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# SECTION **PB**

## PARKING BRAKE SYSTEM

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# PRECAUTIONS

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## PRECAUTION

### PRECAUTIONS

#### Precautions for Removing Battery Terminal

INFOID:000000011489841

- When removing the 12V battery terminal, turn OFF the ignition switch and wait at least 30 seconds.

**NOTE:**

ECU may be active for several tens of seconds after the ignition switch is turned OFF. If the battery terminal is removed before ECU stops, then a DTC detection error or ECU data corruption may occur.

- For vehicles with the 2-batteries, be sure to connect the main battery and the sub battery before turning ON the ignition switch.

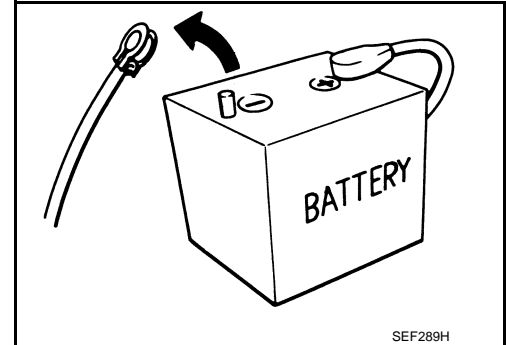
**NOTE:**

If the ignition switch is turned ON with any one of the terminals of main battery and sub battery disconnected, then DTC may be detected.

- After installing the 12V battery, always check "Self Diagnosis Result" of all ECUs and erase DTC.

**NOTE:**

The removal of 12V battery may cause a DTC detection error.



#### Titanium Muffler Handling

INFOID:000000011489842

**CAUTION:**

- Never touch the titanium muffler directly with bare hands or allow oils to adhere to it during inspection, removal, and installation.
- Always wear new thick cotton gloves or working gloves. (Never use oil-adhered gloves.)
- After oil adhesion, wait until the titanium muffler cools and immediately remove oil with parts cleaner.
- Always use genuine parts cleaner (dry type) or the equivalent.
- When cleaning oil in on-board condition, apply parts cleaner to a waste to wipe out oil. By doing so, peripheral parts can be protected from parts cleaner adhesion.
- Be careful not to cut fingers with the insulator edge or the main muffler cooling fin.

#### General Precautions

INFOID:000000011489843

**CAUTION:**

After finishing servicing, check that all the tools and waste are stored in a customary place.

# PREPARATION

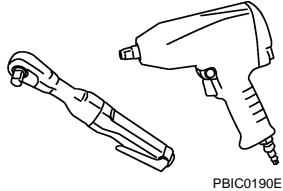
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## PREPARATION

### PREPARATION

#### Commercial Service Tool

INFOID:000000011489844

Tool name	Description
Power tool 	Loosening bolts and nuts

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# PARKING BRAKE SYSTEM

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## PERIODIC MAINTENANCE

### PARKING BRAKE SYSTEM

#### Inspection and Adjustment

INFOID:000000011489845

#### INSPECTION

##### Parking Brake Lever Stroke

1. Operate the parking brake lever with a force of 196 N (20 kg, 44 lb). Check that the lever stroke is within the specified number of notches. (Check it by listening to the clicks of the ratchet.)

**Number of notches** : Refer to [PB-12, "Parking Brake Control"](#).

2. When brake warning lamp turns ON, check that the lever stroke is within the specified number of notches. (Check it by listening to the clicks of the ratchet.)

**Number of notches** : Refer to [PB-12, "Parking Brake Control"](#).

##### Inspect Components

- Check each component for installation condition such as looseness.
- Check the parking brake lever assembly for bend, damage and cracks. Replace if necessary.
- Check the cables and equalizer for wear, damage and cracks. Replace if necessary.
- Check the parking brake switch, and replace it if necessary. Refer to [BRC-117, "Diagnosis Procedure \(GT-R certified NISSAN dealer\)"](#).

