

BODY

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E42AA--

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SPECIFICATIONS

GENERAL SPECIFICATIONS

E42CA--

| Items | Specifications |
|---|--|
| Hood Type | Rear hinged, front opening type |
| Front door Construction Regulator system Locking system | Front hinged, sash construction Wire type Pin-fork type |
| Rear door Construction Regulator system Locking system | Front hinged, sash construction Wire type Pin-fork type |
| Back door Construction Locking system | Right hinged, sash construction Pin-fork type |
| Glass installation method Windshield glass Back door window glass | Adhesive type Adhesive type |
| Glass thickness Windshield glass Quarter window glass Front door glass Rear door glass Back door window glass Sunroof glass | mm (in.) 5.3 (0.21) 3.5 (0.14)* ¹ , 4.0 (0.16)* ² 3.5 (0.14) 3.5 (0.14) 3.5 (0.14) 5.0 (0.20) |
| Frame type | Ladder type |
| Power window motor Type Revolutions under no load Revolutions under load At 1 Nm (0.1 kgm, 0.72 ft.lbs.) At 2 Nm (0.2 kgm, 1.45 ft.lbs.) Bound current Direction of rotation | Permanent magnet type (built-in circuit breaker) 75 or more r/min. r/min. 65–95 50–80 A 34 or less Clockwise and anti-clockwise |
| Sunroof motor Type Speed at no load Speed at load At 1 Nm (0.1 kgm, 0.72 ft.lbs.) At 2 Nm (0.2 kgm, 1.45 ft.lbs.) Bound current Turning direction | DC ferrite (with built-in circuit breaker) 155–195, 130–160* ³ r/min. r/min. 115–145* ³ 110–150 A 35 or less Both clockwise and anti-clockwise |

NOTE

(1) *¹: Sliding type (2) *²: Fixed type(3) *³: Canvas Top
© Mitsubishi Motors Corporation Feb. 1991 PWJE9086

| Items | Specifications |
|--|----------------|
| Power window relay | |
| Maximum contact current | A 20 |
| Rated coil current | A 0.2 or less |
| Voltage drop between terminals (At 12 V and the rated load current) | V 0.3 or less |
| Door control unit | |
| Operating voltage range | V 10–16 |
| Current consumption (when not in operation) | mA 3 or less |
| Front door lock actuator | |
| Bound current (at 12 V) | A 2.5–4.5 |
| Operating voltage range | V 9–15 |
| *Tripping time (at 12 V) | Second 5–30 |
| Rear door lock actuator | |
| Bound current (at 12 V) | A 2.5–4.5 |
| Operating voltage range | V 9–15 |
| *Tripping time (at 12 V) | Second 5–30 |

NOTE

* Tripping time is the time consumed until current reaches 0.5 A after power connection.

SERVICE SPECIFICATIONS

E42CB--

| Items | Standard value |
|--|--|
| Door inside handle play | mm (in.) 4–10 (0.16–0.39) |
| Door outside handle play mm (in.) | Front and rear door 3–12 (0.12–0.47) |
| | Back door 2–8 (0.08–0.31) |
| Slipping force of motor clutch N (kg, lbs.) | Power slide type sunroof 40–50 (4.0–5.0, 9–11) |
| | Canvas top 45–55 (4.5–5.5, 10–12) |
| Sunroof sliding resistance | N (kg, lbs.) 200 (20, 44) |

SEALANTS AND ADHESIVES

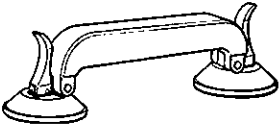
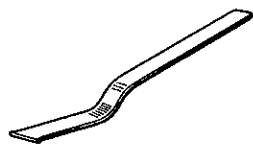
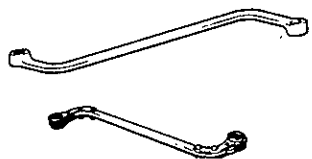

E42CE--

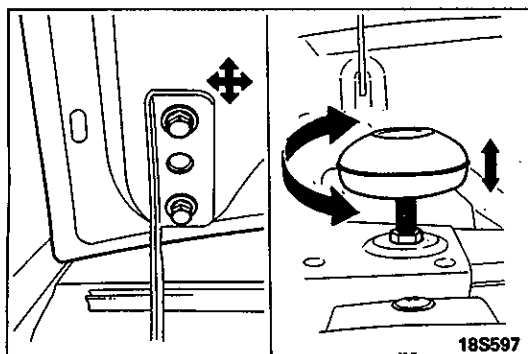
| Items | Specified sealant and adhesive | Remarks |
|--|---|-----------------|
| Intercooler weatherstrip Screen drip Sunroof glass weatherstrip Roof cover weatherstrip | 3M ATD Part No. 8001 or 3M ATD Part No. 8011, or equivalent | Drying adhesive |
| Fender panel Splash shield Waterproof film | 3M ATD Part No. 8625 or equivalent | Ribbon sealer |
| Windshield glass Rear window glass | 3M Super Fast Urethan Auto Glass sealant Part No. 8609 or equivalent | – |
| | 3M Super Fast Urethan Primer Part No. 8608 or equivalent | – |

| Items | Specified sealant and adhesive | Remarks |
|----------------------------|---|--------------------|
| Sunroof glass weatherstrip | 3M ATD Part No. 8513 or equivalent | Drying sealant |
| | 3M ATD Part No. 8509 or equivalent | Non-drying sealant |
| Rail end cover | 3M ATD Part No. 8531 or 3M ATD Part No. 8646, or equivalent | Body sealant |

SPECIAL TOOLS

E42DA--

| Tool | Number | Name | Use |
|---|----------------------|-------------------------|---|
|  | MB990480 | Glass holder | Removal and installation of windshield |
|  | MB990449 | Window moulding remover | Removal of the window moulding |
|  | MB990900 or MB991164 | Door adjusting wrench | Adjustment of door fit |
|  | MB990784 | Ornament remover | Removal of the window moulding and interior parts |

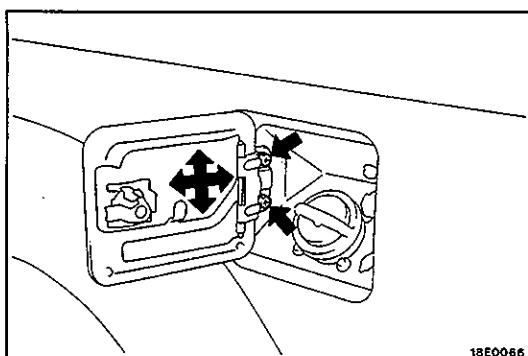
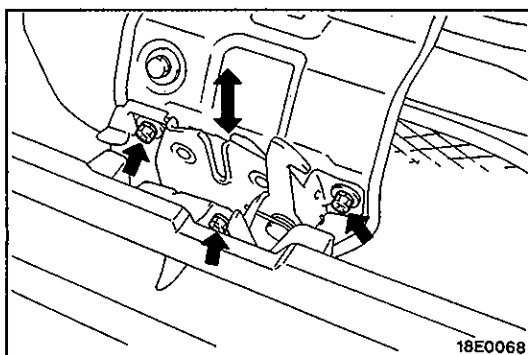


SERVICE ADJUSTMENT PROCEDURES

HOOD ADJUSTMENT

E42FBAE

1. Loosen the hood mounting bolts, and then adjust the hood by moving it so that the clearance is equal on all sides.
2. Turn the hood bumpers, adjust the height of the hood.
3. Loosen the hood latch mounting bolts, and move the hood, latch to adjust the attachment between the hood latch and hood striker.



FUEL FILLER DOOR ADJUSTMENT

E42FCAF

Loosen the fuel filler door mounting screw and adjust the fuel filler door so that the clearance around the fuel filler door is even without any height differences.



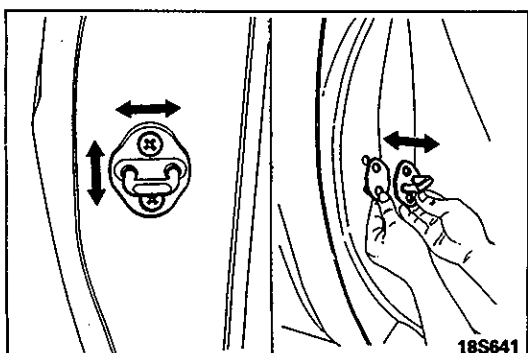
FRONT AND REAR DOOR ADJUSTMENT

E42FDAH

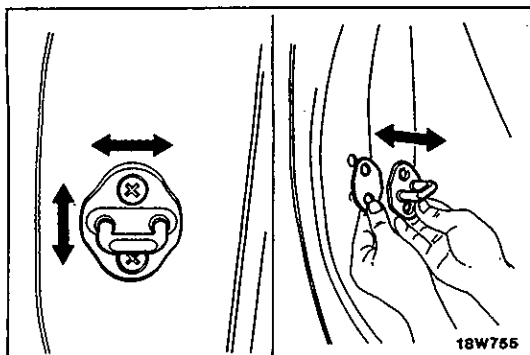
1. Use the special tool to loosen the hinge mounting bolts on the body side, and then adjust the clearance around the door so that it is uniform on all sides.

Caution

Attach protection tape to the fender edges where the hinge is installed.

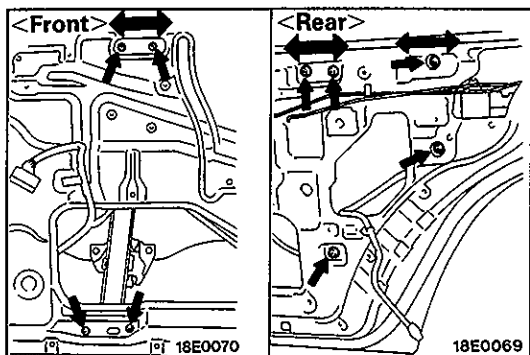


2. When the door is replaced, loosen hinge mounting bolts on door side and adjust alignment of fender panel with front door panel.
3. Loosen door striker mounting screws to adjust alignment of door panel.
4. Increase or decrease the number of shims and move striker to adjust engagement of striker with door latch.

**BACK DOOR ADJUSTMENT**

E42FMAF

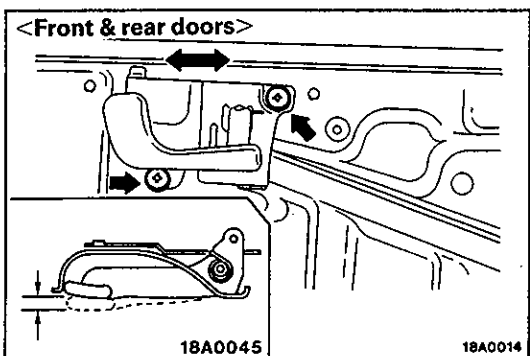
1. Adjust the fit of the door panel to the body by loosening the striker mounting screws and moving the striker.
2. Adjust the linking of the striker and the door latch by increasing or decreasing the thickness of the striker shim.

**DOOR WINDOW GLASS ADJUSTMENT**

E42FEAN

Check that the door window glass runs smoothly in the door glass channel when the glass is fully raised and lowered. If it does not, adjust by the following procedure.

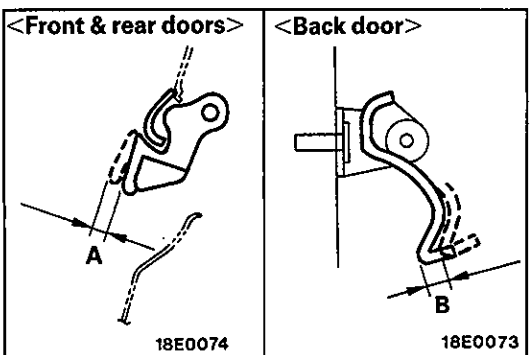
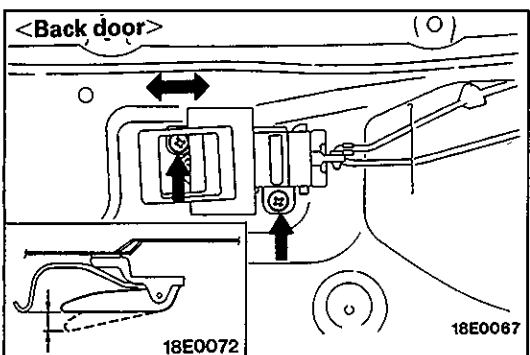
1. Remove the door trim and waterproof film. (Refer to P.42-25.)
2. Loosen the window regulator assembly mounting bolts and move the upper attachment back and forward to adjust the tilt of the glass.
3. Loosen the rear door centre sash mounting bolt, and adjust the front-to-back position of the glass.

**DOOR INSIDE HANDLE PLAY ADJUSTMENT**

E42FGAC

1. Remove the door trim and waterproof film. (Refer to P.42-25, 35.)
2. Move the door inside handle installation position back and forth to adjust so that the inside handle play allowance agrees with the standard value.

Standard value: 4–10 mm (0.16–0.39 in.)

**DOOR OUTSIDE HANDLE PLAY CHECK**

E42FHAG

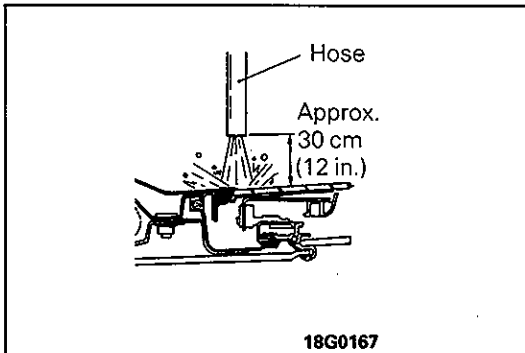
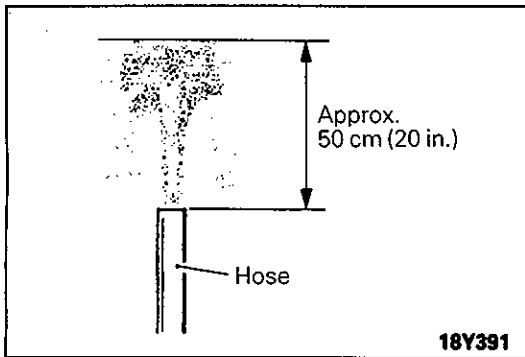
If the door outside handle play does not conform to the standard value, check the door outside handle or door latch assembly, and replace if necessary.

Standard value: (A) 3–12 mm (0.12–0.47 in.)
(B) 2–8 mm (0.08–0.31 in.)

E42FOAB

WATER TEST

1. Fully close the sunroof or canvas.
2. Hold hose upward and adjust water fountain to about 50 cm (20 in.) high.



3. Pour water over the roof from about 30 cm (12 in.) above roof for more than 5 minutes.
4. While pouring water, check for leak around the sunroof or canvas.
5. In the event of leakage, check drain hose, weatherstrip contact and others.

A

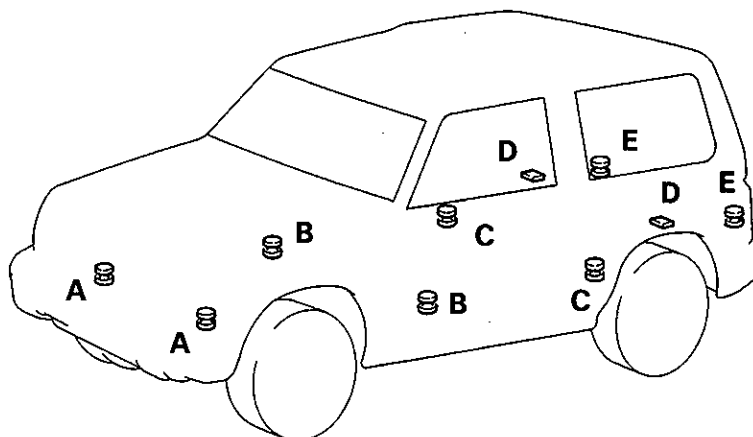
BODY MOUNTING

E42GAAE

REMOVAL AND INSTALLATION

<2-door models>

1. Special bolt
2. Mounting bolt
3. Plain washer
4. Body mounting rubber
5. Body mounting rubber A
6. Spacer
7. Body mounting rubber B
8. Plate
9. Washer
10. Body mount stopper
11. Self locking nut
12. Body shim



18E0076

| A | B | C | D | E |
|---|---|---|---|---|
| | | | | |
| <p>24 Nm 2.4 kgm 17 ft.lbs.</p> <p>48 Nm 4.8 kgm 35 ft.lbs.</p> | <p>48 Nm 4.8 kgm 35 ft.lbs.</p> | <p>48 Nm 4.8 kgm 35 ft.lbs.</p> | | <p>48 Nm 4.8 kgm 35 ft.lbs.</p> |

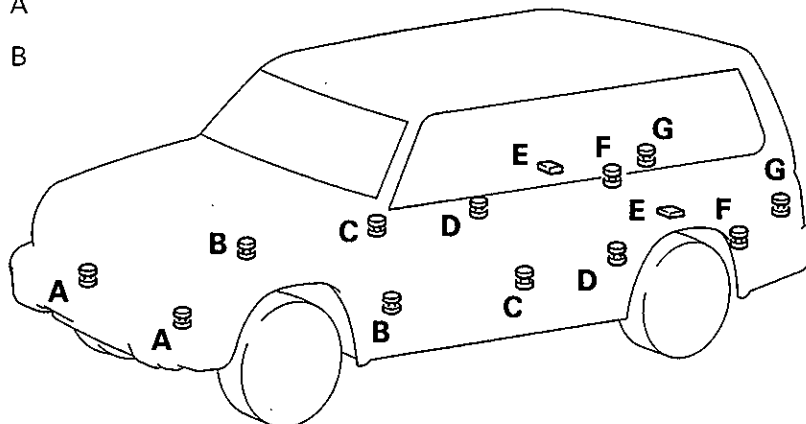
18E0064

18E0078

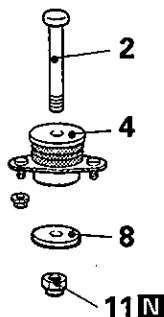
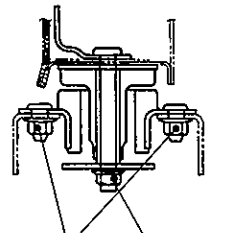
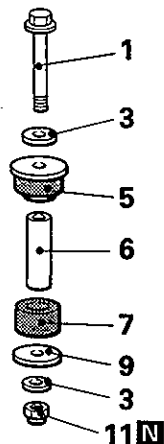
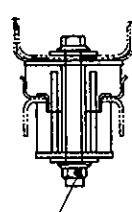
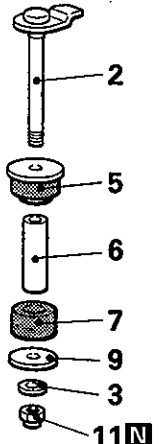
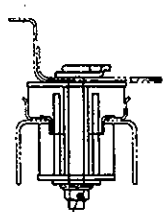
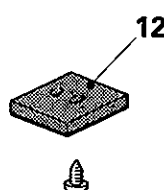

<4-door models>

E42GAAE

1. Special bolt
2. Mounting bolt
3. Plain washer
4. Body mounting rubber
5. Body mounting rubber A
6. Spacer
7. Body mounting rubber B
8. Plate
9. Washer
11. Self locking nut
12. Body shim



18E0077

| A | B, C | D, F, G | E |
|--|--|--|--|
|   <p>24 Nm 2.4 kgm 17 ft.lbs.</p> <p>48 Nm 4.8 kgm 35 ft.lbs.</p> |   <p>48 Nm 4.8 kgm 35 ft.lbs.</p> |   <p>48 Nm 4.8 kgm 35 ft.lbs.</p> |   <p>18E0064</p> <p>18E0078</p> |

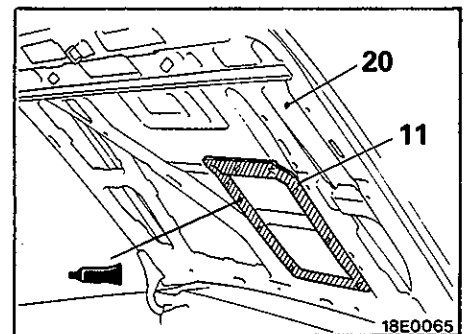
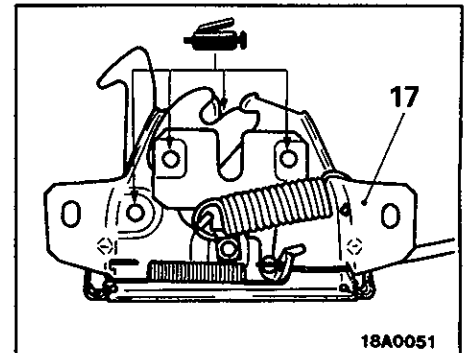
HOOD

E42HAAK

REMOVAL AND INSTALLATION

Hood Post-installation Operation

- Hood Adjustment (Refer to P.42-5.)



