# BODY

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**BODY - Hood** 

42100070010

### HOOD

### TROUBLESHOOTING

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

### HOOD

**REMOVAL AND INSTALLATION** 

3

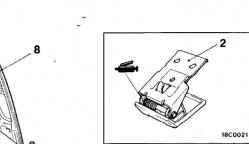
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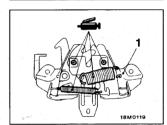
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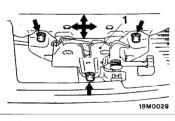




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9

2 A



Adjustment of hood step and hood striker linkage

- 9 18R0106 18M0030
- Adjustment of clearance and height around hood

- 1. Hood latch
- 2. Hood lock release handle
- 3. Hood weatherstrip
- 4. Bumper
- 5. Hood support rod

### Hood lock release cable removal steps

 Splash shield <L.H.> (Refer to P.42-8.) 6

### Hood and hood hinge removal steps

- 7. Washer hose connection
- 8. Hood
- 9. Hood hinge

### TRUNK LID

### SPECIAL TOOL

Tool	Tool number and name	Supersession	Application
	MB991244 Torsion bar remover	MB991244-01	Removal and installation of trunk lid torsion bar
	and installer		
B991244	3		

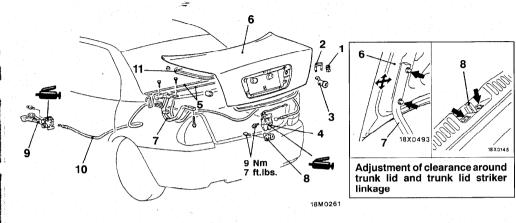
### TROUBLESHOOTING

42100070027

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

### TRUNK LID

### **REMOVAL AND INSTALLATION**



00004813

#### Trunk lid panel removal steps

- License plate light
- License plate garnish (Refer to GROUP 51.)
- C 1. Bumper
  - 2. Cylinder lock retainer
  - 3. Trunk lid lock cylinder
  - 4. Trunk lid latch
  - 5. Trunk lid torsion bars
    - 6. Trunk lid panel

#### Trunk lid latch removal

4. Trunk lid latch

#### Trunk lid hinge removal steps

- Rear shelf trim (Refer to GROUP 52A.)
- 6. Trunk lid panel assembly
- 7. Trunk lid hinge

#### Trunk lid striker removal steps

 Rear end trim cover (Refer to GROUP 52A.)
 Trunk lid striker

#### .

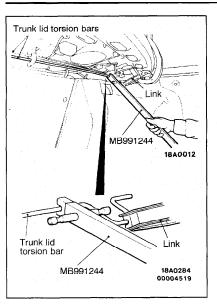
Trunk lid release handle and cable removal steps

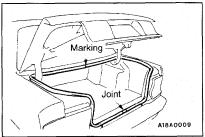
- Front seat (L.H.) (Refer to GROUP 52A.)
- Rear seat (Refer to GROUP 52A.)
- Scuff plate (L.H.), quarter trim (L.H.) <2-door models> (Refer to GROUP 52A.)
- Front scuff plate (L.H.), rear scuff plate (L.H.), center pillar trim lower (L.H.) <4-door models>
  - (Refer to GROUP 52A.)
- Trunk side trim (L.H.) (Refer to GROUP 52A.)
- 4. Trunk lid latch
- 9. Trunk lid release handle
- 10. Trunk lid release cable

►A 11. Trunk lid weatherstrip removal

### Trunk lid weatherstrip removal

42-5





### REMOVAL SERVICE POINT

### **∢**A► TRUNK LID TORSION BAR REMOVAL

- 1. Disconnect the body harness and the harness connector of the rear shelf lower panel.
- Install the special tool as shown in the figure, and then remove the torsion bar from the link while pushing the special tool downwards. Next, repeat the procedure from the other side.

### Caution

Be sure to attach the special tool properly, as the body or parts could be damaged when the torsion bar is removed from the special tool.

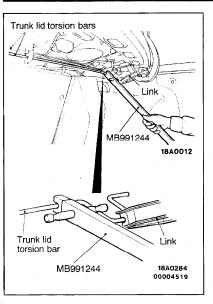
### INSTALLATION SERVICE POINTS

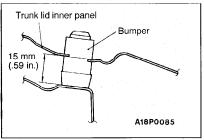
Install the trunk lid weatherstrip so that the marking and the joint are aligned with the body center line.

### ▶B◀TRUNK LID TORSION BAR INSTALLATION

 Check the color of the identification mark at the middle of the torsion bars to make sure that the correct torsion bars are being used.

Torsion bar	Identification color	Identification color		
	Vehicles without rear spoiler	Vehicles with rear spoiler		
L.H.	-	Green		
R.H.	Red	Yellow		





- Insert the end of the torsion bar through the link side 2. mating hole.
- Using the special tool attached to the tortion bar as 3. illustrated, twist the bar to connect it to the link. Then hang the bar on the holder.

### Caution

Be sure to attach the special tool properly, as the body or parts could be damaged when the torsion bar is removed from the special tool.

### ►C<BUMPER INSTALLATION

Install the bumper as shown in the figure.

### INSPECTION

42100400031

# ONOFF 1 A18P0082

### TRUNK LID LATCH SWITCH CONTINUITY CHECK

Switch position	Terminal No.1	Body ground
ON (Latch open)	0	O
OFF (Latch shut)		

### 42-8

### **BODY** - Fender

### **FENDER**

SEALANT

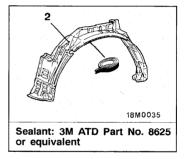
Item	Specified sealant	Remark
Splash shield	3M ATD Part No. 8625 or equivalent	Ribbon sealer

### **FENDER**

### **REMOVAL AND INSTALLATION**

- Pre-removal and Post-installation Operation
- (1) Front Bumper Removal and Installation
- (Refer to GROUP 51.)
- (2) Front Turn-signal Lamp Removal and Installation (Refer to GROUP 54.)

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18M0034

**Removal steps** 

1. Stone guard

2 Splash shield

00004814

3. Ornament 1 Fondor

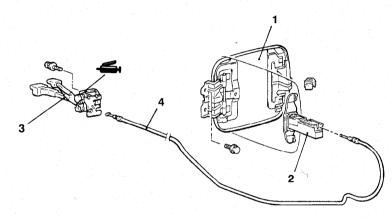
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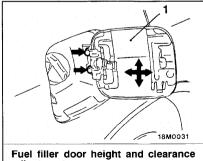
### FUEL FILLER DOOR

### REMOVAL AND INSTALLATION

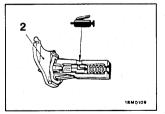
### Pre-removal and Post-installation Operation

- (1) Front Seat (L.H.) Removal and Installation (Refer to GROUP 52A.)
- (2) Rear Seat Removal and Installation (Refer to GROUP 52A.)
- (3) Scuff Plate (L.H.) and Quarter Trim Removal and Installation <2-door models> (Refer to GROUP 52A.)
- (4) Front Scuff Plate (L.H.), Refer Scuff Plate (L.H.) and Center Pillar Trim Lower (L.H.) Removal and Installation <4-door models> (Refer to GROUP 52A.) (5) Trunk Side Trim (R.H.) Removal and Installation
- (Refer to GROUP 52A.) .





adjustment



18M0260 00005017

### **Removal steps**

- 1. Fuel filler door panel assembly
- 2. Fuel filler door hook assembly
- 3. Lid lock release handle
- 4. Fuel filler door lock release cable

42-9

### 42-10

### WINDOW GLASS

### ADHESIVES

Items		Specified adhesives
Windshield		3M ATD Part No. 8609 Super Fast Urethane and 3M ATD
Quarter window glass		Part No. 8608 Super Fast Urethane Primer or equivalen
Rear window glass	1	

### SPECIAL TOOLS

42200060072

Tool	Tool number and name	Supersession	Application
B990449	MB990449 Window molding remover	General service tool	Removal of the window molding
B990480	MB990480 Glass holder	General service tool	Removal and installation of window glass

### TROUBLESHOOTING

42200070044

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

### WINDOW GLASS

### GENERAL

The windshield and window glass are attached by an urethane-base adhesive to the window frame. This adhesive not only provides improved glass holding and sealing, but also permits use of body openings having a greater structural strength.

