

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 (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 an asterisk (*).

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	notches
<Vehicles with drum brake>	5-7
<Vehicles with drum in disk brake>	4-6
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
Backing plate Shoe and lining assembly Adjuster	Brake grease SAE J310, NLGI No.1

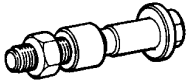
SEALANTS

E36CE--

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

SPECIAL TOOLS

E36DA--

Tool	Number	Name	Use
	MB990998	Front hub remover and installer	Inspection of dragging torque

SERVICE ADJUSTMENT PROCEDURES

PARKING BRAKE LEVER STROKE CHECK E36FAAW

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:

- <Vehicles with drum brake> **5–7 notches**
- <Vehicles with drum in disk brake> **4–6 notches**

2. If the parking brake lever stroke is not the standard value, adjust as described below.

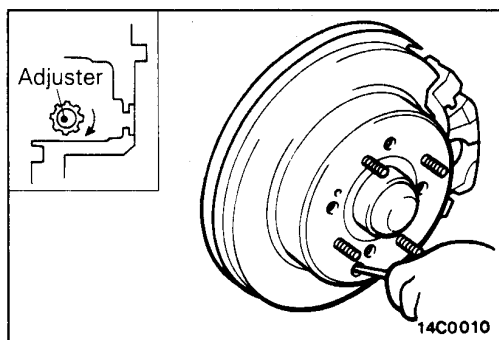
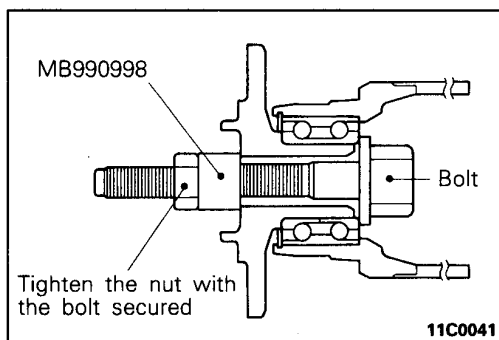
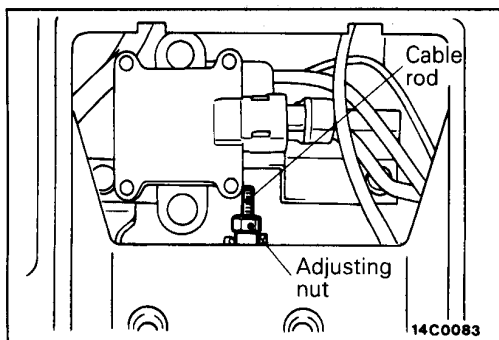
- (1) Remove switch panel of the floor console.
- (2) Loosen the adjusting nut to the end of the cable rod, thus freeing the parking brake cable.

<Vehicles with drum brake>

- With the engine idling, forcefully depress the brake pedal five or six times and confirm that the pedal stroke stops changing.

NOTE

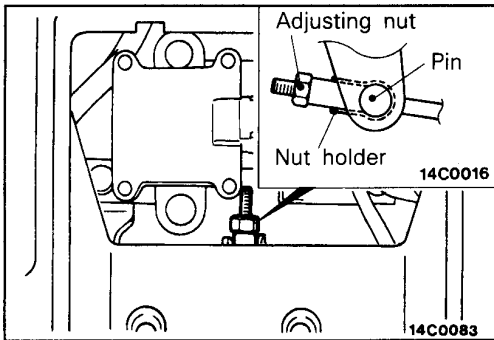
If the pedal stroke stops changing, the automatic-adjustment mechanism is functioning normally, and the clearance between the shoe and drum is correct.



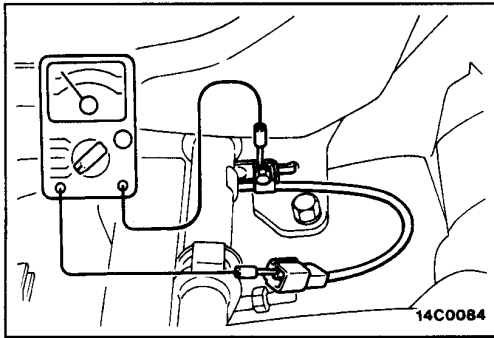
<Vehicles with drum in disk brake>

1. For vehicles with 4WD, pull the drive shaft out from the hub. (Refer to GROUP 27 – Drive Shaft.) Set the special tool to the hub as shown in the illustration.

