# **EXTERIOR**

# CONTENTS

120002128

FRONT BUMPER 3	REAR WIPER AND WASHER*
REAR BUMPER 4	SERVICE SPECIFICATION
GRILLES, GARNISHES AND MOULDINGS 5	REAR WIPER AND WASHER
SPECIAL TOOL 5	Column Switch Inspection
GRILLES, GARNISHES AND MOULDINGS 5	Washer Motor Inspection
WINDSHIELD WIPER AND WASHER* 6	Inspection
SERVICE SPECIFICATION 6	CONTINUED ON NEXT PAGE
WINDSHIELD WIPER AND WASHER 6	
Inspection 8	
Column Switch Inspection 8	

# 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) 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 lamp, 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 (\*).

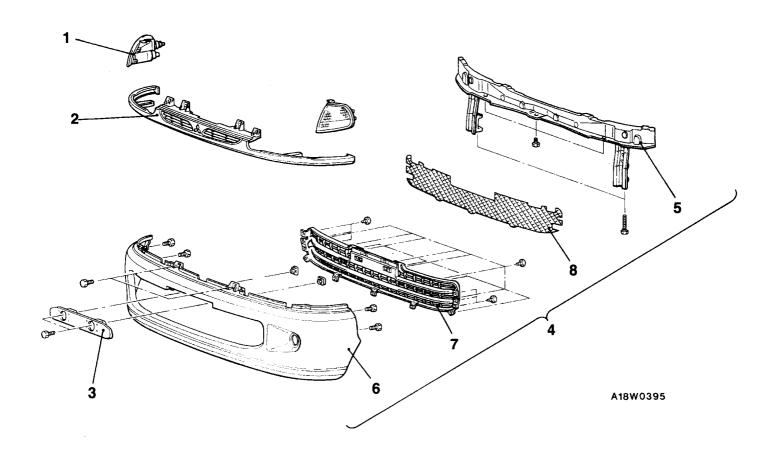
DOOR MIRROR 15	ADHESIVE
SPECIAL TOOL	REAR UNDER GUARD17
DOOR MIRROR	STEP <4WD> 18
Inspection	ADHESIVE
REAR UNDER GUARD <4WD> 17	STEP 18

# FRONT BUMPER

120002129

#### REMOVAL AND INSTALLATION

- Pre-removal and Post-installation Operations
  (1) Splash Shield Removal and Installation
  (Refer to GROUP 42 Fender.)
  (2) Under Cover Panel Removal and Installation
  (Refer to GROUP 42 Under Cover.)



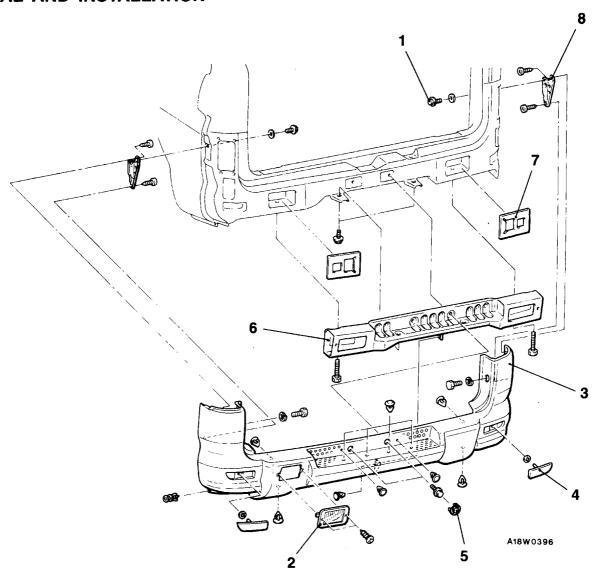
- 1. Front turn signal lamp (Refer to GROUP 54 Front Turn Signal
- 2. Radiator grille (Refer to P. 51-5.)
- 3. License plate bracket assembly
- 4. Bumper assembly

- 5. Front bumper reinforcement
- 6. Bumper face
- 7. Under grille
- 8. Net

#### **REAR BUMPER**

120002130

#### **REMOVAL AND INSTALLATION**



#### **NOTE**

The rear fog lamp is only installed at driver's side.

