

# BODY

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### WARNINGS REGARDING SERVICING OF SUPPLEMENTAL RESTRAINT SYSTEM (SRS) EQUIPPED VEHICLES

#### WARNING!

- (1) Improper service or maintenance of any component of the SRS, or any SRS-related component, can lead to personal injury or death to service personnel (from inadvertent firing of the air bag) or to the driver and passenger (from rendering the SRS inoperative).
- (2) Service or maintenance of any SRS component or SF-related component must be performed only at an authorized MITSUBISHI dealer.
- (3) MITSUBISHI dealer personnel must thoroughly review this manual, and especially its GROUP 52B – Supplemental Restraint System (SRS) and GROUP 00 -Maintenance Service, before beginning any service or maintenance of any component of the SRS or any SRS-related component.

#### NOTE

The SRS includes the following components: impact sensors, SRS diagnosis unit, SRS warning light, air bag module, clock spring and interconnecting wiring. Other SRS-related components (that may have to be removed/installed in connection with SRS service or maintenance) are indicated in the table of contents by an asterisk (\*).

**SPECIFICATIONS****GENERAL SPECIFICATIONS****HOOD, DOOR, LIFTGATE**

Items		Specifications
Hood	Type	Rear hinged, front opening type (with gas damper)
Door	Construction	Front-hinged, sashless
	Regulator system	Wire type
	Locking system	Pin-fork type
Liftgate	Type	Inner-hinged, with gas damper

**GLASS**

Items		Specifications
Glass installation method	Windshield glass	Adhesive type
	Quarter window glass	Adhesive type
	Liftgate window glass	Adhesive type
Glass thickness mm (in.)	Windshield glass	5.3 (.21)
	Liftgate window glass	3.5 (.14)
	Door glass	5.0 (.20)
	Quarter window glass	3.5 (.14)

**POWER WINDOW**

## Power window motor

Items		Specifications
Type		Permanent magnet type (Built-in circuit breaker)
Revolutions under no load rpm		75 or more
Revolutions under load rpm	At 1 Nm (.72 ft.lbs.)	45–75
	At 2 Nm (1.45 ft.lbs.)	50–80
Bound current A		34 or less
Direction of rotation		Clockwise and counter-clockwise

## Power window main switch

Items		Specifications
Type		Automatic reset type
Rated load current A	Lock switch	10
	Power window switch	10

## Power window sub switch

Items		Specifications
Type		Automatic reset type
Rated load current A		10

## Power window relay

Items	Specifications
Maximum contact current A	20
Rated coil current A	Max. 0.2
Voltage drop between terminals V (At 12 V and the rated load current)	0.2 or less

## CENTRAL DOOR LOCKING SYSTEM

Items	Specifications	
Door lock power relay	Range of voltage used V	8-16
	Rated load current (at 13.5 V) A	10
	Rated coil current A	0.2 or less
	Voltage drop between terminals V	0.2 or less
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







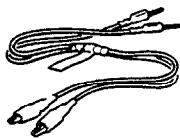
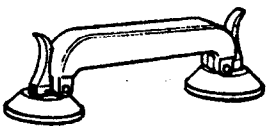
Items			Standard value
Play of door inside handle mm (in.)	A (play)		7 (.28)
	B (OPEN)		46 ± 9 (1.81 ± .35)
	C (FULL)		69 (2.72)
Clearance of window glass to weatherstrip holder mm (in.)	Adjustment of glass inclination amount	Front pillar	11.7 ± 1.0 (.46 ± .04)
		Roof	11.8 ± 1.0 (.46 ± .04)
		Quarter pillar	20.5 ± 1.0 (.80 ± .04)
	Adjustment of glass longitudinal inclination	Front pillar	7.0 ± 1.0 (.28 ± .04)
		Roof	7.7 ± 1.0 (.30 ± .04)
		Quarter pillar	12.0 ± 1.0 (.47 ± .04)
Roof lid sliding resistance N (lbs.)			147 (33) or less
Sunroof motor clutch slippage force N (lbs.)			39-49 (8.7-11)

## SEALANTS AND ADHESIVES

Items	Specified sealant	Remarks
Front fender panel	3M ATD Part No. 8625 or equivalent	Ribbon sealer
Splash shield		
Waterproof film		

Items	Specified sealant	Remarks
Windshield	3M SUPER FAST URETHAN 8609 or equivalent and 3M SUPER FAST URETHAN PRIMER 8608 or equivalent	-
Quarter window glass		
Liftgate glass		

## SPECIAL TOOLS

Tool	Tool number and name	Supersession	Application
	MB990834 Door adjusting wrench	MB990834-01	Adjustment of door fit
	MB990449 Window moulding remover		Removal of window moulding
	MB991341 Scan tool (Multi-use tester <MUT>)	MB991341C	<Up to 1993 models> Checking the power-windows system and the central door-locking system (ETACS input check)
	ROM pack (For the number, refer to GROUP 00 – Precautions Before Service.)		
 Z16X0606	MB991502 Scan tool (MUT-II)	MB991502	<All models> Checking the power-window system and the central door-locking system (ETACS input check)
 Z16X0607	ROM pack		
	MB991529 Diagnostic trouble code check harness	MB991529	<From 1994 models> Checking the power-window system and the central door-locking system by using a voltmeter
	MB990480 Window glass holder	General service tool	Removal and installation of window glass

**TROUBLESHOOTING****HOOD, LIFTGATE, GLASS AND DOORS**

Symptom		Probable cause	Remedy
Hood/ Liftgate	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 or liftgate	Adjust the installation of hood, deck lid or liftgate
	Uneven height	Incorrect hood bumper height	Adjust the hood bumper, deck lid bumper or liftgate bumper height
Window glass	Water leak through windshield	Defective seal	Fill sealant
		Defective body flange	Correct
	Water leak through door window glass	Incorrect window glass installation	Adjust position
		Gap at upper window glass	Adjust position
	Water leak through liftgate window	Defective seal	Fill sealant
		Defective body flange	Correct
Doors	Door window mal-function	Incorrect window glass installation	Adjust position
		Damaged or faulty regulator	Correct or replace
	Water leak through door edge	Cracked or faulty weatherstrip	Replace
	Water leak from door center	Drain hole clogged	Remove foreign objects
		Inadequate waterproof film contact or damage	Correct or replace
	Door hard to open	Incorrect latch or striker adjustment	Adjust
	Door does not open or close completely	Incorrect door installation	Adjust position
		Defective door check strap	Correct or replace
		Door check strap and hinge required grease	Apply grease
	Uneven gap between body	Incorrect door installation	Adjust position
	Wind noise around door	Weatherstrip not holding firmly	Adjust fit of door
		Improperly installed weatherstrip or setting of weatherstrip	Repair or replace
		Improperly closed door	Adjust
		Improperly fit door	Adjust
		Improper clearance between door glass and door weatherstrip holder	Adjust
		Deformed door	Repair or replace

**HOW TO LOCATE WIND NOISES**

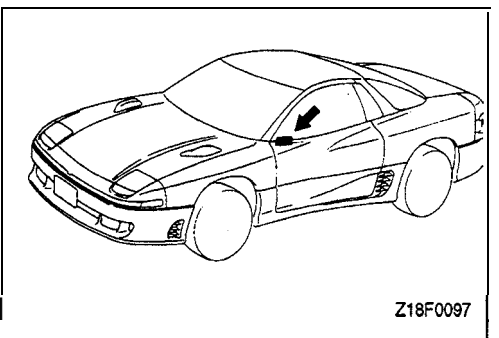
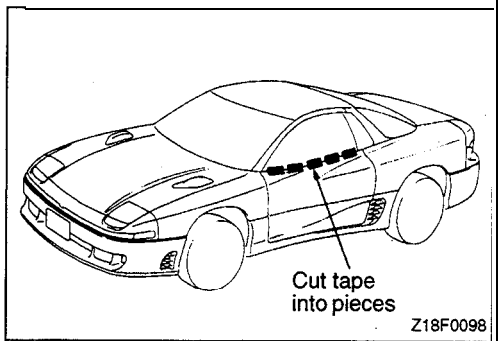
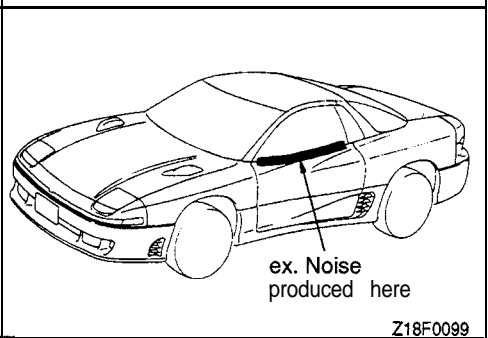
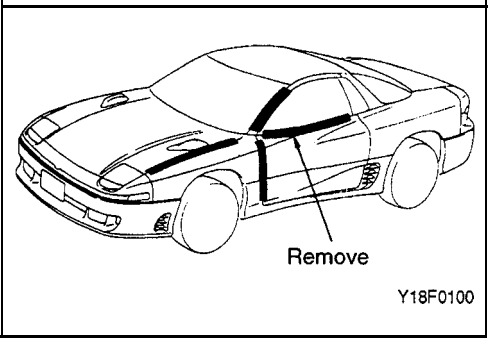
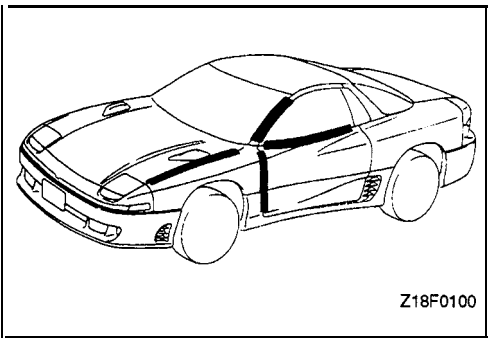
- (1) Attach cloth tape to every place which might conceivably be the source of wind noise, such as panel seams, projections, moulding seams, glass and body seams, etc.
- (2) Then make a road test in order to determine that the places not covered by tape are not sources of wind noise.

- (3) Then remove the strips of tape one by one, making a road test after each is removed, until a wind noise source is discovered.

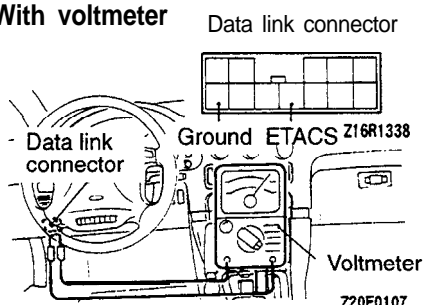
- (4) When such a place is found, cover it again and continue with the procedure so as to determine if there are any other noise sources.
- (5) If no others are found, the last remaining tape is the only source.

- (6) Cut the remaining piece of tape into smaller pieces, attach it again as it was before, and then remove the pieces one by one in the same way so as to narrow down the source.

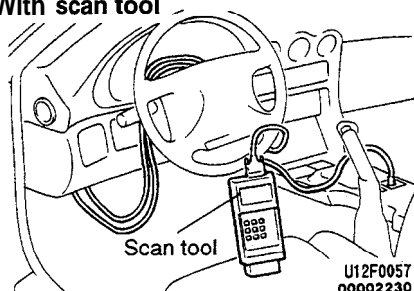
- (7) Check to confirm that wind noise occurs when the last remaining tape is removed, and that noise does not occur when it is re-attached.
- (8) When the source(s) of the wind noise is finally located, attach butyl tape, body sealer or similar material to obstruct this source as much as possible.



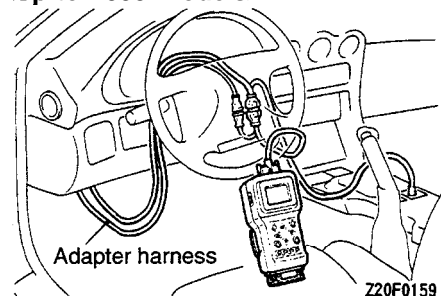
With voltmeter



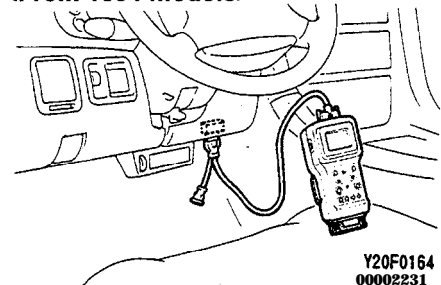
With scan tool



When using the MUT-II  
 <Up to 1993 models>



&lt;From 1994 models&gt;



## POWER WINDOW AND CENTRAL DOOR LOCKING SYSTEM

### INPUT SIGNAL

&lt;Up to 1993 models&gt;

When using the scan tool (MUT) or voltmeter

Using the scan tool or voltmeter, check whether or not the input signals from each switch are being input to the ETACS unit.

- (1) Connect the scan tool to the data link connector located at the right side of the junction block or connect the voltmeter between the ETACS terminal and the ground terminal.
- (2) Check if the buzzer of the scan tool sounds or the needle of the voltmeter moves when each switch is operated. If the buzzer sounds or the needle moves, the input signals are being input to the ETACS unit, so that switch can be considered to be functioning normally. If not, the switch or switch input circuit is faulty. Check the switch and the switch input circuit.

&lt;All models&gt;

When using the scan tool (MUT-II)

- (1) Connect the scan tool to the data link connector. On 1993 and earlier models, use the adapter harness contained in the scan tool to connect the scan tool.

#### Caution

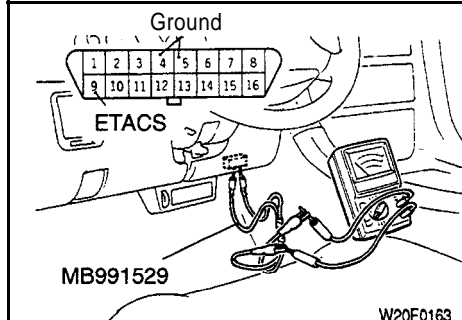
Be sure to place the ignition switch in the OFF position before connecting or disconnecting the scan tool.

- (2) Perform ON/OFF operation of each switch. If the buzzer of the scan tool sounds once, the ECU input signal sent from the corresponding switch circuit system is normal.

&lt;From 1994 models&gt;

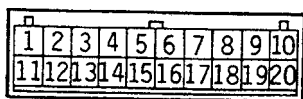
When using the voltmeter

- (1) Use the special tool to connect a voltmeter to the ETACS terminal and ground terminal of the data link connector.
- (2) Perform ON/OFF operation of each switch. If the pointer of the voltmeter moves once, the ECU input signal sent from the corresponding switch circuit system is normal.



## KEYLESS CONTROL UNIT INSPECTION

Disconnect the amplifier and inspect the connector on the wire harness side as shown in the chart below.



18X0820

Terminal No.	Signal	Conditions	Terminal voltage
1	Key reminder switch (vehicles with theft alarm)	ON (Key removed)	Battery positive voltage
		OFF (Key installed)	0 V
2	Door switch	All doors close (Door switch: OFF)	Battery positive voltage
		One of doors open (Door switch: ON)	0 V
6	Door lock actuator (L.H.)	LOCK	5 V
		UNLOCK	0 V
9	Keyless entry control unit power source	Ignition switch (ACC or ON)	Battery positive voltage
		Ignition switch (OFF)	0 V
10	Keyless entry control unit power source	Always	Battery positive voltage
11	Dome light	All doors close (door switch: OFF)	To operate 0 V
			Not to operate Battery positive voltage
12	Door lock output	To operate	0 V
		Not to operate	Battery positive voltage
13	Door unlock output	To operate	0 V
		Not to operate	Battery positive voltage
14	Drivers door unlock output	To operate	0 V
		Not to operate	Battery positive voltage
15	ETACS-ECU <Vehicle with theft-alarm system>	Transmitter switch: ON	0 V
		Transmitter switch: OFF	5 V
20	Ground	Always	0 V



## ELECTRICALLY OPERATED SLIDING SUNROOF

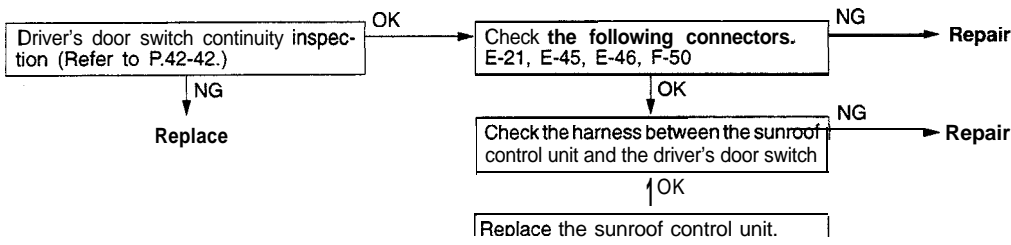
### INSPECTION CHART FOR TROUBLE SYMPTOMS

Trouble symptom	Inspection procedure
Sunroof does not operate within 30 seconds after driver's door is opened.	1
Sunroof does not operate at all.	2

### INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

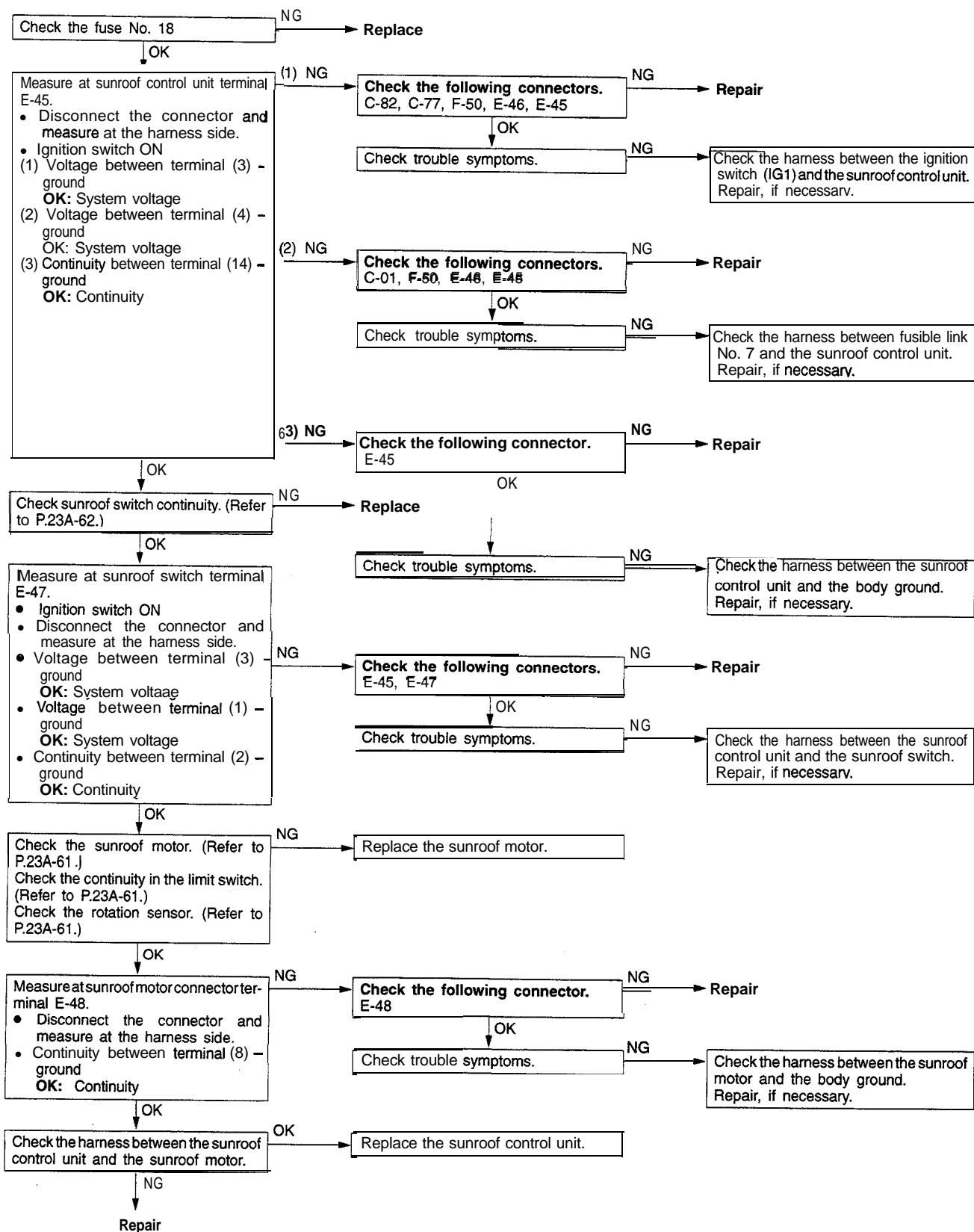
#### Inspection Procedure 1

Sunroof does not operate within 30 seconds after driver's door is opened.	Procedure cause
After the driver's door is opened within 30 seconds after the ignition switch is turned off, the sunroof can still be operated for a further 30 seconds. If it is impossible, the driver's door switch or the sunroof control unit may be defective.	<ul style="list-style-type: none"> <li>• Malfunction of door switch (driver's side)</li> <li>• Malfunction of sunroof control unit</li> <li>• Malfunction of wiring harness or connector</li> </ul>



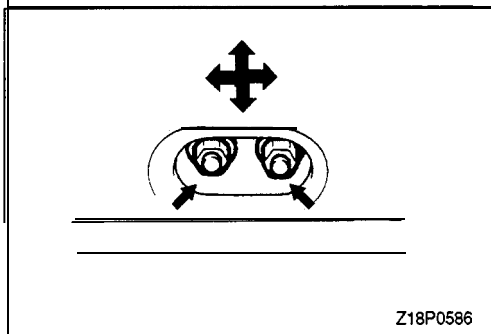
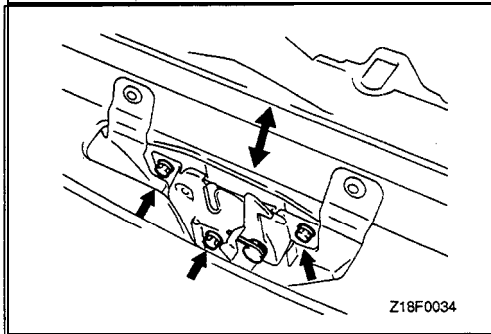
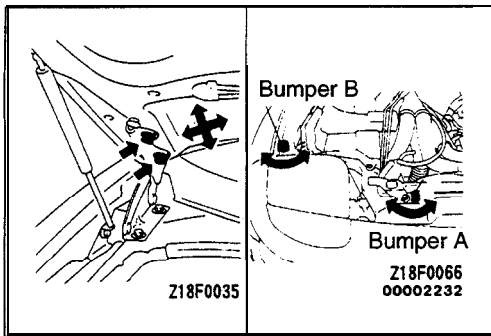
#### Inspection Procedure 2

Sunroof does not operate at all.	Procedure cause
One of the following items may be defective. Sunroof switch Sunroof motor Sunroof control unit Power supply circuit (including the fuse)	<ul style="list-style-type: none"> <li>• Malfunction of sunroof switch</li> <li>• Malfunction of sunroof motor</li> <li>• Malfunction of sunroof control unit</li> <li>• Malfunction of wiring harness or connector</li> </ul>

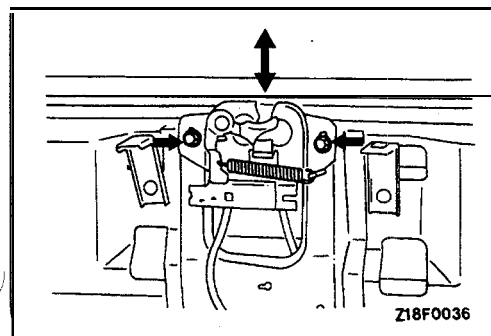
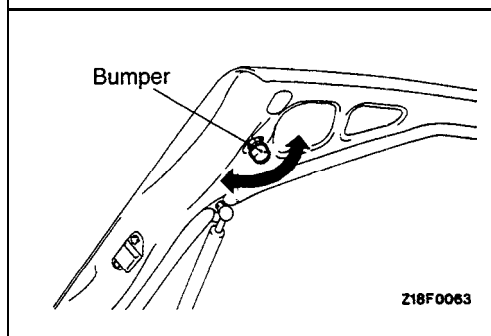


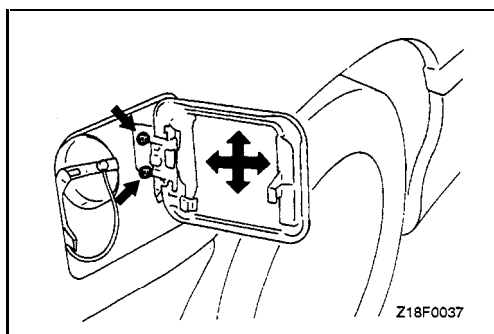
**ON-VEHICLE SERVICE****HOOD ADJUSTMENT**

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 bumpers A and B, 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.