2. 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.
3. Return the adjuster five notches in the direction opposite to the direction of the arrow.



- (3) 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.
- (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

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.

PARKING BRAKE LEVER

REMOVAL AND INSTALLATION

Pre-removal Operation

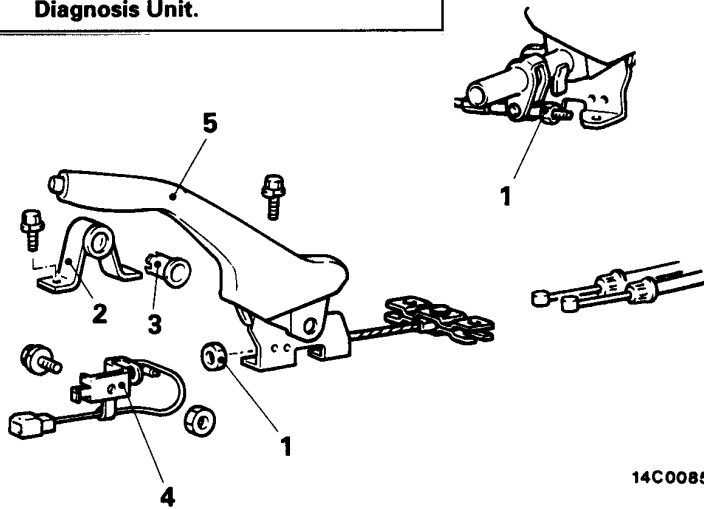
- Removal of Floor Console (Refer to GROUP 52A – Console Box.)

Caution: SRS

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 GROUP 52B – SRS Diagnosis Unit.

Post-installation Operation

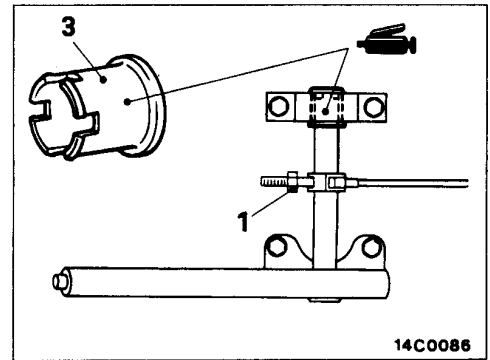
- Parking Brake Lever Stroke Adjustment (Refer to P. 36-3.)
- Installation of Floor Console (Refer to GROUP 52A – Console Box.)



