

SECTION **PB**
PARKING BRAKE SYSTEM

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PRECAUTIONS

PRECAUTIONS

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Precautions for Supplemental Restraint System (SRS) “AIR BAG” and “SEAT BELT PRE-TENSIONER”

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The Supplemental Restraint System such as “AIR BAG” and “SEAT BELT PRE-TENSIONER”, used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SRS and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SRS section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

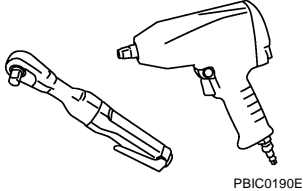
PREPARATION

PREPARATION

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Commercial Service Tools

EFS00685

Tool name	Description
<p data-bbox="154 296 267 323">Power tool</p>  <p data-bbox="846 495 919 512">PBIC0190E</p>	<p data-bbox="998 296 1203 323">Removing fasteners</p>

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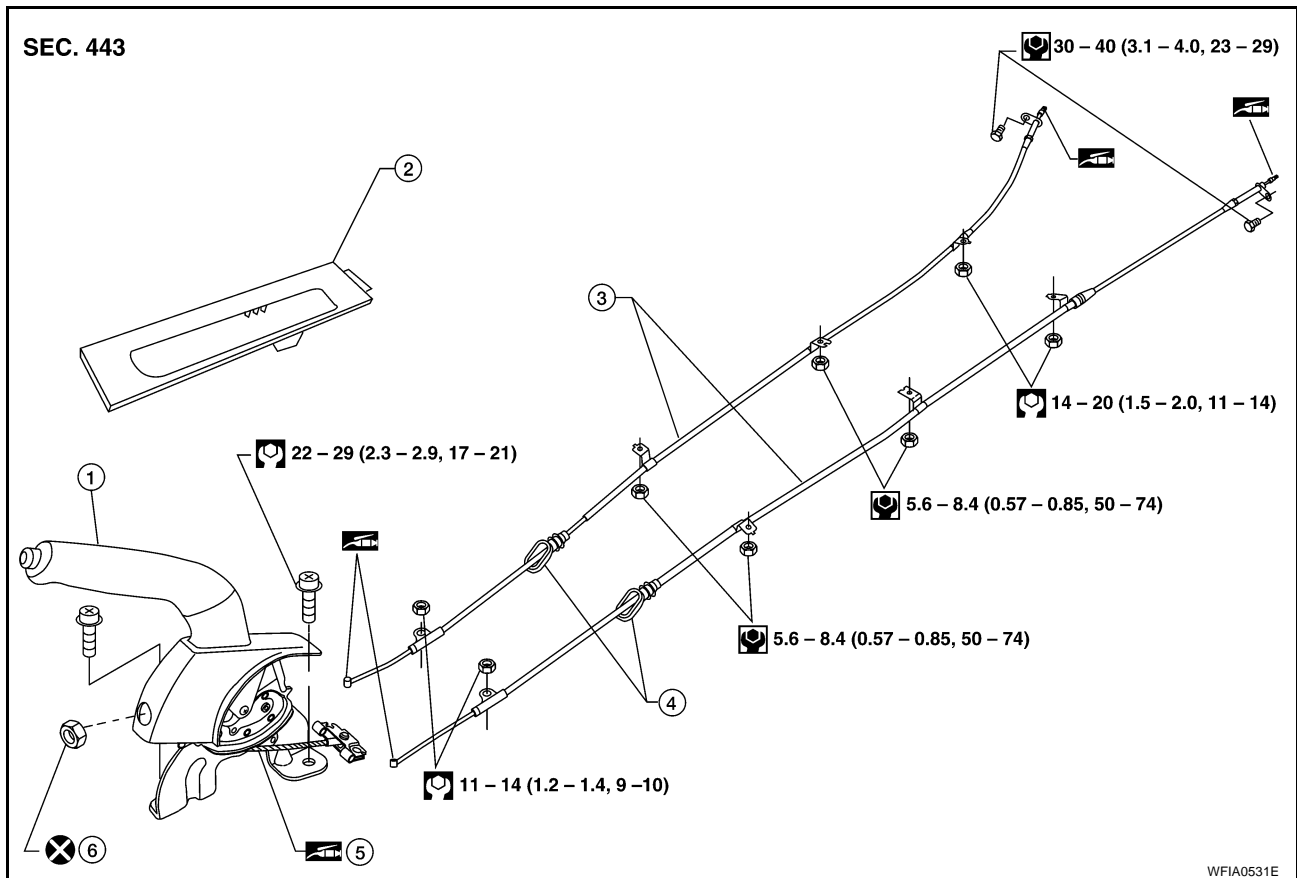
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PARKING BRAKE SYSTEM


