51109000067

# **EXTERIOR**

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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 SRS-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: SRS-ECU,SRS warning light, air bag module, clockspring, 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 (\*).

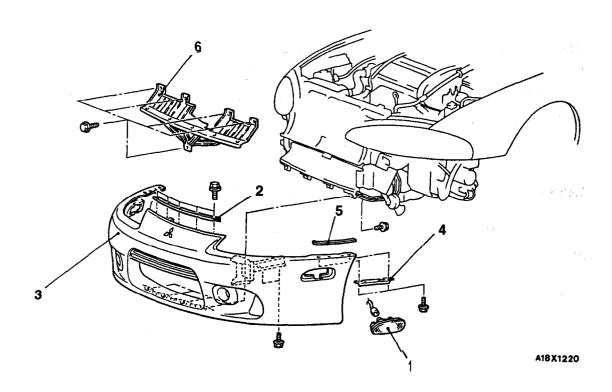
# FRONT BUMPER

51100140157

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# REMOVAL AND INSTALLATION

Pre-removal and Post-installation Operation Splash shield Removal and Installation (Refer to GROUP 42 – Under Cover.)



# Removal steps

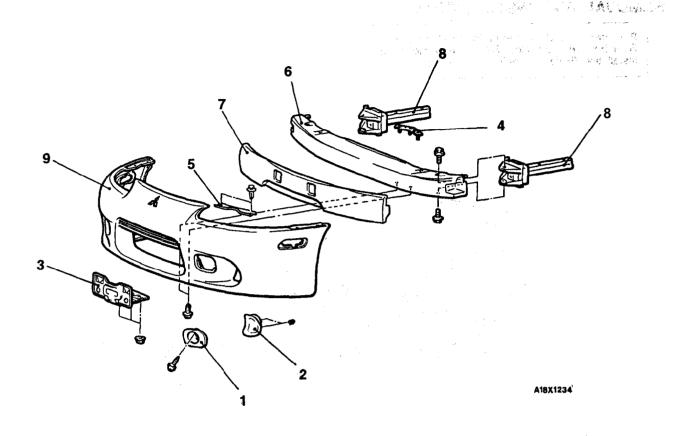
- 1. Front side-marker light
- Front bumper center plate
   Front bumper assembly

- 4. Front bumper corner plate
- 5. Pad

6. Front fascia bracket

# **DISASSEMBLY AND REASSEMBLY**

51100160177



# Disassembly

- Front fog light bezel
   Air intake cover
   Front license plate bracket
   Bolt plate
   Front bumper side plate

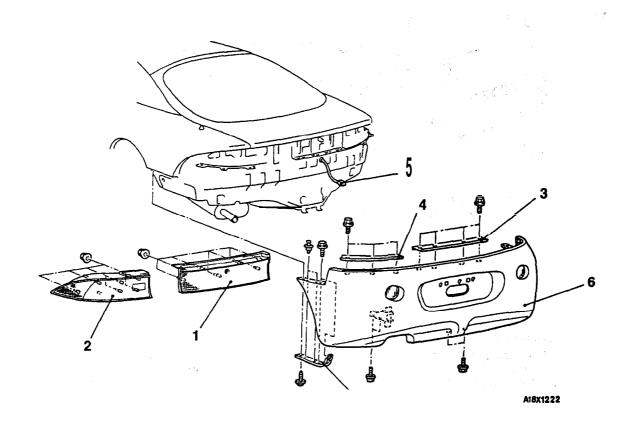
- 6. Front bumper reinforcement7. Front bumper core8. Front bumper stay assembly9. Front bumper face

# **REAR BUMPER**

51100190152

# **REMOVAL AND INSTALLATION**

**Pre-removal and Post-installation Operation**Rear End Trim and Rear Side Trim Removal and Installation (Refer to GROUP **52A** – Trims.)



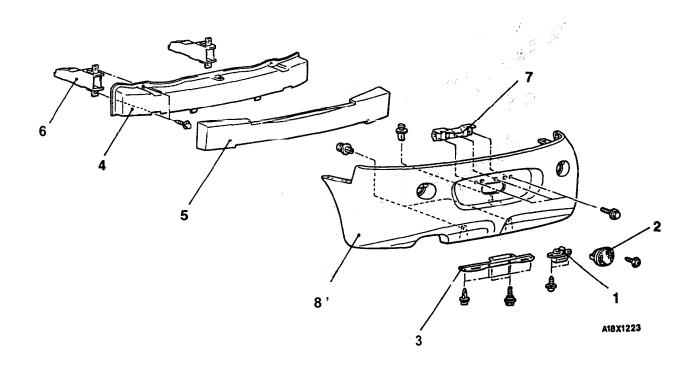
# Removal steps

- Rear panel garnish
   Rear combination light
   Rear bumper upper plate (A)
   Rear bumper upper plate (B)
   Connector harness
   Rear bumper assembly
   Rear bumper side plate

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# **DISASSEMBLY AND REASSEMBLY**