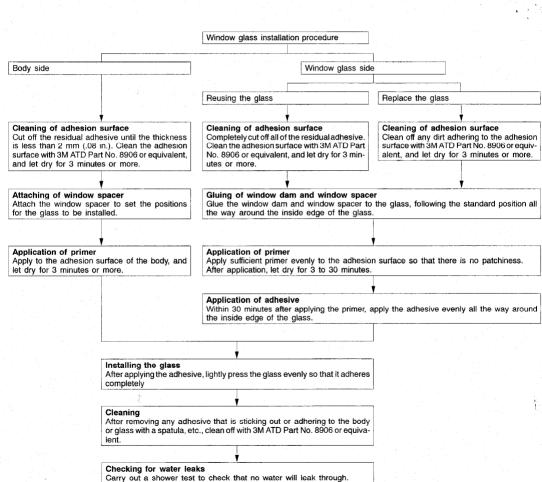
### ADHESIVE

Adhesive Kit	Quantity
3M ATD Part No. 8609 SUPER FAST URETHANE	One cartridge
3M ATD Part No. 8608 SUPER FAST URETHANE PRIMER	As required

### **RESERVE ITEMS**

Reserve Items	Applications	Quantity
Wire (dia. length)	For cutting adhesive	Five pieces of wire 0.6 mm $\times$ 1 m (.02 in. $\times$ 3.3 ft.)
Adhesive gun	For adhesive application	One
Wiping rags	-	As required
Sealer	For prevention of water leaks and gathering after adhesive application	As required
3M ATD Part No. 8906 or equivalent	For cleaning	As required
Glass holder	- All Agent to the second	Two
Spacers (Service Part)	- second provide a second	As required
Window molding (Service Part)	-	One
Dam (Service Part)	-	As required
Tectyl 506T (Valvoline Oil Company)	-	As required

### WORKING PROCESS



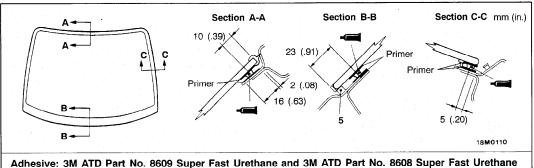
### WINDSHIELD

### **REMOVAL AND INSTALLATION**

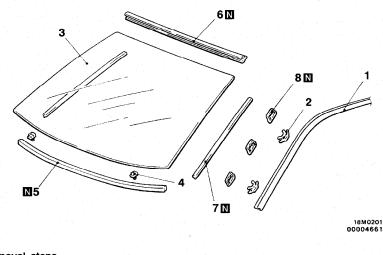
### Pre-removal and Post-installation Operation

- (1) Front Pillar Trim Removal and Installation
  - (Refer to GROUP 52A.)

(2) Headlining Removal and Installation (Refer to GROUP 52A.)



Primer or equipment



### **Removal steps**

- 1. Roof drip molding
- 2. Windshield clip
- Front deck garnish (Refer to GROUP 51 - Windshield Wiper and Washer.)
- ► A 3. Windshield

- 4. Windshield spacerA ≤ 5. Window spacer
- A 6. Windshield upper molding
  - 7. Window dam
  - 8. Clip

►A◀

**Þ**Ađ

42-14



### REMOVAL SERVICE POINTS

Use the special tool to lever out the molding.

Caution

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

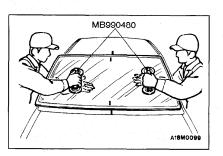
### **∢B**► WINDSHIELD REMOVAL

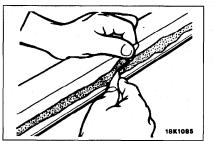
- 1. In order to protect the body (paint surface), apply cloth tape to all body areas around the installed windshield.
- 2. Using a sharp-point drill, make a hole in the windshield adhesive.
- 3. Pass the piano wire from the inside of the vehicle through the hole.
- 4. Pull the piano wire alternately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

### Caution

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

5. Make mating marks on the windshield and body.





6. Use the special tool to remove the windshield.

7. Use a knife to cut away the remaining adhesive so that the thickness is within 2 mm (.08 in.) around the entire circumference of the body flange.

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- 22-

- 8. Finish the flange surfaces so that they are smooth. Caution
  - (1) Be careful not to remove more adhesive than is necessary.
  - (2) Be careful also not to damage the paintwork on the body surface with the knife. If the paintwork is damaged, repair the damaged area with repair paint or anti-rust agent.
- 9. When reusing the glass, remove the adhesive still adhering to the glass, and clean with 3M ATD Part No. 8906 or equivalent.
- 10. Clean the body side in the same way.

Caution

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

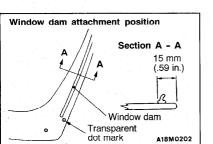
### INSTALLATION SERVICE POINTS

### ►A CLIP/WINDOW DAM/WINDOW SPACER/ WINDSHIELD UPPER MOLDING/WINDSHIELD INSTALLATION

- 1. When replacing the glass, temporarily set the glass against the body, and place a mating mark on the glass and body.
- 2. Use 3M ATD Part No. 8906 or equivalent to degrease the inside and outside of the windshield and the body flanges.
- 3. Soak a sponge in the primer, and apply evenly to the glass and the body in the specified places.
- 4. Apply the primer, and then let it dry for 3 to 30 minutes. Caution

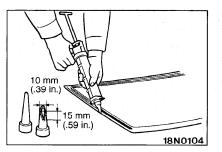
### The primer strengthens the adhesive, so be sure to apply it evenly around the entire circumference. However, a too thick application will weaken the adhesive.

(2) Do not touch the coated surface.



- Attach the window dam in the specified positions so that there are no bends or lifts on the inside of the windshield.
- 6. Attach the window spacers so that the clearance at both left and right will be the same during installation.
- 7. Install the windshield upper molding.

### **BODY - Window Glass**

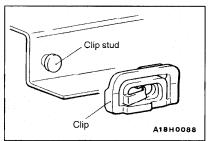


8. Fill a sealant gun with adhesive. Then apply the adhesive evenly around the windshield within 30 minutes after applying the primer.

NOTE

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

9. Place the clips onto the clip studs.



- 10. Align the mating marks on the glass and the body, and lightly press the windshield evenly so that it adheres completely.
- 11. Use a spatula or the like to remove any excessive adhesive. Clean the surface with 3M ATD Part No. 8906 or equivalent. Install the roof drip molding before the adhesive hardens.Try not to move the vehicle until the adhesive sets.
- 12. Wait 30 minutes or more, and then test for water leakage.

### Caution

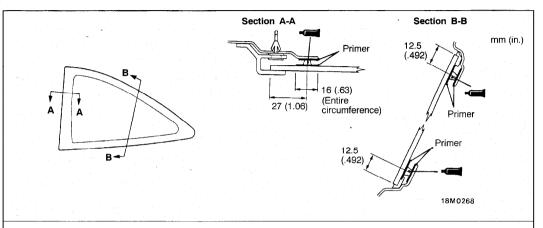
- (1) Do not move the vehicle unless absolutely necessary.
- (2) When testing for water leakage, do not pinch the end of the hose to spray the water.

### QUARTER WINDOW GLASS <2-door models>

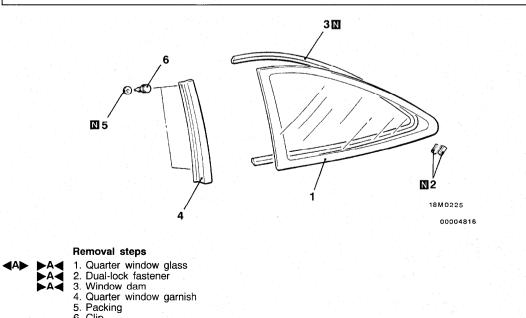
### **REMOVAL AND INSTALLATION**

### Pre-removal and Post-installation Operation

(1) Quarter Trim, Center Pillar Trim and Rear Pillar Trim Removal and Installation (Refer to GROUP 52A.) (2) Headlining Removal and Installation (Refer to GROUP 52A.)

