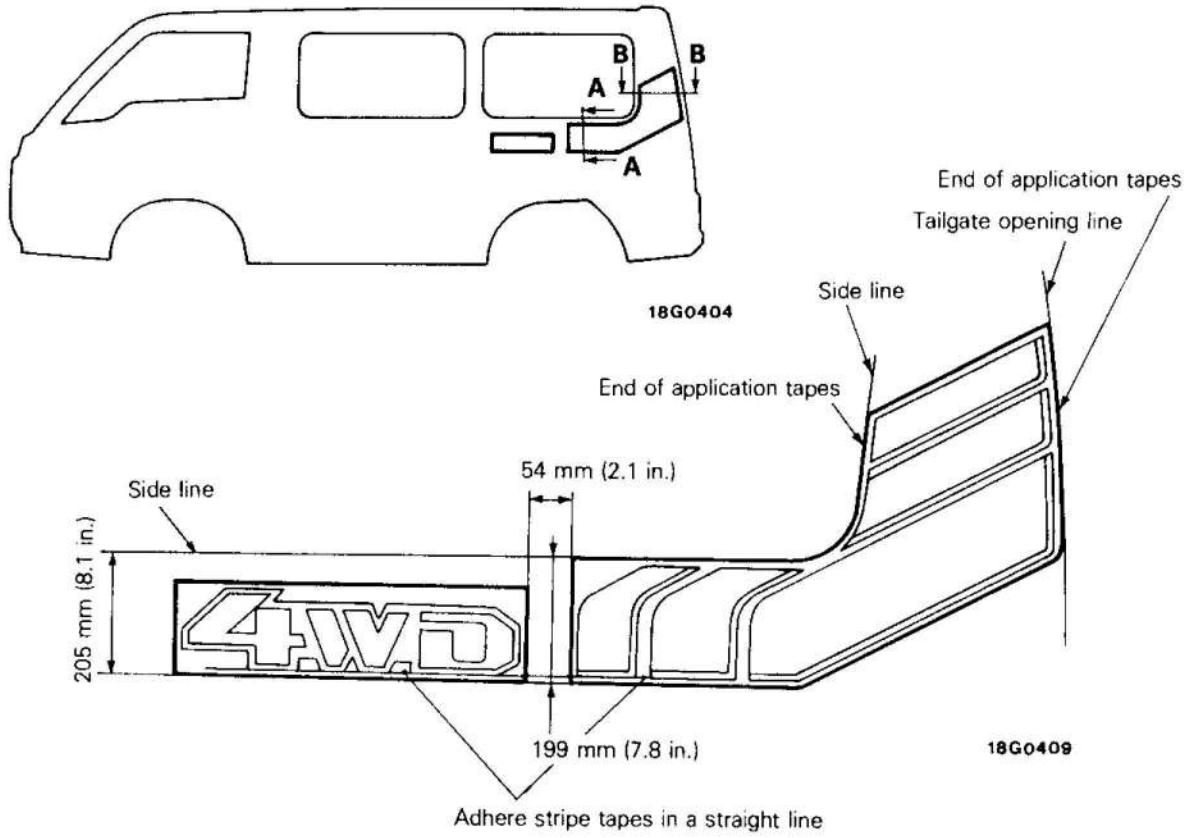
18G0407

**Section B-B**

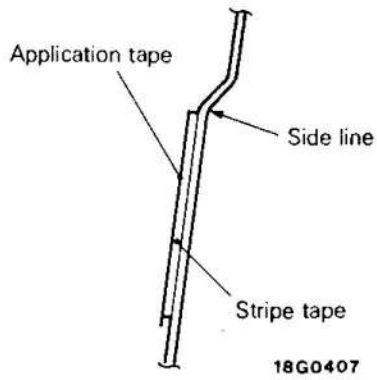


18G0408

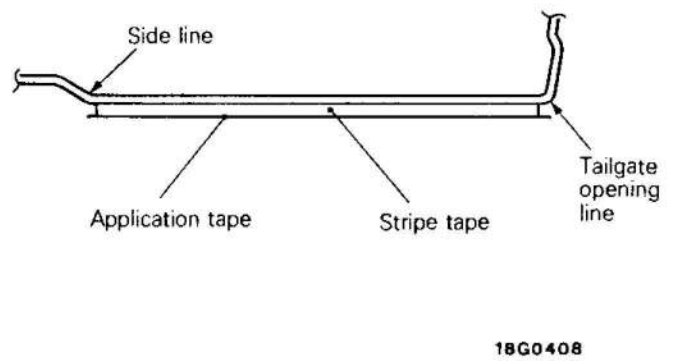
Type B



Section A-A



Section B-B

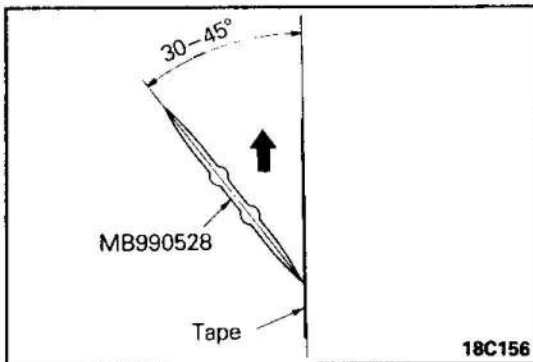




- (1) Use unleaded gasoline or toluene to wipe off oil from stripe tape adhesion area.
- (2) Remove protective paper from back of stripe tape and adhere entirely to indicated area.

**Caution**

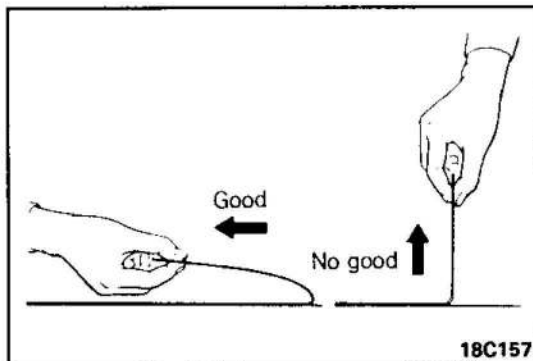
- **Work in a dust-free workplace with temperature at 20–38°C (68–100°F).**
- **If workplace temperature is under 20°C (68°F), warm tape and vehicle body (adhesion area) to 20–38°C (68–100°F).**



- (3) Use special tool and smooth out tape evenly starting from center of tape and up and then down to press out bubbles.

