

PARKING BRAKES

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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) 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 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 (*).

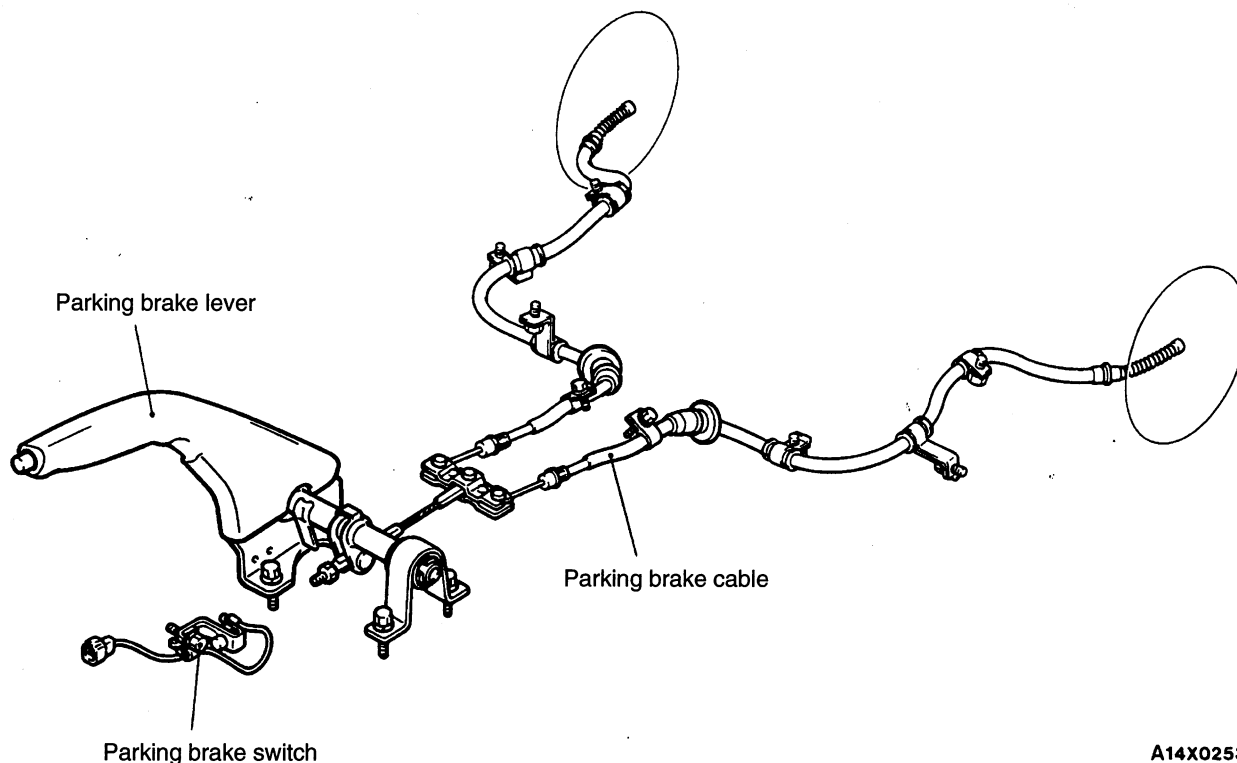
GENERAL INFORMATION

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The parking brake is of a mechanical rear-wheel acting, drum-in-disc type.

The operation method utilizes a parking brake lever which is in an offset position at the passenger's side.

CONSTRUCTION DIAGRAM



A14X0253

SERVICE SPECIFICATIONS

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Items	Standard value	Limit
Parking brake lever stroke	3-5 notches	—
Rear brake lining thickness mm	2.8	1.0
Rear drum inside diameter mm	168.0	169.0

LUBRICANTS

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Items	Specified lubricant
Parking brake lever sliding parts	Brake grease SAE J310, NLGI No. 1
Bushing inner surfaces	
Shoe and lining assembly and backing plate contact surface and backing plate contact surfaces	