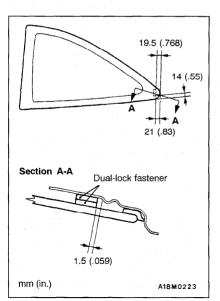


Adhesive: 3M ATD Part No. 8609 Super Fast Urethane and 3M ATD Part No. 8608 Super Fast Urethane Primer or equipment



### REMOVAL SERVICE POINT

Remove the quarter window glass by the same procedure as for the windshield. (Refer to P.42-14.)



### INSTALLATION SERVICE POINTS

### ►A WINDOW DAM/DUAL-LOCK FASTENER/QUARTER WINDOW GLASS INSTALLATION

- 1. Use 3M ATD Part No. 8906 or equivalent to degrease the window dam and dual lock fastener mounting surfaces on both the glass and the body.
- 2. Attach the window dam.
- 3. Install the dual lock fastener to the shown position.
- 4. Apply primer and adhesive. (Refer to P.42-17.)
- 5. Install the glass in the same way as for the windshield. (Refer to P.42-15.)

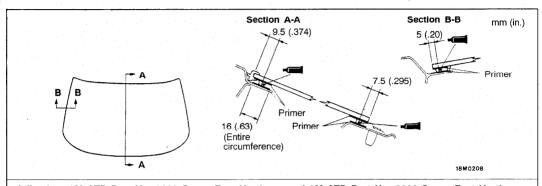


### **REAR WINDOW GLASS**

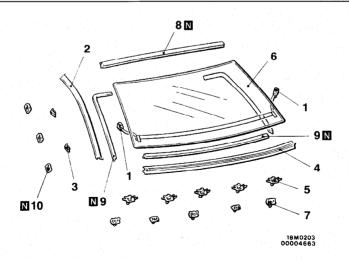
### **REMOVAL AND INSTALLATION**

### Pre-removal and Post-installation Operation

- (1) High Mounted Stop Light Removal and Installation (Refer to GROUP 54.)
- (2) Rear Pillar Trim Removal and Installation (Refer to GROUP 52A.)
- (3) Headlining Removal and Installation (Refer to GROUP 52A.)



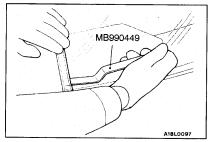
Adhesive: 3M ATD Part No. 8609 Super Fast Urethane and 3M ATD Part No. 8608 Super Fast Urethane Primer or equipment



#### **Removal steps**

- 1. Harness connector
- Roof drip molding
- 3. Windshield clip

- 4. Rear window lower molding
- 5. Rear window molding clip
- ◆B ► ► A ≤ 6. Rear window glass 7. Clip 8. Rear window upper molding ► A ≤ 9. Window dam ► A ≤ 10. Clip



### **REMOVAL SERVICE POINTS**

### A ROOF DRIP MOLDING/ REAR WINDOW LOWER MOLDING REMOVAL

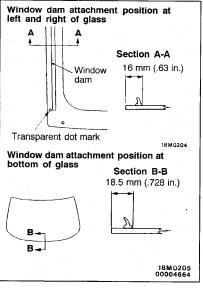
Use the special tool to lever out the molding.

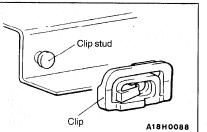
### Caution

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

### **∢**B**▶** REAR WINDOW GLASS REMOVAL

Remove the rear window glass by the same procedure as for the windshield. (Refer to P.42-14.)





### INSTALLATION SERVICE POINT

### ►A<CLIP/WINDOW DAM/REAR WINDOW GLASS INSTALLATION

- 1. Use 3M ATD Part No. 8906 or equivalent to degrease the inside and outside edges of the rear window glass and the surface of the body flange.
- Attach the window dam in the specified positions so that there are no bends or lifts on the inside of the rear window glass.

### NOTE

Attach the dam at the bottom of the glass so that the clearance at both left and right will be the same during installation.

- 3. Place the clips onto the clip studs.
- 4. Apply primer and adhesive. (Refer to P.42-19.)

5. Install the glass in the same way as for the windshield. (Refer to P.42-15.)

### DOOR

### **GENERAL INFORMATION**

### OPERATION

### Power windows

- When the power window (main or sub) switch is depressed (UP or DOWN) with the ignition switch in the ON position, current flows through fusible link No. 6 to the power window motor. This energizes the power window motor, causing the door window glass to open or close.
- When the power window lock switch is placed in the LOCK (OFF) position, no switch other than the main switch at the driver's side window can operate the power window motor.
- The power window motor has a circuit breaker that protects the motor from damage caused by excessive current.

### SERVICE SPECIFICATIONS

42300030076

Items	Standard value
Door outside handle play mm (in.)	3.6 (.142) or more
Door inside handle play mm (in.)	5.3 (.209) or more

### SEALANT

42300050034

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

### SPECIAL TOOLS

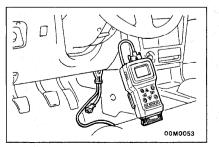
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Tool	Tool number and name	Supersession	Application
B991502	MB991502 Scan Tool (MUT-II)	MB991496-0D	ETACS-ECU input signal check- ing
В991529	MB991529 Diagnostic trouble code check harness	Tool not necessary if scan tool <mut-ii> is available</mut-ii>	ETACS-ECU input signal check- ing (when using a voltmeter)
B990784	MB990784 Ornament remover	General service tool	Removal of switch, trim, etc.
60003936	MB990900 or MB991164 Door adjusting wrench	MB990900-01	Adjustment of door fit

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### **BODY** - Door

Tool	Tool number and name	Supersession	Application
aman, a	MB991223	MB991223	Measurement of terminal voltage
	Harness set		A: Connector pin contact pres- sure inspection
A	A: MB991219 Test harness		B, C: Power circuit inspection
	B: MB991220 LED harness		D: Commercial tester connection
E The second sec	C: MB991221		
B	LED harness adapter		
	D: MB991222 Probe		
Sold and the second second			
° B			
D			
C991223			



### TROUBLESHOOTING

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### DIAGNOSTIC FUNCTION

### INPUT SIGNAL INSPECTION POINTS <VEHICLES WITH ETACS-ECU>

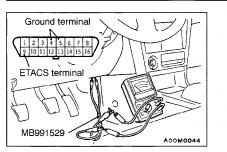
### When Using the Scan Tool

1. Connect the scan tool to the data link connector.

### Caution

### The scan tool should be connected or disconnected after turning the ignition switch to the OFF position.

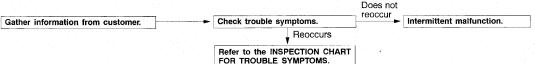
 If buzzer of the scan tool sounds once when the each switch is operated (ON/OFF), the ETACS-ECU input signal for that switch circuit system is normal



### When Using the Voltmeter

- Use the special tool to connect a voltmeter between the ground terminal and the ETACS terminal of the data link connector.
- 2. If the voltmeter indicator deflects once when the each switch is operated (ON/OFF), the ETACS-ECU input signal for that switch circuit system is normal.

### STANDARD FLOW OF DIAGNOSTIC TROUBLESHOOTING

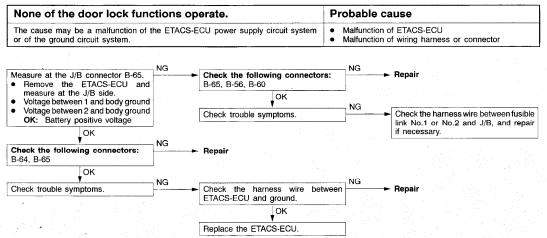


### INSPECTION CHART FOR TROUBLE SYMPTOMS

Inspection Reference Trouble symptom procedure page i None of the door lock functions operate. 1 42-23 The other door(s) does not lock or unlock by the door lock switch or the front 2 42-24 passenger's side door lock key cylinder. (However, they can be operated by the driver's inside door lock knob.) The other door(s) does not lock or unlock by the driver's inside door lock knob or з 42-25 driver's side door lock key cylinder. Some doors do not lock or unlock. 4 42-25

