PARKING BRAKES

CONTENTS

120002162

GENERAL INFORMATION

120000248

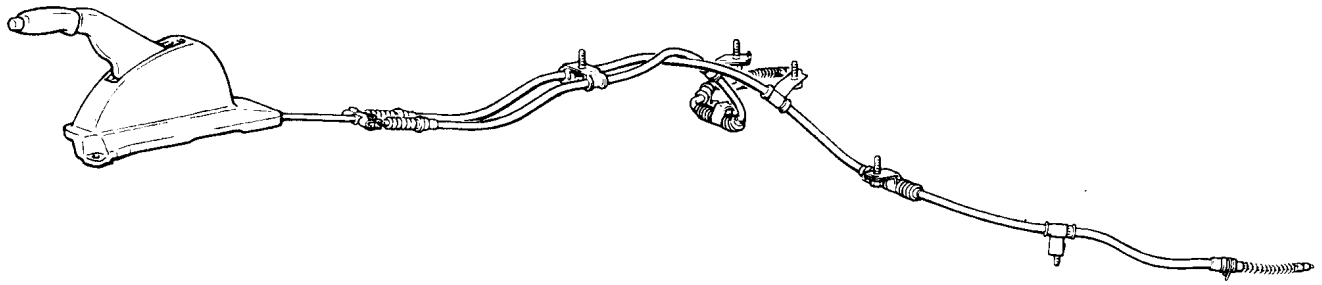
The parking brake is of a mechanical rear-wheel brake construction in all vehicles. Drum-type or drum in-disc type brakes are employed depending on the vehicle model.

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

CONSTRUCTION DIAGRAM

120002163

<V-shaped cabling>



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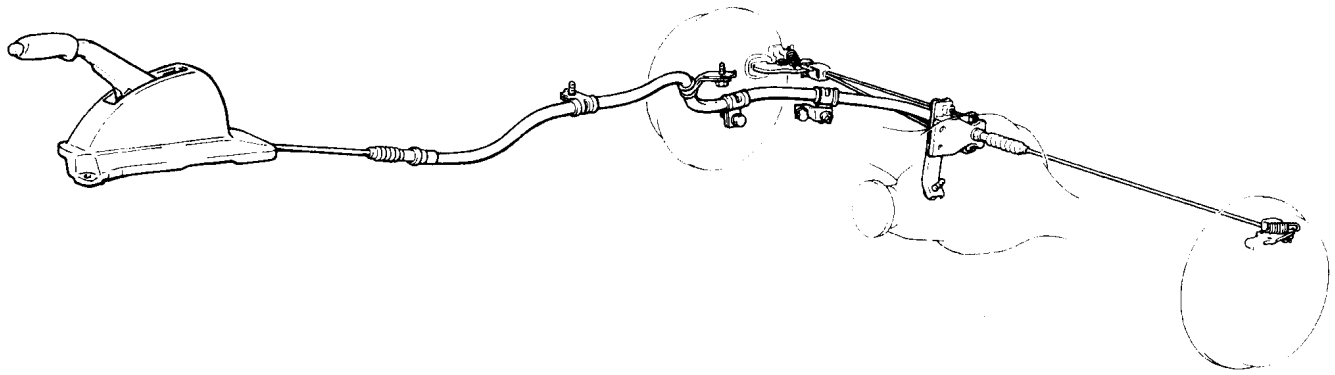
<T-shaped cabling>



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SERVICE SPECIFICATIONS

120000250

Items	Standard value	Limit
Parking brake lever stroke	7–9 notches	–
Brake lining thickness mm	6.5	4.5
Brake drum inside diameter mm	197.0	198.0

LUBRICANTS

120000251

Items	Specified lubricants	Quantity
Backing plate	Brake grease SAE J310, NLGI No. 1	As required
Shoe and lining assembly		
Adjuster		
Parking lever pin head		

SEALANT

120000252

Items	Specified sealant	Remarks
Shoe hold-down pin	3M ATD Part No. 8513 or equivalent	Drying sealant
Backing plate		