- Gate pillar trim lower (Refer to GROUP 52A - Trim.) Rear washer tank (Refer to P.51-10.)
- 1. Bolt
- 2. Rear fog lamp
  3. Rear bumper face
  4. Reflector
- 5. Cap

- 6. Rear bumper back beam assembly7. Packing
- 8. Rear bumper side bracket

### **GRILLES, GARNISHES AND MOULDINGS**

120000392

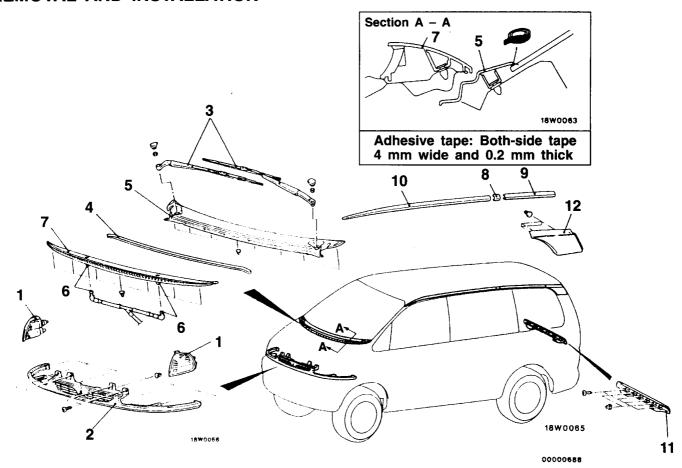
#### SPECIAL TOOL

Tool	Number	Name	Use
	MB990449	Window moulding remover	Removal of roof drip moulding, etc.

#### **GRILLES, GARNISHES AND MOULDINGS**

120000393

#### REMOVAL AND INSTALLATION



#### Radiator grille removal steps

- Front turn signal lamp (Refer to GROUP 54 - Front Turn Signal Lamp.)
- 2. Radiator grillé

#### Front deck garnish removal steps

- 3. Wiper arm assembly
- 4. Hood weatherstrip
- 5. Front deck garnish

#### Hood end garnish removal steps

- Air intake duct assembly (Refer to GROUP 42 – Hood.)
- 6. Washer hose connection
- 7. Hood end garnish

#### Drip moulding removal steps

- 8. Joint
- 9. Rear drip moulding
- 10. Front drip moulding

#### Tailgate garnish removal steps

- Tailgate trim (Refer to GROUP 52A - Trim.)
- 11. Tailgate garnish

#### D pillar garnish removal

12. D pillar garnish

#### WINDSHIELD WIPER AND WASHER

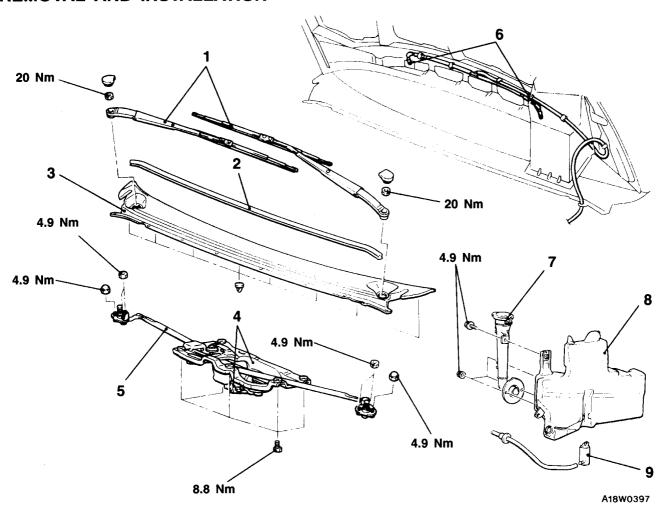
120002131

#### SERVICE SPECIFICATION

Items		Standard value
Windshield wiper blade installation position	R.H. (Distance from the front deck garnish end)	30±5
mm	L.H. (Distance from the wiper blade R.H.)	60±5

#### WINDSHIELD WIPER AND WASHER REMOVAL AND INSTALLATION

120002132



#### Wiper motor and linkage removal steps

- 1. Wiper arm and blade assembly
- 2. Hood weatherstrip
- 3. Front deck garnish4. Wiper motor and bracket assembly
- 5. Link assembly