TROUBLESHOOTING

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Symptom	Probable cause	Remedy
Brake drag	Incomplete release of parking brake	Correct
	Incorrect parking brake adjustment	Adjust
Insufficient parking brake function	Worn brake lining	Replace
	Grease or oil on lining surface	
	Parking brake cable sticking	
	Stuck wheel cylinder or caliper piston	
	Excessive parking brake lever stroke	Adjust the parking brake lever stroke or check the parking brake cable routing
	Auto adjuster malfunction	Adjust

ON-VEHICLE SERVICE

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PARKING BRAKE LEVER STROKE CHECK AND ADJUSTMENT

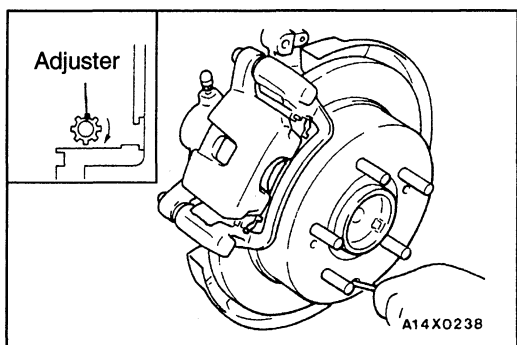
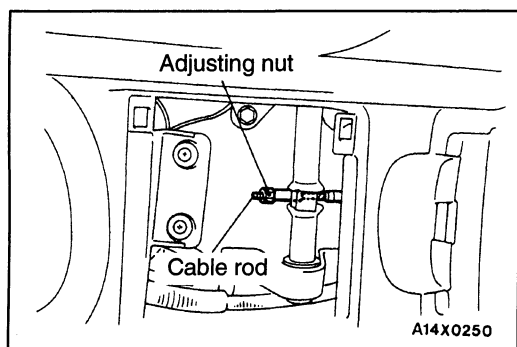
1. Pull the parking brake lever with a force of approx. 196 N and count the number of notches.

Caution

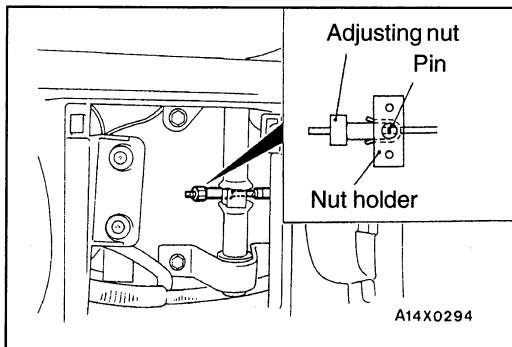
The 196 N force of the parking brake lever must be strictly observed.

Standard value: 3–5 notches

2. If the parking brake lever stroke is not the standard value, adjust as described below.
 - (1) Remove the inner compartment mat of the floor console.
 - (2) Loosen the adjusting nut to the end of the cable rod, thus freeing the parking brake cable.



- (3) Remove the adjustment hole plug, and then use a flat-tip (–) screwdriver to turn the adjuster in the direction of the arrow (the direction which expands the shoe) so that the disc will not rotate.
- (4) Return the adjuster five notches in the direction opposite to the direction of the arrow.

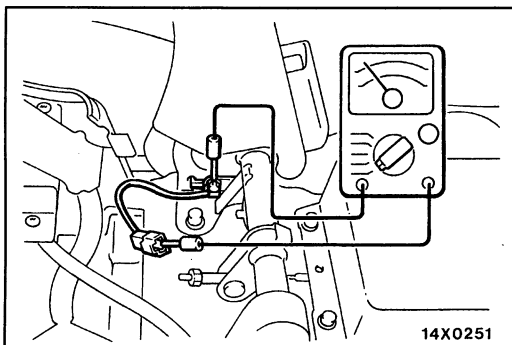


- (5) Turn the adjusting nut to adjust the parking brake lever stroke to within the standard value range.

Caution

If the number of brake lever notches engaged is less than the standard value, the cable has been pulled excessively. Be sure to adjust it to within the standard value.

