

PARKING BRAKES

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E36AA--

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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: 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 (*).

36-2 PARKING BRAKES – Specifications/Service Adjustment Procedures

SPECIFICATIONS

GENERAL SPECIFICATIONS

E36CA--

Items	Specifications
Type Brake lever type Cable arrangement	Mechanical brake acting on rear wheels Lever type V-type

SERVICE SPECIFICATIONS

E36CB--

Item	Specifications
Standard value	
Parking brake lever stroke	3–5 notches
Brake lining thickness	mm (in.) 2.8 (0.110)
Brake drum inside diameter	mm (in.) 168 (6.6)
Limit	
Brake lining thickness	mm (in.) 1.0 (0.039)
Brake drum inside diameter	mm (in.) 169 (6.7)

LUBRICANTS

E36CD--

Items	Specified lubricants
Shoe and lining assembly and strut contact surfaces Shoe and lining assembly and adjuster contact surfaces Adjuster	Brake grease SAE J310, NLGI No.1

SEALANTS

E36CE--

Item	Specified sealants	Remarks
Shoe hold-down pin	3M ATD Part No.8513 or equivalent	Drying sealant

SERVICE ADJUSTMENT PROCEDURES

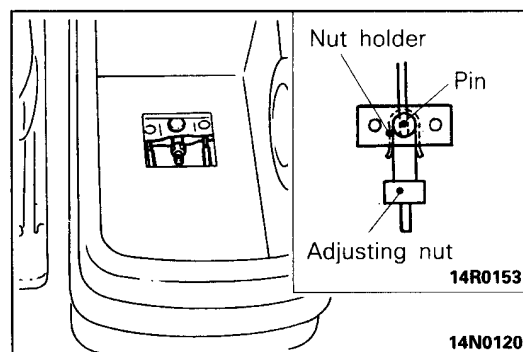
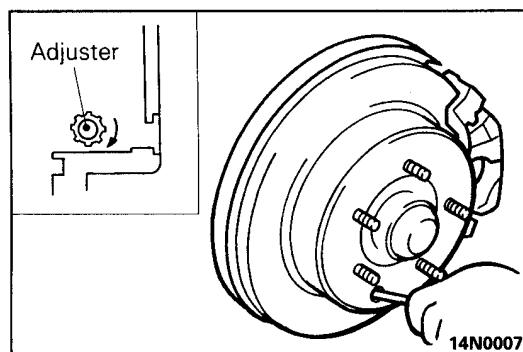
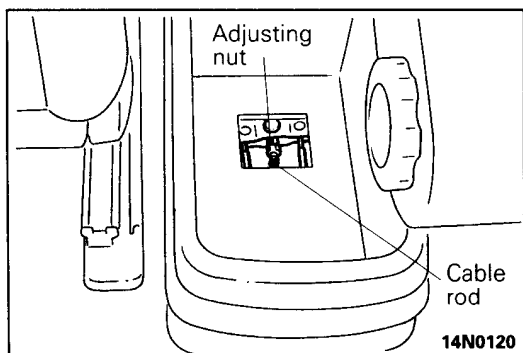
PARKING BRAKE LEVER STROKE CHECK E36FAAT

1. Pull the parking brake lever with a force of approx. 200 N (20 kg, 45 lbs.), and count the number of notches.

Caution

The 200 N (20 kg, 45 lbs.) 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.

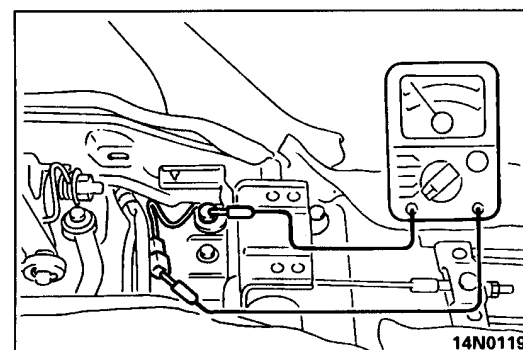
Caution

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.

