

BODY

CONTENTS

42109000089

HOOD	2	Troubleshooting	20
Troubleshooting	2	On-Vehicle Service	25
Hood	3	Door Fit Adjustment	25
FENDER	5	Door Window Grass Adjustment	25
Sealants	5	Inside Handle Play Adjustment	28
Fender	5	Outside Handle Play Check	28
FUEL FILLER DOOR	6	Circuit Breaker (Incorporated In The Power Window Motor) Check	28
WINDSHIELD AND WINDOW GLASS	7	Door Assembly	29
Sealants and Adhesives	7	Door Trim and Waterproof Film	31
Special Tool	7	Door Glass and Regulator	32
Troubleshooting	7	Door Handle and Latch	34
Window Repair	8	Door Opening Weatherstrip	36
Windshield	10	TAILGATE	37
Quarter Window Glass	14	Troubleshooting	37
Tailgate Glass	17	Tailgate	38
DOOR	19	SUNROOF	40
Service Specifications	19	Sealant and Adhesive	40
Sealant	19	On-Vehicle Service	40
Special Tools	19	Sunroof	43

HOOD

TROUBLESHOOTING

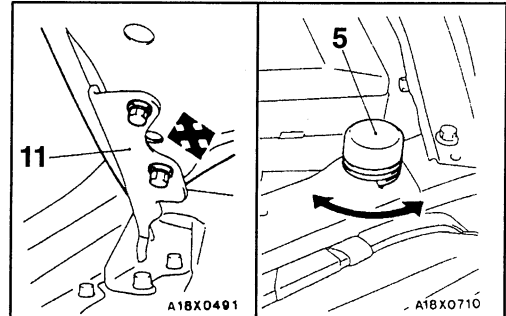
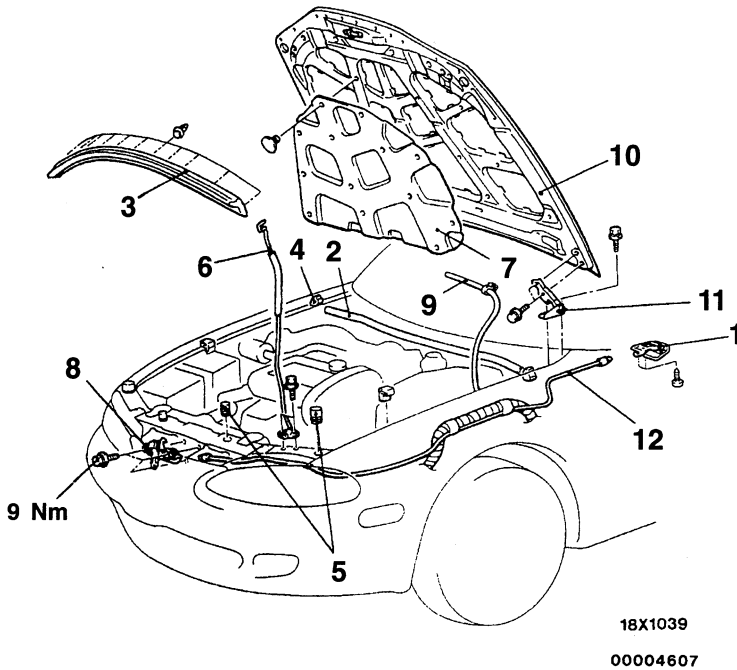
42100070065

Symptom	Probable cause	Remedy
Improper closure	Striker and latch not properly aligned	Adjust the alignment
Difficult locking and unlocking	Striker and latch not properly aligned	Adjust the alignment
Uneven body clearance	Incorrectly installed hood	Adjust the installation of hood
Uneven height	Incorrect hood bumper height	Adjust the hood bumper height

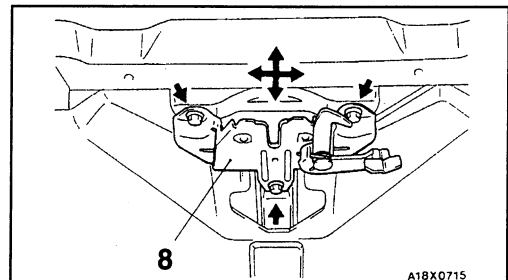
HOOD

REMOVAL AND INSTALLATION

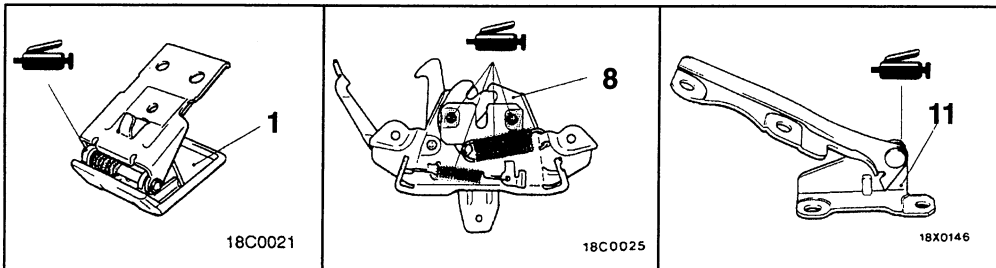
42100160106



Adjustment of hood step and hood striker linkage



Adjustment of clearance around hood and height



1. Hood lock release handle
2. Hood weatherstrip
3. Hood front weatherstrip
4. Hood side weatherstrip
5. Bumper
6. Hood support rod
7. Hood silencer
- Front fascia bracket (Refer to GROUP 51)
8. Hood latch

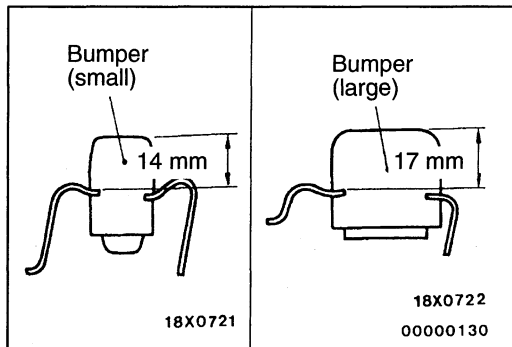


Hood and hood hinge removal steps

- Front deck garnish (Refer to GROUP 51 – Windshield and Washer)
- 9. Washer hose connection
- 10. Hood
- 11. Hood hinge

Hood lock release cable removal steps

- Front bumper and front fascia bracket (Refer to GROUP 51)
- Headlamp (driver's side) (Refer to GROUP 54)
- Splash shield (driver's side) (Refer to P.42-5.)
- 1. Hood lock release handle
- 8. Hood latch
- 12. Hood lock release cable

**INSTALLATION SERVICE POINT****►A◄ BUMPER INSTALLATION**

Install the bumper as shown in the diagram.

FENDER

SEALANTS

42100050076

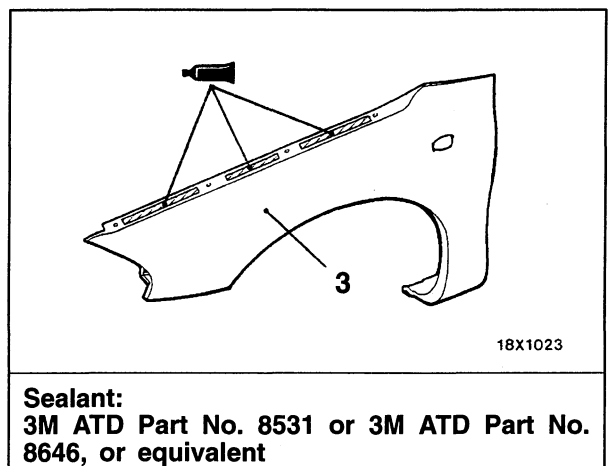
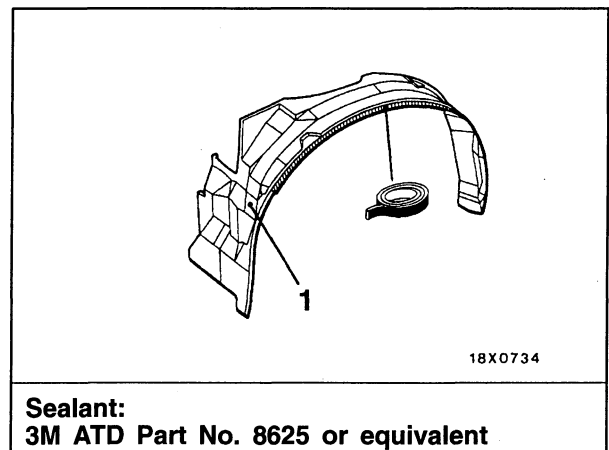
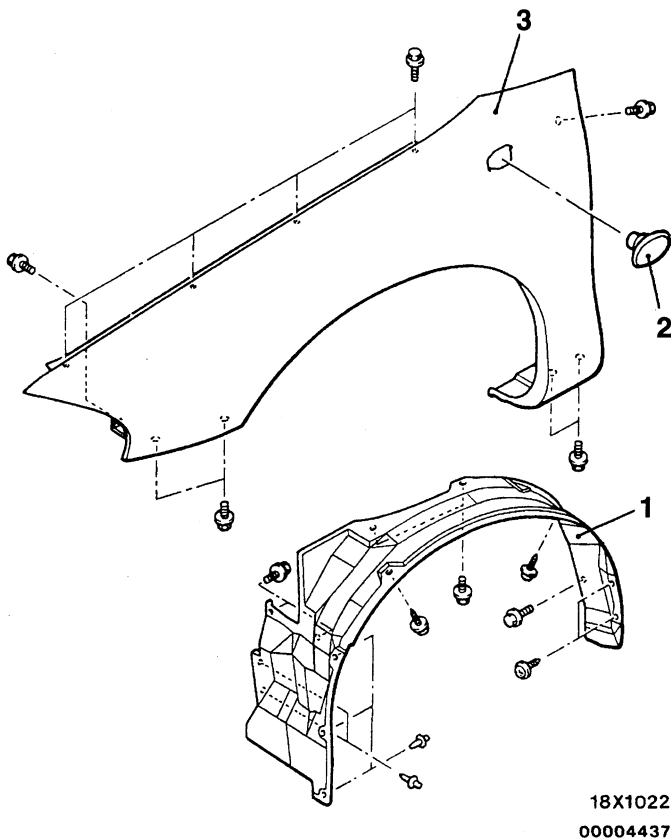
Items	Specified sealants	Remark
Fender to body panel	3M ATD Part No. 8531 or 3M ATD Part No. 8646, or equivalent	Body sealer
Splash shield to fender	3M ATD Part No. 8625 or equivalent	Ribbon sealer

FENDER

REMOVAL AND INSTALLATION

42100190105

Pre-removal and post-installation Operation
 Front Bumper Removal and Installation
 (Refer to GROUP 51.)



Removal steps

1. Splash shield
 - Side garnish (Refer to GROUP 51 – Aeroparts)
2. Side turn signal lamp (Refer to GROUP 54)
3. Front fender panel

FUEL FILLER DOOR

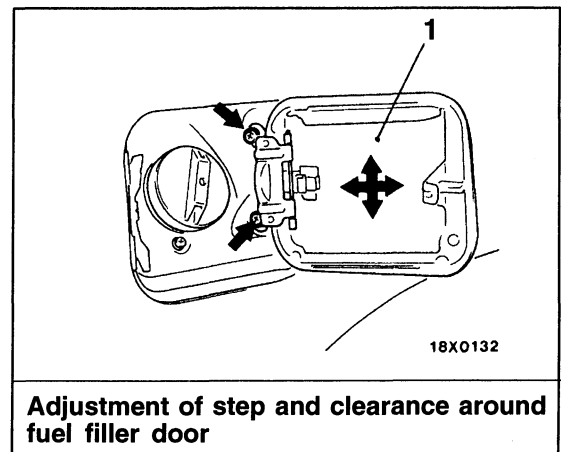
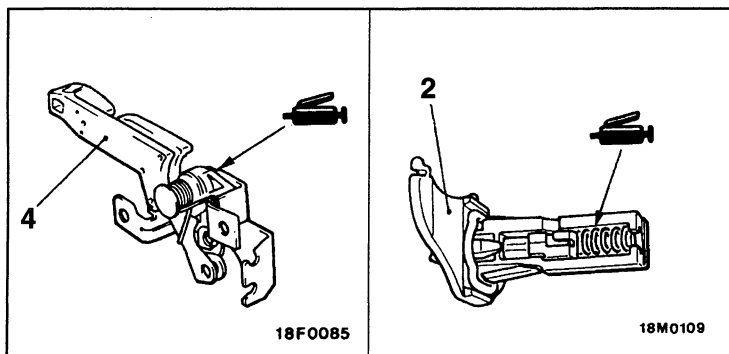
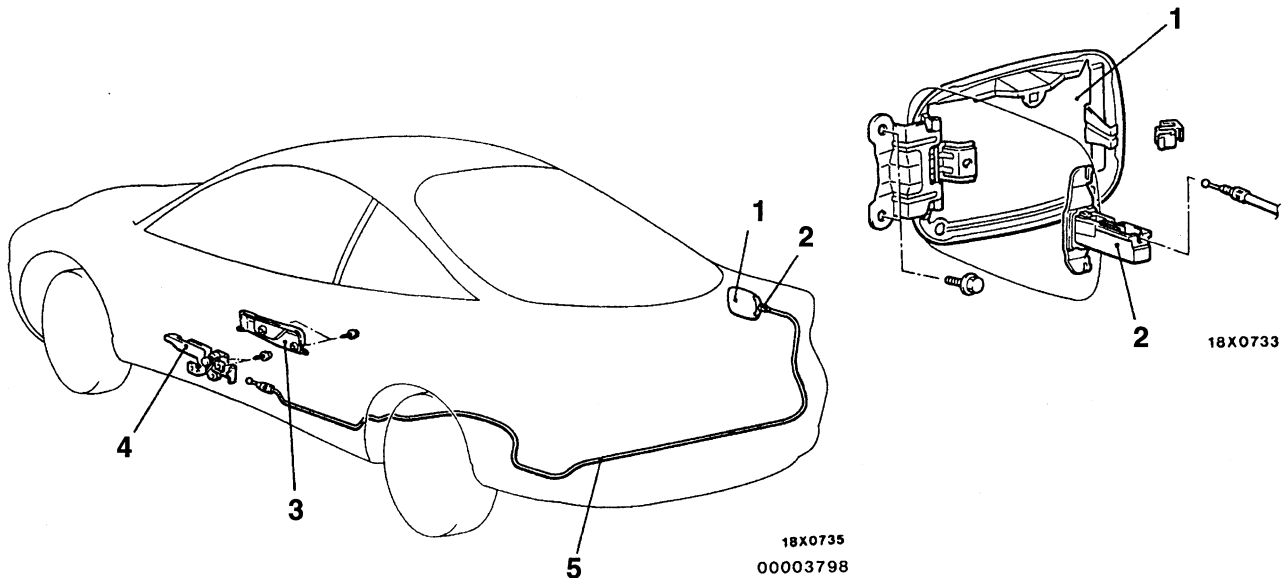
FUEL FILLER DOOR

REMOVAL AND INSTALLATION

42100250100

Pre-removal and Post-installation Operation

- Removal and Installation of Rear Side Trim, Quarter Trim and Scuff Plate (Refer to GROUP 52A.)


Removal steps

1. Fuel filler door
2. Fuel filler door hook
3. Release handle cover

4. Fuel filler door lock release handle
5. Fuel filler door lock release cable

WINDSHIELD AND WINDOW GLASS

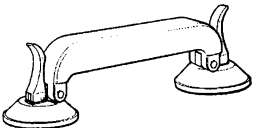
SEALANTS AND ADHESIVES

42200050055

Items	Specified sealants and adhesives
Windshield	3M ATD Part No. 8609 Super Fast Urethane and 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent
Quarter window glass	
Tailgate glass	
Windshield to molding	Both-sided tape (6 mm wide and 0.125 mm thick)
Tailgate glass to molding	

SPECIAL TOOL

42200060058

Tool	Number	Name	Application
	MB990480	Glass holder	Removal and installation of windshield and window glass

TROUBLESHOOTING

42200070037

Symptom	Probable cause	Remedy
Water leak through windshield	Defective seal	Fill sealant
	Defective body flange	Correct
Water leak through Tailgate window	Defective seal	Fill sealant
	Defective body flange	Correct

WINDOW REPAIR

42200560039

The following glass sections are installed by means of a liquid urethane adhesive method.

- Windshield
- Tailgate window glass

ITEMS NEEDED

Name	Remarks
Adhesive	3M ATD Part No. 8609 Super Fast Urethane Auto Glass Sealant or equivalent
Primer	3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent
Spacers	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...0.6mm × 1m For cutting adhesive
Adhesive gun	For pressing-out adhesive

NOTE

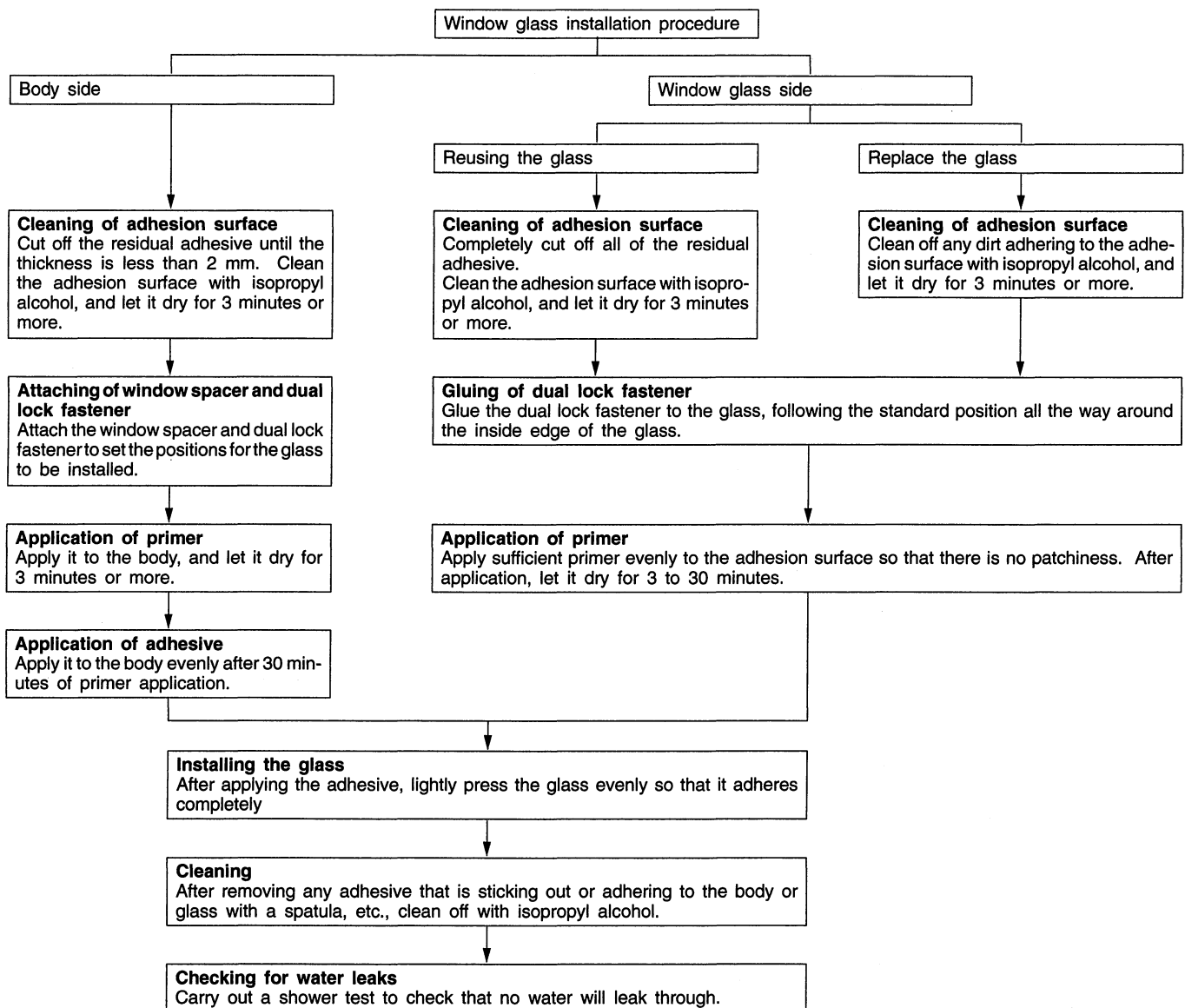
The TEROSON 127.37V auto window sealer kit can also be used. If using the TEROSON 127.37V auto window sealer kit, follow the instructions in the manual included with the kit.