Adhesive:
 3M ATD Part No. 8001 or 3M
 ATD Part No. 8011 or
 equivalent

Hood latch, intercooler duct and hood lock release cable removal steps

- Radiator grille
- 14. Intercooler duct (LH)*
- 15. Intercooler duct (RH)*
- 16. Hood cable protector
- 17. Hood latch
- 18. Hood lock release handle
- 19. Hood lock release cable

Hood removal steps

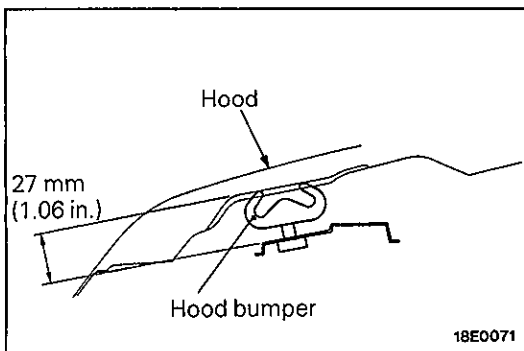
- Washer tube (Refer to GROUP 51 – Front Wiper and Washer)
- 20. Hood

NOTE

*: Vehicles with intercooler

- ◆◆ 1. Hood bumper
- 2. Hood bumper bracket
- 3. Damper
- 4. Hood rear weatherstrip
- 5. Hood heat protector <Except for 2400>
- 6. Hood front weatherstrip
- 7. Bumper
- 8. Plate <2400>
- 9. Intercooler duct weatherstrip (LH)*
- 10. Intercooler duct weatherstrip (RH)*
- 11. Intercooler weatherstrip plate*
- 12. Intercooler weatherstrip*
- 13. Hood support rod

9 Nm
 0.9 kgm
 6.5 ft.lbs.



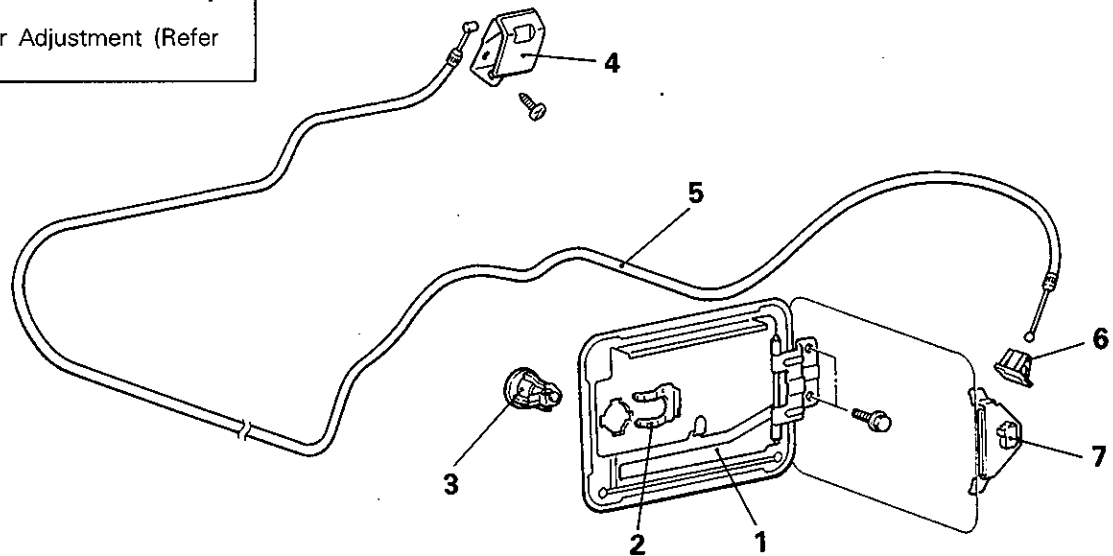
SERVICE POINT OF INSTALLATION

1. INSTALLATION OF HOOD BUMPER

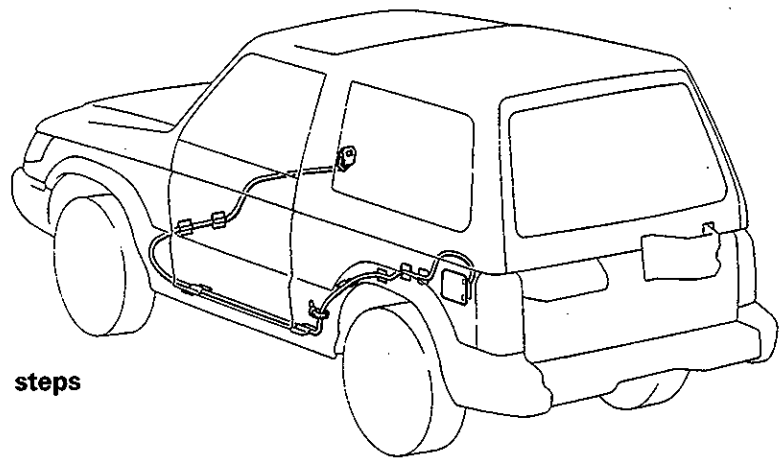
Install the hood bumper as shown in the figure.

FUEL FILLER DOOR**REMOVAL AND INSTALLATION****Fuel Filler Door Post-installation Operation**

- Fuel Filler Door Adjustment (Refer to P.42-5.)



18E0059



1. Fuel filler door

Lock cylinder assembly removal steps

2. Retainer
3. Lock cylinder assembly

Fuel filler door lock release cable removal steps

18E0058

<2-door models>

- Scuff plate (LH)
- Quarter trim (LH) (Refer to GROUP 52 – Trims.)
- 4. Fuel filler door lock release handle
- 5. Fuel filler door lock release cable
- 6. Cable holder

<4-door models>

- Center pillar trim (LH)
 - Front rail cover (LH)
 - Rear rail cover (LH)
 - Quarter trim (LH)
- (Refer to GROUP 52–Trims.)
4. Fuel filler door lock release handle
 5. Fuel filler door lock release cable
 6. Cable holder

Fuel filler door hook removal steps

5. Connection for fuel filler door lock release cable
7. Fuel filler door hook

FENDER

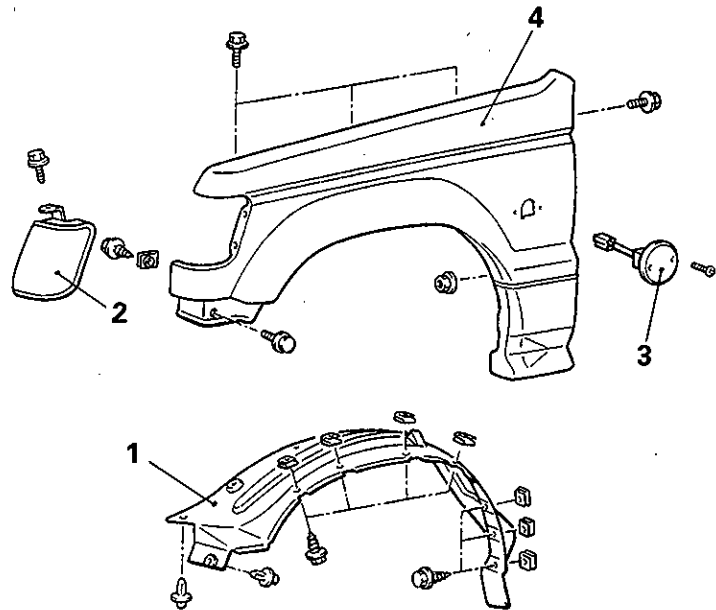
E42KAAT

REMOVAL AND INSTALLATION**Pre-removal and Post-installation Operation****Removal and Installation**

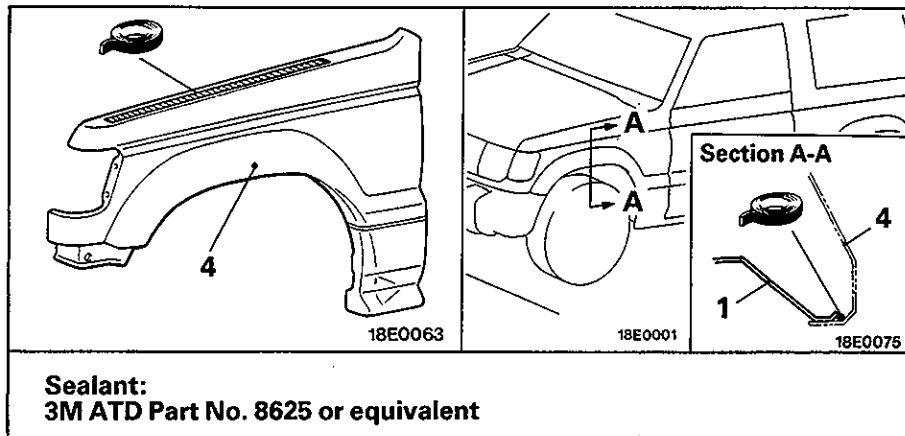
- Side Step Front Cover (Refer to GROUP 51 – Exterior Parts.)
- Front Mud Gard and Wide Fender (Refer to GROUP 51 – Garnish and Moulding.)

Removal steps

1. Splush shield
2. Front turn signal lamp
- Front bumper
3. Side turn signal lamp
4. Front fender panel



18E0062



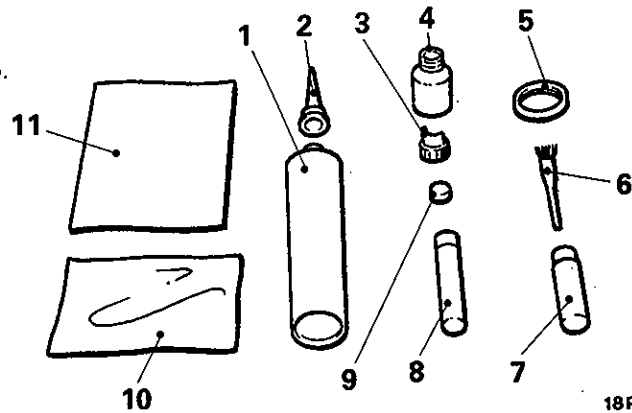
WINDSHIELD GLASS**WINDSHIELD REPAIR**

E42LABN

- Adhesive: 3M Super Fast Urethan Auto Glass Sealant Part No. 8609 or equivalent
- Primer: 3M Super Fast Urethan Primer Part No. 8608 or equivalent

- Auto Window Sealer Kit TEROSON-127, 37V

- | | |
|-------------------------|------------------------|
| 1. Sealer | 10. Gauge |
| 2. Nozzle | 11. Instruction manual |
| 3. Primer container | |
| 4. Primer container cap | |
| 5. Piano wire | |
| 6. Bush | |
| 7. Cleaner | |
| 8. Primer | |
| 9. Filter | |



18P0466

NOTE

When using TEROSON-127, 37V, follow the instructions of the manual included in the kit.

Additional material required

| | |
|--|--|
| Spacers | Available as service part |
| Dam | Available as service part |
| Anti-rust solvent (or Tectyl 506T Valvoline Oil Company) | For rust prevention |
| Isopropyl alcohol | For grease removal from bonded surface |
| Steel piano wire | Dia × length 0.6 mm × 1 m (0.024 in. × 3 ft.) |
| Adhesive gun | For cutting adhesive |
| | For pressing-out adhesive |

HANDLING OF AUTO WINDOW SEALER

Keep the sealant in a cool place, not exposed to the direct rays of the sun.

Do not place any heavy article on the sealant nor press it, otherwise it will become deformed.

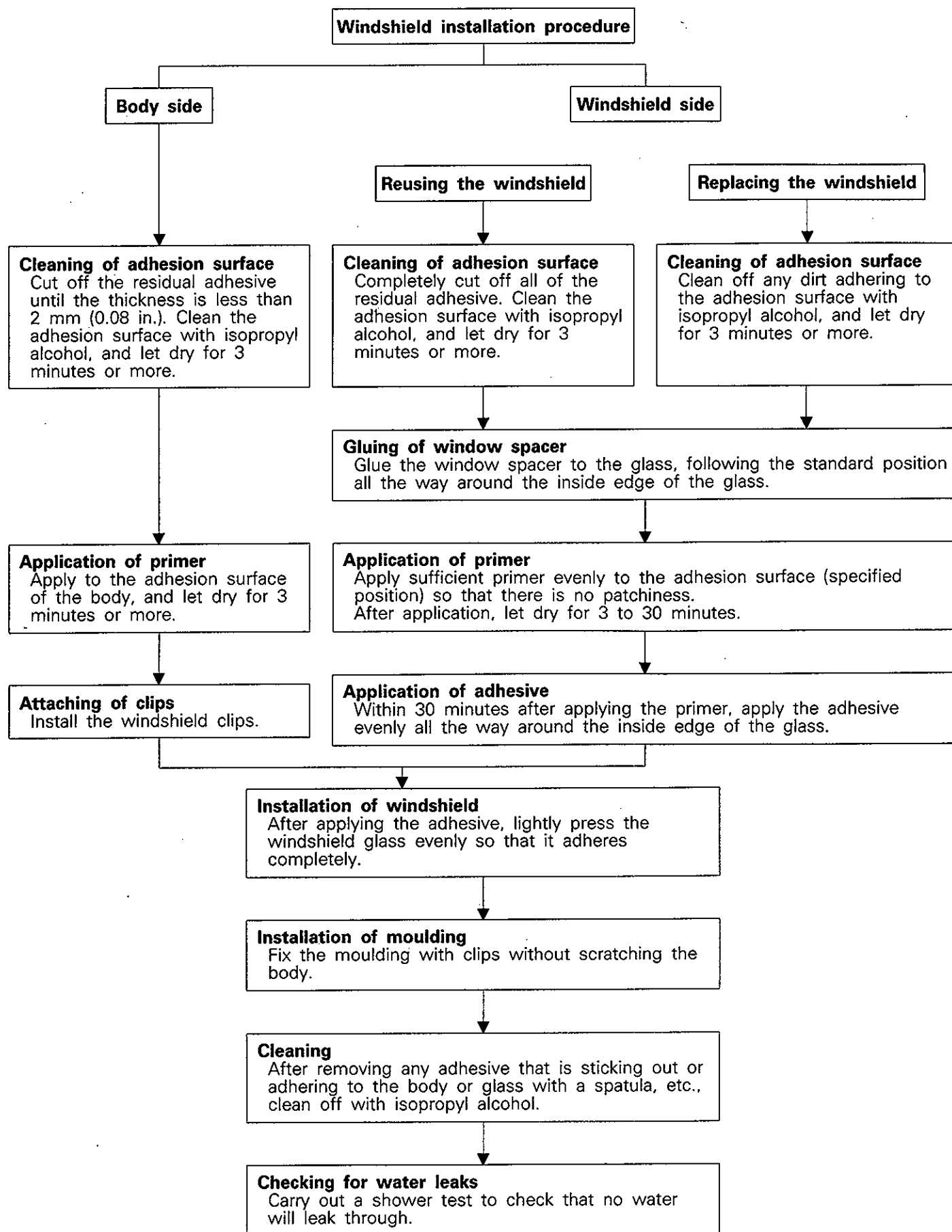
Avoid storing the sealant for more than 6 months, because it will lose its sealing effect.

BODY PINCH-WELD FLANGE SERVICING

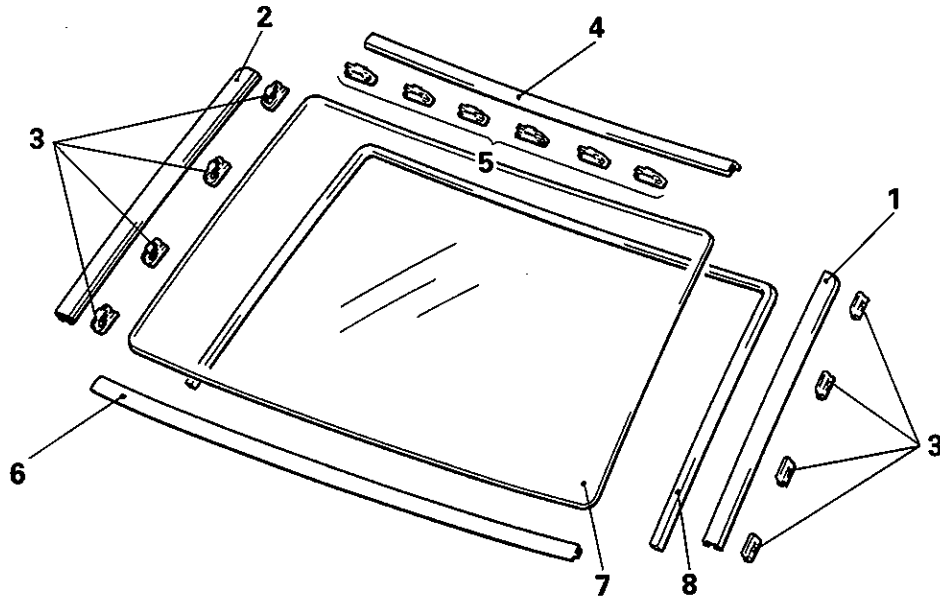
Before servicing the body pinch-weld flange, remove old adhesive completely.

If the flange requires painting, bake it after painting is completed.

WORKING PROCESS



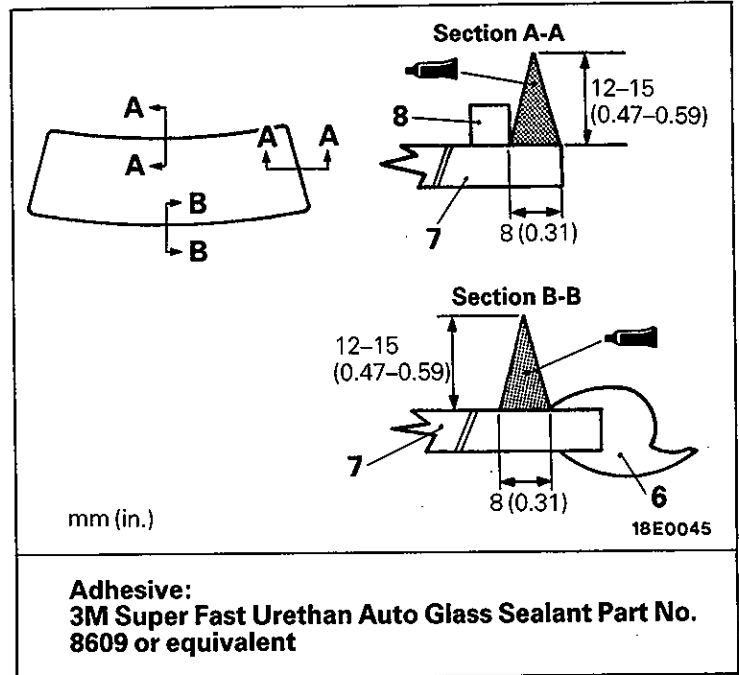
REMOVAL AND INSTALLATION



18E0142

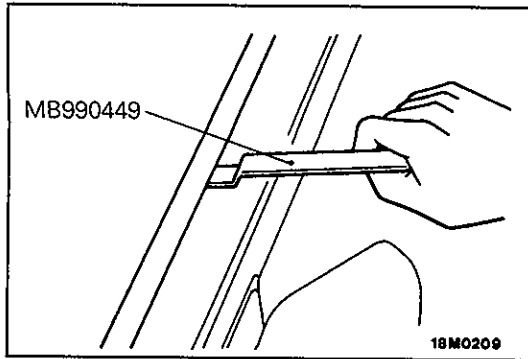
Pre-removal and Post-installation Operation Removal and Installation

- Instrument Panel <Vehicles with Wiper Deicer>
(Refer to GROUP 52 - Instrument Panel.)
- Front Pillar Trim
(Refer to GROUP 52 - Trims.)
- Front Deck Garnish
(Refer to GROUP 51 - Garnish and Moulding.)
- Roof Drip Moulding <2-door models>
(Refer to GROUP 51 - Garnish and Moulding.)



Removal steps

- ➡➡ 1. Windshield side moulding (LH) <4-door models>
- ➡➡ 2. Windshield side moulding (RH) <4-door models>
- ➡➡ 3. Windshield clip
- ➡➡ 4. Windshield upper moulding
- ➡➡ 5. Windshield clip
- ➡➡ ➡➡ 6. Windshield lower moulding
- ➡➡ ➡➡ 7. Windshield glass
- ➡➡ ➡➡ 8. Window spacer



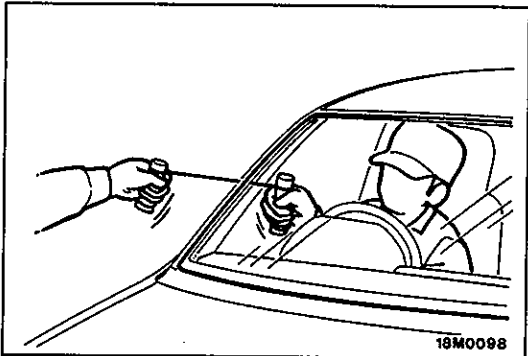
SERVICE POINTS OF REMOVAL

1. REMOVAL OF WINDSHIELD SIDE MOULDING (LH)/2. WINDSHIELD SIDE MOULDING (RH)/4. WINDSHIELD UPPER MOULDING

Remove by using the special tool to lever out each moulding.

Caution

Mouldings that become warped should not be re-used.



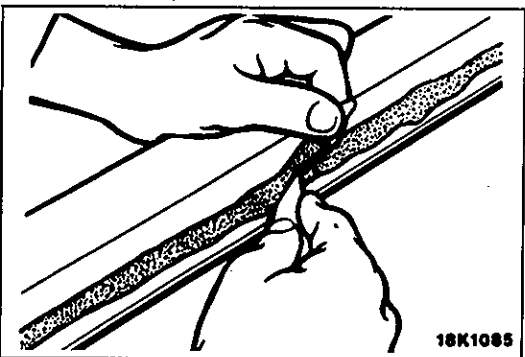
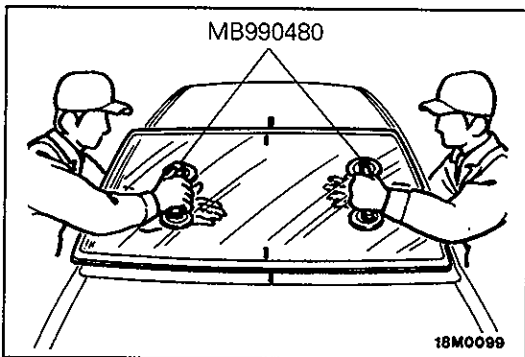
7. REMOVAL OF WINDSHIELD GLASS

- (1) In order to protect the body (paint surface), apply cloth tape to all body areas around the installed windshield glass.
- (2) Using a sharp-point drill, make a hole in the windshield glass adhesive.
- (3) Pass piano wire from the inside of the vehicle through the hole.
- (4) Pull the piano wire alternately from the inside and outside along the windshield glass to cut the adhesive.

Caution

Do not let the piano wire touch the edge of the windshield glass.

- (5) Make mating marks on the windshield glass and body.
- (6) Use the special tool to remove the windshield glass.



- (7) Use a knife to cut away the remaining adhesive so that the thickness can be within 2 mm (0.08 in.) around the entire circumference of the body flange.
- (8) Finish the flange surfaces so that they are smooth.

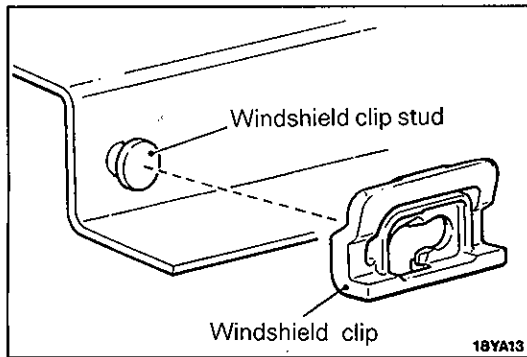
Caution

1. **Be careful not to remove more adhesive than is necessary.**
2. **Be careful also not to damage the paintwork on the body surface with the knife. If the paintwork is damaged, repair the damaged area with repair paint or anti-rust agent.**

- (9) When reusing the glass, remove the adhesive and window spacer chips still adhering to the window glass, and clean with isopropyl alcohol.
- (10) Clean the body side in the same way.