(7) After adjusting the lever stroke, jack up the rear of the vehicle.

(8) 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

E36FCAD

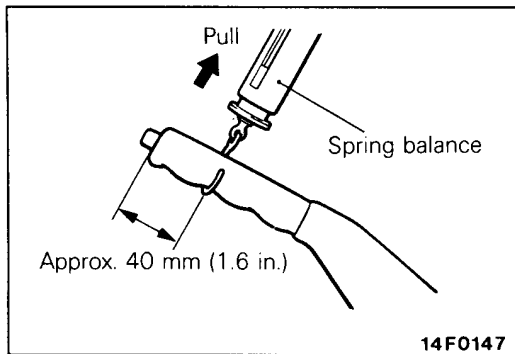
1. Disconnect the connector of the parking brake switch, and connect an ohmmeter to the parking brake switch and the switch installation bolt.
2. The parking brake switch is good if there is continuity when the parking brake lever is pulled and there is no continuity when it is returned.

LINING RUNNING-IN

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.

Caution

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



- (1) Adjust the parking brake stroke to the specified value.

**Standard value: 3–5 notches [operation force:
Approx. 200 N (20 kg, 44 lbs.)]**

- (2) Hook a spring balance onto the centre of the parking brake lever grip and pull it with a force of 100–150 N (10–15 kgf, 22–33 lbs.) in a direction perpendicular to the handle.
- (3) Drive the vehicle at a constant speed of 35–50 km/h (22–31 mph) for 100 metres (328 ft.).
- (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.

NOTES

PARKING BRAKE LEVER AND PARKING BRAKE CABLE

REMOVAL AND INSTALLATION

E36LA--

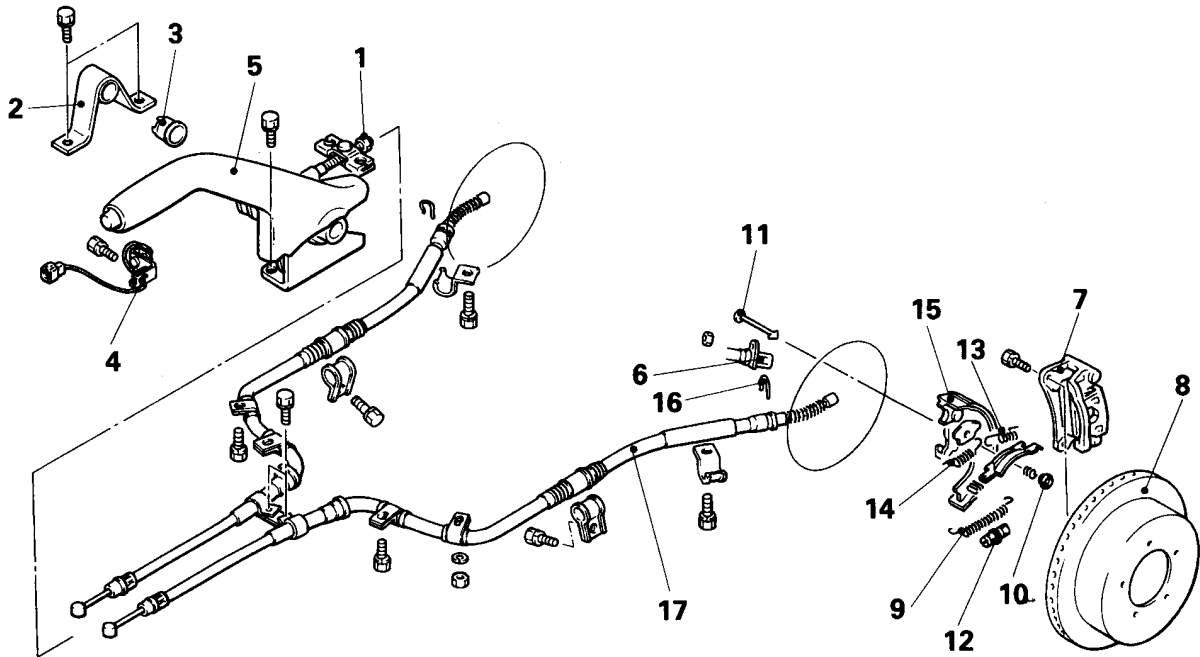
CAUTION: SRS <L.H.drive vehicles>
 1. When removing and installing the floor console in vehicles equipped with SRS, do not let it bump against the SRS diagnostic unit or other components.
 2. Before removal of SRS diagnosis unit, refer to GROU 52B – SRS Diagnosis Unit.