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Components

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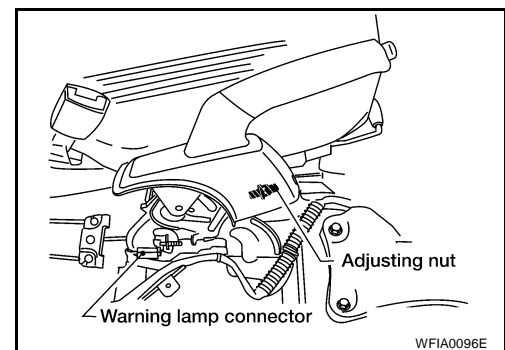
- | | | |
|------------------|---------------------------|-------------------|
| 1. Control lever | 2. Control lever finisher | 3. Cable assembly |
| 4. Grommet | 5. Front cable | 6. Adjusting nut |

 Multi-purpose grease (Lithium soap-base)

Removal and Installation

REMOVAL

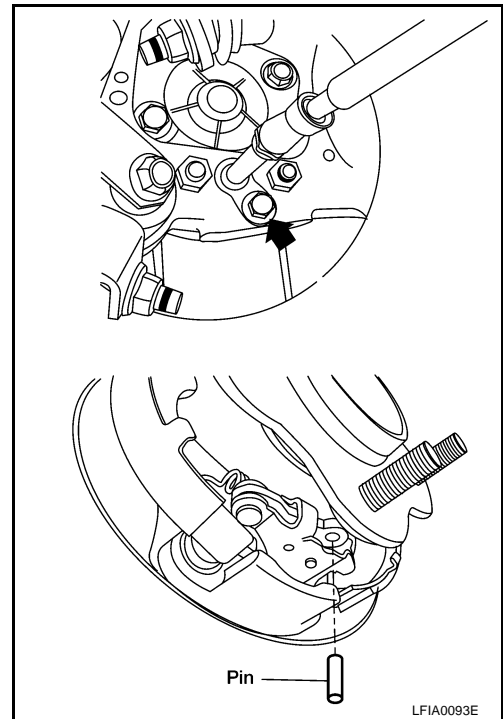
1. Remove center console. Refer to [IP-17, "Front Center Console"](#).
2. Disconnect warning lamp connector.
3. Remove all parking brake cable nuts and bolts, loosen and remove adjusting nut.



4. Remove the rear disc rotor. Refer to [BR-30, "Removal and Installation of Caliper Assembly and Disc Rotor"](#).

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5. Remove the lock plate bolt.
6. Remove the pin, then the parking brake cable.



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INSTALLATION

Installation is in the reverse order of removal.

- Adjust the parking brake cable. Refer to [PB-5, "Adjustment"](#) .

CAUTION:

Do not reuse adjusting nut.

Inspection

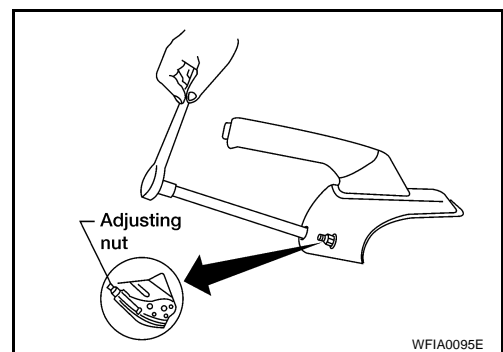
EFS004E0

- Check control lever for wear or other damage. Replace if necessary.
- Check wires for discontinuity or deterioration. Replace if necessary.
- Check warning lamp and switch. Replace if necessary.
- Check parts at each connecting portion and, if found deformed or damaged, replace.
- Check if the control lever stroke is within specification. Refer to [PB-5, "Adjustment"](#) .

Adjustment

EFS004E1

1. Remove control lever finisher from the center console.
2. Fully engage the control lever.
3. Loosen the parking brake cable adjusting nut and fully release the control lever.
4. Adjust clearance of the rear parking brake shoes. Refer to [PB-8, "SHOE CLEARANCE"](#) .
5. Depress the brake pedal fully more than five times.
6. Make sure that no drag exists while rotating the rear wheels.
7. Operate control lever 10 times or more with a full stroke [216 mm (8.5 in)].
8. Adjust control lever by turning adjusting nut.
9. Pull control lever with specified amount of force. Check control lever stroke and ensure smooth operation.