Caution

Let the cleaned places stand for 3 minutes or more, and carry out the next procedures after they have dried. Also, do not touch any surface that has been cleaned.

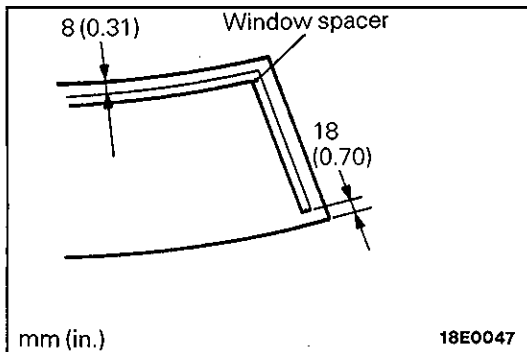


WINDSHIELD CLIP STUD REPAIR

If the T-studs are broken, use a drill to make holes in the T-studs 3 mm (0.12 in.) in diameter, fill the holes with adhesive, and then use screws to mount the window moulding clips.

Caution

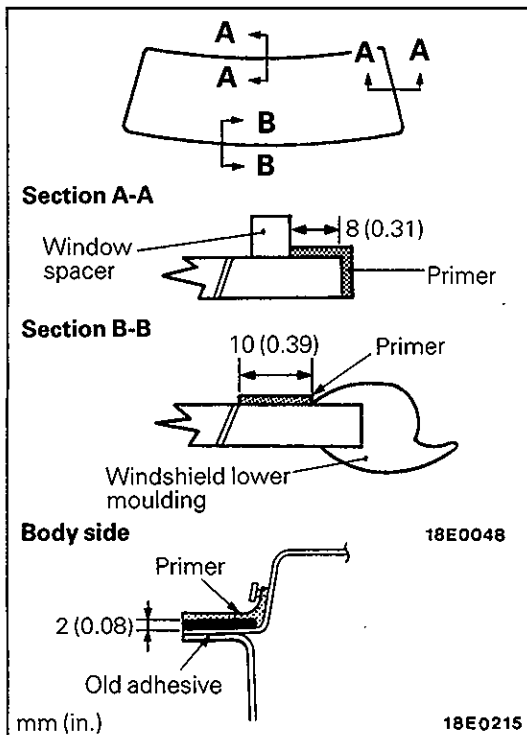
After installing the clip, apply antirust solvent to the screw head to protect them from rust.



SERVICE POINTS OF INSTALLATION

8. INSTALLATION OF WINDOW SPACER

After cleaning the window spacer adhesion surface of the windshield glass with isopropyl alcohol to remove all grease, etc., attach the window spacer as shown in the figure.



7. INSTALLATION OF WINDSHIELD GLASS/6. WINDSHIELD LOWER MouldING

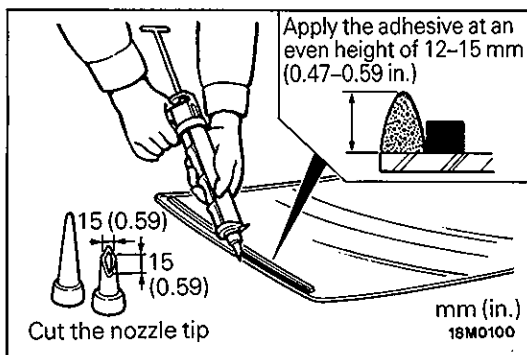
- (1) When replacing the glass, temporarily set the glass against the body, and put mating marks on the glass and body where they match.
- (2) Install the windshield lower moulding onto the windshield glass.
- (3) Soak a sponge in the primer, and apply evenly to the glass and the body in the places shown in the figure.

Specified primer: 3M Super Fast Urethan Primer Part No. 8608 or equivalent

Caution

1. The primer strengthens the adhesive strength, so be sure to apply it evenly around the entire circumference. Also, a too thick application will cause lowering of the adhesive strength.
2. Do not touch the coated surface.

- (4) After applying the primer, let it dry for 3 to 30 minutes.

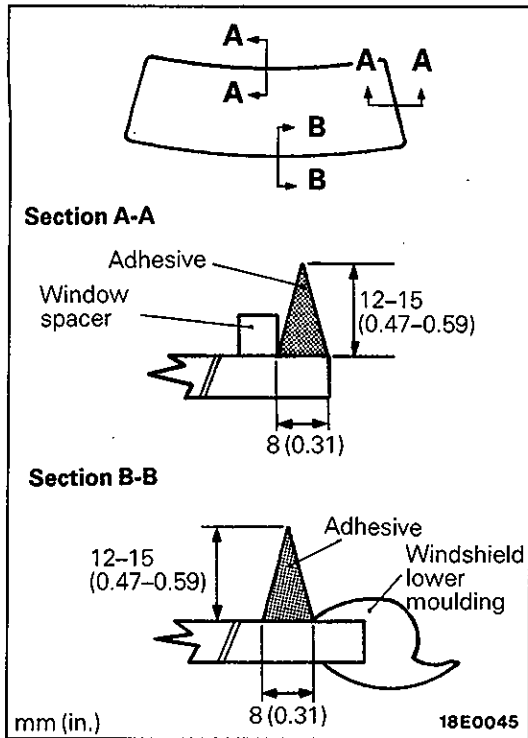


- (5) Within 30 minutes after applying the primer, fill the sealant gun with adhesive and apply the adhesive evenly around the entire circumference of the windshield.

Specified adhesive: 3M Super Fast Urethan Auto Glass Sealant Part No. 8609 or equivalent

NOTE

Cut the nozzle tip of the sealant gun into a V shape to facilitate adhesive application.



- (6) After applying the adhesive, match up the mating marks on the glass and the body, and lightly press the windshield glass evenly so that it adheres completely.
- (7) After removing any adhesive that is sticking out or adhering to the body or glass with a spatula, etc., clean off with isopropyl alcohol.

After completion of this operation (after installing the glass), place it somewhere where it will not be disturbed, until the adhesive sets.

Caution

If heat is applied with an infra-red lamp to shorten the setting time, keep the surface temperature of the adhesive below 100°C.

- (8) After attaching the windshield glass to the body, let it stand for 30 minutes or more, and then test for water leakage.

Caution

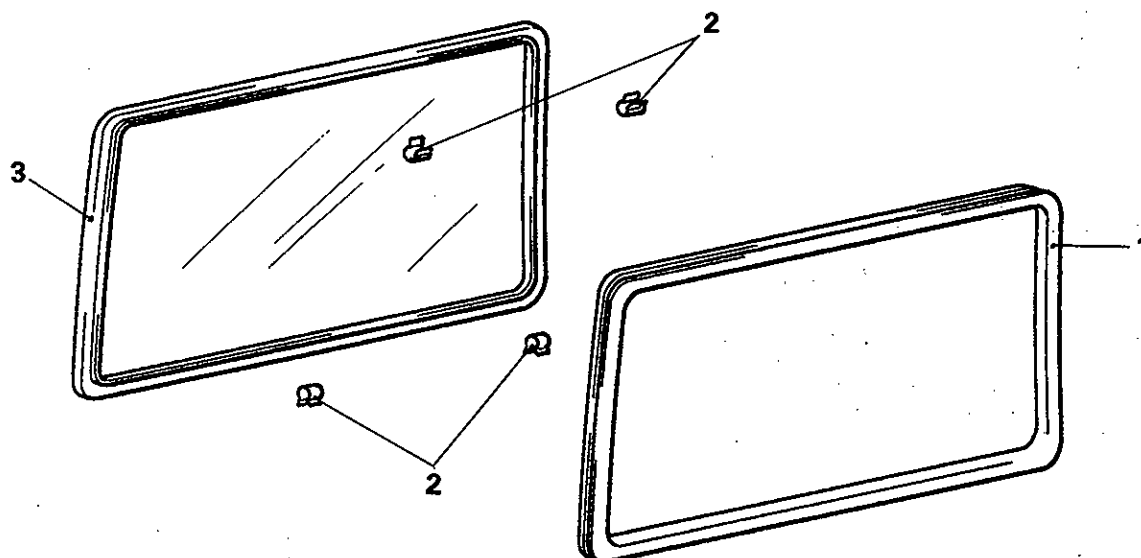
1. **If moving the vehicle, it should be done gently.**
2. **When testing for water leakage, do not pinch the end of the hose to spray the water.**

QUARTER WINDOW GLASS

E42LBAE

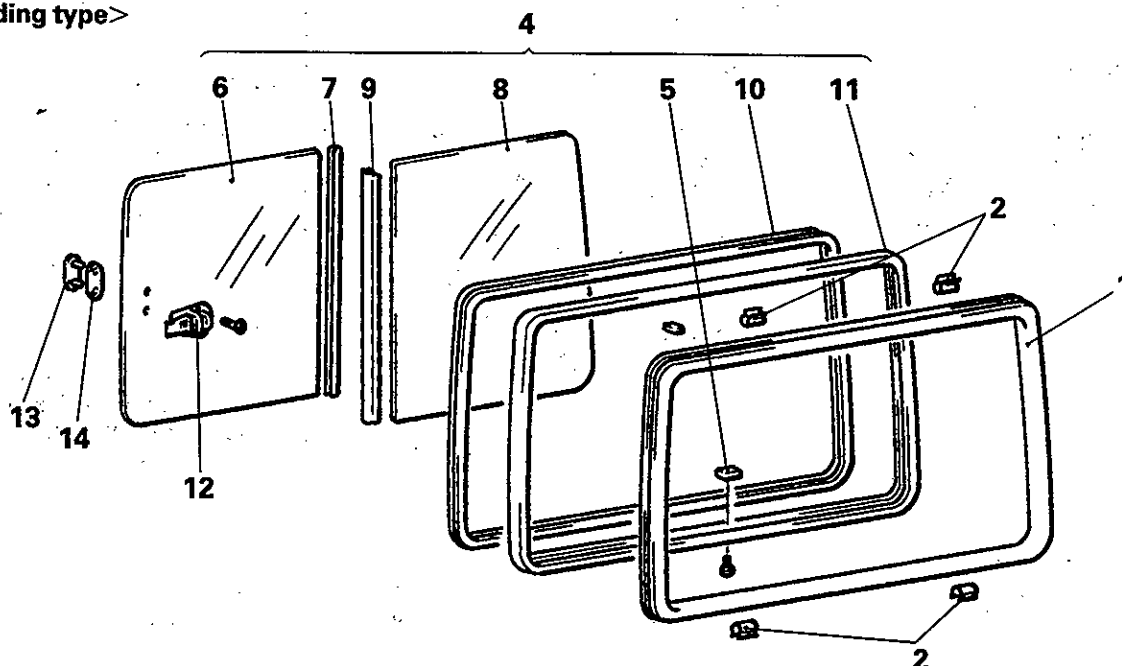
REMOVAL AND INSTALLATION

<Fixed type>



18E0140

<Sliding type>



18E0141

Quarter window glass removal steps

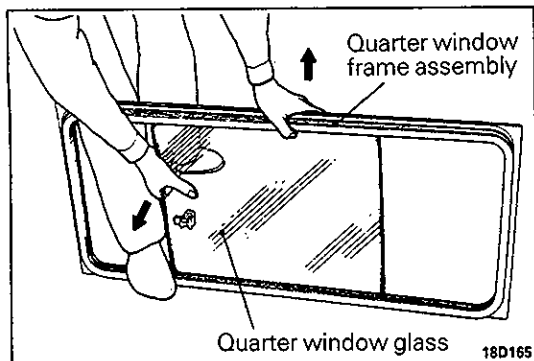
- Quarter upper trim (Refer to GROUP 52 – Trims.)

1. Opening trim
2. Clip
3. Quarter window glass assembly
4. Quarter window glass and frame assembly
5. Glass stopper
6. Quarter window glass (A)
7. Edge trim

8. Quarter window glass (B)
9. Seal rubber
10. Runchannel
11. Quarter window frame assembly

Slide glass lock removal steps

12. Slide glass lock
13. Connector
14. Packing



SERVICE POINTS OF REMOVAL

6. REMOVAL OF QUARTER WINDOW GLASS (A)/8. QUARTER WINDOW GLASS (B)

Remove the glass by moving the glass to the centre and widening the middle section of the quarter window frame assembly.

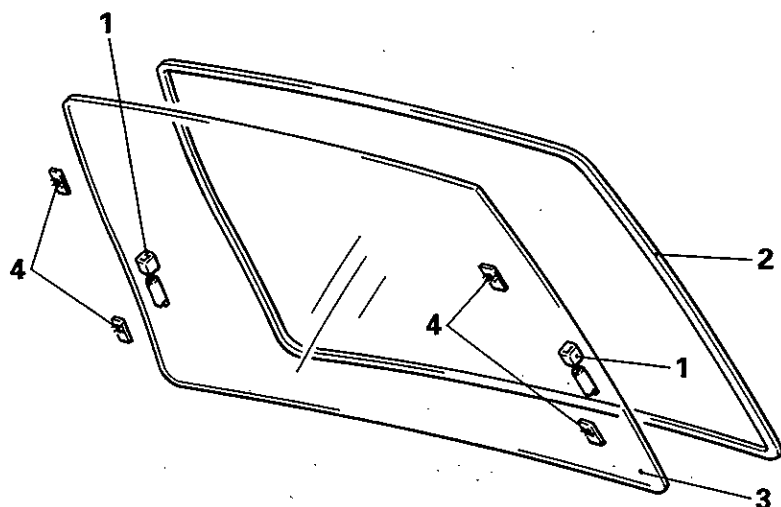
BACK DOOR WINDOW GLASS

E42LDAG

REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation

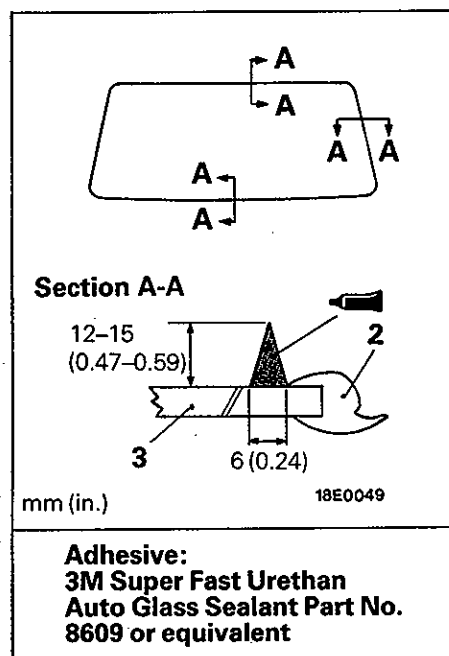
- Removal and Installation of Back Door Upper Trim (Refer to P.42-35.)



Removal steps

1. Defogger terminal
2. Back door window glass moulding

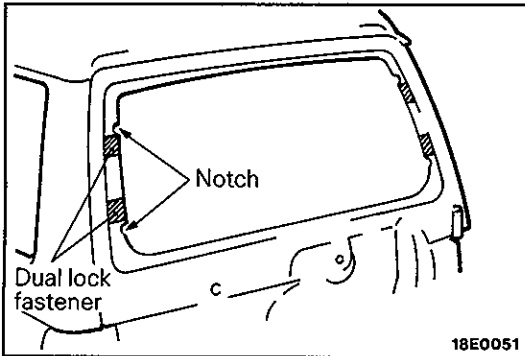
3. Back door window glass
4. Dual lock fastener



SERVICE POINT OF REMOVAL

3. REMOVAL OF BACK DOOR WINDOW GLASS

Remove in the same way as for the windshield glass. (Refer to P.42-16.)



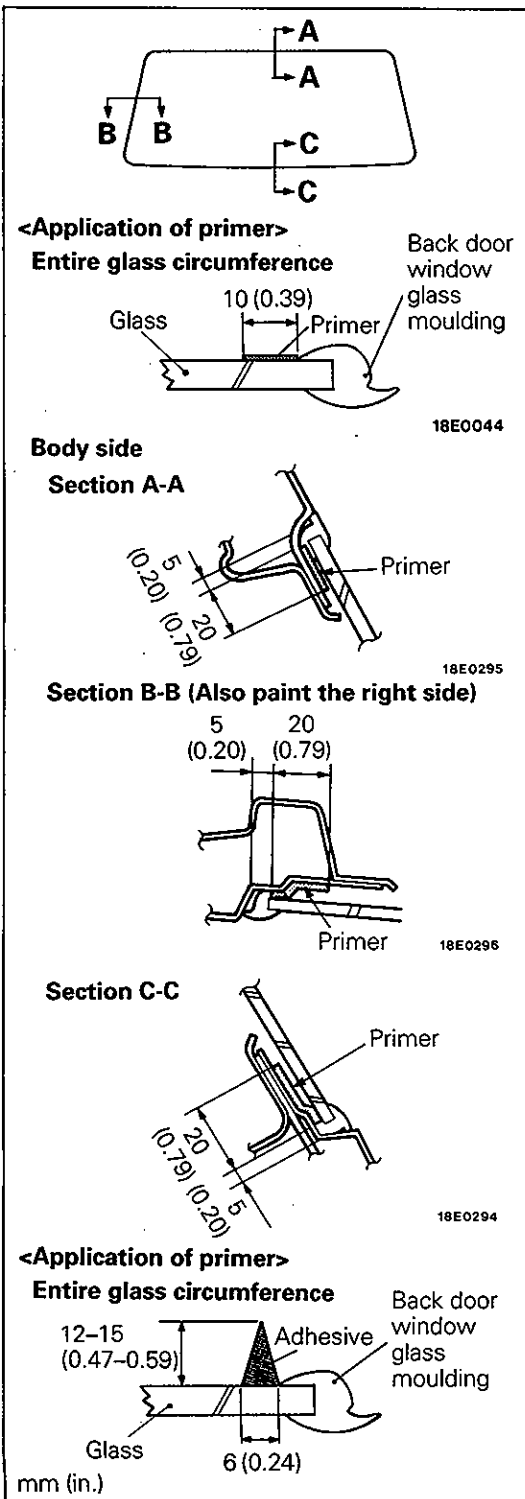
SERVICE POINTS OF INSTALLATION

4. INSTALLATION OF DUAL LOCK FASTENER

Attach the dual lock fasteners so that the fastener ends are aligned with the notches on the body.

3. INSTALLATION OF BACK DOOR WINDOW GLASS/2. BACK DOOR WINDOW GLASS MOULDING

Install in the same way as for the windshield glass. (Refer to P.42-17.)



NOTES

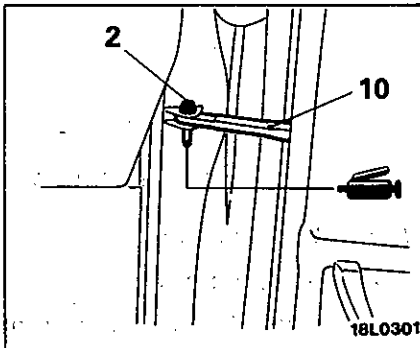
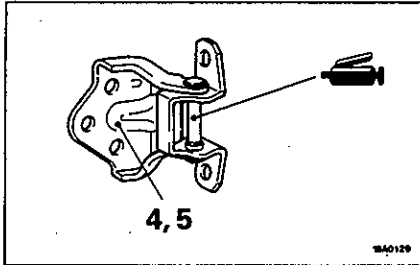
DOOR ASSEMBLY

E42MAA0

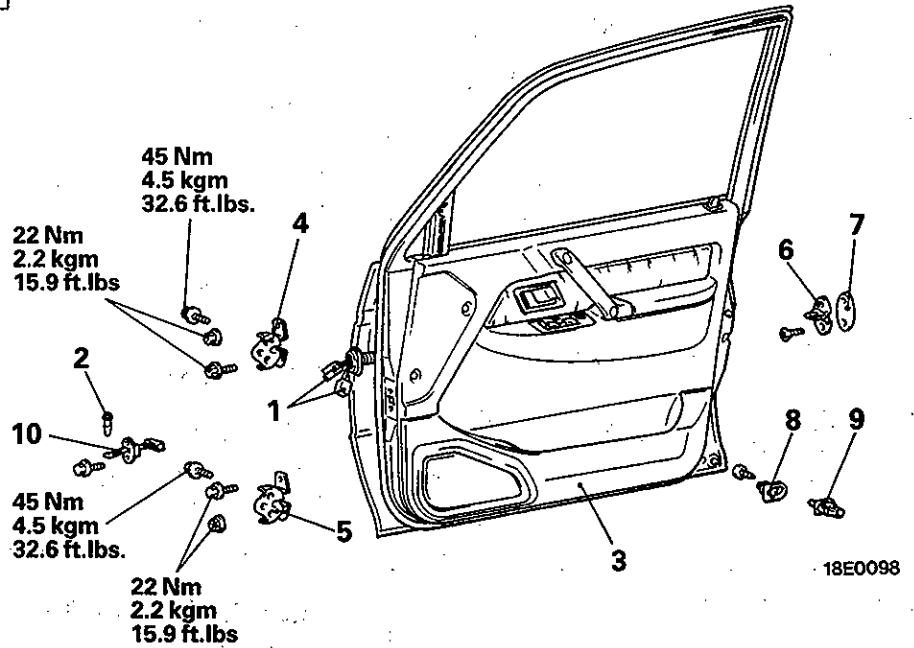
REMOVAL AND INSTALLATION

Door Post-installation Operation

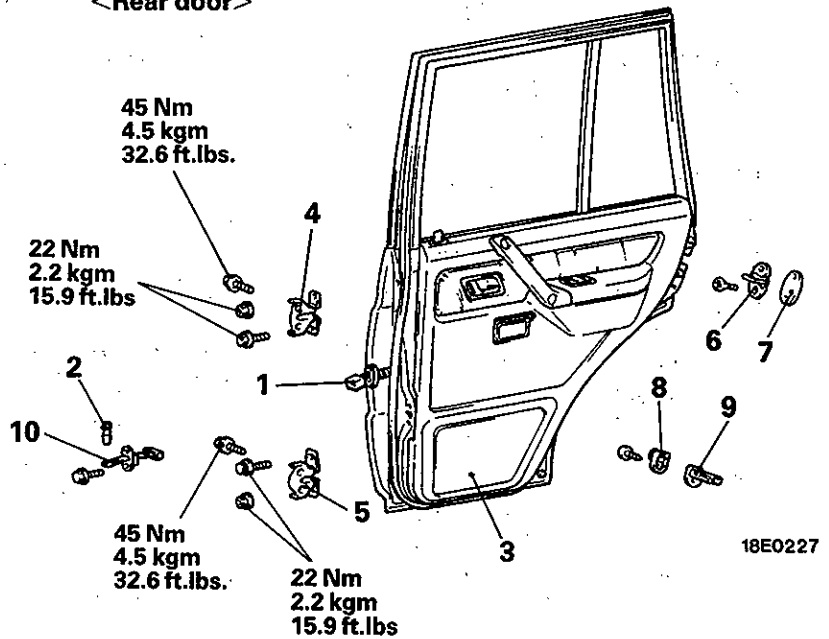
- Door Adjustment (Refer to P.42-5.)