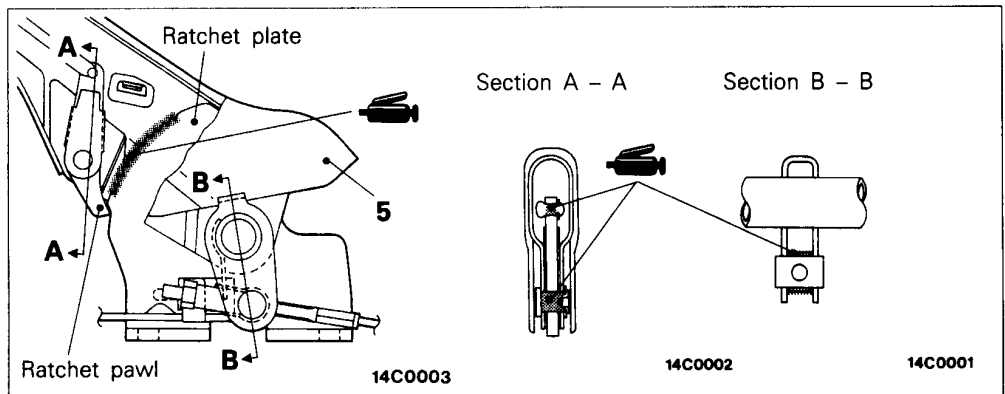
14C0085

Removal steps

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



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14C0003

14C0002

14C0001

PARKING BRAKE CABLE <DRUM BRAKE>

REMOVAL AND INSTALLATION

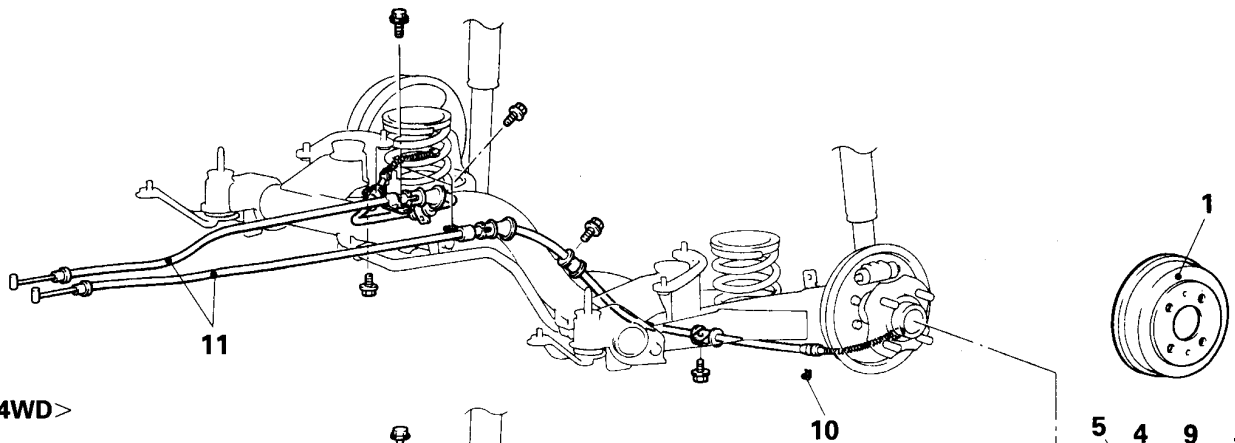
Pre-removal Operation

- Removal of Floor Console
(Refer to GROUP 52A – Console Box.)
- Removal of Second and Third Seat
(Refer to GROUP 52A – Seat.)

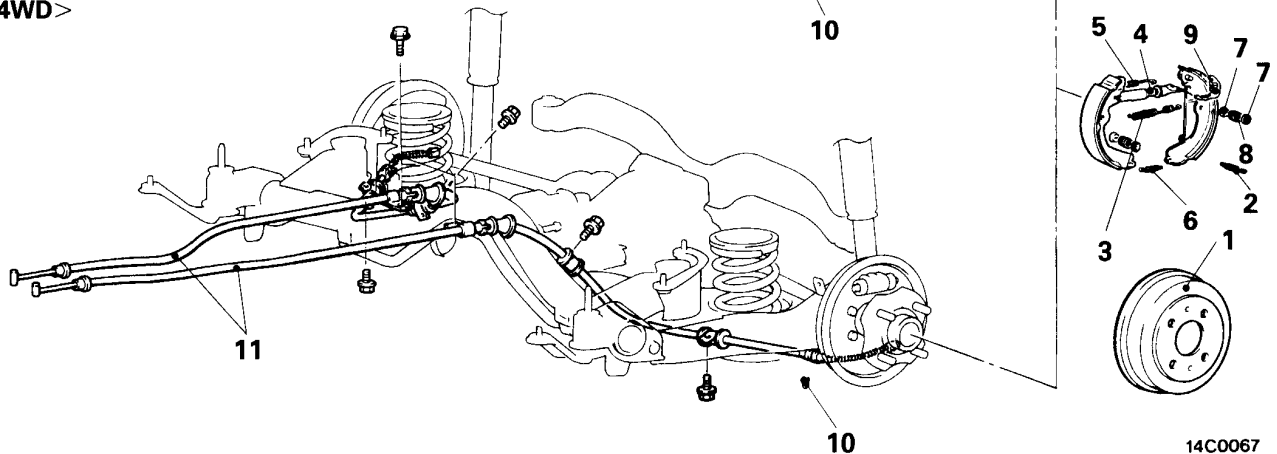
Post-installation Operation

- Parking Brake Lever Stroke Adjustment
(Refer to P. 36-3.)
- Installation of Floor Console
(Refer to GROUP 52A – Console Box.)
- Installation of Second and Third Seat
(Refer to GROUP 52A – Seat.)