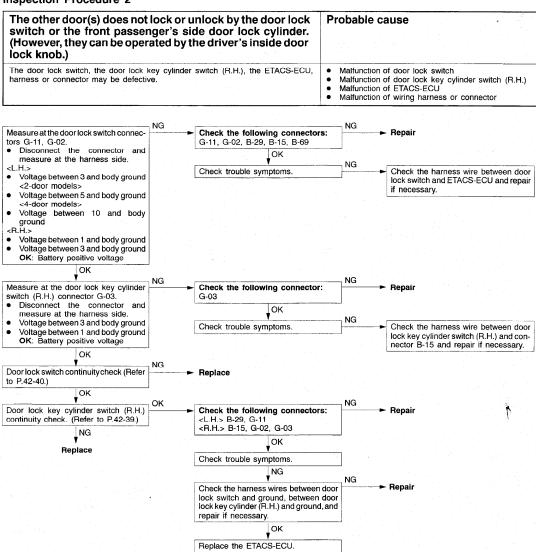
### INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

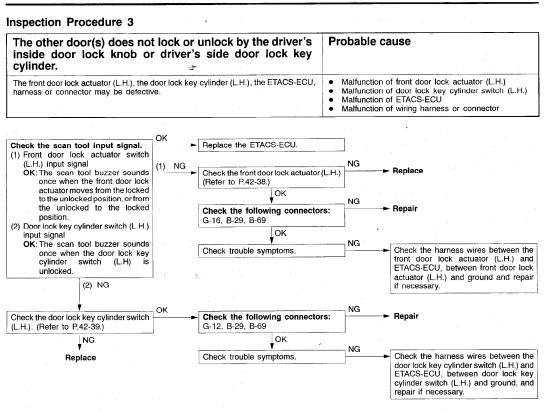
### Inspection Procedure 1



42700180018

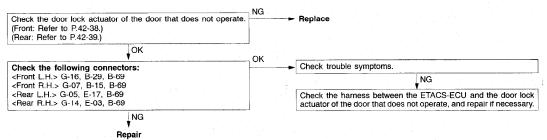
### **Inspection Procedure 2**





### **Inspection Procedure 4**

Some doors do not lock or unlock.	Probable cause
The cause may be a malfunction of the door lock actuator or of a wiring harness or connector.	<ul> <li>Malfunction of door lock actuator</li> <li>Malfunction of wiring harness or connector</li> </ul>



42300070108

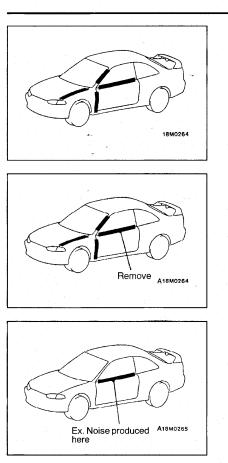
### TROUBLESHOOTING HINTS

### Power windows

- 1. All door windows cannot be operated or closed.
  - Check the fusible link No. 6.
  - Check the multi-purpose fuse No. 6.
  - Check the power window relay.
  - Check the power window main switch.
- 2. Some door window cannot be opened or closed.
  - 1) Neither power window main nor sub switch is activated.
    - Check power window main switch.
    - Check defective power window motor.
  - 2) Either power window main or sub switch is inoperative.
    - Check inoperative power window switch.

### GLASS AND DOORS

Symptom	Probable cause	Remedy	
Water leak through	Incorrect window glass installation	Adjust position	
door window glass	Gap at upper window glass	Adjust position	
Door window malfunction	Incorrect window glass installation	Adjust position	
manuncuon	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	
Center	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	
or close completely	Defective door check strap	Correct or replace	
	Door check strap and hinge require grease	Apply grease	
Uneven gap between body	Incorrect door installation	Adjust position	
Wind noise around	Weatherstrip not holding firmly	Adjust fit of door	
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

- Attach cloth tape to every place, such as panel seams, projections, molding seams, glass and body seams, etc. which might conceivably be the source of wind noise.
- (2) Then make a road test to check that the places not covered by tape are not sources of wind noise.
- (3) 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 repeat the procedure to check if there are any other noise source.
- (5) If no others are found, the last remaining tape is the only source.

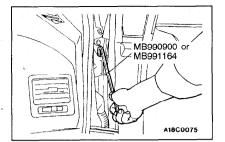
- (6) Cut the remaining piece of tape into smaller pieces, attach it again as it was before, and then remove the pieces one by one to narrow down the source.
- Cut tape into A18M0266 pieces
- (7) Check that wind noise occurs when the last remaining tape is removed, and that noise does not occur when 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.

Front

(A)

Adjusting

18M0006



### **ON-VEHICLE SERVICE**

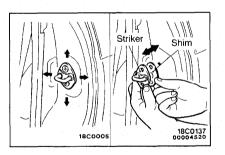
#### 42300090074

### DOOR FIT ADJUSTMENT

- If the clearance between the door and the vehicle body is uneven, affix protective tape to the fender around the hinge and to the edge of the door. Then use the special tool to loosen the door hinge mounting bolts on the body, and adjust the clearance around the door so that it becomes even.
- 2. If the door and the body are not flush with each other, use the special tool to loosen the door hinge mounting bolts. Then align the door.

### Caution

Do not apply more than 98 Nm (72 ft.lbs.) to the special tool (MB991164).



Rear

Adiustina

18M0007 00004521

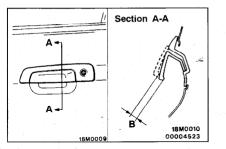
hole

3. If the door opening and closing is heavy, adjust the meshing of the striker and the door latch (in the longitudinal direction) by adding shims to the striker and by moving the striker up and down or to the left and right.

DOOR WINDOW GLASS ADJUSTMENT 42300100128

Check that the door glass moves securely along the door glass runchannel when the window glass is fully raised and fully lowered. If the glass does not move correctly, adjust by the following procedure.

- 1. Remove the door trim and the waterproof film. (Refer to P.42-32.)
- 2. Loosen the mounting screw through the adjusting hole with the door window glass fully closed, and lower the door window glass slightly.
- 3. Close the door window glass fully again, and tighten the door glass mounting screw securely through the adjusting hole.



### DOOR OUTSIDE HANDLE PLAY CHECK 42300160089

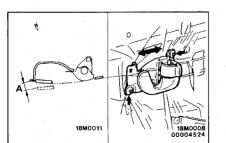
1. Check that the door outside handle play is within the standard value range.

Standard value (B): 3.6 mm (.142 in.) or more

 If the door outside handle play is not within the standard value range, check the door outside handle or the door latch assembly. Replace, if necessary.

### CIRCUIT BREAKER (INCORPORATED IN THE POWER WINDOW MOTOR) INSPECTION 42900170042

- 1. Press the power window switch to the UP position to fully close the window glass, and keep pressing the switch for a further 10 seconds.
- 2. Release the power window switch from the UP position and immediately press it to the DOWN position. The condition of the circuit breaker is good if the power window glass starts to move downward within 60 seconds.



### DOOR INSIDE HANDLE PLAY CHECK AND ADJUSTMENT 42300

42300150123

1. Check that the door inside handle play is within the standard value range.

### Standard value (A): 5.3 mm (.209 in.) or more

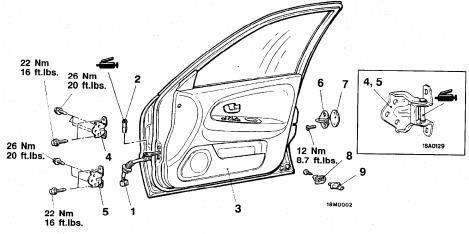
- 2. If the door inside handle play is outside the standard value range, remove the door trim. (Refer to P.42-32.)
- 3. Loosen the inside handle mounting screws, and then move the inside handle back and forth to adjust the play.



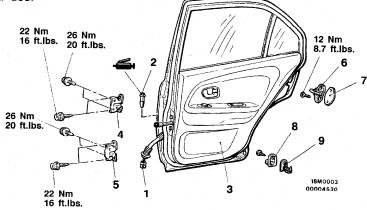
Post-installation Operation ٠

Door Fit Adjustment (Refer to P.42-28.)