Pre-removal Operation

- Removal of Floor Console (Refer to GROUP 52 – Console Box.)
- Removal of SRS diagnosis unit <Vehicles with SRS> (Refer to GROUP 52B – SRS Diagnosis Unit)
- Removal of Rear Seat (Refer to GROUP 52 – Seat.)

Post-installation Operation

- Parking Brake Lever Stroke Adjustment (Refer to P.36-2.)
- Installation of Floor Console (Refer to GROUP 52 – Console Box.)
- Installation of SRS diagnosis unit <Vehicles with SRS> (Refer to GROUP 52B – SRS Diagnosis Unit)
- Installation of Rear Seat (Refer to GROUP 52 – Seat.)



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Parking brake lever removal steps

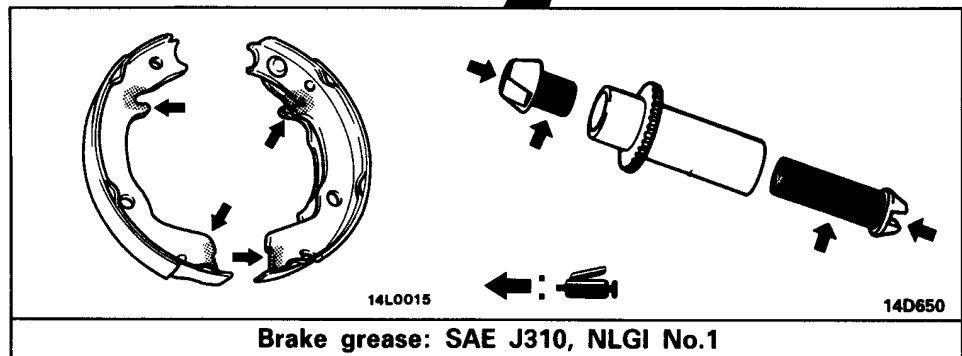
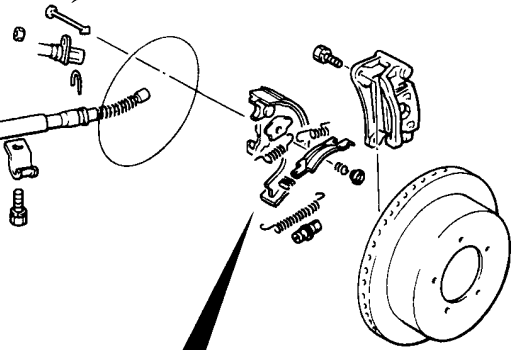
