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SECTION **PB**

PARKING BRAKE SYSTEM

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PREPARATION

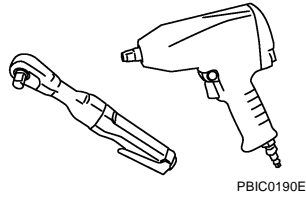
PREPARATION

PFP:00002

Commercial Service Tools

NFS000TA

Tool name	Description
Power tool	Loosening bolts and nuts



PARKING BRAKE SYSTEM

PARKING BRAKE SYSTEM

PFP:36010

On-Vehicle Inspection PEDAL STROKE

NFS000ET

- When parking brake pedal is operated with a force of 196 N (20 kg, 44 lb), make sure the stroke is within the specified number of notches. (Check it by listening and counting the ratchet clicks.)

Pedal stroke : 3 – 4 notches

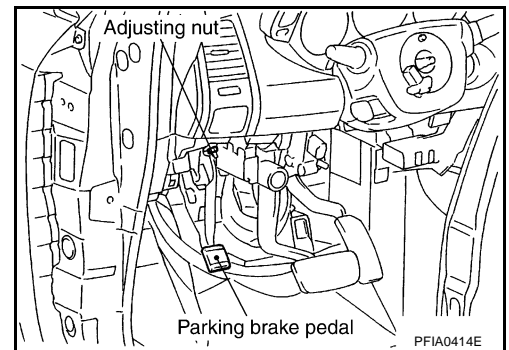
INSPECT COMPONENTS

- Make sure the components are attached properly (check for looseness, backlash, etc.).
- Check parking brake pedal assembly for bend, damage and cracks, and replace if necessary.
- Check cable for wear and damage, and replace if necessary.
- Check parking brake switch for malfunction, and replace if necessary.

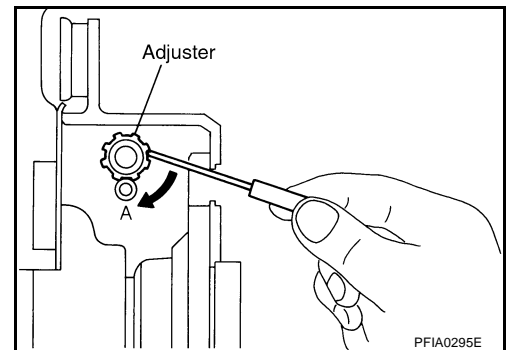
ADJUSTMENT

- To perform adjustment operations, remove tire from the vehicle with power tool.

1. Insert a deep socket wrench to rotate adjusting nut and loosen the cable sufficiently. Then release parking brake pedal.
2. Using wheel nuts, fix the disc rotor to the hub and prevent it from tilting.



3. Remove adjusting hole plug installed on the disc rotor. Using a screwdriver, turn the adjuster in direction "A" as shown in the figure until the disc rotor is locked. After locking, turn the adjuster in the opposite direction by 5 or 6 notches.
4. Rotate the disc rotor to make sure there is no drag. Install the adjusting hole plug.
5. Adjust parking brake cable as follows:
 - a. Operate parking brake pedal 10 or more times with a force of full stroke.
 - b. Rotate adjusting nut with deep socket to adjust pedal stroke.



NOTE:

Do not reuse the adjusting nut after removing it.

- c. When parking brake pedal is operated with a force of 196 N (20 kg, 44 lb), make sure the stroke is within the specified number of notches. (Check it by listening and counting the ratchet clicks.)

Pedal stroke : 3 – 4 notches

- d. With the parking brake pedal completely returned, make sure there is no drag on the rear brake.