<Front door>



<Rear door>



Door removal steps

1. Door harness connector
2. Spring pin
3. Door assembly
4. Door upper hinge
5. Door lower hinge

Striker removal steps

6. Striker
7. Striker shim

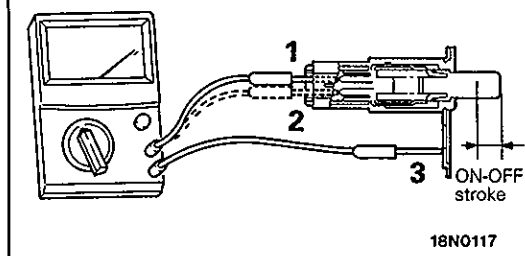
Door switch removal steps

8. Door switch cap
9. Door switch

Door check strap removal steps

- Door trim
- Waterproof film (Refer to P.42-25.)
- 2. Spring pin
- 10. Door check strap

<Type 1>



INSPECTION

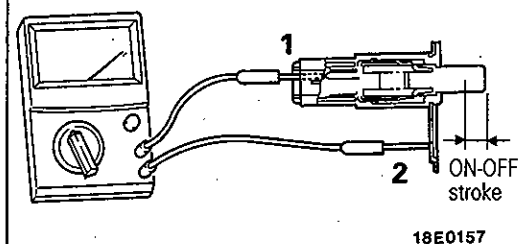
DOOR SWITCH

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

<Type 1>

| Terminal | 1 | 2 | 3 |
|-----------------|---|---|---|
| Switch position | | | |
| Open (ON) | ○ | ○ | ○ |
| Depressed (OFF) | | | |

<Type 2>



<Type 2>

| Terminal | 1 | 2 |
|-----------------|---|---|
| Switch position | | |
| Open (ON) | ○ | ○ |
| Depressed (OFF) | | |

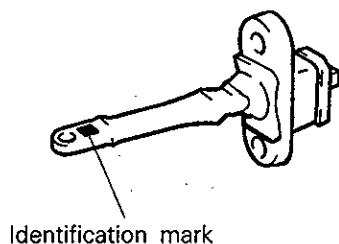
NOTE

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

SERVICE POINTS OF INSTALLATION

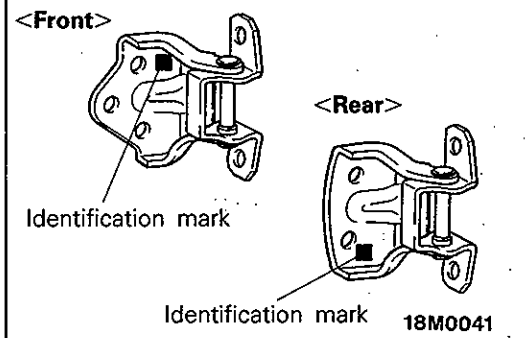
10. INSTALLATION OF DOOR CHECK STRAP

Install the door check so that the identification marks shown below are facing upwards.



| Place of application | | Identification mark |
|----------------------|------------|---------------------|
| RH | Front door | PR |
| | Rear door | QR |
| LH | Front door | PL |
| | Rear door | QL |

<Front>



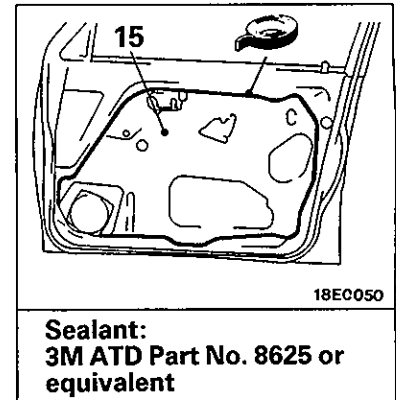
5. INSTALLATION OF DOOR LOWER HINGE/4. DOOR UPPER HINGE

The door hinges differ according to where they are used, so check the identification marks before installation.

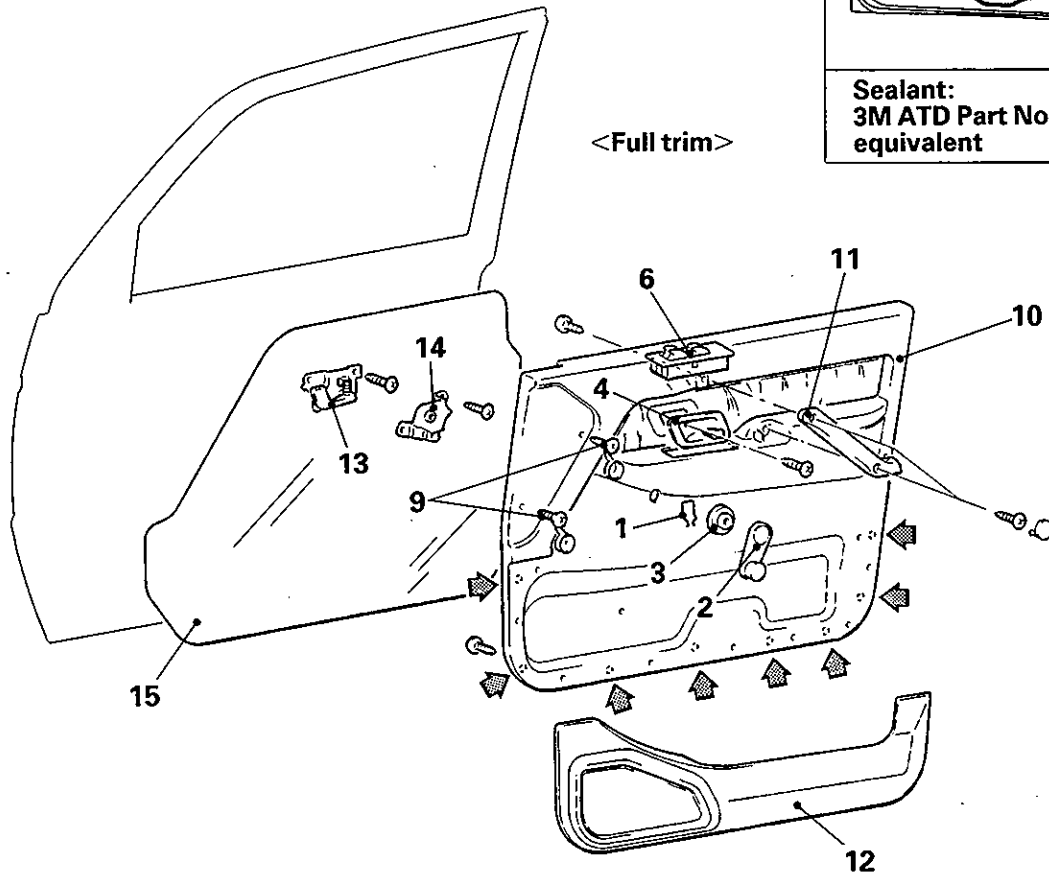
| Place of application | | | Identification mark |
|----------------------|----|-------------|---------------------|
| Front door | | Upper hinge | F |
| | | Lower hinge | E |
| Rear door | RH | Upper hinge | X |
| | | Lower hinge | Z |
| | LH | Upper hinge | W |
| | | Lower hinge | Y |

DOOR TRIM AND WATERPROOF FILM REMOVAL AND INSTALLATION

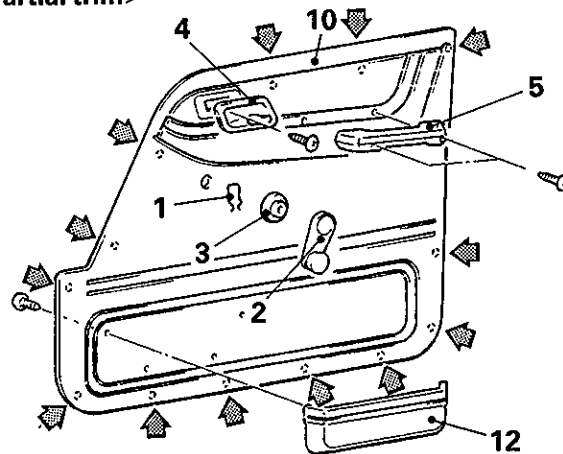
<Front door>



<Full trim>



<Partial trim>



Removal steps

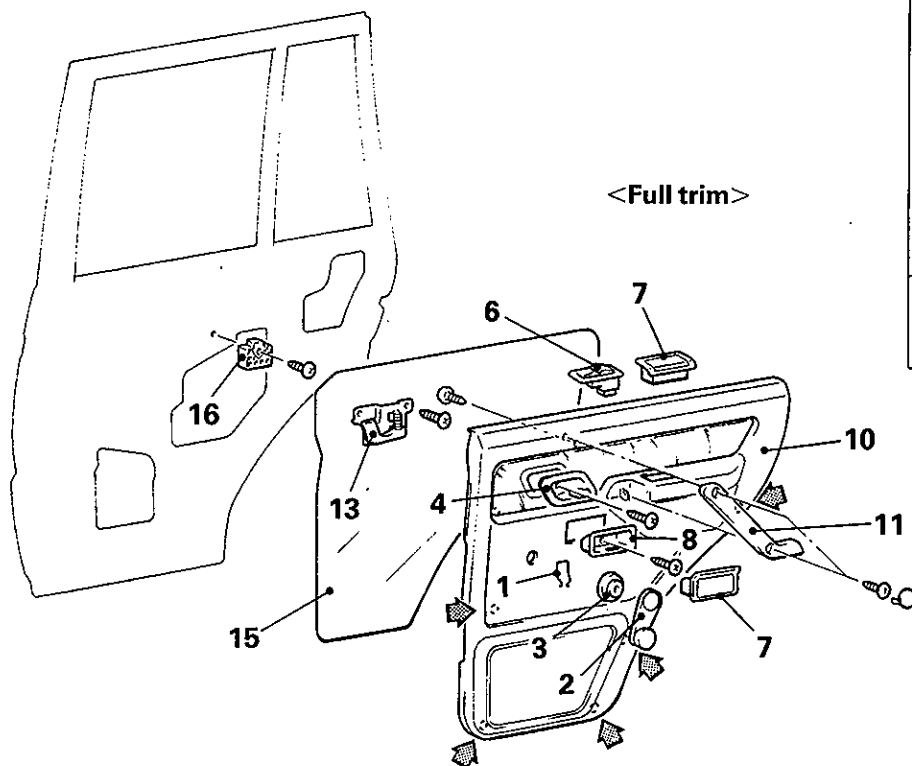
- 1. Clip
- 2. Regulator handle
- 3. Escutcheon
- 4. Inside handle cover
- 5. Armrest
- 6. Power window switch
- 9. Screw or clip
- 10. Door trim
- 11. Door grip
- 12. Door pocket
- 13. Inside handle
- 14. Armrest bracket
- 15. Waterproof film

NOTE

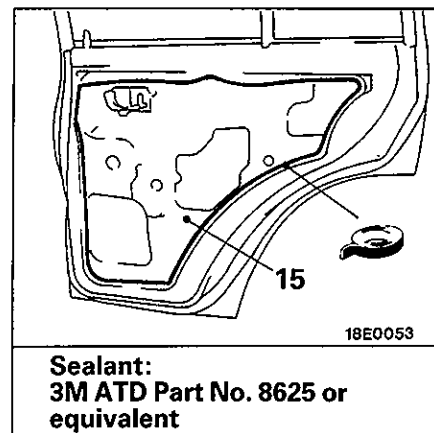
◀ : Indicates the clip positions

18E0247

<Rear door>



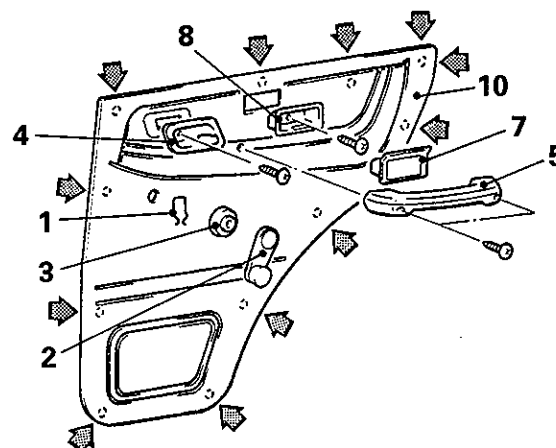
<Full trim>



<Partial trim>

Removal steps

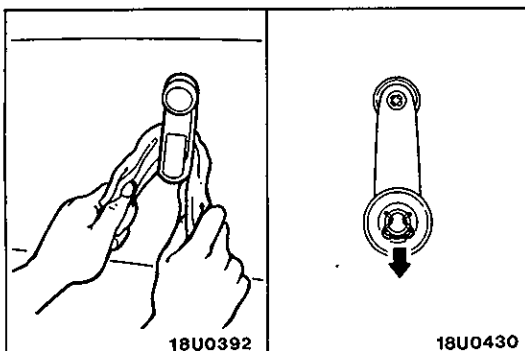
1. Clip
2. Regulator handle
3. Escutcheon
4. Inside handle cover
5. Armrest
6. Power window switch
7. Ashtray
8. Ashtray bracket
10. Door trim
11. Door grip
13. Inside handle
15. Waterproof film
16. Screw grommet



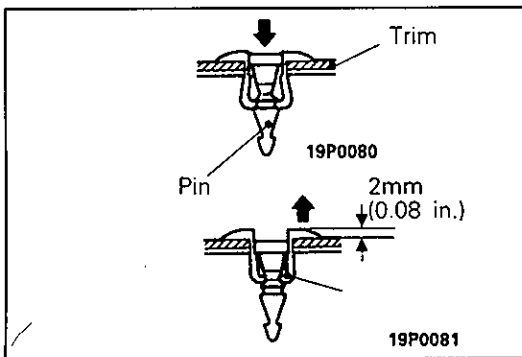
18E0083

NOTE

: Indicates the clip positions

**SERVICE POINT OF REMOVAL****1. REMOVAL OF CLIP**

Remove the clip by using a rag, and then remove the regulator handle.

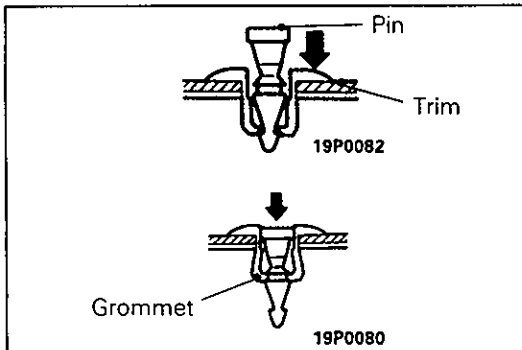


9. REMOVAL OF CLIP

- (1) Use a cross-tip (+) screwdriver to push inward the pin (at the centre of the trim clip) to a depth of about 2 mm (0.08 in.).
- (2) Pull the trim clip outward to remove it.

Caution

Do not push the pin inward more than necessary because it may damage the grommet, or the pin may fall in, if pushed too far.



SERVICE POINT OF INSTALLATION

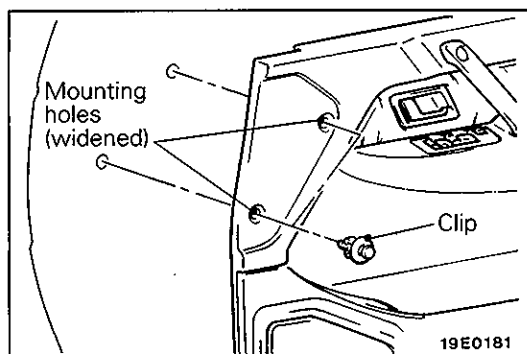
9. INSTALLATION OF SCREW OR CLIP

- (1) With the pin pulled out, insert the trim clip into the hole in the trim.
- (2) Push the pin inward until the pin's head is flush with the grommet.
- (3) Check whether the trim is secure.

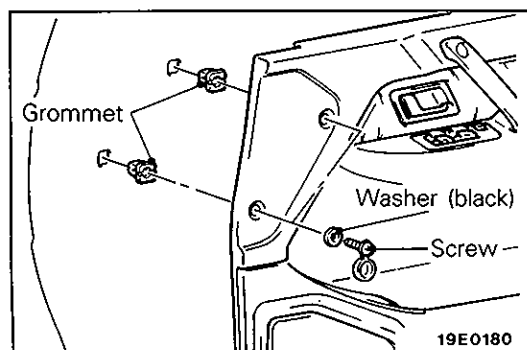
NOTE

Two types of door panel and door trim are available. Identify the type from the table below, and install by the following procedure.

| | Type A | Type B |
|-----------------|--------------------------------|---|
| Door panel | Round hole 8 mm (0.31 in.) | Square hole 10×12 mm (0.39×0.47 in.) |
| Door trim | Round hole 11 mm (0.43 in.) | Round hole 6 mm (0.24 in.) |
| Securing method | Clip | Cap assembled screw |



- When installing the type B door trim to the type A door panel
 - 1) Use a drill or similar tool to widen the mounting holes (6 mm dia.) in the door trim to 11 mm in diameter.
 - 2) Secure using clips.



- When installing the type A door trim to the type B door panel
 - 1) Insert grommets into the square mounting holes in the door panel.
 - 2) Tighten using black washers and screws, and then cover the screws with the caps.

NOTES

DOOR GLASS AND REGULATOR

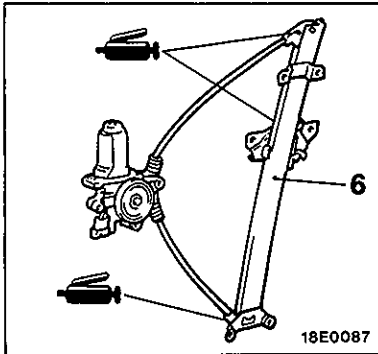
REMOVAL AND INSTALLATION

Pre-removal Operation

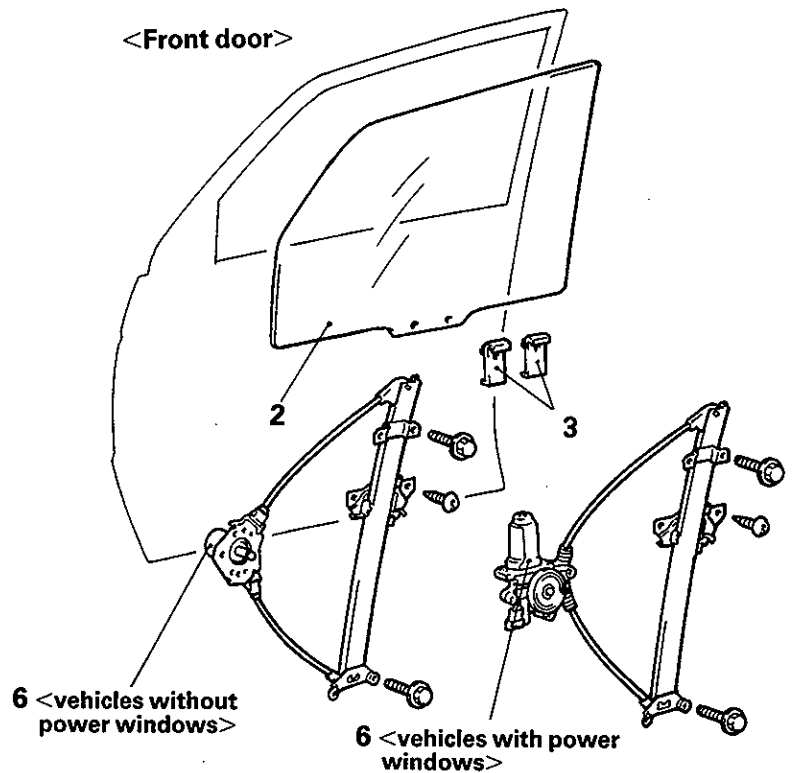
- Removal of Door Trim and Waterproof Film (Refer to P.42-25.)

Post-installation Operation

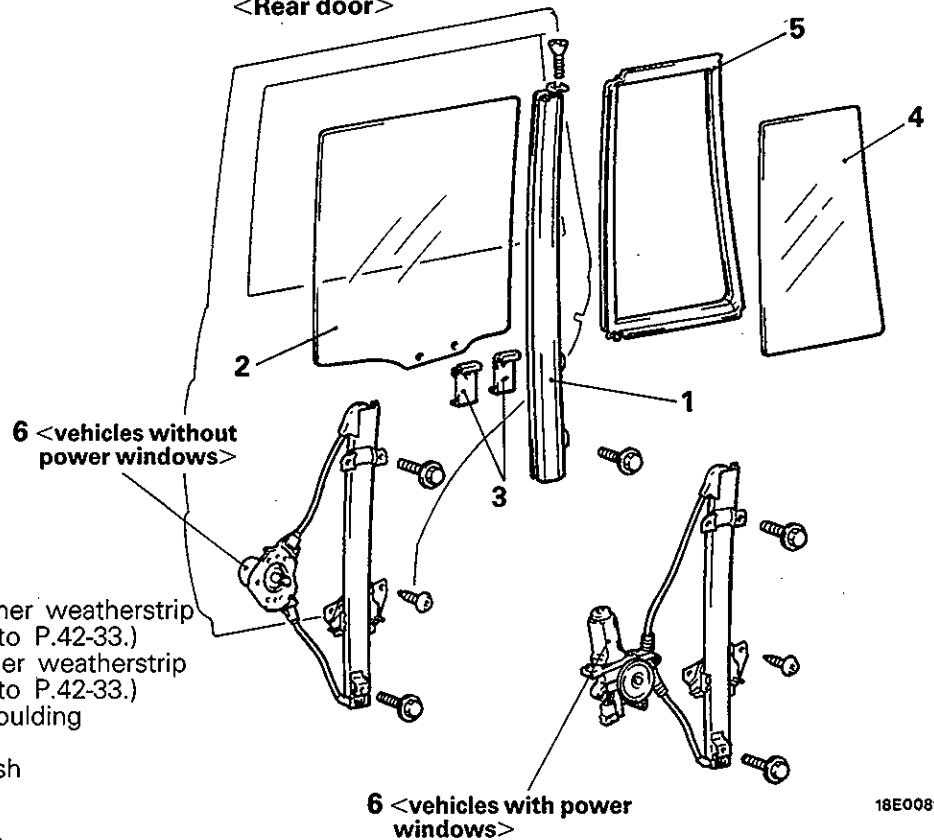
- Door Window Glass Adjustment (Refer to P.42-6.)
- Installation of Door Trim and Waterproof Film (Refer to P.42-25.)