#### Washer nozzle removal steps

- Air intake duct assembly (Refer to GROUP 42 - Hood.)
- 6. Washer nozzle

#### Washer tank removal steps

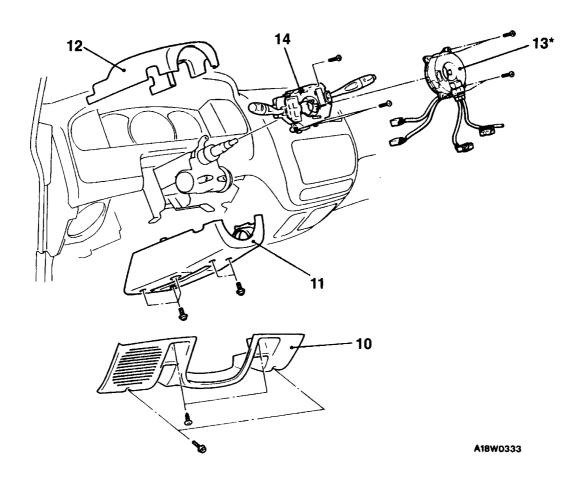
- Reserve tank (Refer to GROUP 14 - Radiator.)
- 7. Inlet assembly
- Splash shield (Refer to GROUP 42 - Fender.)
- 8. Windshield washer tank
- 9. Washer motor and pump assembly

CAUTION: SRS

Before removal of air bag module and clock spring, refer to GROUP 52B – Service Precautions and Air Bag Module and Clock Spring.

**Post-installation Operation** 

 Checking Steering Wheel Position with Wheels Straight Ahead

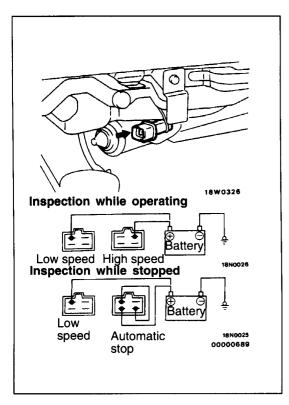


#### Column switch removal steps

- Horn pad (Refer to GROUP 37A Steering Wheel and Shaft.)
- Air bag module (Refer to GROUP 52B
   Air Bag Module and Clock Spring.)
- Steering wheel (Refer to GROUP 37A
   Steering Wheel and Shaft.)
- 10. Under cover (Refer to GROUP 52A Instrument panel.)
- 11. Column cover, lower
- 12. Column cover, upper
- Clock spring\* <Vehicles with SRS> (Refer to GROUP 52B – Air Bag Module and Clock Spring.)
- 14. Column switch assembly (With built-in wiper and washer switch, and wiper relay)

#### NOTE

Parts marked with \* should not be removed from the column switch except when removal is absolutely necessary.



#### INSPECTION

#### WIPER MOTOR INSPECTION

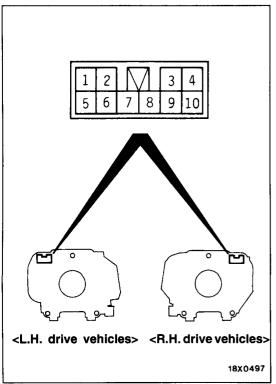
Check the wiper motor after disconnecting the wiring harness connector, and with the wiper motor remaining installed to the body.

#### 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 INSPECTION**

#### Wiper and Washer Switch Continuity Inspection

<L.H. drive vehicles>

Switch position		Terminal No.					
		6	7	8	9	10	
	OFF		$\bigcirc$	$\multimap$			
Wiper switch	1 (LO)			0		-0	
	2 (HI)				0	-0	
Washer switch	ON	0-				-0	

#### <R.H. drive vehicles>

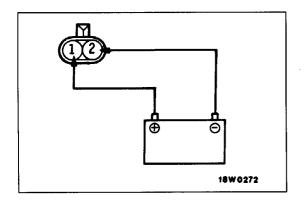
Switch position		Terminal No.					
Switch position		8	9	10	11	12	
	OFF			$\bigcirc$	—		
Wiper switch	1 (LO)	0-		—			
	2 (HI)	0-	-0				
Washer switch	ON	0				$\overline{-}$	

# Intermittent Wiper Relay; Intermittent Operation Inspection (integrated into the column switch assembly)

- (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.

