

SECTION BR
BRAKE SYSTEM

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NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

< SYMPTOM DIAGNOSIS >

SYMPTOM DIAGNOSIS

NOISE, VIBRATION AND HARSHNESS (NVH) TROUBLESHOOTING

NVH Troubleshooting Chart

INFOID:000000009159828

Use the chart below to find the cause of the symptom. If necessary, repair or replace these parts.

Symptom			Possible cause and SUSPECTED PARTS													Reference page																							
			Pads - damaged	Pads - uneven wear	Rotor imbalance	Rotor damage	Rotor deformation	Rotor deflection	Rotor rust	Rotor thickness variation	Drum out of round	PROPELLER SHAFT	DIFFERENTIAL	AXLE AND SUSPENSION	TIRE	ROAD WHEEL	DRIVE SHAFT	STEERING	BR-14, BR-17	BR-14, BR-17	BR-14, BR-17	BR-14, BR-17	BR-14, BR-17	BR-14, BR-17	BR-14, BR-17	BR-14, BR-17	BR-14, BR-17	NVH in PB section	NVH in DLN section	NHV in DLN section	NVH in FAX, RAX and FSU, RSU section	NVH in WT section	NVH in WT section	NVH in FAX and/or RAX section	NVH in ST section				
Noise	BRAKE	Noise	×	×																																			
		Shake			×																																		
		Shimmy, Judder			×	×	×	×	×	×																													

×: Applicable

PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Working Range at a Regular Dealership

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CAUTION:

The service items unmentioned on this manual are recommended to be performed by a GT-R certified NISSAN dealer. Because those service items require special equipment and a GT-R certified technical staff who completed special training.

Precaution 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 AIR BAG" and "SEAT BELT" of this Service Manual.

WARNING:

Always observe the following items for preventing accidental activation.

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision that 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 "SRS AIR BAG".
- Never 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.

PRECAUTIONS WHEN USING POWER TOOLS (AIR OR ELECTRIC) AND HAMMERS

WARNING:

Always observe the following items for preventing accidental activation.

- When working near the Air Bag Diagnosis Sensor Unit or other Air Bag System sensors with the ignition ON or engine running, never use air or electric power tools or strike near the sensor(s) with a hammer. Heavy vibration could activate the sensor(s) and deploy the air bag(s), possibly causing serious injury.
- When using air or electric power tools or hammers, always switch the ignition OFF, disconnect the battery, and wait at least 3 minutes before performing any service.

Precautions Necessary for Steering Wheel Rotation After Battery Disconnection

INFOID:000000009159830

CAUTION:

Comply with the following cautions to prevent any error and malfunction.

- Before removing and installing any control units, first turn the ignition switch to the LOCK position, then disconnect both battery cables.
- After finishing work, confirm that all control unit connectors are connected properly, then re-connect both battery cables.
- Always use CONSULT to perform self-diagnosis as a part of each function inspection after finishing work. If a DTC is detected, perform trouble diagnosis according to self-diagnosis results.

For vehicle with steering lock unit, if the battery is disconnected or discharged, the steering wheel will lock and cannot be turned.

If turning the steering wheel is required with the battery disconnected or discharged, follow the operation procedure below before starting the repair operation.

OPERATION PROCEDURE

1. Connect both battery cables.

PRECAUTIONS

< PRECAUTION >

NOTE:

Supply power using jumper cables if battery is discharged.

2. Turn the ignition switch to ACC position.
(At this time, the steering lock will be released.)
3. Disconnect both battery cables. The steering lock will remain released with both battery cables disconnected and the steering wheel can be turned.
4. Perform the necessary repair operation.
5. When the repair work is completed, re-connect both battery cables. With the brake pedal released, turn the ignition switch from ACC position to ON position, then to LOCK position. (The steering wheel will lock when the ignition switch is turned to LOCK position.)
6. Perform self-diagnosis check of all control units using CONSULT.

Precaution for Battery Service

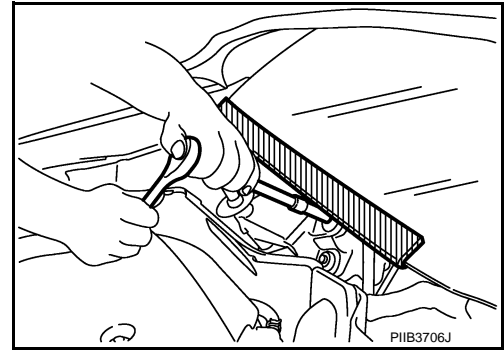
INFOID:000000009159831

Before disconnecting the battery, lower both the driver and passenger windows. This will prevent any interference between the window edge and the vehicle when the door is opened/closed. During normal operation, the window slightly raises and lowers automatically to prevent any window to vehicle interference. The automatic window function will not work with the battery disconnected.

Precaution for Procedure without Cowl Top Cover

INFOID:000000009159832

When performing the procedure after removing cowl top cover, cover the lower end of windshield with urethane, etc to prevent damage to windshield.