<Front door>

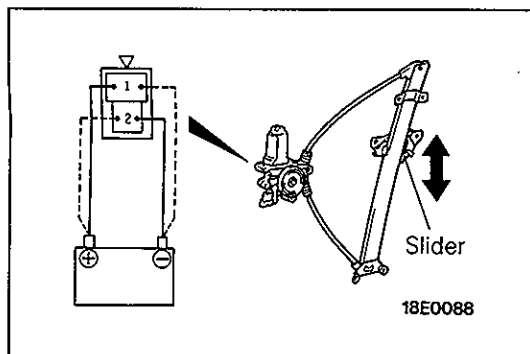


<Rear door>



Removal steps

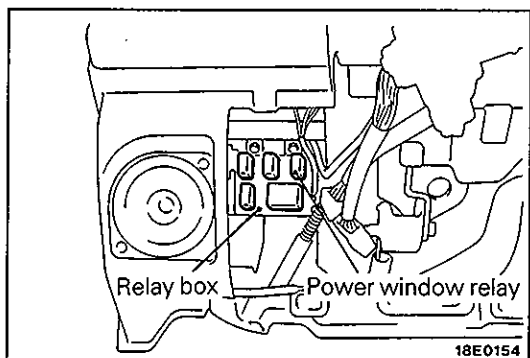
- Front door window inner weatherstrip <Partial trim> (Refer to P.42-33.)
- Rear door window inner weatherstrip <Partial trim> (Refer to P.42-33.)
- Rear door belt line moulding (Refer to P.42-33.)
- 1. Rear door center sash
- 2. Door window glass
- 3. Door glass holder
- 4. Stationary window glass
- 5. Stationary window weatherstrip
- 6. Window regulator assembly

**INSPECTION****POWER WINDOW MOTOR**

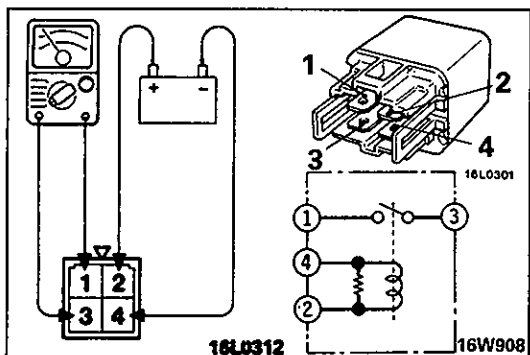
- (1) Check if the slider moves smoothly when the battery is directly connected to the motor terminals.
- (2) Check if the slider moves in the opposite direction when the battery is connected with the polarities reversed.

CIRCUIT BREAKER (INCORPORATED IN THE POWER WINDOW MOTOR)

- (1) Press the UP switch to fully close the window glass, and continue to press the switch for 10 seconds.
- (2) At the moment that the UP switch is released, press the DOWN switch. The circuit breaker can be considered good if at this time the door window glass begins to open within 60 seconds.

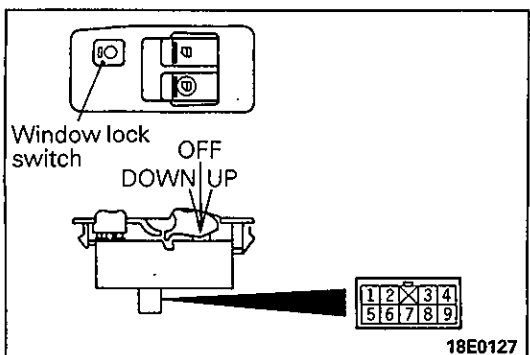
**POWER WINDOW RELAY**

- (1) Remove the power window relay from the relay box.



- (2) Check for continuity between the terminals.

| | | |
|--|-------------------------|---------------|
| When there is no current | Between terminals ② - ④ | Continuity |
| | Between terminals ① - ③ | No continuity |
| When there is current (Between terminals ② - ④) | Between terminals ① - ③ | Continuity |

**POWER WINDOW SWITCH**

Operate the switch and check for continuity between the terminals.

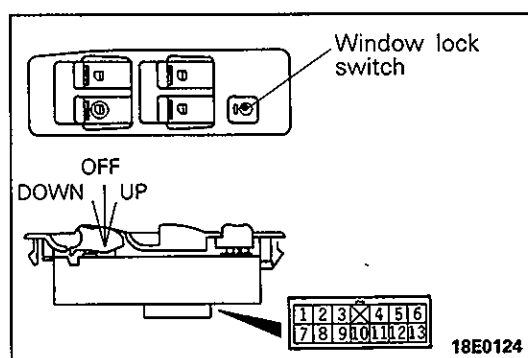
| Switch position Terminal | | | Power window switch | | |
|-----------------------------|------------------|-------|---------------------|-----|------|
| | | | UP | OFF | DOWN |
| Power window switch | Driver's side | 6 | ○ | | ○ |
| | | 3 (1) | ○ | ○ | ○ |
| | | 8 (5) | ○ | ○ | ○ |
| | | 9 | ○ | ○ | ○ |
| | Passenger's side | 6 | ○ | | ○ |
| | | 1 (3) | ○ | ○ | ○ |
| | | 5 (8) | ○ | ○ | ○ |
| | | 9 | ○ | ○ | ○ |

| Switch position Terminal | | Power window lock switch | |
|-----------------------------|---|--------------------------|------|
| | | NORMAL | LOCK |
| Power window lock switch | 6 | ○ | |
| | 4 | ○ | |

NOTE

(1) ○—○ indicates that there is continuity between the terminals.

(2) () indicates RH drive vehicles.



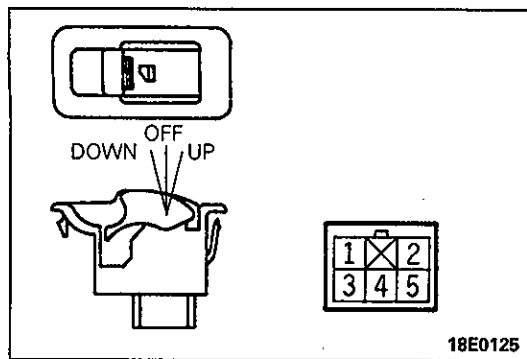
Main switch <4-door models>

| Switch position Terminal | | Power window switch (normal) | | | Power window switch (lock) | | |
|-----------------------------|--------|------------------------------|-----|------|----------------------------|-----|------|
| | | UP | OFF | DOWN | UP | OFF | DOWN |
| Front (Driver's side) | 9 | ○ | | ○ | ○ | | ○ |
| | 2(1) | ○ | ○ | ○ | ○ | ○ | ○ |
| | 8(7) | ○ | ○ | ○ | ○ | ○ | ○ |
| | 13 | ○ | ○ | ○ | ○ | ○ | ○ |
| Front (Passenger's side) | 9 | ○ | | ○ | ○ | | ○ |
| | 1(2) | ○ | ○ | ○ | ○ | ○ | ○ |
| | 7(8) | ○ | ○ | ○ | ○ | ○ | ○ |
| | 13 | ○ | ○ | ○ | ○ | ○ | ○ |
| Rear (RH) | 9 | ○ | | ○ | | | ○ |
| | 5(4) | ○ | ○ | ○ | | ○ | ○ |
| | 12(11) | ○ | ○ | ○ | ○ | ○ | ○ |
| | 13 | ○ | ○ | ○ | ○ | ○ | ○ |
| Rear (LH) | 9 | ○ | | ○ | | | ○ |
| | 4(5) | ○ | ○ | ○ | | ○ | ○ |
| | 11(12) | ○ | ○ | ○ | ○ | ○ | ○ |
| | 13 | ○ | ○ | ○ | ○ | ○ | ○ |

NOTE

(1) ○—○ indicates that there is continuity between the terminals.

(2) () indicates RH drive vehicles.



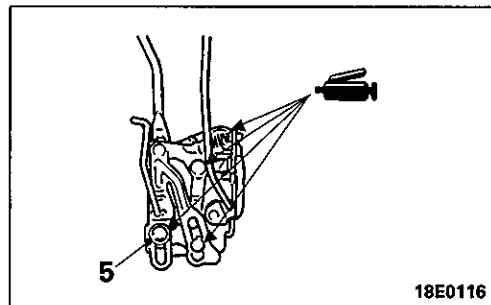
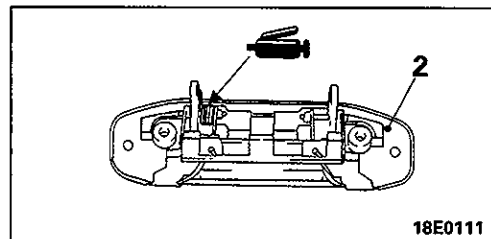
Sub switch

| Switch position | | Sub-switch | | |
|-----------------|---|------------|-----|------|
| | | UP | OFF | DOWN |
| Terminal | 1 | | | |
| | 2 | | | |
| | 3 | | | |
| | 4 | | | |
| | 5 | | | |

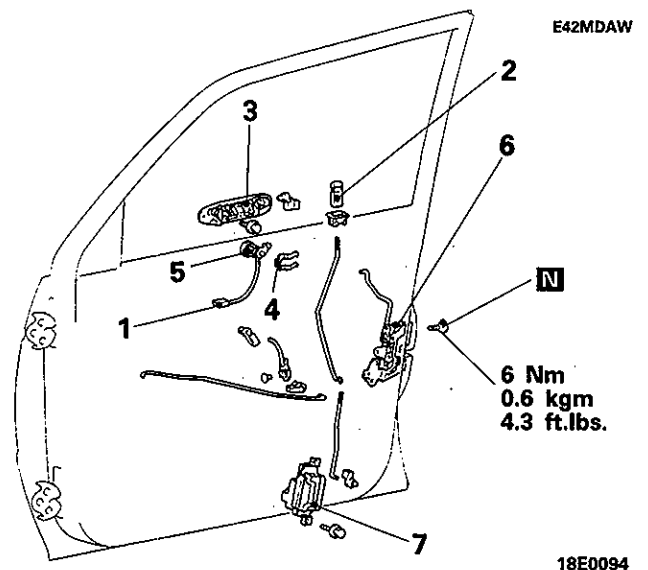
NOTE

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

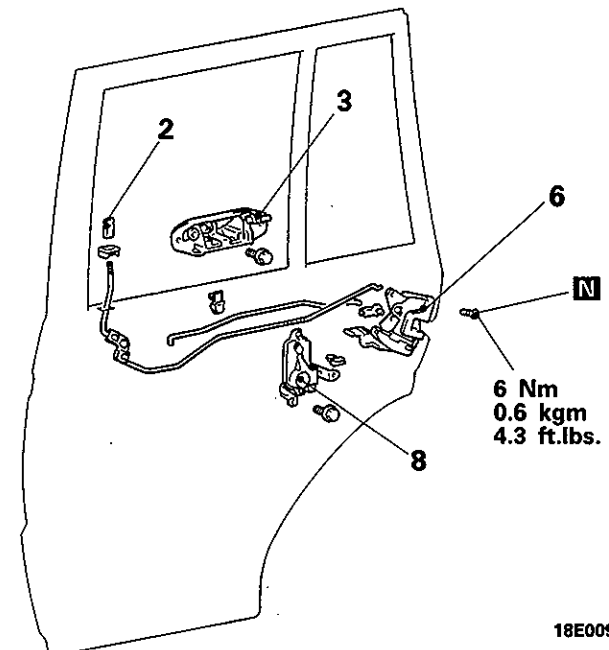
DOOR HANDLE AND LATCH REMOVAL AND INSTALLATION



<Front door>

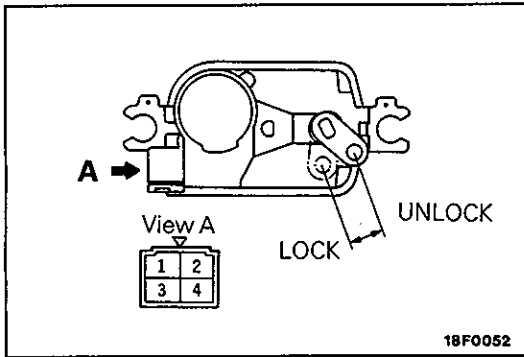


<Rear door>



Removal steps

- Door trim
 - Waterproof film } (Refer to P. 42-25.)
 - Door outside handle play inspection (Refer to P. 42-6.)
1. Door lock key cylinder switch connector <Passenger's side>
 2. Inside lock knob
 3. Door outside handle
 4. Retainer
 5. Door lock key cylinder
 6. Door latch assembly
 7. Front door lock actuator
 8. Rear door lock actuator

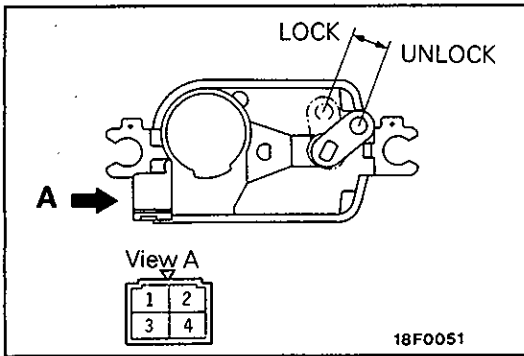


INSPECTION

FRONT DOOR LOCK ACTUATOR

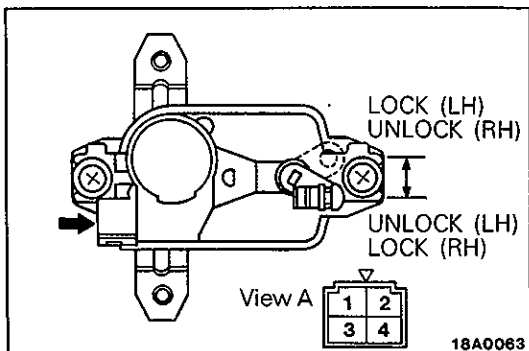
<LH>

- (1) After setting the rod to the LOCK position, apply battery voltage to terminal ① and check if the rod moves to the UNLOCK position when terminal ③ is earthed.
- (2) After setting the rod to the UNLOCK position and applying battery voltage to terminal ③, check if the rod moves to the LOCK position when terminal ① is earthed.
- (3) For left-hand drive vehicles, when the actuator rod is set to the UNLOCK position, check if there is continuity between terminal ② and terminal ④, and when the rod is set to the LOCK position, check if there is no continuity.



<RH>

- (1) After setting the rod to the LOCK position and applying battery voltage to terminal ③, check if the rod moves to the UNLOCK position when terminal ① is earthed.
- (2) After setting the rod to the UNLOCK position and applying battery voltage to terminal ①, check if the rod moves to the LOCK position when terminal ③ is earthed.
- (3) For right-hand vehicles, when the actuator rod is set to the UNLOCK position, check if there is continuity between terminal ② and terminal ④, and when the rod is set to the LOCK position, check if there is no continuity.



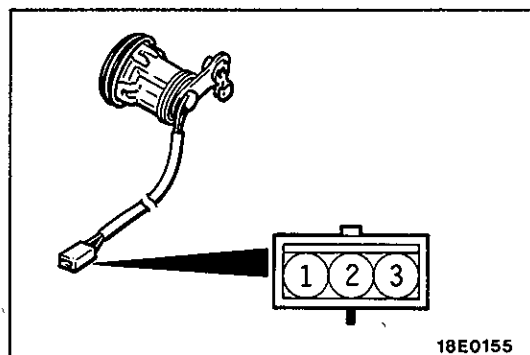
REAR DOOR LOCK ACTUATOR

<LH>

- (1) After setting the rod to the LOCK position and applying battery voltage to terminal ③, check if the rod moves to the UNLOCK position when terminal ① is earthed.
- (2) After setting the rod to the UNLOCK position and applying battery voltage to terminal ①, check if the rod moves to the LOCK position when terminal ③ is earthed.

<RH>

- (1) After setting the rod to the LOCK position, apply battery voltage to terminal ① and check if the rod moves to the UNLOCK position when terminal ③ is earthed.
- (2) After setting the rod to the UNLOCK position and applying battery voltage to terminal ③, check if the rod moves to the LOCK position when terminal ① is earthed.

**DOOR LOCK KEY CYLINDER SWITCH**

Operate the switch and check for continuity between the terminals.

| Terminal | 1 | 2 | 3 |
|-----------------|-----|-----|-----|
| Switch position | | | |
| LOCK | | ○—○ | ○—○ |
| Neutral (OFF) | | | |
| UNLOCK | ○—○ | ○—○ | |

NOTE

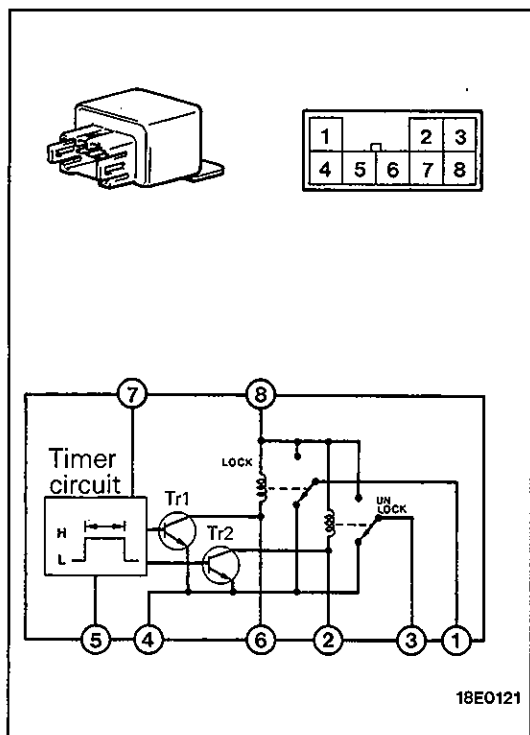
○—○ indicates that there is continuity between the terminals.

DOOR LOCK CONTROL UNIT

- (1) Apply battery power to terminals ⑦ and ⑧, and earth terminals ④ and ⑤.
- (2) Connect a needle-type circuit tester between terminal ① and the earth, and after switching it to the DC V range, and check if the needle moves at the instant when the connection at terminal ⑤ is removed.
- (3) Next, connect the needle-type circuit tester between terminal ③ and the earth, and check if the needle moves at the instant when the connection at terminal ⑤ that was removed in (2) above is reconnected.
- (4) Also, check if there is a voltage of 12V between terminal ⑥ and the earth, and between terminal ② and the earth.

NOTE

The reason why the needle of the circuit tester moves in (2) and (3) above is because battery voltage appears between terminals ① and ③ and the earth for approximately 0.5 seconds.

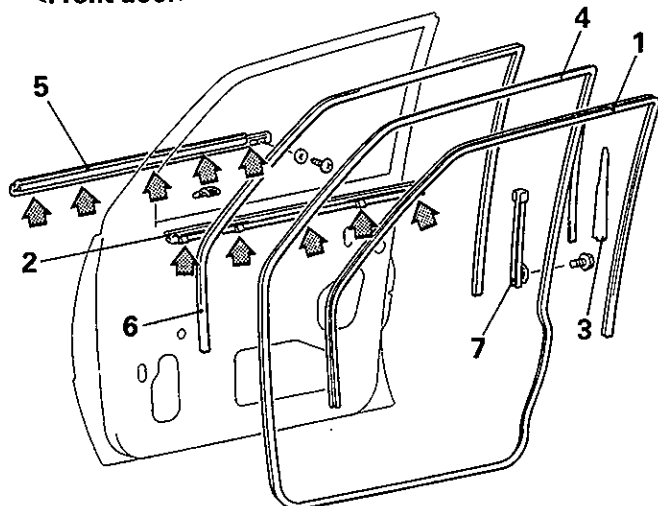


WINDOW GLASS RUNCHANNEL AND DOOR OPENING WEATHER-STRIP

E42MEAG

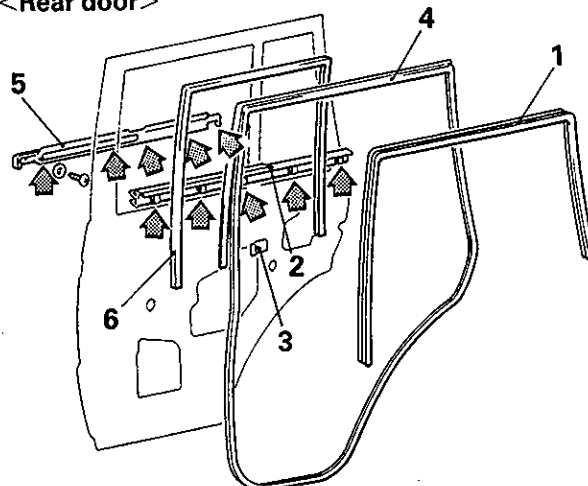
REMOVAL AND INSTALLATION

<Front door>



18E0082

<Rear door>



18E0081

NOTE

◆ : Indicates the clip positions

1. Door inner opening weatherstrip <3000 (excluding canvas top)>
2. Belt line inner weatherstrip <Partial trim>

Door outer opening weatherstrip removal steps

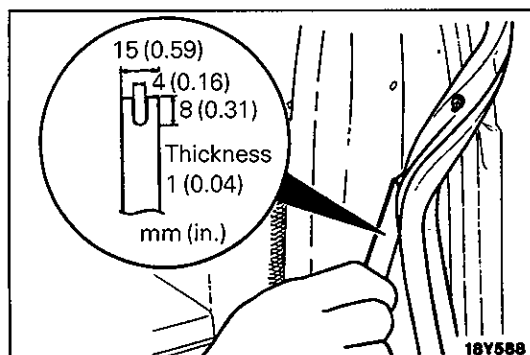
3. Weatherstrip protector
4. Door outer opening weatherstrip

Belt line moulding removal steps

- Door mirror (Refer to GROUP 51 – Outside Mirror.)
- 5. Belt line moulding

Window glass runchannel removal steps

- Door window glass (Refer to P.42-27.)
- 6. Window glass runchannel
- 7. Lower rear sash



18Y588

SERVICE POINT OF REMOVAL

4. REMOVAL OF DOOR OUTER OPENING WEATHERSTRIP

Make a tool as shown in the illustration to remove the door opening weatherstrip.