**Caution**

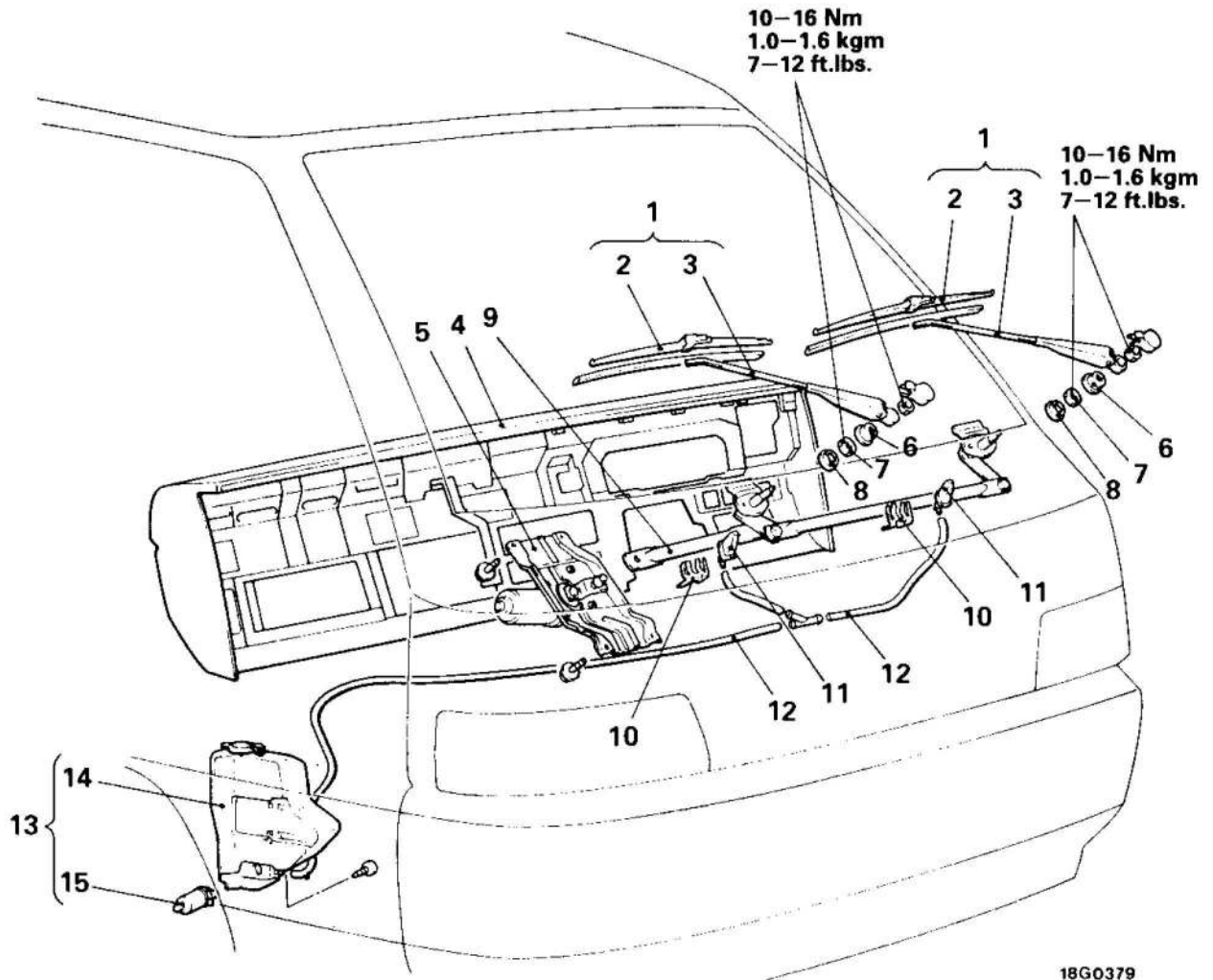
- **Smoothing out horizontally will cause wrinkles and may displace the tape.**
- **Adhere tape securely to prevent tape from peeling off.**



- (4) Hold one end of top protective paper and slowly peel off horizontally.
- (5) If bubbles are left under the tape, pierce slightly with needle and press out air with a spatula.

## WINDSHIELD WIPERS AND WASHER

## REMOVAL AND INSTALLATION

**Windshield wipers removal steps**

- ◆◆ 1. Wiper blade arm assembly
- 2. Wiper blades
- 3. Wiper arm
- ◆◆ 4. Instrument panel
- ◆◆ ◆◆ 5. Wiper motor assembly
- 6. Cap
- 7. Wiper pivot nut
- 8. Washer with packing
- ◆◆ 9. Wiper link assembly

**Windshield washer removal steps**

- ◆◆ 4. Instrument panel
- 10. Holder
- ◆◆ 11. Washer nozzle
- 12. Washer tube
- 13. Washer tank assembly
- 14. Washer tank
- 15. Washer motor and pump

**NOTE**

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".
- (3) ◆◆◆ : Refer to "Service Points of Installation".

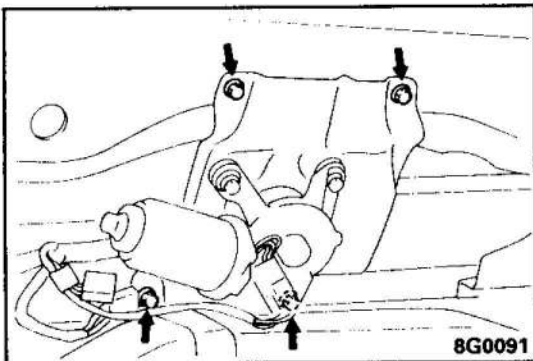
**SERVICE POINTS OF REMOVAL**

**4. REMOVAL OF INSTRUMENT PANEL**

Refer to GROUP 52 INTERIOR--Instrument Panel.

**5. REMOVAL OF WIPER MOTOR ASSEMBLY**

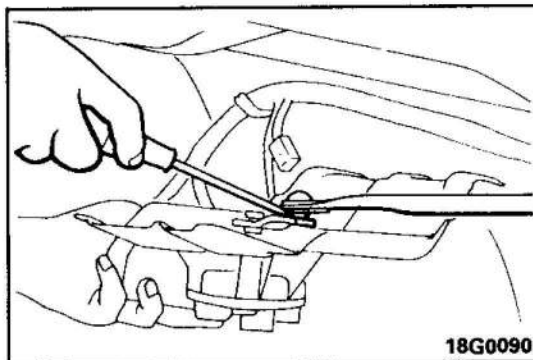
(1) Remove wiper motor assembly attaching bolts.



(2) Disconnect wiper motor and wiper linkage assemblies. Remove wiper motor assembly.