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

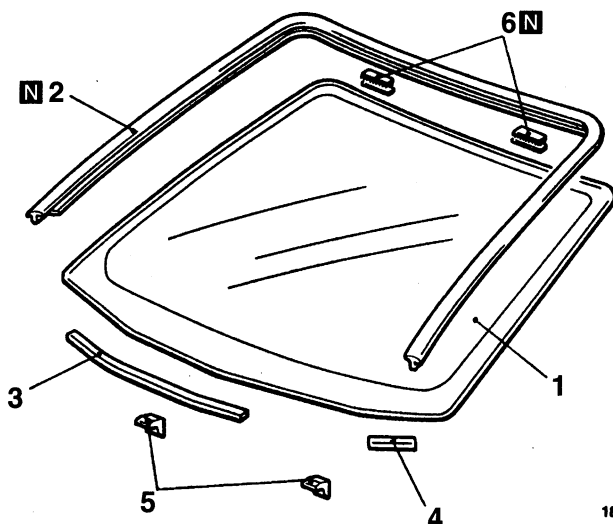
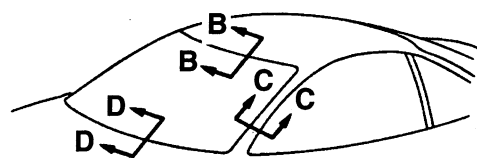
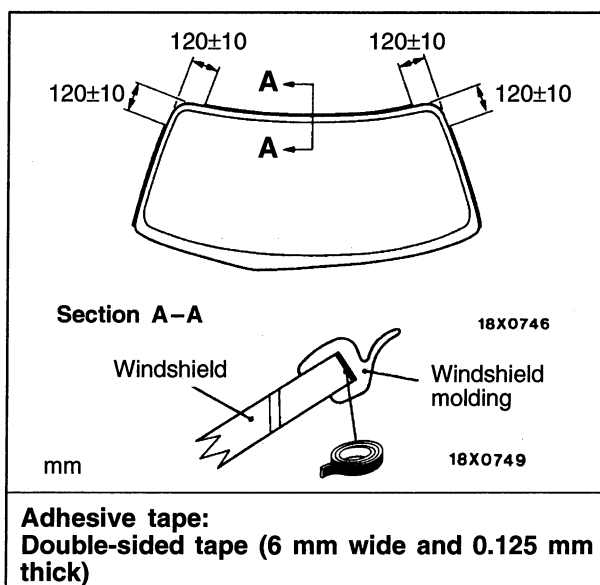
WINDSHIELD

REMOVAL AND INSTALLATION

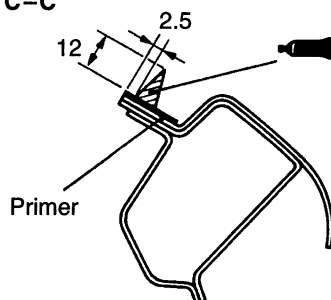
42200100101

**Pre-removal and Post-installation Operation
Removal and Installation**

- (1) Front Deck Garnish (Refer to GROUP 51 – Windshield wiper and Washer.)
- (2) Front Pillar Trim (Refer to GROUP 52A.)
- (3) Headlining

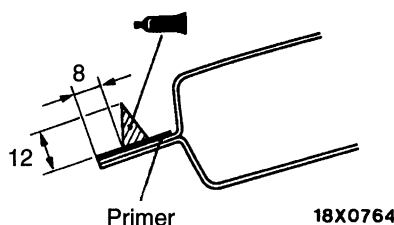
18X0785
00003799

18X0786

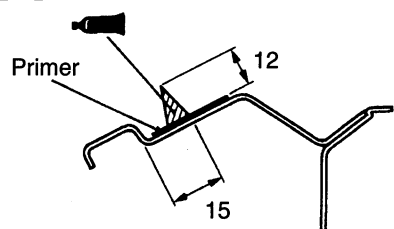
Section C-C

18X0770

mm

Section B-B

18X0764

Section D-D

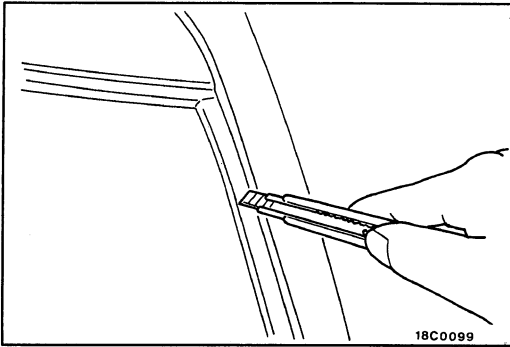
18X0767

Adhesive:
3M ATD Part No. 8609 Super Fast Urethane and 3M ATD Part No.8608 Super Fast Urethane Primer or equivalent

Removal steps

- ◀A▶ ▶A▶ 1. Windshield
▶A▶ 2. Windshield molding
▶A▶ 3. Window spacer

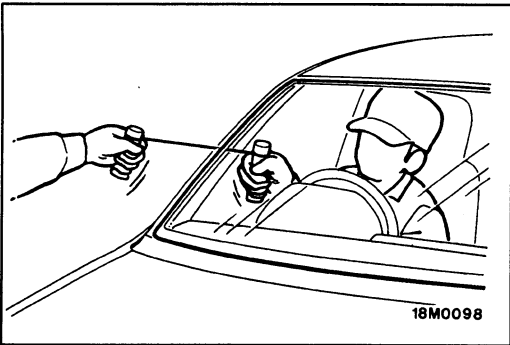
- ▶A▶ 4. Window spacer
▶A▶ 5. Window spacer
▶A▶ 6. Dual-lock fastener



REMOVAL SERVICE POINT

◀A▶ WINDSHIELD REMOVAL

- (1) To protect the body (paint surface), apply cloth tape to all body areas around the installed windshield.
- (2) Cut the molding with a cutter knife.

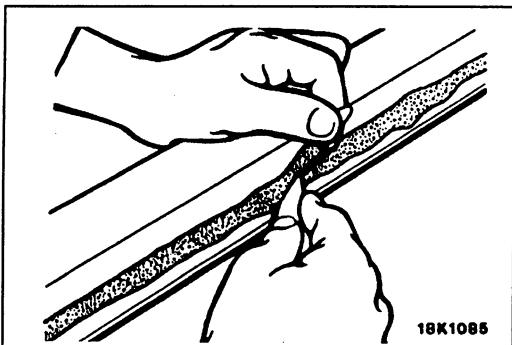
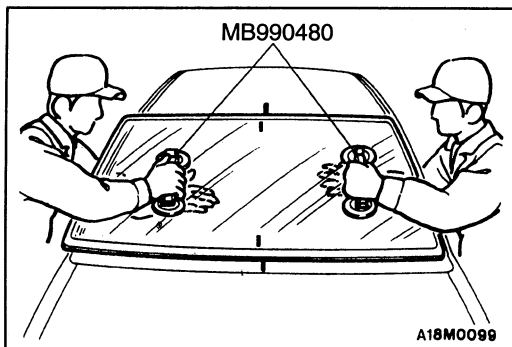


- (3) Using a sharp-point drill, make hole in the windshield adhesive.
- (4) Pass the piano wire from the inside of the vehicle through the hole.
- (5) Pull the piano wire alternately from the inside and outside along the windshield to cut the adhesive.

Caution

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

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



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

Caution

1. Do not remove more adhesive than is necessary.
2. Do not 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.

- (10) When reusing the windshield, remove the adhesive still adhering to the windshield, and clean with isopropyl alcohol.
- (11) Clean the body side in the same way.

Caution

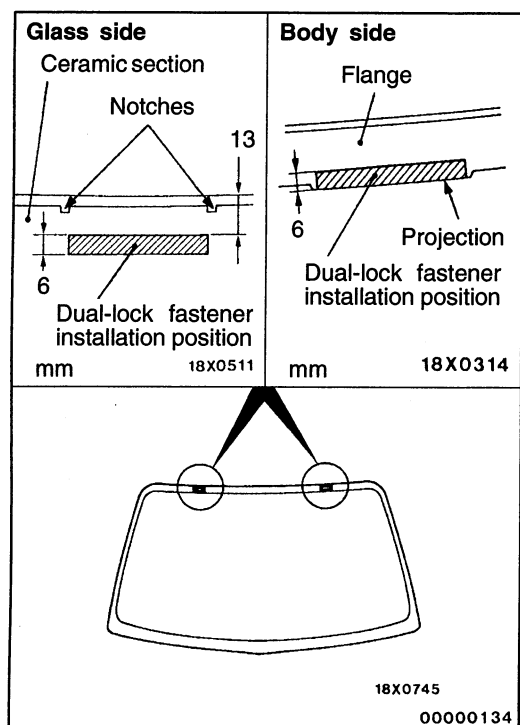
Let the cleaned places stand for 3 minutes or more, and carry out the next procedures after they have dried. Also, do not touch any surface that has been cleaned.

INSTALLATION SERVICE POINT**►A◄ DUAL-LOCK FASTENER / WINDOW SPACER / WINDSHIELD INSTALLATION**

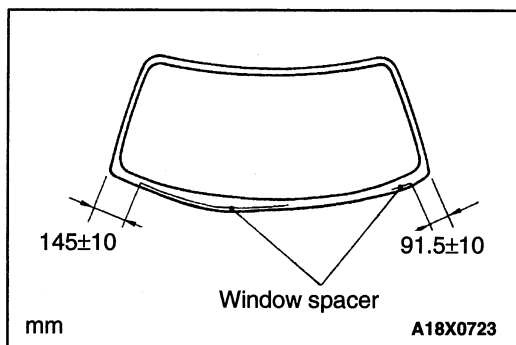
- (1) When replacing the windshield, make mating marks on the body and windshield by putting the windshield on the body temporarily.
- (2) Degrease the inner side and edge of the windshield and the body flange with isopropyl alcohol.
- (3) Apply the primer to around the windshield and body entirely with its dumped sponge.
- (4) Then leave them alone for 3–30 minutes.

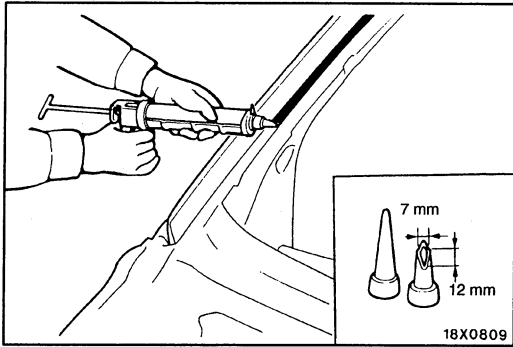
Caution

1. **Never forget to apply the primer as it strengthens adhesive. In addition, too thick application will weaken adhesive.**
2. **Do not touch the primer applied surface.**



- (5) Attach the dual-lock fastener in the places shown in the illustration so that there are no bends or wrinkles on the windshield or the body.





- (6) Within 30 minutes after applying the primer, use a sealant gun to apply the adhesive evenly over the adhesive surface of the vehicle body.

Specified adhesive:

3M ATD Part No. 8609 Super Fast Urethane or equivalent

NOTE

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

- (7) After aligning the mating marks, press the glass gently and evenly so that it adheres completely.
- (8) 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 60°C.

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

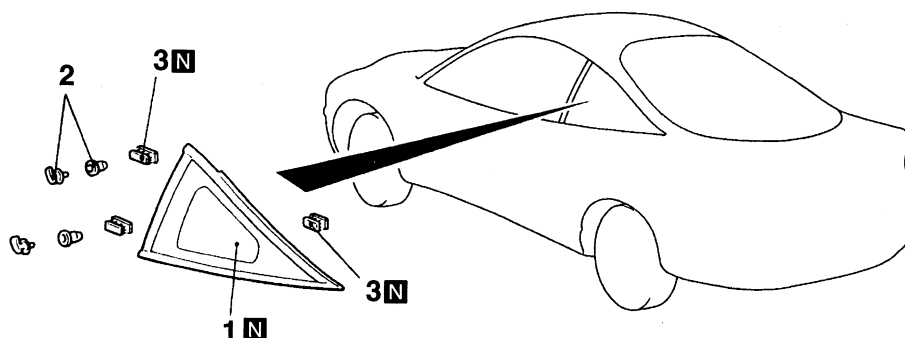
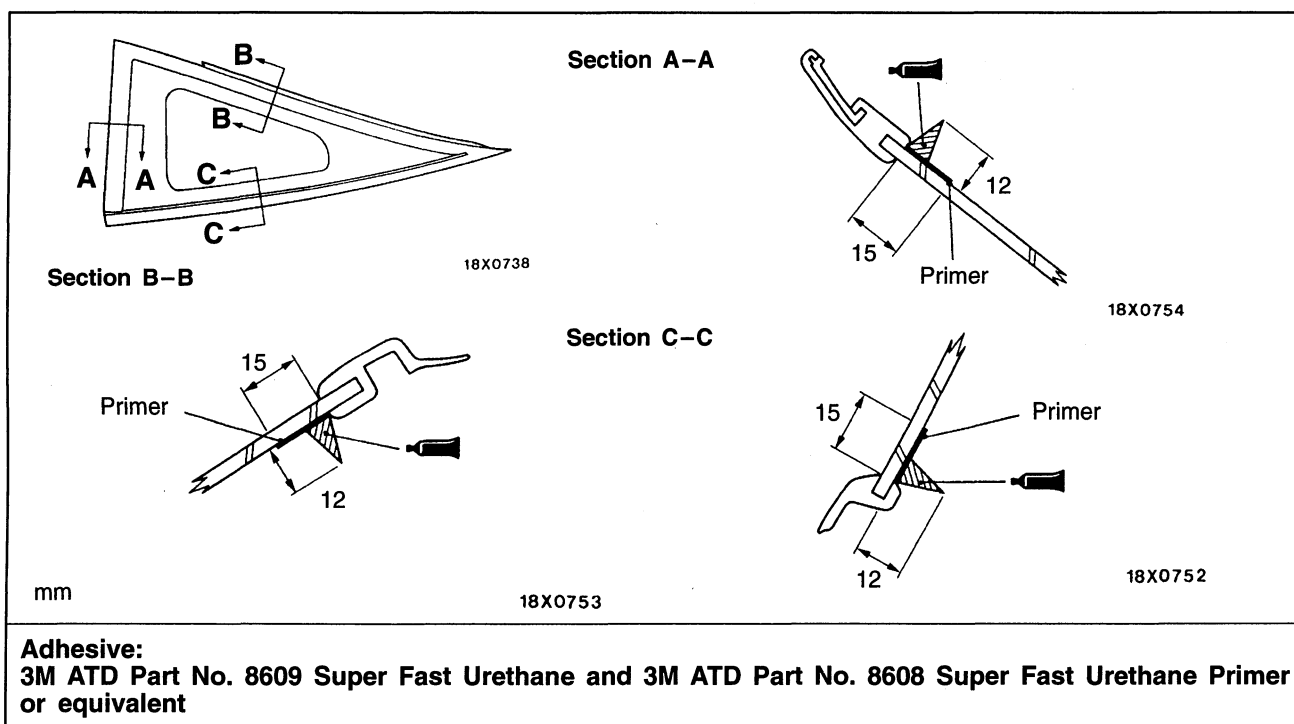
Caution

- 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

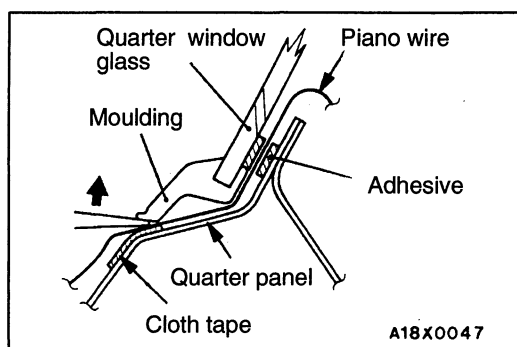
REMOVAL AND INSTALLATION

42200250066

18X0783
00003800

Removal steps

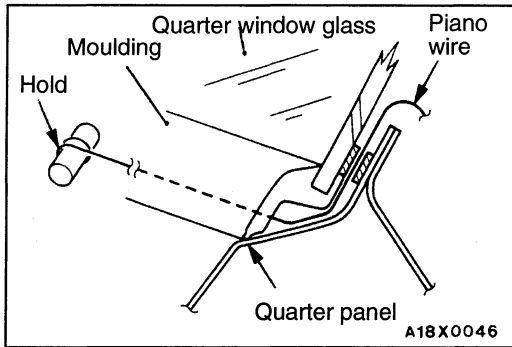
- ◀A▶ 1. Quarter window glass assembly
▶A▶ 2. Clip grommet
▶A▶ 3. Dual-lock fastener



REMOVAL SERVICE POINT

◀A▶ QUARTER WINDOW GLASS REMOVAL

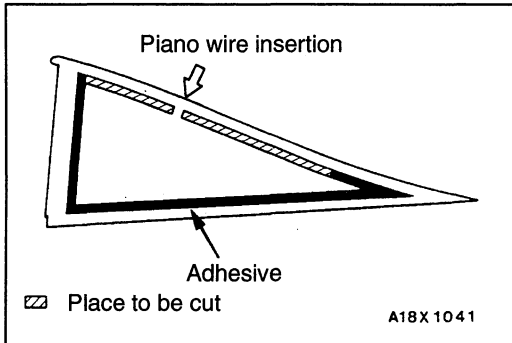
- (1) For protection of the body (coated surface), apply cloth tape to all around the body where the glass is installed.
- (2) Use a retractable blade knife to cut off the adhesive at the upper middle point of the glass from the interior.
- (3) Run a 1-m wire between the glass and the body from the interior.