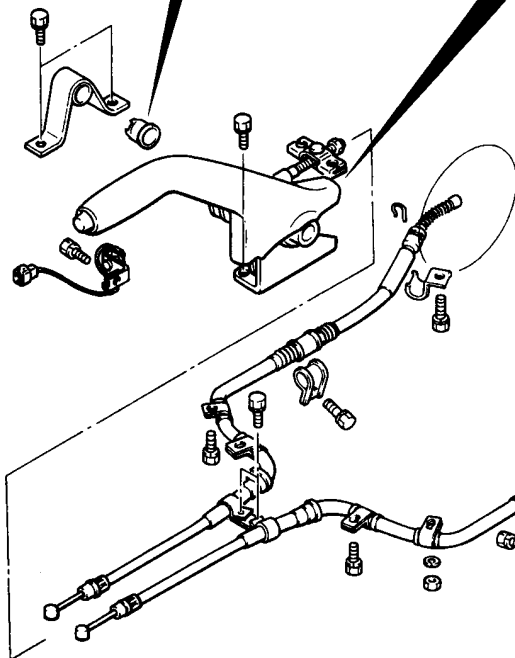
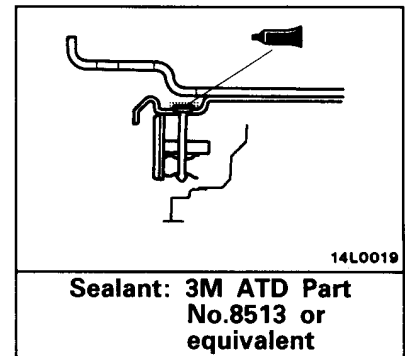
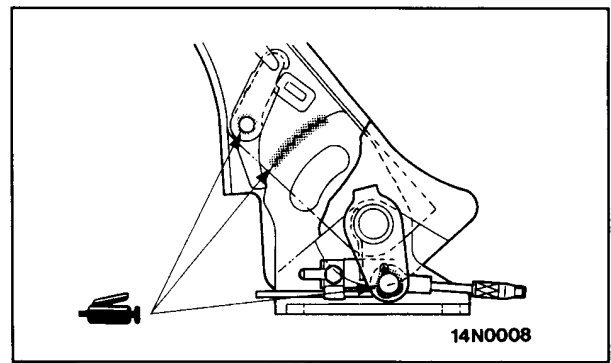
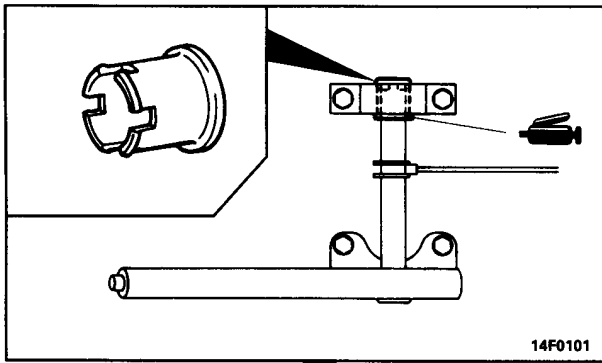
1. Adjusting nut
2. Parking brake stay
3. Bushing
4. Parking brake switch
5. Parking brake lever

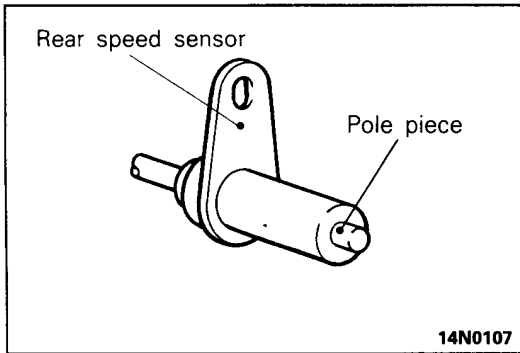
Parking brake cable removal steps

1. Adjusting nut
6. Rear speed sensor <Vehicles with ABS>
7. Rear brake assembly
8. Rear brake disc
9. Adjusting wheel spring

- ◄◄ 10. Shoe hold-down cup
- ◄◄ 11. Shoe hold-down pin
- ◄◄ 12. Adjuster
- ◄◄ 13. Shoe-to-anchor spring (rear)
- ◄◄ 14. Shoe-to-anchor spring (front)
- 15. Shoe and lining assembly
- 16. Clip
- 17. Parking brake cable