SERVICE ADJUSTMENT PROCEDURE

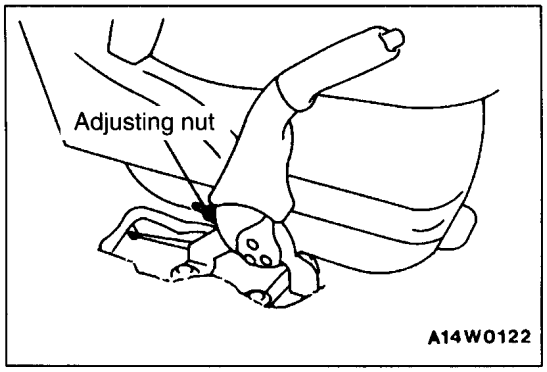
120000253

PARKING BRAKE LEVER STROKE CHECK

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: 7–9 notches



2. Lever Stroke Adjustment
   Tighten the adjusting nut as far as the end of the cable rod as shown in the illustration. Then release the parking brake cable to adjust the parking lever stroke by the following procedure.

   <Vehicles with drum brake>

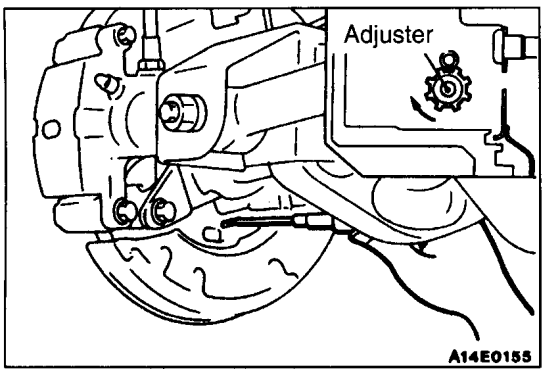
   (1) With the engine idling, forcefully depress the brake pedal five of six times and confirm that the pedal stroke stops changing.

   NOTE
   If the pedal stroke stops changing, the automatic-adjustment mechanism is functioning normally, and the clearance between the shoe and drum is correct.

   (2) 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 the standard value.

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



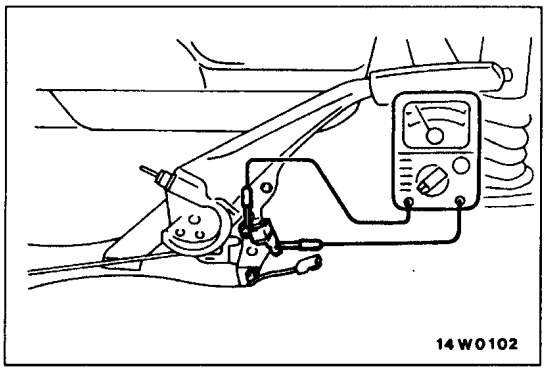
<Vehicles with drum in-disc brake>

(1) Remove the adjustment hole plug and then use a flat-tipped screwdriver to turn the adjuster as shown in the illustration until the disc will not rotate. Return the adjuster 3 or 4 notches in the opposite direction to the direction of the arrow.

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

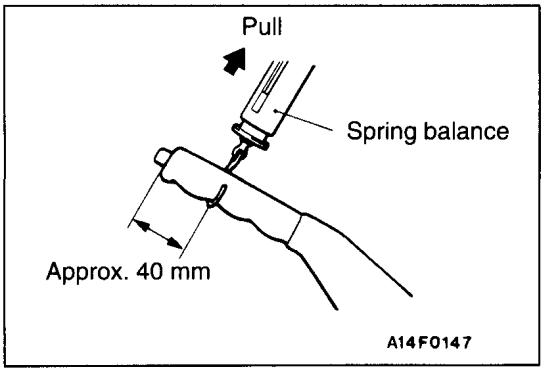
Caution
If the number of brake lever notches engaged is less than the standard value, the cable has been pulled excessively. Be sure to adjust it to the standard value.