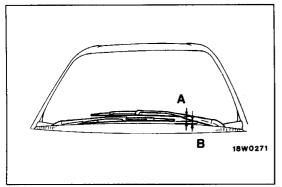
Vehicles with variable intermittent control

FAST: Approx. 2 seconds SLOW: Approx. 15 seconds



#### **WASHER MOTOR**

- (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.



#### INSTALLATION SERVICE POINT

# ►A WIPER ARM AND BLADE ASSEMBLY INSTALLATION

Install the wiper blade in the specified position (standard value).

#### Standard value:

Distance from the wiper blade (R.H.)

(A): 60±5 mm

Distance from the front deck garnish end

(B): 30±5 mm

#### REAR WIPER AND WASHER

120000396

#### SERVICE SPECIFICATION

Items	Standard value
Rear wiper blade's stop position (Distance from the rear window glass ceramic end line) mm	70±5

#### **REAR WIPER AND WASHER**

120002133

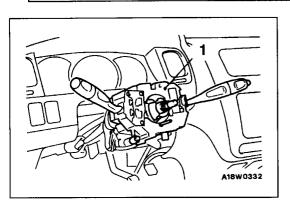
#### REMOVAL AND INSTALLATION

CAUTION: SRS

Before removal of air bag module and clock spring, refer to GROUP 52B – Service Precautions and Air Bag Module and Clock Spring.

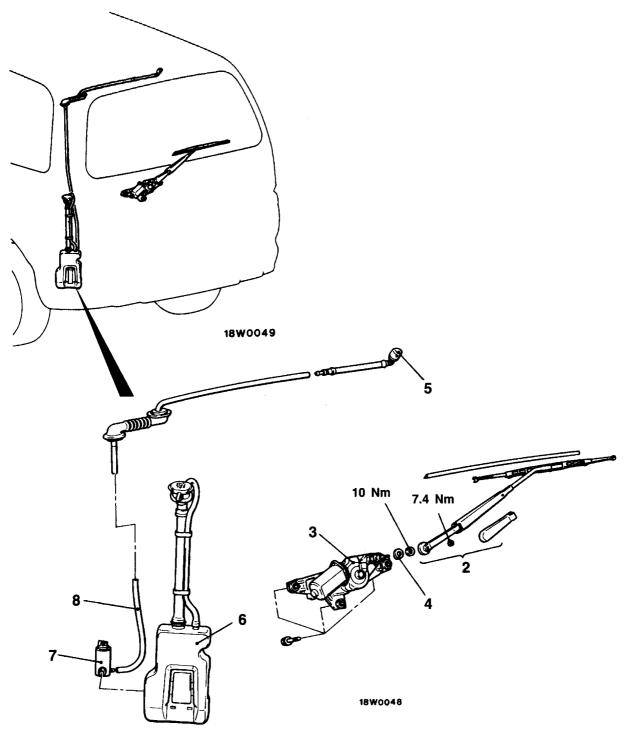
Post-installation Operation <Column switch assembly>

 Checking Steering Wheel Position with Wheels Straight Ahead



#### Column switch removal

 Column switch assembly (Wiper and washer switch) (Refer to P. 51-7.)



00000690

#### Wiper motor removal steps

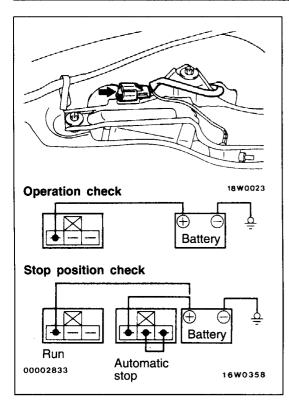
- Tailgate trim
   (Refer to GROUP 52A Trim.)
   ▶A < 2. Wiper arm and blade assembly</li>
   3. Motor and bracket assembly
   4. Packing and washer

#### Washer nozzle removal

5. Washer nozzle

#### Washer tank removal steps

- Box lid (Refer to GROUP 52A Trim.)
- 6. Washer tank assembly7. Washer motor
- 8. Washer hose assembly



#### INSPECTION

#### WIPER MOTOR INSPECTION

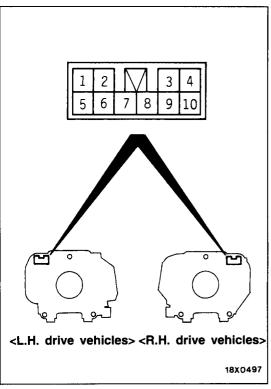
Check the wiper motor after first disconnecting the wiring harness connector, and with the wiper motor remaining installed to the body.