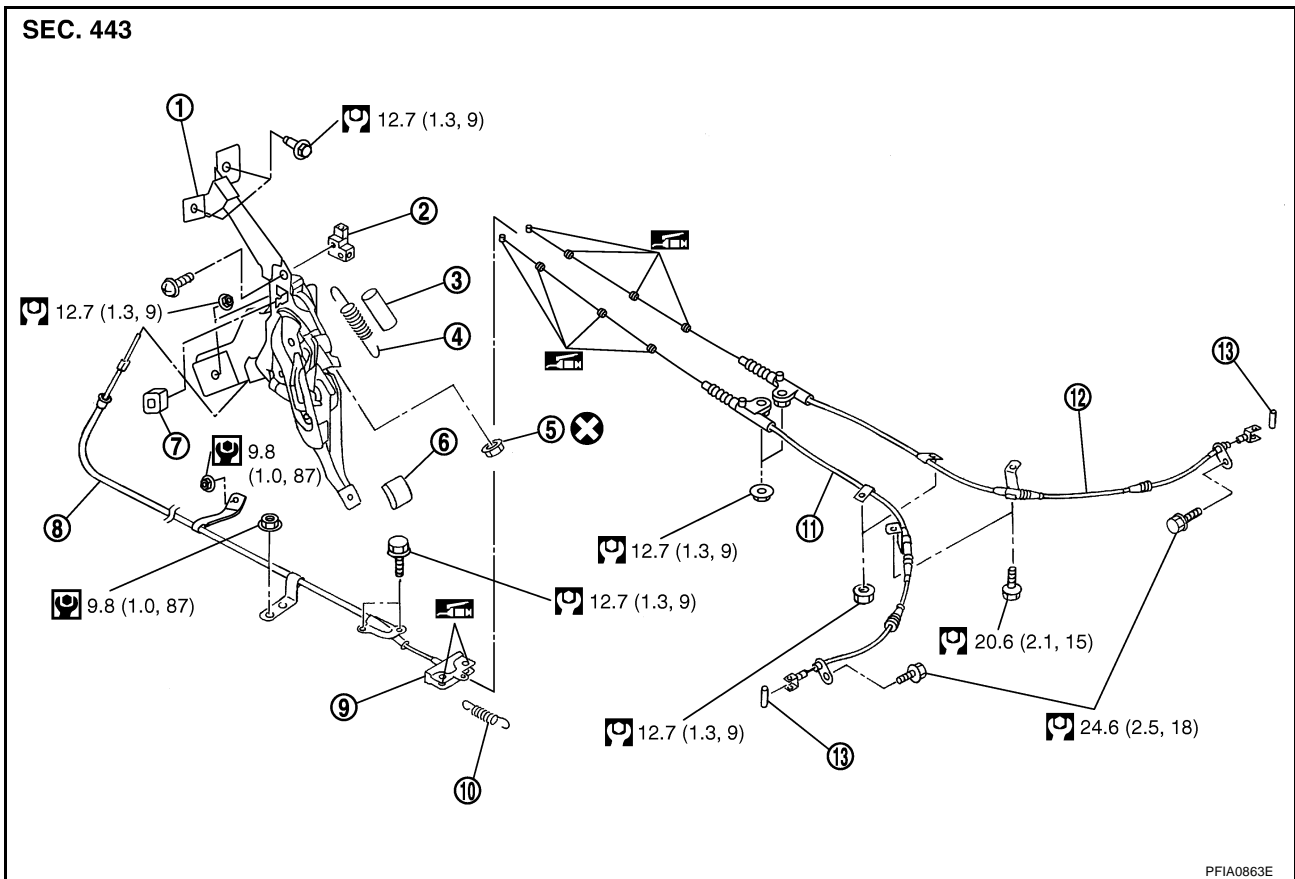
PARKING BRAKE CONTROL

PARKING BRAKE CONTROL

PFP:36010


Components

NFS000EU



- | | | |
|--------------------|-------------------------|---------------------|
| 1. Device assembly | 2. Parking brake switch | 3. Spring insulator |
| 4. Return spring | 5. Adjusting nut | 6. Pedal cover |
| 7. Stopper rubber | 8. Front cable | 9. Equalizer |
| 10. Return spring | 11. Rear cable (LH) | 12. Rear cable (RH) |
| 13. Pin | | |

Refer to [GI-10, "Components"](#) and the followings for the symbols in the figure.

 : Apply multi-purpose grease.