LUBRICANT AND SEALING POINTS





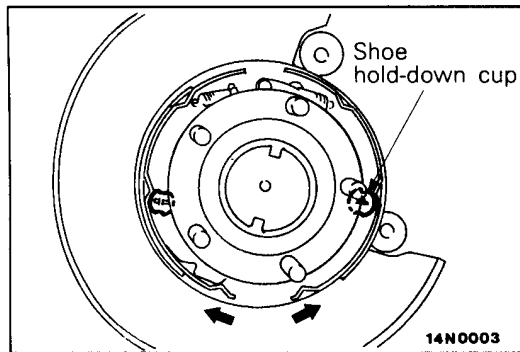
SERVICE POINTS OF REMOVAL

E36LBAF

6. REMOVAL OF REAR SPEED SENSOR <VEHICLES WITH ABS>

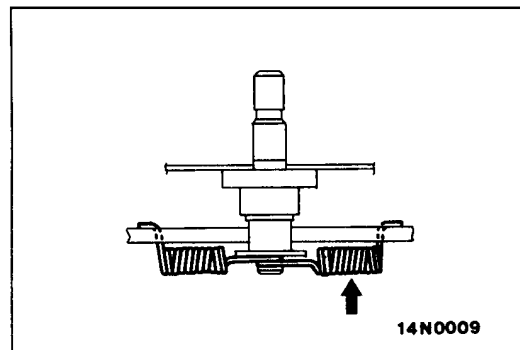
Caution

When removing the speed sensor from the adapter, be careful that the end pole piece does not strike the teeth of the rotor or other parts.



10. REMOVAL OF SHOE HOLD-DOWN CUP

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



SERVICE POINTS OF INSTALLATION

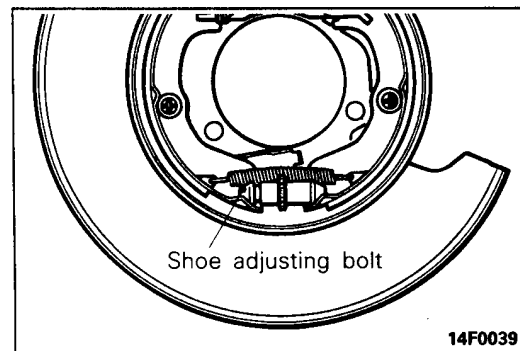
E36LDAF

14./13. SHOE-TO-ANCHOR SPRING

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

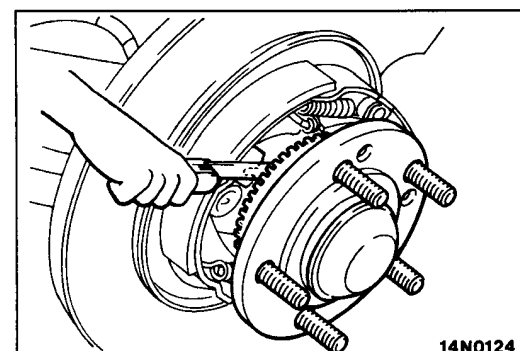
NOTE

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



12. INSTALLATION OF ADJUSTER

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.