SERVICE POINT OF INSTALLATION

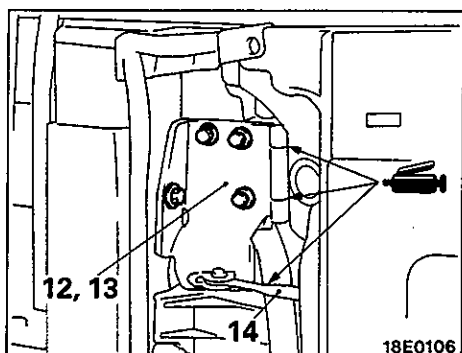
4. INSTALLATION OF DOOR OUTER OPENING WEATHERSTRIP

The clip colour identifies the left and right weatherstrips, so be sure to use the colours so as to install correctly.

| Identification colour | Applicable side |
|-----------------------|-----------------|
| White | Left door |
| Brown | Right door |

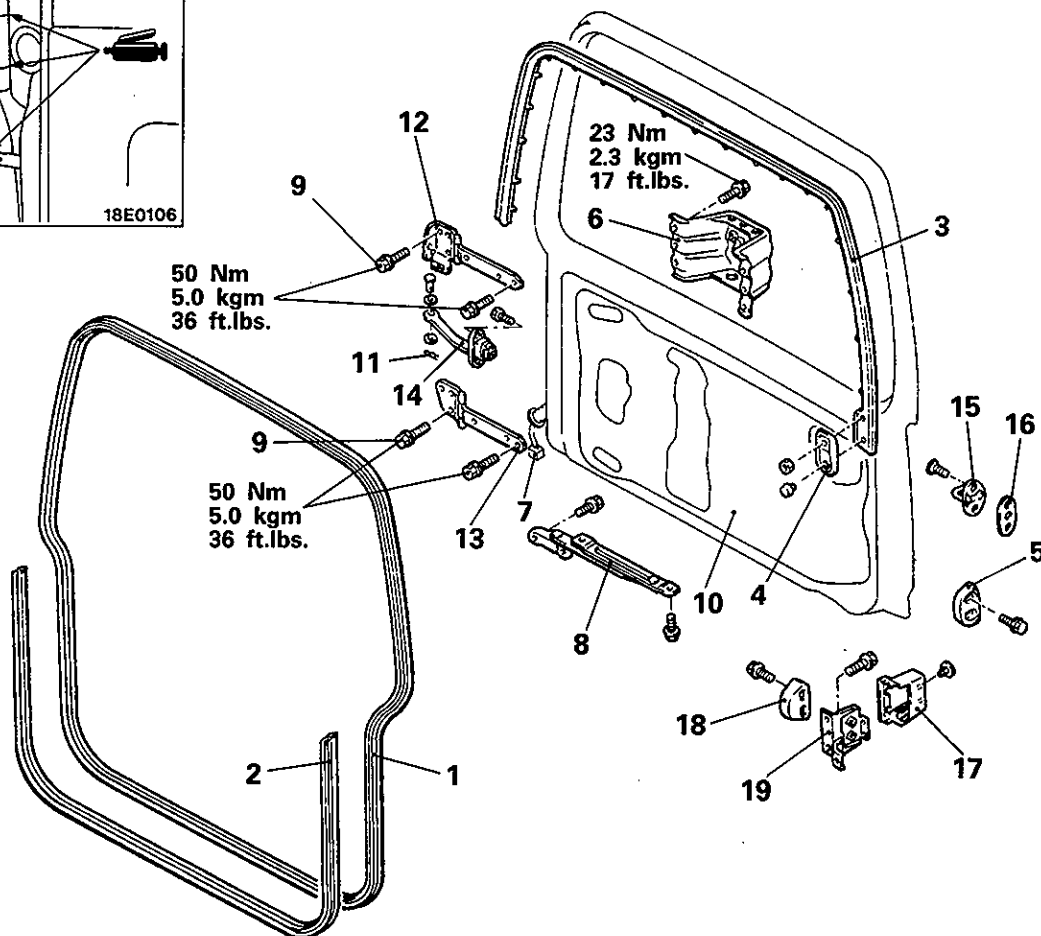
BACK DOOR ASSEMBLY

REMOVAL AND INSTALLATION



Back Door Post-installation Operation

- Back Door Adjustment (Refer to P.42-6.)



1. Inner opening weatherstrip <excluding canvas top>
2. Inner opening weatherstrip <canvas top>
3. Outer opening weatherstrip <excluding canvas top>
4. Weatherstrip plate <excluding canvas top>
5. Bumper rubber
6. Spare tyre carrier

Back door removal steps

7. Harness connector
8. Back door stopper
9. Hinge attaching bolt
10. Back door

Hinge removal steps

- Back door trim
 - Waterproof film
- (Refer to P.42-35.)
10. Back door
 11. Split pin
 12. Upper hinge
 13. Lower hinge

Door check strap removal steps

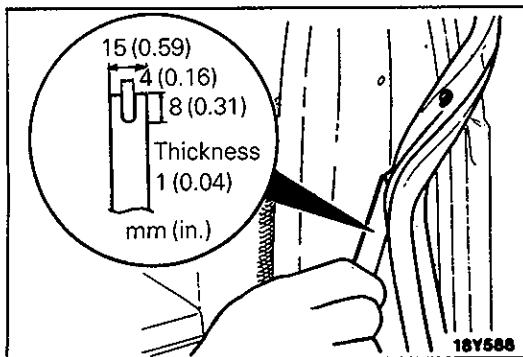
- Back door trim
 - Waterproof film
- (Refer to P.42-35.)
11. Split pin
 14. Door check strap

Striker removal steps

15. Striker
16. Shim

Back door bumper bracket removal steps

17. Back door bumper cover
18. Back door bumper female
- Rear combination lamp
19. Back door bumper bracket



SERVICE POINT OF REMOVAL

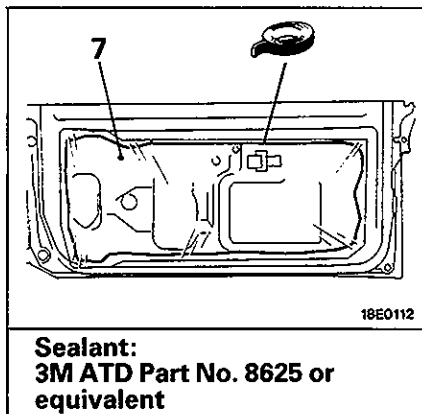
3. REMOVAL OF OUTER OPENING WEATHERSTRIP

Make a tool as shown in the illustration to remove the outer opening weatherstrip.

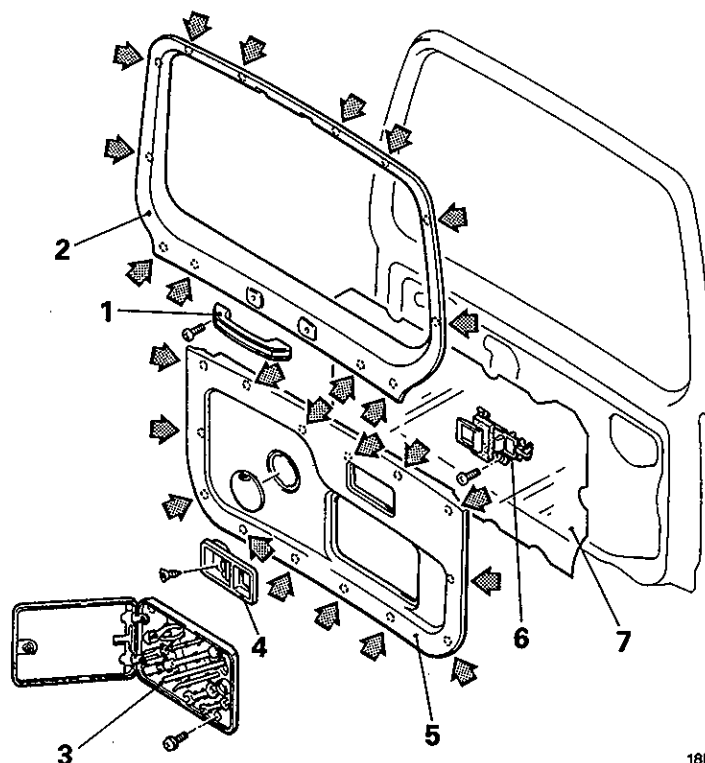
BACK DOOR TRIM AND WATERPROOF FILM

E420BAG

REMOVAL AND INSTALLATION



Sealant:
3M ATD Part No. 8625 or
equivalent



18E0101

Removal steps

1. Door pull handle
2. Back door upper trim <Full trim>
3. Tool box lid assembly
4. Inside handle cover
5. Back door trim
6. Inside handle
7. Waterproof film

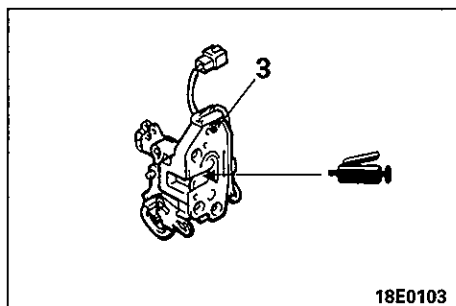
NOTE

◀ : Indicates the clip positions

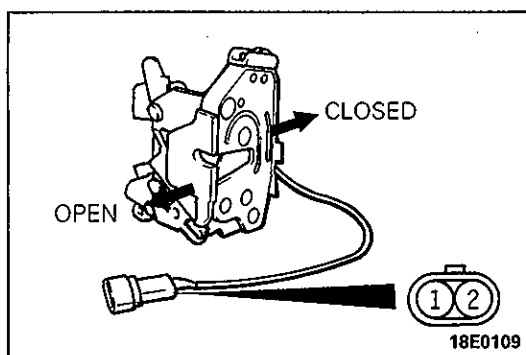
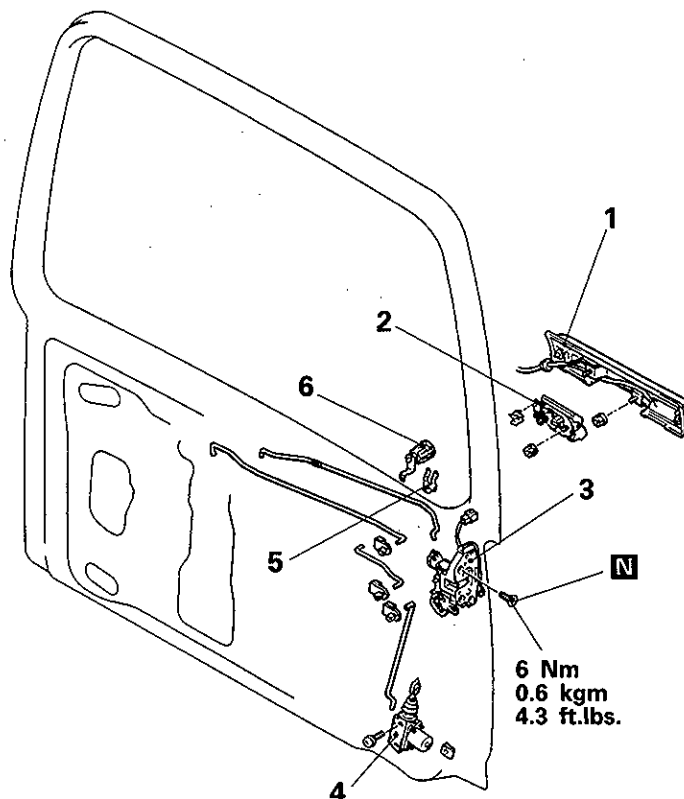
BACK DOOR HANDLE AND LATCH

E420CAH

REMOVAL AND INSTALLATION

**Removal steps**

- Back door trim } (Refer to P.42-35.)
- Waterproof film } (Refer to P.42-35.)
- Door outside handle play inspection (Refer to P.42-6.)
- 1. License plate lamp garnish
- 2. Door outside handle
- 3. Back door latch assembly
- 4. Back door lock actuator
- 5. Retainer
- 6. Back door key cylinder

**INSPECTION****LATCH SWITCH**

Check the continuity between the terminals when the latch is moved.

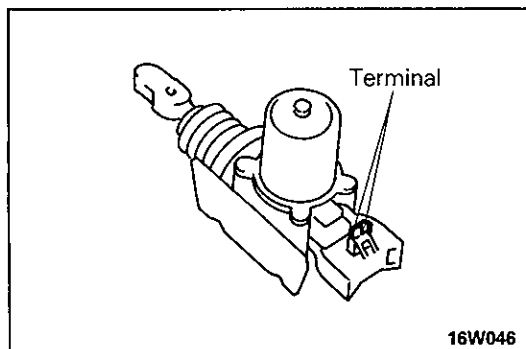
| Latch position | 1 | 2 |
|----------------|---|---|
| Terminal | | |
| OPEN | ○ | ○ |
| CLOSED | | |

NOTE

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

BACK DOOR LOCK ACTUATOR

Connect the battery source to the actuator terminal, and check the shaft for operation. If the shaft moves in opposite direction when the connection polarity is changed, the actuator should be considered to be in normal condition.



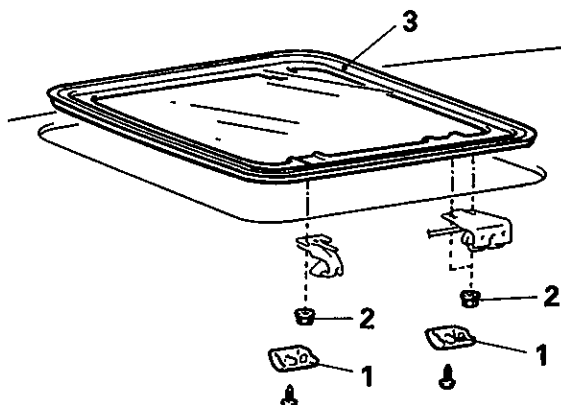
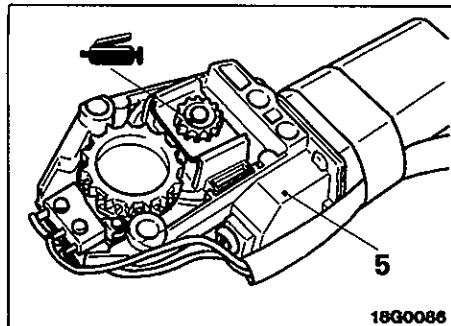
SUNROOF <Power Slide Type>

E42TAAM

REMOVAL AND INSTALLATION

Post-installation Operation

- Water Test (Refer to p.42-7.)



Sunroof glass removal steps

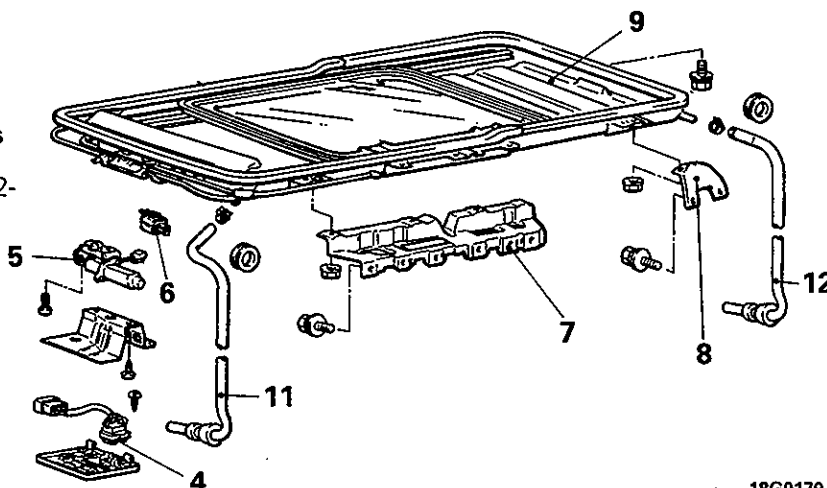
18W148

1. Decoration cover
2. Nuts
3. Sunroof glass assembly

Vehicles built up to May 1991

Sunroof assembly removal steps

4. Sunroof switch
 - Headlining (Refer to GROUP 52-Headlining)
5. Motor assembly
6. Control unit
7. Front set bracket
8. Rear set bracket
9. Sunroof assembly
11. Front drain hose
12. Rear drain hose

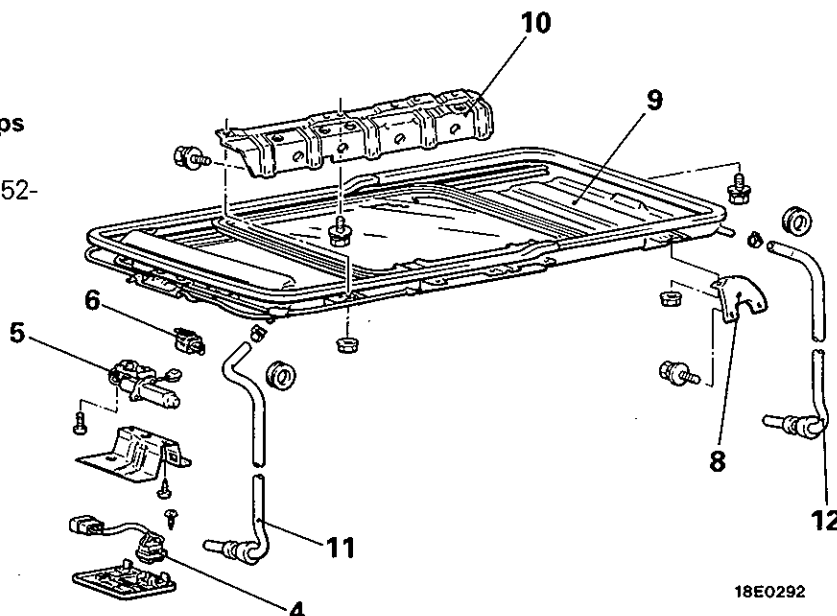


18G0179

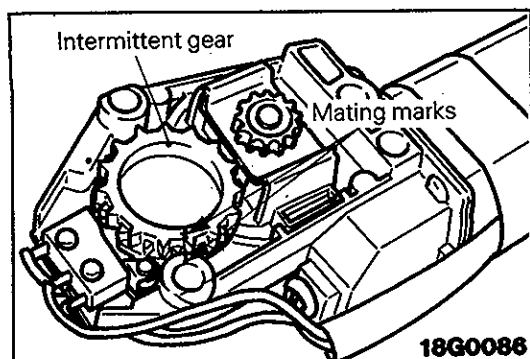
Vehicles built from June 1991

Sunroof assembly removal steps

4. Sunroof switch
 - Headlining (Refer to GROUP 52-Headlining)
5. Motor assembly
6. Control unit
8. Rear set bracket
9. Sunroof assembly
10. Front set bracket
11. Front drain hose
12. Rear drain hose



18E0292



SERVICE POINTS OF REMOVAL

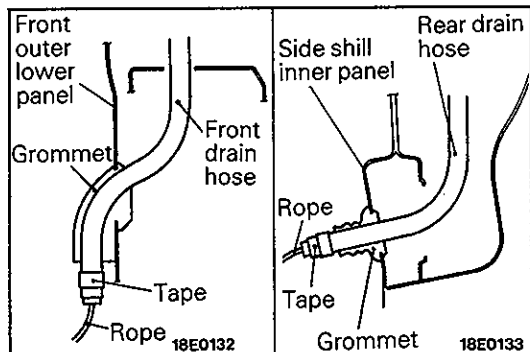
5. REMOVAL OF MOTOR ASSEMBLY

- (1) Close sunroof fully. Remove motor.

NOTE

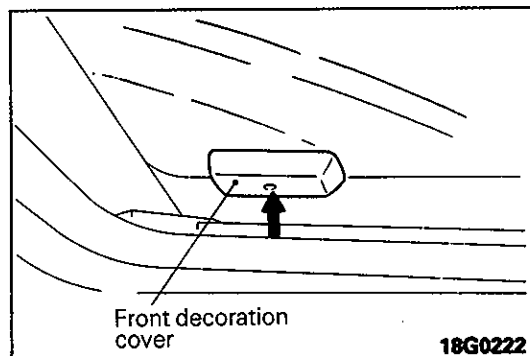
When sunroof does not move, place match marks on roof lid and guide rail.

- (2) Place match marks on motor intermittent gear and bracket.



11. REMOVAL OF FRONT DRAIN HOSE/12. REAR DRAIN HOSE

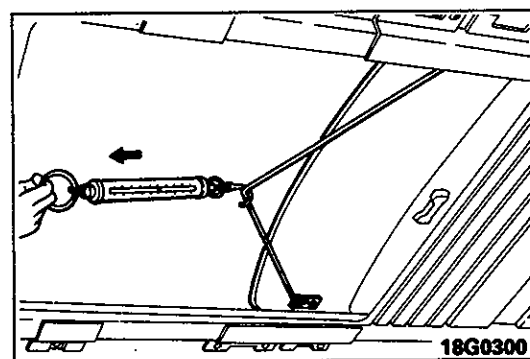
Tie a rope to the end of the drain hose, wind a tape around it so that there is no unevenness, and pull the drain hose into the inside of the passenger compartment.



INSPECTION

SUNROOF SLIDING RESISTANCE

- (1) Remove front decoration covers.
- (2) Remove front guide front nut.
- (3) Remove motor assembly.
- (4) Fasten string.



- (5) Measure sunroof drive resistance with spring scale.

Standard value: 200 N (20 kg, 44 lbs.) or less

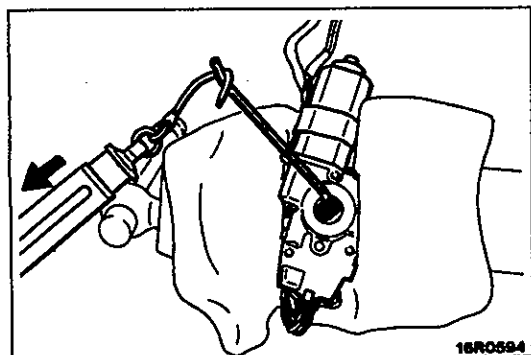
- (6) When the resistance exceeds the standard value, check the following.
 - ① Guide rail installation
 - ② Defective or worn guide bracket
 - ③ Seized drive cable
 - ④ Defective drive tube

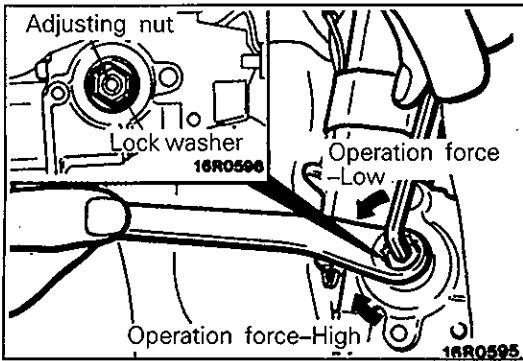
CLUTCH SLIP FORCE

Inspect the sliding force of the clutch by the following procedure.