(3) After making the adjustment, check to be sure that there is no play between the adjusting nut and the parking brake lever.
(4) After adjusting the lever stroke, jack up the rear of the vehicle.
(5) 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 120000254

1. Disconnect the connector of the parking brake switch, and connect an ohmmeter to 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 120000255

<Vehicles with drum in-disc brake>

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 balance 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 meters.
(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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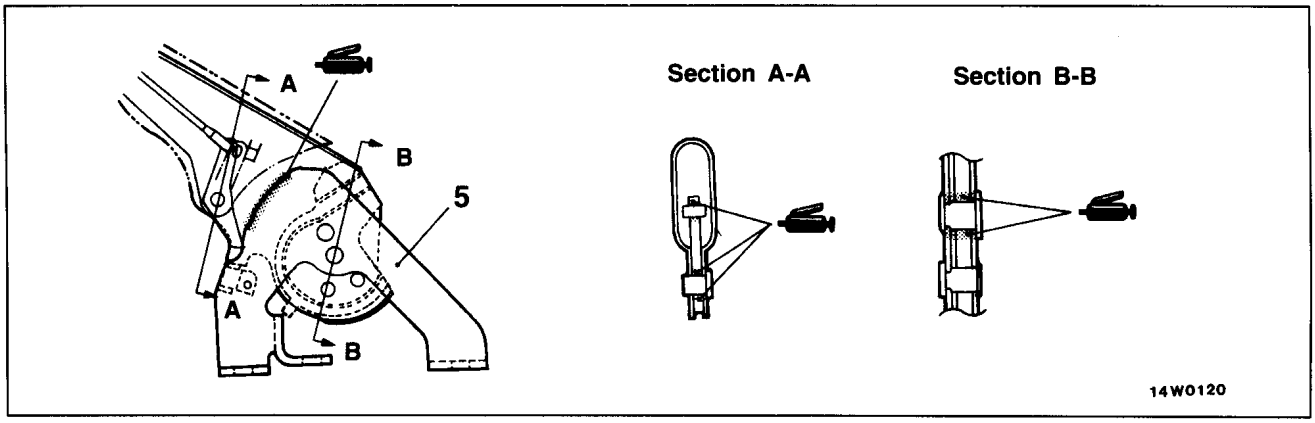
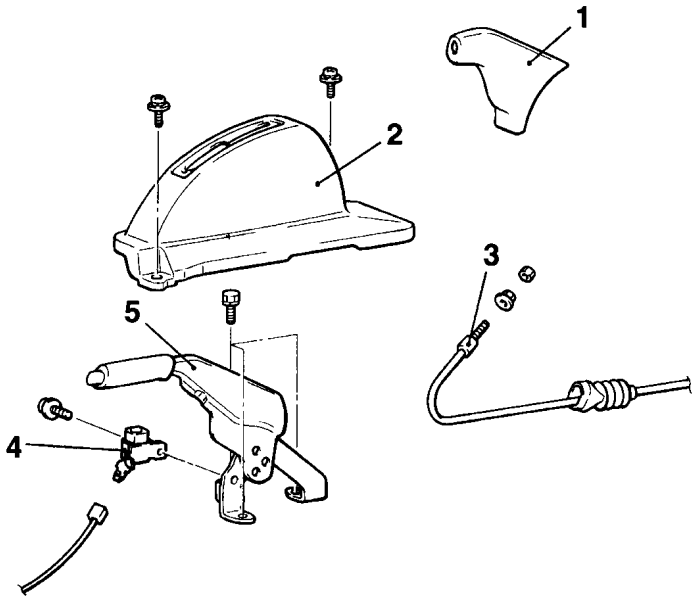
REMOVAL AND INSTALLATION

Post-installation Operation
- Parking Brake Lever Stroke Adjustment (Refer to P.36-4.)





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Removal steps

1. Parking lever cover <Wagon>
2. Parking cover
3. Parking brake cable connection
4. Parking brake switch
5. Parking brake lever