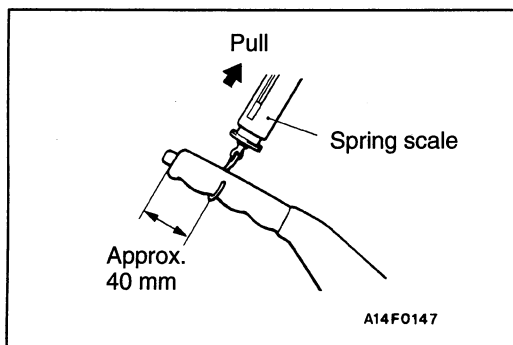
- (6) After making the adjustment, check to be sure that there is no play between the adjusting nut and the pin.
Also check that the adjusting nut is securely held at the nut holder.
3. After adjusting the lever stroke, jack up the rear of the vehicle.
4. With the parking brake lever in the released position, turn the rear wheel to confirm that the rear brakes are not dragging.



PARKING BRAKE SWITCH CHECK

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1. Disconnect the connector of the parking brake switch, and connect an ohmmeter between the parking brake switch and the switch installation bolt.
2. The parking brake switch is good if there is continuity when the parking brake lever is pulled and there is no continuity when it is returned.



LINING RUNNING-IN

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Carry out running-in by the following procedure when replacing the parking brake linings or the rear brake disc rotors, or when brake performance is insufficient.

- (1) Adjust the parking brake stroke to the specified value.
- (2) Hook a spring scale onto the centre of the parking brake lever grip and pull it with a force of 98–147 N in a direction perpendicular to the handle.
- (3) Drive the vehicle at a constant speed of 35–50 km/h for 100 metres.
- (4) Release the parking brake and let the brakes cool for 5–10 minutes.
- (5) Repeat the procedure in steps (2) to (4) 4–5 times.

Caution

Carry out running-in in a place with good visibility, and pay careful attention to safety.

PARKING BRAKE LEVER

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REMOVAL AND INSTALLATION

Pre-removal Operation

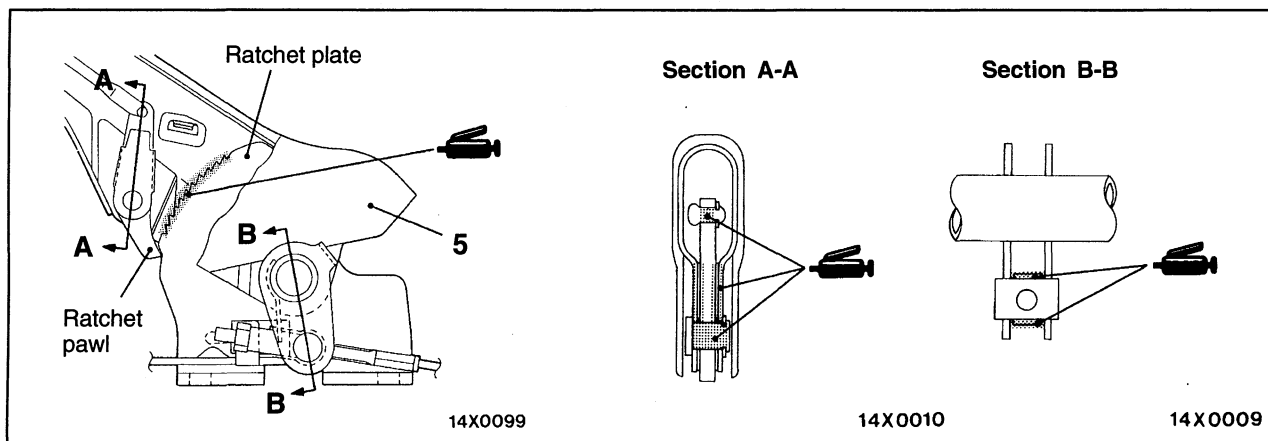
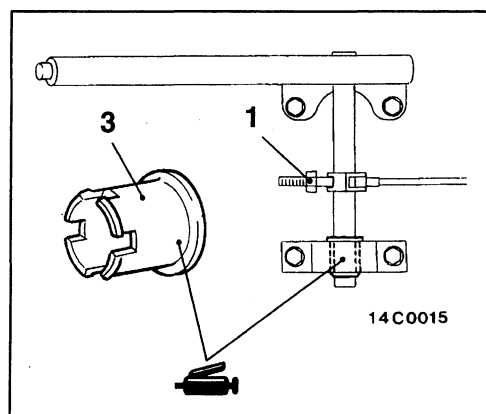
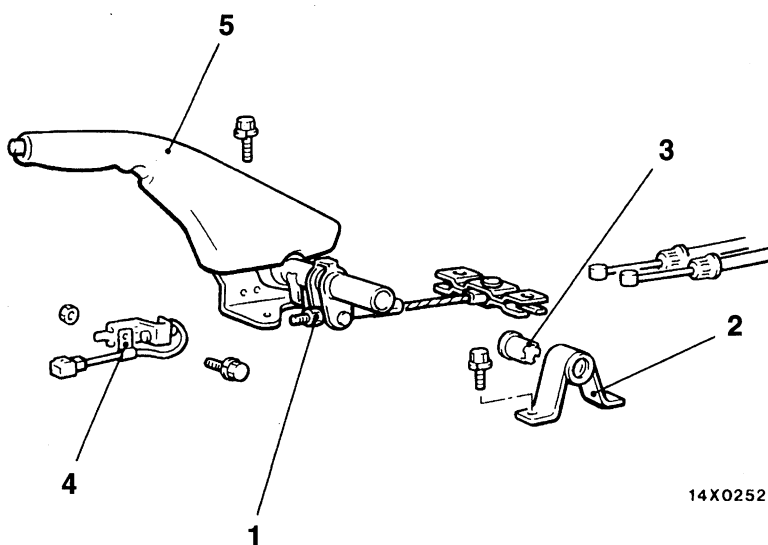
Floor Console Removal (Refer to GROUP 52A.)