51100210148

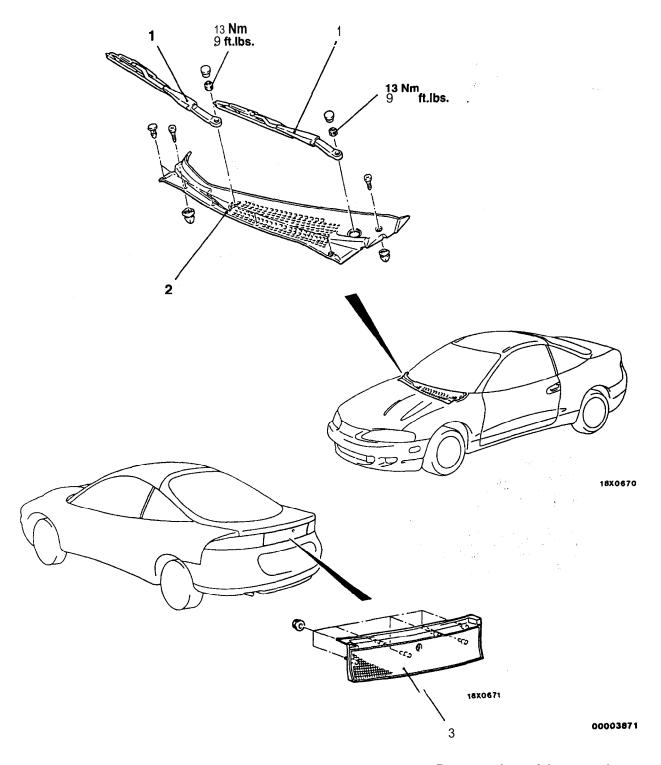


# Disassembly steps

- 1. License plate light
  2. Back-up light
  3. Rear bumper lower plate
  4. Rear bumper reinforcement
  5. Rear bumper core
  6. Rear bumper stay assembly
  7. License plate light bracket
  8. Rear bumper face

**GARNISHES** 51100410029

# **REMOVAL AND INSTALLATION**



# Front deck garnish removal steps

- Wiper arm assembly
   Front deck garnish

# Rear panel garnish removal steps

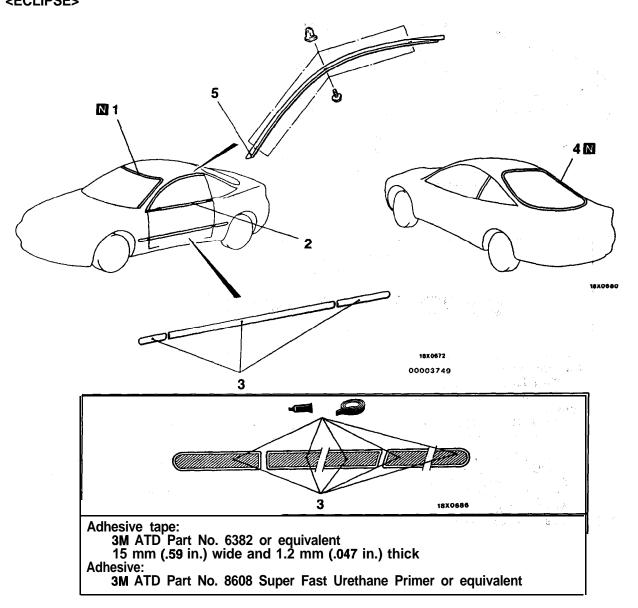
- Rear end trim (Refer to GROUP 52A Trims)
  3. Rear panel garnish

### 1 4 8 **MOLDINGS** 51100050061 **SEALANT AND ADHESIVE**

Items	Specified sealant and adhesive
Side protector molding	3M ATD Part No. 6382 or equivalent and 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

**MOLDINGS** 51100470126

# REMOVAL AND INSTALLATION <ECLIPSE>

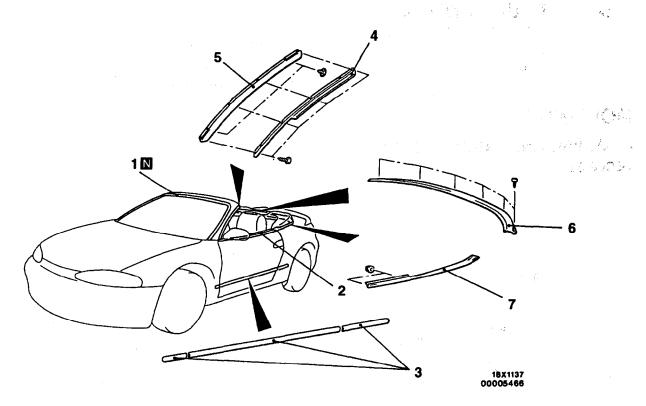


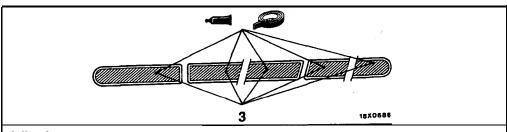
- Windshield molding (Refer to GROUP 42 Windshield.)
   Belt line molding (Refer to GROUP 42 Door Opening Weatherstrip.)