#### **Wiper Motor Operation**

Connect a battery to the wiper motor as shown in the illustration and inspect the motor operation.

#### Wiper Motor at Stop Position Operation

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

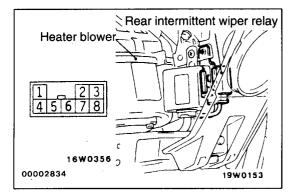


#### **COLUMN SWITCH INSPECTION**

#### Wiper and Washer Switch Continuity Inspection

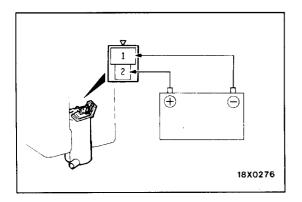
Switch position		Terminal No.				
Switch position		2	3	4	10, 8*	
Minorovitab	INT		0		-0	
Wiper switch ON				0-	-0	
Washer switch	ON	0-			-0	

\*: R.H. drive vehicles



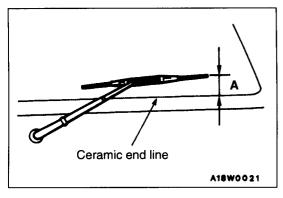
#### INTERMITTENT WIPER RELAY INSPECTION

- (1) Check to be sure that there is continuity between terminals (1) (2).
- (2) Connect terminal (4), (5) to the battery (+) terminal.
- (3) Check that there is battery voltage at terminal (2) for intermittent periods of 8 seconds when terminal (7) is connected to the battery (-) terminal.



#### WASHER MOTOR INSPECTION

- (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.



#### **INSTALLATION SERVICE POINT**

#### ►A WIPER ARM ASSEMBLY INSTALLATION

Install the wiper arm to the pivot shaft so that the wiper blade's stop position is the position (standard value) shown in the illustration.

Standard value (A): 70±5 mm

#### **HEADLAMP WASHER**

120002134

#### **REMOVAL AND INSTALLATION**

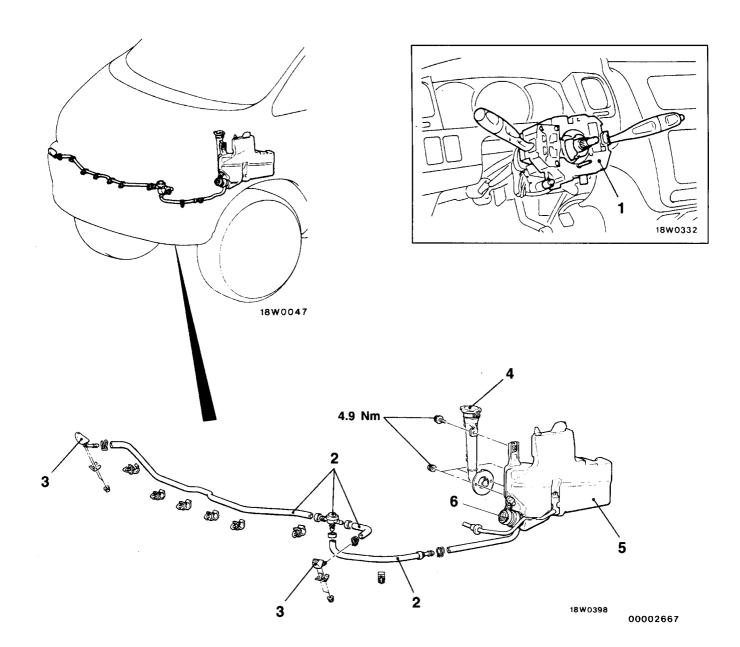
**CAUTION: SRS** 

Before removal of air bag module and clock spring, refer to GROUP 52B – Service Precautions and Air Bag Module and Clock Spring.