<2WD>



<4WD>

**Removal steps**

1. Rear brake drum
2. Lever return spring
<SPACE RUNNER (4WD), SPACE WAGON>
3. Shoe-to-lever spring
4. Auto adjuster assembly
5. Shoe-to-shoe spring
6. Retainer spring
7. Shoe hold-down cup
8. Shoe hold-down spring
9. Shoe and lining assembly
10. Clip
11. Parking brake cable

Caution: SRS

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 GROUP 52B – SRS Diagnostic Unit.

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PARKING BRAKE CABLE <DRUM IN DISK BRAKE>

E36KA--2

REMOVAL AND INSTALLATION

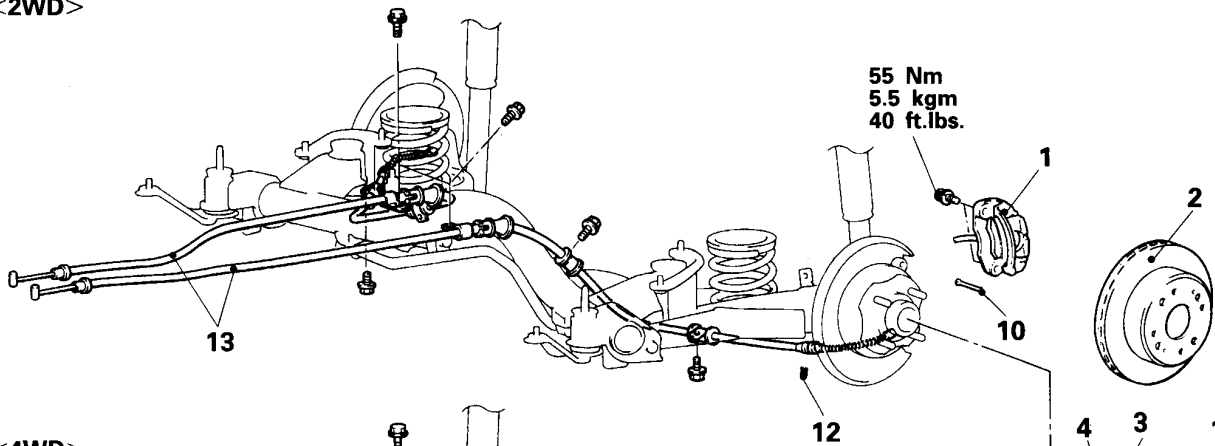
Pre-removal Operation

- Removal of Floor Console
(Refer to GROUP 52A – Console Box.)
- Removal of Second and Third Seat
(Refer to GROUP 52A – Seat.)