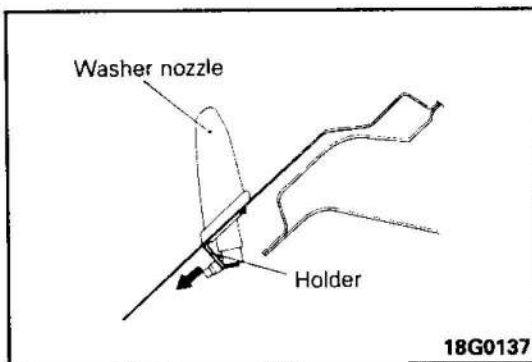
**Caution**

**Auto-stop angle is controlled so do not remove crank arm from wiper motor unless necessary. When removing, mark crank arm and wiper motor.**



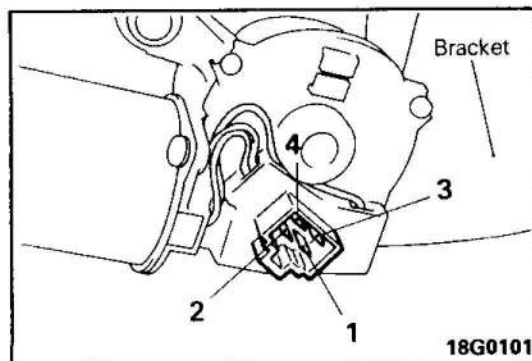
**11. REMOVAL OF WASHER NOZZLE**

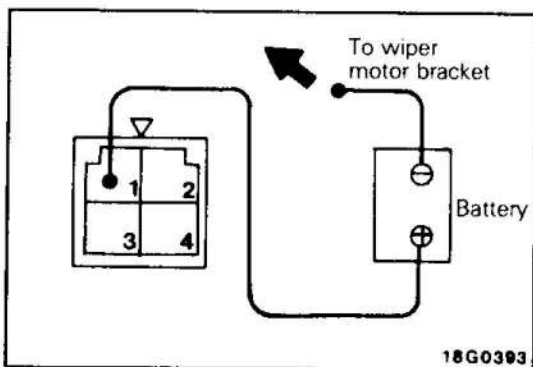
Remove holder from inside and remove washer nozzle.



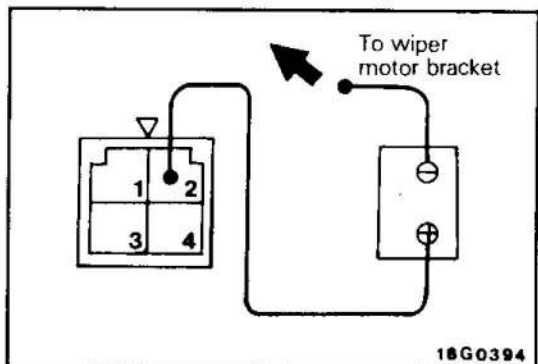
**INSPECTION  
WIPER MOTOR**

Disconnect the wiring connector from the wiper and connect battery to the wiper motor connector to check that the wiper motor runs.

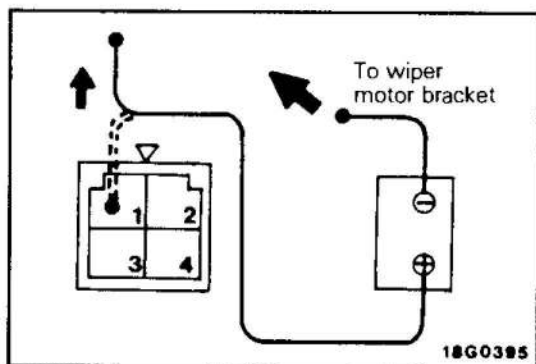


**LOW SPEED OPERATION CHECK**

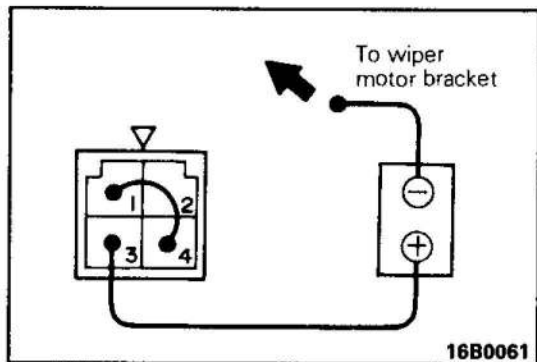
Connect battery (+) to terminal 1 and battery (-) to the wiper motor bracket and check that the motor runs at low speed.

**HIGH SPEED OPERATION CHECK**

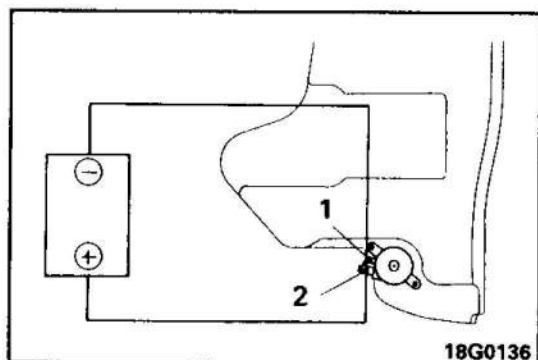
Connect battery (+) to terminal 2 and battery (-) to the wiper motor bracket and check that the motor runs at high speed.

**AUTOMATIC STOP OPERATION CHECK**

- (1) Connect battery (+) to terminal 1 and battery (-) to the wiper motor bracket to run the motor at low speed.
- (2) Disconnect terminal 1 during operation to stop the motor.

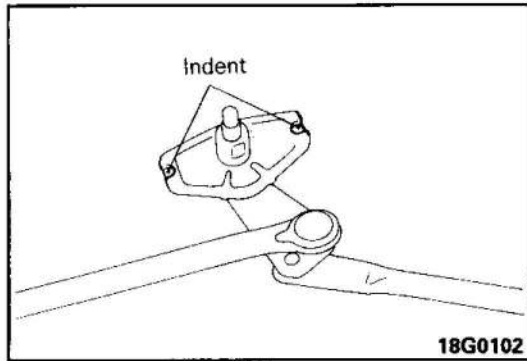


- (3) Connect terminal 1 to terminal 4 and connect battery (+) to terminal 3 and battery (-) to the wiper motor bracket to check that the motor starts to run at low speed and then stops.

**WASHER MOTOR AND PUMP**

Make the check while the motor is installed to the washer tank.