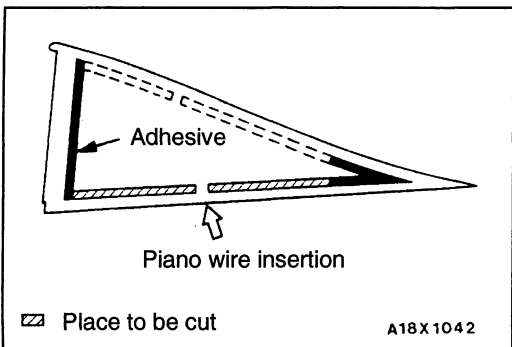
- (4) Hold one wire end at the glass corner along the adhesive.

Caution

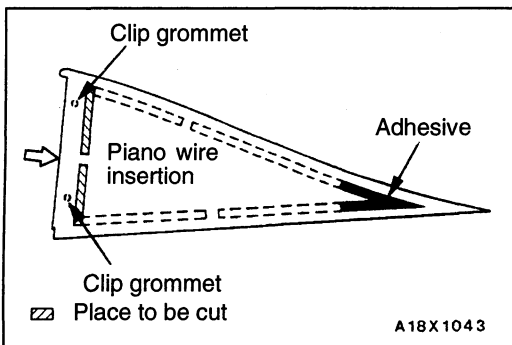
Be careful not to let the wire touch the glass.



- (5) Pull the other wire end from the interior to cut off the shown adhesive.



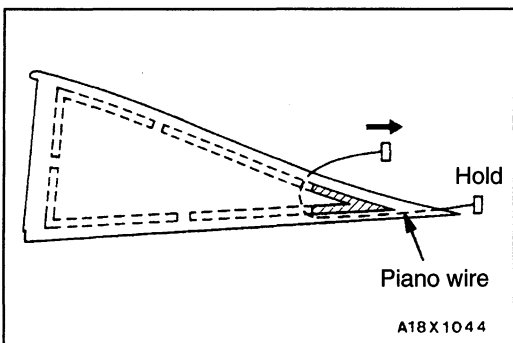
- (6) Repeat steps (4) and (5) to cut off the shown adhesive.



- (7) Repeat steps (4) and (5) to cut off the shown adhesive.

Caution

Be careful not to let the wire touch the clip grommets.

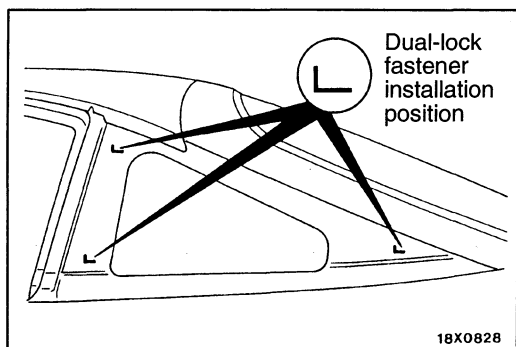


- (8) Pull out the wire as shown to cut off the adhesive on the glass corner.

- (9) Hold one wire end at the glass corner along the adhesive.

- (10) Pull the other wire end gradually along the moulding to cut off the adhesive.

- (11) Remove the quarter window glass.

**INSTALLATION SERVICE POINT****►A◄ DUAL-LOCK FASTENER INSTALLATION**

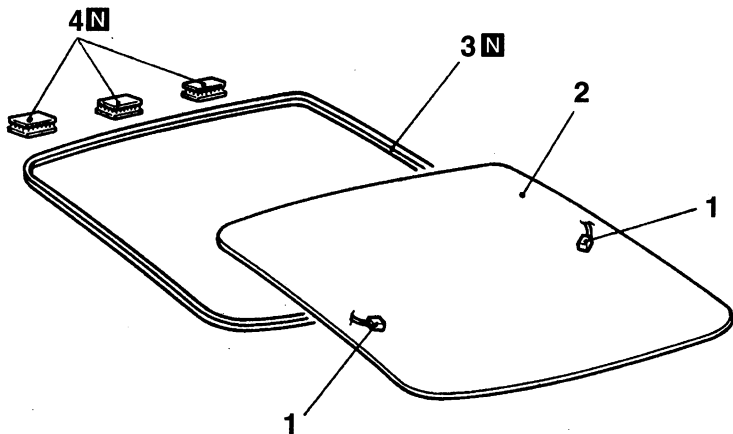
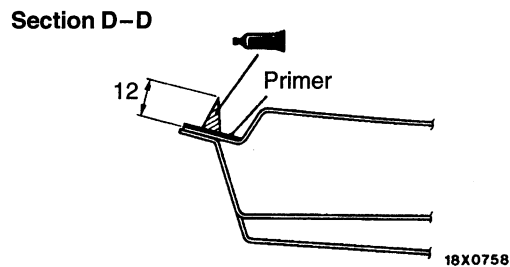
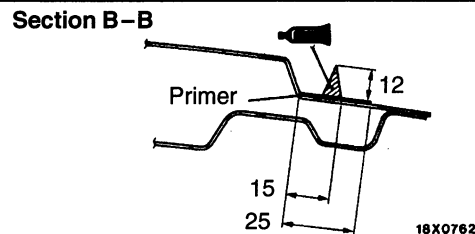
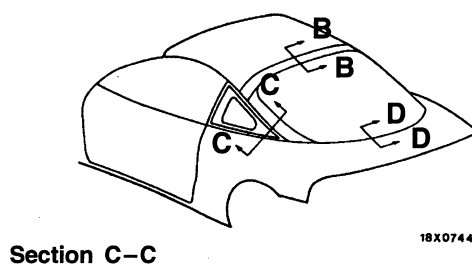
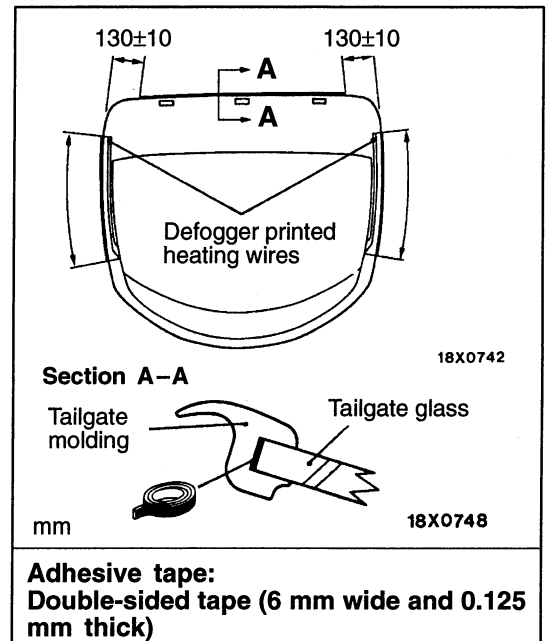
After making sure that there are no bends or raised sections in the dual-lock fasteners, attach the dual-lock fasteners to the places shown in the illustration.

TAILGATE GLASS**REMOVAL AND INSTALLATION**

42200370052

Pre-removal and Post-installation Operation

- (1) Rear Wiper Arm
(Refer to GROUP 51)
- (2) Tailgate Upper Trim, Tailgate Lower Trim and
Tailgate Side Trim (Refer to GROUP 52A.)
- (3) Rear Spoiler (Refer to GROUP 51.)

18X0781
00003802

Adhesive:
3M ATD Part No. 8609 Super Fast Urethane and 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

Removal steps

- ◀A▶ ▶A▶
1. Harness connector
 2. Tailgate glass

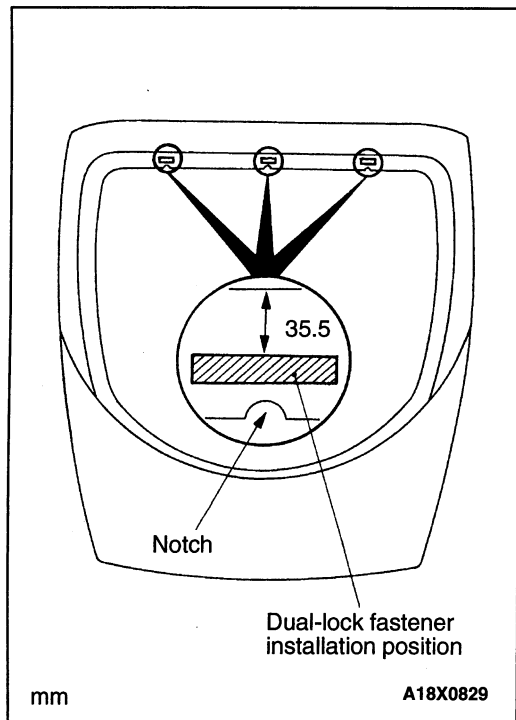
- ▶A▶
3. Tailgate molding
 4. Dual-lock fasteners

REMOVAL SERVICE POINT**◀A▶ TAILGATE GLASS REMOVAL**

Remove the same way as the windshield. (Refer to P.42-11.)

INSTALLATION SERVICE POINT**▶A◀ DUAL-LOCK FASTENER/TAILGATE GLASS INSTALLATION**

- (1) After making sure that there are no bends or raised sections in the dual-lock fasteners, attach the dual-lock fasteners to the notches in the body as shown in the illustration.
- (2) Apply the primer to around the glass and the body, and then install the glass by the same procedure as the windshield. (Refer to P.42-12).



DOOR**SERVICE SPECIFICATIONS**

42900030012

Items			Standard value
Inside handle play mm			6.2 or more
Outside handle play mm			4.4 or more
Clearance of door window glass to weatherstrip holder mm	Adjustment of glass inclination amount	Front pillar	37.0
		Roof	31.0
	Adjustment of glass longitudinal inclination	Front pillar	1.6
		Roof	1.9
		Quarter pillar	13.0 ± 1.0

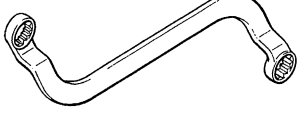
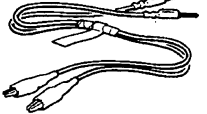
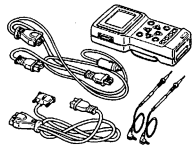
SEALANT

42900050018

Items	Specified sealant	Remark
Waterproof film	3M ATD Part No. 8625 or equivalent	Ribbon sealer

SPECIAL TOOLS

42900060011

Tool	Number	Name	Use
	MB990784	Ornament remover	Removal of switch, trim, etc.
	MB990834	Door adjusting wrench	Adjustment of door fit
	MB991529	Diagnosis code check harness	Checking input signals of ETACS-ECU with a voltmeter.
	MB991502	MUT-II sub assembly	Checking the central door-locking system (ETACS input check)

TROUBLESHOOTING

42900070014

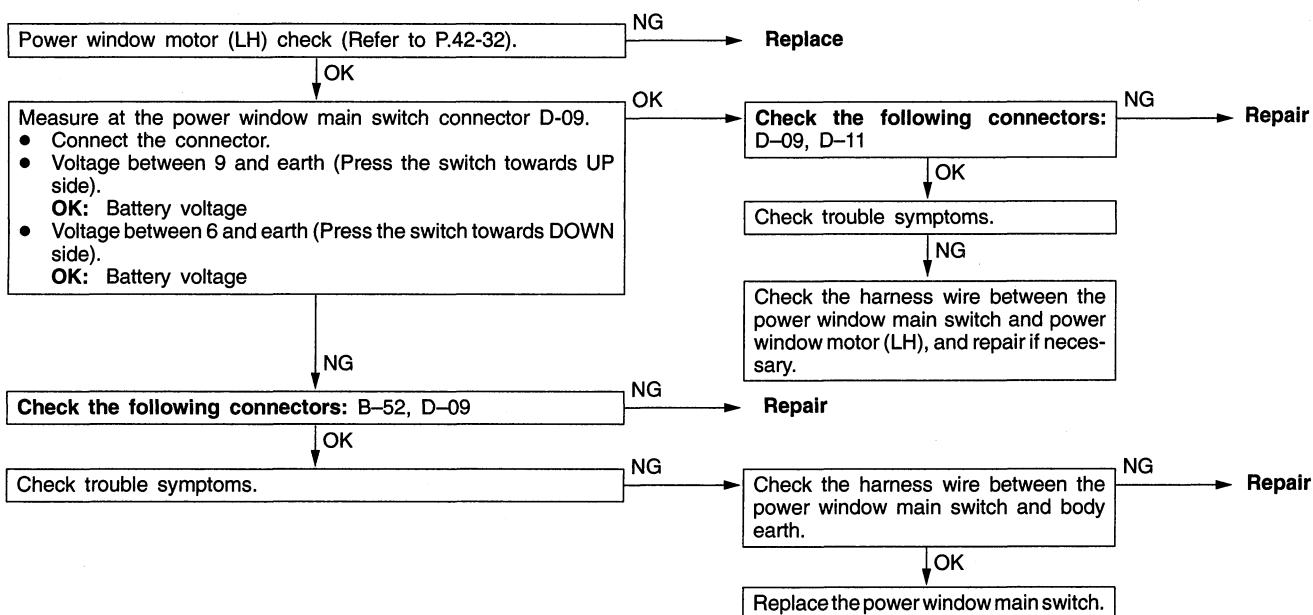
INSPECTION CHART FOR TROUBLE SYMPTOMS

Trouble symptom		Inspection procedure	Reference page
Power windows	Driver's power window cannot be operated by the power window main switch.	1	42-21
	Passenger's power window can not be operated by the power window main switch (but it can be operated by the sub-switch).	2	42-21
	Passenger's power window can not be operated by the power window sub-switches (but it can be operated by the main switch).	3	42-22
	Passenger's power window can not be operated by the power window sub-switch (nor can it be operated by the main switch).	4	42-22
Door locking mechanism	Driver's door does not unlock but remains locked when the lock knob is operated with the ignition key inserted and the door opened.	5	42-23
	The doors do not lock or unlock when a door switch (driver's or passenger's) or the driver's lock knob is operated.	6	42-24
	Some doors do not lock or unlock.	7	42-24

2. INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

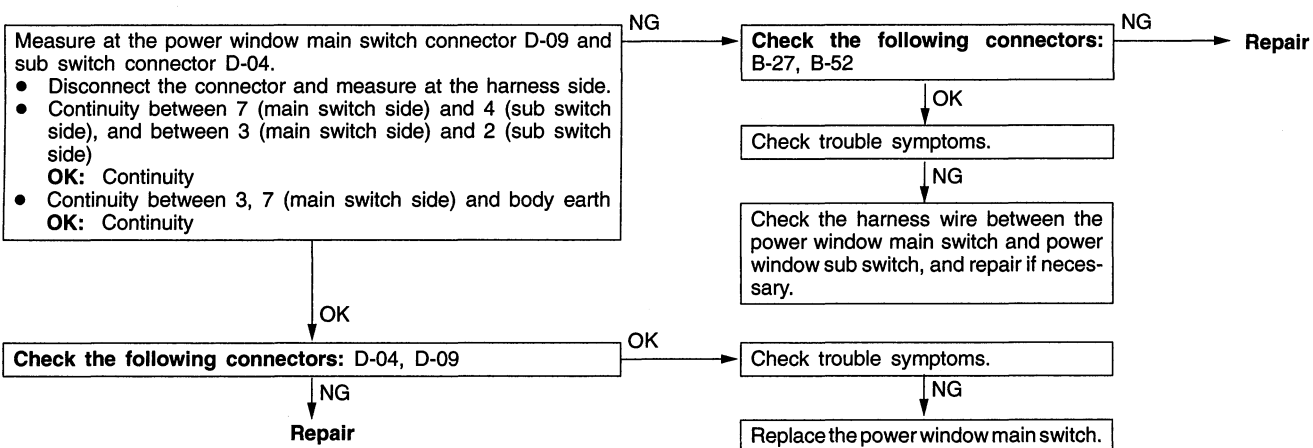
Inspection Procedure 1

Driver's power window cannot be operated by the power window main switch.	Probable cause
Some of the following circuits may be defective: • Earth circuit of the power window main switch • Power supply circuit for driving the power window motor • Control circuit inside the power window main switch	• Malfunction of power window motor • Malfunction of power window main switch • Malfunction of wiring harness or connector



Inspection Procedure 2

Passenger's power window can not be operated by the power window main switch (but it can be operated by the sub-switch).	Probable cause
The power window main switch may be defective, or the harness may be short-circuited or open circuit.	• Malfunction of power window main switch • Malfunction of harness or connector



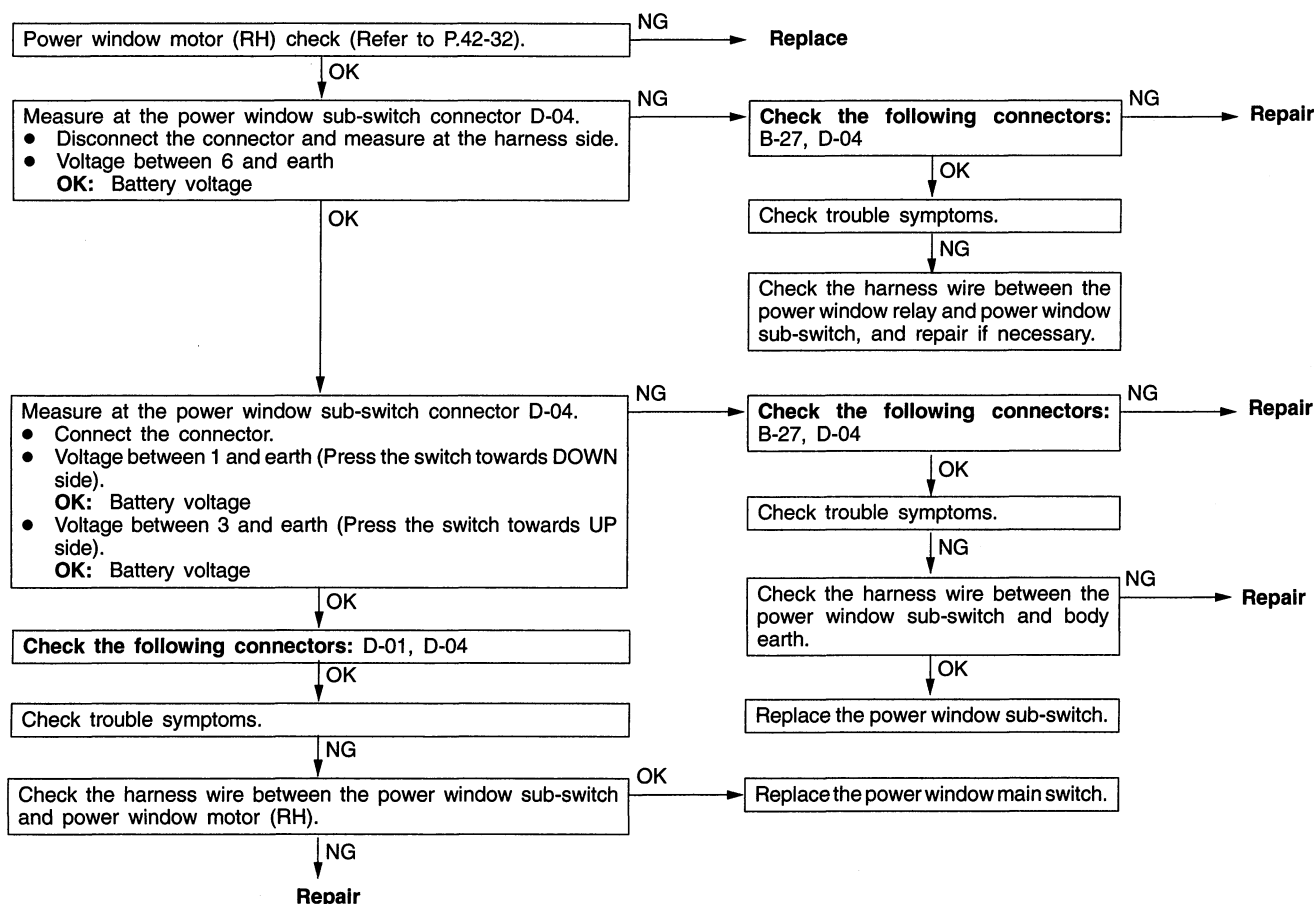
Inspection Procedure 3

Passenger's power window can not be operated by the power window sub-switch (but it can be operated by the main switch).	Probable cause
The power window sub-switch may be defective.	Malfunction of power window sub-switch

Replace the power window sub-switch.