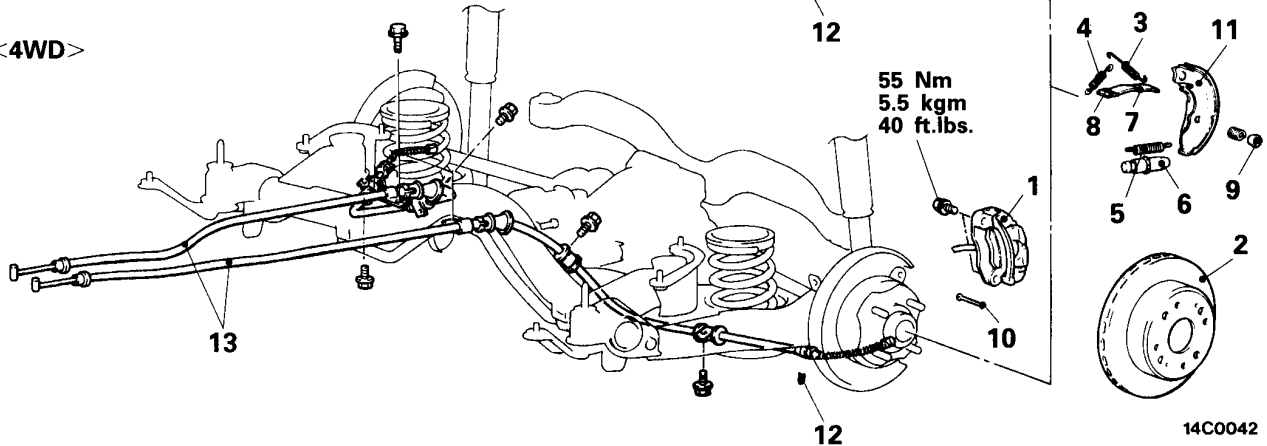
Post-installation Operation

- Parking Brake Lever Stroke Adjustment
(Refer to P. 36-3.)
- Installation of Floor Console
(Refer to GROUP 52A – Console Box.)
- Installation of Second and Third Seat
(Refer to GROUP 52A – Seat.)

<2WD>



<4WD>



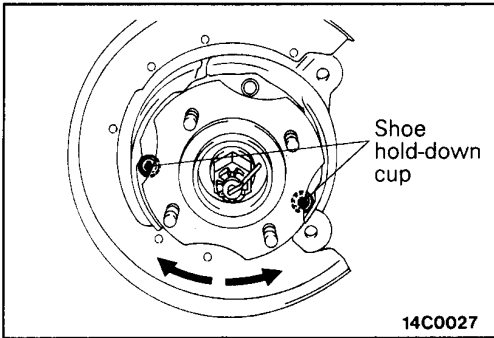
14C0042

Removal steps

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

Caution: SRS

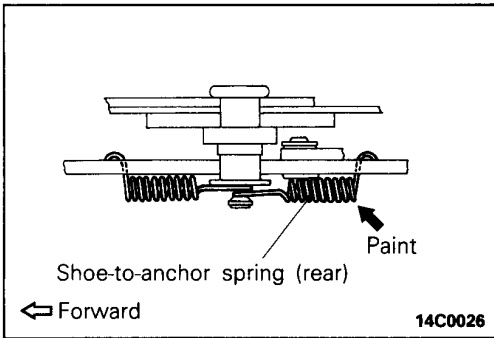
1. When removing and installing the floor console in vehicles equipped with SRS, do not let it bump against the SRS diagnostic unit or other components.
2. Before removal of SRS diagnostic unit, refer to GROUP 52B – SRS Diagnostic Unit.

**SERVICE POINTS OF REMOVAL**

E38KBAH

9. REMOVAL OF SHOE HOLD-DOWN CUP

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

**SERVICE POINTS OF INSTALLATION**

E36KDAF

4./3. INSTALLATION OF 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.