A ► ► A ■ 3. Side protector molding

- 4. Liftgate molding
  (Refer to GROUP 42 ~ Liftgate.)
  Drip line weatherstrip and door weatherstrip holder (Refer to GROUP 42 ~ Door Opening Weatherstrip.)
- 5. Drip molding

### <ECLIPSE SPYDER>





Adhesive tape:
3M ATD Part No. 6382 or equivalent
15 mm (.59 in.) wide and 1.2 mm (.047 in.) thick

Adhesive:

3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

- 1. Windshield moulding (Refer to
- GROUP 42 Windshield.)

  2. Belt line moulding (Refer to GROUP 42 Door Opening Weatherstrip.)



3. Side protector moulding

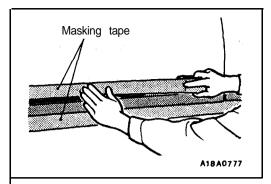
# Drip moulding removal steps

Front roof weatherstrip (Refer to GROUP 42 - Front Roof Weatherstrip.)
4. Front pillar weatherstrip holder
5. Drip moulding

**30** 

# Belt moulding removal steps

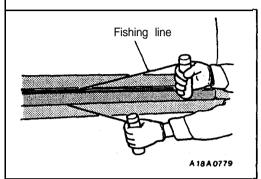
- 6. Back belt moulding
- 7. Quarter belt moulding



# REMOVAL SERVICE POINT

# **◆A▶ SIDE** PROTECTOR MOLDING REMOVAL,

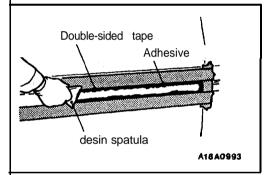
(1) Apply masking tape to the outside circumference of the side protector molding.



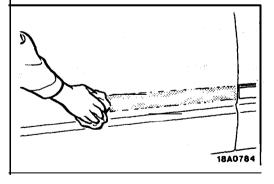
(2) insert fishing line [ø0.8 mm (.03 in.)] in between the body and the side protector molding, pull both ends alternately to cut the adhesive section and remove the side protector molding. 記念す

### Caution

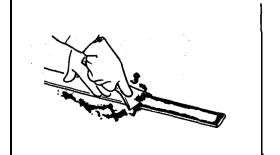
- 1. When reusing the side protector molding, pull the fishing line along the edge of the body so as not to damage the edge of the side protector molding.
- 2. If the adhesive is difficult to remove, heat it to 40°C (104°F).



- (3) Scrape off the double-sided tape with a resin spatula.
- (4) Tear off the masking tape.
- (5) Scrape off a small amount of the adhesive with a cutter knife.



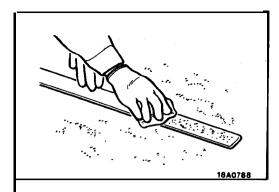
(6) 'Use a shop towel moistened with isopropyl alcohol to' wipe the body surface.

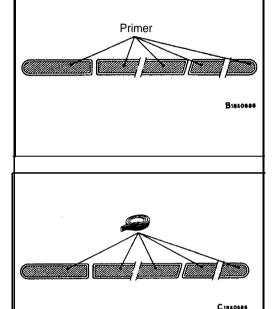


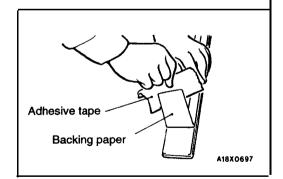
# INSTALLATION SERVICE POINT

►A SIDE PROTECTOR MOLDING INSTALLATION Double-sided tape affixing to the side protector molding (when reusing)

(1) Scrape off the double-sided tape with a resin spatula or gasket scraper.







- (2) **Use** a shop towel moistened **with** isopropyl. alcohol **to** wipe the molding surface.
- (3) Remove a small portion of the residual adhesive.

### Caution

Do not remove all of the residual adhesive.

(4) Soak a sponge in the primer, and apply evenly to the side protector molding in the places shown in the illustration.

### Specified primer:

3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

#### Caution

- 1. Always apply it on the entire surface, because a lot or little will reduce its strength.
- 2. Do not touch the coated surface.
- (5) After applying the primer, let it dry for 3 to 30 minutes.
- (6) Affix the specified double-sided tape to the side protector molding.

### Specified adhesive tape:

3M ATD Part No. 6382 or equivalent 15 mm (.59 in.) wide and 1.2 mm (.047 \*in.) thick

# Side protector molding installation

(1) Tear off the double-sided tape backing paper.

#### NOTE

If you attach the adhesive tape to the edge of the **backing** paper, it will be easy to tear off.

(2) Install the side protector molding.

#### NOTE

If the double-sided tape is difficult to affix **during** winter, etc., **warm** the bonding **surfaces** of the **body** and the **side** protector molding to about **40–60°C** (104–140°F) before affixing the tape.

(3) Firmly press in the side protector molding.