Post-Installation Operation

- (1) Parking Brake Lever Stroke Adjustment (Refer to P.35A-3.)
- (2) Floor Console Installation (Refer to GROUP 52A.)

CAUTION: SRS

1. When removing and installing the floor console, do not let it bump against the SRS-ECU or other components.
2. Before removal of SRS-ECU, refer to GROUP 52B – SRS-ECU.



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Removal steps

1. Adjusting nut
2. Parking brake stay
3. Bushing
4. Parking brake switch
5. Parking brake lever

PARKING BRAKE CABLE

REMOVAL AND INSTALLATION

Pre-removal Operation

Floor Console Removal (Refer to GROUP 52A.)

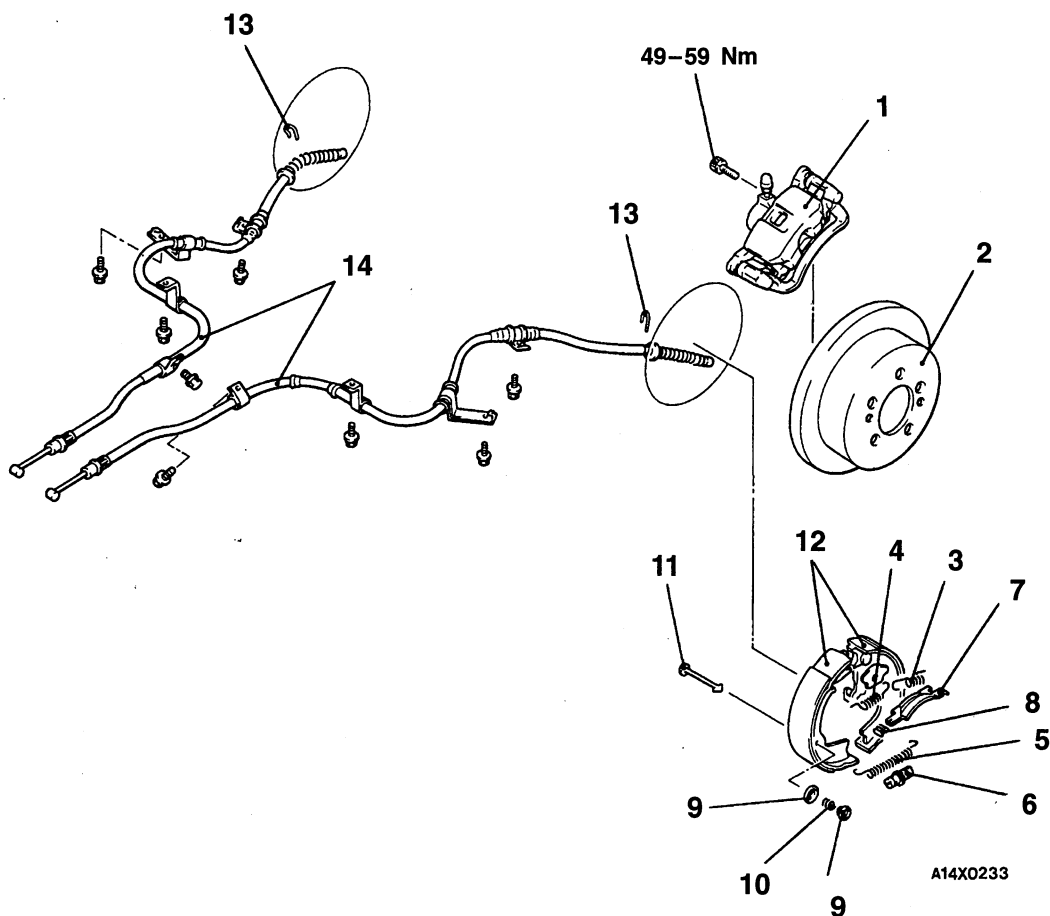
Post-installation Operation

(1) Parking Brake Lever Stroke Adjustment
(Refer to P.35A-3.)

(2) Floor Console Installation (Refer to GROUP 52A.)

