EXTERIOR

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E51AA--

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WARNING 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 (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: 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 and asterisk (*).

SPECIFICATIONS

GENERAL SPECIFICATIONS

E51CA--

Items		Specifications
Windshield wiper motor		·
Nominal torque	Nm (kgm, ft.lbs.)	24 (2.4, 17)
Windshield wiper blade		·
Wiping angle		
Driver's side		83.5°
Passenger's side		94.6°
Wiper blade length	mm (in.)	
Driver's side		500 (19.7)
Passenger's side		475 (18.7), 425 (16.7)*
Windshield washer motor and po	ımp	
Motor type		Direct current ferrite magnet type
Pump type		Centrifugal type
Power consumption	А	3.8 or less
Time of continuous use	sec.	
With washer fluid		Max. 60
Empty operation		Max. 20
Nozzle jet pressure	kPa (kg/cm², psi)	120 (1.2, 17) or more
Tank capacity	dm3 (U.S.qts., Imp.qts.)	5.0 (5.3, 4.4) or more, 2.3 (2.4, 2.0) or more*
Rear wiper motor		
rpm at load of 0.6 Nm (0.06 kg	gm, 0.43 ft.lbs.) r/min.	35 ± 5
Rear wiper blade		
Wiping angle		110°
Wiper blade length	mm (in.)	350 (13.8) <hatchback></hatchback>
		400 (15.7) <wagon></wagon>
Rear window washer motor and	pump	
Motor type		Direct current ferrite magnet type
Pump type		Centrifugal type
Power consumption	А	3.8 or less
Time of continuous use	sec.	
With washer fluid		Max. 60
Empty operation		Max. 20
Nozzle jet pressure	kPa (kg/cm², psi)	120 (1.2, 17) or more
Intermittent wiper relay		
Intermittent interval	sec.	8 ± 2

NOTE

^{*:} R.H. drive vehicles

Items		Specifications
Headlamp washer motor and pump		****
Motor type		Direct current ferrite magnet type
Pump type		Centrifugal type
Rated current	· A	21 or less
Check valve		
Valve opening and closing pressure	kPa (kg/cm², psi)	50-110 (0.5-1.1, 7.1-15.6)
Headlamp washer relay	_	
Timer operation time	sec.	0.52

SERVICE SPECIFICATIONS

E51CB--

Items	, •			Specifications
Standard value				
Windshield wiper blade installation position			mm (in.)	•
Driver's side		•	• • •	20-30 (0.79-1.18)
Passenger's side				15-25 (0.59-0.98)
Rear wiper blade installation position			mm (in.)	15-21 (0.59-0.83) <hatchback></hatchback>
				2-8 (0.08-0.31) <wagon></wagon>

SPECIAL TOOLS

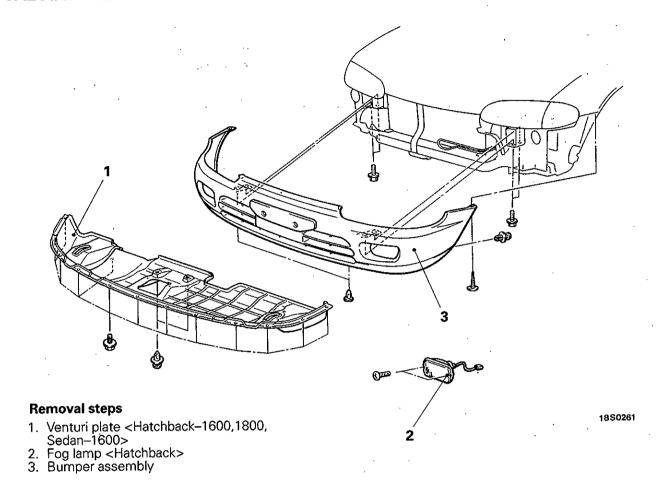
E51DA--

Tool	Number	Name	Use
	MB990784	Ornament remover	Removal of rear wiper and washer switch and door mirror control switch.
	MB990449	Window moulding remover	Removal of roof drip moulding, etc.

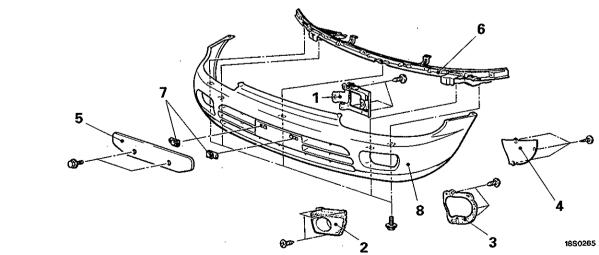
FRONT BUMPER

E51GABP

REMOVAL AND INSTALLATION



DISASSEMBLY AND REASSEMBLY



Disassembly steps

- Fog lamp bracket <Hatchback>
 Fog lamp bezel
 Fog lamp bezel bracket
 Bumper cover <1300, 1600>