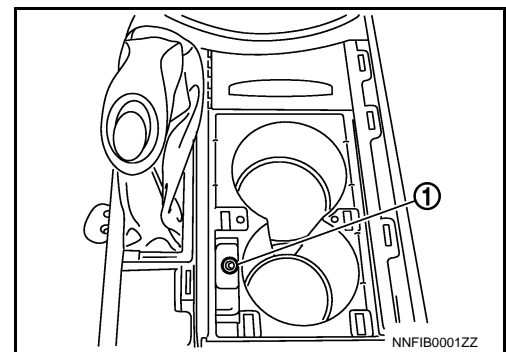
#### ADJUSTMENT

1. Remove tires with power tool. Refer to [WT-74, "EXCEPT NISMO : Exploded View"](#) (Except NISMO), [WT-74, "NISMO : Exploded View"](#) (NISMO).

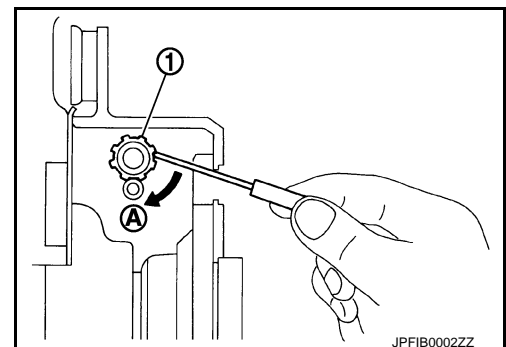
##### NOTE:

Check the vehicle type. Refer to [WT-4, "How to Check Vehicle Type"](#).

2. Fix the disc rotor using wheel nuts.
3. Remove the instrument garnish. Refer to [IP-12, "Exploded View"](#).
4. Remove the console finisher assembly. Refer to [IP-23, "Exploded View"](#).
5. Remove the cup holder finisher. Refer to [IP-23, "Exploded View"](#).
6. Rotate the adjusting nut (1) and loosen the cable, and then return the parking brake lever.



7. Remove the adjusting hole plug from the disc rotor. Turn the adjuster (1) in the direction (A) as shown in the figure using a suitable tool until the disc rotor is locked.
8. Turn back the adjuster 5 or 6 notches from the locked position.
9. Rotate the disc rotor to check that there is no drag. Install the adjusting hole plug. If there is any drag, refer to [PB-10, "Inspection and Adjustment"](#).
10. Adjust the cable with the following procedure.
  - a. Operate the parking brake lever with a force of 294 N (30 kg, 66 lb) for 10 strokes or more.



# PARKING BRAKE SYSTEM

## < PERIODIC MAINTENANCE >

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- b. Adjust the parking brake lever stroke by turning the adjusting nut.  
**CAUTION:**  
**Never reuse the adjusting nut if the adjusting nut removed.**
- c. Operate the parking brake lever with a force of 196 N (20 kg, 44 lb). Check that the lever stroke is within the specified number of notches. (Check it by listening to the clicks of the ratchet.)  
  
**Number of notches : Refer to [PB-12, "Parking Brake Control"](#).**
- d. Rotate the disc rotor with the parking brake lever released and check that there is no drag. Refer to [PB-10, "Inspection and Adjustment"](#).

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# PARKING BRAKE SHOE

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## PARKING BRAKE SHOE

Adjustment (GT-R certified NISSAN dealer)

INFOID:000000011489846

1. Adjust parking brake lever stroke. Refer to [PB-4, "Inspection and Adjustment"](#).
2. Perform parking brake break-in (drag on) operation by driving vehicle under the following conditions:
  - Drive forward
  - Vehicle speed: Approx. 40 km/h (25 MPH) set (constant and forward)
  - Parking brake operating force: 145 N (15 kg, 33 lb) set contact
  - Time: Approx. 10 sec.

**CAUTION:**

  - **To prevent lining from getting too hot, allow a cool off period of approximately 5 minutes after every break-in operation.**
  - **Never perform excessive break-in operations, because doing so may cause uneven or early wear of the lining.**
3. After the break-in procedure, check parking brake lever stroke of parking brake. Refer to [PB-4, "Inspection and Adjustment"](#).