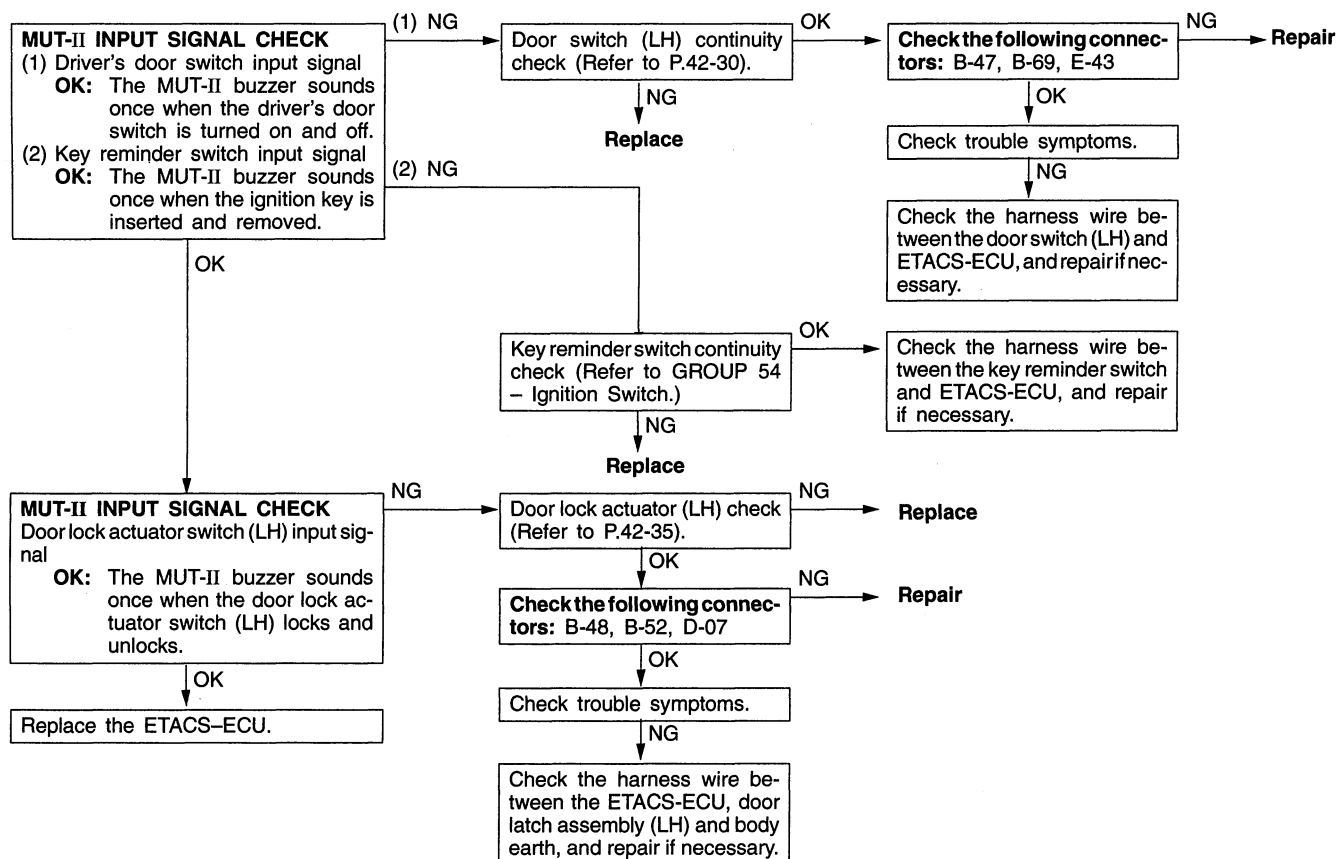
Inspection Procedure 4

Passenger's power window can not be operated by the power window sub-switch (nor can it be operated by the main switch).	Probable cause
Some of the following circuits or parts may be defective: - Power supply circuit of the power window sub switch - Earth circuit - Power window motor (RH) - Lock switch - Power window main switch - Power window sub-switch	- Malfunction of power window main switch - Malfunction of power window sub-switch - Malfunction of power window motor (RH) - Malfunction of harness or connector



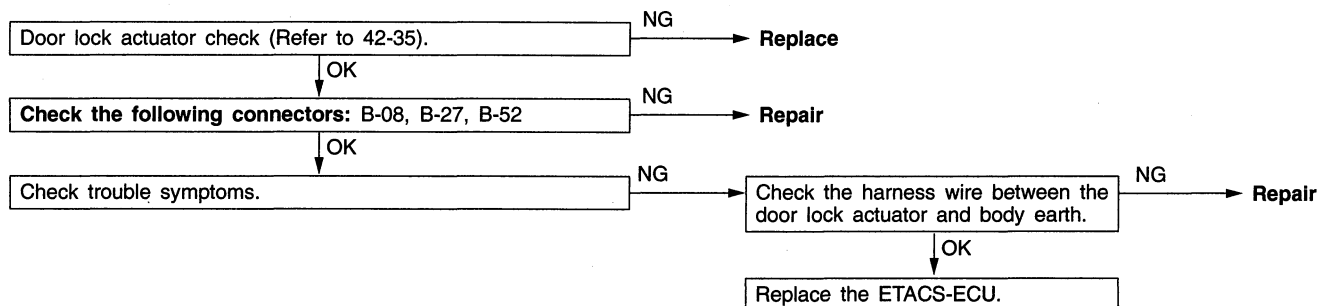
Inspection Procedure 5

Driver's door does not unlock but remains locked when the lock knob is operated with the ignition key inserted and the door opened.	Probable cause
If the ignition key reminder buzzer is also defective, the key reminder switch input circuit or door switch input circuit must be defective. If the ignition key reminder buzzer is normal, the door lock actuator switch (LH) input circuit must be defective.	• Malfunction of door latch assembly (LH) • Malfunction of key reminder switch • Malfunction of door switch (LH) • Malfunction of harness or connector • Malfunction of ETACS-ECU



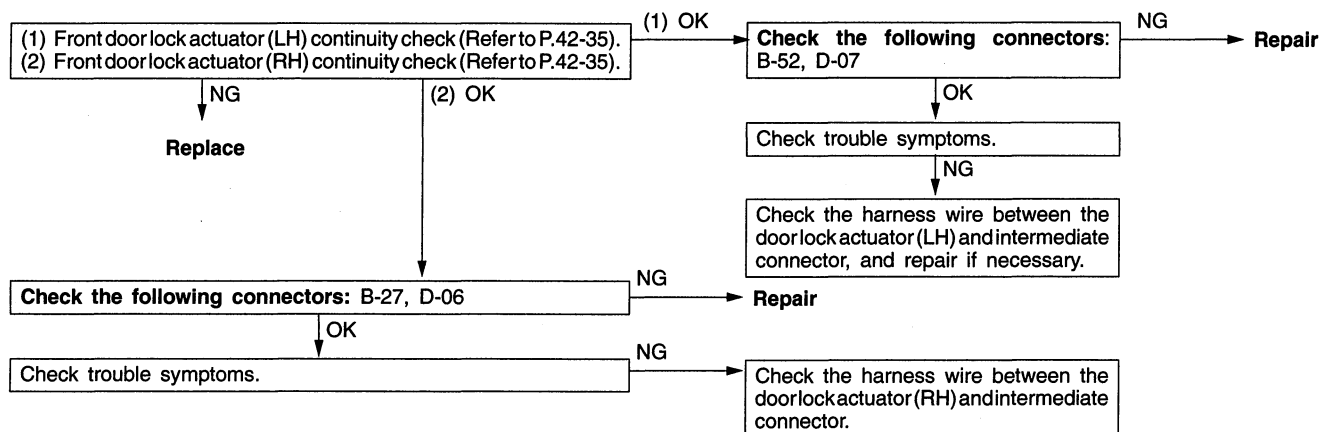
Inspection Procedure 6

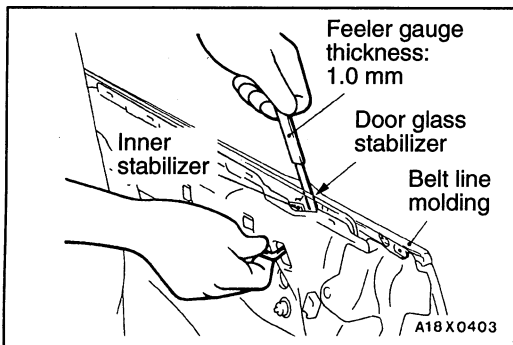
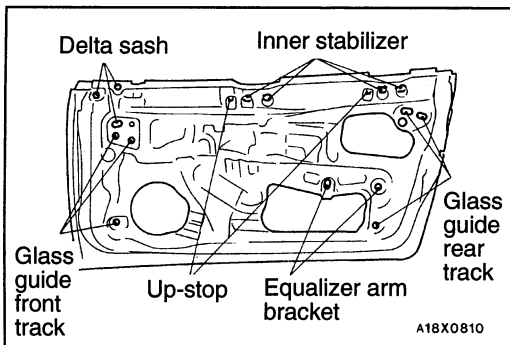
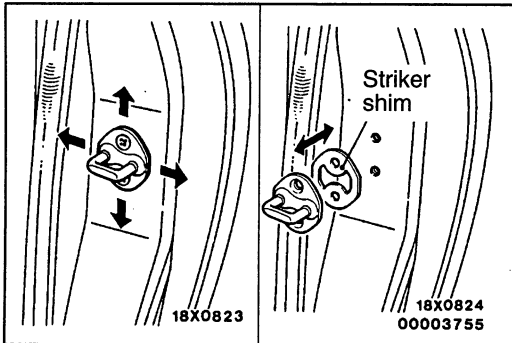
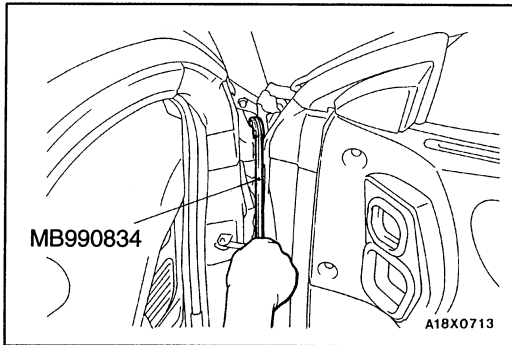
The doors do not lock or unlock when a door switch (driver's or passenger's) or the driver's lock knob is operated.	Probable cause
The door lock actuator, harness, or connectors may be defective.	• Malfunction of door lock actuator • Malfunction of harness or connector • Malfunction of ETACS-ECU



Inspection Procedure 7

Some doors do not lock or unlock.	Probable cause
The door lock actuator, harness, or connector may be defective.	• Malfunction of door lock actuator • Malfunction of harness or connector





ON-VEHICLE SERVICE

DOOR FIT ADJUSTMENT

42300090067

1. Use the special tool to loosen the hinge mounting bolts on the body side. **Caution**
2. When there is a stepped section in the door and body, use the special tool to loosen the door hinge mounting bolt on the door side and adjust the door fit.

Caution

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

3. If the door is hard to open or close, use the shim or move the striker up and down or left and right to adjust the linking of the striker and the door latch.

DOOR WINDOW GLASS ADJUSTMENT

42300100098

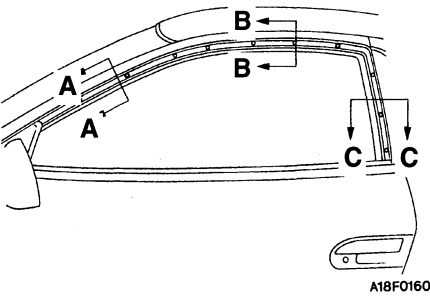
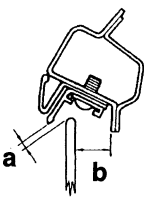
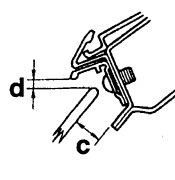
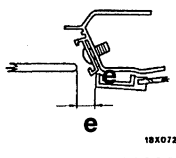
1. Remove the door trim and waterproof film. (Refer to P.42-31.)
2. Remove the drip line weatherstrip.
3. Loosen the bolts and nuts of the following parts.
 - Delta sash
 - Equalizer arm bracket
 - Glass guide front track
 - Glass guide rear track
 - Up-stop
 - Inner stabilizer

NOTE

Move the window glass down to the lowest position before removing the delta sash bolt.

4. Lower the door window glass fully. Insert a feeler gage with a thickness of 1.0 mm between the door glass stabilizer (nylon fiber surface) of the belt line molding and the glass. Adjust the two bolts so that the inner stabilizer is pressing against the glass, and then tighten the inner stabilizer nuts.

5. Raise the door window glass, and adjust it so that the following dimensions are at the standard value.

			Measurement points and standard value mm				
			Section A-A	Section B-B	Section C-C		
							
Items	Adjustment procedures		a	b	c	d	e
1	Tilt adjustment	Adjust by turning the two glass guide track adjusting bolts by equal amounts for both the front and rear side. (Refer to Fig.1)	—	37.0	31.0	—	—
2	Longitudinal adjustment	Adjust by moving the equalizer arm bracket up and down. (Refer to Fig.2)	1.6	—	—	1.9	13.0±1.0
	Longitudinal adjustment	Adjust by moving the glass guide rear track forward or backward. (Refer to Fig.3)	1.6	—	—	—	13.0±1.0

NOTE

Glass longitudinal adjustments should be carried out at the same time.

Fig.1

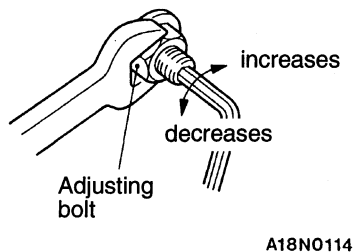


Fig.2

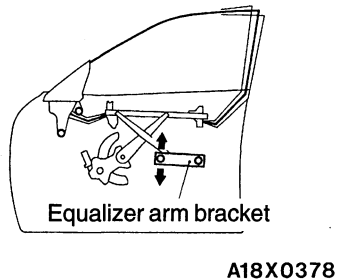
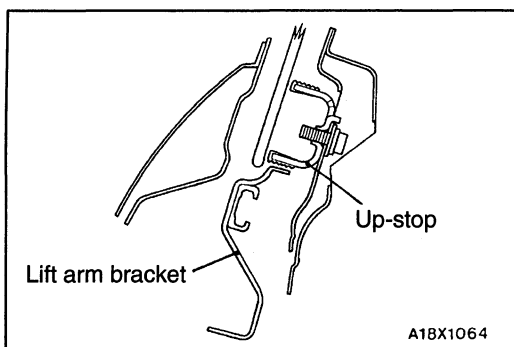
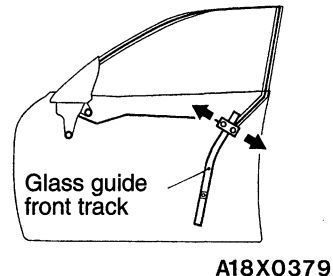


Fig.3

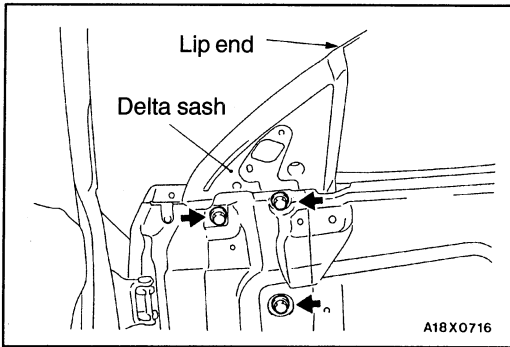


- Push the up-stops firmly against the lift arm bracket of the regulator, and then install the bolts. Dimensions a and d in step 5. should be maintained at this time.
- Tighten the mounting bolts and nuts of the front and rear glass guide tracks.

Caution

Do not turn the adjusting bolts of the glass guide tracks.