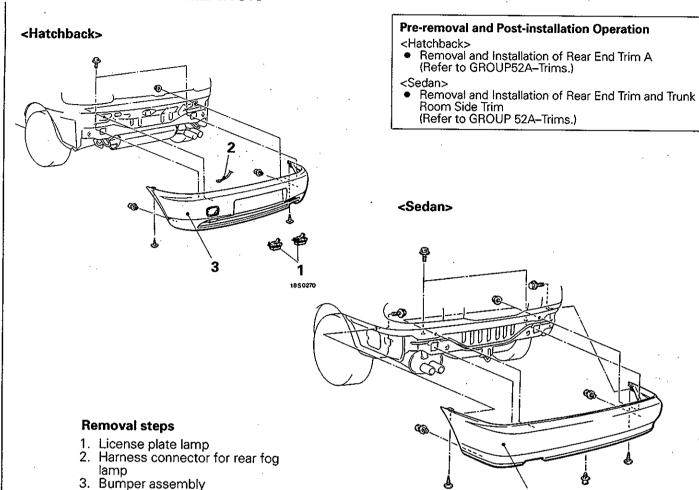
- <Sedan, Wagon>

- 5. License plate bracket6. Bumper reinforcement7. Bumper license bracket
- 8. Bumper face

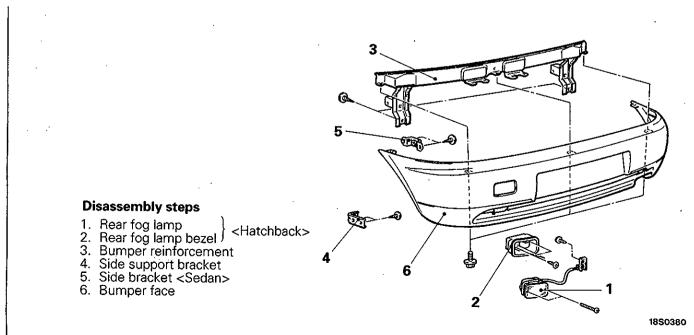
REAR BUMPER < Hatchback, Sedan>

E51GABU





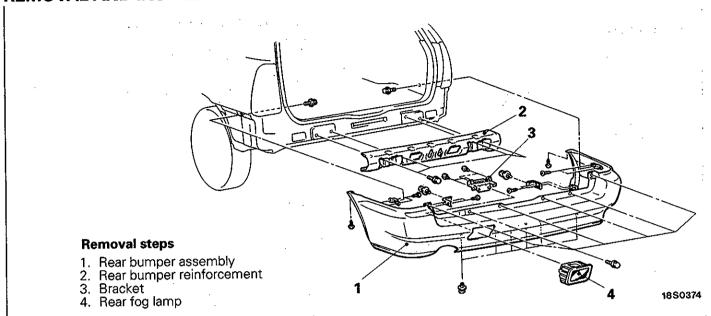
DISASSEMBLY AND REASSEMBLY



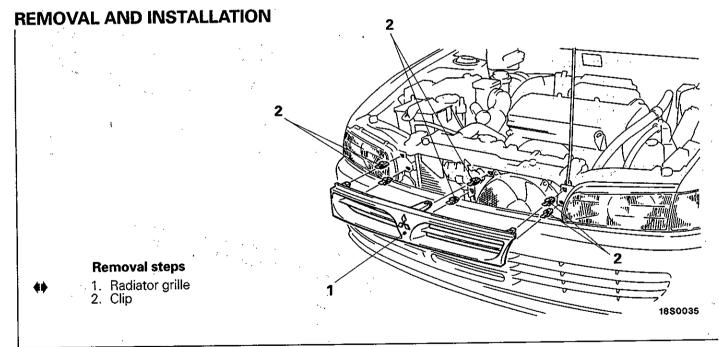
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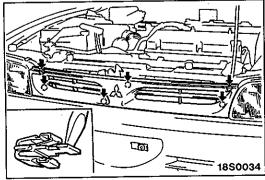
REAR BUMPER < Wagon>

REMOVAL AND INSTALLATION



RADIATOR GRILLE <Sedan, Wagon>





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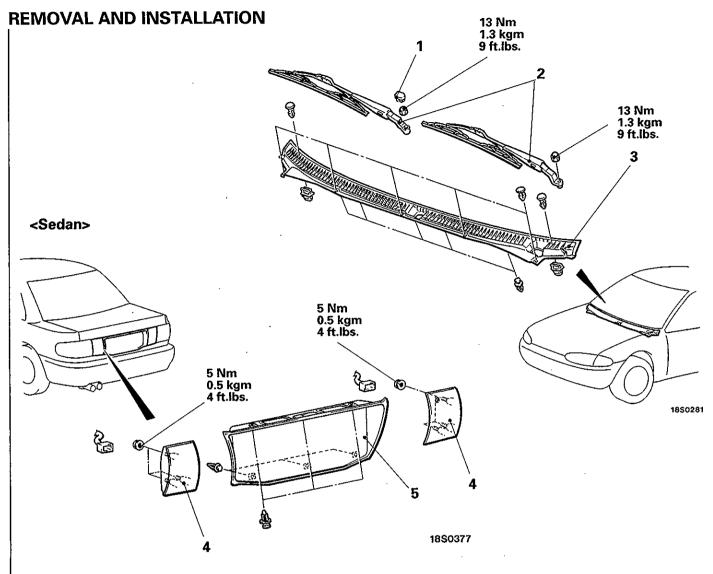
SERVICE POINTS OF REMOVAL

1. REMOVAL OF RADIATOR GRILLE

Remove the radiator grille by pushing the tab of the radiator grille clips in the direction of the arrows with a flat-tipped screwdriver, while lightly pulling the radiator grille towards you.