# PARKING BRAKE CONTROL

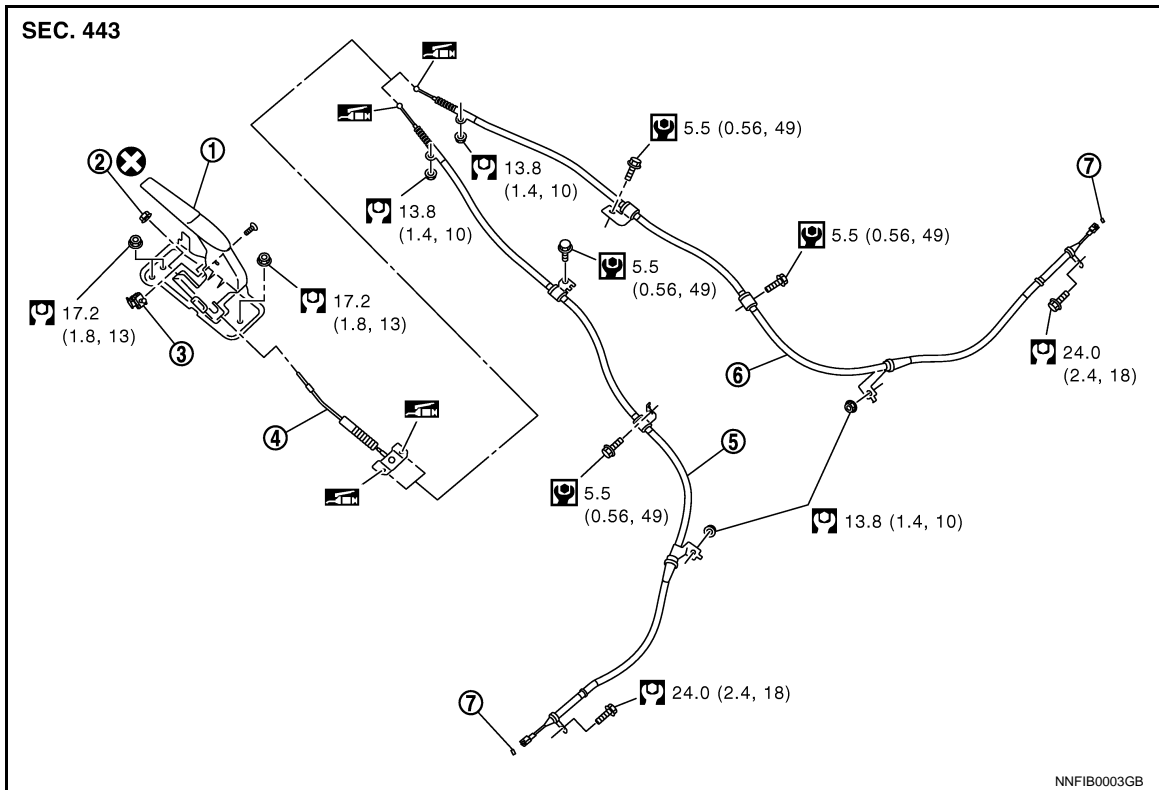
< REMOVAL AND INSTALLATION >

## REMOVAL AND INSTALLATION


### PARKING BRAKE CONTROL

Exploded View (GT-R certified NISSAN dealer)

INFOID:000000011489847



- |                                 |                           |                            |
|---------------------------------|---------------------------|----------------------------|
| 1. Parking brake lever assembly | 2. Adjusting nut          | 3. Parking brake switch    |
| 4. Front cable                  | 5. Rear cable (left side) | 6. Rear cable (right side) |
| 7. Pin                          |                           |                            |

: Apply multi-purpose grease.

Refer to [GI-4, "Components"](#) for symbols not described on the above.

### Removal and Installation (GT-R certified NISSAN dealer)

INFOID:000000011489848

#### REMOVAL

1. Remove rear tires with power tool. Refer to [WT-74, "EXCEPT NISMO : Exploded View"](#) (Except NISMO), [WT-74, "NISMO : Exploded View"](#) (NISMO).