### Front door



Rear door



### Door assembly removal steps

- 1. Harness connector
- 2. Spring pin
- 3. Door assembly
- 4. Door upper hinge ►A∢
- ►A 5. Door lower hinge

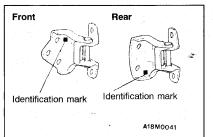
### Striker removal steps

- 6. Striker
- 7. Striker shim

### Door switch removal steps

- 8. Door switch cap
- 9. Door switch

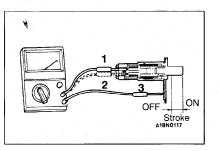
**BODY** - Door

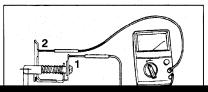


### INSTALLATION SERVICE POINT A DOOR LOWER HINGE/DOOR UPPER HINGE INSTALLATION

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

Applicable location	· · ·	Identification mark
Front left side door	Upper hinge	F1
and the second	Lower hinge	E1
Front right side door	Upper hinge	E1
	Lower hinge	F1
Rear left side door	Upper hinge	A1
	Lower hinge	K1
Rear right side door	Upper hinge	B1
	Lower hinge	L1





### INSPECTION DOOR SWITCH CONTINUITY CHECK Front door switch (L.H.)

42300600062

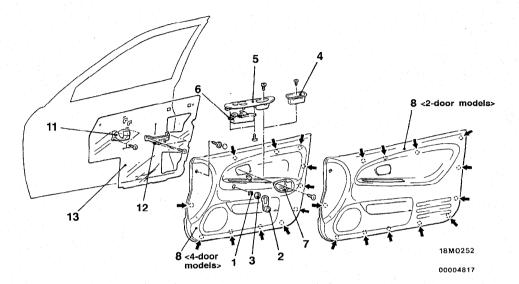
Switch position	Terminal No.			
	1	2	3	
Open (ON)	0			
Depressed (OFF)				

### Front door switch (R.H.) and rear door switch

Switch	Terminal No.	· · · · · · · · · · · · · · · · · · ·
position	1	2
Open (ON)	0	0
Depressed	a fa de la companya d	

### DOOR TRIM AND WATERPROOF FILM

### REMOVAL AND INSTALLATION Front door

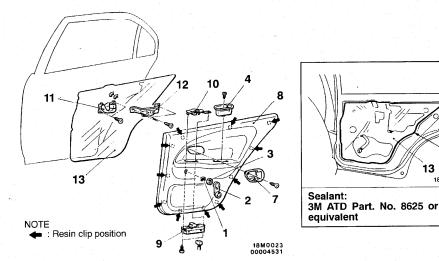


#### **Removal steps**

- ► ►A◀ 1. Clip <Vehicles without power windows>
  - ►A 2. Regulator handle <Vehicles without power windows>
  - -A◀ 3. Escutcheon <Vehicles without power windows>
    - Pull handle box <Vehicles without power windows>
    - Power window switch panel <Vehicles with power windows>

NOTE Resin clip position

- 6. Power window switch <Vehicles with power windows>
- 7. Cover
- 8. Door trim
- 11. Door inside handle
- 12. Pull handle bracket
- 13. Waterproof film



### **Removal steps**

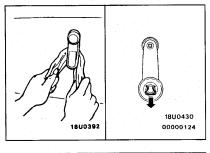
- A 1. Clip <Vehicles without power windows>
  - 2. Regulator handle <Vehicles without power windows>
  - ►A 3. Escutcheon <Vehicles without pow-</p> er windows>
    - 4. Pull handle box
    - 7. Cover

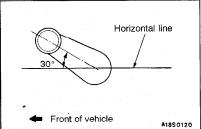
- 8. Door trim
- 9. Power window switch
- <Vehicles with power windows> 10. Power window switch panel

13

18M0013

- <Vehicles with power windows> 11. Door inside handle
- 12. Pull handle bracket
- 13. Waterproof film





### **REMOVAL SERVICE POINT**

### **⊲A**► CLIP REMOVAL

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

### INSTALLATION SERVICE POINT ►A SCUTCHEON/REGULATOR HANDLE/CLIP INSTALLATION

- Install the escutcheon and the clip to the regulator handle. 1.
- Fully close the front door glass, and install the regulator 2. handle so that it faces as shown in the illustration.

### DOOR GLASS AND REGULATOR

### **REMOVAL AND INSTALLATION**

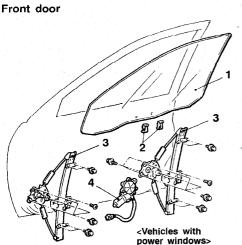
### Pre-removal Operation

- (1) Door Trim and Waterproof Film Removal (Refer to P.42-32.)
- (2) Door Beltline Inner Weatherstrip Removal (Refer to P.42-41.)

#### Post-installation Operation

Rear door

- (1) Door Window Glass Adjustment (Refer to P.42-28.)
- (2) Door Beltline Inner Weatherstrip Installation (Referto P.42-41.)
- (3) Door Trim and Waterproof Film Installation (Refer to P.42-32.)



<Vehicles without power windows>

18M0227

ß

<Vehicles without 4 power windows>

3

#### <Vehicles with power windows>

18M0228 00004721

r

### Front window regulator assembly removal steps

- 1. Door window glass
- 2. Door window glass holder
- 3. Window regulator assembly
- 4. Power window motor

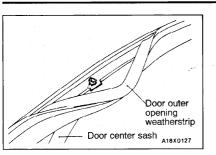
### Rear window regulator assembly removal steps

- Window glass runchannel (Refer to P.42-41.)
- 1. Door window glass
- 2. Door window glass holder
- 3. Window regulator assembly
- 4. Power window motor

### Stationary window glass removal steps

 Window glass runchannel (Refer to P.42-41.)

- 1. Door window glass
- 5. Door center sash
- 6. Stationary window glass and weatherstrip assembly
- 7. Stationary window glass
- 8. Stationary window weatherstrip

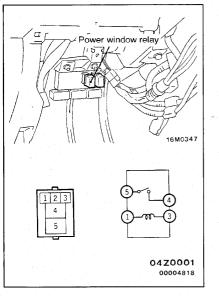


## REMOVAL SERVICE POINT

- 1. Remove the door outer opening weatherstrip from the door center sash only.
- 2. Remove the door center sash mounting screws, and then remove the door center sash from the door panel.

### INSPECTION

42900180052



### POWER WINDOW RELAY CONTINUITY CHECK

System voltage	Terminal	Terminal No.				
voltage	1	3	4	5		
Not applied	0	0				
Applied	<b>—</b>	Θ	0-	0		

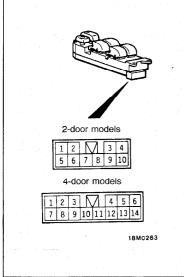
### POWER WINDOW MOTOR CHECK

- 1. Connect a battery directly to the motor terminals and check that the motor runs smoothly.
- 2. Check that the motor runs in the opposite direction when the battery is connected with the polarity reversed.

### **BODY** - Door

### POWER WINDOW SWITCH CONTINUITY CHECK

42900160063



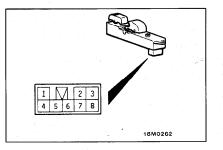
### Main switch

Terminal No.		Power window	w switch (norm	al)	Power window	w switch (lock)	
		UP	OFF	DOWN	UP	OFF	DOWN
Front (L.H.)	6* <sup>1</sup> , 13* <sup>2</sup>	Q	and the second	Q	Q		Q
	1* <sup>1</sup> , 8* <sup>2</sup>	0	Q	Q	0	Q	Q
	5* <sup>1</sup> , 9* <sup>2</sup>	Q	* 0		Q I	0	0
	9* <sup>1</sup> , 12* <sup>2</sup>	0	0	0	0		
Front (R.H.)	6* <sup>1</sup> , 13* <sup>2</sup>	Q		Q	Q C		Q
	7* <sup>1</sup> , 3* <sup>2</sup>	0	Q	Q	0	φ.	
	8* <sup>1</sup> , 11* <sup>2</sup>	Q P	<b>O</b>	0			0
	9* <sup>1</sup> , 12* <sup>2</sup>	0	0	0			
Rear	13	Q		Q	Q		Q
(L.H.)* <sup>2</sup>	1	6	Q	Q	0	Q	
	2	Q	0	0			0
	12		$\rightarrow$	0			
Rear	13	Q		Q ·	Q		Q .
(R.H.)* <sup>2</sup>	14		Ŷ	Q	0	Q <sup>1</sup>	
	6	Ŷ	0	0		0	
	12		0	0			

NOTE

\*1: 2-door models

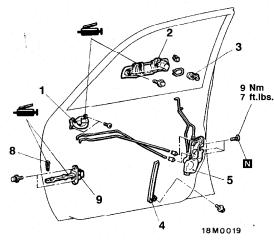
\*2: 4-door models



# DOOR HANDLE AND LATCH REMOVAL AND INSTALLATION

Pre-removal Operation Door Trim Removal (Refer to P.42-32.)