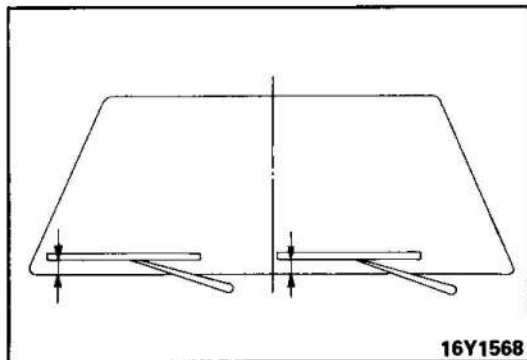
- (1) Check to be sure that there is washer fluid in the washer tank.
- (2) Check to be sure that the washer motor operates and the fluid is forced out under pressure when the battery positive (+) terminal is connected to terminal 2 and the negative (-) terminal is connected to terminal 1.

**SERVICE POINTS OF INSTALLATION****9. INSTALLATION OF WIPER LINKAGE ASSEMBLY**

Fit wiper linkage assembly lock base indents (2) to vehicle body side projections and install wiper linkage assembly.

**5. INSTALLATION OF WIPER MOTOR ASSEMBLY**

If wiper motor assembly is removed, confirm that it is securely earthed after reinstalling.

**1. INSTALLATION OF WIPER BLADE ARM ASSEMBLY**

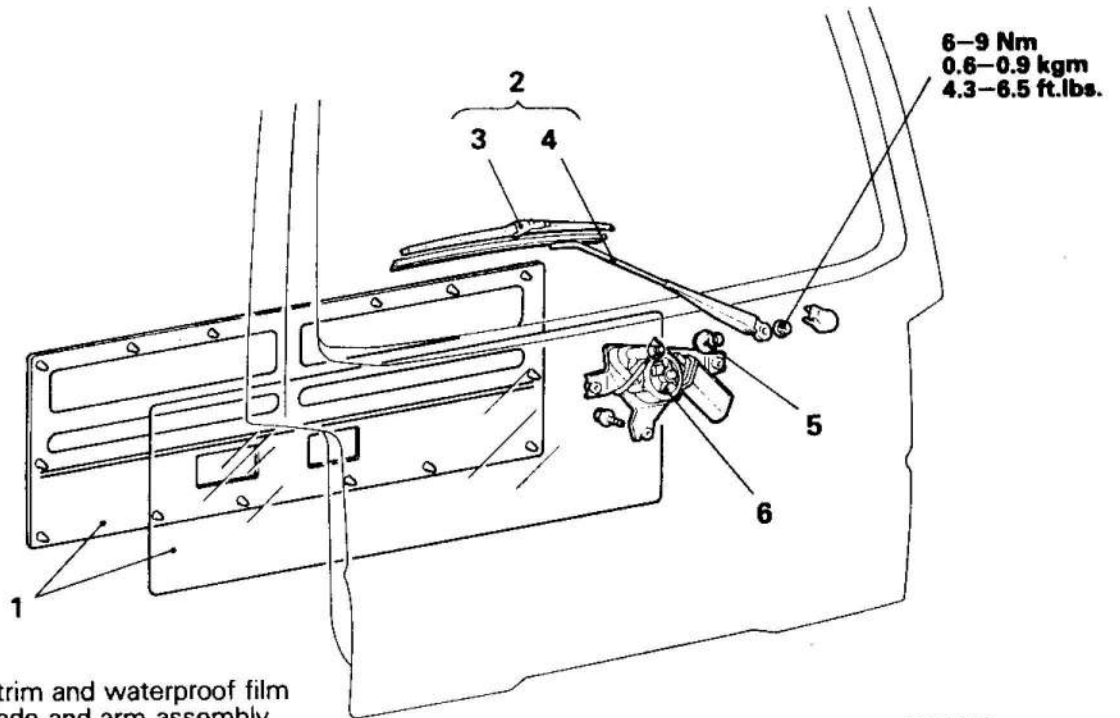
Install wiper blade so that it is within the standard value.

**Standard value: 35 – 45 mm (1.4 – 1.8 in.)**



# REAR WIPER

## REMOVAL AND INSTALLATION



### Removal steps

- ◆◆◆ 1. Tailgate trim and waterproof film
- ◆◆ 2. Wiper blade and arm assembly
- ◆ 3. Wiper blade
- ◆ 4. Wiper arm
- ◆◆ 5. Grommet
- ◆◆◆ 6. Rear wiper motor assembly

### NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆: Refer to "Service Points of Removal".
- (3) ◆◆◆: Refer to "Service Points of Installation".

18G0127

## SERVICE POINTS OF REMOVAL

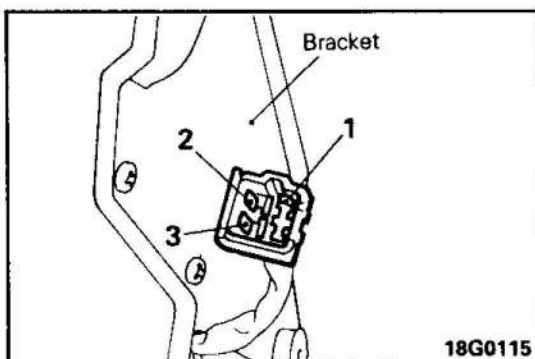
### 1. REMOVAL OF TAILGATE TRIM AND WATERPROOF FILM

Refer to GROUP 42 BODY-Tailgate Trim and Waterproof Film.

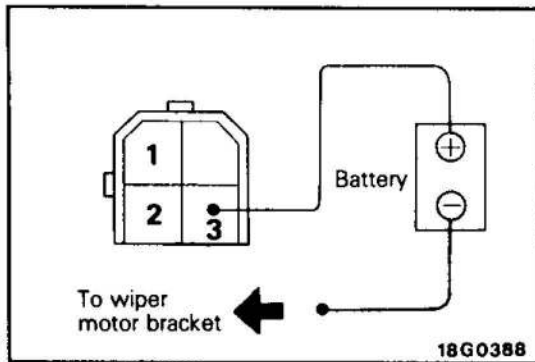
## INSPECTION

### WIPER MOTOR

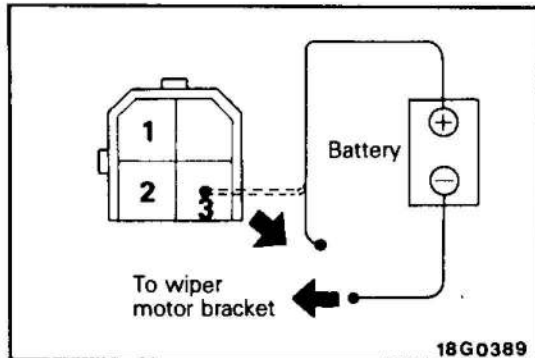
Disconnect the wiring connector from the wiper motor and connect battery to the wiper motor connector to check that the wiper motor runs.