NOTES

GARNISHES

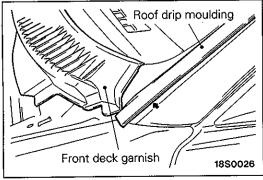


Removal steps of front deck garnish

- 1. Shaft cover
- 2. Wiper arm and blade assembly
- 3. Front deck garnish

Removal steps of rear panel garnish

- 4. Rear fog lamp
- 5. Rear panel garnish, center



SERVICE POINTS OF REMOVAL

3. REMOVAL OF FRONT DECK GARNISH

After raising the end of the roof drip moulding slightly, remove the front deck garnish.

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PWME9117-A

REVISED

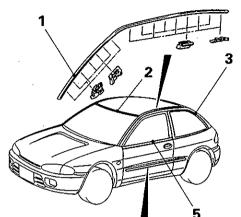
MOULDINGS E51IDAP

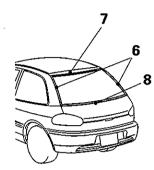
REMOVAL AND INSTALLATION

12 1880033

Adhesive tape: Both-side tape 18 mm (0.71 in.) wide and 0.8 mm (0.03 in.) thick

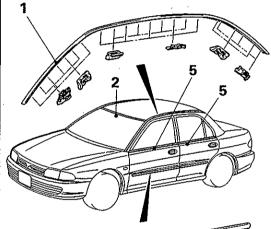
<Hatchback>

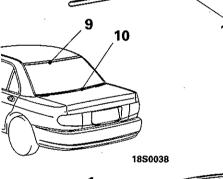




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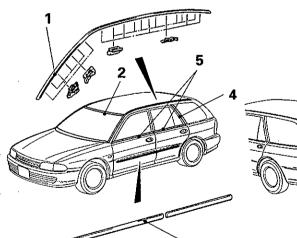
<Wagon>



- 1. Roof drip moulding
- Windshield upper moulding (Refer to GROUP 42 Windshield.)
- 3. Quarter window glass and moulding assembly (Refer to GROUP 42 - Quarter Window

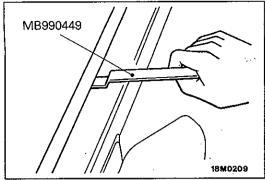
Glass <Hatchback>) Quarter window garnish (Refer to GROUP 42 – Quarter Window Glass <Wagon>)

- 5. Beltline moulding (Refer to GROUP 42 Window Glass Runchannel and Door Opening Weather-
- strip.) Tailgate side moulding (Refer to GROUP 42 - Tailgate 7. Tailgate upper moulding 8. Tailgate lower moulding Window Glass <Hatchback>.)
- 9. Rear window upper moulding (Refer to Rear Window Glass 10. Rear window lower moulding) <Sedan>.)
- 11. Tailgate window glass and moulding assembly (Refer to GROUP 42 – Tailgate Window Glass <Wagon>)
- 12. Side protect mouldling

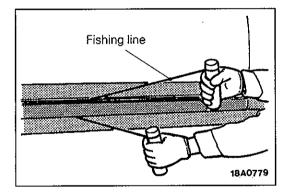


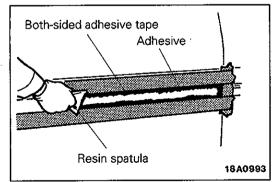
12

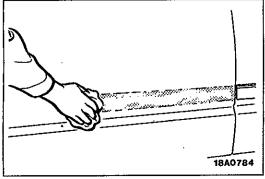




Masking tape







SERVICE POINTS OF REMOVAL

1. REMOVAL OF ROOF DRIP MOULDING

Use the special tool to lever out the moulding.

Caution

If the moulding has become warped, it should not be re-

12. REMOVAL OF SIDE PROTECTOR MOULDING

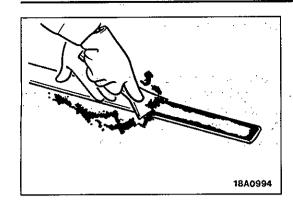
(1) Apply masking tape to the outside circumference of the side protector moulding.

(2) Insert fishing line (Ø0.8 mm [0.03 in.]) in between the body and the side protector moulding, and pull both ends alternately to cut the adhesive section and remove the side protector moulding.

- (3) Scrape off the both-sided adhesive tape with a resin spatula.
- (4) Tear off the masking tape.

(5) Wipe the body surface clean with a rag moistened with isopropyl alcohol.

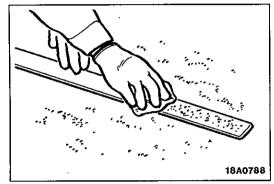
PWME9117-A



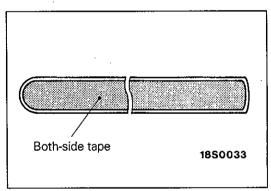
SERVICE POINTS OF INSTALLATION

12. INSTALLATION OF SIDE PROTECTOR MOULDING Affixing the both-sided tape to the side protector moulding (when reusing)

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

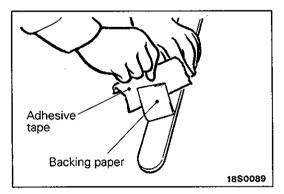


(2) Wipe the body surface clean with a rag moistened with isopropyl alcohol.