# Front door



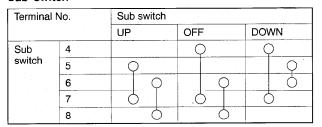
#### Front door handle and door latch assembly removal steps

- 1. Door inside handle
- Waterproof film (Refer to P.42-32.)
- 2. Door outside handle
- 3. Door lock key cylinder
- 4. Rear lower sash
- 5. Door latch assembly

#### Rear door handle and door latch assembly removal steps

- 1. Door inside handle
- Waterproof film (Refer to P.42-32.)
- Door center sash (Refer to P.42-34.)
- 5. Door latch assembly
- 6. Door lock actuator
- 7. Door outside handle

### Sub switch

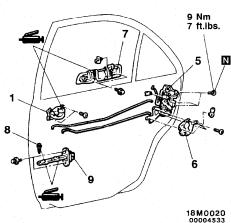


#### 42300460134

#### Post-installation Operation

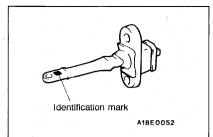
Rear door

- (1) Door Inside Handle Play Check (Refer to P.42-29.)
- (2) Door Outside Handle Play Check (Refer to P.42-29.)
- (3) Door Trim Installation (Refer to P.42-32.)



### Door check removal steps

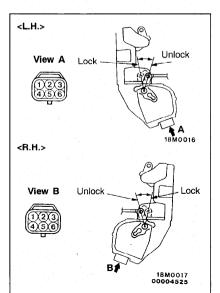
- 1. Door inside handle
- Waterproof film (Refer to P.42-32.)
- 8. Spring pin
- 9. Door check



# INSTALLATION SERVICE POINT

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

Applicable location		Identification mark		
		2-door models	4-door models	
L.H.	Front door	YL	XL	
1. A. A.	Rear door		16L	
R.H. Front door		YR	XR	
	Rear door	-	16R	



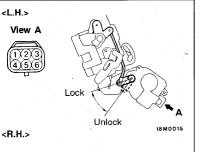
# INSPECTION FRONT DOOR LOCK ACTUATOR CHECK <L.H.>

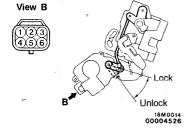
Rod position	Terminal No.			).		Rod operation
a de la composición d	1	2	З	4	6	
LOCK				<b>—</b>	Θ	LOCK position → UNLOCK position
UNLOCK				Θ	Ð	UNLOCK position → LOCK position
LOCK	0-		0			
UNLOCK	0-	-0				

42300610072

### <R.H.>

Rod position	od position Terminal No.		Rod operation	
100 A	4	6		
LOCK		÷	LOCK position → UNLOCK position	
UNLOCK	÷	0	UNLOCK position → LOCK position	

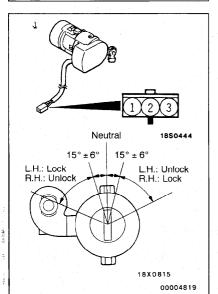




LOCK A	CTUATO	R CHECK 42300620051
Terminal	No.	Rod operation
2	3	
<b>.</b>	Θ	LOCK position → UNLOCK position
Θ—		UNLOCK position → LOCK position
	Terminal	LOCK ACTUATOR

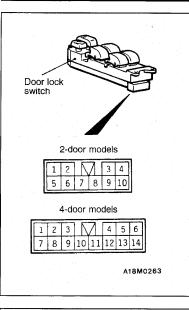
### <R.H.>

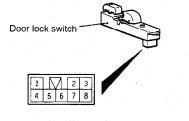
Rod position	Terminal No.		Rod operation
	2	3	
LOCK	Θ-		LOCK position → UNLOCK position
UNLOCK			UNLOCK position → LOCK position



#### DOOR LOCK KEY CYLINDER SWITCH CONTINUITY CHECK 42300630085

	Terminal No.					
Switch position	L.H.			R.H.		
	1	2	3	1	2	3
LOCK	0	-0		0-	-0	
Neutral (OFF)						
UNLOCK		0-	-0		0	0





# **BODY** - Door

# DOOR LOCK SWITCH CONTINUITY CHECK 42700120065 <L.H.>

0.11.1.1.1.1	Terminal No.					
Switch position	3* <sup>1</sup> , 5* <sup>2</sup>	9* <sup>1</sup> , 12* <sup>2</sup>	10			
LOCK	0	0				
OFF						
UNLOCK		0	0			

NOTE

\*1: 2-door models

\*2: 4-door models



Quitala a stilling	Terminal No.					
Switch position	1	2	3			
LOCK	0-	O	14 - <sup>14</sup>			
OFF						
UNLOCK		0	0			

A18M0262

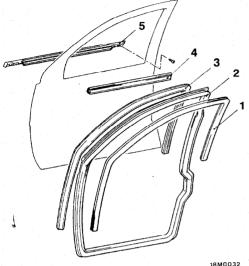
# WINDOW GLASS RUNCHANNEL AND DOOR OPENING WEATHERSTRIP

42300310118

42-41

# **REMOVAL AND INSTALLATION**

### Front door

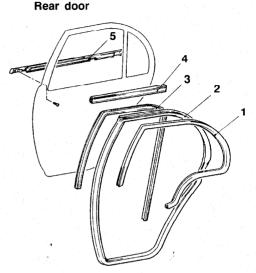


# Door inner opening weatherstrip removal steps

- Cowl side trim (Refer to GROUP 52A.)
- Quarter trim <2-door models> (Refer to GROUP 52A.)
- Center pillar lower trim <4-door models> (Refer to GROUP 52A.)
- 1. Door inner opening weatherstrip

# Door outer opening weatherstrip removal

► ►A< 2. Door outer opening weatherstrip



18M0033 00004527

# Door window glass runchannel removal

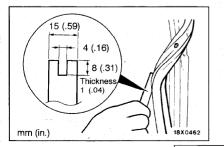
3. Door window glass runchannel

# Door beltline inner weatherstrip removal steps

- Door trim (Refer to P.42-32.)
- 4. Door beltline inner weatherstrip

### Door beltline molding removal

- Door mirror (Refer to GROUP 51.)
- 5. Door beltline molding



# REMOVAL SERVICE POINT

### AD DOOR OUTER OPENING WEATHERSTRIP REMOVAL

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

### **TSB Revision**

### 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.

Applicable location		Identification color		
		2-door models	4-door models	
L.H.	Front door	Brown	White	
	Rear door	-	Red	
R.H.	Front door	Yellow	Pink	
4	Rear door	-	Dark brown	

# SUNROOF SERVICE SPECIFICATIONS

42600030044

Items	Standard value
Roof lid glass operating current A	7 or less [at 20°C (68°F)]
Sunroof motor clutch slippage torque Nm (ft.lbs.)	4.7 - 6.2 (3.5 - 4.6)

# SEALANT

Item	Specified sealant
Rail cover assembly	3M ATD Part No.8531 or 3M Part No.8646 or equivalent

# SPECIAL TOOLS

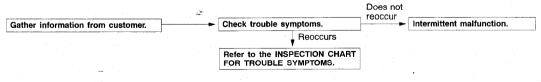
42600060029

Tool	Tool number and name	Supersession	Application
	MB991223 Harness set	MB991223	Measurement of terminal voltage A: Connector pin contact pres-
A	A: MB991219		sure inspection
	Test harness B: MB991220		B, C: Power circuit inspection
100 A	LED harness		D: Commercial tester connection
В	C: MB991221 LED harness		
	adapter		
	D: MB991222 Probe		
	11000		
c B			
D			
and the second s		n an	
C991223			