PARKING BRAKE CABLE

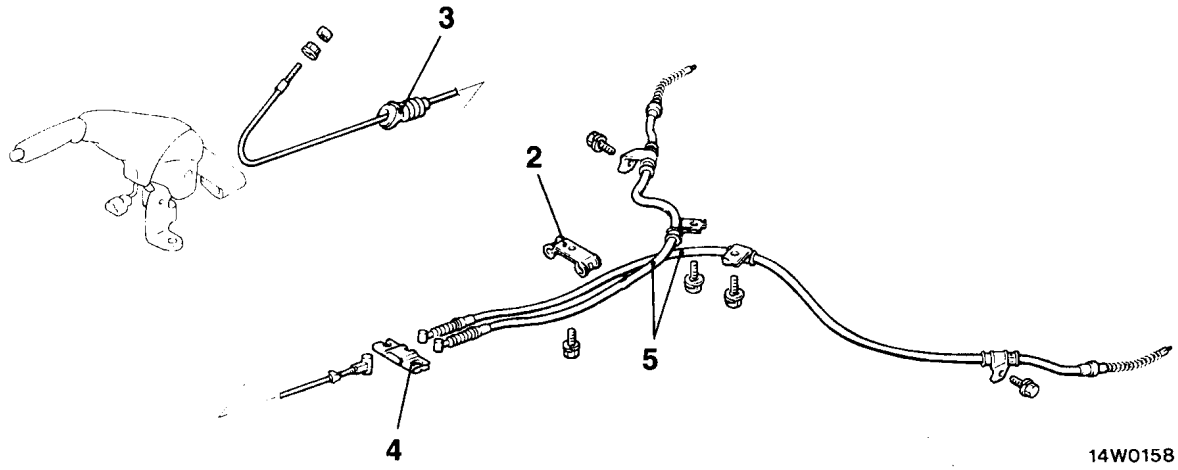
120002164

REMOVAL AND INSTALLATION

Post-installation Operation
- Parking Brake Lever Stroke Adjustment (Refer to P.36-4.)

<V-shaped cabling>

<Vehicles with drum brake>



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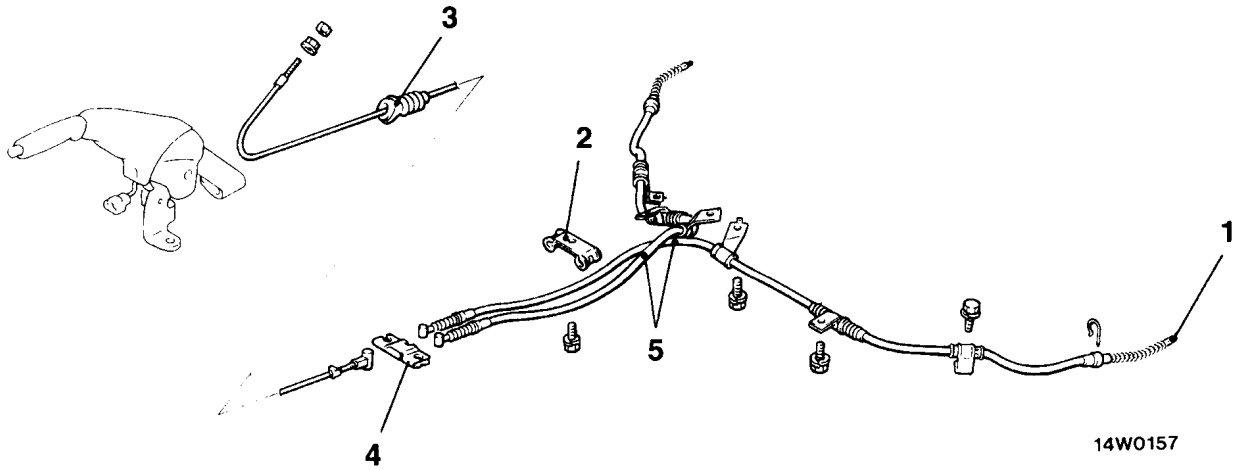
<Vehicles with drum-in disc brake>