PARKING BRAKE DRUM <DRUM IN DISK BRAKE>

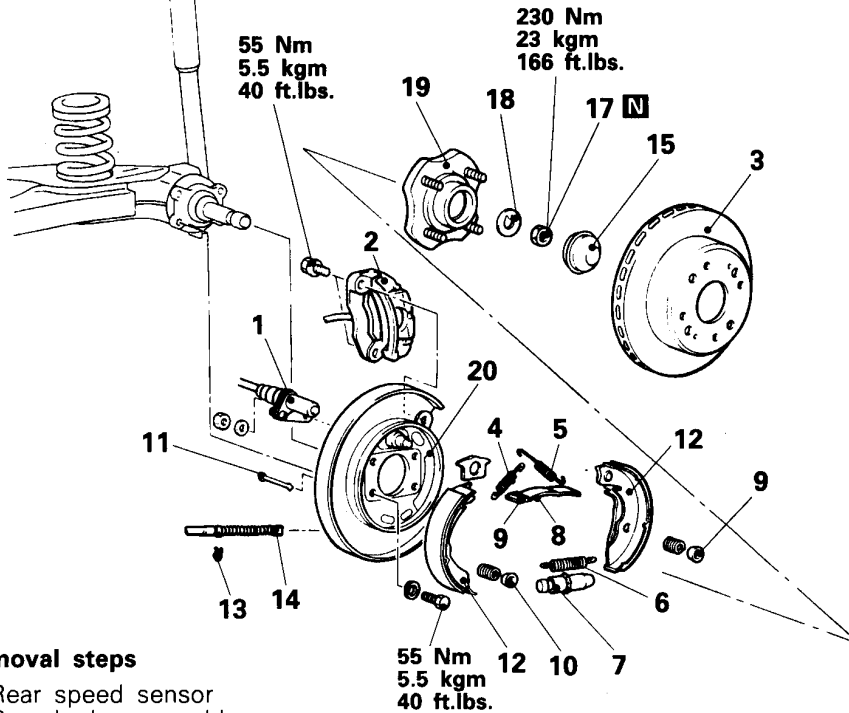
E36RA--

REMOVAL AND INSTALLATION

<2WD>

Post-installation Operation

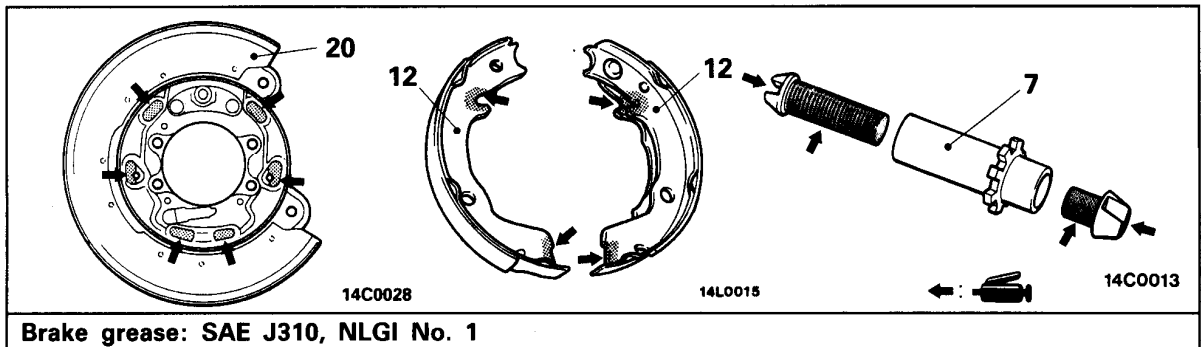
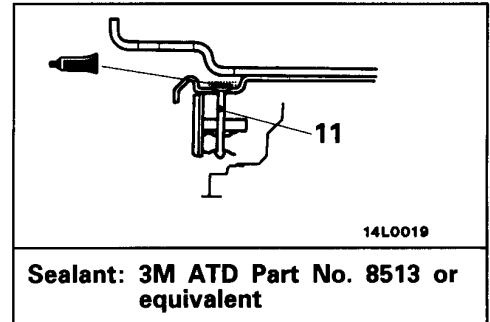
- Parking Brake Lever Stroke Check (Refer to P. 36-3.)