CAUTION: SRS

1. When removing and installing the floor console, do not let it bump against the SRS-ECU or other components.
2. Before removal of SRS-ECU, refer to GROUP 52B – SRS-ECU.



Removal steps

◀A▶

▶B▶

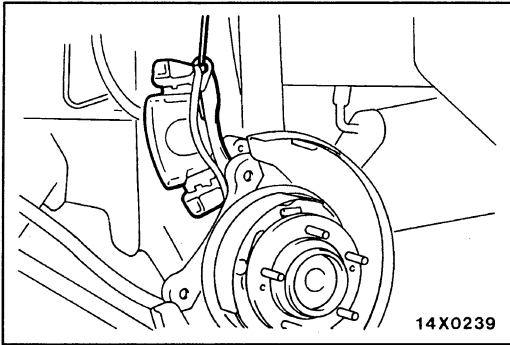
▶B▶

▶A▶

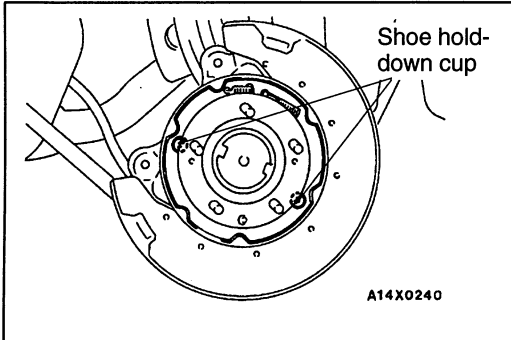
1. Rear brake assembly
2. Rear brake disc
3. Shoe-to-anchor spring (rear)
4. Shoe-to-anchor spring (front)
5. Adjusting wheel spring
6. Adjuster
7. Strut

◀B▶

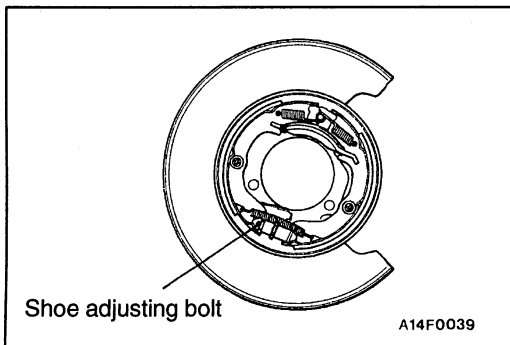
8. Strut return spring
9. Shoe hold-down cup
10. Shoe hold-down spring
11. Shoe hold-down pin
12. Shoe and lining assembly
13. Clip
14. Parking brake cable

**REMOVAL SERVICE POINTS****◀A▶ REAR BRAKE ASSEMBLY REMOVAL**

Remove the rear brake assembly and support it with wire or similar.