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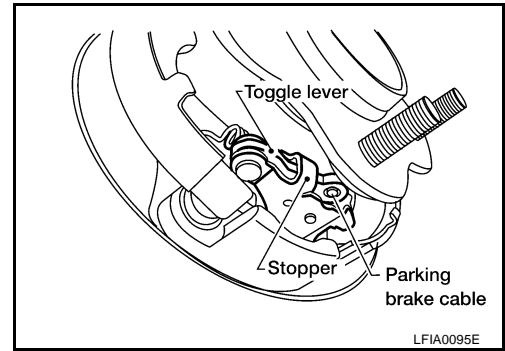
Lever stroke (number of notches) : 7 - 8

Force : 196 N (20 kg-f, 44 lb-f)

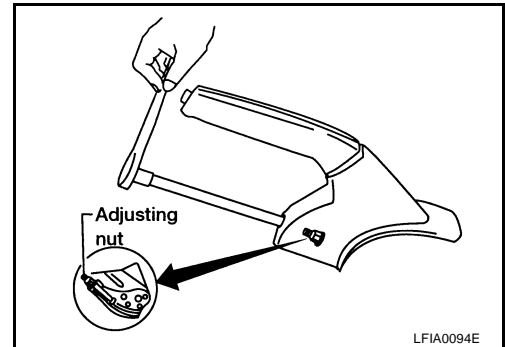
PARKING BRAKE SYSTEM

10. After adjustment, check that there is no drag while the control lever is being released. If drag exists, perform the following:

- Remove the rear disc rotor, refer to [BR-30, "Removal and Installation of Caliper Assembly and Disc Rotor"](#) . Verify the toggle lever returns to stopper when the parking brake lever is released.



- If toggle lever does not return to stopper, loosen adjusting nut.
- Install rear disc rotor and adjust shoe clearance. Refer to [PB-8, "SHOE CLEARANCE"](#) .



PARKING BRAKE SHOE

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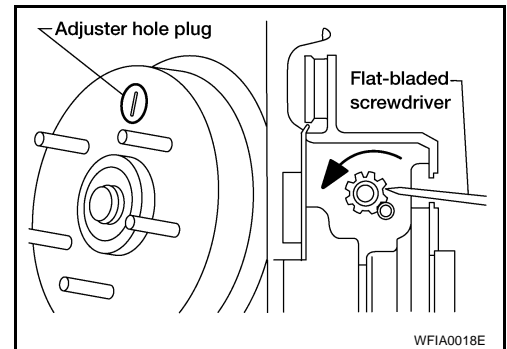
PARKING BRAKE SHOE

Removal and Installation REMOVAL

WARNING:

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

1. Remove the wheel and tire. Refer to [WT-6, "WHEEL AND TIRE ASSEMBLY"](#).
2. Remove the brake rotor with the parking brake lever completely disengaged.
3. If the brake rotor cannot be removed, remove as follows:
 - a. Secure the brake rotor with the wheel nut and remove the adjuster hole plug.
 - b. Insert a flat-bladed screwdriver through the plug opening and rotate the star wheel on the adjuster assembly in the direction as shown to retract the parking brake shoes.

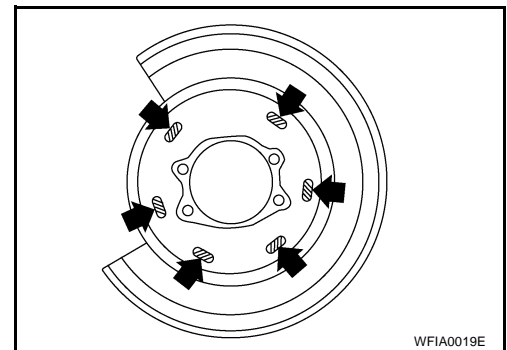


4. Remove the parking brake shoe springs using a suitable tool.
5. Remove the parking brake shoes and adjuster.

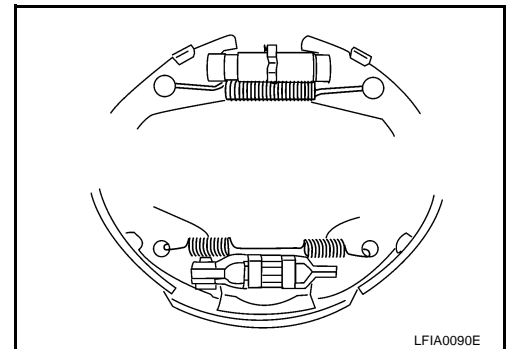
INSTALLATION

Installation is in the reverse order of removal noting the following:

- Apply brake grease to the contact areas shown. Refer to [MA-9, "RECOMMENDED FLUIDS AND LUBRICANTS"](#).

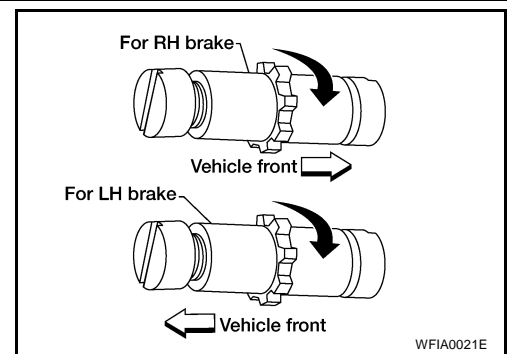


- Install the parking brake shoe springs as shown.