Removal steps

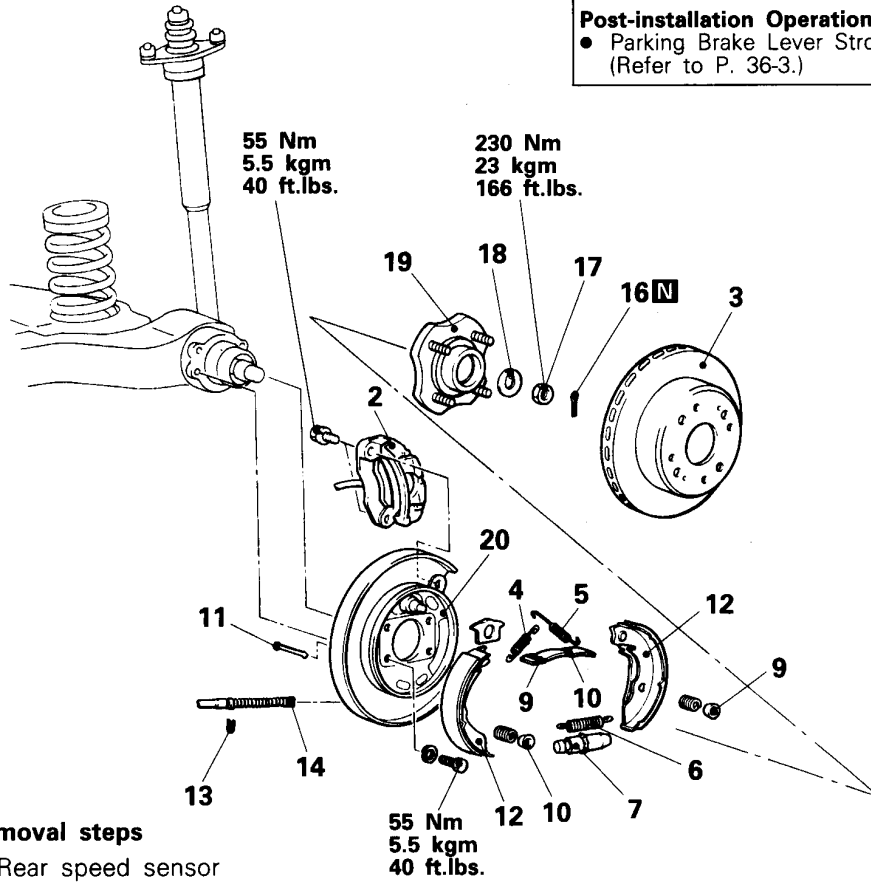
1. Rear speed sensor
2. Rear brake assembly
3. Rear brake disc
- ◆◆ 4. Shoe-to-anchor spring (rear)
- ◆◆ 5. Shoe-to-anchor spring (front)
- ◆◆ 6. Adjusting wheel spring
- ◆◆ 7. Adjuster
8. Strut
9. Strut return spring
10. Shoe hold-down cup
11. Shoe hold-down pin
12. Shoe and lining assembly
13. Clip
14. Parking brake cable
15. Hub cap
- ◆◆ 17. Lock nut
- ◆◆ 18. Washer
- ◆◆ 19. Rear hub assembly
20. Backing plate

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<4WD>

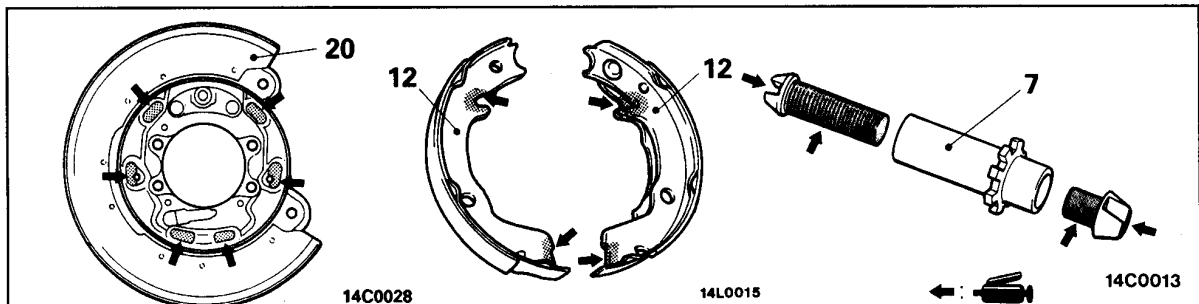
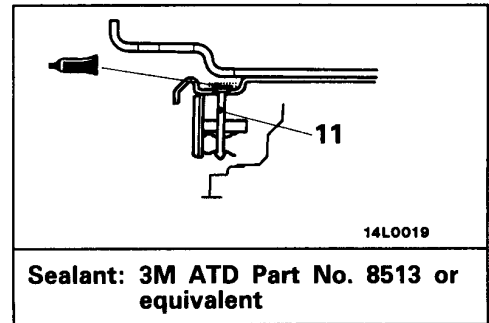
Post-installation Operation
 ● Parking Brake Lever Stroke Check
 (Refer to P. 36-3.)



Removal steps

1. Rear speed sensor
2. Rear brake assembly
3. Rear brake disc
- ◆◆ 4. Shoe-to-anchor spring (rear)
- ◆◆ 5. Shoe-to-anchor spring (front)
- ◆◆ 6. Adjusting wheel spring
- ◆◆ 7. Adjuster
8. Strut
9. Strut return spring
10. Shoe hold-down cup
11. Shoe hold-down pin
12. Shoe and lining assembly
13. Clip
14. Parking brake cable
15. Hub cap
16. Split pin
17. Lock nut
18. Washer
- ◆◆ 19. Rear hub assembly (Refer to GROUP 27 – Rear Axle Hub.)
20. Backing plate