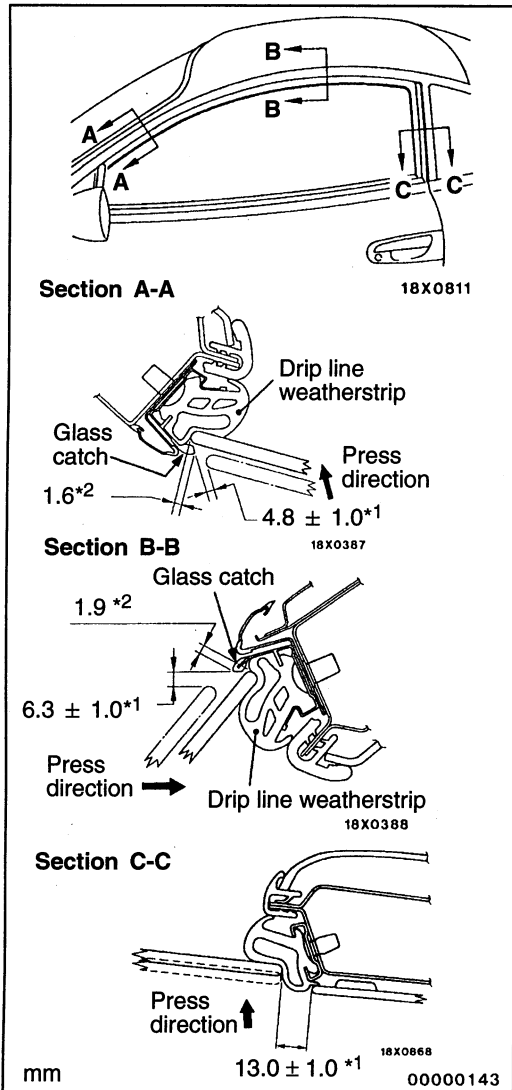
- Install the mounting bolt of the equalizer arm bracket for the regulator.



9. Tighten the three delta sash mounting bolts so that the edges of the delta sash and window glass run on smoothly with there being no difference in height at the lip end.
10. Install the drip line weatherstrip to the weatherstrip holder.

Caution

The weatherstrip should not slip or become wrinkled.



11. Open and close the door and raise and lower the window glass and check the glass installation against the following points.

- (1) The clearance between the glass and the glass catch should be within the range of *¹ shown in the illustration when the window is fully closed and the door is closed gently.

NOTE

If the clearance is too small, the glass catch will move above the glass when the door is closed. If the clearance is too large, wind noise may be generated at high vehicle speeds because the glass catch is not hooked onto the glass.

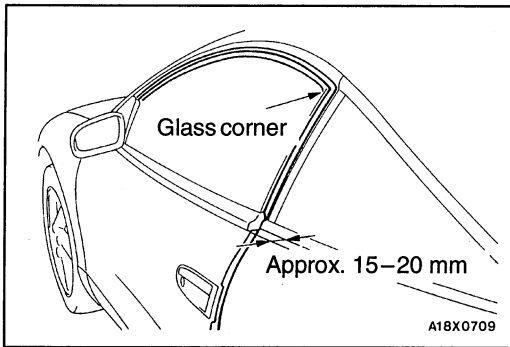
- (2) The amount of catch of the door catch on the door glass and the amount of step between the door glass and the weatherstrip should be at the dimensions marked by *² under the following conditions:
when the door is closed and then the window is closed fully
when the window is closed fully and then the door is closed
- (3) The door glass should slide smoothly over its full range of movement when the door is closed.

- (4) There should be 1 mm of play available between the outer stabilizer of the belt line molding and the glass when the glass is half open and fully open.

NOTE

If there is no clearance, the glass will be damaged. If the clearance is too great, rattling noise will occur.

- (5) The glass catch and the weatherstrip should be parallel with the door glass and the two up-stops should touch simultaneously when the glass is fully closed.



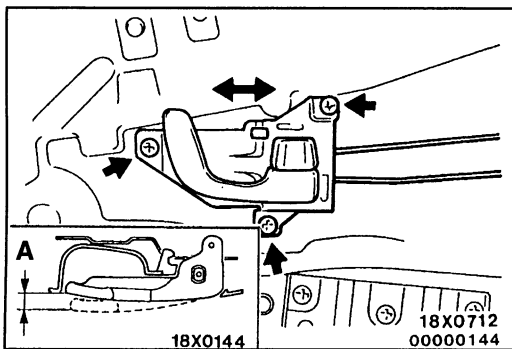
- (6) Check the amount of glass tilt by the following procedure.

Close the door glass fully and then gently close the door. Check that the difference in height between the door and side panels is 15–20 mm when the corner of the door glass is touching the weatherstrip at the top of the center pillar.

NOTE

If the amount of tilt is too small, the glass catch will move above the glass when the door is closed and when the glass is raised. If the amount of tilt is too large, the door will be difficult to close and the glass will not be fully sealed when the door is closed.

12. Install the waterproof film and the door trim.

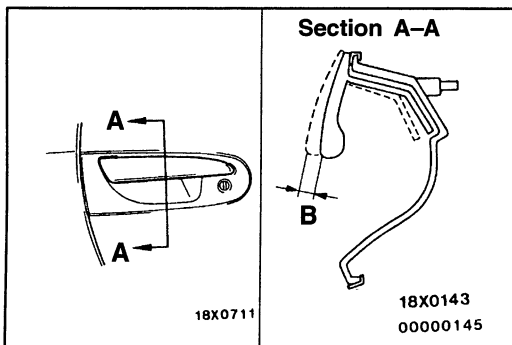


INSIDE HANDLE PLAY ADJUSTMENT

42300150093

1. Remove the door trim and waterproof film. (Refer to P.42-31.)
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 (A): 6.2 mm or more

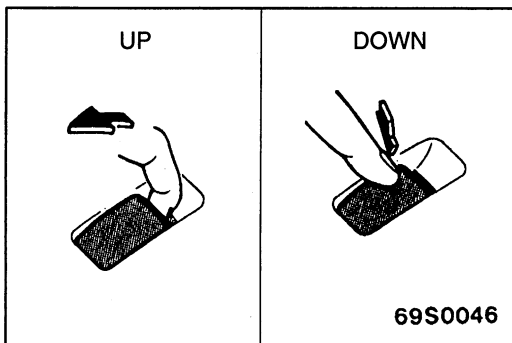


OUTSIDE HANDLE PLAY CHECK

42300160065

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 (B): 4.4 mm or more



CIRCUIT BREAKER (INCORPORATED IN THE POWER WINDOW MOTOR) CHECK

42900170035

1. Lift the UP switch to fully close the window glass, and continue to lift the switch for 40 seconds.
2. As soon as 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.

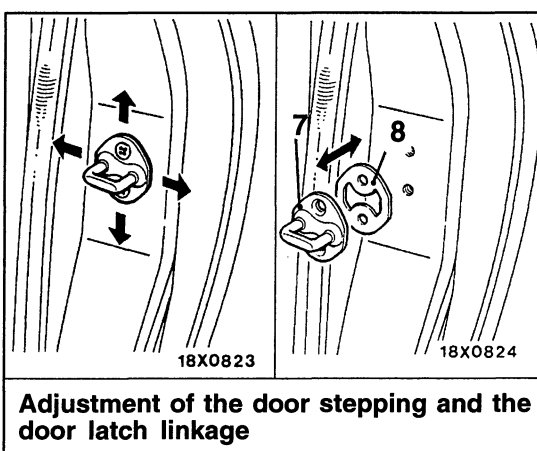
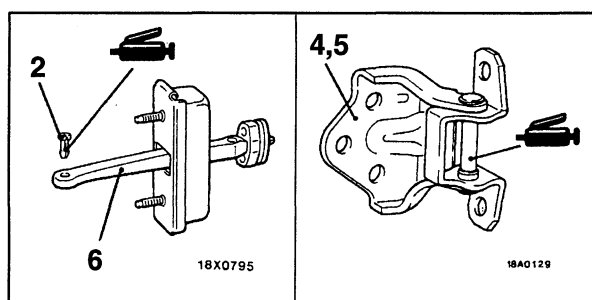
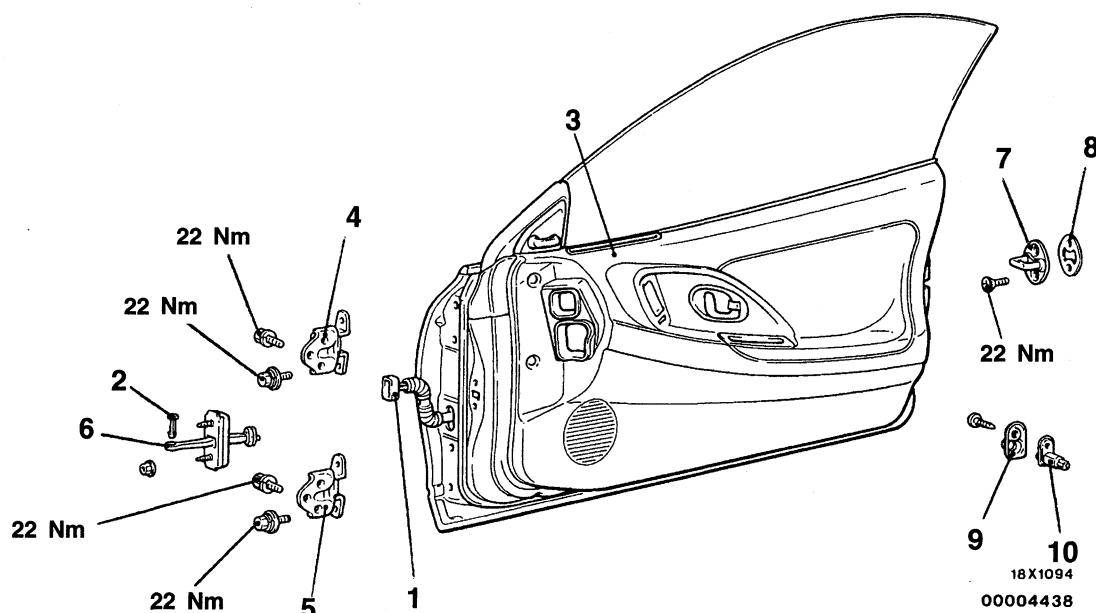
DOOR ASSEMBLY

REMOVAL AND INSTALLATION

42300220121

Post-installation Operation

- Door Adjustment (Refer to P.42-25)



Door assembly removal steps

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

Door check removal steps

- Door trim (Refer to P.42-31.)
- Waterproof film (Refer to P.42-31.)
- 2. Spring pin
- 6. Door check

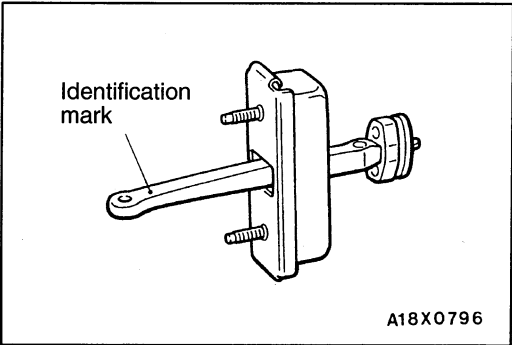


Striker removal steps

7. Striker
8. Striker shim

Door switch removal steps

9. Door switch cap
10. Door switch

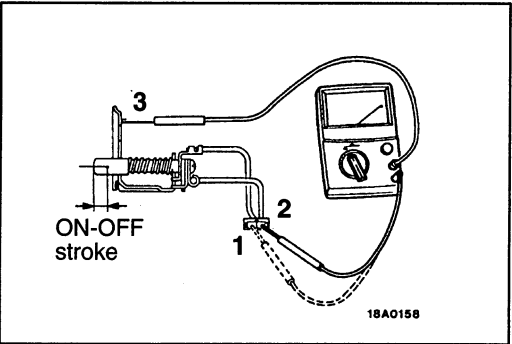


INSTALLATION SERVICE POINT

►A◄ DOOR CHECK INSTALLATION

Install the door check so that the identification mark faces upwards.

Position	Identification mark
Door (LH)	L
Door (RH)	R



INSPECTION

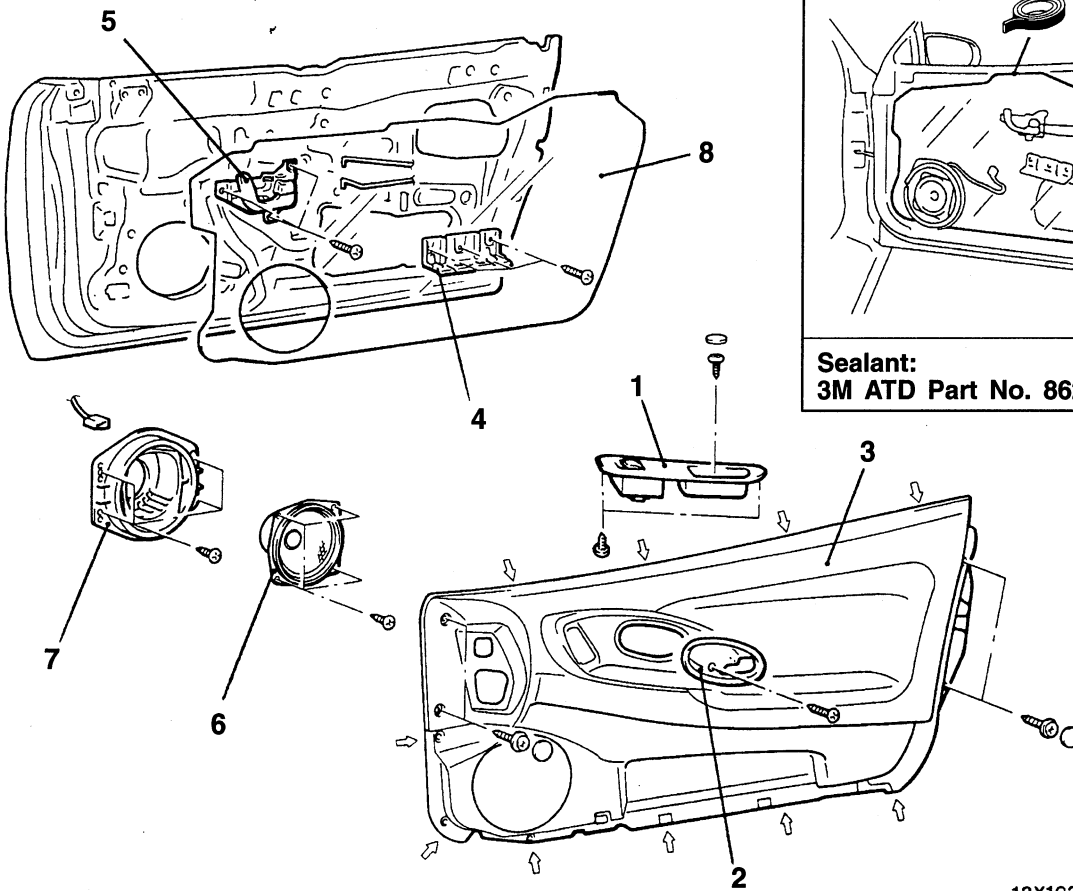
DOOR SWITCH CONTINUITY CHECK

42300230018

Switch position	Terminal No.		
	1	2	3
Open (ON)	○	○	○
Depressed (OFF)			

DOOR TRIM AND WATERPROOF FILM REMOVAL AND INSTALLATION

42300430111



Sealant:
3M ATD Part No. 8625 or equivalent

18X1024

00004439

NOTE

↔ : Indicates the clip positions

Removal steps

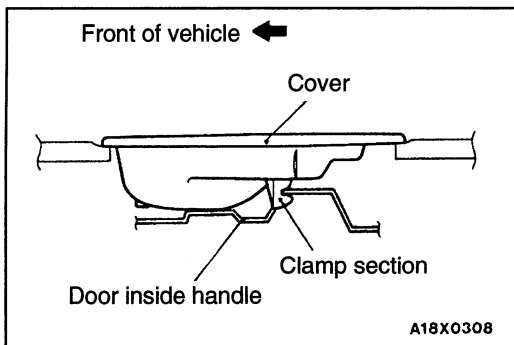
1. Pull handle box
2. Cover
3. Door trim
4. Pull handle bracket
5. Door inside handle
6. Door speaker assembly
7. Speaker cover
8. Waterproof film



REMOVAL SERVICE POINT

◀A▶ COVER REMOVAL

Remove the cover mounting screw and remove the cover by pushing it toward the front of the vehicle to remove the clamp section from the door inside handle.



DOOR GLASS AND REGULATOR REMOVAL AND INSTALLATION

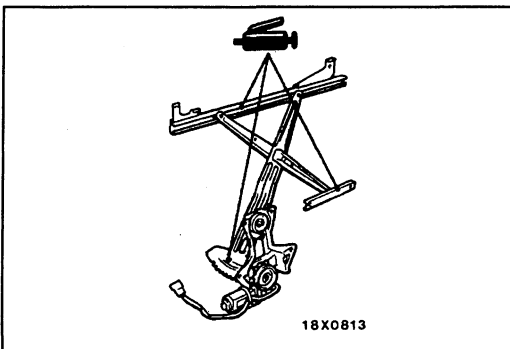
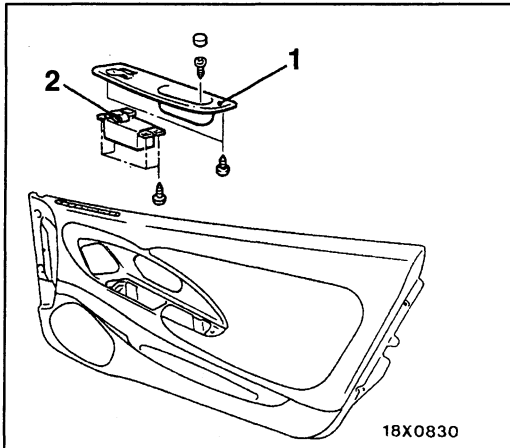
42900130118

Pre-removal Operation

- (1) Door Trim and Waterproof Film Removal (Refer to P.42-31.)
- (2) Belt Line Molding Removal (Refer to P.42-36.)