### **BODY** - Sunroof

# TROUBLESHOOTING

# STANDARD FLOW OF DIAGNOSTIC TROUBLESHOOTING



# INSPECTION CHART FOR TROUBLE SYMPTOMS

42600200117

Trouble symptom	Inspection procedure	Reference page
The sunroof does not operate when the ignition switch is turned to ON.	1	42-43
The motor does not reverse its direction when a load of 140 N (32 lbs.) or more is applied while the sunroof is closing.	2	42-45
The timer does not operate for 30 seconds after the ignition switch is turned to OFF.	3	42-45
The sunroof operates when the driver's side door is opened within 30 seconds after turning the ignition switch to OFF.	4	42-45

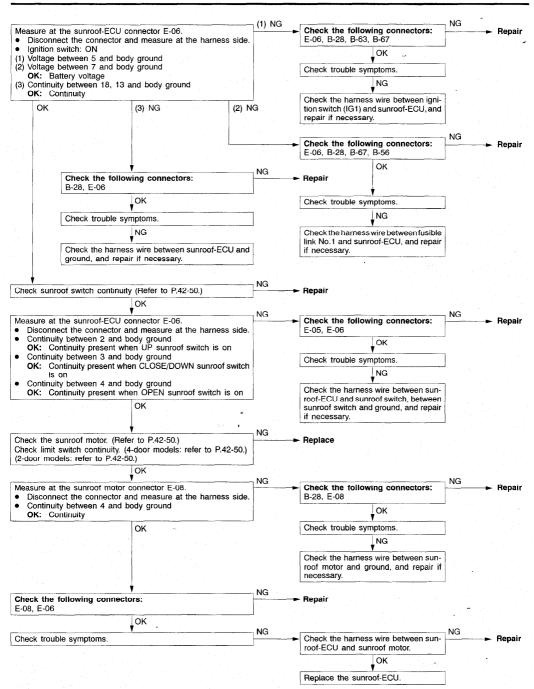
# INSPECTION PROCEDURE FOR TROUBLE SYMPTOMS

### **Inspection Procedure 1**

The sunroof does not operate when the ignition switch is turned to ON.	Probable cause	
One of the following items may be defective. • Sunroof switch • Sunroof motor • Sunroof-ECU	Malfunction of sunroof switch     Malfunction of sunroof motor     Malfunction of sunroof-ECU     Malfunction of wiring harness or connector	
Power supply circuit     Ground circuit		

### 42-44

### **BODY - Sunroof**



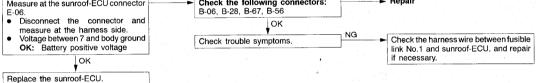
### Inspection Procedure 2

The motor does not reverse its direction when a load of	Probable cause		
140 N (32 lbs.) or more is applied while the sunroof is closing.			
The sunroof-ECU monitors the load conditions from the amount of current flowing	<ul> <li>Malfunction of sunroof-ECU</li> </ul>		
to the motor. If more than the constant amount of current is flowing, the direction of motor operation is reversed to prevent jamming.			
If the motor does not reverse direction even when an excessive load is being applied, the cause may be a malfunction of the sunroof-ECU.			

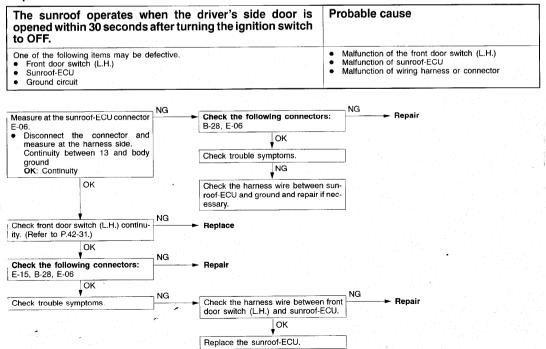
Replace the sunroof-ECU.

### **Inspection Procedure 3**

The timer does not operate for 30 seconds after the ignition switch is turned to OFF.	Probable cause
The sunroof-ECU has a timer function which operates for 30 seconds after the ignition switch is turned to OFF. If the timer does not operate, the cause may be a malfunction of the sunroof-ECU or of the wiring harness or connector.	Malfunction of sunroof-ECU     Malfunction of wiring harness or connector
Measure at the suproof ECU connector	



### **Inspection Procedure 4**



Hose

Apporox.

30cm (12 in.)

A18A0216

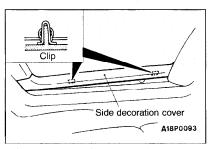
# **ON-VEHICLE SERVICE**

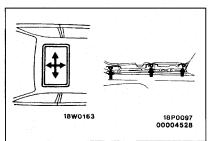
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Check if there are any leaks in the sunroof by the following procedure.

- 1. Fully close the roof lid glass.
- 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 upward.
- 3. Hold the end of the hose approximatery 30 cm (12 in.) above the roof and let the water run onto the weatherstrip for 5 minutes or more.
- While doing this, check if any water leaks through into the passenger compartment from around the roof lid glass.





# SUNROOF FIT ADJUSTMENT

42600100141

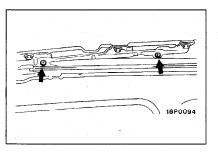
- 1. Fully close the roof lid glass.
- 2. Fully open the sunshade.
- 3. <4-door models>
  - (1) Remove the side decoration cover.

(2) To adjust the forward, backward and sideways position of the roof lid glass, loosen the six roof lid glass assembly mounting nuts and then adjust the glass forward, backward or sideways.

### NOTE

If the adjustment cannot be made by loosening the adjustment nuts, the roof lid glass or the motor have not been fully closed, so they should be adjusted to the fully closed positions.

# BODY - Sunroof



(3) To adjust the height of the roof lid glass, loosen the four guide (A) assembly mounting screws and then move the roof lid glass assembly along the slot in the guide (A) assembly to adjust the height of the roof lid glass.

42-47

- <2-door models>
- (1) Loosen the roof lid glass assembly mounting screws (four screws), and then slide the roof lid glass assembly along the slot in the drive cable assembly to adjust the height of the roof lid glass.
- 5. After adjustment, check to be sure that the sunroof operates smoothly.



# SUNROOF

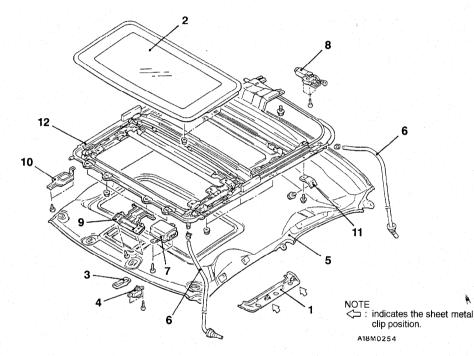
# **REMOVAL AND INSTALLATION**

<4-door models>

### Post-installation Operation

<Roof lid glass assembly, Sunroof assembly> (1) Sunroof Water Test (Refer to P.42-46.)

- (2) Sunroof Fit Adjustment (Refer to P.42-46.)



# Roof lid glass assembly removal steps

- 1. Side decoration cover
- 2. Roof lid glass assembly

### Sunroof switch removal steps

- 3. Sunroof switch cover
- 4. Sunroof switch

### Drain hose removal steps

- Splash shield (Front drain hose)
- 5 Headlining
- 6. Drain hose

#### Sunroof-ECU removal steps

- 5. Headlining
- 7. Sunroof-ECU

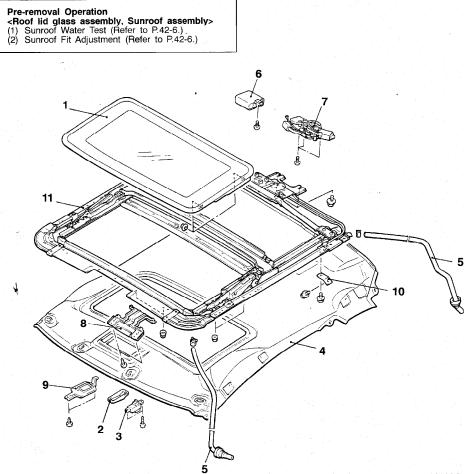
#### Sunroof motor removal steps

- 5. Headlining
- 8. Sunroof motor

### Sunroof assembly removal steps

- Headlining
- 6. Drain hose connection
- 9. Dome light bracket
- 10. Sunroof switch bracket
- 11. Set bracket
- 12. Sunroof assembly

### <2-door models>



### A18M0353

1. Roof lid glass assembly

### Sunroof switch removal steps

- Sunroof switch cover
   Sunroof switch

#### Drain hose removal steps

- Splash shield (Front drain hose)
- 4. Headlining
- 5. Drain hose

#### Sunroof-ECU removal steps

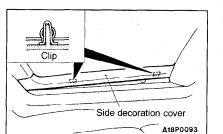
- 4. Headlining
- Sunroof-ECU

#### 4. Headlining 7. Sunroof motor

### Sunroof assembly removal steps

Sunroof motor removal steps

- 4. Headlining
- 5. Drain hose connection
- 8. Dome light bracket
- 9. Sunroof switch bracket
- 10. Set bracket
- 11. Sunroof assembly



# **BODY - Sunroof**

# REMOVAL SERVICE POINTS

Remove the clips, and then remove the side decoration cover.