Removal and Installation

REMOVAL

NFS000EV

1. Remove front kicking plate (driver side). Refer to [EI-32, "BODY SIDE TRIM"](#) .
2. Remove front body side welt (driver side). Refer to [EI-32, "BODY SIDE TRIM"](#) .
3. Remove lower instrument panel (driver side). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
4. Remove dash side finisher (driver side). Refer to [EI-32, "BODY SIDE TRIM"](#) .
5. Remove side ventilator assembly (Left). Refer to [IP-10, "INSTRUMENT PANEL ASSEMBLY"](#) .
6. Remove relay box stay fixing screw.
7. Disconnect parking brake switch connector.
8. Remove adjusting nut.
9. Remove device assembly mounting bolts, nuts and remove device assembly from the vehicle.
10. Remove center console. Refer to [IP-17, "CENTER CONSOLE ASSEMBLY"](#) .
11. Remove front cable mounting bolts, nuts and remove front cable from the vehicle.
12. Remove center muffler. Refer to [EX-3, "EXHAUST SYSTEM"](#) .
13. Remove propeller shaft (AWD models). Refer to [PR-4, "REAR PROPELLER SHAFT"](#) .
14. Remove disc rotors. Refer to [BR-34, "Removal and Installation of Brake Caliper Assembly"](#) .

PARKING BRAKE CONTROL

15. Remove rear cable from the toggle lever.
16. Remove right and left rear cable mounting nuts, bolts, and remove right and left rear cable assembly from the vehicle.

A

INSTALLATION

1. Refer to [PB-4, "Components"](#) for tightening torque. Install in the reverse order of removal.

B

CAUTION:

Do not reuse the adjusting nut.

2. Adjust the parking brake. Refer to [PB-3, "ADJUSTMENT"](#) .

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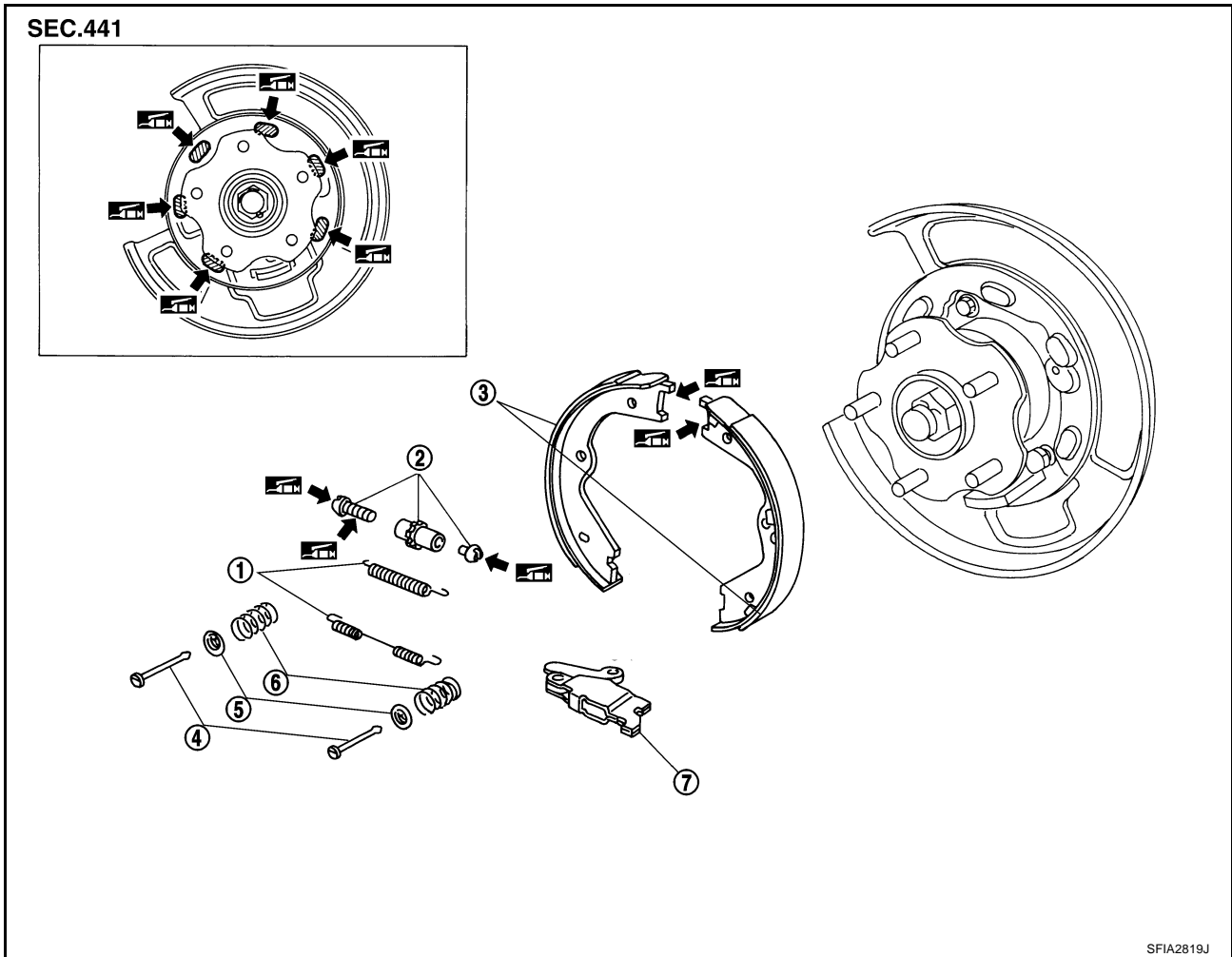
PARKING BRAKE SHOE