- (3) Heat the adhesive surface of the both-side tape on the side protector moulding to about 40–60°C (104–140°F).
- (4) Affix the specified both-sided adhesive tape to the side protector moulding.

Adhesive tape: Both-side tape
18 mm (0.71 in.) wide and
0.8 mm (0.03 in.) thick



Installation of side protector moulding

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

NOTE

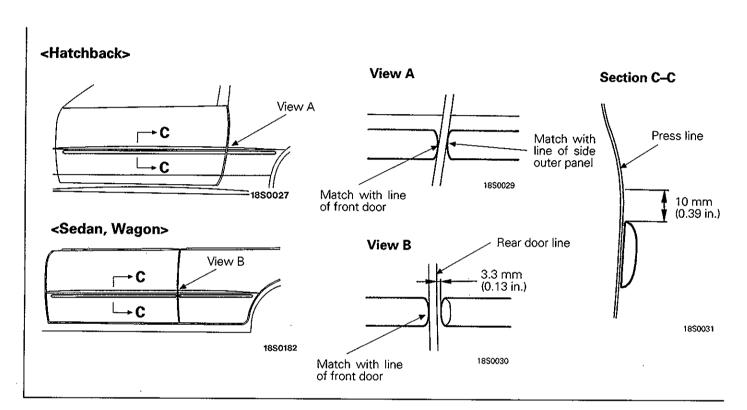
If you attach the adhesive tape to the edge of the backing paper, it will be easy to tear off.

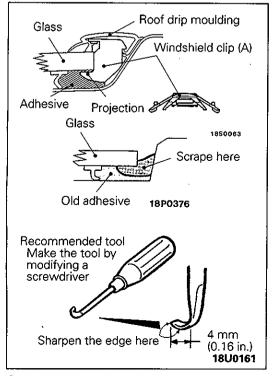
(2) Install the side protector moulding in the place shown in the illustration.

NOTE

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

(3) Firmly press in the side protector moulding.





1. INSTALLATION OF ROOF DRIP MOULDING

- (1) When installing the roof drip moulding to the windshield and the rear window glass, make a special tool like the one shown in the illustration to scrape away the old adhesive at the windshield clip (A) installation position.
- (2) Apply primer, and then apply new adhesive to install the moulding.

NOTE

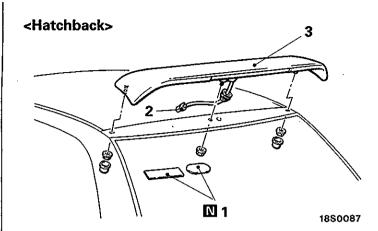
- (1) At clip locations other than clip (A), the moulding and the clip tabs fit together, and at the location of clip (A), the clip is securely pressed in so that the projection catches at the glass as shown in the illustration.
- (2) If the windshield clip studs have been damaged, refer to GROUP 42 Windshield.

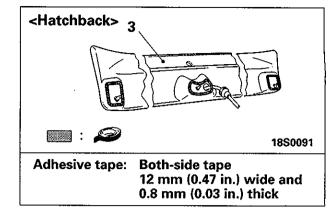
Caution

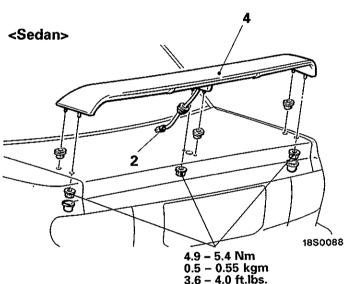
Be careful not to damage the glass and body.

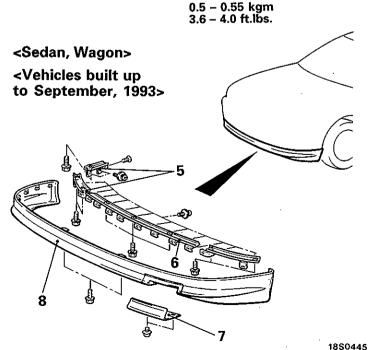
AERO PARTS E51HBAS

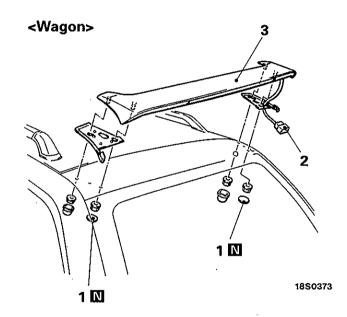
REMOVAL AND INSTALLATION











Roof spoiler removal steps

- Harness connector < Vehicles with high mounted stop lamp>

3. Roof spoiler

Rear spoiler removal steps

- 2. Harness connector < Vehicles with high mounted stop lamp>
- 4. Rear spoiler

Front bumper extension removal steps

- Front bumper assembly (Refer to P.51–4.) Air dam side plate
- 6. Air dam center plate
- 7. Cover
- 8. Front bumper extension

SERVICE POINTS OF REMOVAL

3. REMOVAL OF ROOF SPOILER < Hatchback>

Remove by the same procedure as for the side protector moulding. (Refer to P.51–8.)