General Precautions

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CAUTION:

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

Precaution for Brake System

INFOID:000000009159834

WARNING:

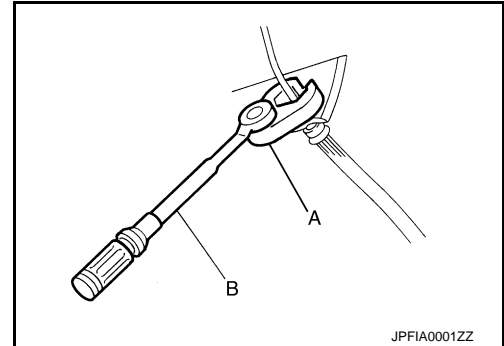
Since dust covering the front and rear brakes has an affect on human body, the dust must be removed with a dust collector. Never splatter the dust with an air blow gun.

- Brake fluid use refer to [MA-22, "Fluids and Lubricants"](#).
- Never reuse drained brake fluid.
- The brake fluid used for this vehicle has a higher boiling point and readily absorbs moisture in the air. Accordingly, when brake temperature rises, water in brake fluid vaporizes with the higher potential of vapor lock and uncomfortable brake pedal feeling (increase in pedal stroke). Therefore, the following items must be carefully observed.
 - Never change, bleed, or fill with brake fluid under humid conditions such as rainy or foggy days, in principle, because the brake fluid absorbs moisture in the air. (Vapor lock occurs more easily during performance driving because brake temperature becomes higher, compared with normal driving.)
 - If it is necessary to change, bleed, or fill with brake fluid under humid conditions such as rainy or foggy days, perform this in a place with low humidity in minimal time.
 - When it is necessary to change, bleed, or fill with brake fluid, explain the customer the precautions on brake fluid before deciding the place and schedule of the work.
 - Always discard residual brake fluid remaining in the container because the fluid is deteriorated by moisture.
- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it out immediately and wash with water if it gets on a painted surface.
- Never scratch the flare nut and the brake caliper.

PRECAUTIONS

< PRECAUTION >

- After pressing the brake pedal more deeply or harder than normal driving, such as when air bleeding, check each item of brake pedal. Adjust brake pedal if it is outside the standard condition.
 - Always clean with new brake fluid when cleaning the master cylinder, brake caliper and other components.
 - Never use mineral oils such as gasoline or light oil to clean. They may damage rubber parts and cause a malfunction.
 - Always loosen the brake tube flare nut with a flare nut wrench.
 - Tighten the brake tube flare nut to the specified torque with a crow-foot (A) and torque wrench (B).
 - Always confirm the specified tightening torque when installing the brake pipes.
 - Turn the ignition switch OFF and disconnect the ABS actuator and electric unit (control unit) connector or the battery negative terminal before performing the work.
 - Check that no brake fluid leakage is present after replacing the parts.
 - Burnish the brake contact surfaces after refinishing or replacing rotors, after replacing pads, or if a soft pedal occurs at very low mileage.
- Front brake pad: refer to [BR-14, "BRAKE PAD : Inspection and Adjustment"](#).
- Front disc rotor: refer to [BR-14, "DISC ROTOR : Inspection and Adjustment"](#).
- Rear brake pad: refer to [BR-17, "BRAKE PAD : Inspection and Adjustment"](#).
- Rear disc rotor: refer to [BR-17, "DISC ROTOR : Inspection and Adjustment"](#).



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PREPARATION

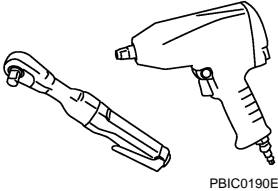
< PREPARATION >

PREPARATION

PREPARATION

Commercial Service Tool

INFOID:000000009159836

Tool name	Description
<p data-bbox="162 415 267 441">Power tool</p>  <p data-bbox="868 630 938 646">PBIC0190E</p>	<p data-bbox="1063 415 1315 441">Loosening bolts and nuts</p>

BRAKE PEDAL

< PERIODIC MAINTENANCE >

PERIODIC MAINTENANCE

BRAKE PEDAL

Inspection and Adjustment

INFOID:000000009159837

INSPECTION

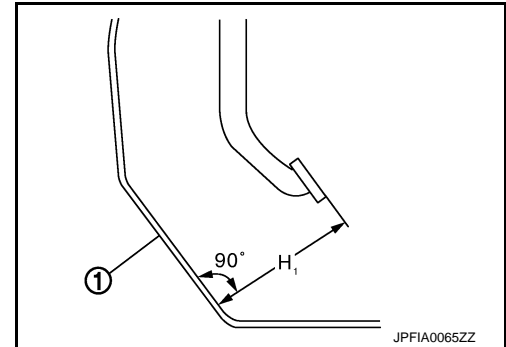
Brake Pedal Height

Check the height between the dash lower panel (1) and the top face of the brake pedal (H_1).

H_1 : Refer to [BR-23, "Brake Pedal"](#).