**LIFTGATE ADJUSTMENT**

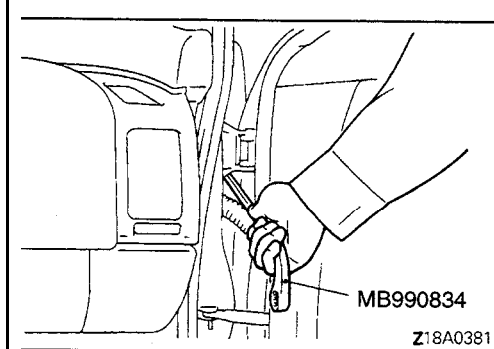
1. Loosen the liftgate hinges mounting bolts, and then adjust the liftgate by moving it so that the clearance is equal on all sides.
2. Turn the bumper to adjust the liftgate height.
3. Loosen the liftgate latch mounting bolts, and move the liftgate latch to adjust the attachment between the liftgate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





### FUEL FILLER DOOR ADJUSTMENT

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.



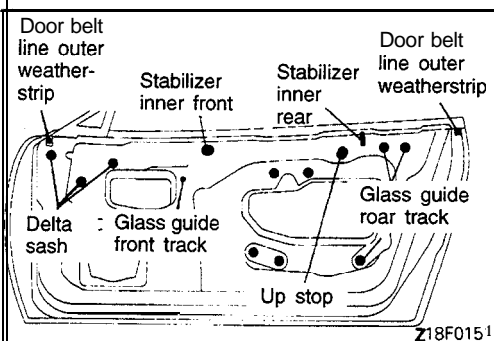
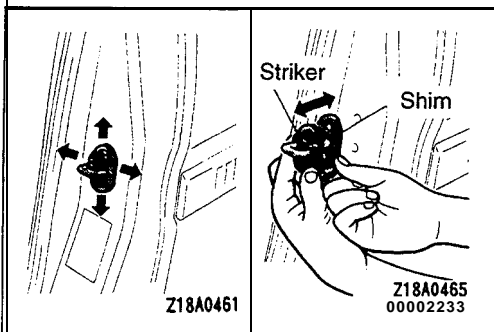
### DOOR ADJUSTMENT

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.
2. If the door is not flush with the body, remove the spring pin from the door check, use the special tool to loosen the bolts for mounting the door hinges to the door. Move the door to adjust the door position along the body surface.

#### Caution

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

3. If the door does not open freely, adjust the engagement of the striker with the door latch by means of the striker mounting shim and move the striker up and down or from side to side.

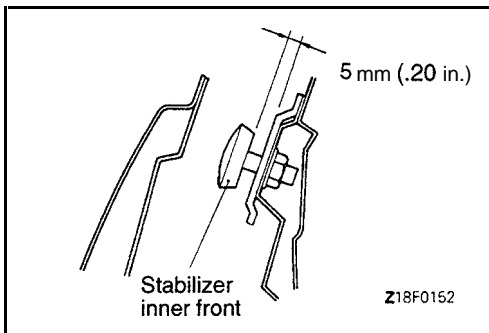


### DOOR WINDOW GLASS ADJUSTMENT (When removing and installing the door window glass)

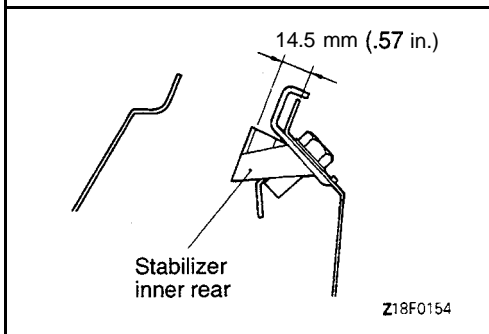
1. Remove the door trim and waterproof film. (Refer to P.42-42.)
2. Remove the front pillar trim.
3. Remove the drip line weatherstrip.
4. Loosen the bolts and nuts of the following parts.
  - Glass guide front track
  - Glass guide rear track
  - Delta sash
  - Stabilizer inner front
  - Stabilizer inner rear
  - up stop
  - Door belt line outer weatherstrip

#### NOTE

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



5. Remove the stabilizer inner front and adjust the adjusting bolt for the dimension shown here.

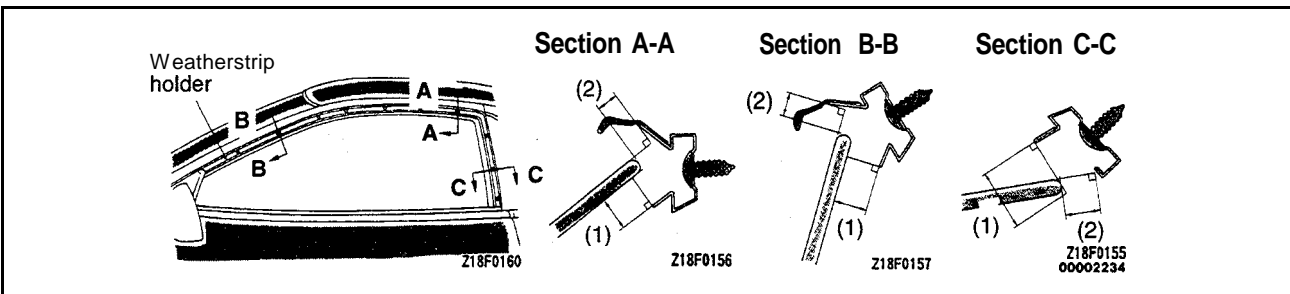


6. Adjust the adjusting bolt for the stabilizer inner rear dimension shown here.
7. Raise door window glass. Push glass against the outer stabilizer of the door belt line outer weatherstrip and insert cloth or the like between the door inner panel and glass.

8. Adjust glass to have standard clearance between the weatherstrip holder and window glass.

### Caution

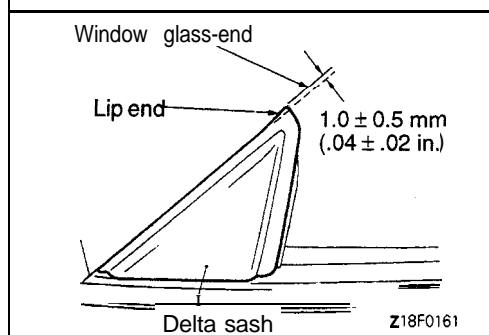
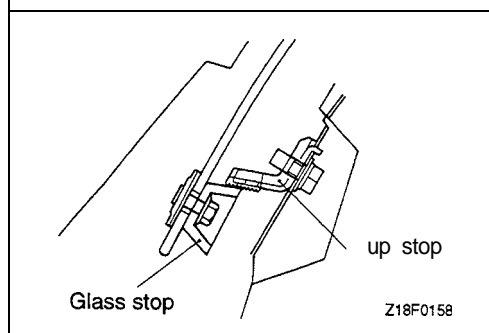
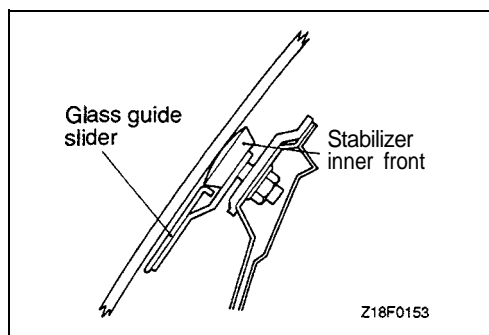
Measure the clearance, specified in section A-A, B-B and C-C, at the corresponding weatherstrip holder screws as shown in the illustration.



Adjustment		Adjustment procedures		Standard value mm (in.)	
1	Adjustment of inward tilt of glass	Adjust by turning the adjusting bolts of the glass guide front track and glass guide rear track. <b>Caution</b> Turn the two adjusting bolts of the glass guide rear track same amount.	<p>Larger dimension</p> <p>Adjusting bolt</p> <p>Smaller dimension</p> <p>Z18N0114</p>	Section A-A	(1): $11.7 \pm 1.0$ (.46 $\pm$ .04)
				Section B-B	(1): $11.8 \pm 1.0$ (.46 $\pm$ .04)
				Section C-C	(1): $20.5 \pm 1.0$ (.80 $\pm$ .04)
2	Adjustment of forward or backward tilt of glass	Move the stabilizer inner front and up stop up and down to adjust the forward or rearward tilt of glass when glass is fully closed. <b>Caution</b> Do not turn the stabilizer inner front adjusting bolt.	<p>Stabilizer inner front</p> <p>Up stop</p> <p>Z18F0162</p>	Section A-A	(2): $7.0 \pm 1.0$ (.28 $\pm$ .04)
				Section B-B	(2): $7.7 \pm 1.0$ (.30 $\pm$ .04)
				Section C-C	(2): $12.0 \pm 1.0$ (.47 $\pm$ .04)

### NOTE

Adjust both inward tilt and forward or backward tilt of glass at the same time.



9. Force the stabilizer inner front onto the glass guide slider of the window glass assembly and tighten in position.

10. Force the up stop onto the glass stop of the window glass assembly and tighten in position.
11. Tighten the glass guide front and rear tracks.

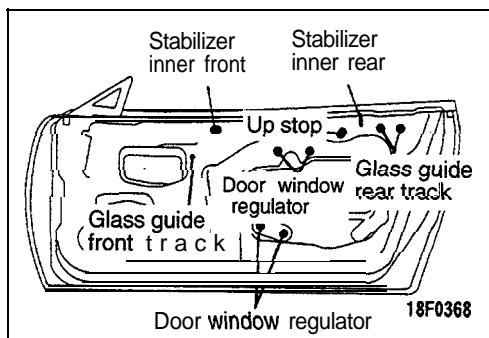
**Caution**

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

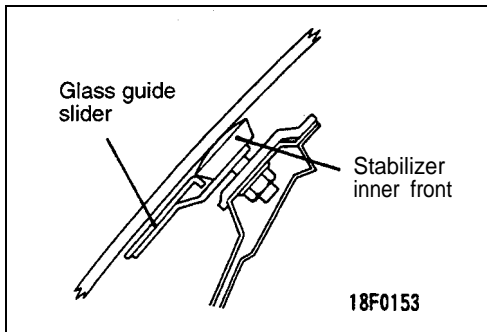
12. Adjust the delta sash, so that the window glass end and the delta sash lip end are positioned as illustrated and tighten in position.

13. Install the drip line weatherstrip.
14. Install the front pillar trim.
15. Install the door trim and the waterproof film. (Refer to P.42-42.)
16. Open and close the door and move up and down the window glass to check fitting of the door.

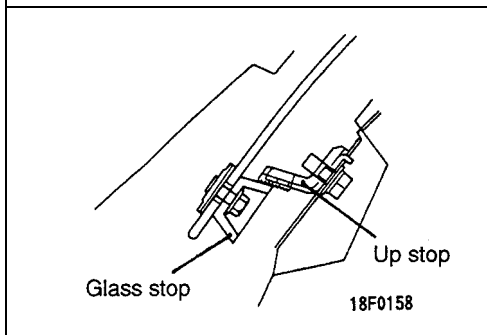
**(When not removing and installing the door window glass)**



1. Remove the door trim and waterproof film. (Refer to P.42-42.)
2. Loosen the bolts and nuts of the following parts.
  - Glass guide front track
  - Glass guide rear track
  - Door window regulator
  - Stabilizer inner front
  - Stabilizer inner rear
  - up stop
3. Lift the window glass up to its highest position.

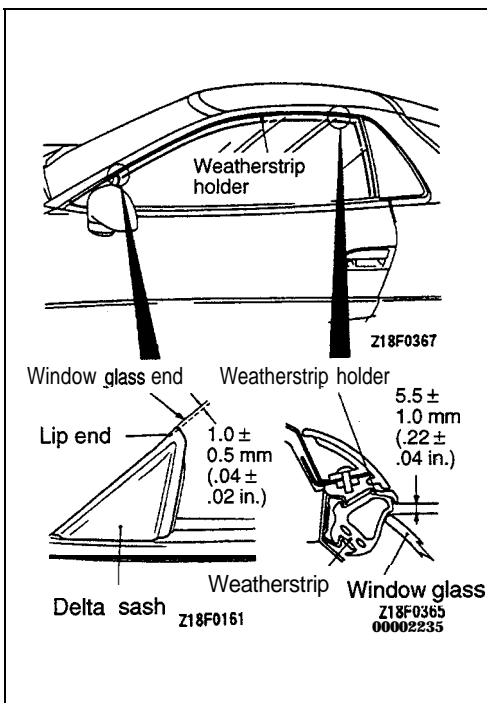


4. Tighten the stabilizer inner front so that it presses against the glass guide slider of the window glass assembly.

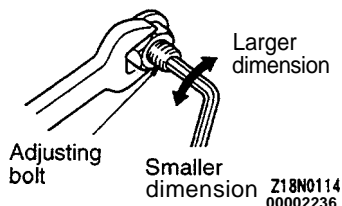
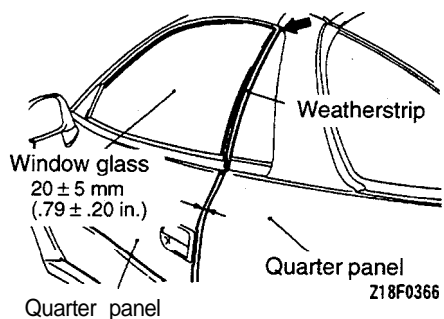


5. Tighten the up stop so that it presses against the glass stop of the window glass assembly.

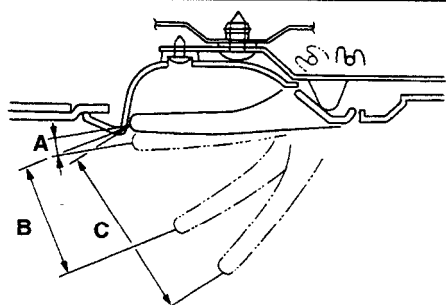
6. Tighten the stabilizer inner rear so that it presses against the window glass assembly.



7. Check that the clearance between the weatherstrip holder and the top edge of the window glass is as shown in the illustration when the top edge of the window glass is touching the weatherstrip.
8. Check that the relative position of the window glass end and the lip end of the delta sash is as shown in the illustration.
9. If the clearance or the position is not at the standard values, repeat the procedures in steps 4 and 5.



10. Turn the adjusting bolts of the glass guide rear track and the glass guide front track to adjust so that the corner of the window glass touches the weatherstrip when the door is opened by the amount shown in the illustration.
11. Install the door trim and the waterproof film. (Refer to P.42-42.)
12. Open and close the door and move up and down the window glass to check fitting of the door.

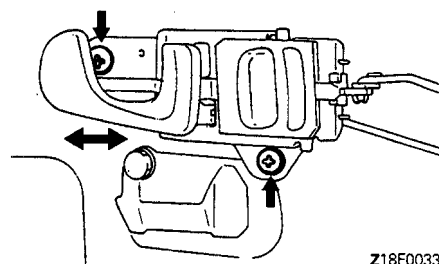


### DOOR INSIDE HANDLE PLAY CHECK

1. Check that the door inside handle play is as specified.

#### Standard value

- A (play): 7 mm (.28 in.)  
 B (OPEN): 46 ± 9 mm (1.81 ± .35 in.)  
 C (FULL): 69 mm (2.72 in.)



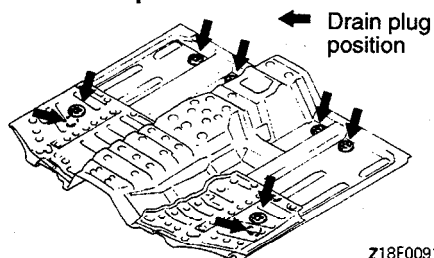
2. If out of specifications, adjust as described below.
  - 1) Remove the door trim. (Refer to P.42-42.)
  - 2) Loosen the screw attaching the inside handle and slide the inside handle back and forth to adjust the inside handle play.

### FLOOR PAN CHECK

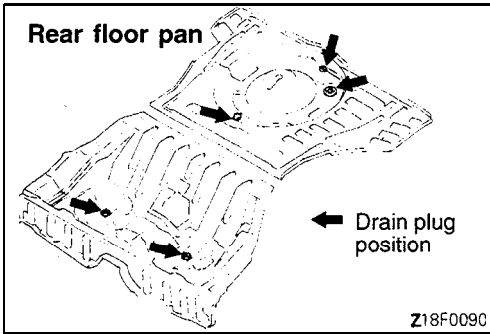
A common result of body leaks is a soaked floor mat pad or carpet, and it's not unusual to find that the water is getting in through the floor pan to some other low point in the body. It is possible however, for water to enter higher up and run downward to soak the mat.

Since a soaked mat should be removed for drying, it's a good way to start your check. Of course, mat removal means you'll have to take off door sill plates and pull out seats or seat cushion. But, this gives you a clear field for action so you can check body seam sealing and the plugs in the floor pan.

#### Front floor pan





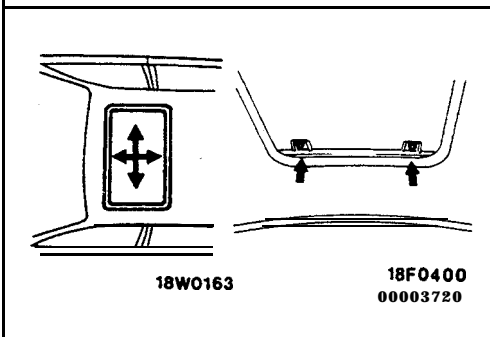
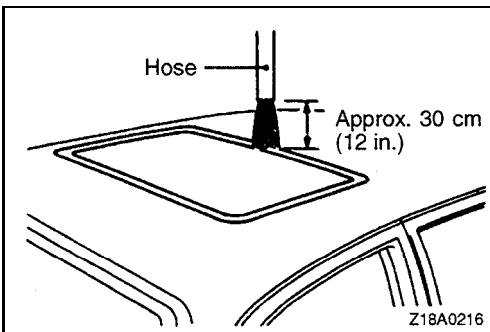


It's usually not practical to water test for floor pan or wheelhousing leaks unless a special underbody water spray arrangement is available. As an alternate, the best way to locate these leak points is to look for rusty seam edges or other traces of leaks after the mats and cushions are removed. Traces of mud are an indication that the water is coming in from below.

## SUNROOF LEAKAGE INSPECTION

Check if there are any leaks in the sunroof by the following procedure.

- (1) Fully close the roof lid.
- (2) Adjust the water pressure so that water comes out of the hose to a height of approximately 50 cm (20 in.) when the hose is held vertically facing upwards.
- (3) Hold the end of the hose about 30 cm (12 in.) above the roof and let the water run onto the weatherstrip for 5 minutes or more.
- (4) While doing this, check if any water leaks through into the passenger compartment from around the roof lid.



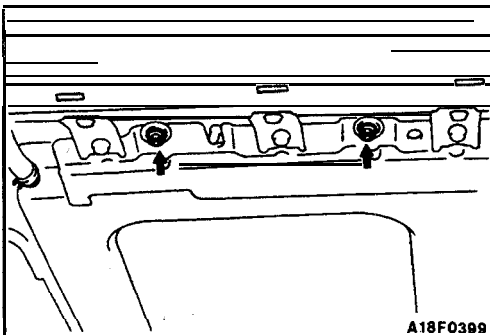
## SUNROOF FIT ADJUSTMENT

### LONGITUDINAL AND LATERAL ADJUSTMENTS

1. Remove the roof lid trim.
2. Fully close the roof lid.
3. Loosen the four roof lid assembly mounting nuts to adjust the roof lid assembly forward and back or to the left and right.

### VERTICAL ADJUSTMENT

1. Remove the headlining.
2. Fully close the roof lid.
3. Loosen four adjuster nuts and adjust so that the roof lid is flush with the roof panel.