**◀B▶ SHOE HOLD-DOWN CUP REMOVAL**

Extend the shoe and lining assembly, and remove the shoe hold-down cup.

**INSTALLATION SERVICE POINTS****▶A◀ ADJUSTER INSTALLATION**

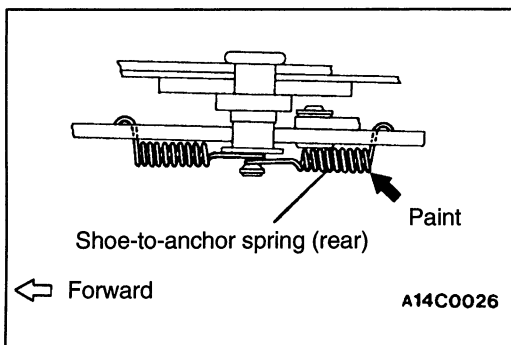
Install the adjuster so that the shoe adjusting bolt of left hand wheel is attached towards the front of the vehicle, and the shoe adjusting bolt of right hand wheel is towards the rear of the vehicle.

▶B◀ SHOE-TO-ANCHOR SPRING INSTALLATION

The load on the respective shoe-to-anchor springs is different, so the spring in the figure has been painted.

NOTE

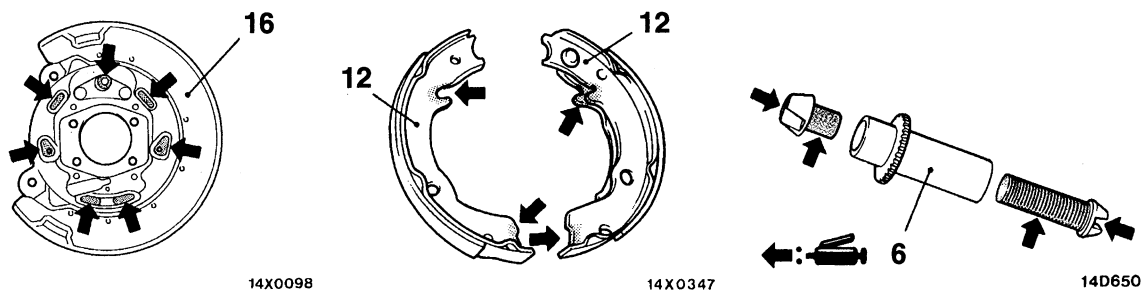
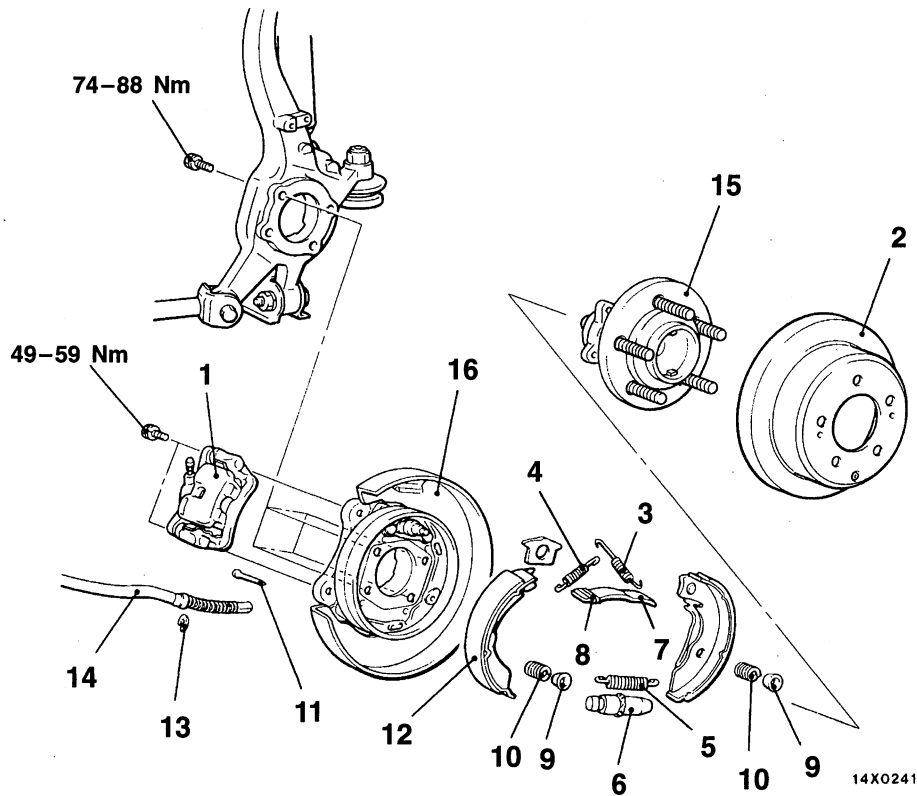
The figure shows the left wheel; for the right wheel, the position is symmetrical.