SERVICE POINTS OF INSTALLATION

3. INSTALLATION OF ROOF SPOILER <Hatchback>

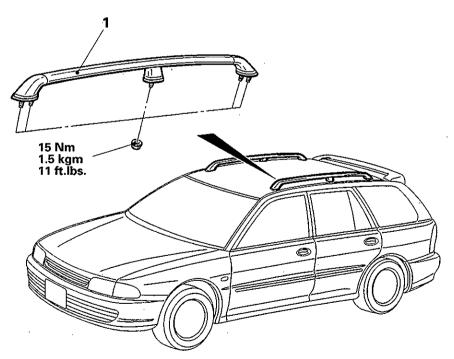
Install by the same procedure as for the side protector moulding. (Refer to P.51–9.)

EXTERIOR PARTS

E51TAAD

REMOVAL AND INSTALLATION

<Wagon>



18S0372

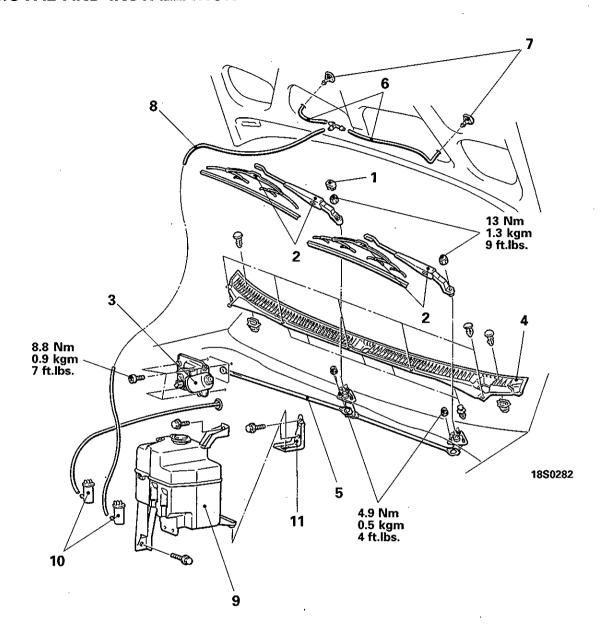
Roof rail removal steps

- Headlining (Refer to GROUP 52A – Headlining)
- 1. Roof rail

WINDSHIELD WIPER AND WASHER

E51KCAG

REMOVAL AND INSTALLATION



Removal steps of wiper motor and linkage

- 1. Shaft cover
- 2. Wiper arm and blade assembly
- 3. Wiper motor
- 4. Front deck garnish
- 5. Linkage

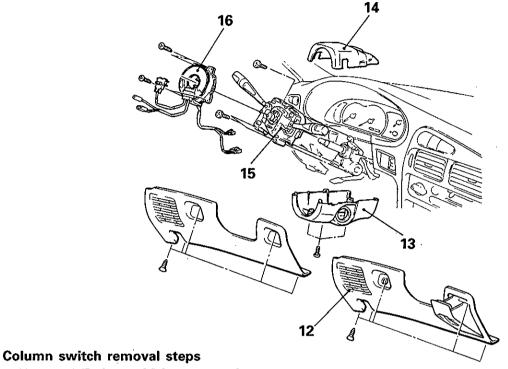
Removal steps of washer nozzle

- 6. Washer hose
- 7. Washer nozzle

Removal steps of washer tank

- 8. Washer hose
- Draining of washer fluidAir intake duct, air flow sensor and air cleaner cover assembly [Refer to GROUP 15 - Air Cleaner.]
- 9. Washer tank
 - 10. Washer motor
 - 11. Washer tank bracket

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

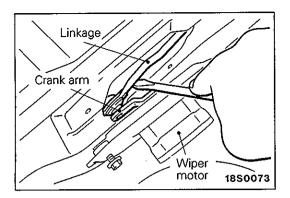


16S0637

- Horn pad (Refer to GROUP 37A Steering Wheel and Shaft.)
 Air bag module (Refer to GROUP 52B Air Bag Module and Clock Spring.)
 <Vehicles with SRS>
- Steering wheel (Refer to GROUP 37A Steering Wheel and Shaft.)
 Instrument lower panel
- 13. Column cover lower
- 14. Column cover uppér
- 15. Column switch
 16. Clock spring* <Vehicles with SRS> (Refer to GROUP 52B Air Bag Module) and Clock Spring.)

NOTE

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



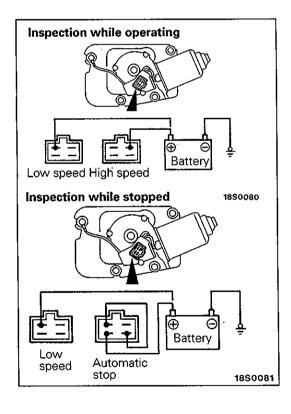
SERVICE POINTS OF REMOVAL

3. REMOVAL OF WIPER MOTOR

Loosen the wiper motor assembly mounting bolts, and then remove the wiper motor assembly. Disconnect the linkage and the motor assembly, and then remove the linkage.

Caution

Because the installation angle of the crank arm and the motor has been set, do not remove them unless it is necessary to do so. If they must be removed, remove them only after marking their mounting positions.