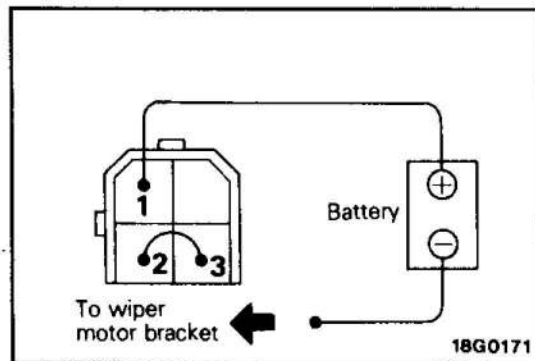
18G0115

**OPERATION CHECK**

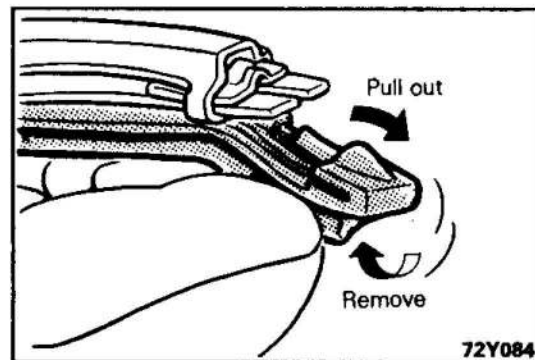
Connect battery (+) to terminal 3 and battery (-) to the wiper motor bracket to check that the motor runs.

**AUTOMATIC OPERATION CHECK**

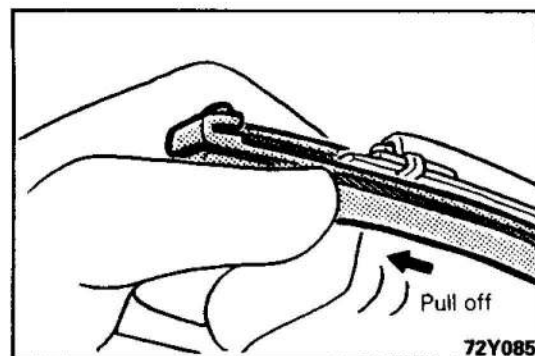
- (1) Connect battery (+) to terminal 3 and battery (-) to the wiper motor bracket to run the motor.
- (2) While the motor is running, disconnect terminal 3 to stop the motor.



- (3) Connect terminal 2 to terminal 3 and connect battery (+) to terminal 1 and battery (-) to wiper motor bracket to check that the motor starts to run again and then stops.

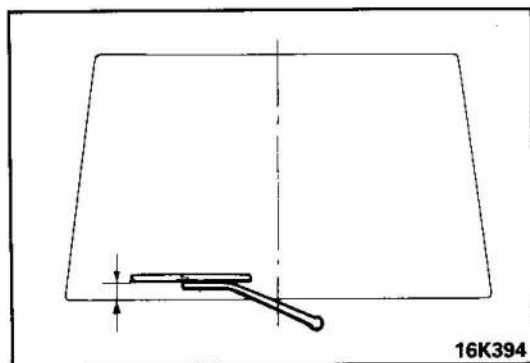
**WIPER BLADE RUBBER REPLACEMENT**

- (1) Pull rubber out slightly to remove.



- (2) Remove rubber by pulling off rubber from opposite side.
- (3) Reverse removal procedures to reinstall new rubber.



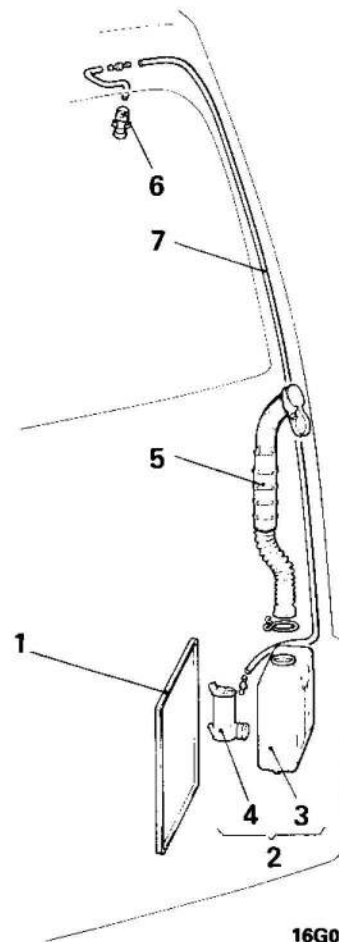
**2. INSTALLATION OF WIPER BLADE AND ARM ASSEMBLY**

Install wiper blade so that it is within the standard value.

**Standard value: 25 – 35 mm (1.0 – 1.4 in.)**

**1. INSTALLATION OF TAILGATE TRIM AND WATERPROOF FILM**

Refer to GROUP 42 – Tailgate Trim and Waterproof Film.

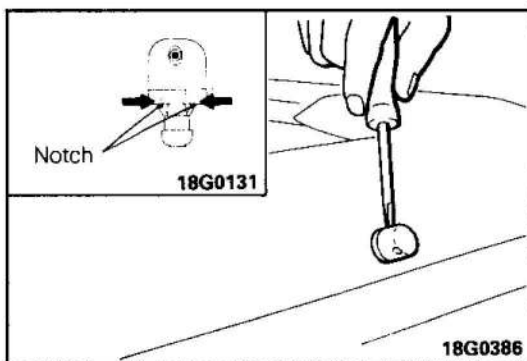
**REAR WASHER****REMOVAL AND INSTALLATION****Removal steps**

1. Lid
2. Washer tank assembly
3. Washer tank
4. Washer motor and pump
5. Hose
6. Washer nozzle
7. Washer tube

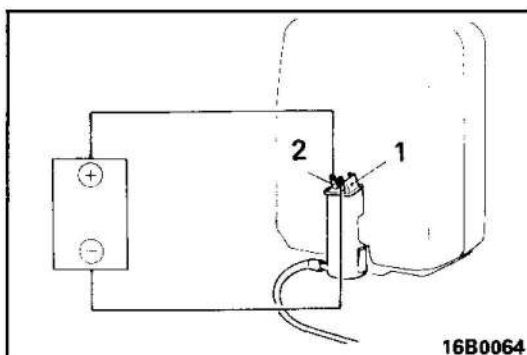
**NOTE**

- (1) Reverse the removal procedures to reinstall.
- (2) : Refer to "Service Points of Removal".