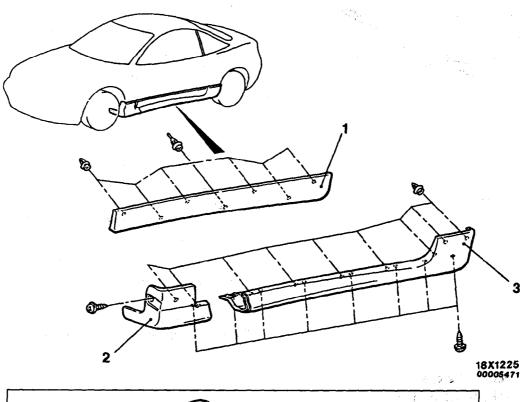
# AERO PARTS SEALANT AND ADHESIVE

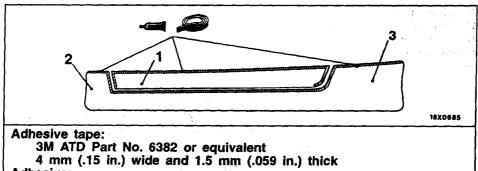
51100050078

Items	Specified sealant and adhesive
Door garnish, Side air dam	3M ATD Part No. 6382 or equivalent and 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

AERO PARTS 51100500139

# **REMOVAL AND INSTALLATION**

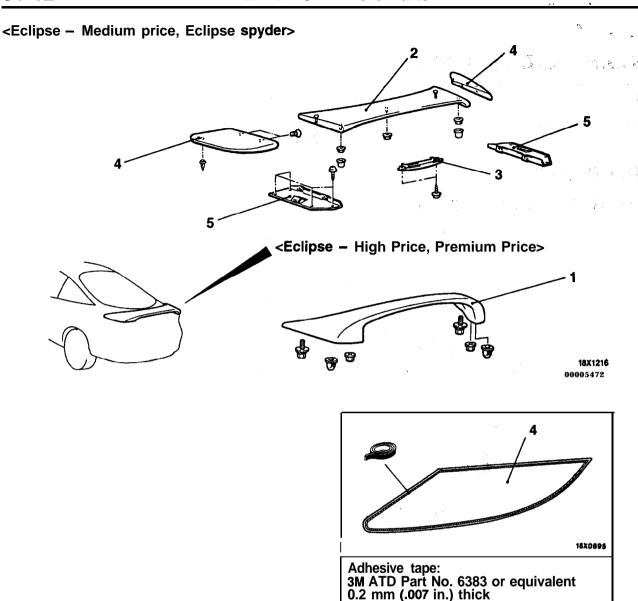




Adhesive: 3M ATD Part No. 8608 Super Fast Urethane Primer or equivalent

Door garnish removal **▲A** ► **A** ■ 1. Door garnish

Side air dam removal steps
2. Front side air dam
3. Rear side air dam



### Removal steps

- Rear spoiler assembly
   Rear center spoiler assembly
- 3. Rear spoiler cover
- 4. Rear side spoiler
- 5. Bracket

# REMOVAL SERVICE POINT

# **▲A** DOOR GARNISH/FRONT SIDE-AIR DAM/REAR SIDE-AIR DAM REMOVAL

Carry out the same procedure as for the side protector moldings. (Refer to P.51-7.)

# INSTALLATION SERVICE POINT

# **▲A▶** DOOR GARNISH/FRONT SIDE-AIR DAM/REAR SIDE-AIR DAM INSTALLATION

Carry out the same procedure as for the side protector moldings. (Refer to P.51-7.)

# WINDSHIELD WIPER AND WASHER

51100010038

# **GENERAL IMFORMATION**

# **OPERATION**

# Low-speed (and high-speed) wiper operation

- When the wiper switch is placed in the LO position with the ignition switch in the ACC or ON position, wipers operate continuously at low speed.
- Placing the wiper switch in the HI position causes the wipers to operate at high speed.

### Auto wiper stop operation

 When the wiper switch is placed in the OFF position, the cam contacts of wiper motor causes current to flow through the auto wiper stop circuit, allowing the wiper blades to cycle before they reach to the stop positions.

# Intermittent wiper operation

 When the wiper switch is placed in the INT position with the ignition switch in ACC or ON position, the intermittent wiper relay is energized causing the intermittent wiper relay contacts to close and open repeatedly.

- When the contacts are closed, the wiper motor is energized.
- When the wiper motor is energized, the relay contacts open; however, the cam contacts keep the wiper motor energized until the wiper blades return to their stop position.

# Washer-wiper operation-

 When the washer switch is turned ON, the intermittent wiper relay contacts close causing wipers to cycle' one to two times.

#### Remark

• The washer-wiper operates in the priority even during intermittent operation of the wiper.

## Washer fluid level warning light

 When the washer fluid level goes down below a predetermined level with the ignition switch in ON position, the washer level switch makes the washer fluid level warning light illuminate.

# SERVICE SPECIFICATION

51100030140

Item	Standard value	
Windshield wiper blade installation position mm (in.)	(A): 47±5 (1.85±.20)	
	(B): 10±5 (.39±.20)	

# TROUBLESHOOTING

51100070098

# TROUBLESHOOTING HINTS

- 1. Wipers do not operate.
  - 1) Washer is not operative, either.
    - Check multi-purpose fuse No. 9.
    - Check ground.
- 2. Low-speed (or high-speed) wiper operation only is inoperative.
  - Check wiper switch.
- 3. Wipers do not stop.
  - Check wiper motor.
  - Check intermittent wiper relay.
  - Check wiper switch.
- 4. Intermittent wiper operation is inoperative.
  - Check terminal voltage of steering-column switch (with a built-in intermittent wiper relay) with the intermittent wiper relay energezed.