PARKING BRAKE SHOE

PFP:44060

Components

NFS000EW



1. Return spring

2. Adjuster assembly

3. Brake shoe

4. Anti-rattle pin

5. Retainer

6. Anti-rattle spring

7. Toggle lever

 : Apply PBC (Poly Butyl Cuprysil) grease or silicone-based grease.

PARKING BRAKE SHOE

NFS000EX

Removal and Installation

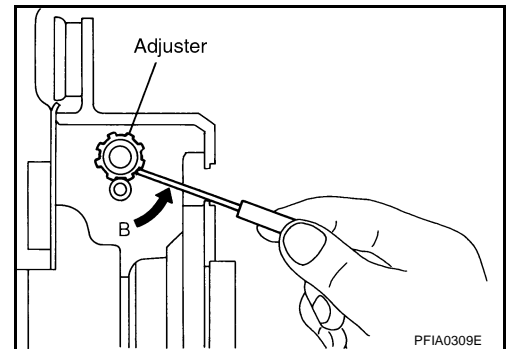
REMOVAL

WARNING:

Clean brakes with a vacuum dust collector to minimize the hazard of air borne particles or other materials.

CAUTION:

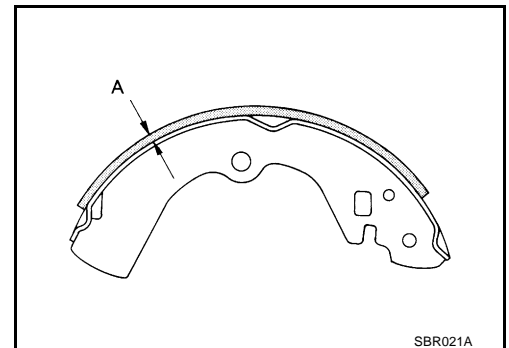
- Clean dust on the disc rotor and back plate with a vacuum dust collector. Do not blow with compressed air.
 - Put matching marks on both disc rotor and wheel hub when removing disc rotor.
1. Remove rear tires from vehicle with power tool.
 2. Remove disc rotor with parking brake pedal completely in the released position. Refer to [BR-34, "Removal and Installation of Brake Caliper Assembly"](#).
If disc rotor cannot be removed, remove as follows:
 - a. Secure the disc rotor in place with wheel nuts and remove adjuster hole plug.
 - b. Using a flat-bladed screwdriver, rotate adjuster in direction "B" to retract and loosen brake shoe.
 3. Remove anti-rattle pins, retainers, anti-rattle springs, and return spring.
 4. Remove parking brake shoe, adjuster assembly, and toggle lever.
 5. About the removal of back plate. Refer to [RAX-5, "Removal and Installation"](#).