16G0272

**SERVICE POINTS OF REMOVAL****6. REMOVAL OF REAR WASHER NOZZLE**

Push rear washer nozzle notch with screwdriver etc., and remove rear washer nozzle.

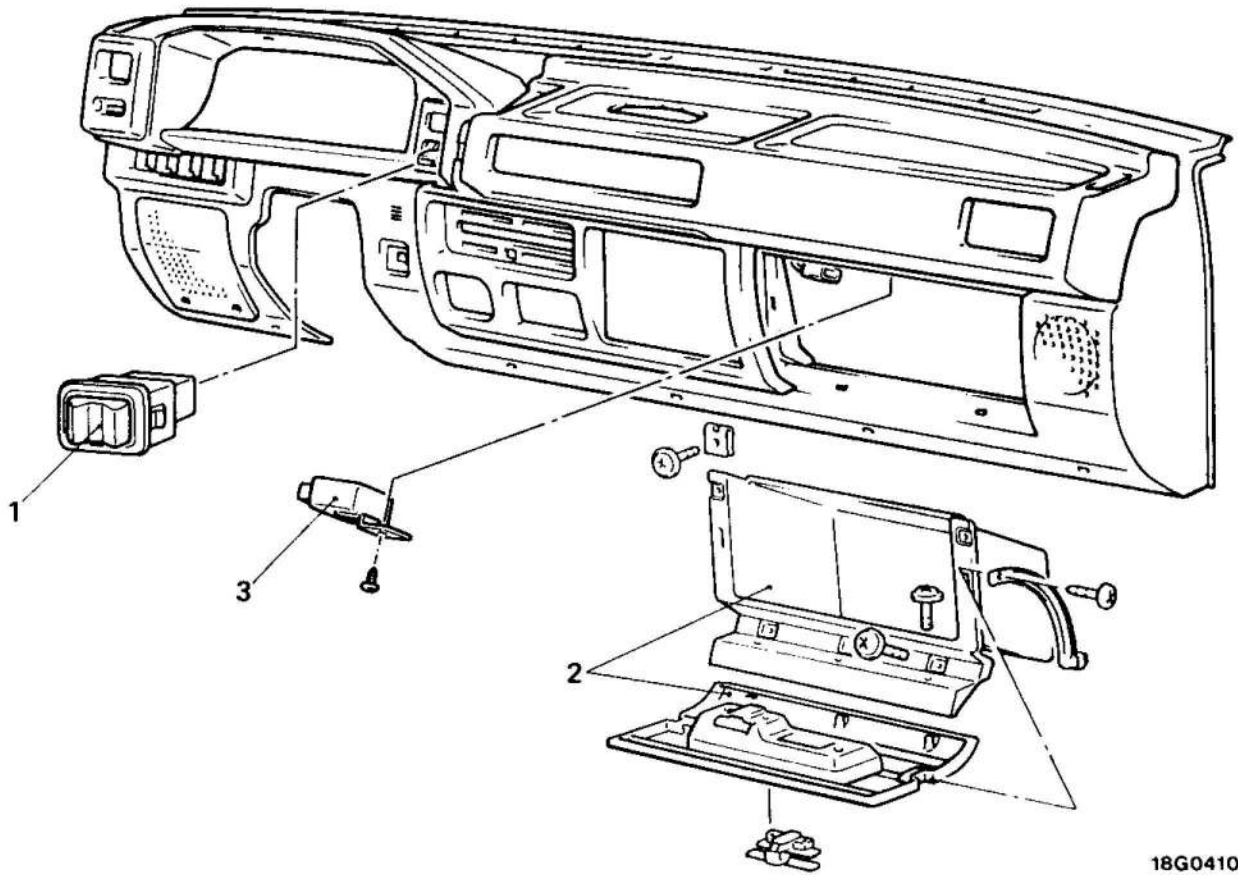
**INSPECTION****WASHER MOTOR AND PUMP**

- Make the check while the motor is installed to the washer tank.
- (1) Check to be sure that there is washer fluid in the washer tank.
  - (2) Check to be sure that the washer motor operates and the fluid is forced out under pressure when the battery's positive (+) terminal is connected to terminal 2 and the negative (-) terminal is connected to terminal 1.

# REAR WIPER AND WASHER SWITCH, REAR INTERMITTENT WIPER RELAY

E51LCAD

## REMOVAL AND INSTALLATION



18G0410

### Rear wiper and washer switch removal

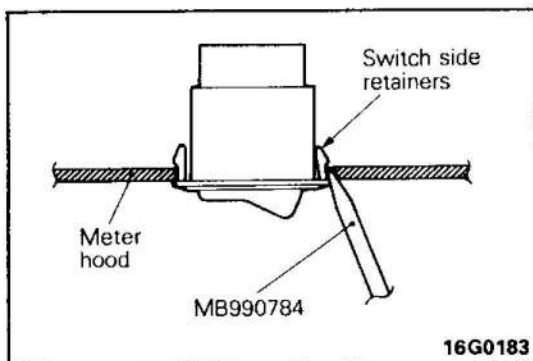
- ◆◆ 1. Rear wiper and washer switch

### Rear intermittent wiper relay removal steps

- 2. Glove box
- 3. Rear intermittent wiper relay

#### NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) ◆◆ : Refer to "Service Points of Removal".

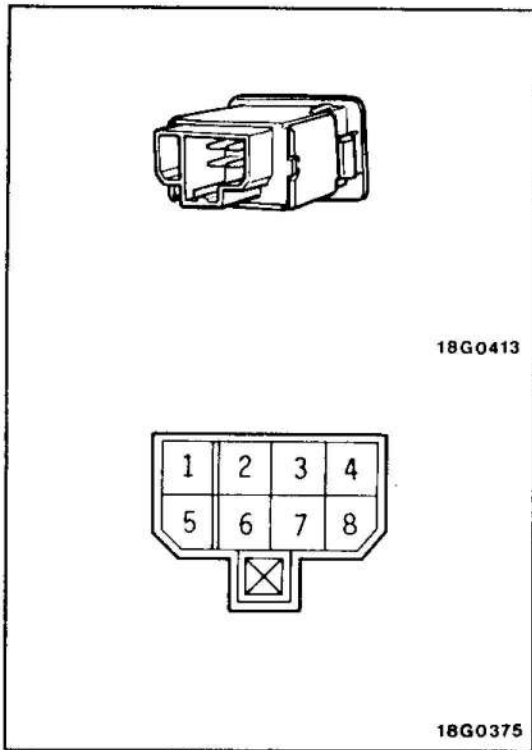


16G0183

## SERVICE POINTS OF REMOVAL

### 1. REAR WIPER AND WASHER SWITCH

Use special tool and disconnect meter hood switch installing hole and switch side retainers. Remove hazard switch.