#### NOTE:

Check the vehicle type. Refer to [WT-4, "How to Check Vehicle Type"](#).

2. Remove rear diffuser. Refer to [EXT-44, "REAR DIFFUSER : Exploded View"](#).
3. Remove center console assembly. Refer to [IP-23, "Exploded View"](#).

#### CAUTION:

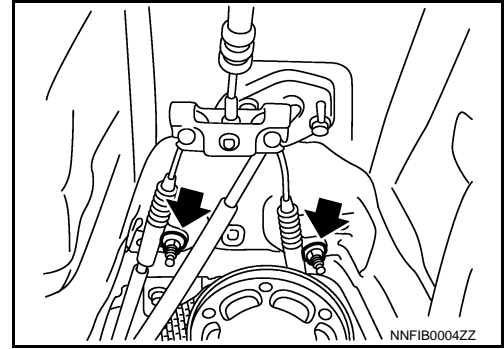
- Keep the range sensor away from magnetic objects during work.
- For a person with an electro-medical apparatus, keep the range sensor away from the device.

4. Disconnect parking brake switch harness connector.
5. Remove adjusting nut and loosen front cable.
6. Remove front propeller shaft. Refer to [DLN-51, "Exploded View"](#).
7. Remove main propeller shaft. Refer to [DLN-60, "Exploded View"](#).
8. Remove heat insulator.
9. Separate rear cable from front cable, and remove front cable.

## PARKING BRAKE CONTROL

### < REMOVAL AND INSTALLATION >

10. Remove parking brake lever assembly.
11. Remove rear cable mounting nuts (front side) (←).
12. Remove parking brake shoe, and remove rear cable from toggle lever. Refer to [PB-9, "Exploded View"](#).
13. Remove the rear suspension assembly, transmission assembly and rear cable as a unit. Refer to [RSU-36, "Exploded View"](#).
14. Remove the rear cable mounting bolts and nuts, and then remove the rear cable from the rear suspension assembly and transmission assembly.



### INSTALLATION

Note the following, Install the reverse order of the removal.

- Never reuse the adjusting nut.

Adjustment (GT-R certified NISSAN dealer)

INFOID:000000011489849

### ADJUSTMENT AFTER INSTALLATION

Adjust the parking brake lever stroke. Refer to [PB-4, "Inspection and Adjustment"](#).