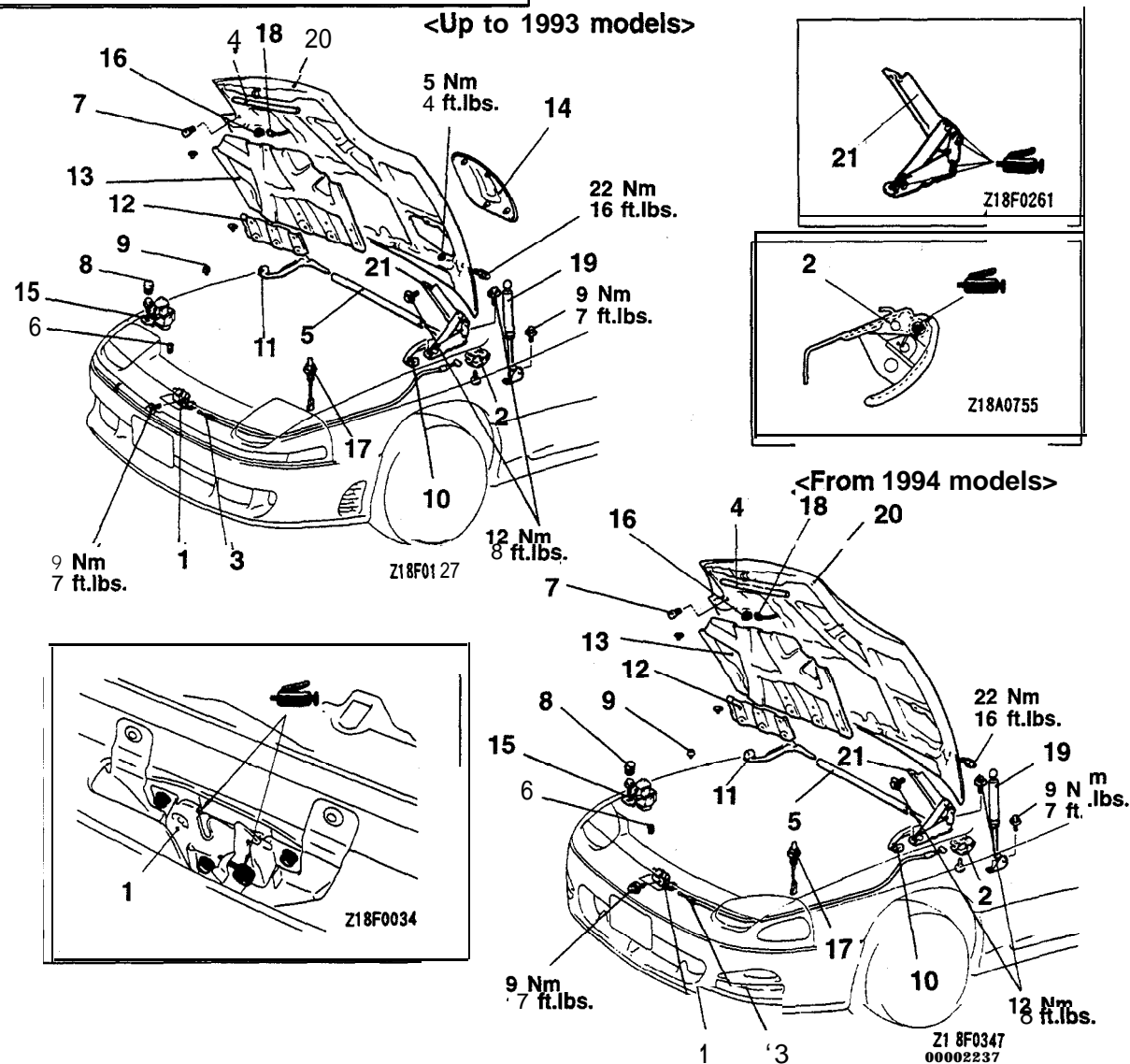


## ENGINE HOOD

## REMOVAL AND INSTALLATION

## Adjustment

- Hood Adjustment (Refer to P.42-11.)



1. Hood latch
2. Hood lock release handle
3. Hood lock release cable
4. Hood weatherstrip (Front)
5. Hood weatherstrip (Rear)
6. Bumper A (Body side)
7. Bumper A (Hood side)
8. Bumper B
9. Bumper
10. Hood side weatherstrip (LH)
11. Hood side weatherstrip (RH)
12. Heat protector panel
13. Heat protector
14. Hood garnish assembly
15. Hood switch (Vehicles with theft-alarm system)

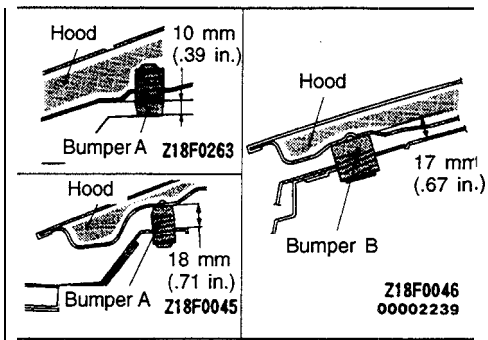
16. Engine room inspection light
17. Inspection light switch

## Hood hinge removal steps

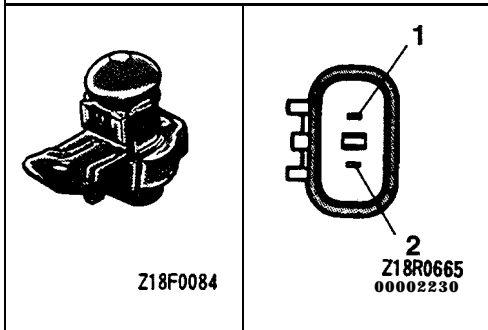
- Washer tube (Refer to GROUP 51 – Windshield Wiper and Washer.)
18. Inspection light wiring harness
  19. Hood gas spring
  20. Hood
  21. Hood hinge

## Caution

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

**INSTALLATION SERVICE POINTS****►A◄ BUMPER B, A INSTALLATION**

Install the bumpers as illustrated.

**INSPECTION****HOOD SWITCH CHECK**

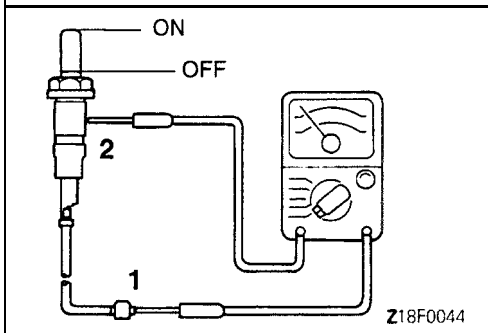
Check the continuity between the terminals.

Switch position	Terminal No.	
	1	2
Lid switch unpressed	0 ———— ○	
Lid switch depressed		

**LIGHT SWITCH CHECK**

Turn the switch ON/OFF and check continuity between terminals (between the connector terminal and the switch body).

Switch position	1 (Connector terminal)	2 (Switch body)
ON	○ ———— ○	
OFF		

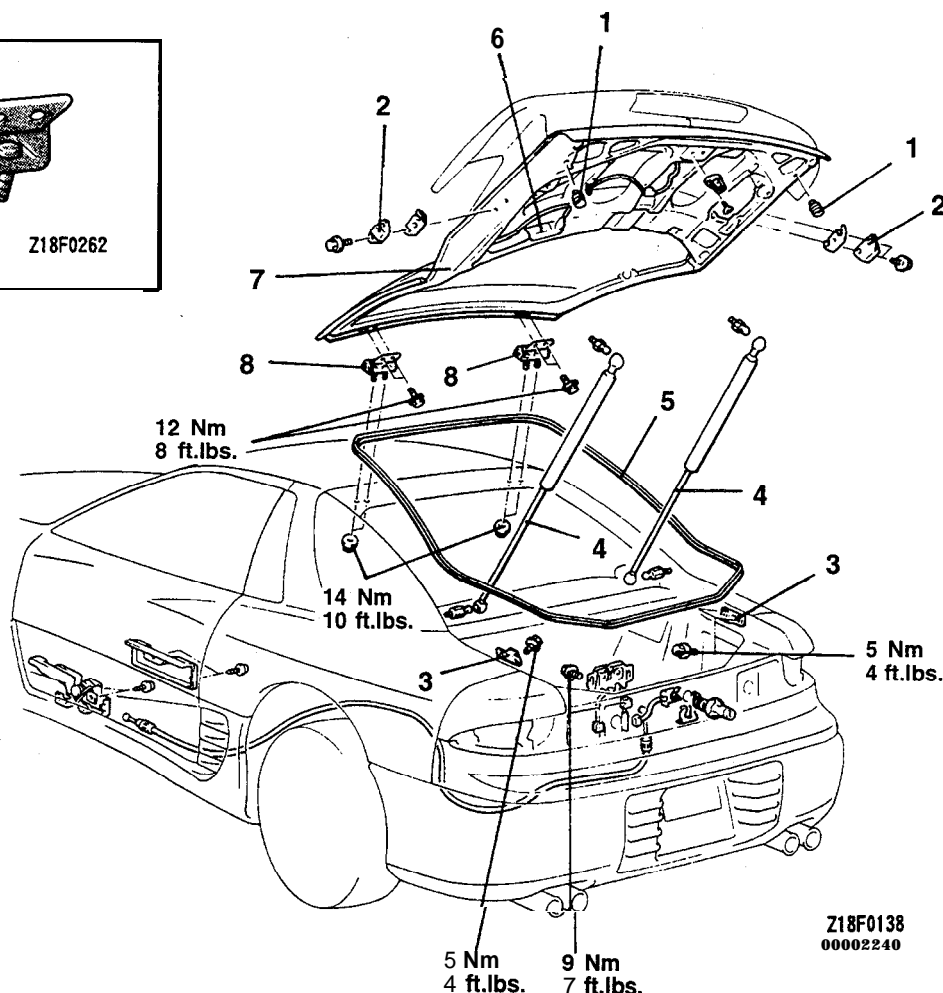
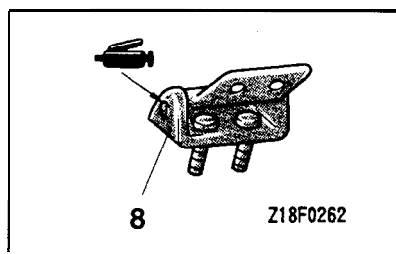


## LIFTGATE

## REMOVAL AND INSTALLATION

## Adjustment

- Liftgate Adjustment (Refer to P.42-11.)



1. Bumper
2. Liftgate damper (upper)
3. Liftgate damper (lower)

#### Liftgate gas spring and liftgate opening weatherstrip removal steps

- Liftgate trim (Refer to GROUP 52A – Trims.)
- Rear side trim (Refer to GROUP 52A – Trims.)
- 4. Liftgate gas spring
- 5. Liftgate opening weatherstrip

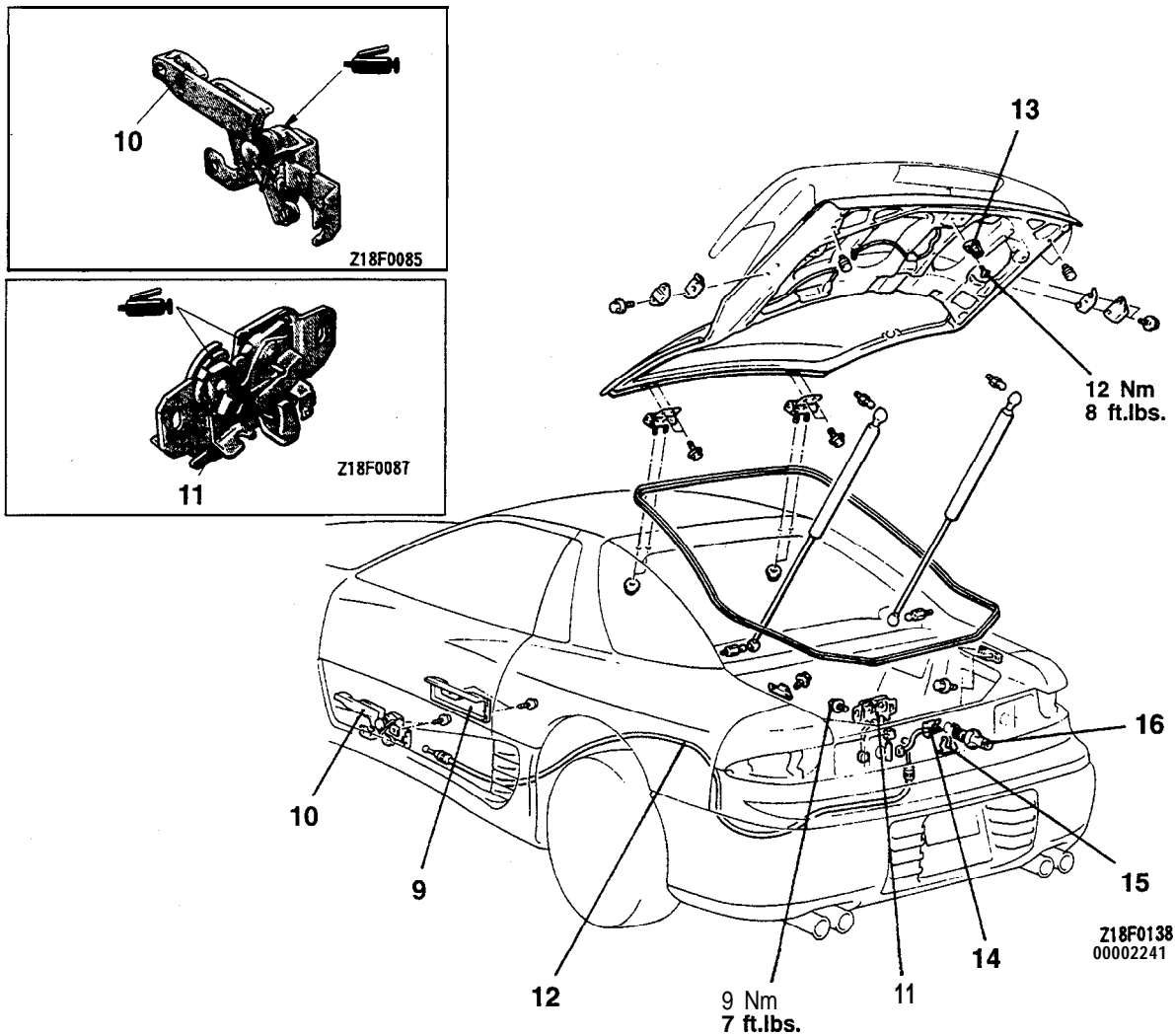
#### Liftgate and liftgate hinge removal steps

- Washer tube (Refer to GROUP 51 – Windshield Wiper and Washer.)

- Liftgate trim (Refer to GROUP 52A – Trims.)
- Liftgate side trim (LH) (Refer to GROUP 52A – Trims.)
- Rear side trim (Refer to GROUP 52A – Trims.)
- 4. Liftgate gas spring
- 6. Connection for liftgate wiring harness
- 7. Liftgate
  - Headlining (Refer to GROUP 52A – Headlining.)
- 8. Liftgate hinge

#### Caution

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



#### Liftgate lock release cable and handle removal steps

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

#### Liftgate latch removal steps

- Rear end trim  
(Refer to GROUP 52A – Trims.)
- 11. Liftgate latch

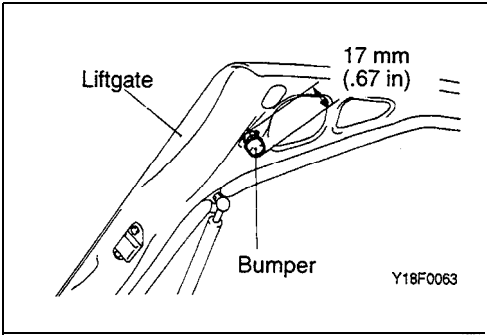
#### Liftgate striker removal steps

- Liftgate trim  
(Refer to GROUP 52A – Trims.)
- 13. Liftgate striker

#### Liftgate lock cylinder removal steps

- Rear end trim  
(Refer to GROUP 52A – Trims.)
- Rear combination light (Refer to GROUP 51 – Garnishes and Mouldings.)
- Rear panel garnish (Refer to GROUP 51 – Garnishes and Mouldings.)

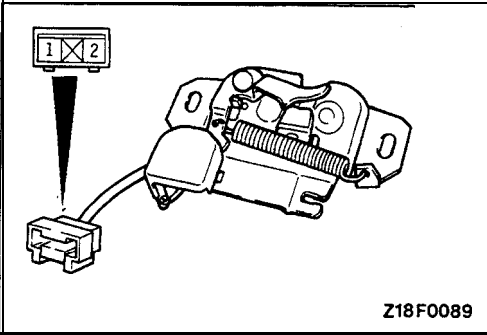
- 14. Liftgate lock cylinder switch
- 15. Retainer
- 16. Liftgate lock cylinder



**INSTALLATION SERVICE POINT**

**►A◄ BUMPER INSTALLATION**

Install the bumper so that the amount of projection from the liftgate is as shown in the illustration.

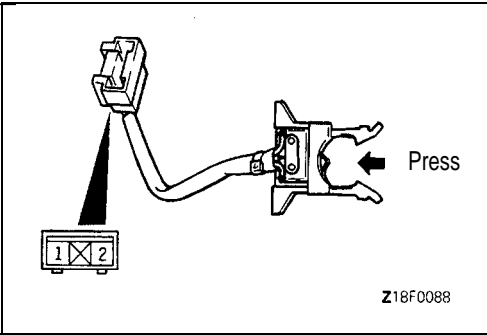


**INSPECTION**

**LIFTGATE LATCH SWITCH CHECK**

- (1) Unlock the liftgate latch.
- (2) Check the continuity between the terminals.

Switch position	Terminal No.	
	1	2
Liftgate latch locked		
Liftgate latch unlocked	0 ——— 0	



**LIFTGATE LOCK CYLINDER SWITCH CHECK**

Check the continuity between the terminals.

Switch position	Terminal No.	
	1	2
When switch is pressed		
When switch is not pressed	0 ——— 0	

## FUEL TANK FILLER DOOR

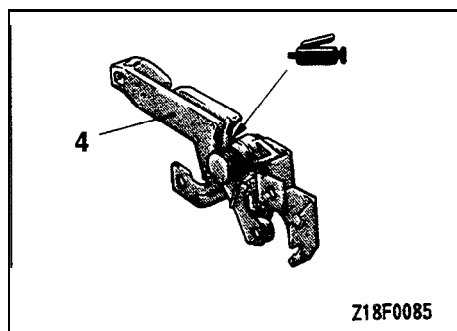
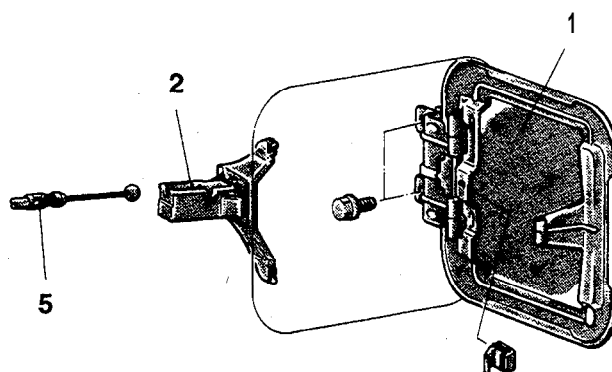
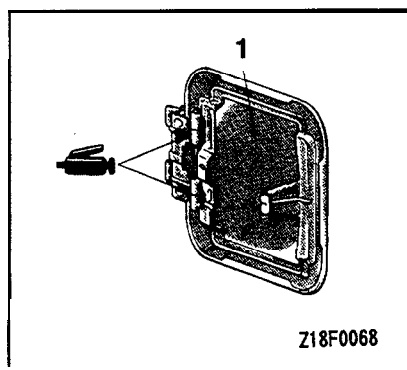
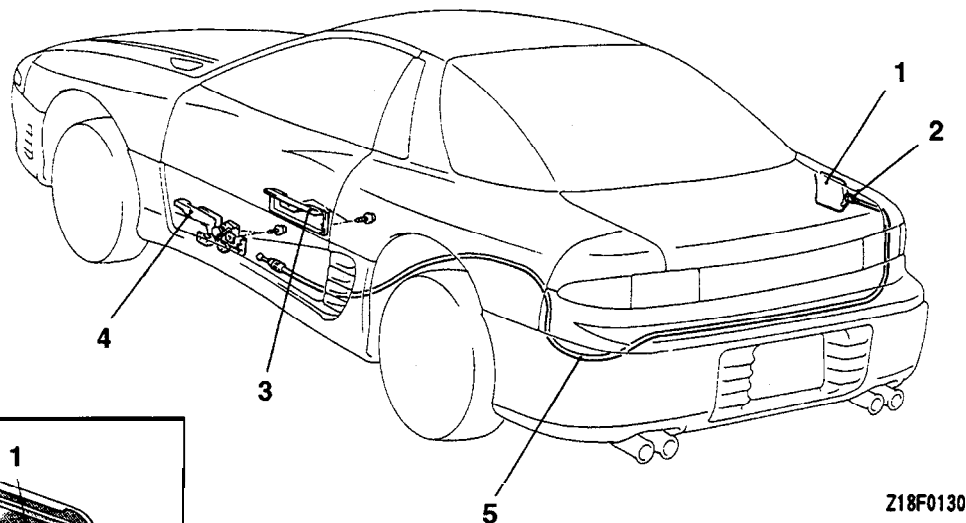
### REMOVAL AND INSTALLATION

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

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

**Adjustment**

- Fuel Filler Door Adjustment (Refer to P.42-12.)