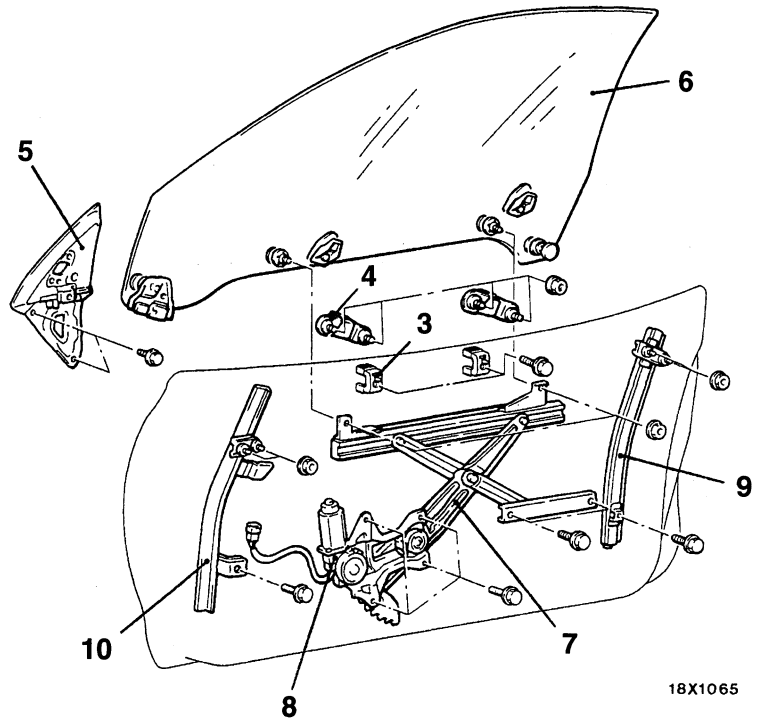
Post-installation Operation

- (1) Door Window Glass Adjustment (Refer to P.42-25.)
- (2) Belt Line Molding Installation (Refer to P.42-36.)
- (3) Door Trim and Waterproof Film Installation (Refer to P.42-31.)



Power window switch removal steps

1. Pull handle box
2. Power window switch



Door glass and regulator removal steps

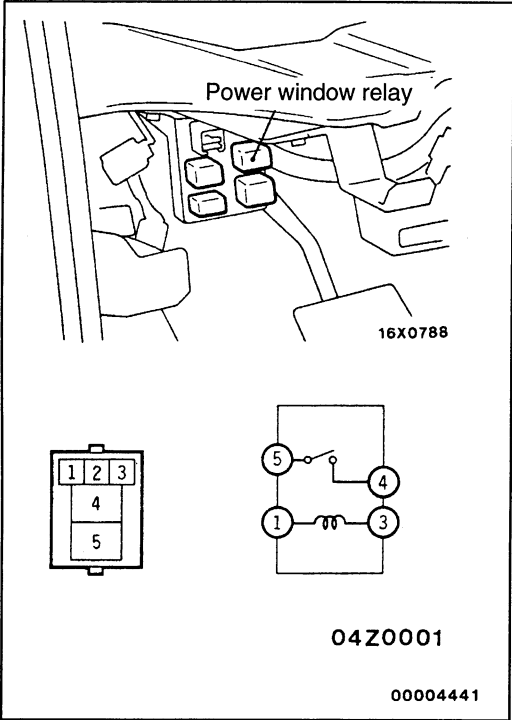
3. Up-stop
4. Inner stabilizer
5. Delta sash
6. Door window glass
7. Window regulator assembly
8. Power window motor
9. Glass guide rear track
10. Glass guide front track

INSPECTION

42900140012

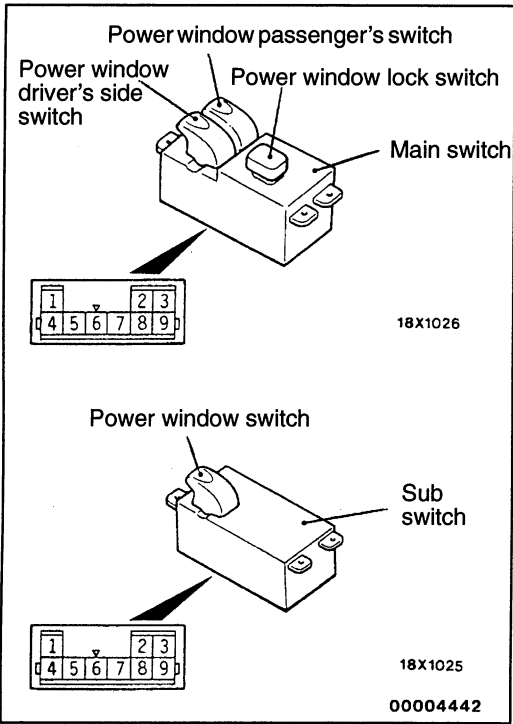
POWER WINDOW MOTOR CHECK

- (1) Check that the motor runs smoothly when the battery is connected directly to the motor terminals.
- (2) Furthermore, check that the motor operates in reverse when the terminal connections are switched.



POWER WINDOW RELAY CONTINUITY CHECK

Battery voltage	Terminal No.			
	1	2	3	4
Power is not supplied	○	○		
Power is supplied	⊕	⊖	○	○



POWER WINDOW SWITCH CONTINUITY CHECK
Main switch

Switch position		Terminal No.					
		2	3	6	7	8	9
Driver's Side Switch	UP	○		○		○	○
	OFF	○		○			○
	DOWN, AUTO DOWN	○		○		○	○
Passenger's Side Switch	UP		○			○	
	OFF		○		○		
	DOWN				○	○	
Window Lock Switch	NORMAL	○	○				
	LOCK	○			○		

Sub switch

Switch position	Terminal No.				
	1	2	3	4	6
UP	○		○	○	○
OFF	○	○	○	○	
DOWN	○	○	○		○

DOOR HANDLE AND LATCH

REMOVAL AND INSTALLATION

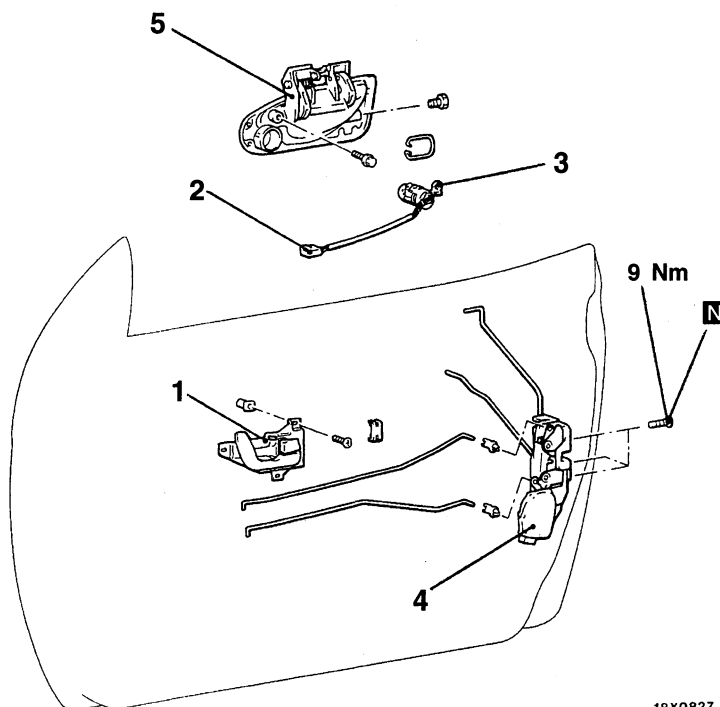
42300460103

Pre-removal operation

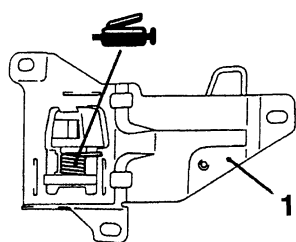
Door Trim Removal (Refer to P.42-31.)

Post-installation Operation

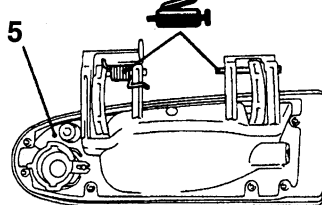
- (1) Inside Handle Play Adjustment (Refer to P.42-28.)
- (2) Door Trim Installation (Refer to P.42-31.)
- (3) Door Fit Adjustment (Refer to P.42-25.)



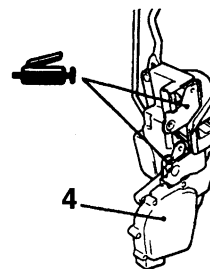
18X0827
00004443



18X0790



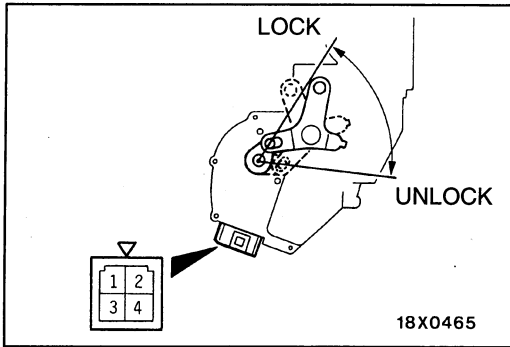
18X0791



18X0364

Door handle and latch removal steps

1. Door inside handle
 - Waterproof film (Refer to P.42-31)
2. Harness connector (Passenger's side)
3. Door lock key cylinder assembly
4. Door latch assembly
5. Door outside handle

**INSPECTION**

42300470014

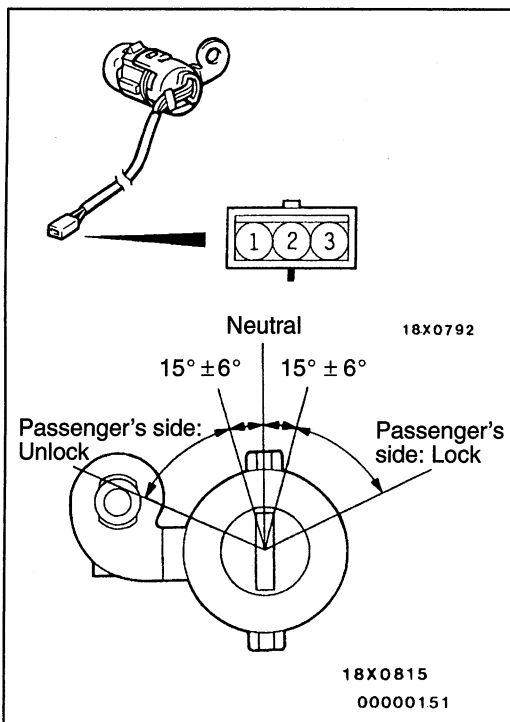
DOOR LOCK ACTUATOR CHECK

<LH>

Rod position	Terminal No.				Rod operation
	1	2	3	4	
LOCK			⊕	⊖	LOCK position UNLOCK position
UNLOCK			⊕	⊖	UNLOCK position LOCK position
LOCK					
UNLOCK	○	○			

<RH>

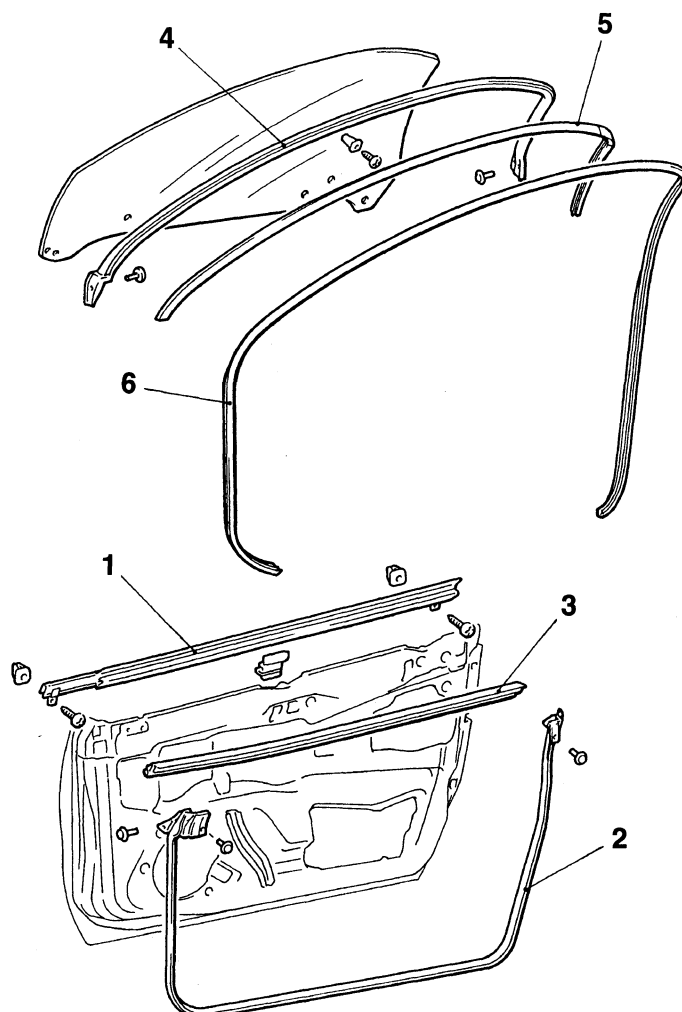
Rod position	Terminal No.				Rod operation
	1	2	3	4	
LOCK			⊖	⊕	LOCK position UNLOCK position
UNLOCK			⊕	⊖	UNLOCK position LOCK position
LOCK					
UNLOCK	○	○			

**DOOR LOCK KEY CYLINDER SWITCH CONTINUITY CHECK**

Switch position	Terminal No.		
	Passenger's side		
	1	2	3
LOCK	○	○	
Neutral (OFF)			
UNLOCK		○	○

DOOR OPENING WEATHERSTRIP REMOVAL AND INSTALLATION

42300310088



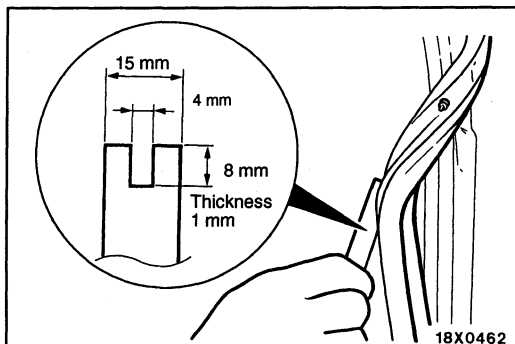
A18X0789

Door window inner weatherstrip removal steps

- Door trim (Refer to P.42-31)
- Delta sash (Refer to P.42-32)
- 1. Belt line molding
- 2. Door outer opening weatherstrip
- 3. Door window inner weatherstrip

Door inner opening weatherstrip removal steps

- 4. Drip line weatherstrip
- 5. Door weatherstrip holder
- Scuff plate (Refer to GROUP 52A – Trim)
- 6. Door inner opening weatherstrip



REMOVAL SERVICE POINT

◀A▶ DOOR OUTER OPENING WEATHERSTRIP REMOVAL

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

TAILGATE

TROUBLESHOOTING

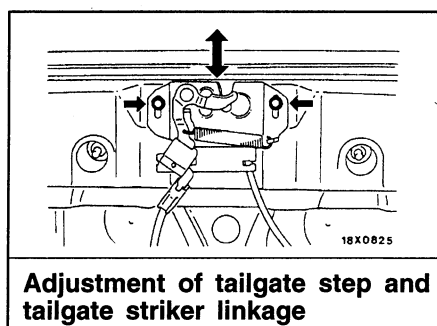
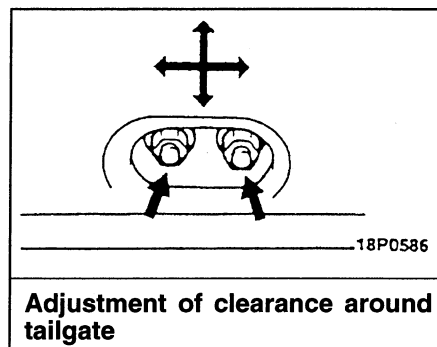
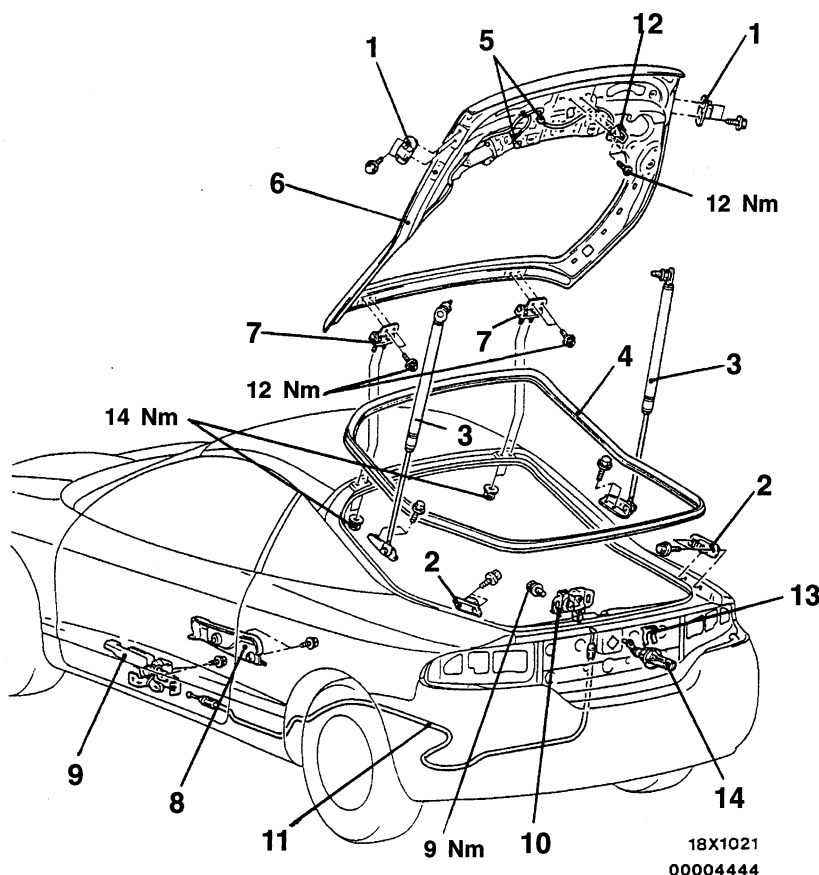
42400070033

Symptom	Probable cause	Remedy
Improper closure	Striker and latch not properly aligned	Adjust the alignment
Difficult locking and unlocking	Striker and latch not properly aligned	Adjust the alignment
Uneven body clearance	Incorrectly installed tailgate	Adjust the installation of tailgate
Uneven height	Incorrect tailgate bumper height	Adjust the tailgate bumper height

TAILGATE

REMOVAL AND INSTALLATION

42400110056



1. Tailgate damper (upper)
2. Tailgate damper (lower)
3. Tailgate gas spring
4. Tailgate opening weatherstrip

Tailgate and tailgate hinge removal steps

- Washer tube (Refer to GROUP 51.)
- Tailgate trim (Refer to GROUP 52A.)
- Tailgate side trim (L.H.) (Refer to GROUP 52A.)
- Rear side trim (Refer to GROUP 52A.)
- 3. Tailgate gas spring
- 5. Connection for tailgate wiring harness
- 6. Tailgate
- Headlining
- 7. Tailgate hinge