6. INSTALLATION OF REAR SPEED SENSOR <VEHICLES WITH ABS>

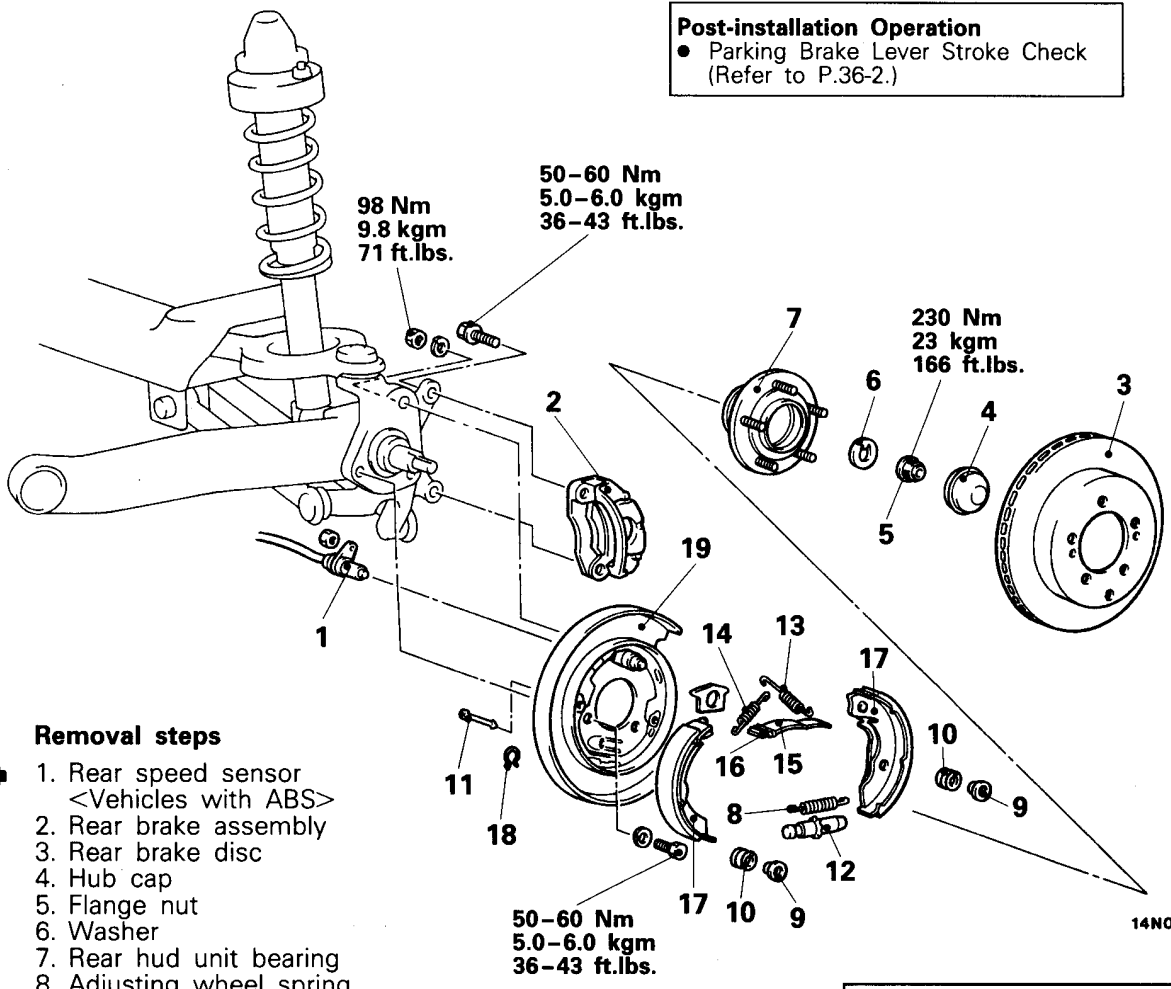
Insert a thickness gauge into the space between the speed sensor's pole piece and the rotor's toothed surface and then tighten the speed sensors at the position where the clearance at all places is within the standard value.

Standard value: 0.2–0.7 mm (0.008–0.028 in.)