**Removal steps**

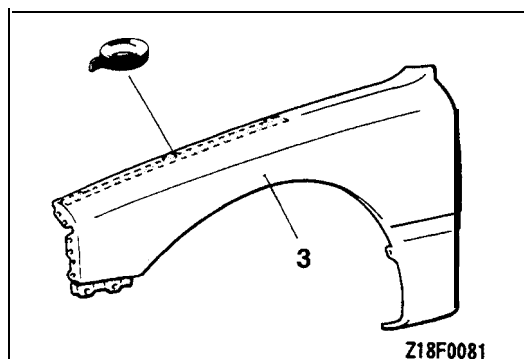
1. Fuel filler door
2. Fuel filler door hook
3. Release handle cover
4. Fuel filler door lock release handle
5. Fuel filler door lock release cable

## FENDER

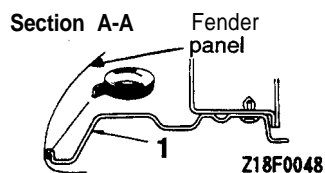
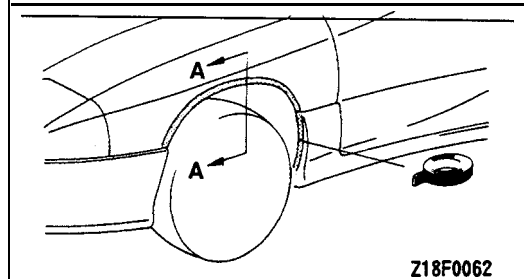
## REMOVAL AND INSTALLATION

**CAUTION: SRS**

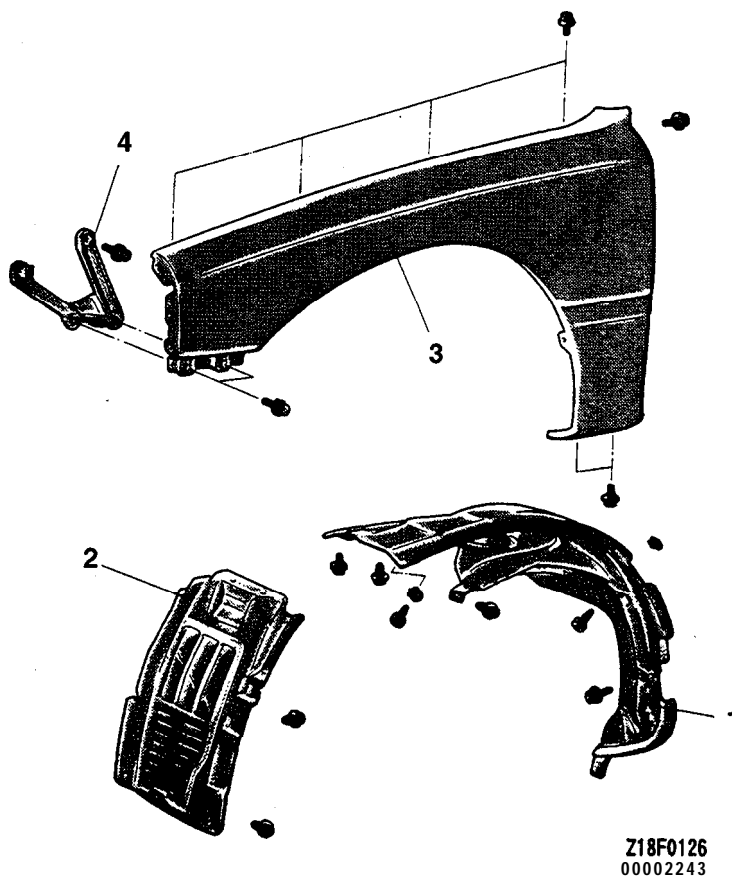
When removing and installing the front fender panel, do not allow any impact or shock to the front impact sensor.



Sealant:  
3M ATD Part No. 8625 or equivalent



Sealant:  
3M ATD Part No. 8625 or equivalent

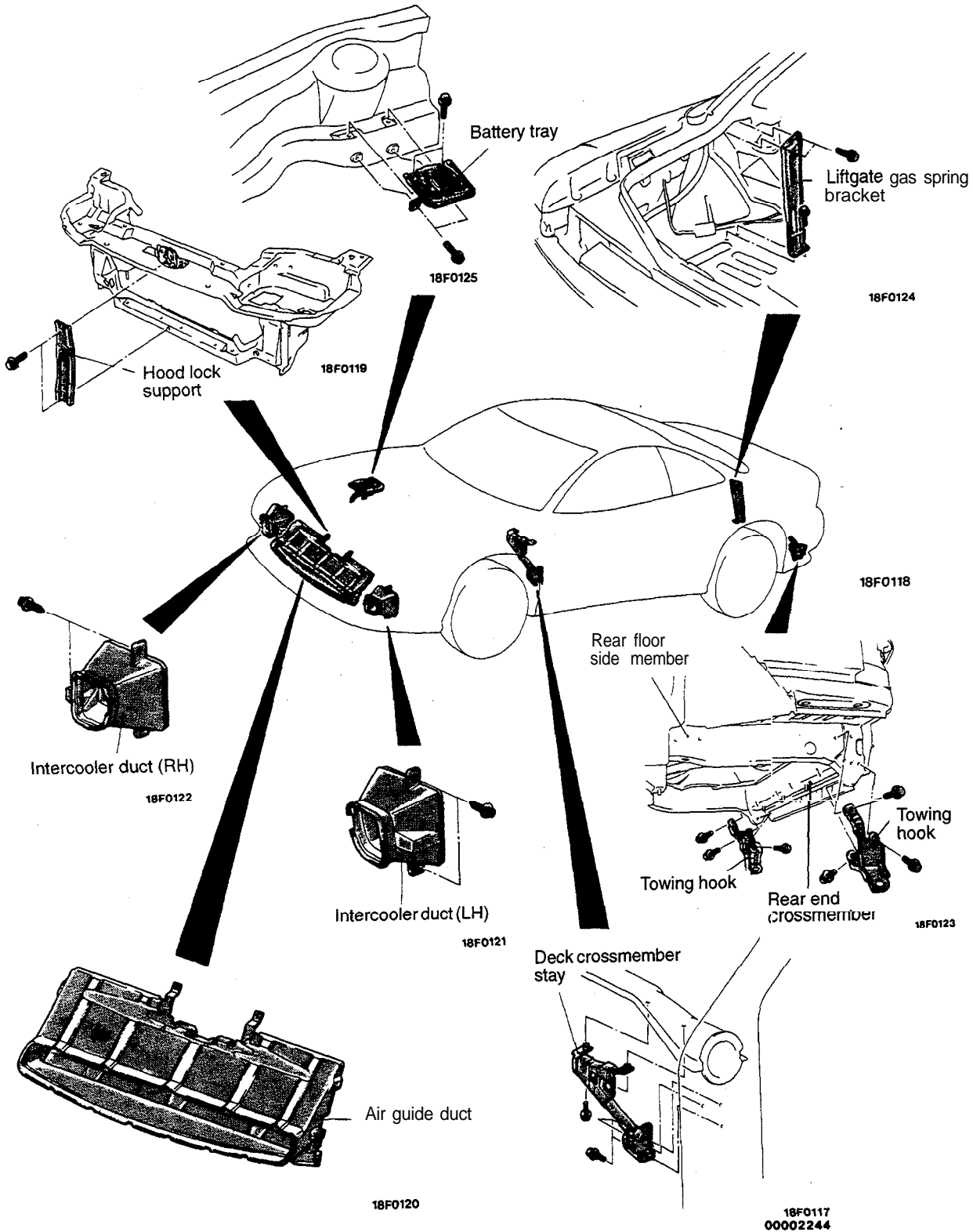
**Removal steps**

1. Front splash shield
  - Side airdam  
(Refer to GROUP 51 – Aero Parts.)
2. Front splash shield
  - Front bumper  
(Refer to GROUP 51 – Front Bumper.)
3. Front fender panel
4. Front fender bracket



# LOOSE PANEL

## REMOVAL AND INSTALLATION



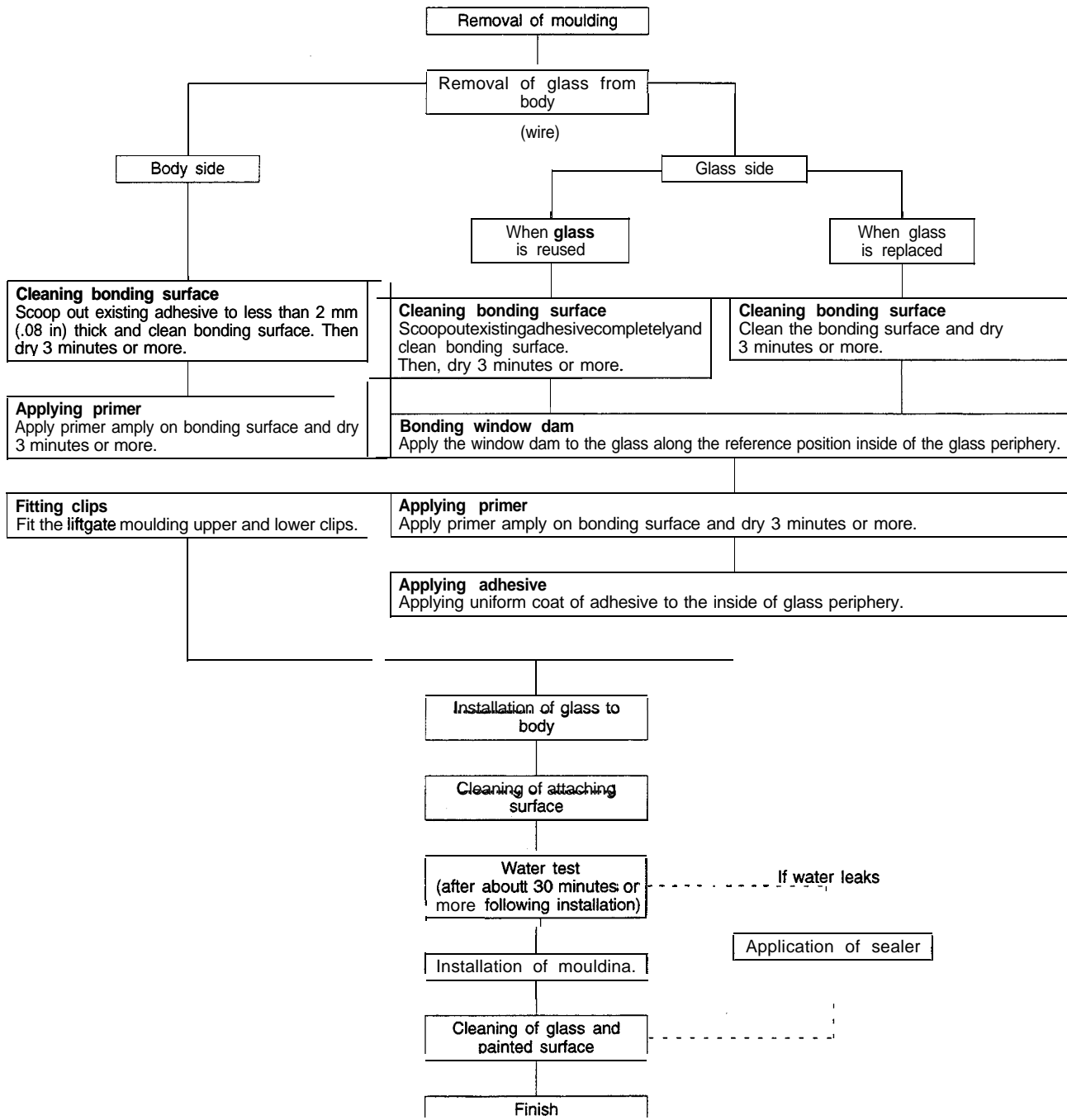
**WINDOW GLASS****GENERAL**

For bonding of the windshield and liftgate glass, a single-liquid urethane adhesive is used.

**ADHESIVE AND RESERVE ITEMS**

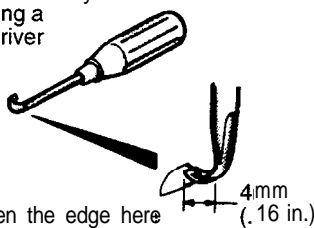
Adhesive and Reserve Items		Applications	Quantity
<b>Adhesive</b>	3M SUPER FAST URETHAN 8609		One cartridge
	3M SUPER FAST URETHAN PRIMER 8608		As required
<b>Reserve items</b>	Wire (dia. x length)	for cutting adhesive	Five pieces of wire <b>0.6</b> mm x 1 m (.02 in. x 3.3 ft.)
	Adhesive gun	for adhesive application	One
	3M ATD Part No. 8906	for cleaning jointing surfaces	As required
	Wiping rags		As required
	Sealer	for prevention of water leaks and gathering after adhesive application	As required
	Glass holder	–	Two
	Windshield moulding (Service Part)		One
	Window dam (Service Part)		As required

## WINDSHIELD AND LIFTGATE GLASS INSTALLATION PROCEDURE

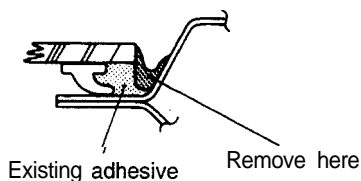


**MOULDING REPLACEMENT (BONDING TYPE)**

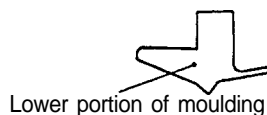
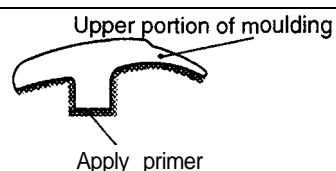
Recommended tool

Make the tool by  
modifying a  
screwdriver

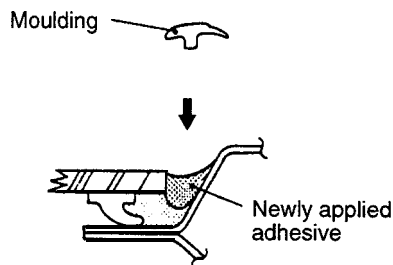
Z18U0161



Z18U0160



Z18F0058



Z18F0057

1. Remove the mouldings.
2. To cut the existing adhesive, make a tool such as the one shown.

3. Using the tool, scoop out the existing adhesive.

**Caution**

1. Do not remove existing adhesive more than necessary.

**Be careful not to damage the coated surface.**

2. If the coated surface is damaged, apply paint.

4. Cut off the lower portion of a new moulding and install the moulding temporarily to check that it is seated securely.
5. Apply primer to the moulding.

**Caution****Never touch the primer coated surface.**

6. Apply adhesive to the illustrated area and install the moulding before it hardens.

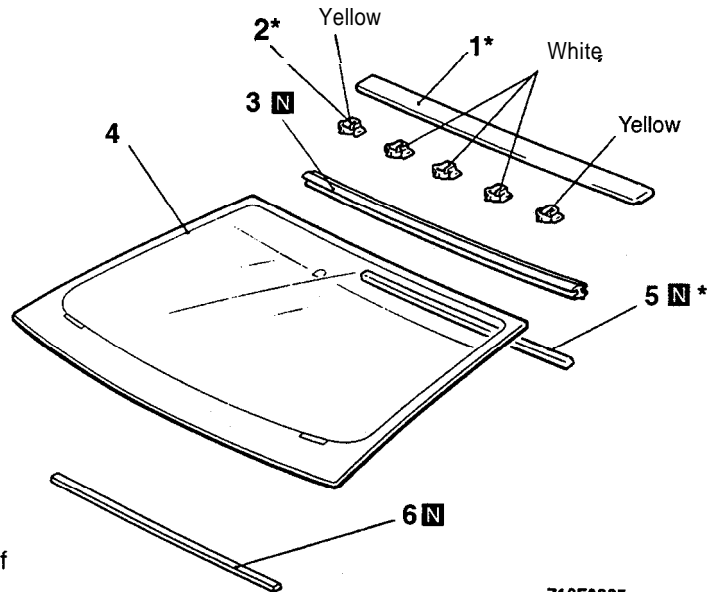
7. Scrape away excessive sealant forced out during installation of the moulding from the glass or body and wipe the surfaces clean with 3M ATD Part No. 8906 or equivalent.
8. After the work, leave the vehicle as it is until the adhesive hardens.

# WINDSHIELD

## REMOVAL AND INSTALLATION

### Pre-removal and Post-installation Operation

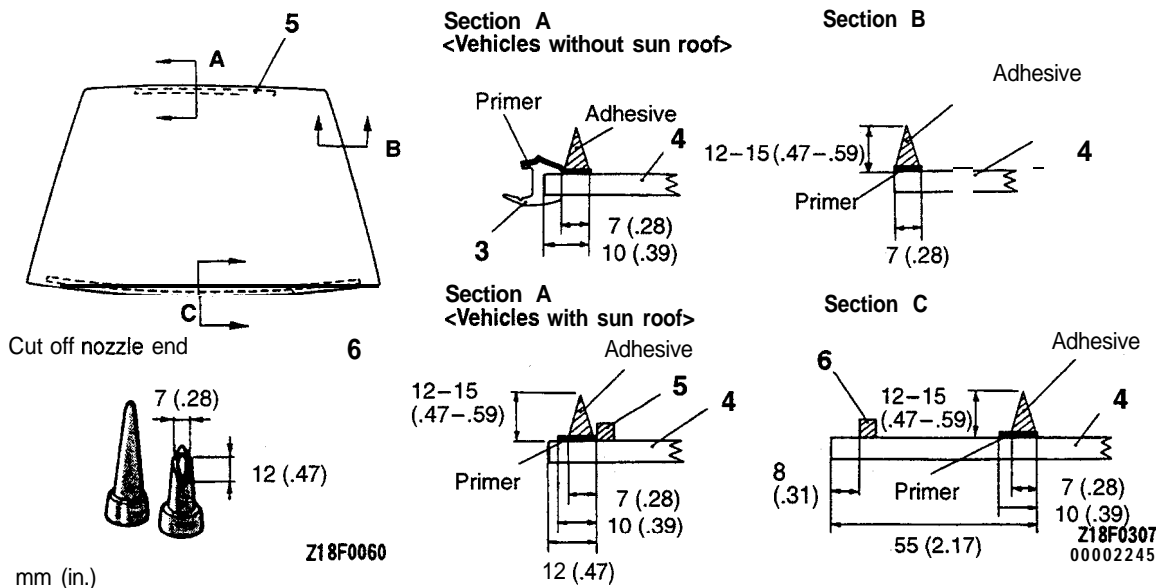
- Deck Garnish Removal and Installation (Refer to GROUP 51 – Garnishes and Mouldings.)
- Roof Drip Moulding Removal and Installation (Refer to GROUP 51 – Garnishes and Mouldings.)
- Headlining Removal and Installation (Refer to GROUP 52A – Headlining.)
- Front Pillar Trim Removal and Installation (Refer to GROUP 52A – Trims.)



NOTE

\* Vehicles with sun roof

**Z18F0325**



**Adhesive: 3M SUPER FAST URETHAN 8609 or equivalent**  
**Primer: 3M SUPER FAST URETHAN PRIMER 8608 or equivalent**

## Removal steps

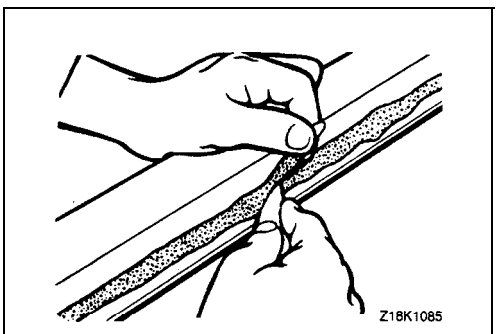
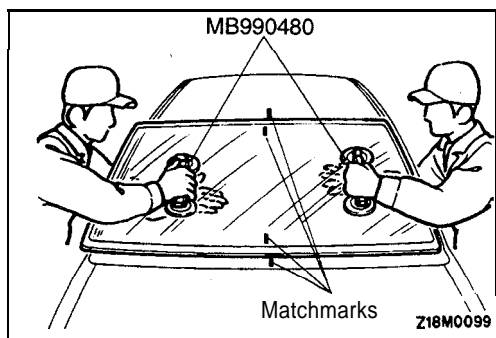
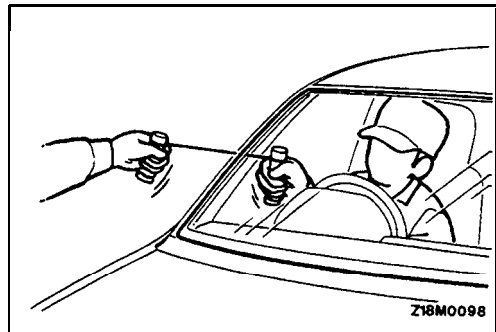
**<Vehicles without sun roof>**

- 3. Windshield moulding
- 4. Windshield glass
- 6. Window spacer (lower)

**<Vehicles with sun roof>**

1. Windshield moulding
2. Moulding clip
4. Windshield glass
5. Window spacer (upper)
6. Window spacer (lower)

TSB Revision



## REMOVAL SERVICE POINT

### ◀A▶ WINDSHIELD GLASS REMOVAL

Remove windshield using the following procedure.

- (1) For protection of the body (coated surface), apply cloth tape to all around the body where the glass is installed.
- (2) Using a drill of sharp bit, drill a hole through the adhesive fixing the windshield glass.
- (3) Run a wire through the hole from inside of the compartment.
- (4) Pull the wire alternately from inside and outside of the compartment to cut off the adhesive.

#### Caution

**Be careful to prevent contact of the wire with the windshield glass edge.**

- (5) Put matchmarks on the body and the glass.
- (6) Using the special tool, remove the windshield glass.

- (7) Using a sharp knife, scoop out existing adhesive from the body flange to 2 mm (.08 in.) or less thickness all around the window opening.
- (8) Finish smooth the flange surfaces.

#### Caution

1. Do not remove the adhesive more than necessary.
2. Be careful not to damage the coated surface of the body with the knife. If it is damaged, apply retouch paint of anti-corrosive.

- (9) If the glass is reused, scoop out existing adhesive and fragments of the window dam completely from the glass and degrease with 3M ATD Part No. 8906 or equivalent.
- (10) Degrease the body same way.

#### Caution

**After degreasing, allow three minutes or more to dry well before next work. Do not touch the degreased surface.**

**INSTALLATION SERVICE POINTS****►A◄ WINDOW SPACER (LOWER) / WINDOW SPACER (UPPER) / WINDSHIELD GLASS / WINDSHIELD MOULDING INSTALLATION**

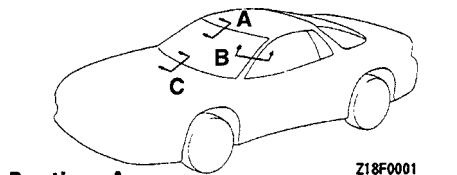
- (1) <On vehicles without sun roof>  
Install the windshield moulding to the windshield.  
<On vehicles with sun roof>  
Affix the window spacer (upper) to the specified area of the windshield.
- (2) Affix the window spacer (lower) to the specified area of the windshield.
- (3) When replacing glass, fit a new glass once to the body and put matchmarks on the body and glass.
- (4) Apply a uniform coat of primer to the illustrated areas of the body and glass making sure it is applied without breaks or thin spots.