INSPECTION WIPER MOTOR

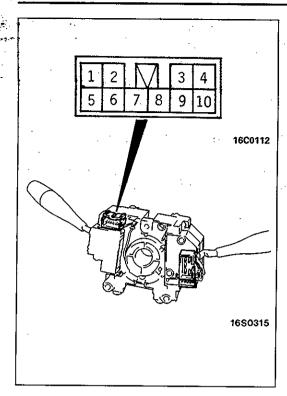
Check the wiper motor after disconnecting the wiring harness connector, and with the wiper motor remaining installed to the body.

Operation of Wiper Motor at Low Speed and High Speed

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

Operation of Wiper Motor at Stop Position

- (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

Wiper and Washer Switch

Operate switch and check for continuity between terminals. <LHD>

Terminal Switch position		5	6	7	8	9
	OFF			0		
Wiper switch	1 (LO)			0		0
* · · · · ·	2 (HI)				0	9
Washer switch	ON	\circ				\bigcirc

<RHD>

Terminal Switch position		6	7	8	9	10
	OFF			0	0	
Wiper switch	1 (LO)	0	-			_
	2 (HI)	\Diamond		-		
Washer switch	ON	0				

NOTE

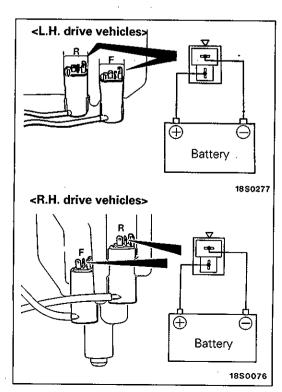
indicates that there is continuity between the terminals. Intermittent Wiper Relay (Intermittent Operation Inspection)

- (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.

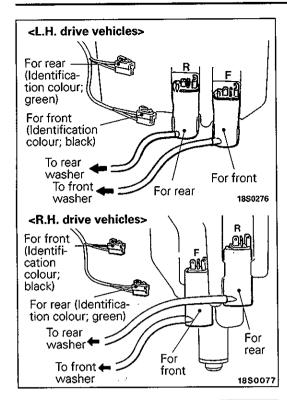
Vehicles without variable intermittent control Approx. 3–6 seconds Vehicles with variable intermittent control FAST: Approx. 3 seconds SLOW: Approx. 12 seconds

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.



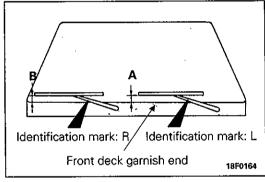
Dec. 1993



SERVICE POINTS OF INSTALLATION

9. INSTALLATION OF WASHER TANK ASSEMBLY

When installing the washer tank assembly, install as shown in the illustration so as not to make a mistake with the washer hoses and control harness connectors.



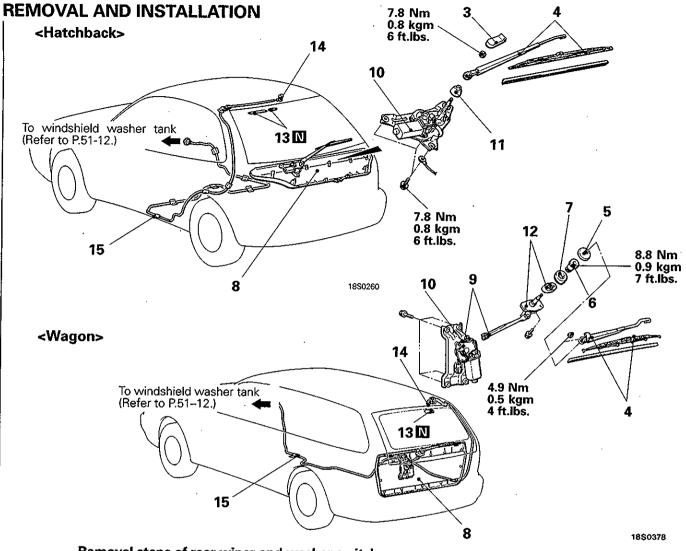
2. INSTALLATION OF WIPER ARM AND BLADE ASSEMBLY

- (1) The movements of the left and right wiper arms are different, so check the identification marks.
- (2) Install the wiper blade in the specified position (standard value) as shown in the illustration.

Standard value (A): 20-30 mm (0.79-1.18 in.) (B): 15-25 mm (0.59-0.98 in.)

REAR WIPER AND WASHER

E51LAAP



Removal steps of rear wiper and washer switch

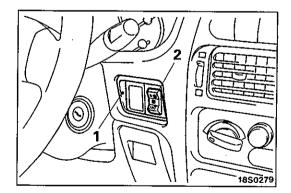
- 1. Switch garnish
- 2. Rear wiper and washer switch

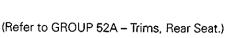
Removal steps of wiper motor

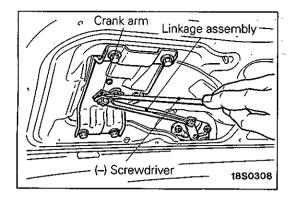
- 3. Cover
- 4. Wiper arm and blade
 - 5. Cover
 - 6. Special bolt { <Wagon>
 - 7. Washer
 - 8. Tailgate trim (Refer to GROUP 42 Tailgate <Hatchback, Wagon>)
- 9. Wiper motor and linkage assembly connection <Wagon>
 - 10. Wiper motor
- 11. Grommet < Hatchback>
 - 12. Linkage assembly <Wagon>

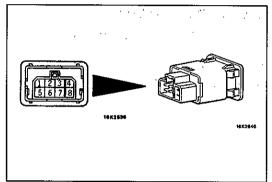
Removal steps of rear washer hose

- Cowl side trim
- Scuff plate
- Quarter trim
- Rear pillar trim <Hatchback> Tailgate pillar trim <Wagon>
- Rear seat assembly
- 13. Tape
- 14. Washer nozzle
- 15. Washer hose









SERVICE POINTS OF REMOVAL

9. WIPER MOTOR AND LINKAGE ASSEMBLY CONNECTION < WAGON>

Use a flat-tipped screwdriver to remove the connection between the wiper motor crank arm and the linkage assembly.