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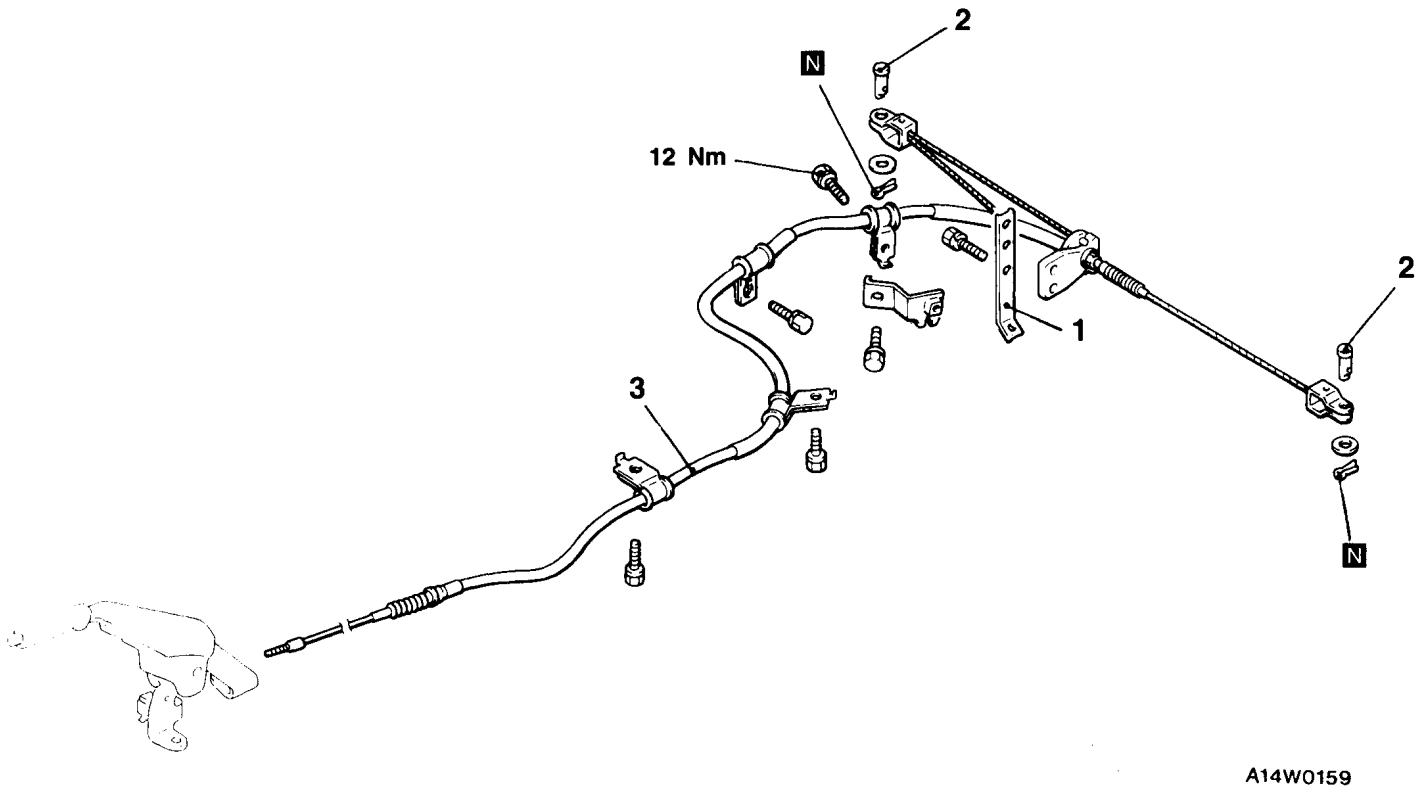
Removal steps
- Shoe and lining assembly <Vehicles with drum brake> (Refer to GROUP 35 – Rear Drum Brake.)

1. Parking brake cable connection <Vehicles with drum-in disc brake> (Refer to P.36-9.)
2. Cable clamp
3. Front parking brake cable
4. Cable equalizer
5. Parking brake cable

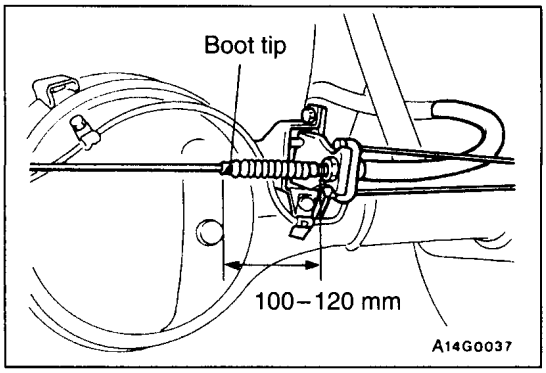
<T-shaped cabling>



Removal steps

1. Plate
2. Clevis pin

▶A◀ 3. Parking brake cable



INSTALLATION SERVICE POINT

▶A◀ PARKING BRAKE CABLE INSTALLATION

(1) Confirm parking brake boot has the dimension given in the figure with the parking brake lever assembly restored.