**Adhesive:**

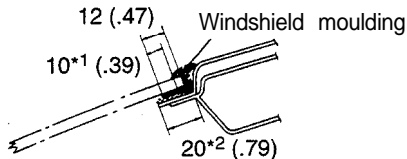
**3M SUPER FAST URETHAN PRIMER 8608 or equivalent**

**Caution**

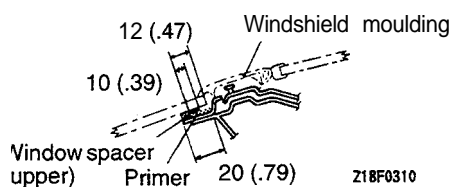
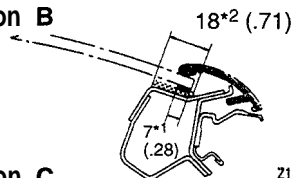
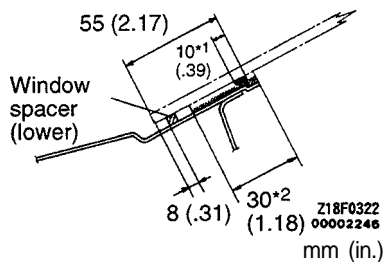
1. The primer is used to strengthen bonding power.  
Make sure that it covers the surfaces completely.  
Note that the primer if applied to thick can cause loss of bonding power.
  2. Never touch the primer coated surface.
- (5) Allow 3 to 30 minutes to dry the primer.



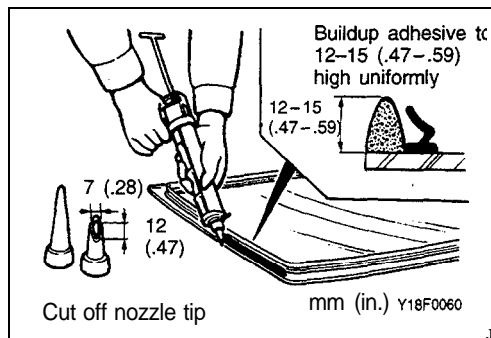
**Section A**  
**<Vehicles without sun roof>**



**<Vehicles with sun roof>**

**Section B****Section C**

\*1: Glass surface  
● 2: Body surface



- (6) Within 30 minutes of primer application, apply the adhesive all around the windshield glass uniformly.

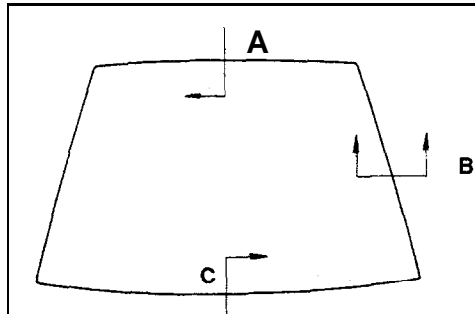
**Adhesive:**

**3M SUPER FAST URETHAN 8609 or equivalent**

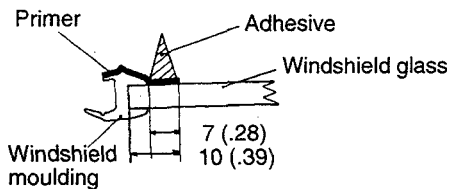
**NOTE**

Cutting the nozzle tip of the sealant gun to a V-shape will help application.

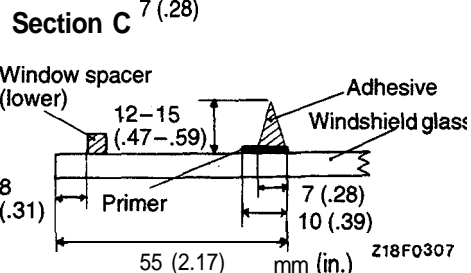
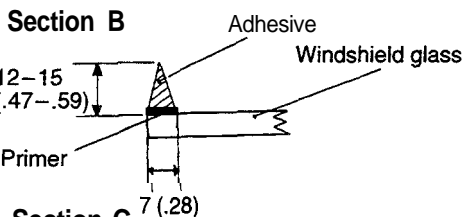
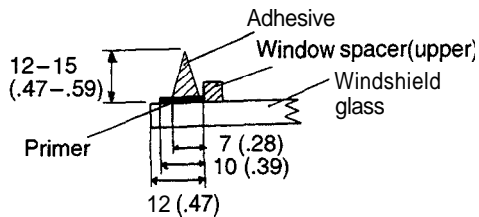
- (7) Install the windshield moulding.



**Section A**  
**<Vehicles without sun roof>**



**<Vehicles with sun roof>**



- (8) After application of the adhesive, line up the match-marks on the glass and body and force the glass lightly and evenly onto the body for complete fitting.
- (9) Remove adhesive from around and on the glass and body surfaces using a spatula and wipe the surfaces clean.
- (10) After the work (installation of the glass), allow to stand until the adhesive hardens.

**Caution**

If an infrared lamp or other means are used for quicker hardening, keep the surface temperature 60°C (140°F) or lower.

- (11) After about 30 minutes or more following bonding of the windshield glass to the body, check for water leaks.

**Caution**

1. If the vehicle is to be moved, do so gently.
2. When checking for water leaks, do not apply water with the hose end squeezed.

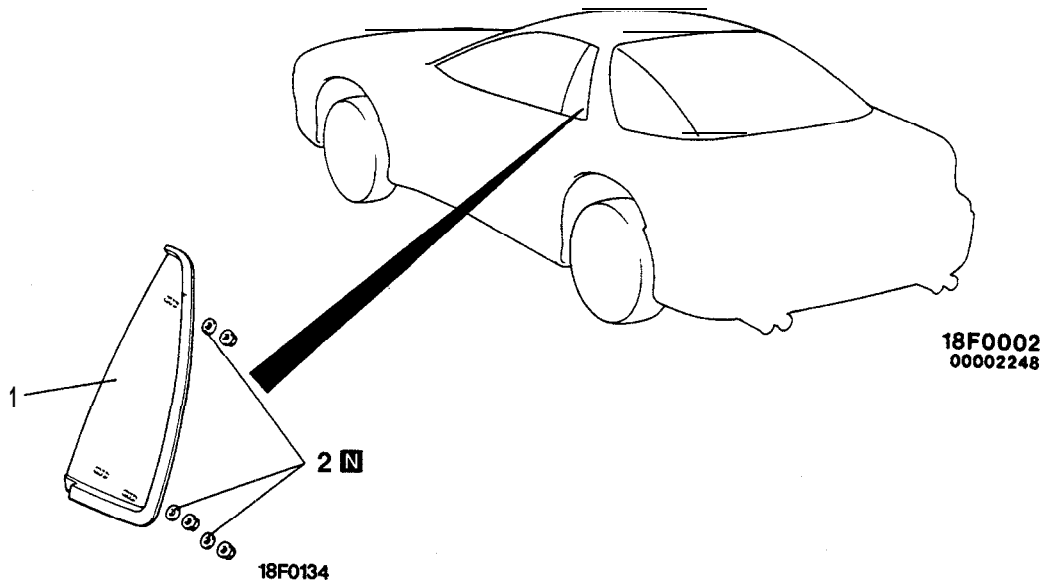


## CENTER PILLAR GLASS

### REMOVAL AND INSTALLATION

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

- Quarter Upper Trim Removal and Installation  
(Refer to GROUP 52A – Trims.)
- Center Pillar Garnish Removal and Installation  
(Refer to GROUP 51 – Garnishes and Mouldings.)



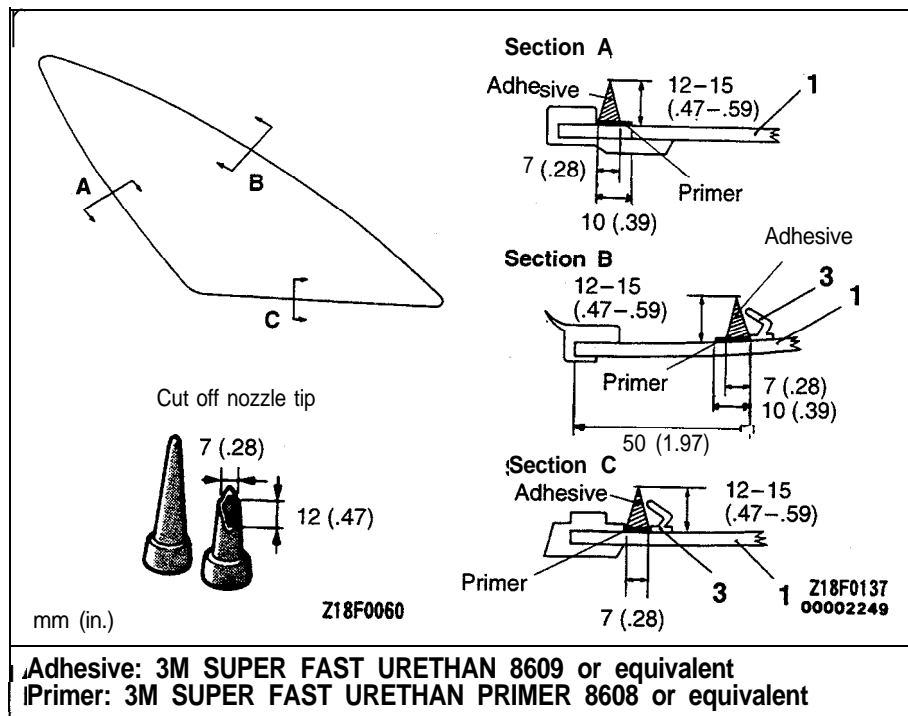
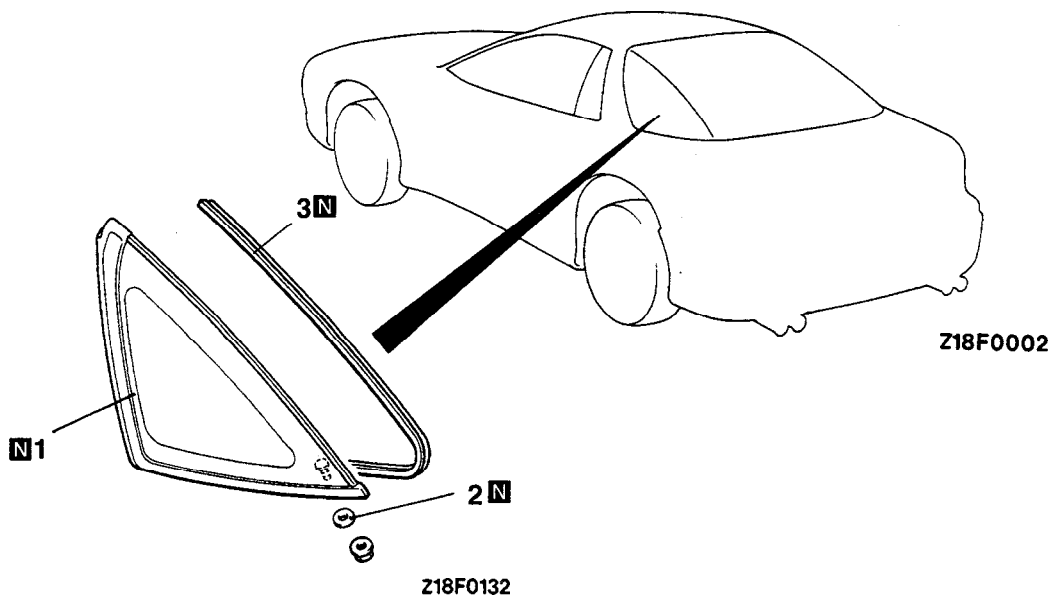
1. Center pillar glass
2. Packing

# QUARTER WINDOW GLASS

## REMOVAL AND INSTALLATION

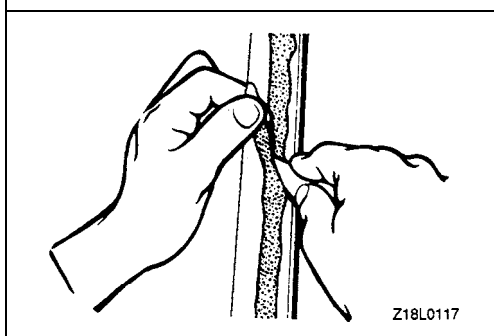
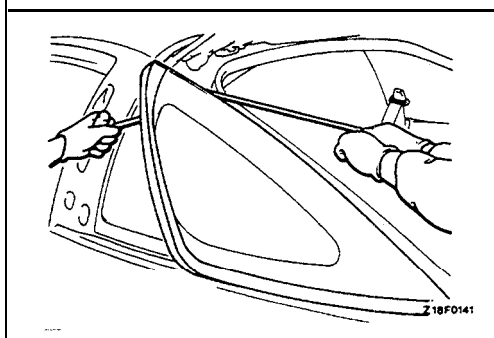
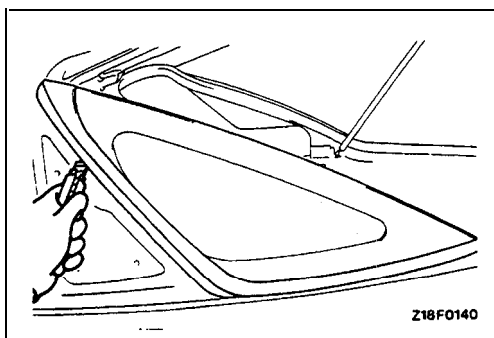
### Pre-removal and Post-installation Operation

- Quarter Upper Trim Removal and installation (Refer to GROUP 52A – Trims.)
- Center Pillar Garnish Removal and Installation (Refer to GROUP 51 – Garnishes and Mouldings.)



### Removal steps

- ◀A▶▶A▶
1. Quarter window moulding and glass
  2. Packing
  3. Window dam

**REMOVAL SERVICE POINT****◀A▶ QUARTER WINDOW MOULDING AND GLASS REMOVAL**

- (1) For protection of the body (coated surface), apply cloth tape to all around the body where the glass is installed.
- (2) Using a cutter knife, cut off the quarter window moulding along its edge.

- (3) Run a wire between the glass and the body at the upper portion of the quarter window and pull it back and forth along the glass to cut through the adhesive. When doing so, pay attention to the bolt.

**Caution**

**Hold the window glass with the glass holders to prevent it from falling when the adhesive is cut through.**

- (4) Using a sharp knife, scoop out existing adhesive from the body flange to 2 mm (.08 in.) or less thickness all around the window opening.
- (5) Finish smooth the flange surface.

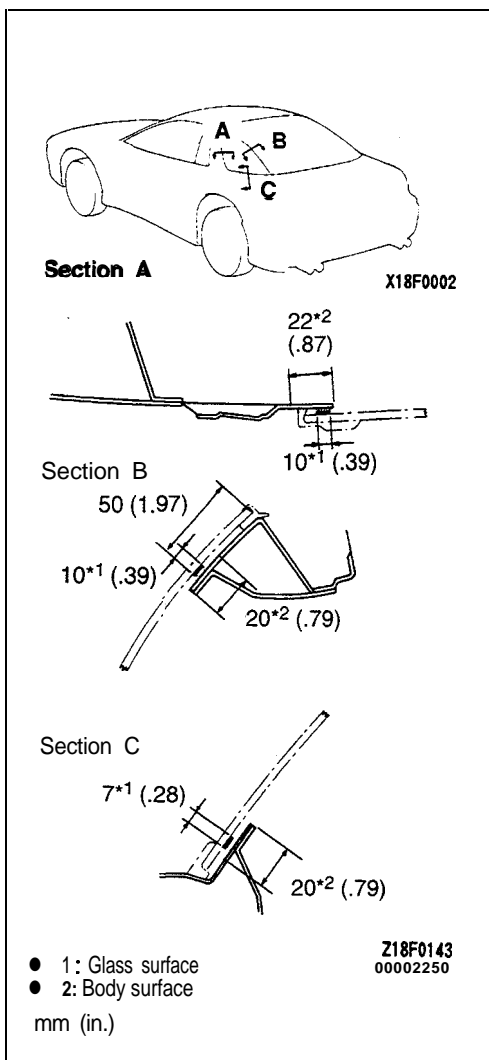
**Caution**

1. Do not remove the adhesive more than necessary.
2. Be careful not to damage the coated surface of the body with the knife. If it is damaged, apply retouch paint or anti-corrosive.

- (6) Degrease using 3M ATD Part No. 8906 or equivalent.

**Caution**

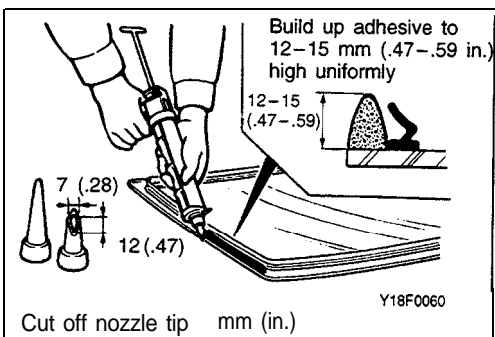
**After degreasing, allow three minutes or more to dry well before next work. Do not touch the degreased surface.**

**INSTALLATION SERVICE POINT****▶A◀ QUARTER WINDOW MOULDING AND GLASS INSTALLATION**

- (1) Apply a uniform coat of primer to the illustrated areas of the body and glass making sure it is applied without breaks or thin spots.

**Caution**

1. The primer is used to strengthen bonding power. Make sure that it covers the surfaces completely. Note that the primer if applied to thick can cause loss of bonding power.
  2. Never touch the primer coated surface.
- (2) Allow 3 to 30 minutes to dry the primer.



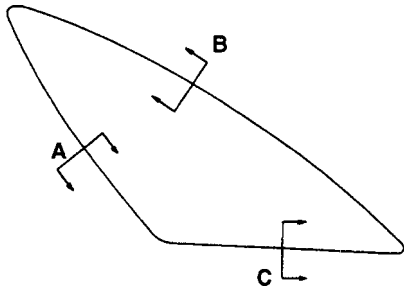
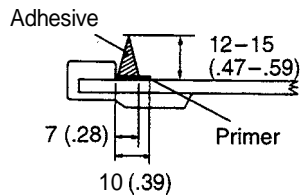
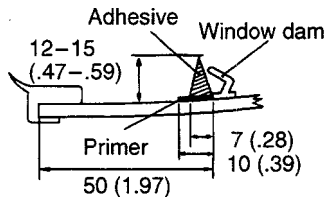
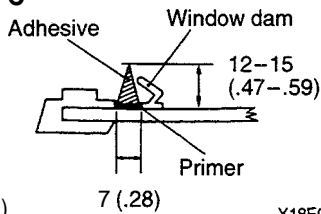
- (3) Within 30 minutes of primer application, apply the adhesive all around the windshield glass uniformly.

**Adhesive:**

**3M SUPER FAST URETHAN 8609 or equivalent**

**NOTE**

Cutting the nozzle tip of the sealant gun to a V-shape will help application.

**Section A****Section B****Section C**

mm (in.)

Y18F0137

- (4) After application of the adhesive, line up the matchmarks on the glass and body and force the glass lightly and evenly onto the body for complete fitting.
- (5) Remove adhesive from around and on the glass and body surfaces using a spatula and wipe the surfaces clean.
- (6) After the work (installation of the glass), allow to stand until the adhesive hardens.

**Caution**

If an infrared lamp or other means are used for quicker hardening, keep the surface temperature 60°C (140°F) or lower.

- (7) After about 30 minutes or more following bonding of the windshield glass to the body, check for water leaks.

**Caution**

1. If the vehicle is to be moved, do so gently.
2. When checking for water leaks, do not squeeze the hose end.

## REMOVAL AND INSTALLATION

- Rear Wiper Arm Removal and installation  
(Refer to GROUP 51 -Windshield Wiper and Washer.)
- **Liftgate** Upper Trim Removal **and** Installation  
(Refer to GROUP 52A – Trims.)

- **Liftgate Trim Removal and Installation**  
(Refer to GROUP 52A – Trims.)
- **Liftgate Side Trim Removal and Installation**  
(Refer to GROUP 52A – Trims.)



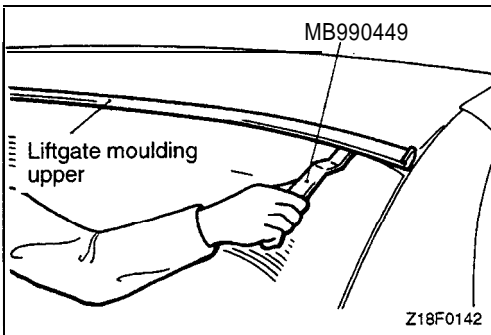
7  
Z18F0308  
00002317

**Adhesive: 3M SUPER FAST URETHAN 8609 or equivalent**  
**Primer: 3M SUPER FAST URETHAN PRIMER 8608 or equivalent**

## 2. Glass antenna connection

3. Liftgate moulding upper
4. Liftgate moulding upper clip
5. Liftgate moulding lower
6. Liftgate moulding lower clip

7. Clip grommet
8. Lift gate glass
9. Liftgate moulding side
10. Window spacer (upper)
11. Window spacer (lower)

**REMOVAL SERVICE POINTS****◀A▶ LIFTGATE MOULDING UPPER / LIFTGATE MOULDING LOWER REMOVAL**

Using the special tool, pry up the clipped portions to remove the liftgate moulding upper and lower.

**◀B▶ LIFTGATE GLASS REMOVAL**

Remove the same way as the windshield glass. (Refer to P.42-30.)

**INSTALLATION SERVICE POINT****▶A◀ LIFTGATE GLASS INSTALLATION**

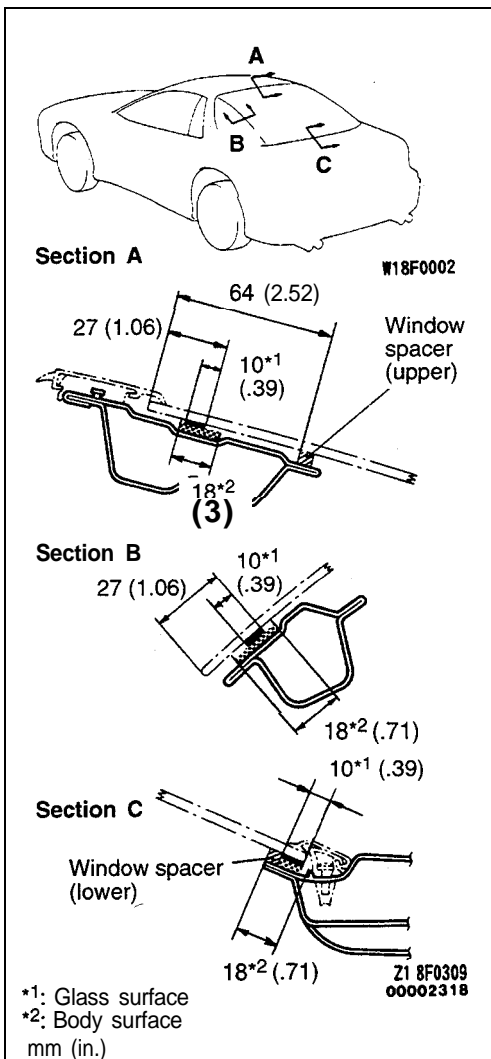
- (1) Affix the window spacer to the specified area of the liftgate glass.
- (2) To replace the liftgate glass with a new one, fit the new liftgate glass to the body and put match marks to the body and the liftgate glass.
- (3) Apply a uniform coat of primer to the illustrated areas of the body and glass making sure it is applied without breaks or thin spots.