- 5. The length of pause for intermittent operation cannot be varied.
  - Check variable intermittent. wiper 'control switch.
  - Check intermittent wiper relay.
- 6. Washer is inoperative.
  - 1) Wiper is operative on washer-wiper operation.
    - Check washer motor.
  - 2) Washer-wiper operation'is inoperative also.

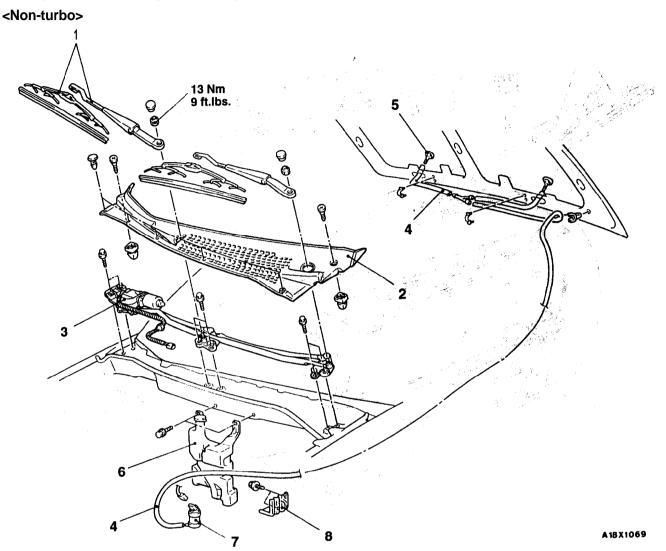
- Check washer switch.
- 7. Washer-wiper operation is inoperative.
  - Check intermittent wiper relay.

Terminal No.	Voltage	Check
8	ov	Intermittent wiper relay or wiper switch
	Battery positive voltage	Intermittent wiper relay
0←→Battery positive voltage (alternating)		- (Normal)

# WINDSHIELD WIPER AND WASHER

51100760179

# **REMOVAL AND INSTALLATION**



### Wiper motor and link assembly removal steps

- 1. Wiper arm and blade 'assembly 2. Front deck garnish

  - 3. Wiper motor and link assembly

### Washer nozzle and washer hose removal steps

- 4. Washer hose connection
- 5. Washer nozzle

#### tank removal steps Washer

- Brake fluid reservoir tank mounting bolt (Refer to GROUP 35A Master Cylinder and Brake Booster)
   Washer tank

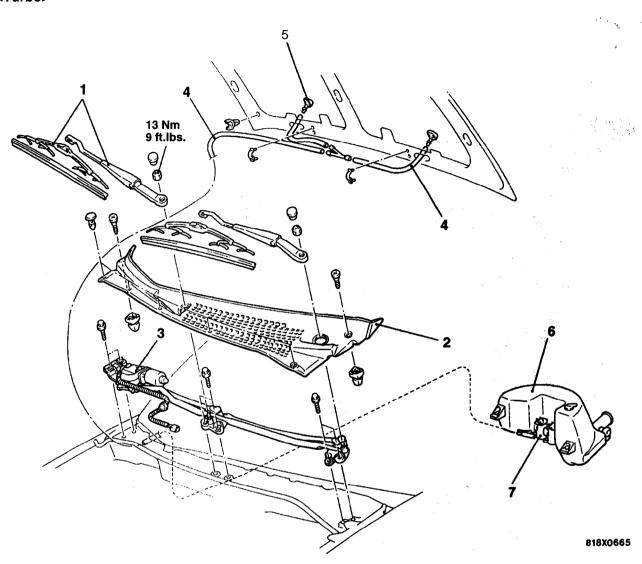
  - 7. Washer motor

o,® ,

8. Washer tank bracket

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# <Turbo>



# Wiper motor and link assembly removal steps

- A 1. Wiper arm and blade assembly2. Front deck garnish3. Wiper motor and link assembly

# Washer nozzle and washer hose removal steps

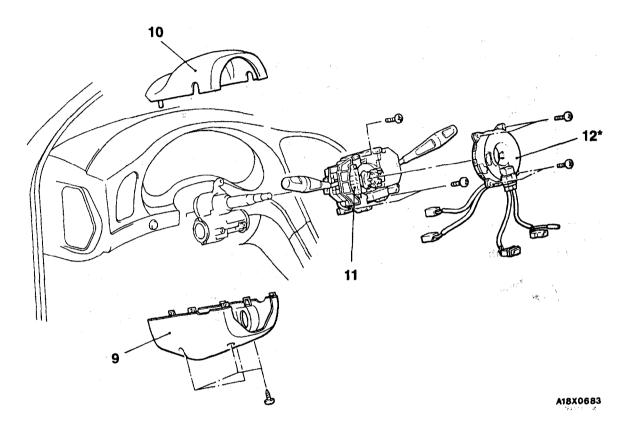
- 4. Washer hose connection
- 5. Washer nozzle

# Washer tank removal steps

- 6. Washer tank (Refer to P.51-17.)7. Washer motor

CAUTION: SRS

Before removal of air bag module and clock spring, refer to the follows:
GROUP 52B - SRS Service Precautions. GROUP 52B - Air Bag Module and Clock