- (1) Place the hexagonal wrench from the special tools into the hexagonal socket of the motor drive shaft, and use a spring balance to measure the force when the motor clutch starts to slip.

Standard value: 40–50 N (4.0–5.0 kg, 9–11 lbs.)





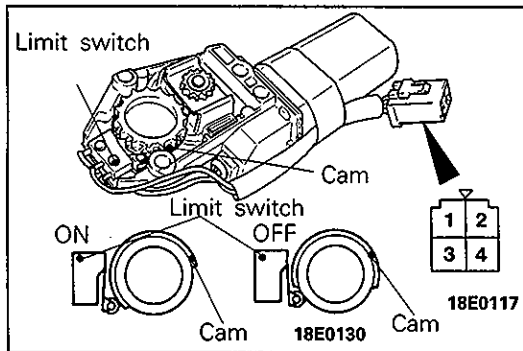
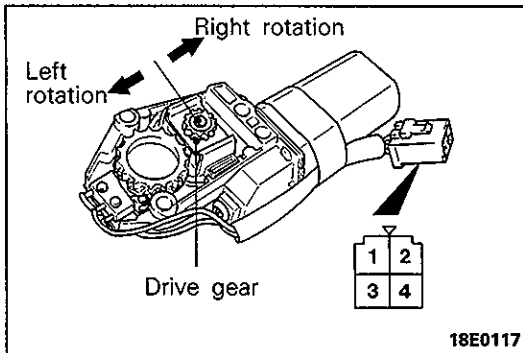
Caution

1. The spring balance should be kept a right angle to the wrench.
 2. If a wrench other than that in the special tools is used, the value for the clutch sliding force will be different, so only the special tool should be used.
- (2) If the clutch sliding force is not within the standard value, turn the motor adjusting nut to the left or right to adjust.
- (3) After adjusting, tighten the adjusting nut securely with the lock washer.

MOTOR

Check the direction of rotation of the drive gear when the connector is connected to the battery.

| Terminal 1 | Terminal 3 | Drive gear rotation direction |
|------------|------------|-------------------------------|
| + | - | Right |
| - | + | Left |



LIMIT SWITCH

Turn over the motor and check the continuity at each of the limit switch terminals.

| Switch \ Terminal | 2 | 4 |
|-------------------|---|---|
| ON | | |
| OFF | ○ | ○ |

NOTE

○-○ Indicates that there is continuity between the terminals.

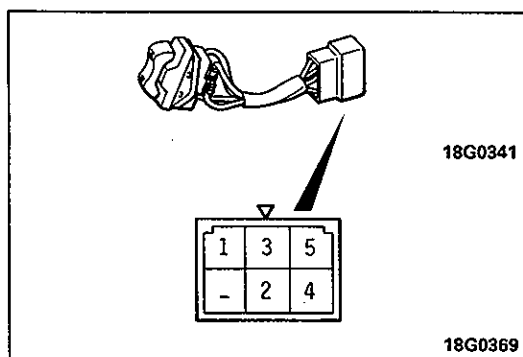
SUNROOF SWITCH

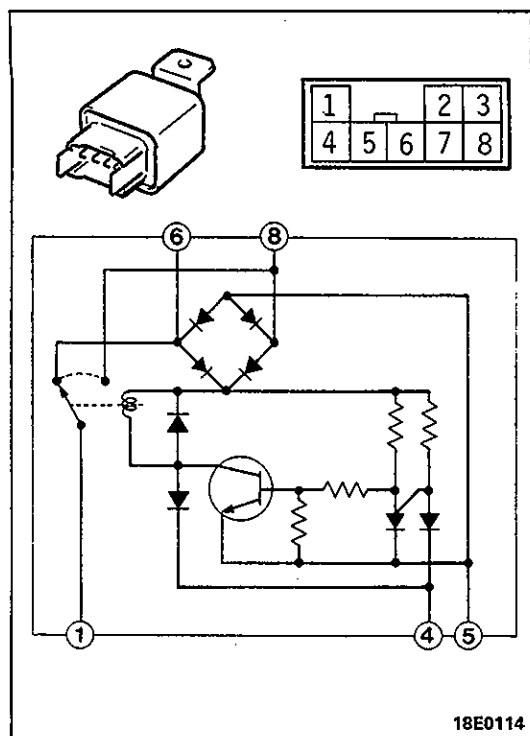
Operate the sunroof switch and check the continuity between each of the terminals.

| Switch \ Terminal | 1 | 2 | 3 | 5 | 6 |
|-------------------|---|---|---|---|---|
| OPEN | ○ | ○ | ○ | ○ | ○ |
| OFF | | ○ | ○ | ○ | ○ |
| CLOSED | ○ | ○ | ○ | ○ | |

NOTE

○-○ Indicates that there is continuity between the terminals.



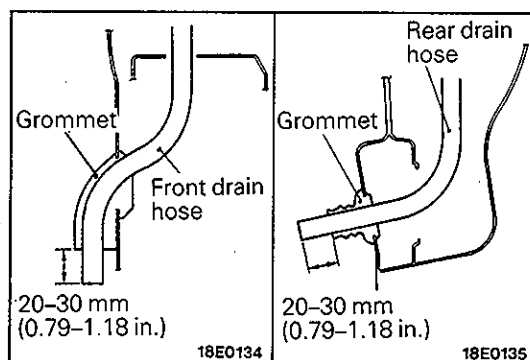
**CONTROL UNIT**

Check for continuity between terminals under the conditions described below.

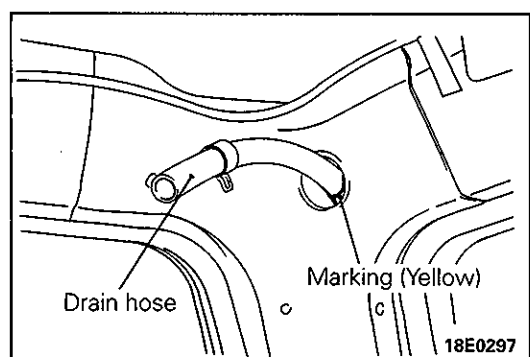
| Battery voltage | Terminal | 1 | 8 | 6 | 5 | 4 |
|--------------------------|----------|---|---|---|---|---|
| When there is no current | | ⊕ | ⊕ | ⊕ | ⊖ | ⊕ |
| When there is current | | ⊖ | ⊕ | ⊖ | ⊖ | ⊖ |

NOTE

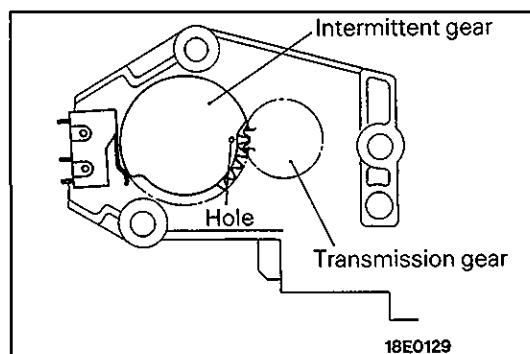
- (1) ○—○ indicates that there is continuity between the terminals.
- (2) ⊕—⊖ indicates that there is continuity when the (+) is connected to the tester plus terminal, and the (-) is connected to the tester minus terminal.
- (3) ⊕—⊖ indicates terminals to which battery voltage is applied.

SERVICE POINTS OF INSTALLATION**12. INSTALLATION OF REAR DRAIN HOSE/11. FRONT DRAIN HOSE**

- (1) Tie the rope that was used during removal to the end of the drain hose, and wind tape around it so that there is no unevenness.
- (2) Pull the rope to pull the drain hose through.
- (3) Pull the drain hose until the protruding length from the grommet is as shown in the figure.



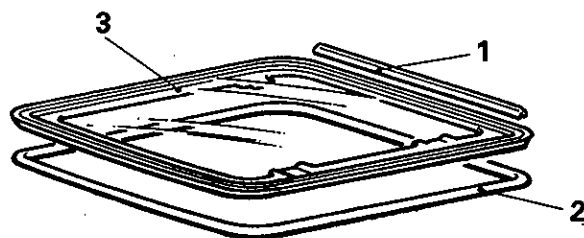
- (4) Align the rear drain hose (RH) with the body hole with the marking at the bottom.
(Vehicles built from June 1991)

**5. INSTALLATION OF MOTOR ASSEMBLY**

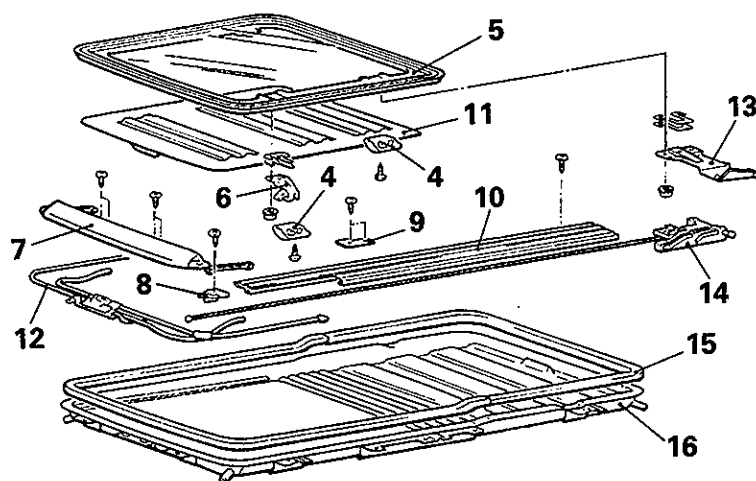
When replacing the motor assembly, open the sunroof glass approximately 200 mm (7.9 in.), set the hole of the intermittent gear so that it is aligned between the teeth of the motor assembly transmission gear, and then install the motor assembly.

NOTE

DISASSEMBLY AND REASSEMBLY



18W037



18E0251

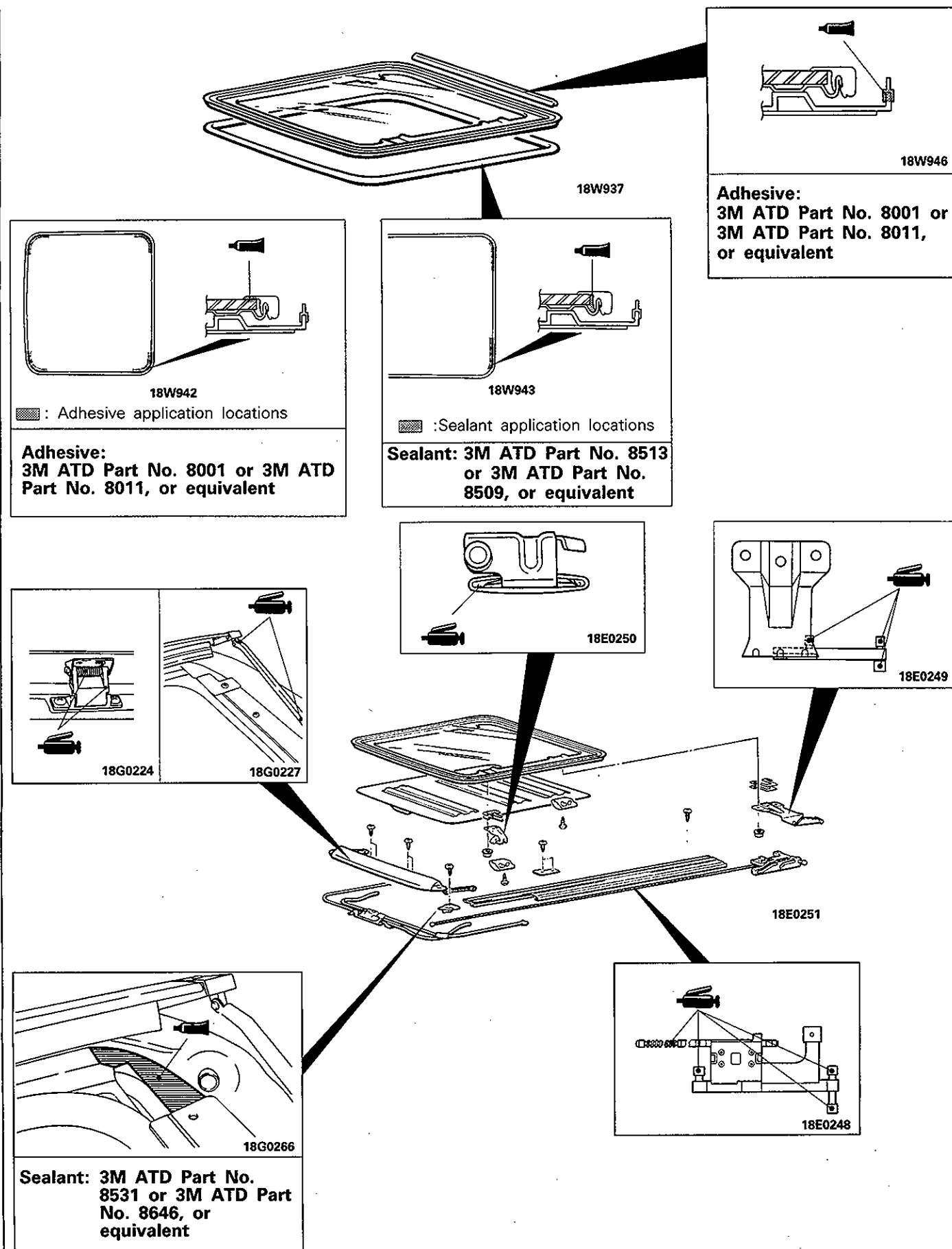
Sunroof glass disassembly steps

1. Screen drip
2. Weatherstrip
3. Sunroof glass

Sunroof assembly disassembly steps

4. Decoration cover
5. Sunroof glass assembly
6. Front guide bracket
7. Deflector assembly
8. Rail end cover
9. Set plate
10. Guide rail assembly
11. Sun shade
12. Drive tube
13. Lifter assembly
14. Slider assembly
15. Sealing tape
16. Housing assembly

LUBRICATION AND SEALING POINTS



Sunroof <Removable Tilt-Up Type>

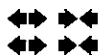
REMOVAL AND INSTALLATION

Post-installation Operation

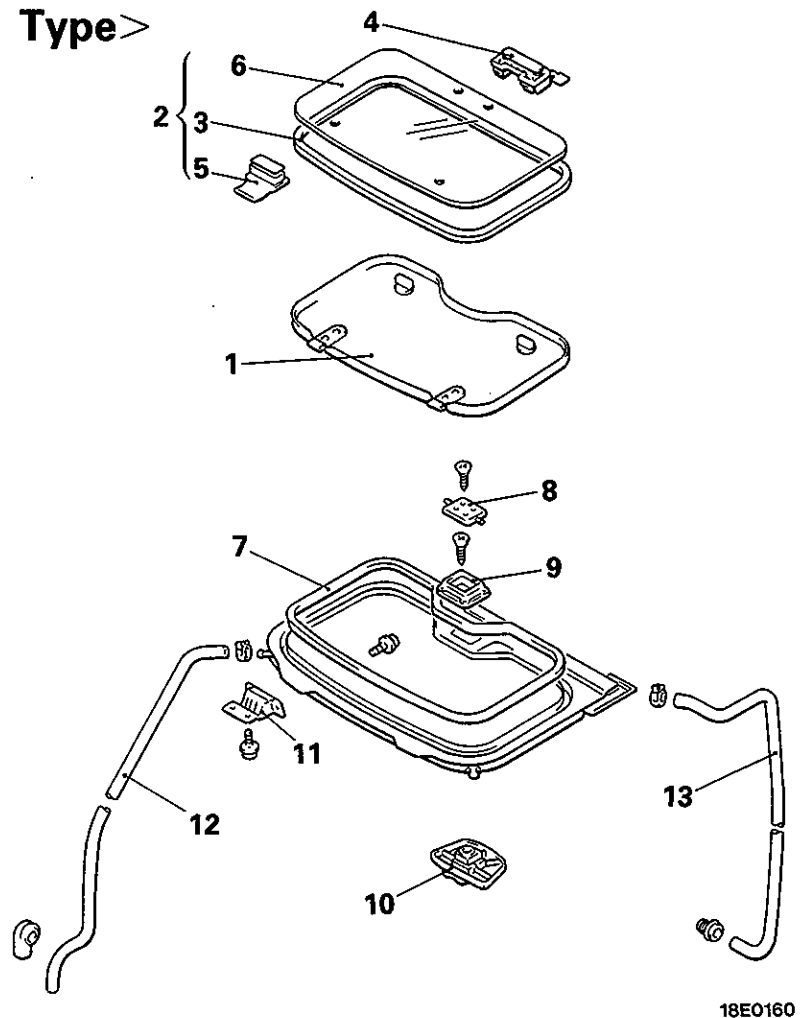
- Water Test (Refer to P.42-7.)

Removal steps

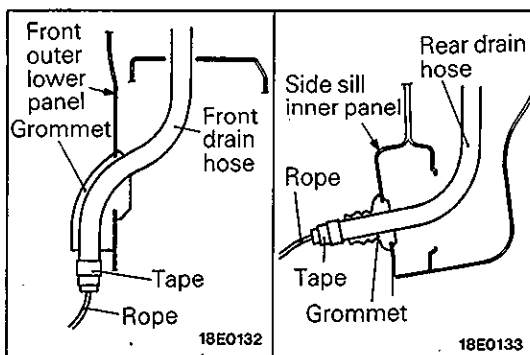
1. Sunroof trim assembly
2. Sunroof glass assembly
3. Weatherstrip
4. Slide lock assembly
5. Sunroof male hinge
6. Sunroof glass
7. Sunroof inner weatherstrip
8. Sunroof latch catch
9. Retainer
10. Sunroof regulator assembly
11. Sunroof female hinge
- Headlining (Refer to GROUP 52 – Headlining.)



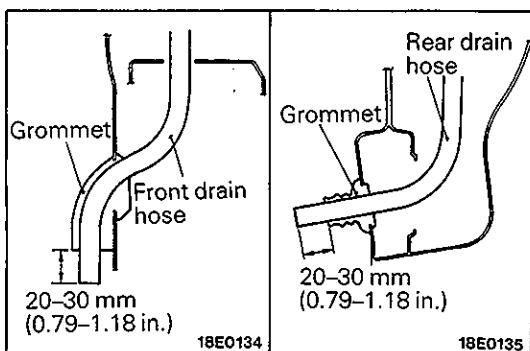
12. Front drain hose
13. Rear drain hose



18E0160

**SERVICE POINTS OF REMOVAL****12. REMOVAL OF FRONT DRAIN HOSE/13. REAR DRAIN HOSE**

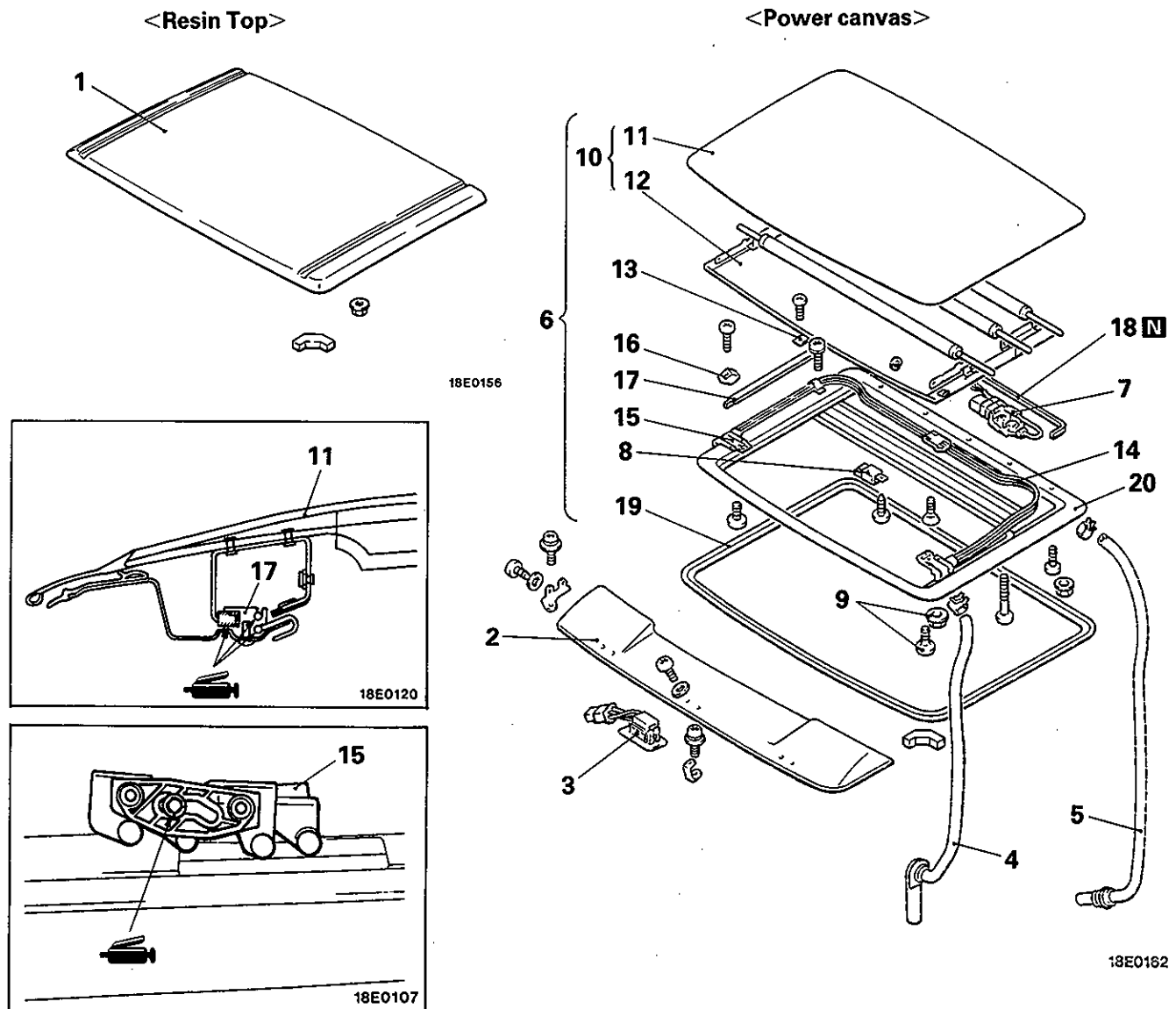
Tie a rope to the end of the drain hose, wind a tape around it so that there is no unevenness, and pull the drain hose into the inside of the passenger compartment.