(2) When the boot length is not as indicated in the figure, adjust the lenthg by sliding the boot tip.

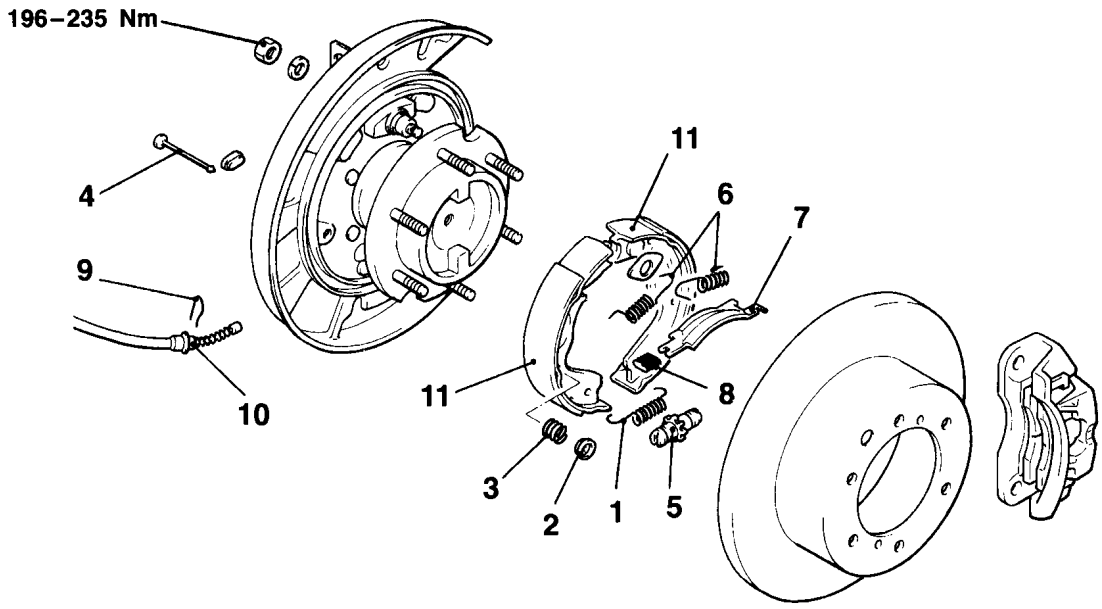
NOTE

If the boot attaching dimension is too long, the boot may come out of the parking brake cable outer casing as the brake is used, allowing moisture to enter into the casing and the cable may subsequently stick.

PARKING BRAKE DRUM

120000258

REMOVAL AND INSTALLATION



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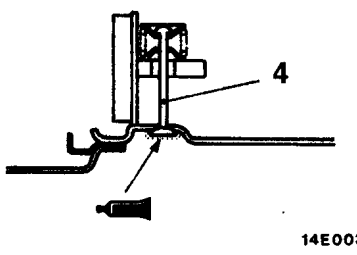

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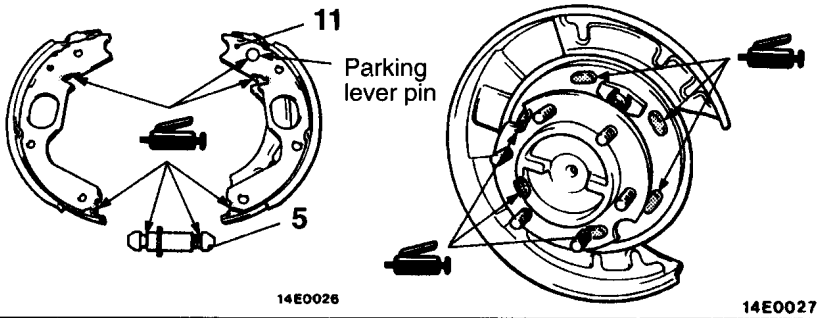
Sealant: 3M ATD Part No. 8513 or equivalent