**PARKING BRAKE DRUM
REMOVAL AND INSTALLATION**

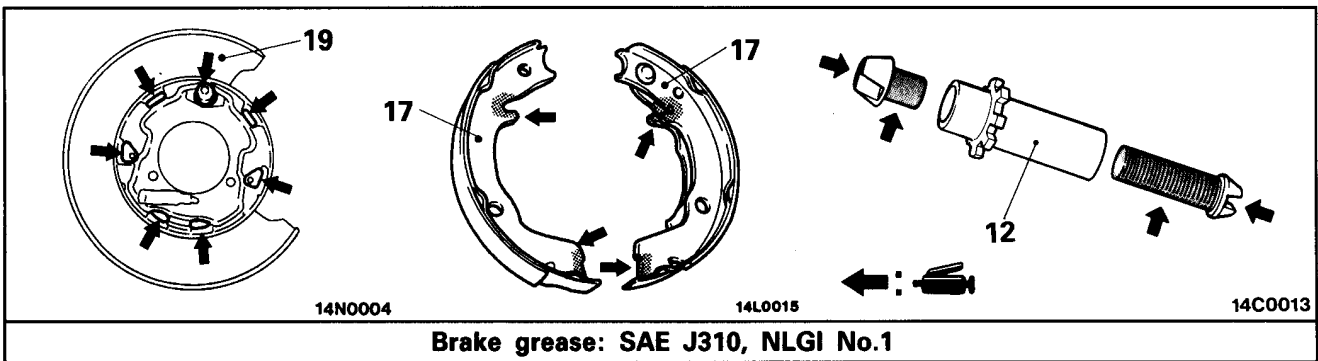
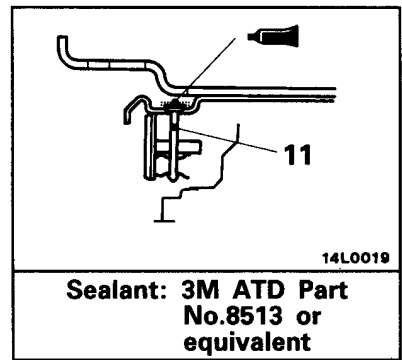
E36RA--

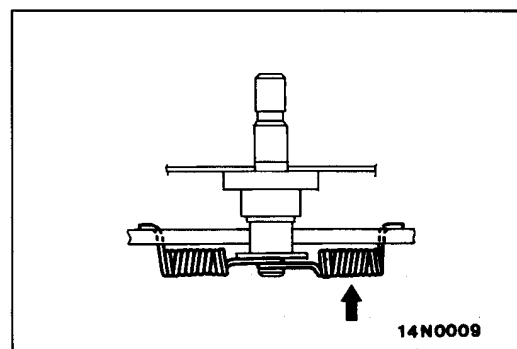
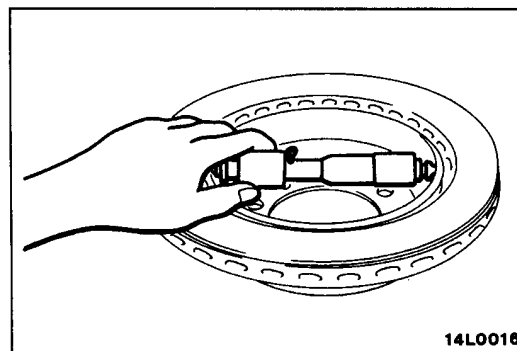
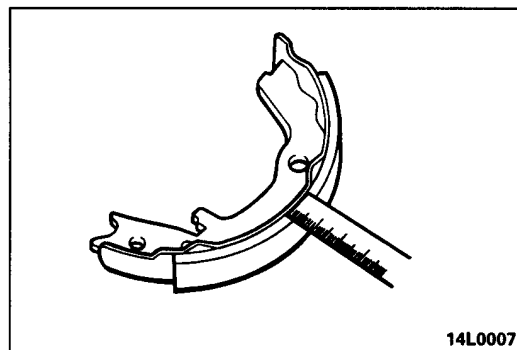
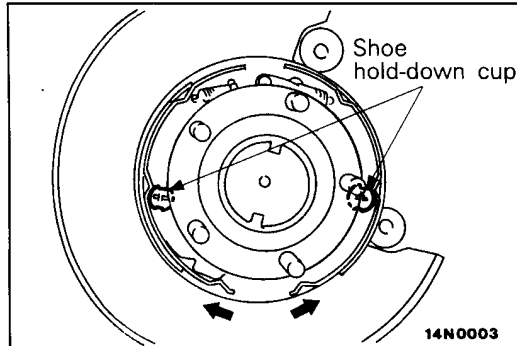
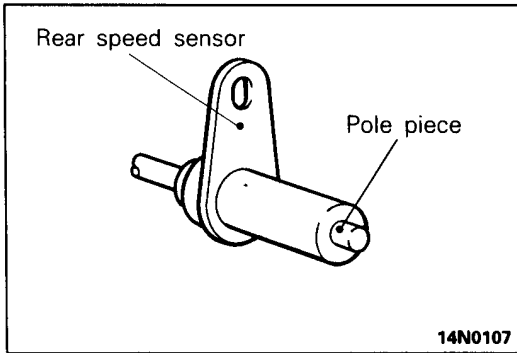
Post-installation Operation
 • Parking Brake Lever Stroke Check
 (Refer to P.36-2.)