**SERVICE POINTS OF INSTALLATION****13. INSTALLATION OF REAR DRAIN HOSE/12. FRONT DRAIN HOSE**

- (1) Tie the rope that was used during removal to the end of the drain hose, and wind tape around it so that there is no unevenness.
- (2) Pull the rope to pull the drain hose through.
- (3) Pull the drain hose until the protruding length from the grommet is as shown in the figure.

CANVAS TOP

REMOVAL AND INSTALLATION <FRONT CANVAS>



Resin top removal steps

- Headlining (Refer to GROUP 52 – Headlining)
- 1. Roof panel

Power canvas removal steps

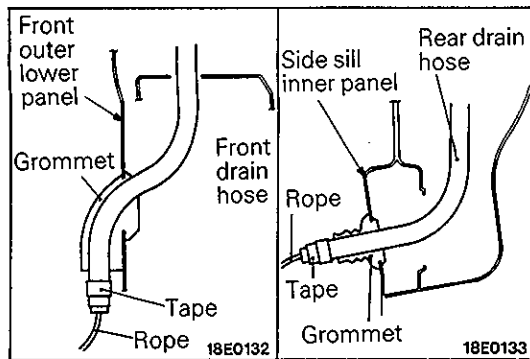
- 2. Deflector
- 3. Canvasroof switch
- Headlining (Refer to GROUP 52 – Headlining)

- ↔↔↔ 4. Front drain hose
- ↔↔↔ 5. Rear drain hose
- ↔↔↔ 6. Folding top assembly
- ↔↔↔ 7. Motor assembly
- ↔↔ 8. Control unit
- ↔↔ 9. Front guide assembly installation nut and screw
- 10. Leather top and inner leather assembly

Post-installation Operation

- Water Test (Refer to P.42-7.)

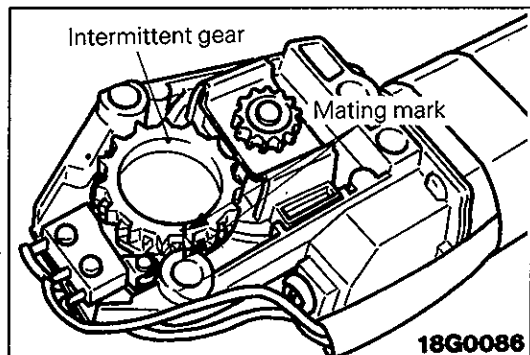
- ↔↔ 11. Leather top assembly
- ↔↔ 12. Inner leather assembly
- 13. Set plate
- 14. Drive unit assembly
- 15. Front guide assembly
- 16. Side rail cover
- 17. Guide rail assembly
- 18. Dam tape
- 19. Weatherstrip
- 20. Frame assembly



SERVICE POINTS OF REMOVAL

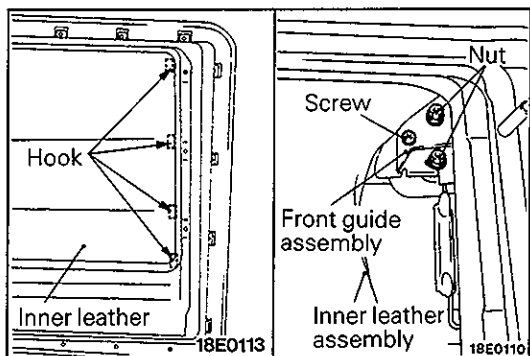
4. REMOVAL OF FRONT DRAIN HOSE/5. REAR DRAIN HOSE

Tie a rope to the end of the drain hose, wind a tape around it until there is no unevenness, and pull the drain hose into the inside of the passenger compartment.



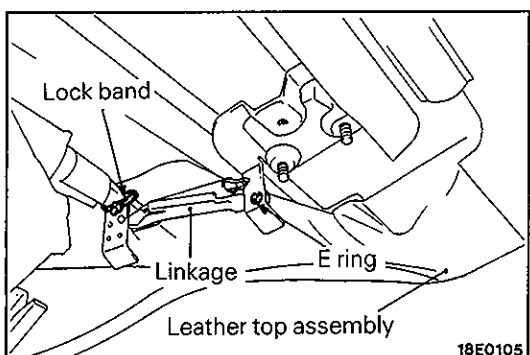
7. REMOVAL OF MOTOR ASSEMBLY

- (1) Fully close the canvas and remove the motor assembly.
- (2) Make mating marks on the transmission gear and bracket of the motor assembly.



9. REMOVAL OF FRONT GUIDE ASSEMBLY INSTALLATION NUT AND SCREW

Remove the hook of the inner leather assembly and remove the nuts and screw while rolling up the inner leather.



11. REMOVAL OF LEATHER TOP ASSEMBLY/12. INNER LEATHER ASSEMBLY

After removing the E ring and lock band, remove the inner leather assembly from the leather top assembly.

INSPECTION

CHECKING THE SLIDING FORCE OF THE MOTOR CLUTCH

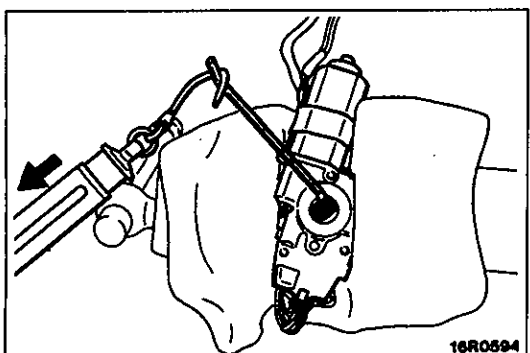
Inspect the sliding force of the clutch by the following procedure.

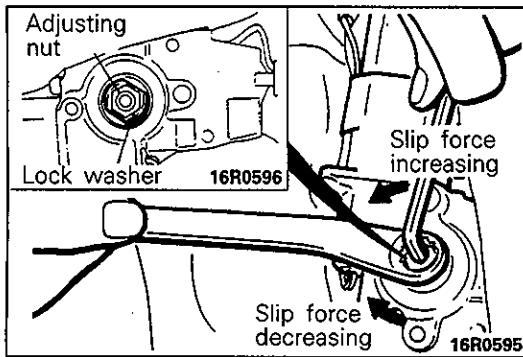
- (1) Place the hexagonal wrench from the special tools into the hexagonal socket of the motor drive shaft, and use a spring balance to measure the force when the motor clutch starts to slip.

Standard value: 45–55 N (4.5–5.5 kg, 10–12 lbs.)

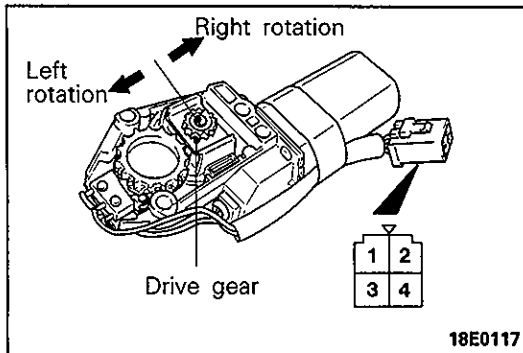
Caution

1. The spring balance should be kept a right angle to the wrench.
2. If a wrench other than that in the special tools is used, the value for the clutch sliding force will be different, so only the special tool should be used.





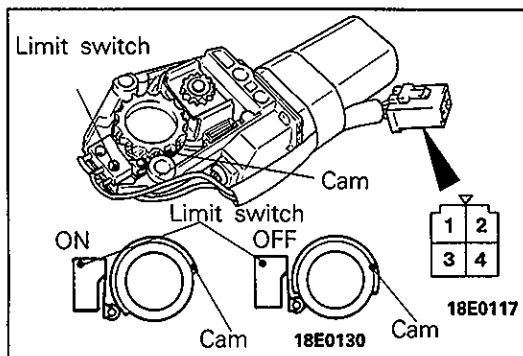
- (2) If the clutch sliding force is not within the standard value, turn the motor adjusting nut to the left or right to adjust.
- (3) After adjusting, tighten the adjusting nut securely with the lock washer.



MOTOR

Check the direction of rotation of the drive gear when the connector is connected to the battery.

| Terminal 1 | Terminal 3 | Drive gear rotation direction |
|------------|------------|-------------------------------|
| + | — | Right |
| — | + | Left |



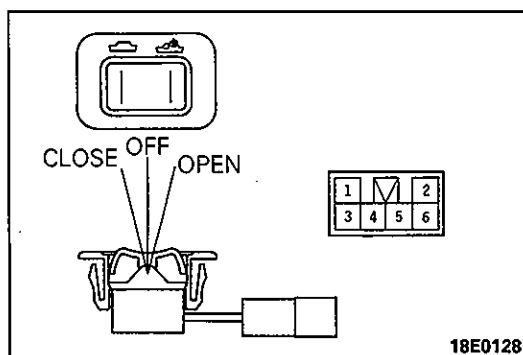
LIMIT SWITCH

Turn over the motor and check the continuity at each of the limit switch terminals.

| Terminal \ Switch | 2 | 4 |
|-------------------|---|---|
| ON | | |
| OFF | ○ | ○ |

NOTE

○—○ indicates that there is continuity between the terminals



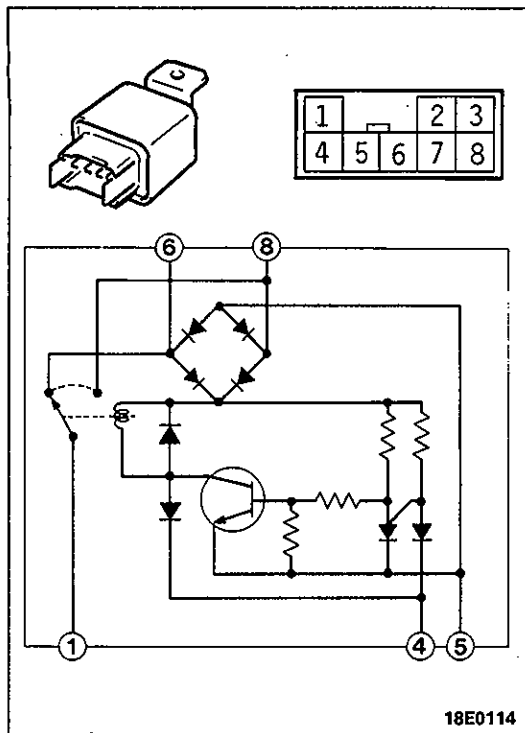
CANVAS ROOF SWITCH

Operate the canvas roof switch and check the continuity between each of the terminals.

| Terminal \ Switch | 1 | 2 | 4 | 5 |
|-------------------|---|---|---|---|
| OPEN | ○ | ○ | ○ | ○ |
| OFF | | ○ | ○ | ○ |
| CLOSE | ○ | ○ | ○ | ○ |

NOTE

○—○ indicates that there is continuity between the terminals

**CONTROL UNIT**

Check for continuity between terminals under the conditions described below.

| Battery voltage | Terminal | 1 | 8 | 6 | 5 | 4 |
|--------------------------|----------|---|---|---|---|---|
| When there is no current | | ○ | ⊕ | ⊕ | ⊕ | ⊕ |
| When there is current | | ○ | ⊕ | ⊕ | ⊕ | ⊕ |

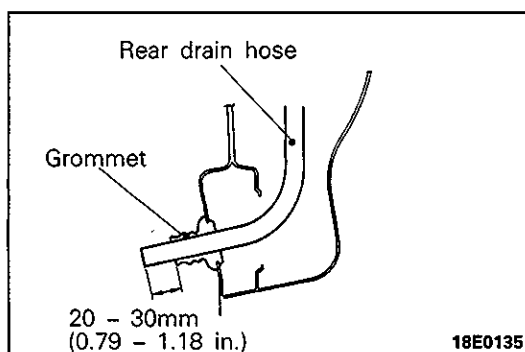
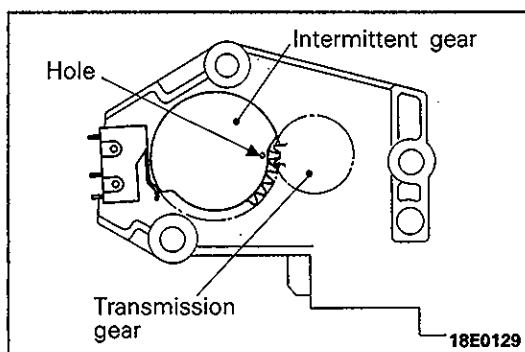
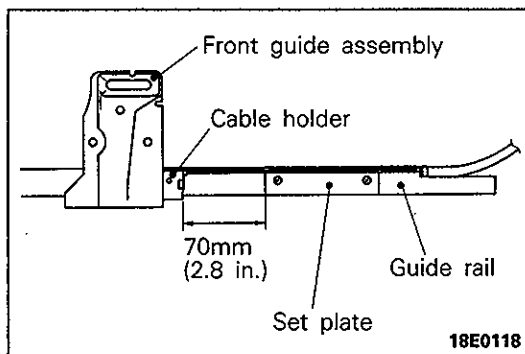
NOTE

- (1) ○-○ indicates that there is continuity between the terminals
- (2) ⊕-⊕ indicates that there is continuity when the (+) is connected to the tester plus terminal, and the (-) is connected to the tester minus terminal.
- (3) ⊕-⊕ indicates terminals to which battery voltage is applied.

SERVICE POINTS OF INSTALLATION**7. INSTALLATION OF MOTOR ASSEMBLY**

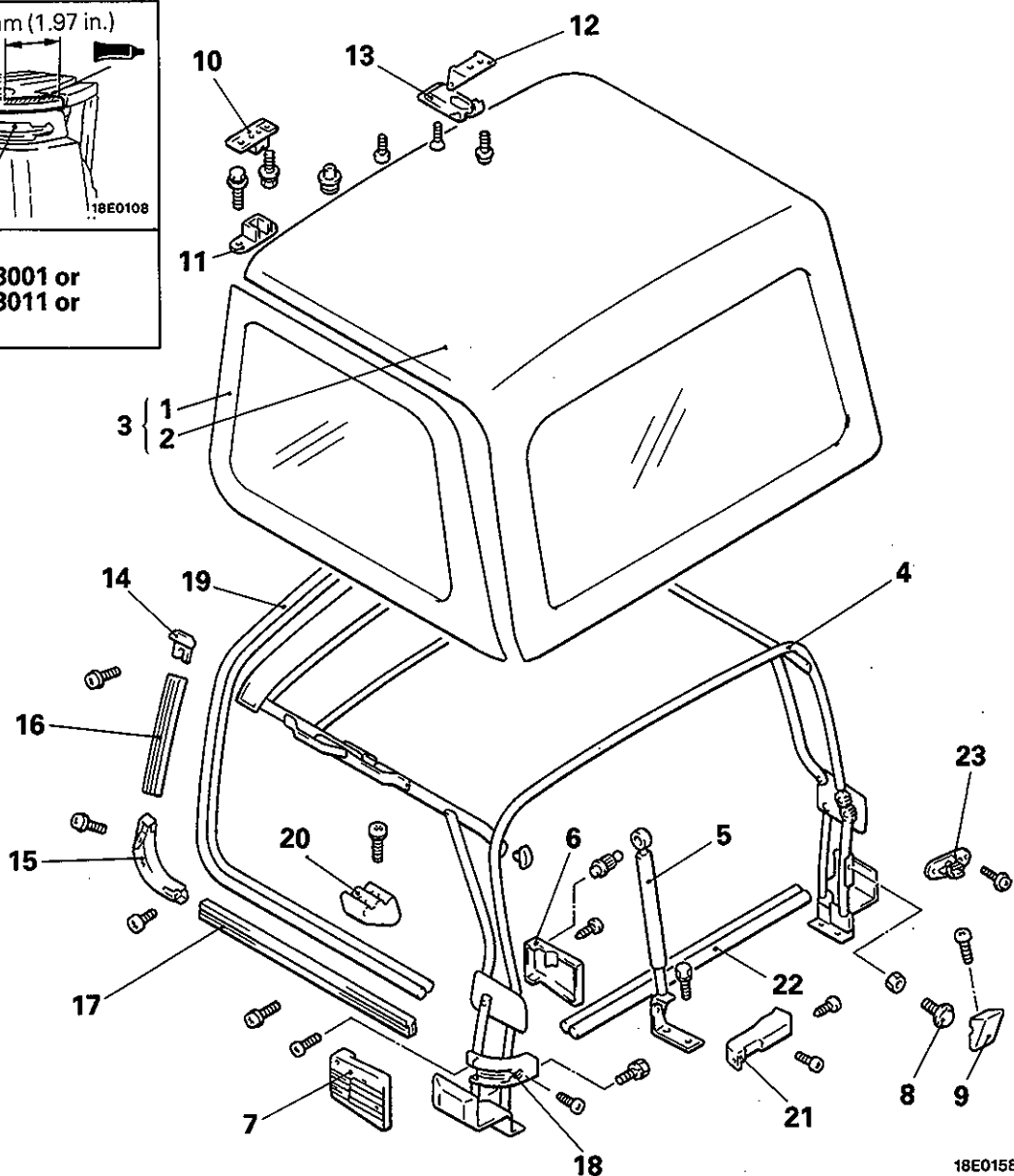
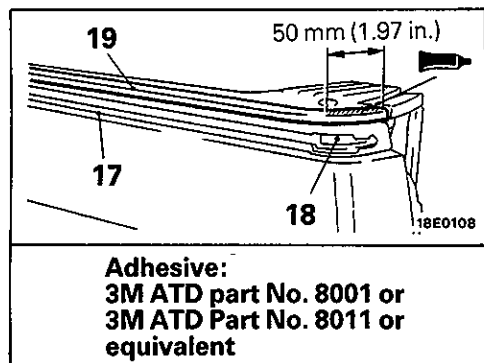
When replacing the motor assembly, install by the following procedure.

- (1) After installing the front guide assembly, set the distance between the front guide assembly cable holder and set plate to 70 mm (2.8 in.). (Canvas stopping position)
- (2) Set the hole of the intermittent gear so that it is aligned between the teeth of the motor assembly transmission gear, and then install the motor assembly.

**5. INSTALLATION OF REAR DRAIN HOSE/4. FRONT DRAIN HOSE**

- (1) Tie the rope that was used during removal to the end of the drain hose, and wind tape around it so that there is no unevenness.
- (2) Pull the rope to pull the drain hose through.
- (3) Pull the drain hose until the protruding length from the grommet is as shown in the figure.

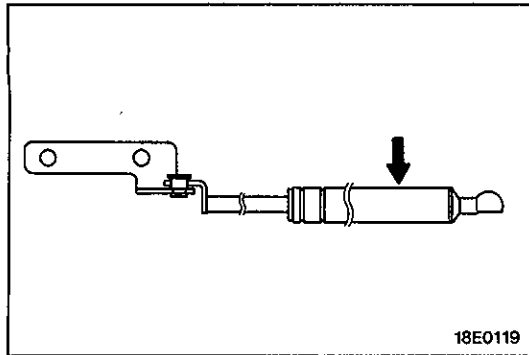
REMOVAL AND INSTALLATION <REAR CANVAS>



Removal steps

1. Side cover
2. Top cover
3. Roof cover
4. Roof cover assembly
5. Roof cover gas spring
6. Inside cover
7. Outside cover
8. Male stopper
9. Female stopper
10. Upper damper
11. Lower damper
12. Folding top hook
13. Folding top lock assembly

14. Rail end cap
15. Holder
16. Front rail
17. Side rail
18. Rear corner rail
19. Weatherstrip
20. Link damper
21. Back door opening weatherstrip
22. Back door weatherstrip
23. Rod holder



SERVICE POINT OF REMOVAL

5. REMOVAL OF ROOF COVER GAS SPRING

When discarding the roof cover gas spring, place it horizontally with the piston rod extended, and make a 3 mm (0.12 in.) hole at the position shown in the figure to release the gas.

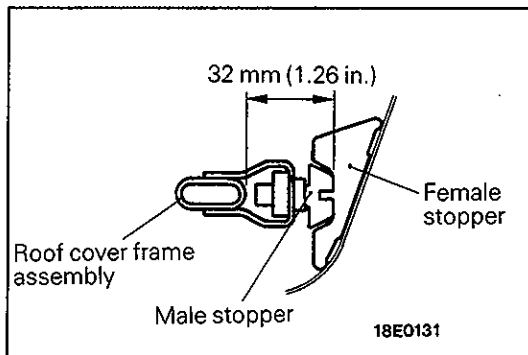
Caution

The gas is non-toxic, but there is a danger when the gas escapes together with the metal powder from the drill, so protective goggles should always be worn.

SERVICE POINT OF INSTALLATION

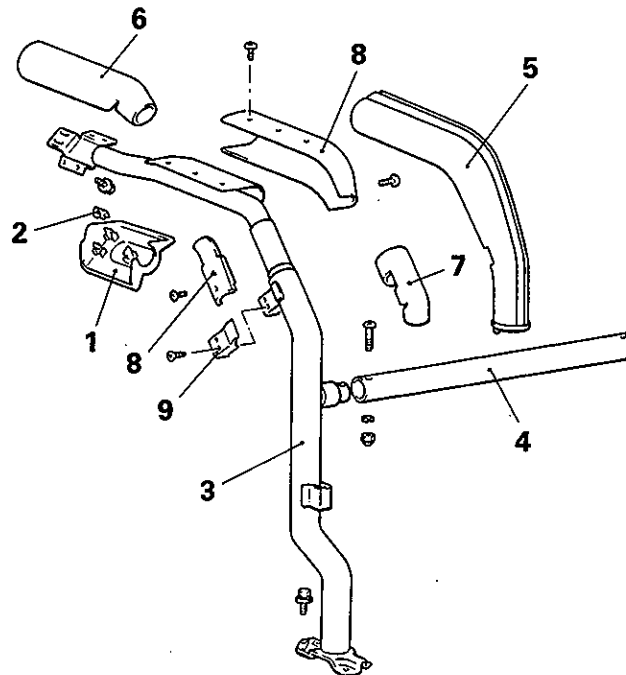
8. INSTALLATION OF MALE STOPPER

Install the male stopper as shown in the figure.



ROLL BAR REMOVAL AND INSTALLATION

E42ZAAA



Removal steps

1. Roll bar bracket cover
2. Clip
3. Side bar assembly
4. Rear roll bar assembly

5. Protector cover A assembly
6. Upper protector pad
7. Lower protector pad
8. Protector pad
9. Anchor cover