Tailgate lock release cable and handle removal steps

- Scuff plate (driver's side) (Refer to GROUP 52A – Trim)
- 8. Release handle cover
- 9. Tailgate lock release handle
- Quarter trim (Refer to GROUP 52A.)
- Rear side trim (Refer to GROUP 52A.)
- Rear end trim (Refer to GROUP 52A.)
- 10. Tailgate latch
- 11. Tailgate lock release cable

Tailgate latch removal steps

- Rear end trim (Refer to GROUP 52A.)
- 10. Tailgate latch

Tailgate striker removal steps

- Tailgate trim (Refer to GROUP 52A.)
- 12. Tailgate striker

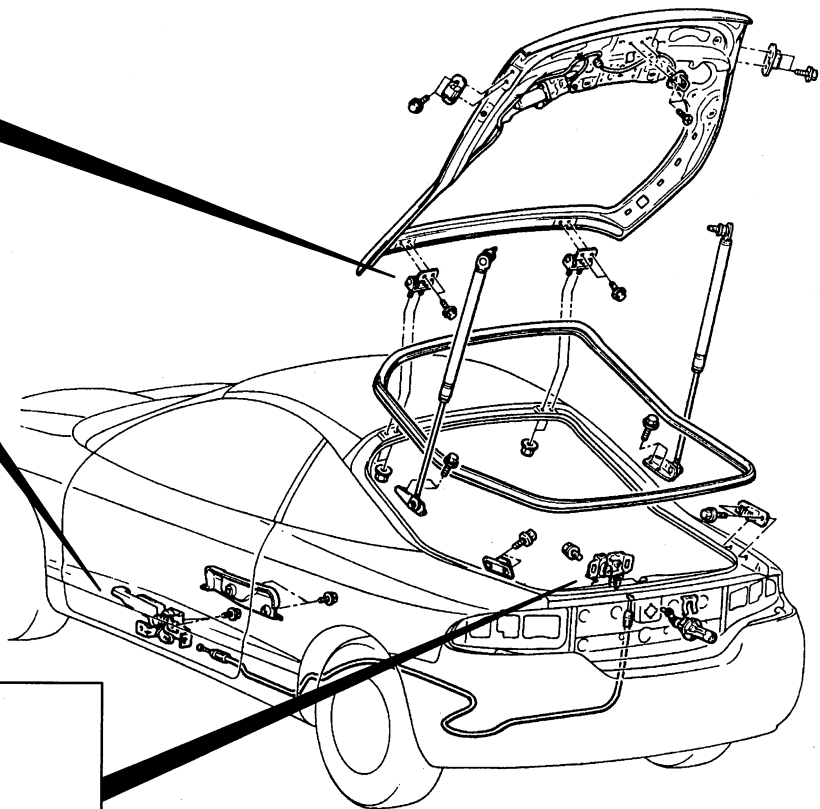
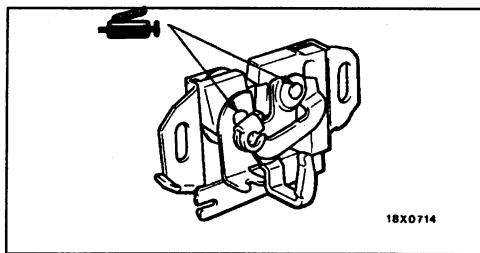
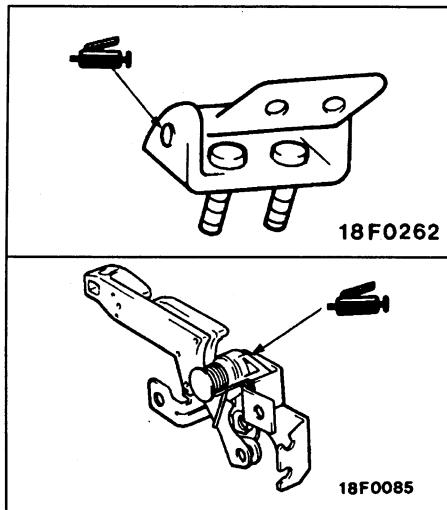
Tailgate lock cylinder removal steps

- Rear end trim (Refer to GROUP 52A.)
- Rear combination lamp (Refer to GROUP 54)
- 13. Retainer
- 14. Tailgate lock cylinder

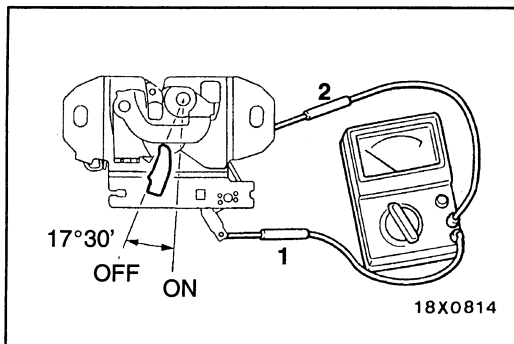
Caution

1. Never try to disassemble the tailgate gas spring or burn it.
2. Always bore a hole in the gas spring to release the interior gas before the spring is discarded.

LUBRICANT POINTS



18X1021
00003811



INSPECTION

42400120011

LUGGAGE COMPARTMENT LAMP SWITCH CONTINUITY CHECK (INCLUDING LATCH)

Switch position	Terminal No.	
	1	2 (Earth)
ON (Latch open)	○	○
OFF (Latch shut)		

SUNROOF

42600010024

GENERAL

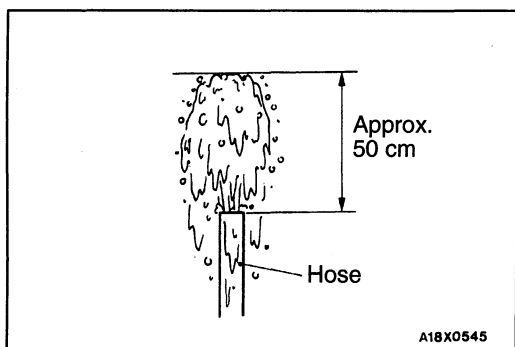
A motor-driven outer slide-type glass sunroof with a tilt-up mechanism is provided as an option. Even when the sunroof is fully closed, a sufficient amount

of lighting and a feeling of openness can still be obtained by opening the sunroof sunshade.

SEALANT AND ADHESIVE

42600050040

Items	Specified sealant and adhesive
Sunroof glass attaching screws	3M Stud locking Part No. 4170 or equivalent
Sunroof glass sealing	3M Part No. 8121 or equivalent

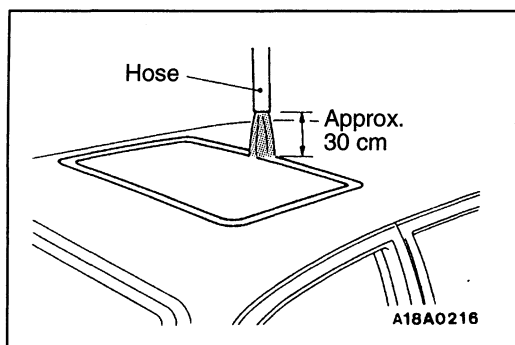


ON-VEHICLE SERVICE

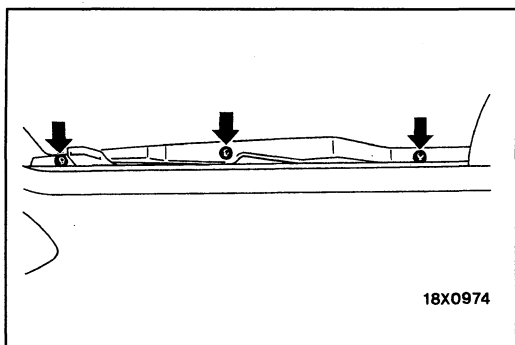
42600090066

WATER TEST

1. Close the roof lid tightly.
2. Hold the hose upward and adjust water fountain to about 50 cm high.



3. Pour water over the roof from about 30 cm above roof for more than 5 minutes.
4. While pouring water, check for leak around the roof lid.
5. In the event of leakage, check the drain pipe, weatherstrip contact and others.



SUNROOF FIT ADJUSTMENT

42600100066

With the sunroof in the closed position, adjust the sunroof glass to 1 mm below roof surface at front of the glass and 1 mm above roof surface at rear of the glass and tighten the sunroof glass attaching screws.

OPERATION CHECK

42600220014

Check the following items. If defective, replace the sunroof control unit.

Caution

Check that the following items are normal before carrying out this operation check.

- (1) Installation condition of the sunroof assembly
- (2) Installation condition, deforms and foreign material of the sunroof drive cable
- (3) Unfitted sunroof lid glass
- (4) Sunroof switch and sunroof motor

No.	Sunroof initial position	Switch operation	Judgment (normal)
01	Fully closed	Ignition switch: ON 1. Sunroof switch: Open 2. Sunroof switch: Release the open button	1. Sunroof tilts up. 2. Sunroof stops before tilt-up finishes.
02	From fully closed position to tilted position	Ignition switch: ON • Sunroof switch: Close	• Sunroof closes fully and stops
03	Fully closed	Ignition switch: ON • Sunroof switch: Open	• Sunroof tilts up and stops.
04	Fully closed	Ignition switch: ON • Sunroof switch: Open Block the sunroof between fully closed position and tilted position	• Sunroof moves until the blocking force reaches 98N. At this time check the current to the sunroof motor. If the motor stops at more than 15 A, the motor is normal. [approx. 15 A at 98 N]
05	Tilt	Ignition switch: ON • Sunroof switch: Open Block the sunroof between fully tilted position* and fully open position.	• Sunroof moves until the blocking force reaches 98 N. Sunroof stops when the force has reached 98 N.
06	Fully open	Ignition switch: ON • Sunroof switch: Close Block the sunroof at 200 mm before the sunroof is fully closed.	• Sunroof moves until the blocking force reaches 98 N. Sunroof stops in one seconds after the blocking force has reached 98 N.
07	Fully open	Ignition switch: ON • Sunroof switch: Close Block the sunroof at 5 mm before the sunroof is fully closed.	• Sunroof moves toward close until the blocking force reaches 98 N. Then the sunroof moves back toward open when the blocking force reaches 98 N and stops after second.
08	Fully open	Ignition switch: ON • Sunroof switch: Close Block the sunroof at 3 mm before the sunroof is fully closed.	• Sunroof moves toward close until the blocking force reaches 98 N. Then the sunroof stops when the blocking force reaches 98 N. (The sunroof does not move back toward open.)
09	Fully open	Ignition switch: ON • Sunroof switch: Close Block the sunroof at 18 mm before the sunroof is fully closed.	• Sunroof moves toward close before the blocking force reaches 98 N. Then the sunroof moves back toward open when the blocking force reaches 98 N and stops after one second.

NOTE

*: "Fully tilted position" is the position where the sunroof has tilted up and begins sliding.

No.	Sunroof initial position	Switch operation	Judgment (normal)
10	Fully open	Ignition switch: ON • Sunroof switch: Close Block the sunroof at 16 mm before the sunroof is fully closed.	• Sunroof moves toward close until the blocking force reaches 98 N. Then the sunroof stops when the blocking force reaches 98 N. (The sunroof does not move back toward open.)
11	Fully closed	Ignition switch: ON 1. Sunroof switch: Open 2. Sunroof switch: Release the open button	1. Sunroof tilts up. 2. Sunroof stops before tilt-up finishes.
12	Tilt up	Ignition switch: ON 1. Sunroof switch: Open 2. Ignition switch: OFF (before the sunroof is fully open)	1. Sunroof moves toward open. 2. Sunroof stops.
13	Fully open	Ignition switch: ON 1. Sunroof switch: Close 2. Ignition switch: OFF (before tilt-up finishes)	1. Sunroof tilts up. 2. Sunroof stops
14	Tilt up	Ignition switch: ON • Sunroof switch: Open Block the sunroof between fully tilted position and fully open position.	• Sunroof moves toward close until the blocking force reaches 98 N. Then the sunroof stops when the blocking force reaches 98 N.

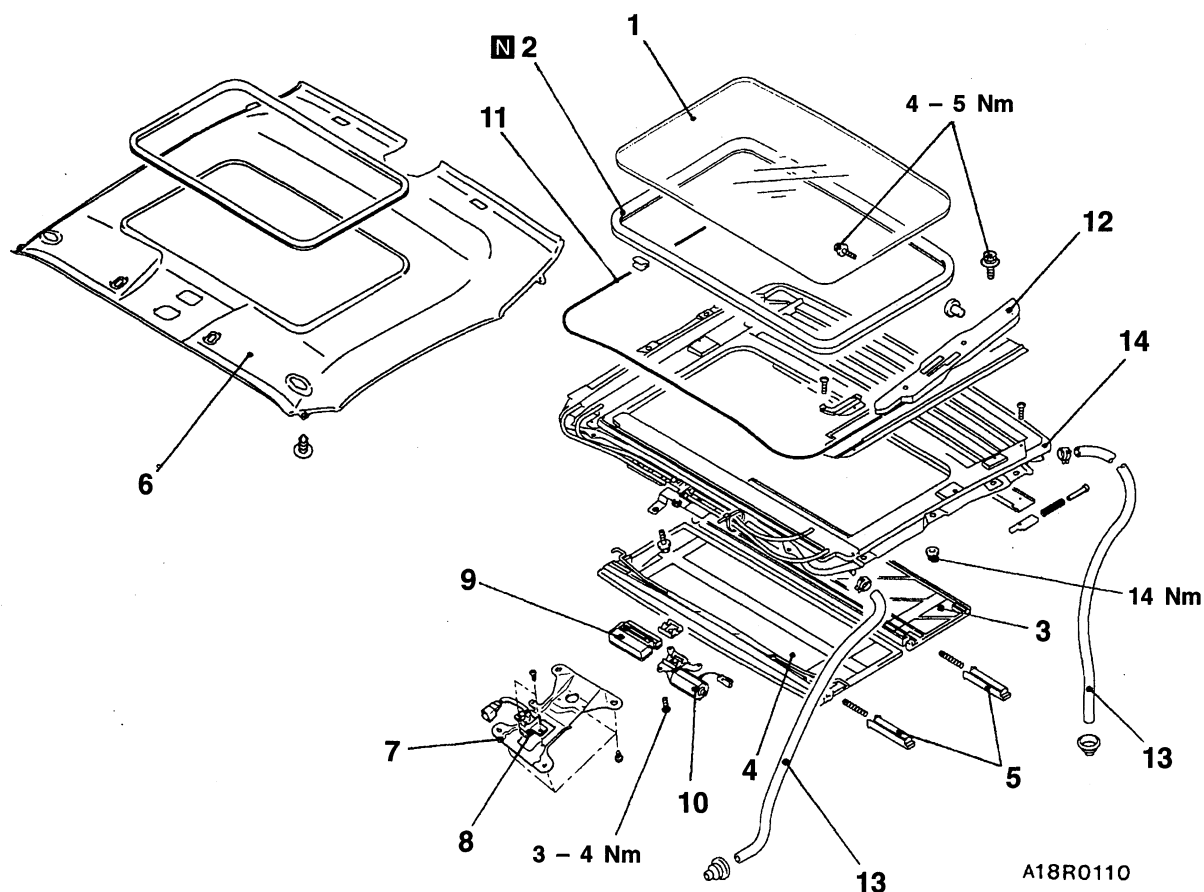
SUNROOF

REMOVAL AND INSTALLATION

42600120086

Post-installation Operation

- (1) Sunroof Fit Adjustment (Refer to P.42-40.)
- (2) Water Test (Refer to P.42-40.)



Sunroof glass seal removal steps



1. Sunroof glass
2. Sunroof glass seal

Sunroof sunshade removal steps



1. Sunroof glass
3. Rear sunroof sunshade
4. Front sunroof sunshade
5. Sunshade slide block

Sunroof switch

6. Headlining
7. Bracket
8. Sunroof switch

Sunroof control unit

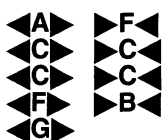


6. Headlining
9. Sunroof control unit

Sunroof motor removal steps

6. Headlining
7. Bracket
10. Sunroof motor

Sunroof guide assembly removal steps



1. Sunroof glass
3. Rear sunroof sunshade
4. Front sunroof sunshade
11. Sunroof drive cables connection
12. Sunroof guide assembly

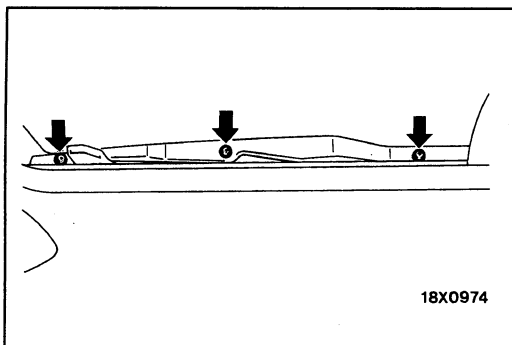
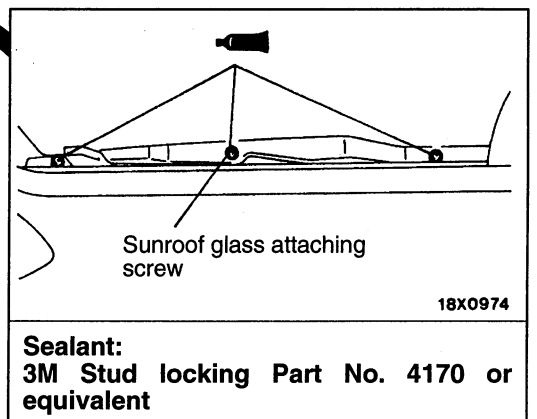
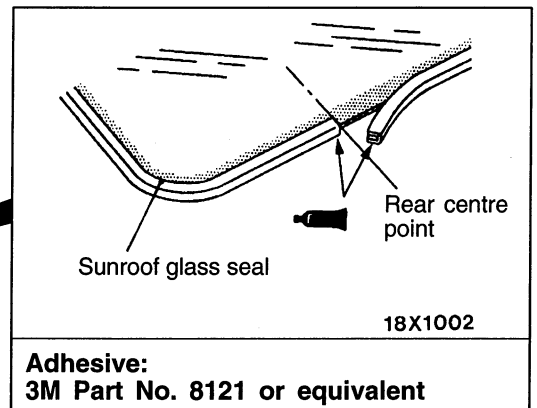
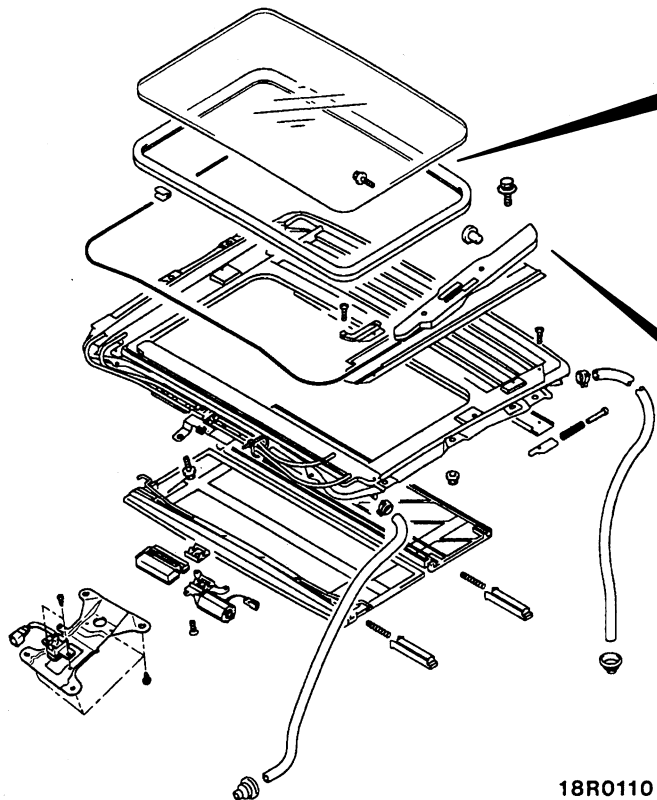
Sunroof assembly