**INSPECTION**

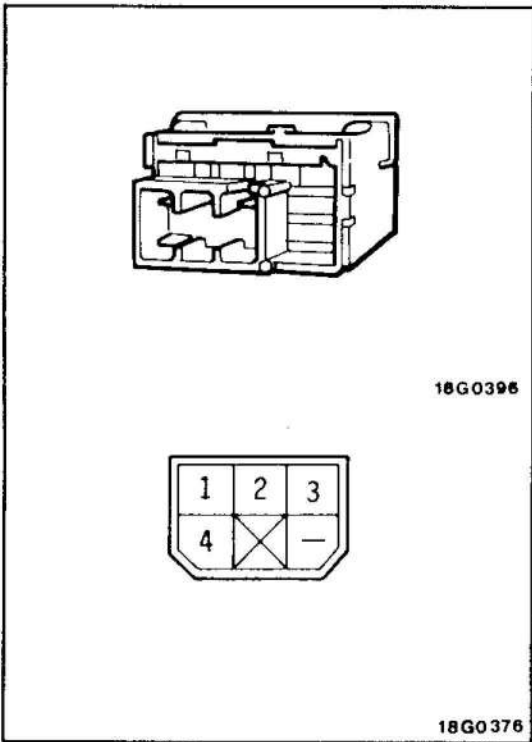
**REAR WIPER AND WASHER SWITCH (with Intermittent system)**

Operate the switch, and check the continuity between the terminals.

Switch position \ Terminal	7	5	3	8	2	6
Washer	○					○
Wiper OFF		○			○	
Wiper ON	○				○	
INT		○	○	○		○

**NOTE**

○—○ indicates that there is continuity between the terminals.



**REAR WIPER AND WASHER SWITCH (without intermittent system)**

Operate the switch, and check the continuity between the terminals.

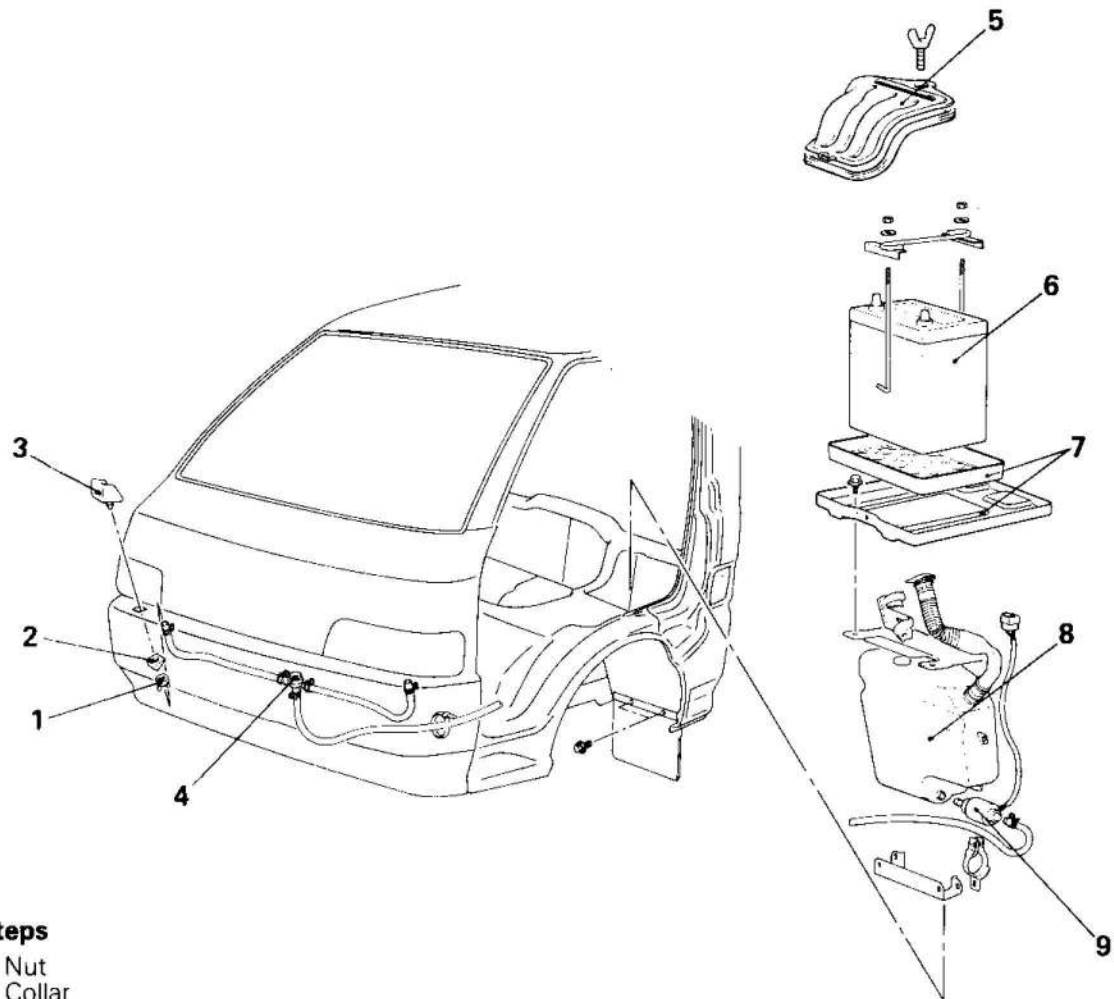
Switch position \ Terminal	2	4	1	3
Washer			○	○
Wiper OFF	○	○		
Wiper ON	○			○
Wiper Washer	○		○	○

**NOTE**

○—○ indicates that there is continuity between the terminals.

## HEADLAMP WASHER REMOVAL AND INSTALLATION

E51MAAD



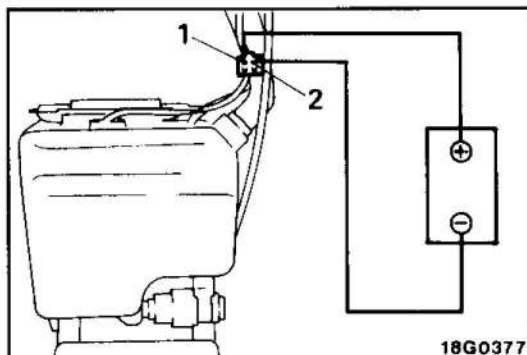
### Removal steps

1. Nut
2. Collar
3. Washer nozzles
4. Hose and valve assembly
5. Cover
6. Battery
7. Battery tray
8. Headlamp washer tank assembly
9. Washer motor and pump

18G0417

### NOTE

- (1) Reverse the removal procedures to reinstall.
- (2) For the headlamp washer switch, refer to GROUP. 54– Column Switch.