### Column switch removal steps

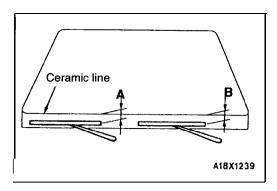
- Air bag module (Refer to GROUP 52B Air Bag Module and Clock Spring.)
   Steering wheel (Refer to GROUP 37A Steering Wheel and Shaft.)
   Column cover, lower
   Column cover, upper
   Column switch assembly

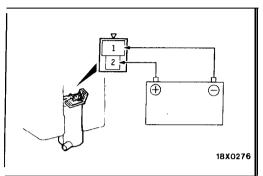
- (with built-in wiper and washer switch, and wiper relay)

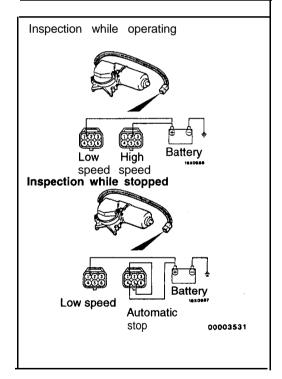
12. Clock spring\* (Refer to GROUP 52B – Air Bag Module and Clock Spring.)

### NOTE

Do not remove parts marked with\* from the column switch except when removal is absolutely necessary.







# INSTALLATION SERVICE POINT

# ►A WIPER ARM AND BLADE ASSEMBLY INSTALLATION

Adjust the wiper and blade assembly so that the clearances between the wiper blade edges and the ceramic line are at the standard value.

### Standard value

(A):  $47 \pm 5$  mm (1.85  $\pm$  .20 in.) (B):  $10 \pm 5$  mm (.39  $\pm$  .20 in.)

# INSPECTION

51101270022

# **WASHER MOTOR CHECK**

- (1) With the washer motor installed to the washer tank, fill the washer tank with water.
- (2) When the battery is connected as shown in the figure, check that the water squirts out strongly.

### **WIPER MOTOR CHECK**

51101260029

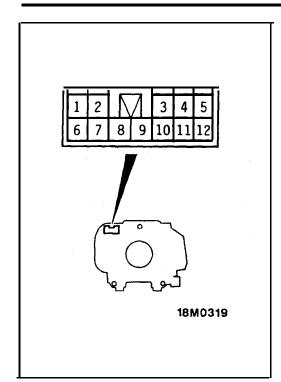
Do not remove the motor and link assembly when checking.

# Wiper Motor at Low Speed and High Speed Operation

Connect a battery to the wiper motor as shown in the illustration and inspect motor operation at low speed and high speed.

### Wiper Motor at Stop Position Operation

- (1) Run the wiper motor at low speed, disconnect the battery, and stop the motor.
- (2) Reconnect the battery as shown in the illustration, and confirm that after the motor starts turning at low speed, it stops at the automatic stop position.



# COLUMN SWITCH CONTINUITY CHECK 51100770127 <Wiper and Washer Switch>

Switch position		Terminal No.					
		6	7	8	9	10	
Wiper switch	OFF	77.	0	0	0	y 1 2 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
	INT		0-	0		2.7	
	1 (LO)	/		0-	19. 1 Va.	0	
	2 (HI)		.,4c.	30.4	0	0	
Washer switch	ON	0-				-0	

# Intermittent Wiper Relay (Intermittent **Operation** Check)

- (1) Connect the column switch connector.
- (2) Turn the ignition switch to ACC.
- (3) Inspect the intermittent operation time when the wiper switch is turned to INT.

1.3

d

Vehicles with variable intermittent control FAST Approx. 2 seconds SLOW: Approx. 15 seconds

# REAR WIPER AND WASHER

51100010045

# GENERAL IMFORMATION

### **OPERATION**

### Low-speed wiper operation

 When the wiper switch is placed in the ON (LO) position with the ignition switch in the ACC or ON position, the wiper operates continuously at low speed.

# Auto wiper stop operation

 When the wiper switch is placed in the OFF position, the cam contacts of wiper motor causes current to flow through the auto wiper stop circuit, allowing the wiper blades to cycle before they reach to the stop positions.

# Intermittent wiper operation,

- When the wiper switch is placed in the INT position with the ignition switch in ACC or ON position, the intermittent wiper relay is turned on and off.
- When the contacts are closed, the wiper motor is energized.
- When the wiper motor is energized, the relay contacts open; however, the cam contacts keep the wiper motor energized until the wiper blades return to their stop position.

# SERVICE SPECIFICATION

51100030157

l item	Standard value
Rear wiper blade installation position mm (in.)	130±5 (5.18±.20)

# **TROUBLESHOOTING**

51100070043

#### TROUBLESHOOTING HINTS

- 1. Wipers does not operate.
  - 1) Windshield wiper is not operative, either.
    - Check the multi-purpose fuse No. 9.
- 2. Low-speed wiper operation is inoperative.
  - Check the wiper switch.
- 3. Intermittent wiper operation is inoperative.
  - Check terminal voltage of wiper switch (with a built-in intermittent wiper relay) with the intermittent wiper relay energezed. (see table below.)
- 4. Wiper does not stop.
  - Check the wiper motor.
  - Check the intermittent wiper relay.
  - Check the wiper switch.
- 5. Washer is inoperative.
  - 1) Wiper is operative.
    - Check the washer motor.
    - Check the washer switch.