Caution

As the automatic stopping angle is fixed, the crank arm and wiper motor should not be removed if removal is not necessary. If removal is necessary, make markings on both before removal.

INSPECTION .

REAR WIPER AND WASHER SWITCH

Inspection of Rear Wiper and Washer Switch Continuity

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

Switch position	Terminal	1	2	3	4	5	6	7	8
	ON		0					0	
Wiper switch	OFF				0			Ō	
	INT*	0			0		0	0	
1A/ 1	ON		0	0					
Washer switch	OFF		,			ĺ			
Illumination lamp						0	6	9	0

NOTE

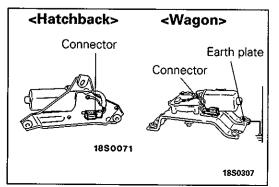
16A025

- (1) O indicates that there is continuity between the terminals.
- (2) The * mark indicates that it is applicable to the vehicles with intermittent wiper.

Inspection of Rear Intermittent Wiper Relay

Operate the wiper with the connector still attached to the rear wiper and washer switch, and check the voltage at terminal ②.

When wiper is stopped: 0V When wiper is operating: 12V



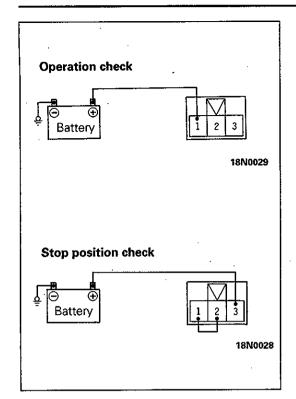
WIPER MOTOR

<Hatchback>

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

<Wagon>

To check the wiper motor, remove it and then connect the earth plate to earth.

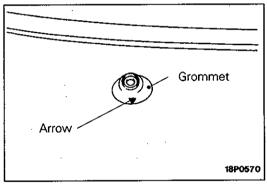


Operation of Wiper Motor

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

Operation of Wiper Motor at Stop Position

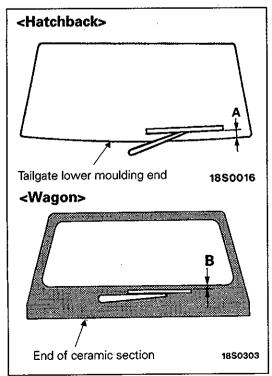
- (1) Run the wiper motor, disconnect the battery, and stop the motor.
- (2) Reconnect the battery as shown in the illustration, and confirm that after the motor starts turning, it stops at the automatic stop position.



SERVICE POINTS OF INSTALLATION

11. INSTALLATION OF GROMMET <Hatchback>

Install the grommet so that the arrow points downwards.



4. INSTALLATION OF WIPER ARM ASSEMBLY

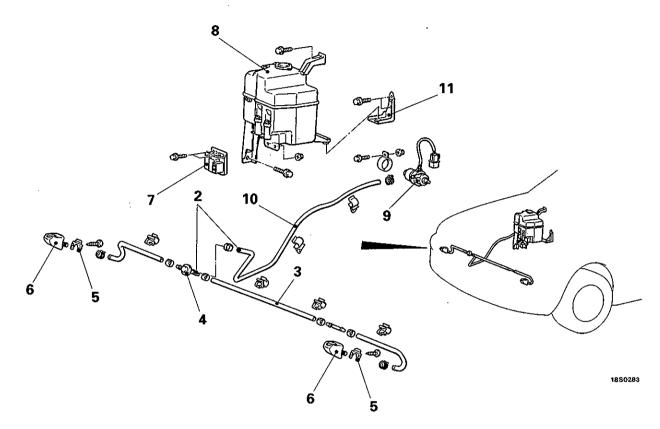
Install the wiper arm to the pivot shaft so that the wiper blade's stop position is the position (standard value) shown in the illustration.

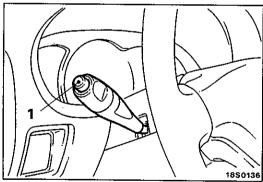
Standard value (A): 15-21 mm (0.59-0.83 in.) Standard value (B): 2-8 mm (0.08-0.31 in.)

HEADLAMP WASHER

REMOVAL AND INSTALLATION

E51MAAO





Removal steps of headlamp washer switch

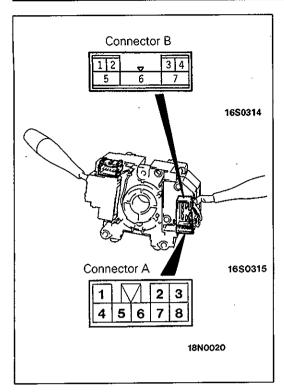
1. Headlamp washer switch (Refer to GROUP 54 - Column Switch.)