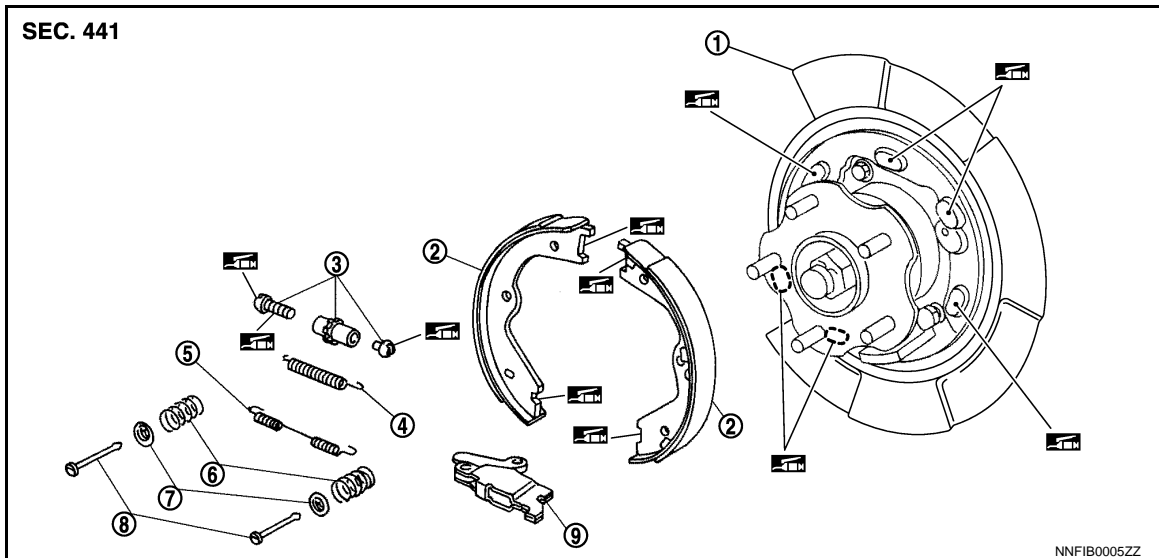
# PARKING BRAKE SHOE

< REMOVAL AND INSTALLATION >

## PARKING BRAKE SHOE

Exploded View

INFOID:000000011489850



- |                    |                       |                       |
|--------------------|-----------------------|-----------------------|
| 1. Back plate      | 2. Parking brake shoe | 3. Adjuster           |
| 4. Adjuster spring | 5. Return spring      | 6. Anti-rattle spring |
| 7. Retainer        | 8. Anti-rattle pin    | 9. Toggle lever       |

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

## Removal and Installation (GT-R certified NISSAN dealer)

INFOID:000000011489851

### REMOVAL

#### **WARNING:**

Since dust covering the parking brake has an affect on human body, the dust must be removed with a dust collector. Never splatter the dust with an air blow gun.

1. Remove rear tires with power tool. Refer to [WT-74, "EXCEPT NISMO : Exploded View"](#) (Except NISMO), [WT-74, "NISMO : Exploded View"](#) (NISMO).

#### **NOTE:**

Check the vehicle type. Refer to [WT-4, "How to Check Vehicle Type"](#).

2. Remove the disc rotor with the parking brake lever returned. Refer to [BR-47, "BRAKE CALIPER ASSEMBLY : Removal and Installation \(GT-R certified NISSAN dealer\)"](#).

If disc rotor cannot be removed, remove as follows:

- a. Fix the disc rotor using wheel nuts.
- b. Remove the adjusting hole plug from the disc rotor, rotate the adjuster (1) in the direction (B) using a suitable tool, and then compress the expanded brake shoe.
3. Rotate the anti-rattle pins while pressing them, and then remove the anti-rattle pins, retainers and anti-rattle springs from the back plate.

#### **CAUTION:**

**Never drop the removed parts.**

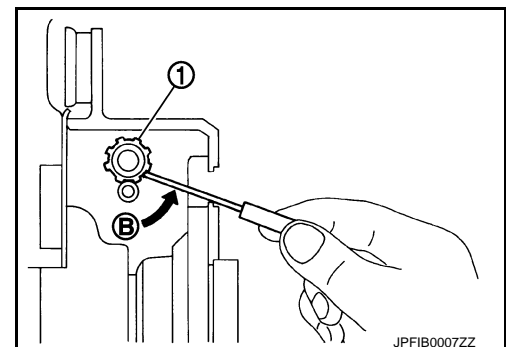
4. Remove adjuster spring and return spring.

#### **CAUTION:**

**Never drop the removed parts.**

5. Remove parking brake shoes, adjuster assembly and toggle lever.

#### **CAUTION:**



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# PARKING BRAKE SHOE

## < REMOVAL AND INSTALLATION >

- The parking brake shoes for the vehicle front side are made of different materials from those for the vehicle rear side. Never misidentify them when removing.
- Never drop the removed parts.

6. When removing the brake plate, refer to [RAX-9, "Exploded View"](#).

## INSTALLATION

Note the following, install in the reverse order of removal.

- Apply PBC (Poly Butyl Cuprysil) grease or silicone-based grease to the back plate and brake shoe.

### CAUTION:

The parking brake shoes for the vehicle front side are made of different materials from those for the vehicle rear side. Never misidentify them when removing.

- Assemble adjusters so that the threaded part is expanded when rotating it in the direction shown by the arrow.