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- The orientation of the adjuster is different from left to right. Assemble the adjuster so that the threaded part is expanded when rotating it to the direction as shown. Completely retract the adjuster to assemble. When disassembling the adjuster, apply brake grease to the threads.
- After installing parking brake shoes and rotor, adjust the parking brake. Refer to [PB-8. "SHOE CLEARANCE"](#).

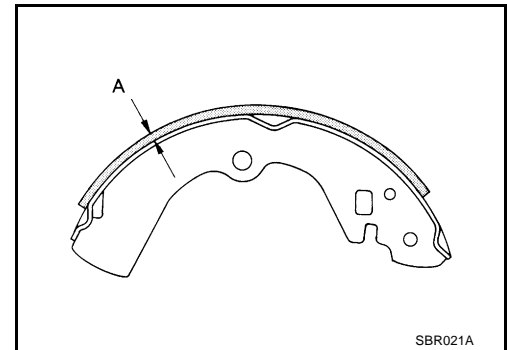


Inspection

- Visually inspect the lining for abnormal wear, damage and peeling.
- Measure thickness "A" of the lining using a micrometer.

Standard lining thickness : 3.2 mm (0.126 in)

Lining wear limit "A" : 1.5 mm (0.059 in)



EFS004E3

- Visually inspect the inside of the drum for abnormal wear, damage and cracks. Measure the inside diameter of the drum using a pair of vernier calipers.

Standard inner diameter : 172.0 mm (6.77 in)

Maximum inner diameter : 173.0 mm (6.81 in)

CAUTION:

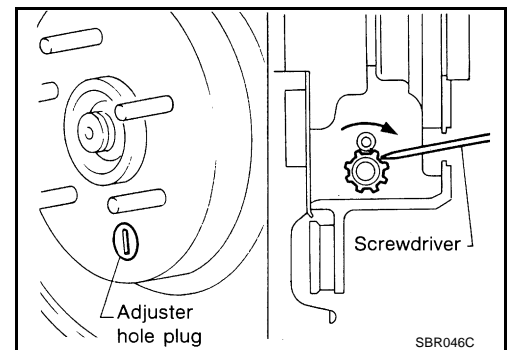
If necessary, remove the parking brake shoe and check as follows.

- Check the shoe sliding surface for abnormal wear and damage.
- Check the anchor pin for abnormal wear and corrosion.
- Check the return springs for sagging.
- Check the adjuster for rough operation.

Adjustment SHOE CLEARANCE

EFS00686

1. Make sure the parking brake control lever is fully released and parking brake cable adjusting nut is loosened.
2. Remove the adjuster hole plug installed on the rotor. Using a screwdriver, turn the adjuster as shown until the rotor is locked. After locking, turn the adjuster in the opposite direction 5 or 6 notches.
3. Rotate the rotor to make sure that there is no drag. Install the adjuster hole plug.



4. After adjusting the clearance of the rear shoes, adjust the parking brake cable. Refer to [PB-5. "Adjustment"](#).

PARKING BRAKE SHOE

- After replacing the shoes or the brake rotor or if the parking brake does not function well, carry out the break-in procedure. Refer to [PB-9, "Breaking-in Drum and Lining"](#) .

Breaking-in Drum and Lining

EFS004E4

CAUTION:

Do not carry out the break-in procedure excessively. Doing so may cause uneven or premature wear of the brake shoe lining.

When new parking brake shoes or brake rotors are installed or when parking brake performance is poor, perform the following break-in procedure.

1. Drive the unloaded vehicle on a safe, level and dry road.
2. Pull the parking brake control lever with a force of 147 N (15 kg-f, 33 lb-f).
3. While pulling the lever, continue to drive the vehicle forward 100 meters (328 ft) at approximately 35 km/h (22 MPH).
4. Allow the parking brake to cool down for approximately five minutes.
5. Release the parking brake control lever and drive the vehicle under normal conditions for two minutes to cool down the parking brake.
6. Repeat steps 1 through 5 three times and repeat just step 5 once more.
7. After performing the break-in procedure, check the stroke of the parking brake control lever. If it is out of specification, adjust again. Refer to [PB-5, "Adjustment"](#) .

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SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

PFP:00030

Parking Brake Control

EFS004E5

Control type	Hand lever
Number of notches [under force of 196 N (20.4 kg-f, 44.9 lb-f)]	7 - 8
Number of notches when warning lamp switch comes on	1

Parking Drum Brake

EFS004E6

Type		DS17HF
Brake lining	Standard thickness (new)	3.2 mm (0.126 in)
	Wear limit thickness	1.5 mm (0.059 in)
Drum (disc)	Standard inner diameter (new)	172 mm (6.77 in)
	Wear limit of inner diameter	173 mm (6.81 in)