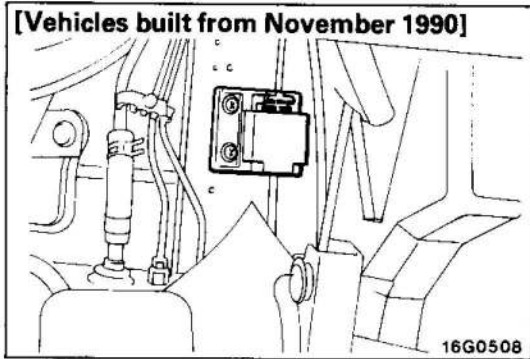
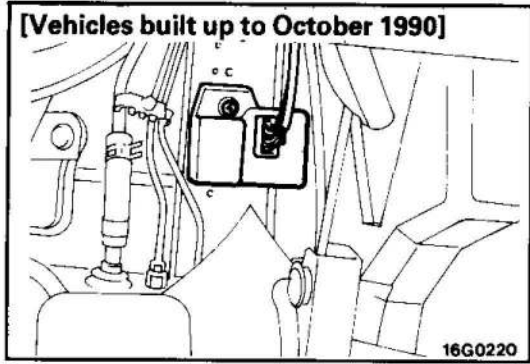


18G0377

## INSPECTION

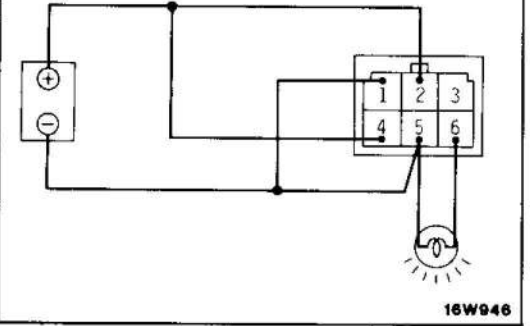
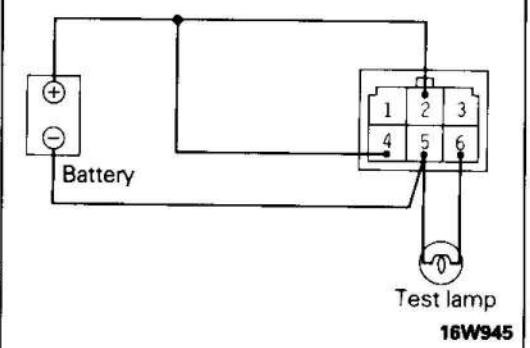
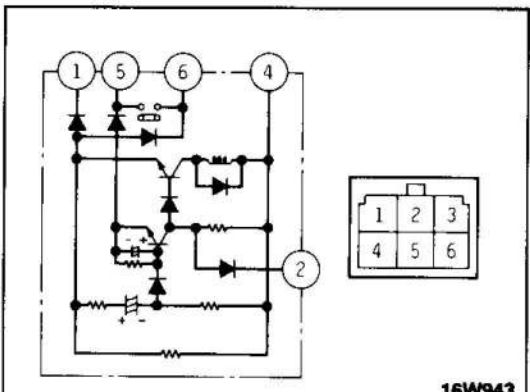
### INSPECTION OF WASHER MOTOR AND PUMP

- Make the check while the motor is installed to the washer tank.
- (1) Check to be sure that there is washer fluid in the washer tank.
  - (2) Check to be sure that the washer motor operates and the fluid is forced out under pressure when the battery's positive (+) terminal is connected to terminal 1 and the negative (–) terminal is connected to terminal 2.



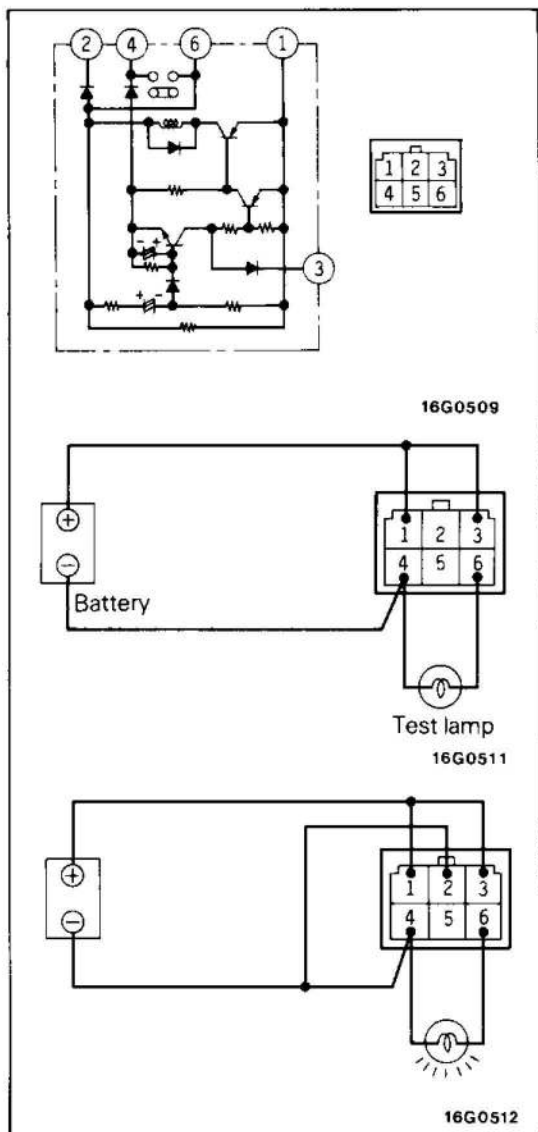
**INSPECTION OF HEADLAMP WASHER RELAY**

Remove headlamp washer relay from relay bracket.



**[Vehicles built up to October 1990]**

- (1) Connect the battery and the test lamp to the relay as shown in the figure.
- (2) If, when terminal 1 is connected to the negative (-) terminal of the battery, the lamp illuminates (for about 0.5 second), the unit is operating normally.



**[Vehicles built from November 1990]**

- (1) Connect the battery and the test lamp to the relay as shown in the figure.
- (2) If, when terminal 2 is connected to the negative (-) terminal of the battery, the lamp illuminates (for about 0.3 second), the unit is operating normally.

51-36-2

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NOTE