14C0021



Brake grease: SAE J310, NLGI No. 1

SERVICE POINTS OF REMOVAL

E36RBAD

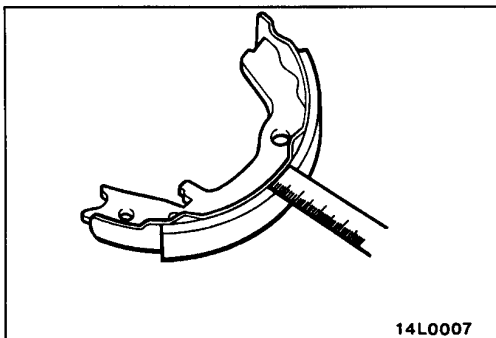
19. REMOVAL OF REAR HUB ASSEMBLY

- (1) For vehicles with 2WD, the rear hub unit bearing should not be disassembled.

Caution

Do not damage the tooth surface of the rotor that is press-fitted to the inside of the hub. Also, never drop the rotor. If the rotor teeth become chipped, or if the rotor is deformed, correct wheel speed cannot be detected, and the ABS system will not operate correctly.

- (2) For vehicles with 4WD, the wheel bearing must be replaced when the hub assembly is taken out. For the replacement procedure, refer to GROUP 27 – Rear Axle Hub.



INSPECTION

E36RCAC

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.

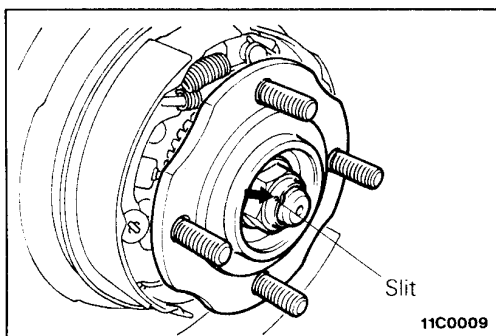
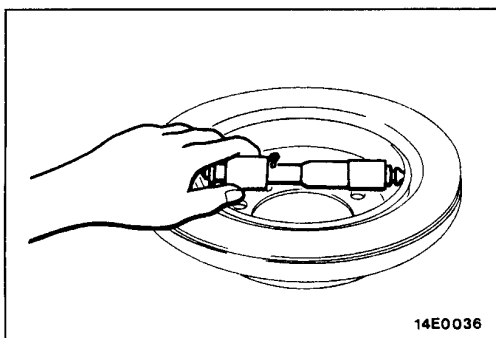
- (2) Measure the brake disc drum inner diameter at two or more places.

Standard value: 168 mm (6.6 in.)

Limit: 169 mm (6.7 in.)

Caution

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

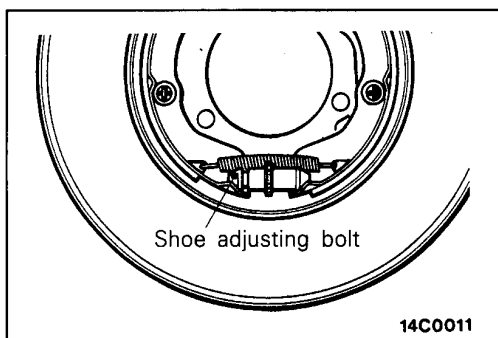


SERVICE POINTS OF INSTALLATION

E36RDAF

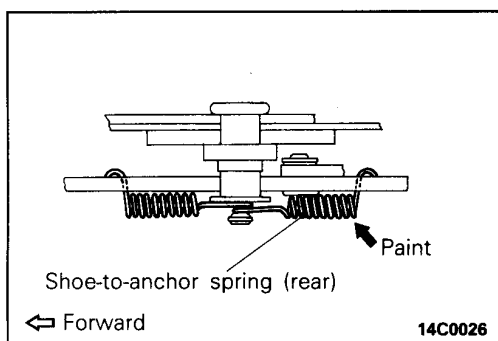
17. INSTALLATION OF LOCK NUT <2WD>

After tightening the lock nut, crimp the slit part.



7. 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.



5./4. INSTALLATION OF 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.