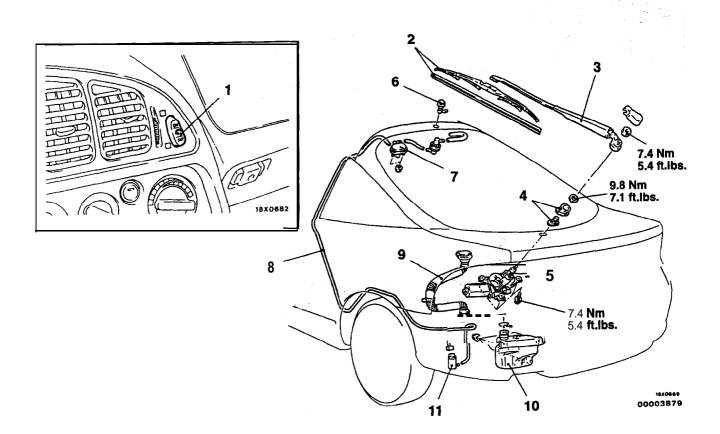
Terminal No.	Voltage	Check
6	ov	Intermittent wiper relay or rear wiper switch
	Battery positive voltage	Intermittent wiper relay
	O-Battery positive voltage (alternating)	- (Normal)

# **REAR WIPER AND WASHER**

51100850098

# REMOVAL AND INSTALLATION <ECLIPSE>

Non-turbo



### Wiper and washer switch removal steps

- Center air outlet assembly (Refer to GROUP 55 Ventilators.)
- 1. Wiper and washer switch

### Wiper motor removal steps

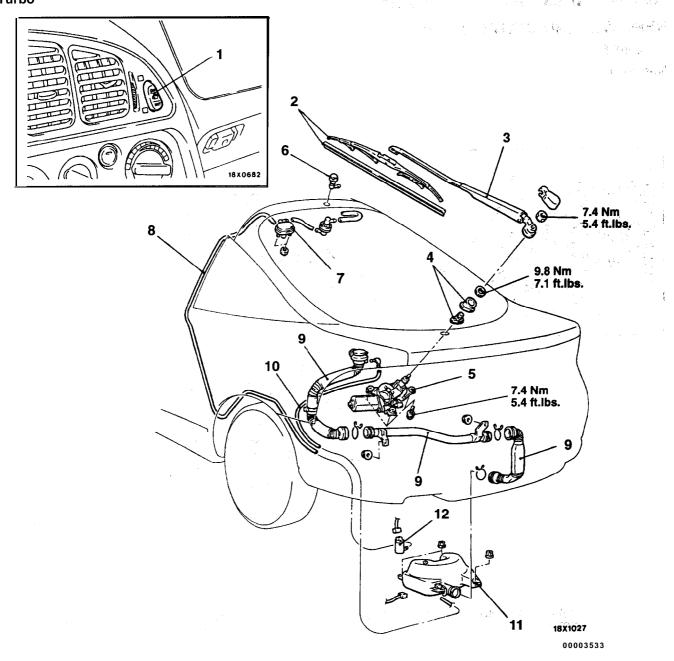


- ►A 2. Wiper blade
- ►A 3. Wiper arm
  - 4. Spacer assembly
  - Liftgate lower trim (Refer to GROUP 52A - Trims.)
  - 5. Wiper motor

### Washer tank and hose removal steps

- Quarter upper trim (L.H.), quarter lower trim (L.H.) rear end trim, rear side trim, liftgate upper trim (Refer, to GROUP 52A - Trims.)
- 6. Washer nozzle
- 7. Joint assembly 8. Tube assembly 9. Hose assembly
- 10. Washer tank
- 11. Washer motor

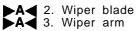
### **Turbo**



# Wiper and washer switch removal steps

- Center air outlet assembly (Refer to GROUP 55 Ventilators.)
- 1. Wiper and washer switch

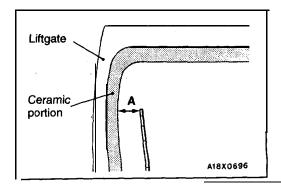
# Wiper motor removal steps



- 4. Spacer assembly
- •Liftgate lower trim (Refer to GROUP 52A Trims.)
- 5. Wiper motor

### Washer tank and hose removal steps

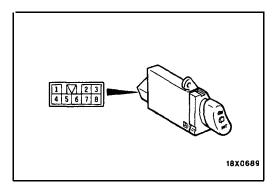
- Quarter upper trim (L.H.), quarter lower trim (L.H.), rear end trim, rear side trim, **liftgate** upper trim (Refer to **GROUP 52A** - Trims)
- 6. Washer nozzle
- 7. Joint assembly
- 8. Tube assembly
- 9. Hose assembly
- 10. Tube assembly
- Spare tire
- 11. Washer tank
- 12. Washer motor



# INSTALLATION SERVICE POINT ►A WIPER ARM/WIPER BLADE INSTALLATION

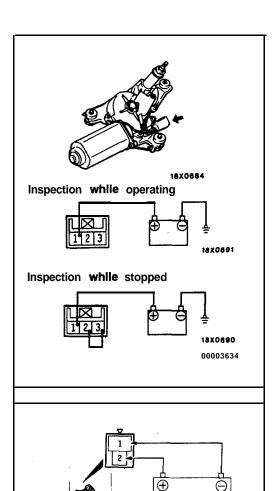
Adjust the wiper arm so that the clearance **between** the wiper blade edge and the ceramic portion is at the **standard** value.