**Adhesive:**

**3M SUPER FAST URETHAN PRIMER 8608 or equivalent**

**Caution**

1. The primer is used to strengthen bonding power. Make sure that it covers the surfaces completely. Note that the primer if applied to thick can cause loss of bonding power.
  2. Never touch the primer coated surface.
- (4) Allow 3 to 30 minutes to dry the primer.



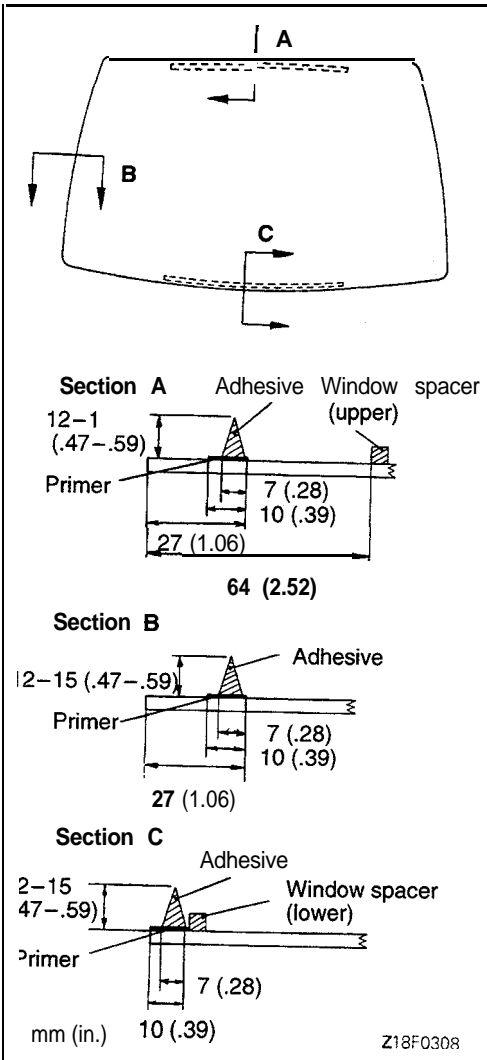
- (5) Within 30 minutes of primer application, apply the adhesive all around the liftgate glass uniformly.

**Adhesive:**

**3M SUPER FAST URETHAN 8609 or equivalent**

**NOTE**

Cutting the nozzle tip of the sealant gun to a V-shape will help application.



- (6) After application of the adhesive, line up the matchmarks on the glass and liftgate and force the glass lightly and evenly for complete fitting.
- (7) Remove adhesive from around and on the glass and body surfaces using a spatula and wipe the surfaces clean.
- (8) After the work (installation of the glass), allow to stand until the adhesive hardens.

**Caution**

If an infrared lamp or other means are used for quicker hardening, keep the surface temperature 60°C (140°F) or lower.

- (9) After about 30 minutes or more following bonding of the liftgate glass to the tail gate, check for water leaks.

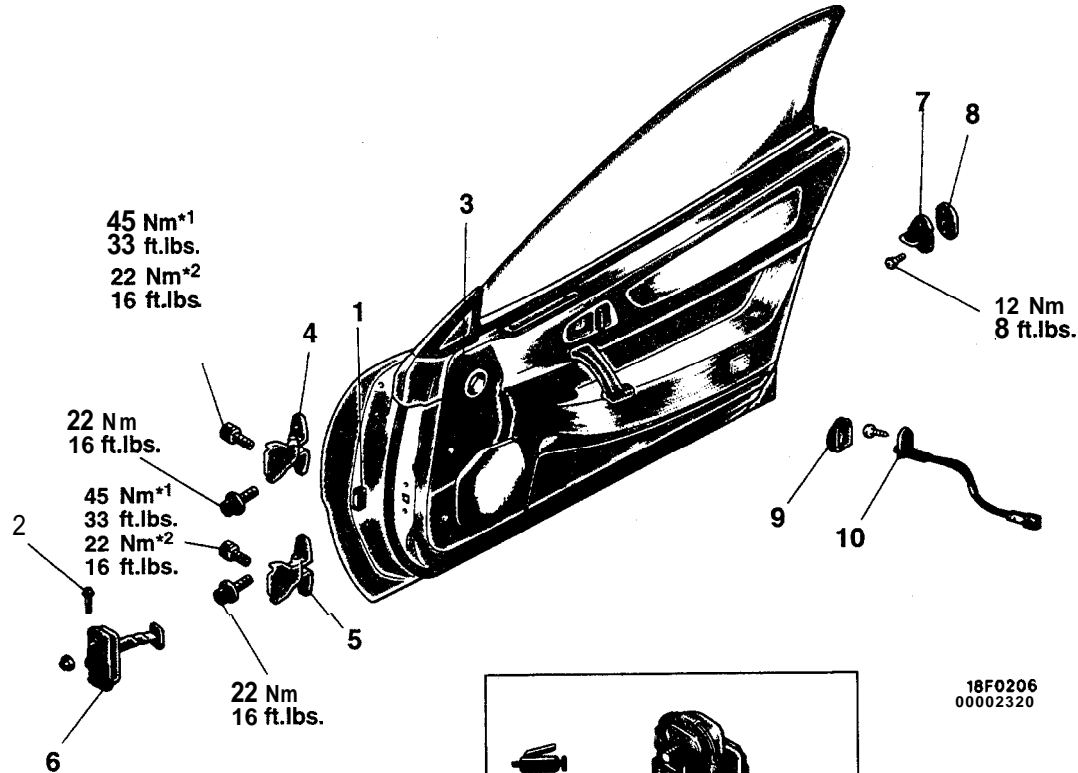
**Caution**

1. If the vehicle is to be moved, do so gently.
2. When the checking for water leaks, do not squeeze the hose end.



**DOOR ASSEMBLY****REMOVAL AND INSTALLATION****Adjustment**

- Door Adjustment (Refer to P.42-12.)

**Door assembly removal steps**

1. Connection for door wiring harness connector
2. Spring pin
3. Door assembly
4. Upper hinge
5. Lower hinge

**Door check strap removal steps**

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

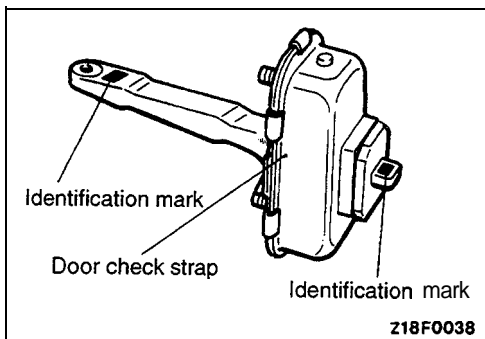
▶A◀ 6. Door check strap

**Striker removal steps**

7. Striker
8. Striker shim

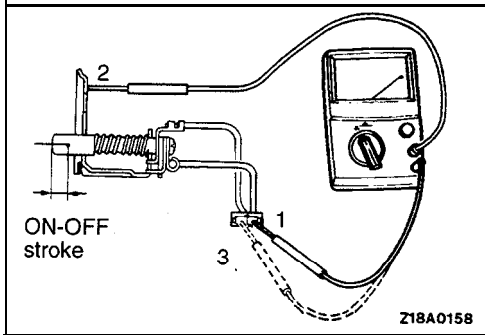
**Door switch removal steps**

9. Door switch cap
10. Door switch

**INSTALLATION SERVICE POINT****▶A◀ DOOR CHECK STRAP INSTALLATION**

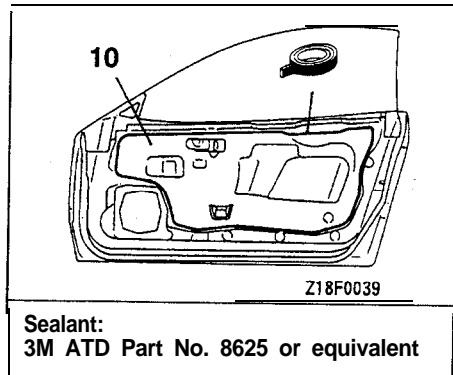
Install the door check strap with the identification mark facing up.

Position	Identification mark	
Door (L.H.)	WL	L
Door (R.H.)	WR	R

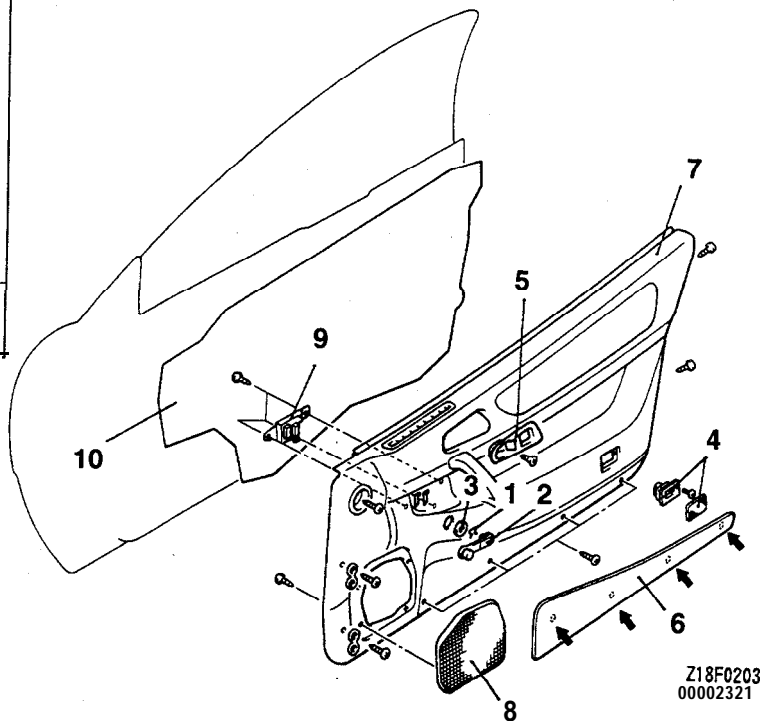
**INSPECTION****DOOR SWITCH CHECK**

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

Switch position		Terminal No.		
		1	2	3
Switch	Open (ON)	0	A	0
	Depressed (OFF)			

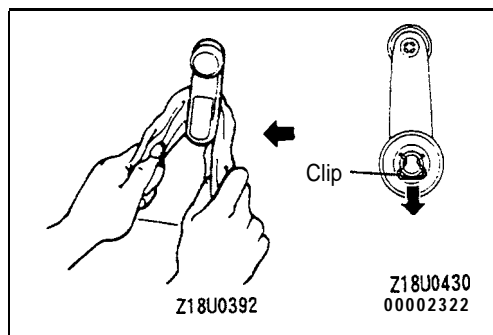
**DOOR TRIM AND WATERPROOF FILM****REMOVAL AND INSTALLATION**

NOTE  
←: Clip locations

**Removal steps**

1. Clip
2. Door window regulator handle
3. Escutcheon
4. Door light
5. Inside handle cover

6. Door trim carpet
7. Door trim
8. Speaker garnish
9. Power window switch
10. Waterproof film



## REMOVAL SERVICE POINT

### ◀A▶ CLIP REMOVAL

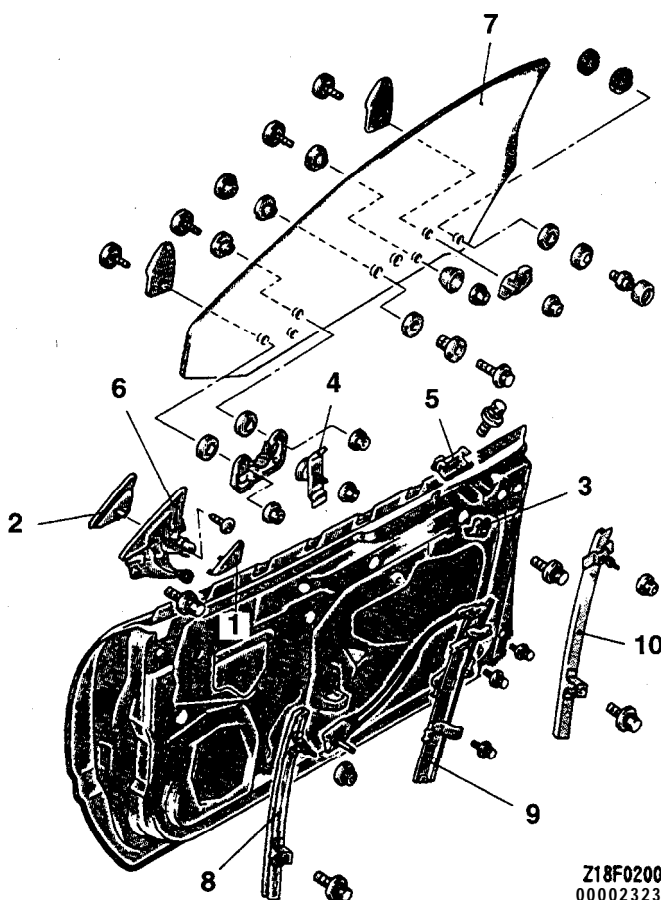
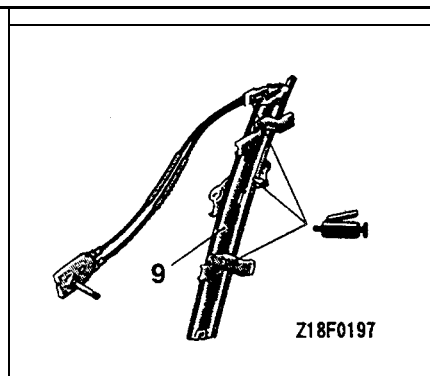
Use a shop towel to remove the clip; and remove door window regulator handle.

## DOOR GLASS AND REGULATOR

### REMOVAL AND INSTALLATION

#### Adjustment

- Door Window Glass Adjustment (Refer to P.42-12.)



#### Removal steps

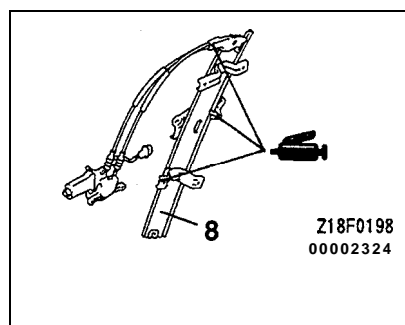
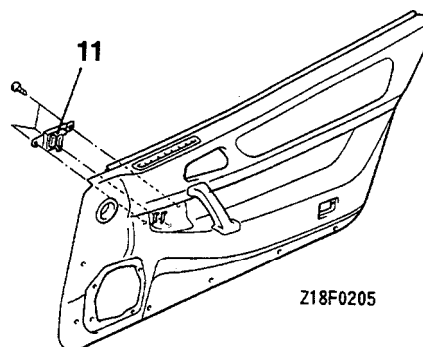
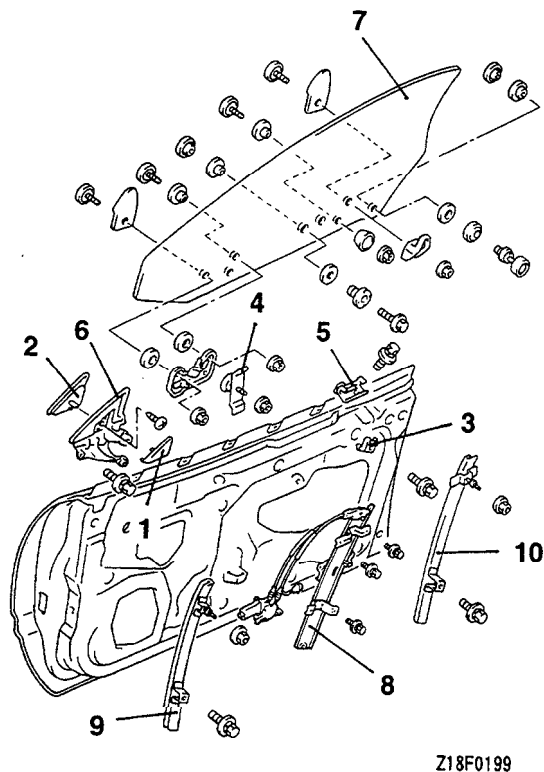
- Door trim (Refer to P.42-42.)
- Waterproof film (Refer to P.42-42.)
- 1. Delta cover inner
- 2. Delta cover outer
- Door belt line outer weatherstrip (Refer to P.42-63.)
- 3. up stop
- 4. Stabilizer inner front
- 5. Stabilizer inner rear
- 6. Delta sash
- 7. Door window glass
- 8. Door glass guide track front
- 9. Door window regulator assembly
- 10. Door glass guide track rear

## POWER WINDOW

### REMOVAL AND INSTALLATION

#### Adjustment

- Door Window Glass Adjustment (Refer to P.42-12.)



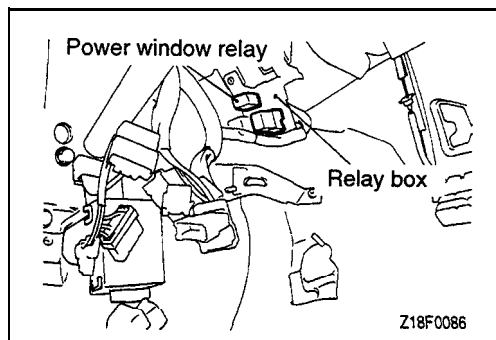
#### Door window regulator assembly removal steps

- Door trim (Refer to P.42-42.)
  - Waterproof film (Refer to P.42-42.)
1. Delta cover inner
  2. Delta cover outer
  - Door belt line outerweatherstrip (Refer to P.42-63.)
  3. up stop
  4. Stabilizer inner front

5. Stabilizer inner rear
6. Delta sash
7. Door window glass
8. Door window regulator assembly
9. Door glass guide track front
10. Door glass guide track rear

#### Power window switch assembly removal steps

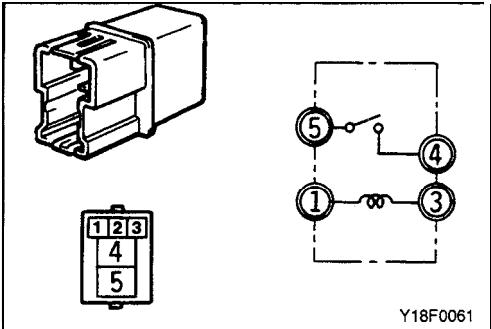
- Door trim (Refer to P.42-42.)
- 11. Power window switch assembly



### INSPECTION

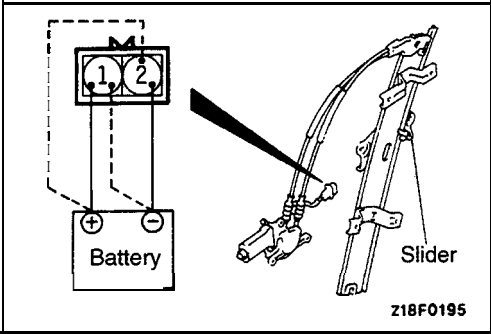
#### POWER WINDOW RELAY CHECK

- (1) Remove the knee protector assembly.  
(Refer to GROUP 52A – Instrument Panel.)
- (2) Remove the power window relay from indoor relay box.



- (3) Apply battery voltage to terminal 1, and check for continuity when terminal 3 is grounded.

Battery voltage	Terminal No.			
	1	3	4	5
Continuity no voltage	0	0		
Continuity with voltage			0	0

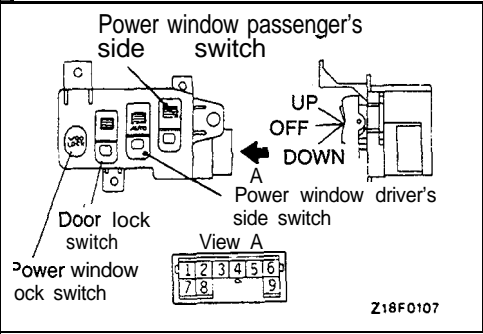


**POWER WINDOW MOTOR CHECK**

- (1) Connect the battery directly to the motor terminal and check that the slider moves smoothly.
- (2) Connect the battery in reverse polarity and check that the slider moves in opposite direction.

**CIRCUIT BREAKER CHECK (INCORPORATED IN THE POWER WINDOW MOTOR)**

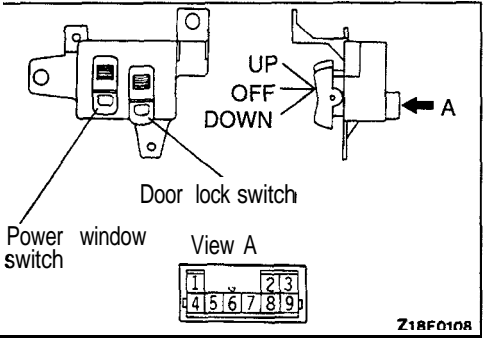
- (1) Press the UP switch to fully close the window glass, and continue to press the switch for 10 seconds.
- (2) At the moment that the UP switch is released, press the DOWN switch. The circuit breaker can be considered good if at this time the door window glass begins to open within 60 seconds.



POWER WINDOW MAIN SWITCH CHECK

Check for continuity in accordance to the following connection table.

Switch position			Terminal No.							
			Driver's side switch				Passenger's side switch			
			1	2	6	9	1	3	4	6
Power window switch	Power window lock switch (unlock)	UP	○	○	○	○	○	○	○	○
		OFF		○	○	○		○	○	○
		DOWN	○	○	○	○	○	○	○	○
	Power window lock switch (lock)	UP	○	○	○	○	○	○	○	○
		OFF		○	○	○		○	○	○
		DOWN	○	○	○	○	○	○	○	○



POWER WINDOW SUB SWITCH CHECK

Check for continuity in accordance with the following connection table.