#### Post-installation Operation

<Column switch assembly>

 Checking Steering Wheel Position with Wheels Straight Ahead



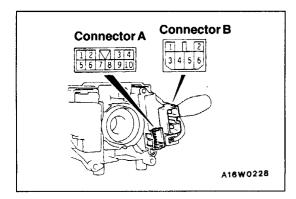
1. Column switch assembly (Headlamp washer switch) (Refer to P.51-14.)

#### Nozzle assembly removal steps

- Front bumper (Refer to P.51-3.)
- Washer hose and check valve assembly
- 3. Nozzle assembly

#### Washer tank removal steps

- Reserve tank (Refer to GROUP 14 – Radiator.)
- 4. Inlet assembly
- Splash shield (Refer to GROUP 42 – Fender.)
- 5. Washer tank
- 6. Washer motor and washer fluid level switch



# Headlamp washer relay STEP 1 STEP 2 Test lamp Test lamp 18N0345 00002668

#### INSPECTION

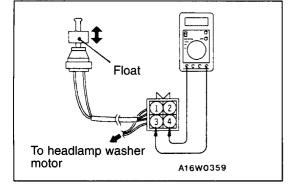
#### **COLUMN SWITCH INSPECTION**

#### **Headlamp Washer Switch Continuity Inspection**

Check the continuity between termianl 2 of connector A and termianl 1 of connector B with the headlamp washer switch in ON position.

#### **HEADLAMP WASHER RELAY INSPECTION**

- 1. Connect battery and test lamp to the relay as illustrated.
- The relay is normal if the lamp lights for approximately 0.5 second upon connection of termianl (2) to battery (-).



# To washer fluid level switch A18W0400

# WASHER FLUID LEVEL SWITCH CONTINUITY INSPECTION

- Remove the washer fluid level switch from the washer tank.
- Connect a circuit tester to the connector of washer fluid level switch.
- 3. Move the float up and down.
- 4. Check to be sure that there is continuity between the terminals when the float is down.

#### **HEADLAMP WASHER MOTOR INSPECTION**

- 1. With the washer motor installed to the washer tank, fill the washer tank with water.
- 2. Connect battery (+) and (-) cables to terminals (2) and (1) respectively to see that the washer motor runs and water is injected.

#### **DOOR MIRROR**

120000398

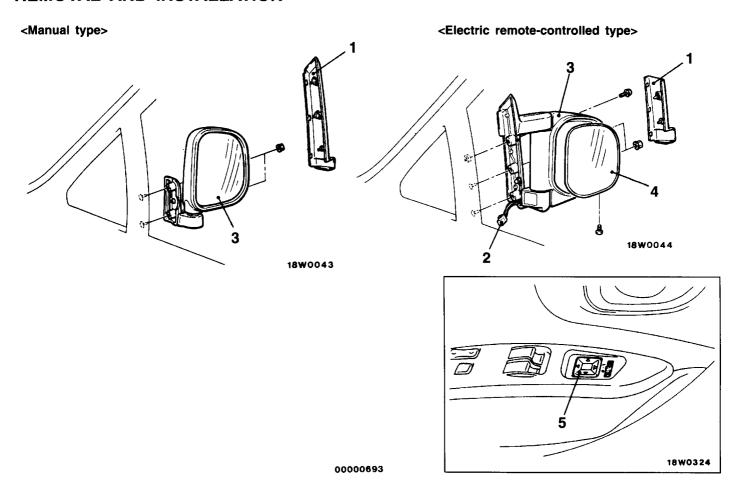
#### SPECIAL TOOL

Tool	Number	Name	Use
	MB990784	Ornament remover	Removal of electric remote-controlled door mirror switch.