6. Headlining
7. Bracket



13. Drain hose
14. Sunroof assembly

ADHESION POINTS



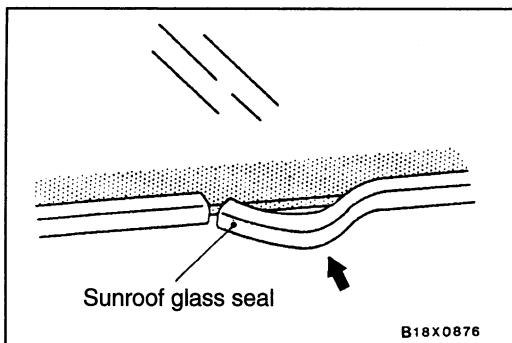
REMOVAL SERVICE POINTS

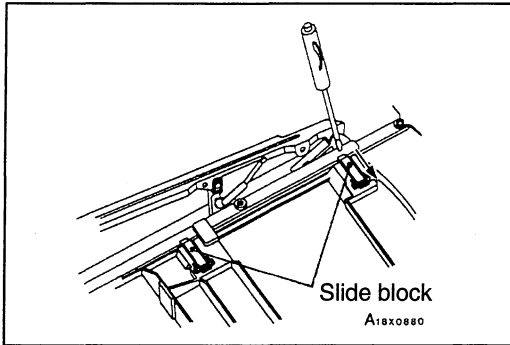
◀A▶ SUNROOF GLASS REMOVAL

- (1) Tilt the sunroof.
- (2) Remove the screws attaching sunroof glass to the guide assemblies, and then lift the glass out of roof opening.

◀B▶ SUNROOF GLASS SEAL REMOVAL

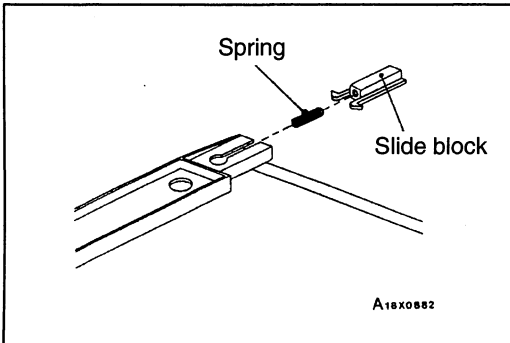
Remove the seal by pulling it off of glass starting at the splice joint.





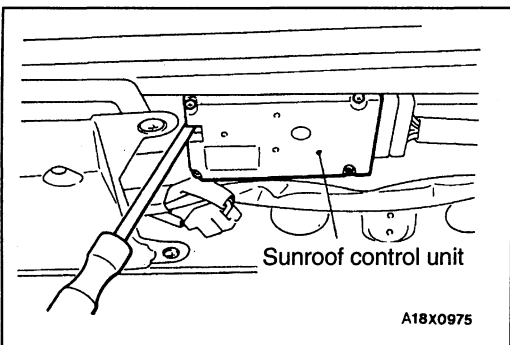
◀C▶ REAR SUNROOF SUNSHADE/FRONT SUNROOF SUNSHADE REMOVAL

- (1) Remove the rear sunroof sunshade first by pushing in the slide blocks to release them from the sunroof guide assembly on one side of the sunshade. Remove the rear sunroof sunshade out of roof opening.
- (2) Repeat the step (1) for the front sunroof sunshade.



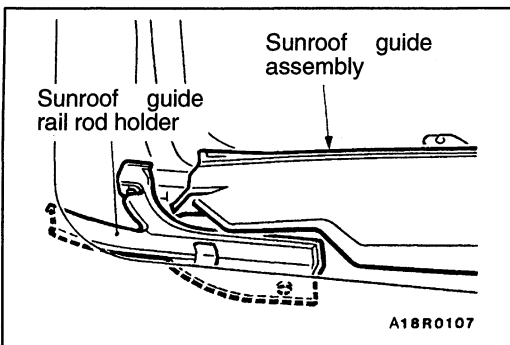
◀D▶ SUNSHADE SLIDE BLOCK REMOVAL

Squeeze together your fingers on inboard end of the slide block to allow the slide block to slide out of its channel, and then remove the slide block and spring.



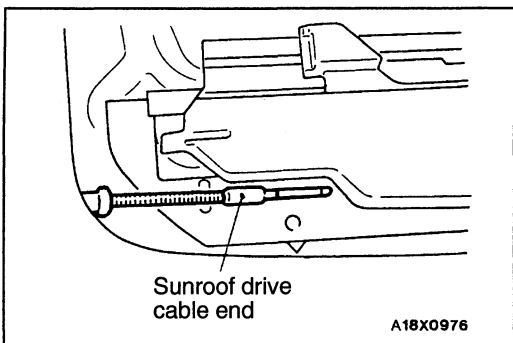
◀E▶ SUNROOF CONTROL UNIT REMOVAL

- (1) Close the sunroof glass fully.
- (2) Insert a flat-tipped screwdriver, place it on the tab, and then press it to the right.
- (3) Lower sunroof control unit and slide to left.

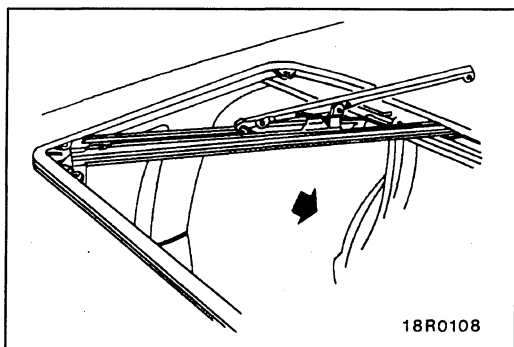


◀F▶ SUNROOF DRIVE CABLES REMOVAL

- (1) Tilt the sunroof guide assembly and then remove the sunroof guide rail rod holder.

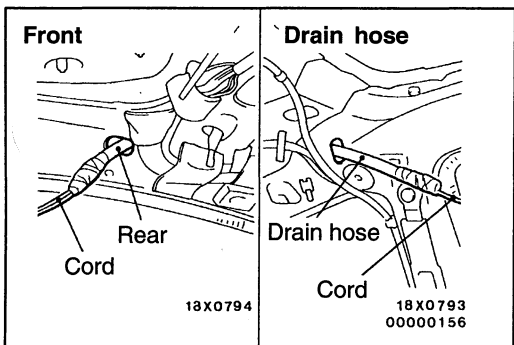


- (2) Close the sunroof guide assembly and disconnect the sunroof drive cable end from the sunroof guide assembly.



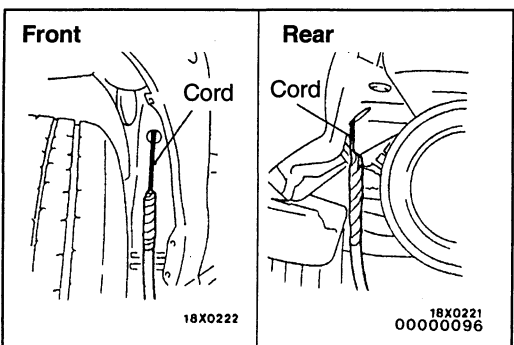
◀G▶ SUNROOF GUIDE ASSEMBLY REMOVAL

- (1) Slide the roof drip rear channel backward, and then remove the guide assembly screws, the rear screw and spacer.
- (2) Slide the rear of the guide assembly toward center of the vehicle and remove the guide assembly.



◀H▶ DRAIN HOSE REMOVAL

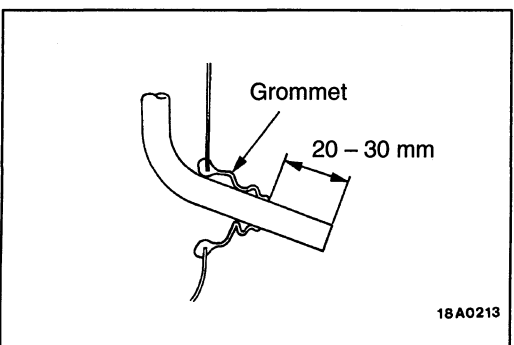
Remove the grommet. Tie a cord to the end of the drain hose, wind plastic tape around it so that there is no unevenness, and pull the drain hose out into the wheel house.



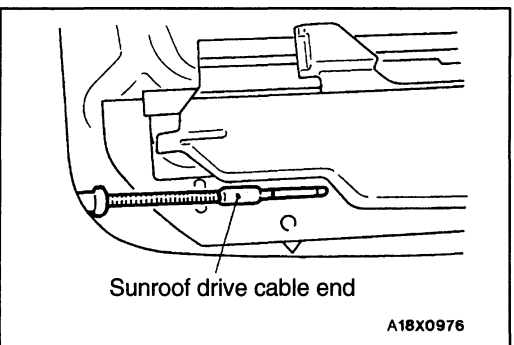
INSTALLATION SERVICE POINTS

▶A◀ DRAIN HOSE INSTALLATION

- (1) Tie the cord that was used during removal to the end of the drain hose, and wind the plastic tape around it so that there is no unevenness.
- (2) Pull the cord to pull through the drain hose.



- (3) Make the protrusion from the drain hose grommet as shown in the illustration.

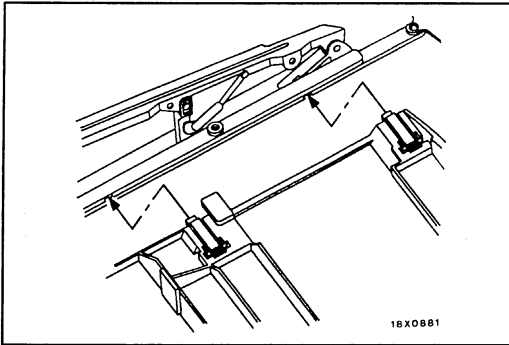


▶B◀ SUNROOF DRIVE CABLES INSTALLATION

Caution

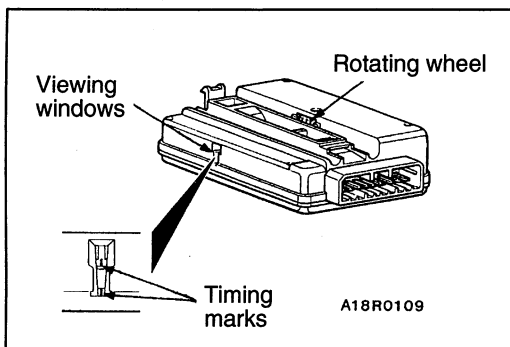
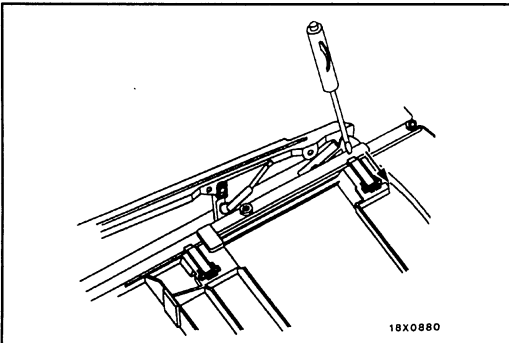
If cables are kinked, replace them. Always replace the cables in pair and grease them before installation.

Close the sunroof guide assembly and install the sunroof drive cable end to the sunroof guide assembly.



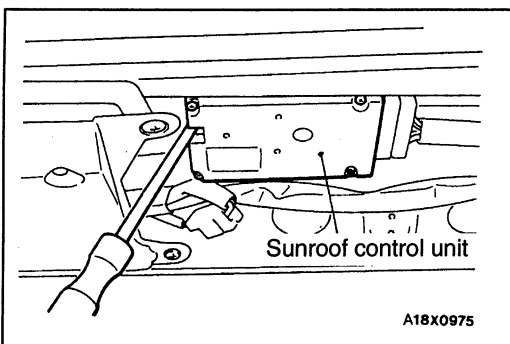
►C◄ FRONT SUNROOF SUNSHADE/REAR SUNROOF SUNSHADE INSTALLATION

- (1) Install the front sunroof sunshade first by inserting the slide blocks on the right side of the sunshade into the lower slide position of the right guide assembly.
- (2) Push the sunshade slide blocks on the left side of the sunshade into the sunshade to allow the front sunroof sunshade to drop into position. Once in position, engage the slide blocks into the lower channel of the left guide assembly.
- (3) Push the front sunroof sunshade to full forward position.
- (4) Position the rear sunroof sunshade so that the stop tabs are against the stop bumpers on the guide assembly. Engage the right side slide blocks of the upper half of the sunshade into the upper channel on the right guide assembly. Engage the slide blocks on the left side of the sunshade into the upper channel in the left guide assembly.
- (5) Slide the sunshade back and forth to check that it functions smoothly.

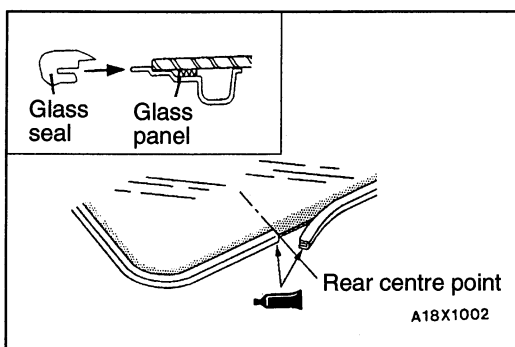


►D◄ SUNROOF CONTROL UNIT INSTALLATION

- (1) Look into the “viewing windows” while turning the rotating wheel. Turn the rotating wheel until the white timing marks appear. When the white timing marks appear in the “viewing windows” at the same time, stop turning the rotating wheel.
- (2) Close the sunroof fully. Install the timed sunroof control unit. Make sure that the sunroof cable is properly inserted into the control unit.



- (3) Insert a flat-tipped screwdriver, place it on the tab, and press it to the right, being careful not to pinch wiring.



►E◄ SUNROOF GLASS SEAL INSTALLATION

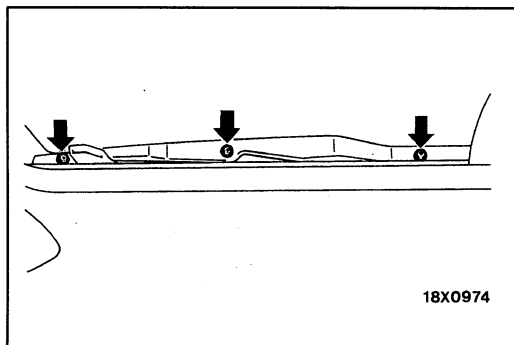
- (1) Starting at the rear centre of the sunroof glass, begin installing the seal by pushing it onto the edge of the glass panel and gently pulling on it while installing.
- (2) Approximately 102 mm before completing installation, lay the end of the seal over top of the beginning of the seal. Cut the seal so there is an extra 3.18 mm of the seal past the point where the seal lines up with the beginning of the seal.

- (3) Apply the specified adhesive to the splice joint area where two ends of the seal meet.

Specified adhesive:

3M Part No. 8121 or equivalent

- (4) With the approximately 102 mm of the seal unattached, push two ends of the seal together at glue joint.
- (5) Install remainder of the seal by pushing the seal onto the edge of the glass panel. The 3.18 mm of extra seal material should strengthen the seal at the splice joint.

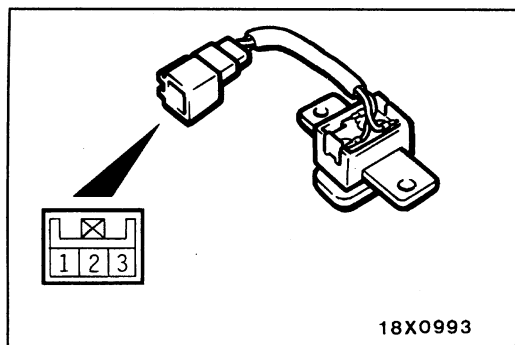


►F◀ SUNROOF GLASS INSTALLATION

- (1) Position the sunroof glass onto the guide assemblies and align the mounting holes.
- (2) Apply the specified sealant to the sunroof glass attaching screws and install them, going to the next step before tightening.

Specified sealant:

3M Stud locking Part No. 4170 or equivalent



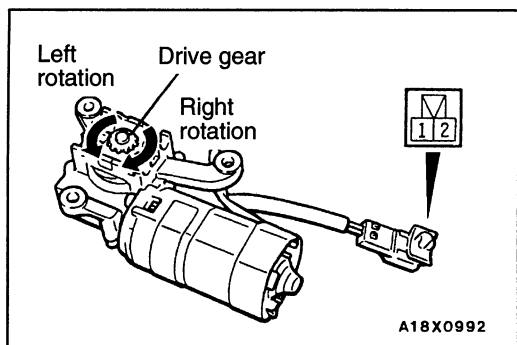
INSPECTION

42600130041

SUNROOF SWITCH CHECK

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

Switch position	Terminal No.		
	1	2	3
OPEN	○	○	
OFF			
CLOSE		○	○



SUNROOF MOTOR CHECK

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

Terminal 1	Terminal 2	Drive gear rotation direction
–	+	Right
+	–	Left