PARKING BRAKE DRUM

REMOVAL AND INSTALLATION

Post-Installation Operation
Parking Brake Lever Stroke Adjustment
(Refer to P.35A-3.)

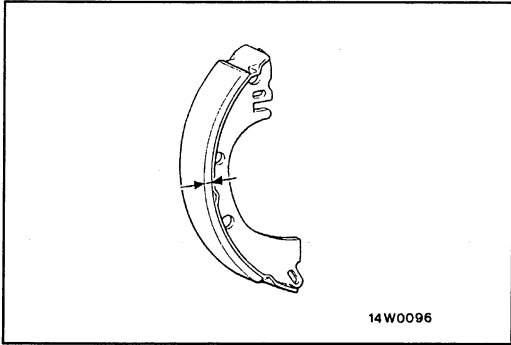


Brake grease: SAE J310, NLGI No. 1

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Removal steps

1. Rear brake assembly (Refer to P.36-7)
2. Rear brake disc (Refer to P.36-7)
3. Shoe-to-anchor spring (rear) (Refer to P.36-7)
4. Shoe-to-anchor spring (front)
5. Adjusting wheel spring
6. Adjuster (Refer to P.36-7)
7. Strut
8. Strut return spring
9. Shoe hold-down cup (Refer to P.36-7)
10. Shoe hold-down spring
11. Shoe hold-down pin
12. Shoe and lining assembly
13. Clip
14. Parking brake cable
15. Rear hub assembly
16. Backing plate

**INSPECTION**

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BRAKE LINING AND BRAKE DRUM CHECK

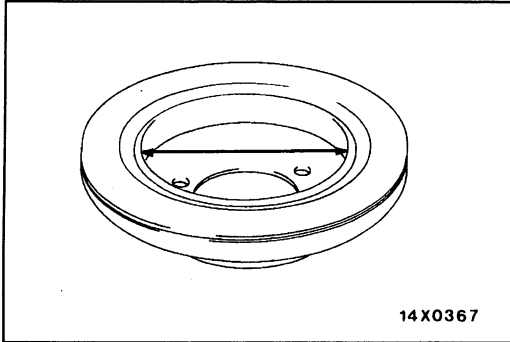
- (1) Measure the thickness of the brake lining at several places.

Standard value: 2.8 mm

Limit: 1.0 mm

Caution

Replace the brake shoes if the thickness of the brake lining is the limit value or less.



- (2) Using a dial gauge caliper or micrometer (for inner side), measure the brake disc drum inner diameter at two or more places.

Standard value: 168.0 mm

Limit: 169.0 mm

Caution

Replace the drum if the brake disc drum inner diameter is the limit value or more.

NOTES