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14E0027

Brake grease: Brake grease SAE J310, NLGI No. 1

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Removal steps

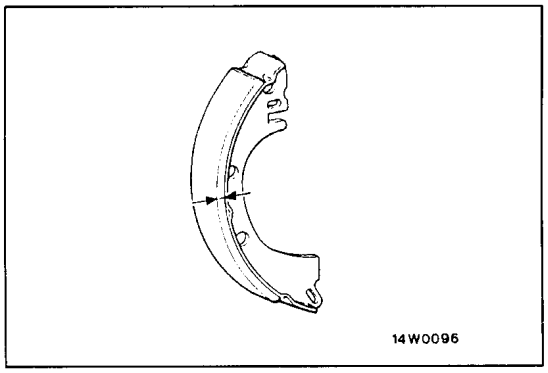
- Rear brake disc (Refer to GROUP 35 – Rear Disc Brake.)

1. Adjusting wheel spring
2. Shoe hold-down cup
3. Shoe hold-down spring
4. Shoe hold-down pin

▶B◀ 5. Adjuster

▶A◀ 6. Shoe-to-anchor spring

7. Strut
8. Strut-to-shoe spring
9. Clip
10. Parking brake cable connection
11. Shoe and lining assembly



INSPECTION

BRAKE LINING THICKNESS CHECK

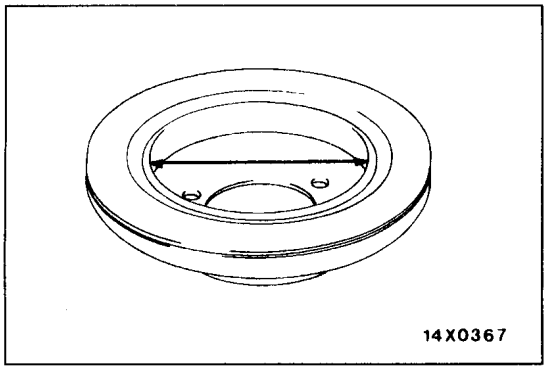
1. Measure the wear of the brake lining at the place worn the most.

   Standard value: 6.5 mm

   Limit: 4.5 mm

2. Replace the shoe and lining assembly if brake lining thickness is less than the limit or if it is not worn evenly.

   Caution
   Whenever the shoe and lining assembly is replaced, replace both RH and LH assemblies as a set to prevent car from pulling to one side when braking.



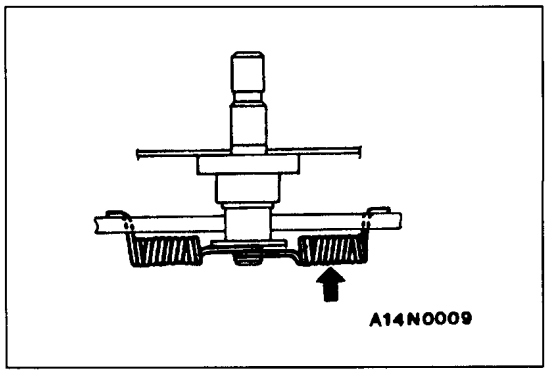
BRAKE DRUM INSIDE DIAMETER CHECK

1. Measure the inside diameter of the brake disc at two or more locations.

   Standard value: 197.0 mm

   Limit: 198.0 mm

2. Replace brake disc, shoe and lining assembly if wear exceeds the limit value or is badly imbalanced.

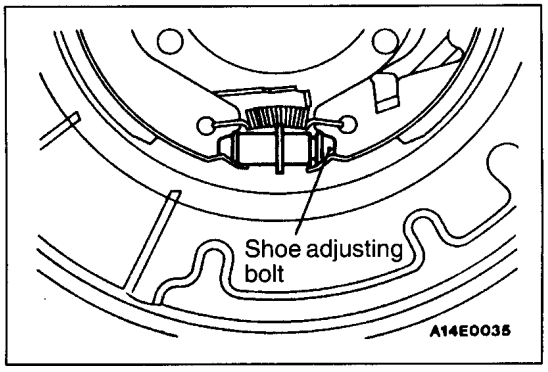


INSTALLATION SERVICE POINTS

▶A◀ 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.



▶B◀ 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.