#### **DOOR MIRROR**

120002233

#### **REMOVAL AND INSTALLATION**

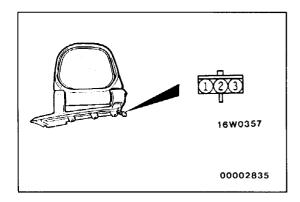


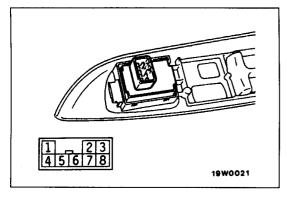
#### Door mirror removal steps

- 1. Mirror cover assembly
- 2. Harness connector <Vehicles with electric remote-controlled mirror>
- 3. Door mirror assembly
- 4. Mirror

# Electric remote-controlled door mirror switch removal

5. Electric remote-controlled door mirror switch





#### **INSPECTION**

# ELECTRIC REMOTE-CONTROLLED DOOR MIRROR INSPECTION

Battery connection terminal			Direction of operation
1	2	3	Direction of operation
Θ		· ⊕	UP
<b>+</b>		🖯	DOWN
⊕			LEFT
⊝			RIGHT

# ELECTRIC REMOTE-CONTROLLED DOOR MIRROR SWITCH CONTINUITY INSPECTION

Direction	Direction Selector Terminal No.							
operation	position	1	2	3	4	5	6	7
	L.H. side			0-		0		
UP	OFF	0	-0					
	R.H. side			0-				-0
	L.H. side	0-				-0		
DOWN	OFF		0-	-0				
	R.H. side	0-						-0
	L.H. side	0-			0			
LEFT	OFF		0-	-0				
	R.H. side	0					-0	
	L.H. side			0	-0			
RIGHT	OFF	0	-0					
	R.H. side	<u> </u>		$\bigcirc$			0	

## **REAR UNDER GUARD <4WD>**

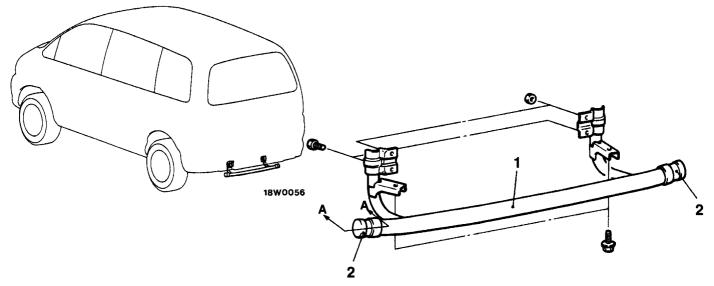
120000401

#### **ADHESIVE**

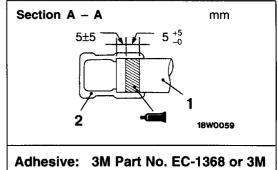
Item	Specified adhesive
Rear under guard and caps	3M Part No. EC-1368 or 3M ATD Part No. 8080 or equivalent

#### **REAR UNDER GUARD REMOVAL AND INSTALLATION**

120000402



18W0058



ATD Part No. 8080 or equiv-

alent

00000695

- 1. Rear under guard
- 2. Caps

#### STEP <4WD>

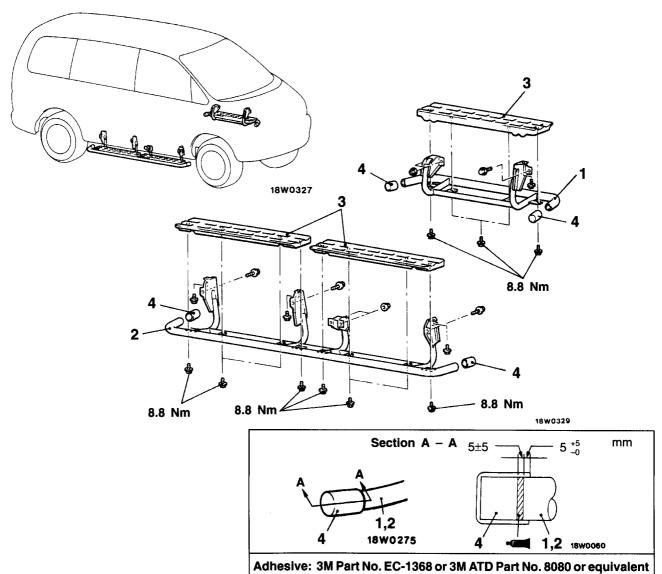
120000403

#### **ADHESIVE**

Item	Specified adhesive
Step assembly (A), (B) and caps	3M Part No. EC-1368 or 3M ATD Part No. 8080 or equivalent

**STEP** 120000404

#### **REMOVAL AND INSTALLATION**



00000696

- Step assembly (A)
   Step assembly (B)
   Side step
   Caps