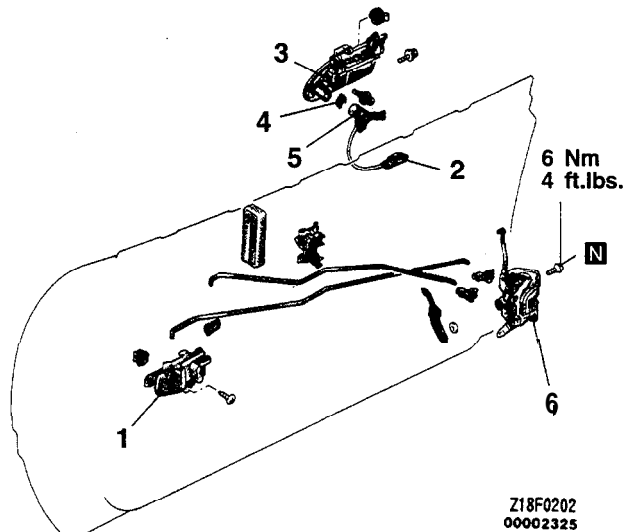
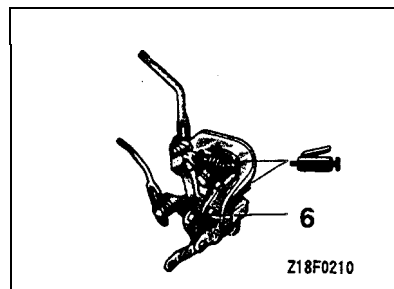
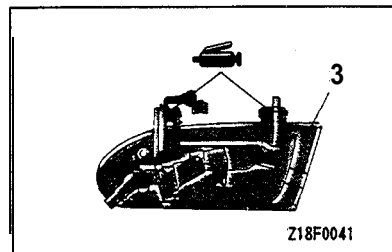
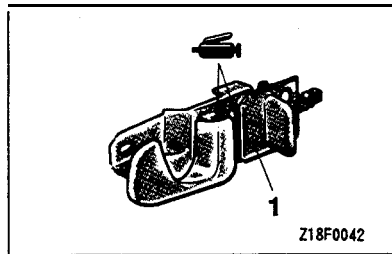
Switch position	Terminal No.				
	3	5	7	8	9
UP	○	○	○	○	○
OFF	○	○	○	○	○
DOWN	○	○	○	○	○

## DOOR HANDLE AND LATCH

### REMOVAL AND INSTALLATION

#### Pre-removal and Post-installation Operation

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

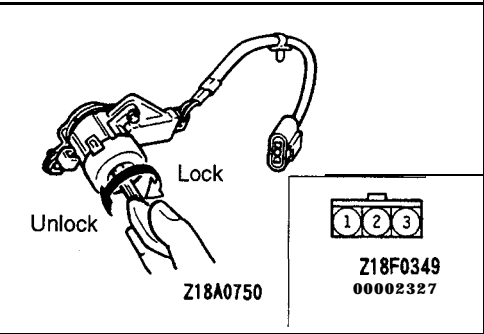
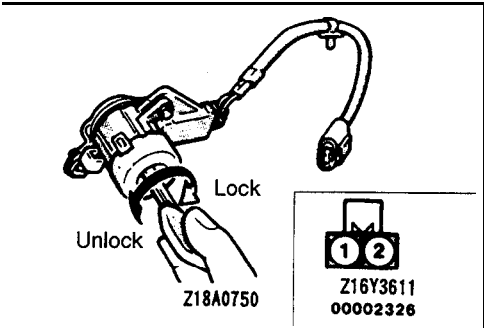


#### Door inside handle removal

- Door inside handle play check (Refer to P.42-16.)
1. Door inside handle

#### Door outside handle and latch removal steps

2. Door key cylinder unlock switch connector  
(Vehicles with central door locking or theft-alarm system)
3. Door outside handle
4. Ring
5. Door lock key cylinder
6. Door latch assembly



**INSPECTION**

**DOOR KEY CYLINDER UNLOCK SWITCH CHECK**

**<Up to 1993 models>**

The key cylinder unlock switch is normal if there is not continuity between terminals 1 and 2 when the key is turned approx. 20° clockwise or counterclockwise from the neutral position, and there is continuity when it is turned further.

**<From 1994 models>**

Insert the key and turn it to the LOCK or UNLOCK position to check for continuity as follows:

<Vehicles with central door locking system> or <Vehicles with central door locking system and theft-alarm system>

Switch position			Terminal No.		
			1	2	3
Door key cylinder unlock switch	L.H. side	LOCK		0 — 0	
		Neutral			
		UNLOCK	0 — 0		
	R.H. side	LOCK	0 — 0		
		Neutral			
		UNLOCK		0 — 0	

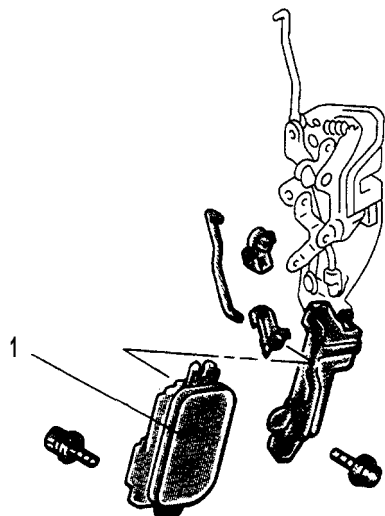
<Vehicles with theft-alarm system only>

Switch position		Terminal No.		
		1	2	3
Door key cylinder unlock switch (L.H. side and R.H. side)	LOCK		0 — 0	
	Neutral			
	UNLOCK		0 — 0	

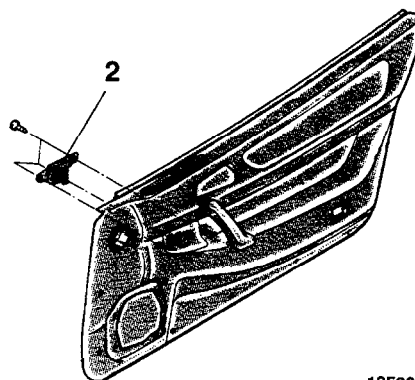


## CENTRAL DOOR LOCKING SYSTEM

## REMOVAL AND INSTALLATION



18F0196

18F0205  
00002328**Door lock actuator removal**

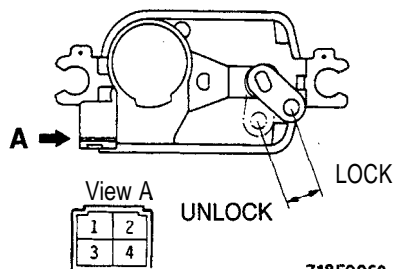
- Door trim and waterproof film (Refer to P.42-42.)
- Door latch assembly (Refer to P.42-47.)

1. Door lock actuator

**Door lock switch removal**

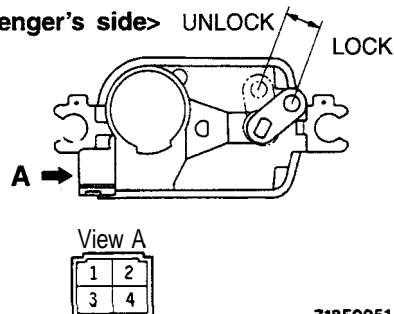
- Door trim (Refer to P.42-42.)
- 2. Door lock switch

&lt;Driver's side&gt;



Z18F0052

&lt;Passenger's side&gt;



Z18F0051

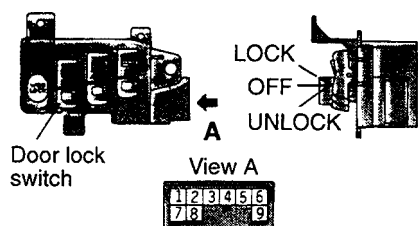
**INSPECTION****DOOR LOCK ACTUATOR**

- (1) Place the rod in the LOCK position, apply the battery power to the terminal [(3) for driver's side or (1) for passenger's side] and check to see that when the terminal [(1) for driver's side or (3) for passenger's side] is grounded, the rod moves to the UNLOCK position.
- (2) Then place the rod in the UNLOCK position, apply the battery power to the terminal [(1) for driver's side or (3) for passenger's side], and check to see that when the terminal [(3) for driver's side or (1) for passenger's side] is grounded, the rod moves to the LOCK position.
- (3) Check to ensure that when the rod is placed in the UNLOCK position, there is a continuity between the terminals (2) and (4), and that when the rod is placed in the LOCK position, there is no continuity.

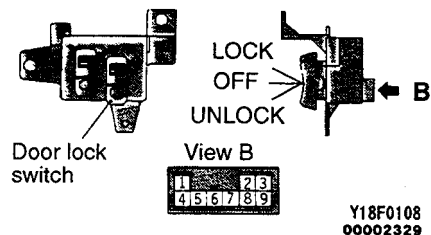
TSB Revision

## &lt;Vehicles with power window&gt;

Power window main switch side



Power window sub switch side



## DOOR LOCK SWITCH CHECK

Check for continuity in accordance to the following connection table.

## &lt;Vehicles with power window&gt;

Power window main switch side

Switch position	Terminal No.		
	7	6	5
LOCK	○	○	
OFF			
UNLOCK		○	○

Power window sub switch side

Switch position	Terminal No.		
	4	6	1
LOCK	○	○	
OFF			
UNLOCK		○	○

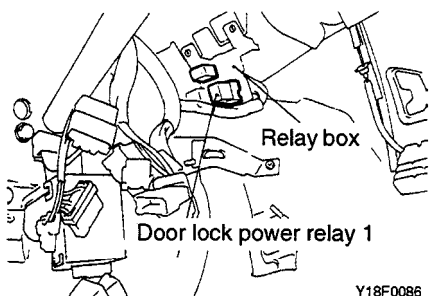
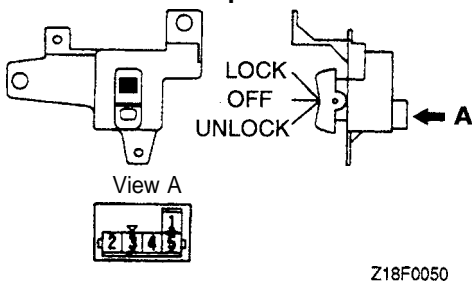
## &lt;Vehicles without power window&gt;

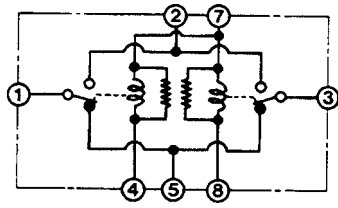
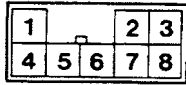
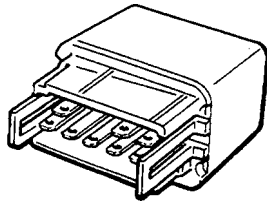
Switch position	Terminal No.		
	3	2	5
LOCK	○	○	
OFF			
UNLOCK		○	○

## DOOR LOCK POWER RELAY CHECK

- (1) Remove the knee protector assembly.  
(Refer to GROUP 52A – Instrument Panel.)
- (2) Remove the door lock power relay 1 from indoor relay box.
- (3) Remove the door lock power relay 2. (Refer to P.42-52.)

## &lt;Vehicles without power window&gt;

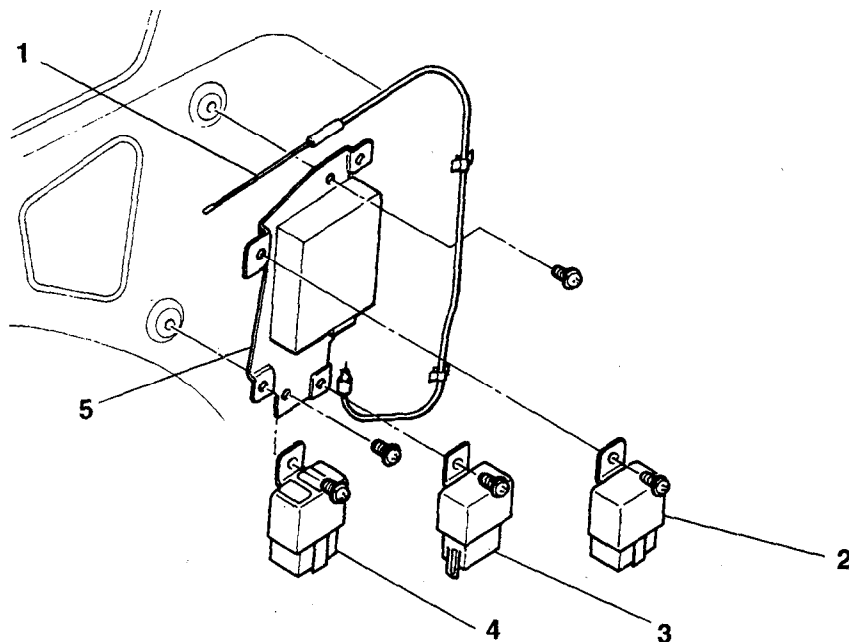




Z18A0061

(4) Check for continuity between terminals under the conditions described below.

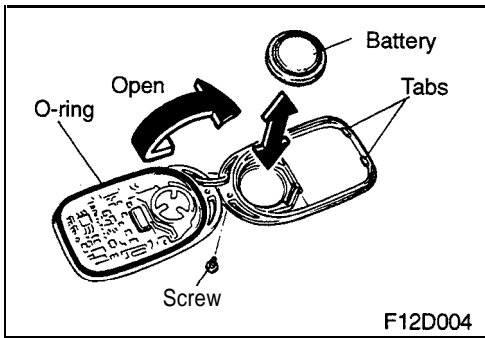
Battery voltage	Terminal No.						
	1	2	3	4	5	7	8
Continuity no voltage	○	—	○		○		
				○	—	○	○
Continuity with voltage	○	○		⊖	---	⊕	
		○	○			⊕	⊖

**KEYLESS ENTRY SYSTEM <From 1993 model>****REMOVAL AND INSTALLATION**

z18F0317

**Removal steps**

- Quarter trim (L.H.) (Refer to GROUP 52A – Trims.)
1. Antenna
  2. Light automatic shut-off unit
  3. Rear intermittent wiper relay
  4. Door lock power relay 2
  5. Receiver assembly

**INSPECTION****BATTERY REPLACEMENT**

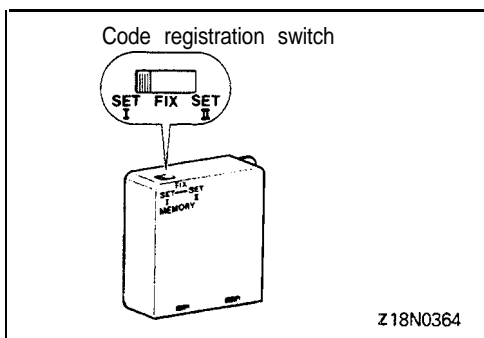
- (1) Remove the mounting screw and take the battery out of the transmitter.
- (2) Install a new battery with its positive side down.

**Replacement battery: Coin type battery CR2032**

- (3) Insert the tabs first. Then, being careful not to shift the O-ring, assemble the transmitter.
- (4) Make sure that the keyless entry system operates properly.

**NOTE**

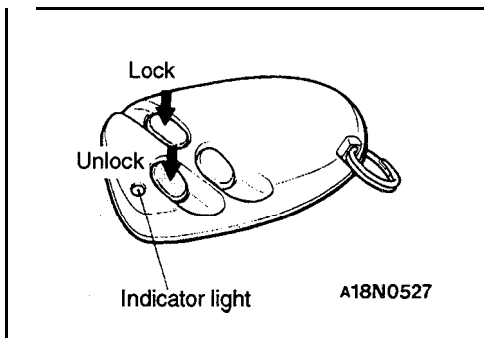
- (1) When the transmitter is opened, be careful not to allow water, dust, etc. to stick to the inside of the transmitter. In addition, do not touch the precision electronic device.
- (2) If the O-ring is shifted while assembling the transmitter, water, dust, etc. may enter the transmitter, resulting in transmitter troubles.

**SECRET CODE REGISTERING METHOD****<Up to 1995 models>**

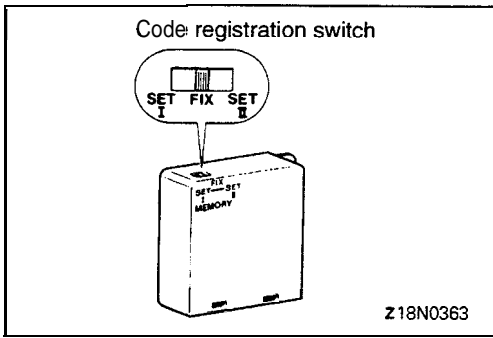
The transmitter has each individual secret code stored in memory. When, therefore, the transmitter or receiver is replaced or the trouble is presumed to be caused by the faulty registration of the secret code, it is necessary to register the secret code on EEPROM inside the receiver.

Since two different secret code at the most can be placed in the storage space of EEPROM, the old code will no longer be usable if the undermentioned registration operation is repeated twice. Meanwhile, before registering the code, it should be confirmed that an ordinary door lock function can be performed by key operation.

- (1) Place the code registration switch to the SET I position (registration mode).



- (2) Press the LOCK or UNLOCK switch of the transmitter.



- (3) Set the code registration switch of the receiver to the FIX position (operation mode).
- (4) Confirm that the keyless entry system operates normally. The registration is completed if the system operates normally. If not, repeat the steps (1) through (3).

**NOTE**

- (1) In case there are two transmitters, register the code on the SET II side in the same manner as the SET I side. In addition, even if there is only one transmitter, register the code on SET I and SET II to prevent malfunction.
- (2) Make sure that after a code has been registered, the registration switch is set to the FIX position positively.

**<From 1996 models>**

Since the transmitter is memorized by each individual code, it is necessary to register a code on EEPROM in the receiver if the transmitter or receiver is replaced, or cause of the trouble is presumed to be due to faulty registration of the code. Since two different codes at the most can be memorized in the memory space of EEPROM, the old code will become unable to be used if the following registration operation is repeated twice. Meanwhile, register a code after confirming that an ordinary door lock function can be worked through key operation.

- (1) Connect the scan tool to the data link connector.

**NOTE**

This grounds the data link connector No. 1 and gets ready for a code registration.

**Caution**

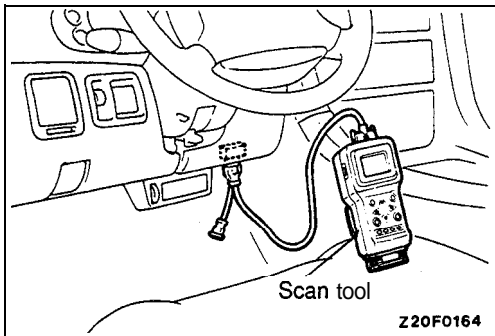
**Turn the ignition switch to OFF before connecting or disconnecting the scan tool.**

- (2) Close all doors.
- (3) Turn the ignition switch to ACC and return it to OFF.

**NOTE**

This locks and unlocks the door once, and then a code can be registered.

- (4) After pressing any switch on the transmitter once, press it two more times within 10 seconds to register the same code for SET I and SET II.
- (5) After registration is completed, the door will be locked and unlocked once.



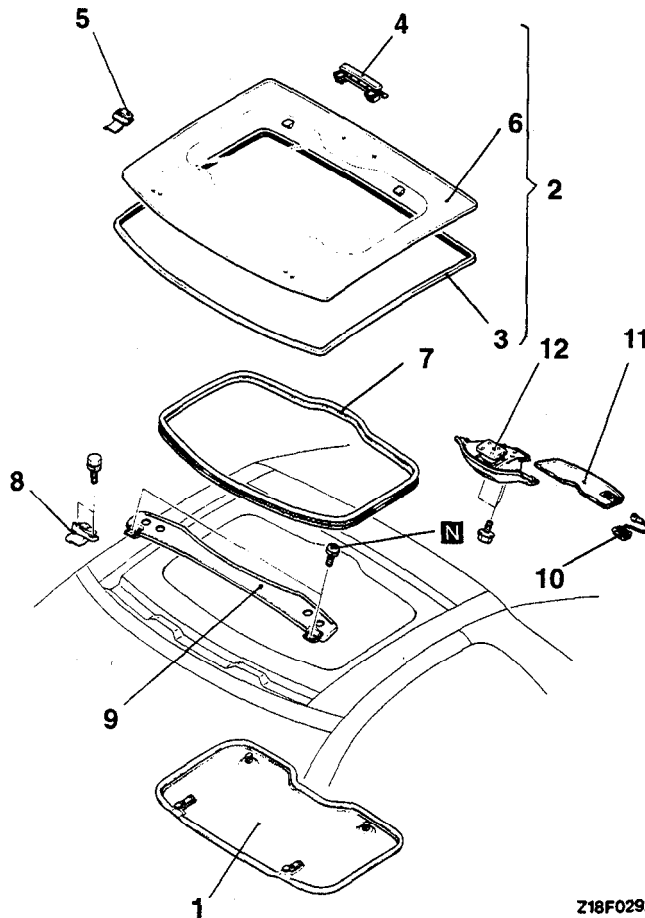
## NOTE

If there are two transmitters, one registration procedure is the same as the other one. In addition, the second registration shall be done within a minute after the first one was completed.

- (6) After the second registration is completed, the door will be locked and unlocked once.
- (7) Registration mode finishes under the following conditions.
  - Registration of two transmitter codes are completed.
  - One minute has passed since the registration mode setting.
  - Scan tool is disconnected. (ground released.)
  - Ignition switch is turned ON.
  - Any of the doors are opened.

**SUNROOF <Removable type>****REMOVAL AND INSTALLATION****Post-installation Operation**

- Sunroof Leakage Inspection (Refer to p.42-17.)



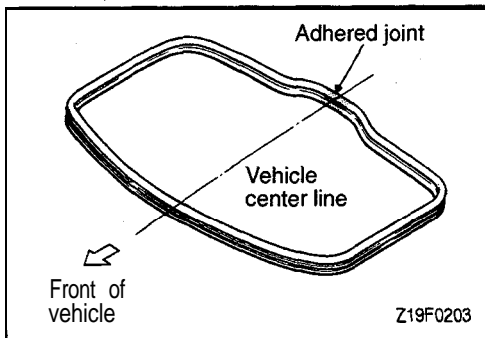
Z18F0292

**Roof lid glass removal steps**

1. Sunroof trim assembly
2. Roof lid glass assembly
3. Weatherstrip
4. Slide lock latch assembly
5. Roof lid male hinge
6. Roof lid glass
7. Roof inner weatherstrip
8. Roof lid female hinge
9. Deflector

**Roof lid regulator assembly removal steps**

1. Sunroof trim assembly
2. Roof lid glass assembly
10. Interior temperature sensor
11. Regulator cover
12. Roof lid regulator assembly



Z19F0203

**INSTALLATION SERVICE POINT****▶A◀ ROOF INNER WEATHERSTRIP INSTALLATION**

Install the roof weatherstrip with its adhered joint located on the center line of the vehicle (toward the rear of the vehicle).