INSPECTION AFTER REMOVAL

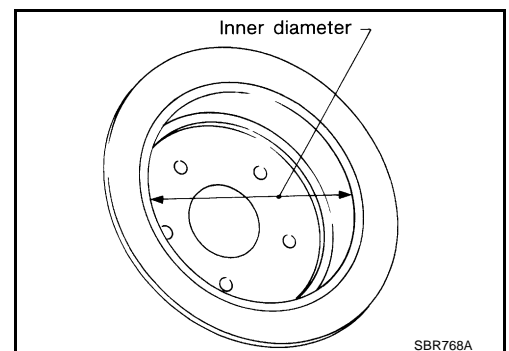
Lining Thickness Inspection

- Check thickness of lining.
 - Standard**
 - Standard thickness "A" : 3.2 mm (0.126 in)**
 - Repair limit thickness "A" : 1.5 mm (0.059 in)**



Drum Inner Diameter Inspection

- Check drum inner diameter.
 - Standard**
 - Standard inner diameter : 190 mm (7.48 in) dia.**
 - Maximum inner diameter : 191 mm (7.52 in) dia.**



PARKING BRAKE SHOE

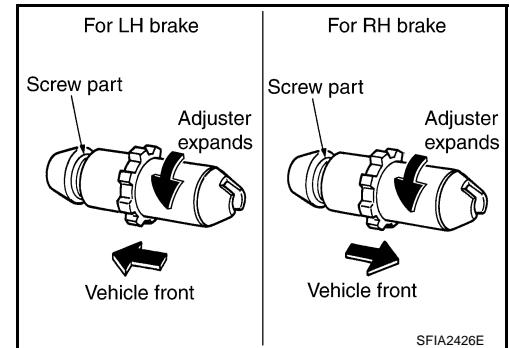
Other Inspections

- Check shoe sliding surface for excessive wear and damage.
- Check anti-rattle pin for excessive wear and corrosion.
- Check return spring for sagging.
- Check that adjuster move smoothly.
- Check either visually or with a vernier caliper to see if there is any excessive wear, cracks, or damage inside the drum.

INSTALLATION

Be careful of the following.

- Refer to [PB-6, "Components"](#) and apply PBC (Poly Butyl Cuprysil) grease or silicone-based grease to the specified points during assembly.
 - There is difference of the adjusters orientation difference between left and right. Assemble the adjuster so that threaded part expands when rotating it in the direction shown by the arrow.
 - Shorten adjuster by rotating it.
 - When disassembling the adjuster, apply PBC (Poly Butyl Cuprysil) grease or silicone-based grease to the threads.
 - After replacing brake shoes or disc rotors, or if brakes do not function well, perform break-in operation as follows.
1. Adjust the parking brake pedal stroke to the specified stroke. Refer to [PB-3, "ADJUSTMENT"](#) .
 2. Perform break-in (drag run) operation by driving the vehicle under the following conditions:



1. **Drive forward**
 - **Vehicle speed approx. 40 km/h (25 MPH) set (forward)**
 - **Parking brake operating force 84 – 122.5 N (8.6 – 12.5 kg, 19 – 28 lb) set**
 - **Time approx. 5 sec.**
3. After break-in operation, check parking brake pedal stroke of the parking brake. Readjust if it is no longer at the specified stroke. Refer to [PB-3, "ADJUSTMENT"](#) .
 - To prevent the lining from getting too hot, allow a cool off period of approximately 5 minutes after every break-in operation.
 - Do not perform excessive break-in operations, because it may cause uneven or early wear of the lining.

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

Parking Drum Brake

NFS000EY

Brake lining	Standard thickness	3.2 mm (0.126 in)
	Repair limit thickness	1.5 mm (0.059 in)
Drum (disc)	Standard inner diameter	190 mm (7.48 in) dia.
	Maximum inner diameter	191 mm (7.52 in) dia.

Parking Brake Control

NFS000EZ

Control type	Foot pedal
Number of notches [under a force of 196 N (20 kg, 44 lb)]	3 – 4 notches
Number of notches when parking brake warning lamp comes on	1 notch

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SERVICE DATA AND SPECIFICATIONS (SDS)