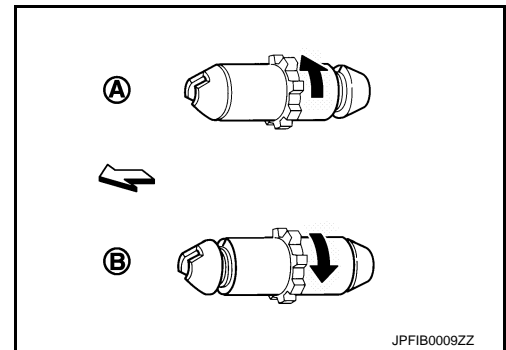
A: For right side brake

B: For left side brake

⇐: Vehicle front

⬅: Adjuster expands

- Shorten adjuster by rotating it.
- When disassembling apply PBC (Poly Butyl Cuprysil) grease or silicone-based grease to threads.
- Check brake shoe sliding surface and drum inner surface for grease. Wipe it out any adheres to the surfaces.
- Perform the break-in operations after finishing the installation. Refer to [PB-6, "Adjustment \(GT-R certified NISSAN dealer\)"](#).



## Inspection and Adjustment

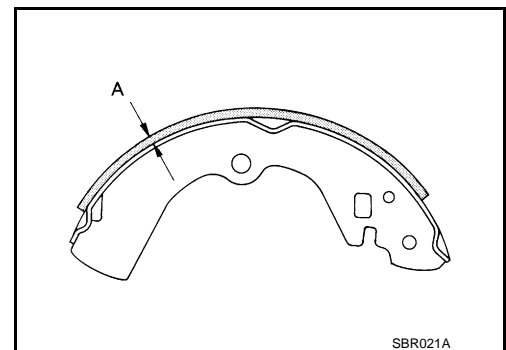
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## INSPECTION AFTER REMOVAL

Lining Thickness Inspection

Check thickness (A) of lining.

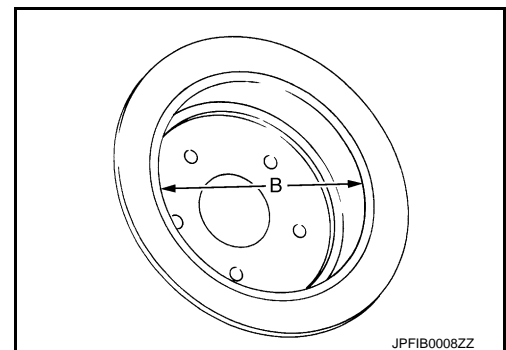
**A** : Refer to [PB-12, "Parking Drum Brake"](#).



Drum Inner Diameter Inspection

Check inner diameter (B) of drum.

**B** : Refer to [PB-12, "Parking Drum Brake"](#).



Other Inspections

Check the following items, and replace the parts if necessary.

- Lining for excessive wear, damage or peeling.
- Brake shoe sliding surface for excessive wear or damage.

# PARKING BRAKE SHOE

## < REMOVAL AND INSTALLATION >

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- Anti-rattle pin and retainer for excessive wear, damage or rust.
- Adjuster spring, return spring and anti-rattle spring for settling, excessive wear, damage or rust.
- Adjuster for smoothness.
- Toggle lever for excessive wear, damage or rust.
- Visually check inside of the drum for excessive wear, cracks or damage with a pair of vernier calipers.

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## ADJUSTMENT AFTER INSTALLATION

Check the parking brake for drag. Perform the following procedure if necessary.

1. Adjust the parking brake lever stroke. Refer to [PB-4. "Inspection and Adjustment"](#).
2. Check the parking brake for drag again. Check the rear disc brake for drag if necessary. Refer to [BR-49, "BRAKE CALIPER ASSEMBLY : Inspection \(GT-R certified NISSAN dealer\)"](#).

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## SERVICE DATA AND SPECIFICATIONS (SDS)

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## SERVICE DATA AND SPECIFICATIONS (SDS)

### SERVICE DATA AND SPECIFICATIONS (SDS)

#### Parking Drum Brake

INFOID:000000011489853

Unit: mm (in.)

Item	Limit
Brake lining	1.5 (0.059)
Drum (disc of inner diameter)	191 (7.52)

#### Parking Brake Control

INFOID:000000011489854

Item	Standard
Number of notches [under force of 196 N (20 kg, 44 lb)]	5 – 6 notches
Number of notches when brake warning lamp turns ON	1 notch