Removal steps

- ◄◄ ◄◄ 1. Rear speed sensor
 <Vehicles with ABS>
- ◄◄ 2. Rear brake assembly
- ◄◄ 3. Rear brake disc
- ◄◄ 4. Hub cap
- ◄◄ 5. Flange nut
- ◄◄ 6. Washer
- ◄◄ 7. Rear hub unit bearing
- ◄◄ 8. Adjusting wheel spring
- ◄◄ 9. Shoe hold-down cup
- ◄◄ 10. Shoe hold-down spring
- ◄◄ 11. Shoe hold-down pin
- ◄◄ 12. Adjuster
- ◄◄ 13. Shoe-to-anchor spring (rear)
- ◄◄ 14. Shoe-to-anchor spring (front)
- ◄◄ 15. Strut
- ◄◄ 16. Strut return spring
- ◄◄ 17. Shoe and lining assembly
- ◄◄ 18. Clip
- ◄◄ 19. Backing plate





SERVICE POINTS OF REMOVAL

E36RBAC

1. REMOVAL OF REAR SPEED SENSOR

Caution

When removing the speed sensor from the adapter, be careful that the end pole piece does not strike the teeth of the rotor or other parts.

9. REMOVAL OF SHOE HOLD-DOWN CUP

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

INSPECTION

E36RCAA

CHECKING FOR UNUSUAL WEAR OF THE BRAKE LINING AND BRAKE DRUM

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

Standard value: 2.8 mm (0.110 in.)

Limit: 1.0 mm (0.039 in.)

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 (6.6 in.)

Limit: 169.0 mm (6.7 in.)

Caution

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

SERVICE POINTS OF INSTALLATION

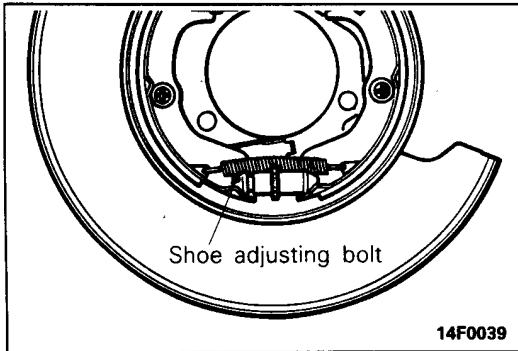
E36RDAD

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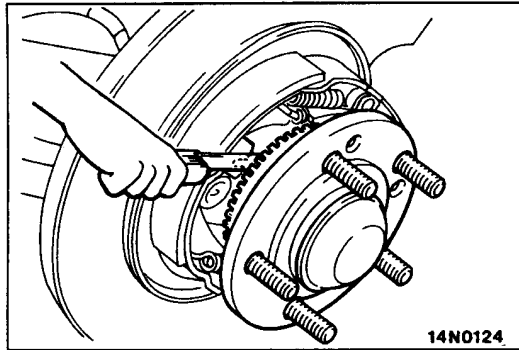
NOTE

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1. INSTALLATION OF REAR SPEED SENSOR <VEHICLES WITH ABS>

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