# 

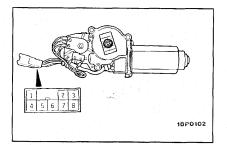
### **AB** DRAIN HOSE REMOVAL

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.

### **<**C► SUNROOF MOTOR REMOVAL

### Caution

Always close the roof lid glass fully before removing the sunroof motor. If the fully-closed positions of the roof lid glass and the sunroof motor are not the same, the sunroof will not operate properly.



# INSTALLATION SERVICE POINTS

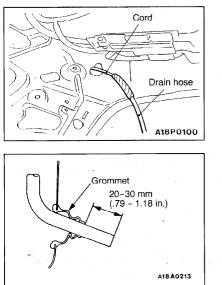
# ►A SUNROOF MOTOR INSTALLATION

If the fully-closed position of the sunroof motor is incorrect, set the motor to the fully-closed position by the procedure given below before installing the motor.

- 1. Connect an ammeter between terminals (4) and (5)\*1,  $(6)^{*2}$  of the motor connector.
- 2. Connect battery between terminals (1) and (2) operate the motor until the position is reached at which continuity switches from on to off or from off to on, and then install the motor.

### NOTE

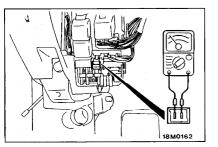
- \*1: 2-door models
- \*2: 4-door models



### ►B< DRAIN HOSE INSTALLATION

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

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



## INSPECTION

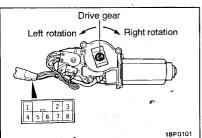
#### 42600130089

### ROOF LID GLASS OPERATION CURRENT CHECK

- Remove the sunroof fuse and connect an ammeter as 1. shown in the illustration.
- Press the sunroof switch to the ON position, and then 2. measure the operation current in the intervals between the points when the sunroof starts to operate, when it is fully open, when it is fully closed and when it is fully tilted up.

### Standard value: 7 A or less [at 20°C (60°F)]

- If the operation current is outside the standard value. 3. check the following points.
  - Installation condition, warping or jamming of sunroof assembly
    - Sticking of drive cable
  - Tilt of roof lid glass

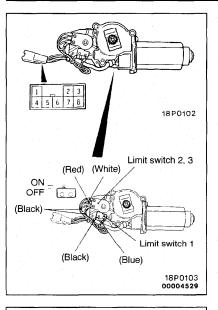


### SUNBOOF MOTOR CHECK

#### 42600250051

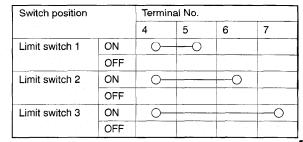
Check the direction of rotation of the drive gear when the battery is connected to the connector.

Battery connection terminal		Drive gear rotation	
1 1	2	direction	
Θ		Right	
<b></b>		Left	



# LIMIT SWITCH CONTINUITY CHECK <4-DOOR

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



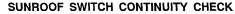
Check the identification colors. Then install the limit switches as shown in the illustration.

### LIMIT SWITCH CONTINUITY CHECK <2-DOOR MODELS>

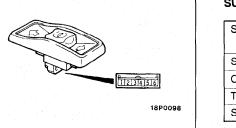
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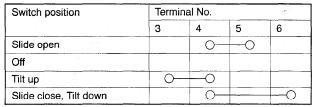
Remove the limit switch from the sunroof motor, and then check the operation of the limit switch.

Switch		Terminal N	Terminal No.	
		4	5	
Limit switch	ON	O	0	
	OFF			



42600160095



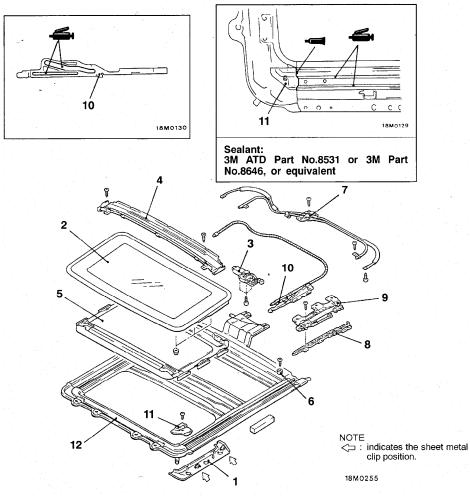


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## DISASSEMBLY AND REASSEMBLY

<4-door models>

4



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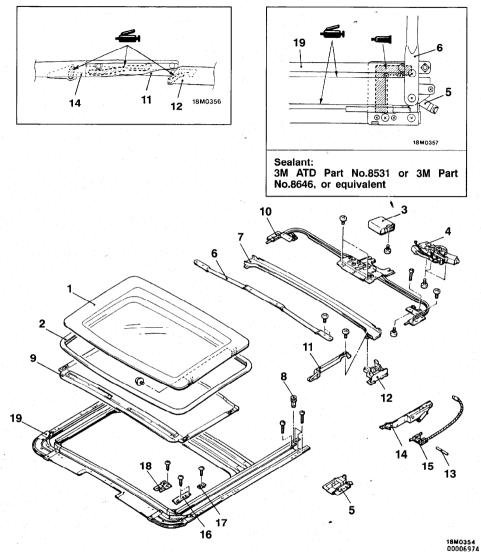
### **Disassembly steps**

- 1. Side decoration cover (Refer to P.42-47.)
- 2. Roof lid glass assembly
- Sunroof motor
   Drip rail assembly
- 5. Sunshade assembly
- 6 Cuchion (B) accombly

- 7. Drive unit assembly
- 8. Decoration link
- 9. Guide (A) assembly 10. Slider assembly
- 11. Rail cover assembly
  - 12. Frame sub assembly

# DISASSEMBLY AND REASSEMBLY

<2-door models>



### Disassembly steps

- 1. Roof lid glass assembly
- 2. Weatherstrip
- 3. Sunroof ECU
- 4. Sunroof motor
- 5. Rear drip
- 6. Frame
- 7. Drip rail assembly
- 8. Crip <L.H.> 9. Sunshade assembly
- 10. Drive unit assembly

- 11. Drip link
- 12. Drip shoe assembly
- 13. Shaft
- 14. Lifter assembly
- 15. Cable assembly 16. Set plate
- 17. Rear set plate 18. Stopper
- 19. Flame assembly

# UNDER COVER

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42-55

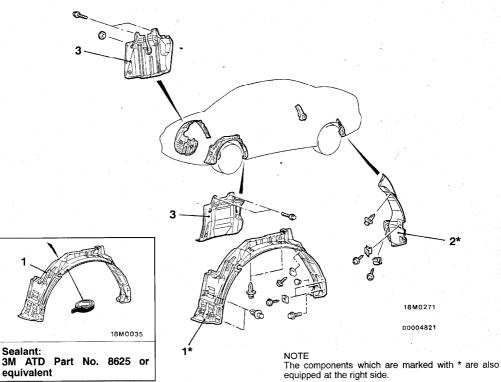
# SEALANT

ltem	Specified sealant	Remark
Splash shield	3M ATD Part No. 8625 or equivalent	Ribbon sealer

# UNDER COVER

# **REMOVAL AND INSTALLATION**

42100280055



### **Removal steps**

- 1. Front splash shield\*
- 2. Rear splash shield\*
- 3. Under cover side panel