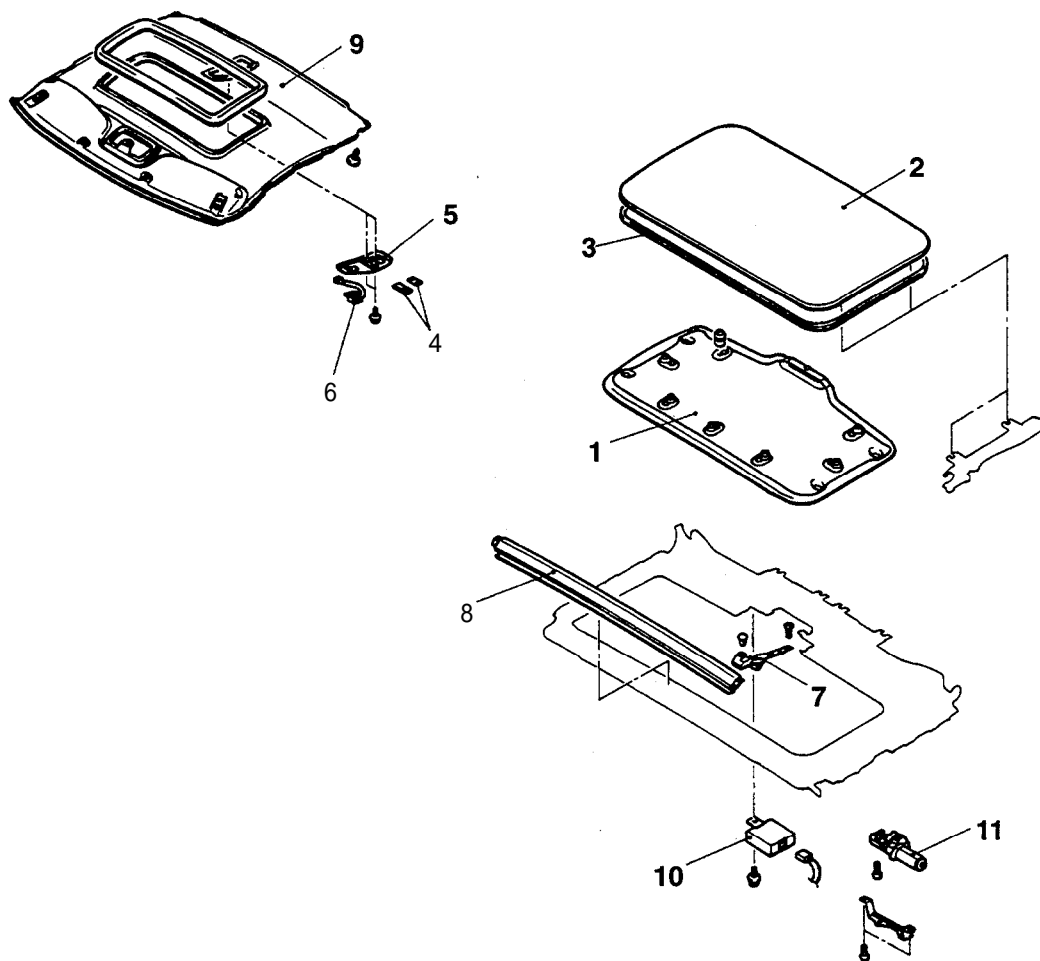


# SUNROOF <Electrically operated sliding type>

## REMOVAL AND INSTALLATION

### Post-installation Operation

- Sunroof Leakage Inspection (Refer to p.42-17.)
- Sunroof Fit Adjustment (Refer to p.42-17.)



A18F0389

### Roof lid removal steps

1. Roof lid trim
2. Roof lid
3. Roof lid weatherstrip

### Sunroof switch removal steps

4. Cover
5. Sunroof switch panel assembly
6. Sunroof switch

### Deflector assembly removal steps

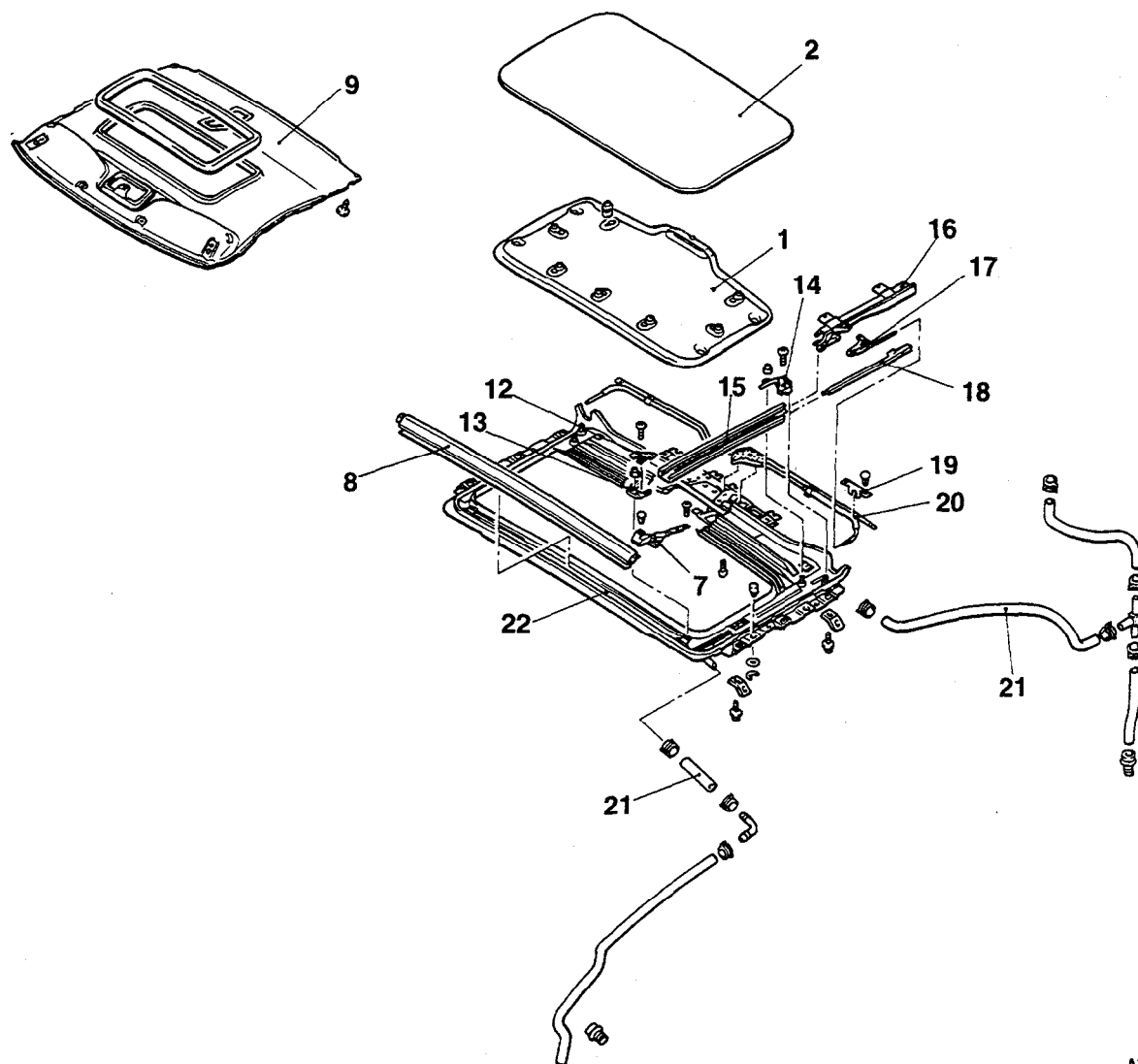
- Roof lid fully opened
- 7. Link assembly
- 8. Deflector assembly

### Slide & tilt ECU removal steps

9. Headlining
10. Slide & tilt ECU

### Sunroof motor removal steps

9. Headlining
- ▶B◀ 11. Sunroof motor



A18F0390

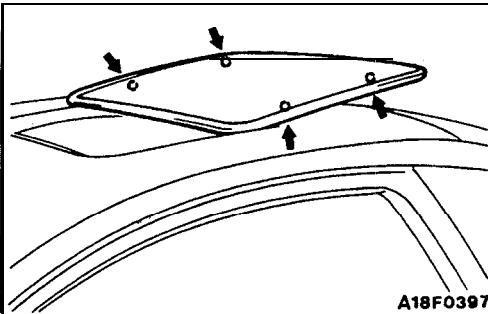
### Lifter-slider assembly/drive unit assembly removal steps

12. Front corner panel
13. Front holder
14. Rear holder
15. Slide rail
16. Lifter assembly
17. Slider assembly
18. Rear timing
19. Tube cover
20. Drive unit assembly

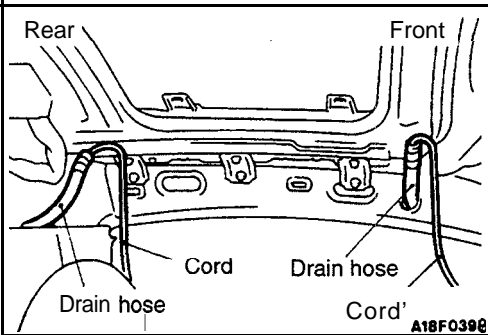


### Frame assembly removal steps

1. Roof lid trim
2. Roof lid
7. Link assembly
8. Deflector assembly
9. Headlining
21. Drain hose
22. Frame assembly

**REMOVAL SERVICE POINTS****◀A▶ ROOF LID TRIM/ROOF LID REMOVAL**

- (1) Fully slide-open the sunroof and bring it in the tilted position.
- (2) Remove the roof lid trim.
- (3) Remove the roof lid mounting nuts, then lift off the roof lid.

**◀B▶ DRAIN HOSE REMOVAL**

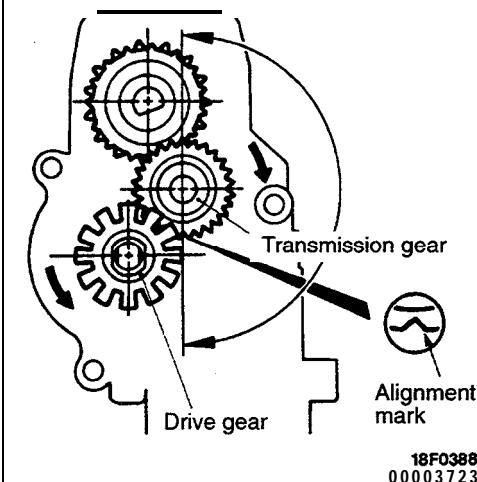
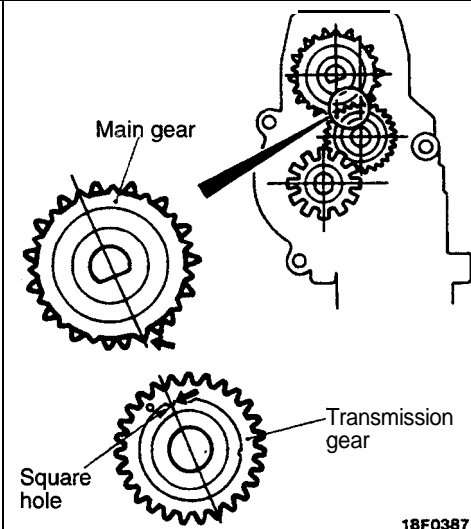
Tie a cord to the end of the drain hose, and wind tape around the tie until it is smooth. Then pull the drain hose out from the passenger compartment.

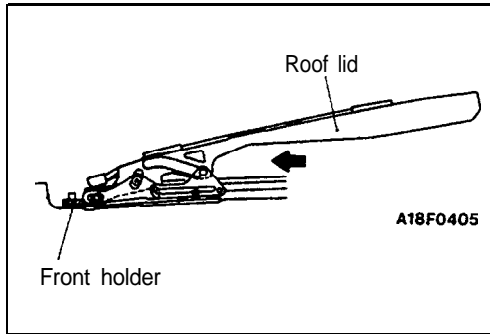
**INSTALLATION SERVICE POINTS****▶A◀ DRAIN HOSE INSTALLATION**

- (1) Tie the cord which has been used for removal again to the end of the drain hose, and wind tape around the tie until it is smooth.
- (2) Pull at the cord to install the drain hose.

**▶B◀ SUNROOF MOTOR INSTALLATION**

- (1) Remove the cover.
- (2) Align the main gear tooth with the square hole in the transmission gear as shown in the illustration.
- (3) While keeping the gear position attained in Step (2), turn the drive gear in the direction given by the arrow to rotate the transmission gear 180°. Then, check to ensure that the alignment mark on the transmission gear is on the vertical line.



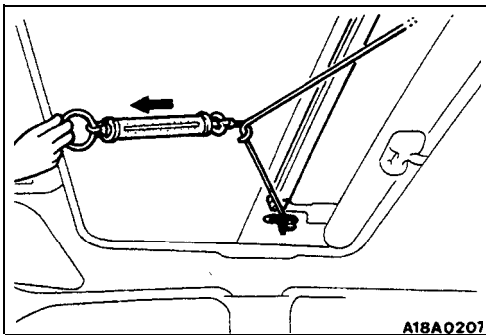


- (4) Press the roof lid against the front holder while keeping it in the tilted-up position.
- (5) Install the sunroof motor.

## INSPECTION

### SLIDING RESISTANCE OF ROOF LID CHECK

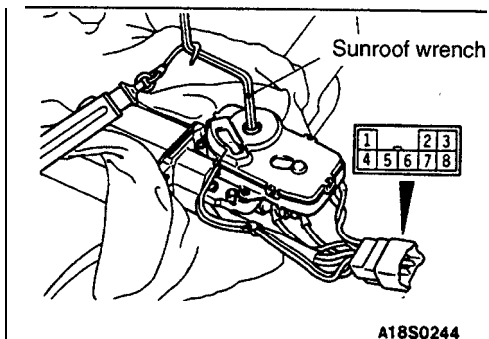
- (1) Remove the roof lid trim.
- (2) Loosen the roof lid front mounting nuts and tie a rope to them.
- (3) Fully close the roof lid and then remove the sunroof motor.



- (4) Use a spring balance to measure the sliding resistance of the roof lid.

**Standard value: 147 N (33 lbs.) or less**

- (5) If the sliding resistance of the roof lid is higher than the standard value, check the following.  
 Lifter-slider assembly installation, warping or jamming by foreign materials  
 Drive cable connection  
 Tilt of roof lid



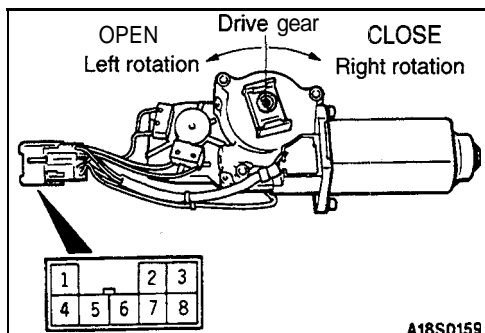
### SLIDING FORCE OF SUNROOF MOTOR'S CLUTCH CHECK

1. Insert the sunroof wrench of the on-board tools into the hexagonal hole in the motor drive shaft, and hook a spring balance as shown in the illustration.
2. Apply battery voltage between terminals (1) and (2) of the sunroof motor connector to operate the motor.
3. Measure the load on the spring balance at the point where the rotation torque of the motor matches the spring force of the spring balance.

**Standard value: 39-49 N (8.7-11 lbs.)**

#### Caution

1. The spring balance should be kept a right angle to the sunroof wrench.
2. If a wrench other than that in the on-board tools is used, the value for the clutch sliding force will be different, so only the on-board tool should be used.
4. If the clutch sliding force is outside the standard value, replace the sunroof motor.

**SUNROOF MOTOR CHECK**

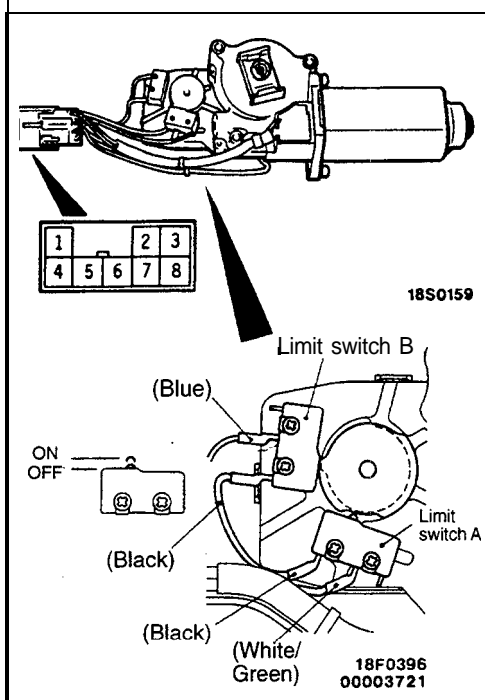
Battery connection terminal		Drive gear rotation direction
1	2	
0	⊕	Right
⊕	—	Left

**LIMIT SWITCH CONTINUITY CHECK**

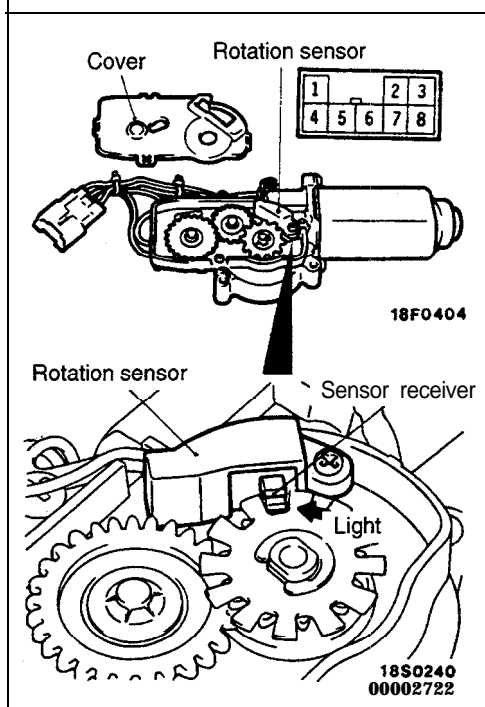
1. Remove the limit switches from the sunroof motor, and then check the operation of the limit switches.

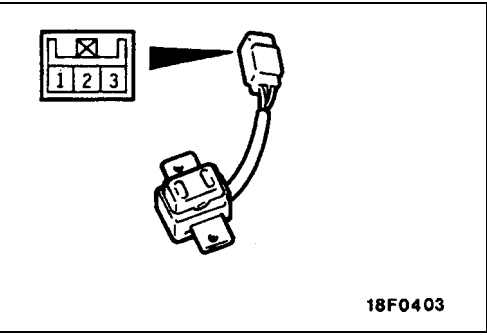
Switch position		Terminal No.		
		5	6	8
Limit switch A	ON	0 — 0		
	OFF			
Limit switch B	ON	0 —		0
	OFF			

2. Check the identification colors. Then install the limit switches as shown in the illustration.

**ROTATION SENSOR CHECK**

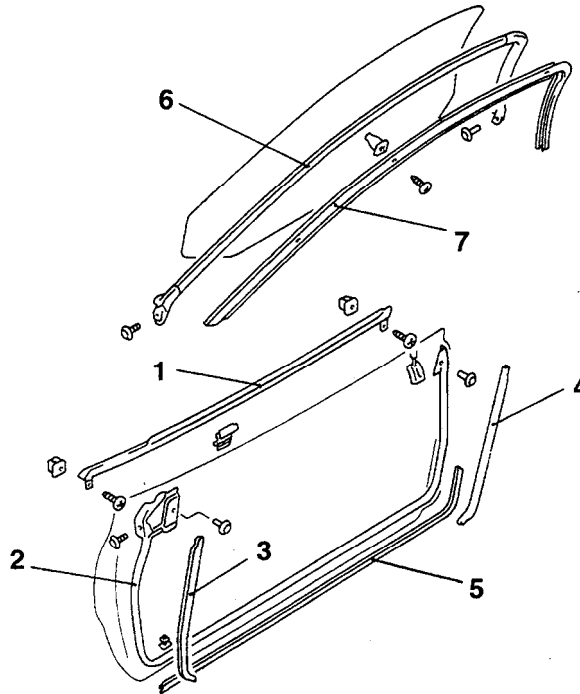
1. When connecting an ohmmeter negative probe to terminal (3) and the positive probe to terminal (8), there should be continuity. When the probes are reversed, there should be no continuity.
2. Remove the cover, and then check that there is no continuity when connecting the negative probe to terminal (7) and the positive probe to terminal (8). Also check that there is continuity when the probes are connected to the same terminals and light is shined onto the sensor receiver.





SUNROOF SWITCH CONTINUITY CHECK

Switch position	Terminal No.		
	1	2	3
Open			
OFF			
Close			

**DRIP LINE WEATHERSTRIP****REMOVAL AND INSTALLATION**

Z18F0219

**Removal steps**

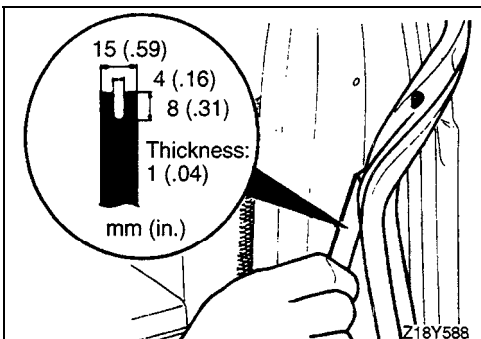
- Delta cover inner (Refer to P.42-43, 44.)
- Delta cover outer (Refer to P.42-43, 44.)
- Door trim (Refer to P.42-42.)

- 3. Door inner opening weatherstrip front
- 4. Door inner opening weatherstrip rear
- 5. Door opening weatherstrip lower

**Drip line weatherstrip removal steps**

- 6. Drip line weatherstrip
- 7. Door weatherstrip holder

- ◀A▶▶A◀ 1. Door belt line outer weatherstrip  
2. Door outer opening weatherstrip

**REMOVAL SERVICE POINT****(A, DOOR OUTER OPENING WEATHERSTRIP REMOVAL**

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

**INSTALLATION SERVICE POINT****▶A◀ DOOR OUTER OPENING WEATHERSTRIP INSTALLATION**

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

Identification color	Applicable side
White	Left door
Orange	Right door