Standard value (A): 130  $\pm$  5 mm (5.18  $\pm$  .20 in.)



# INSPECTION 51100950022 WIPER AND WASHER SWITCH CONTINUITY CHECK

Switch position	Terminal No.							
		3	7	5	6	8	1	4
Wiper switch	OFF			0-	9			
	INT	0	9	9	Ю		$\prod_{\alpha}$	
	LO		0		0			۰
Washer switch	OFF							-
	ON		d			9		



### **WIPER MOTOR CHECK**

51101290025

Do not remove the wiper motor when checking.

# Wiper Motor at Low Speed and High Speed Operation

Connect a battery to the wiper motor as shown in the illustration and inspect motor operation at low speed and high speed.

# Wiper Motor at Stop Position Operation

- (1) Run the wiper motor at low speed, disconnect the battery, and stop the motor.
- (2) Reconnect the battery as shown in the illustration, and confirm that after the motor starts turning at low speed, it stops at the automatic stop position.

## WASHER MOTOR CHECK

51101310021

- (1) With the washer motor installed to the washer tank, fill the washer tank with water.
- (2) When the battery is connected as shown in the figure, check that the water squirts out strongly.

**TSB** Revision

18X027£

# **DOOR MIRROR**

51100060057

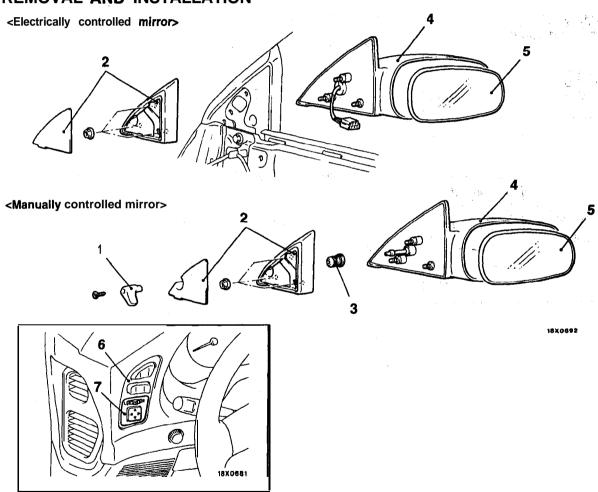
# SPECIAL TOOL

Tool	Tool number and name	Supersession	Application	
	MB990784  Ornament remover	General service tool	Door mirror control switch removal	, 15

**DOOR MIRROR** 

51100670052

# REMOVAL AND INSTALLATION



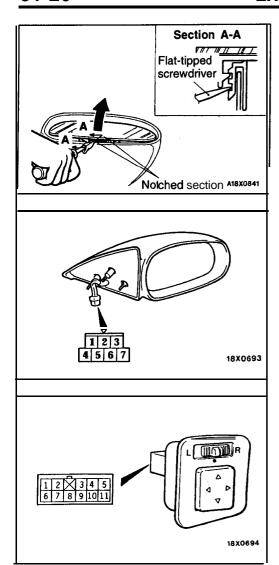
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### Door mirror removal steps

- Door trim (Refer to GROUP 42 Door Trim and Waterproof Film.)
- 1. Knob
- 2. Delta cover inner
- Boot
   Door mirror
- 5. Mirror

# Door mirror control switch removal steps

- 6. Instrument panel switch assembly
- 7. Door mirror control switch



### REMOVAL SERVICE POINT

# **▲A▶** MIRROR REMOVAL

Turn the mirror by hand so that it faces upwards, **insert** the flat-tipped screwdriver wound with masking tape into the notched section, and lever out. the mirror to remove it.

# INSPECTION 51100680017 ELECTRICALLY CONTROLLED MIRROR CHECK

Check that the mirror moves as described in the table when each terminal is connected to the battery.

Battery connection terminal			Direction of operation
5	16	7	
***		<b></b>	UP
⊕			DOWN
<b>A</b>			LEFT
$\bigcirc$	<u> </u>		RIGHT

# DOOR MIRROR CONTROL SWITCH CONTINUITY CHECK 51100710020

Direction of operation	Selector switch position	Terminal No.						
		3	4	5	8	9	10	11
UP	Left side	0-	0	0-			-0	:
	Right side	0-	0			0-	0	
DOWN	Left side	0	0	0		2	0	7 400
	Right side	0-	0			0	-0	
LEFT	Left side	0-	0-				0	0
	Right side	0	0-		0		0	
RIGHT	Left side	9	9				ρ	0
	Right side	9	þ		0-		Q	