Removal steps of nozzle and check valve

- Front bumper (Refer to P.51-4.)
- Washer hose connection
- Draining of washer fluid
- 3. Washer hose assembly
- 4. Check valve
- 5. Bracket
- 6. Nozzle

Removal steps of washer tank

- 2. Washer hose connection
- Draining of washer fluid
- Air intake duct, air flow sensor [Refer to GROUP 15 Air Cleaner.]
 Headlamp washer relay
- 8. Washer tank assembly
- 9. Washer motor
- 10. Washer hose
- 11. Bracket



INSPECTION

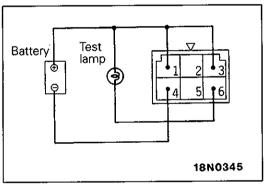
HEADLAMP WASHER SWITCH

Operate switch and check for continuity between terminals.

Connector	А	В
Terminal Switch position	6	2
OFF		
ON	<u> </u>	

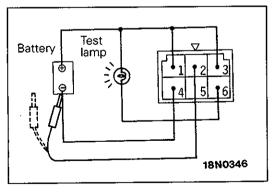
NOTE

ondicates that there is continuity between the terminals.

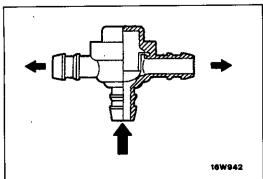


HEADLAMP WASHER RELAY

(1) Connect battery and test lamp to the relay as illustrated.



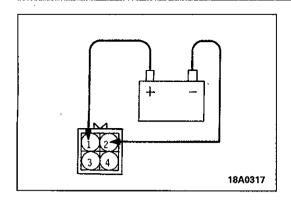
(2) The relay is normal if the lamp lights for approximately 0.5 second upon connection of terminal ② to battery (–).



CHECK VALVE

Apply pressure to the inlet of the check valve to check its opening pressure.

Opening pressure: 50-110 kPa (0.5-1.1 kg/cm², 7.1-15.6 psi)



HEADLAMP WASHER MOTOR

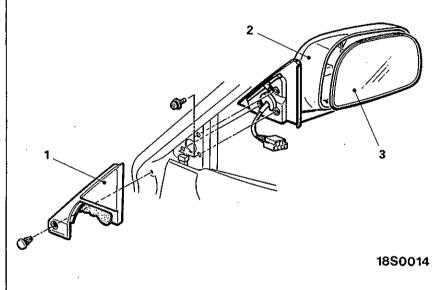
- (1) With the washer motor installed to the washer tank, fill the washer tank with water.
- (2) Connect battery (+) and (-) cables to terminals @ and ① respectively to see that the washer motor runs and water is iniected.

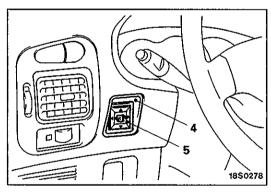
DOOR MIRROR

)

REMOVAL AND INSTALLATION

E51JAAT



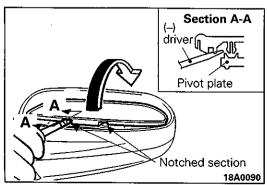


Removal steps of door mirror

- 1. Delta cover inner
- Door mirror
- 3. Mirror

Removal steps of door mirror control switch

- 4. Mirror switch garnish
- 5. Door mirror control switch



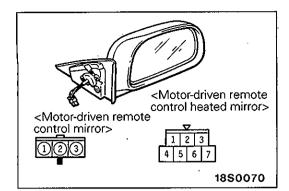
© Mitsubishi Motors Corporation

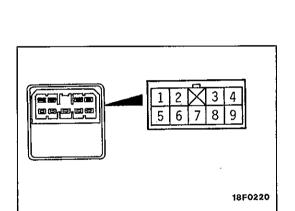
Dec. 1991

SERVICE POINTS OF REMOVAL

3. REMOVAL OF MIRROR

Turn the mirror by hand so that it faces upwards, insert the (-) driver wound with masking tape into the notched section, and lever out the mirror to remove it.





INSPECTION

REMOTE CONTROL MIRROR ASSEMBLY

- 1. Check to be sure that the mirror moves as described in the table when each terminal is connected to the battery.
- 2. Check if there is continuity between terminals ① and ④.

Connection	Batt	tery	Termina	al			
Direction of operation	()	θ	1 (5)	2 (6)	3 (7)	(1)	(4)
Up	0	0	-0		0		
Down	d	0-	0		-0		<u>, </u>
Left	0	0	0	-0			
Right	0-	0-	0	0			

NOTE

- (1) indicates each terminal is connected to the battery.
- (2) () indicates terminals for motor-driven remote control heated mirror

DOOR MIRROR CONTROL SWITCH

Operate switch and check for continuity between terminals.

Terminal		Left side				Right side				
Direction	3	4	6	7	8	2	4	6	7	9
UP		0	0-	9	0	0-	0	0-	9	
DOWN		0	0-	9	9	0	0	-0	0	
LEFT	0-	0-	0	9			0-	0-	0	-0
RIGHT	0-	0	0-	0			0-	0-	0	P

NOTE

—— indicates that there is continuity between the terminals.