CAUTION:

Perform it with the floor trim removed.



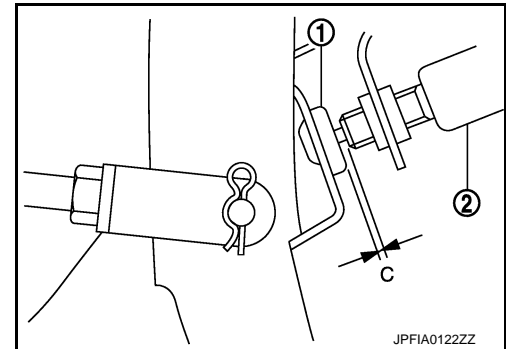
ASCD Brake Switch and Stop Lamp Switch

Check the clearance (C) between the stopper rubber (1) and the tip of the ASCD brake switch and stop lamp switch (2) unit.

C : Refer to [BR-23, "Brake Pedal"](#).

CAUTION:

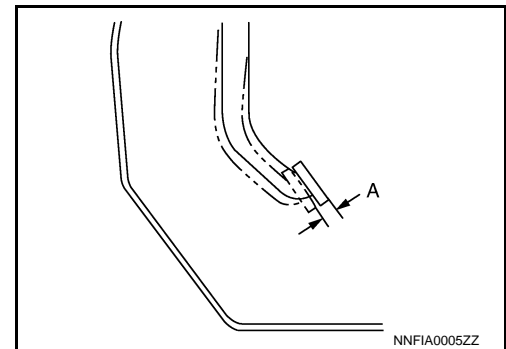
The stop lamp must turn off when the brake pedal is released.



Brake Pedal Play

Press the brake pedal (pad), check the brake pedal play (A) (dimension until the fluid pressure occurs).

A : Refer to [BR-23, "Brake Pedal"](#).



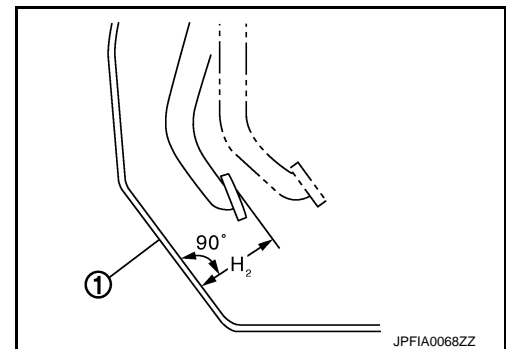
Depressed Brake Pedal Height

Check the height between the dash lower panel (1) and the top face of the brake pedal (H_2) when depressing the brake pedal with a force of 490 N (50 kg, 110lb) while the engine is running.

H_2 : Refer to [BR-23, "Brake Pedal"](#).

CAUTION:

Perform it with the floor trim removed.



ADJUSTMENT

BRAKE PEDAL

< PERIODIC MAINTENANCE >

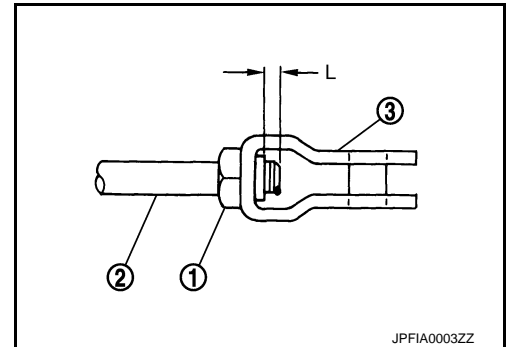
Brake Pedal Height

1. Disconnect the ASCD brake switch and stop lamp switch connector.
2. Loosen the ASCD brake switch and stop lamp switch by turning it 45° counterclockwise.
3. Adjust the brake pedal height with the following procedure.

- a. Loosen the lock nut (1) of the input rod.

CAUTION:

The threaded end (2) of the input rod must project to the inner side (L) of the clevis (3).



- b. Rotate the input rod, adjust the brake pedal to the specified height (H₁).

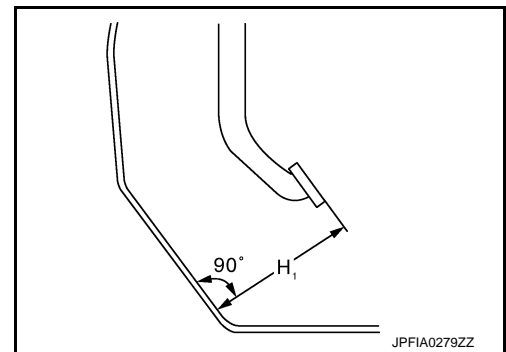
H₁ : Refer to [BR-23, "Brake Pedal"](#).

- c. Tighten the lock nut.

Specified torque : 18.7 N·m (1.9 kg·m, 14 ft·lb)

CAUTION:

The threaded end (2) of the input rod must project to the inner side (L) of the clevis (3).



4. Adjust the clearance between the stopper rubber and the tip of ASCD brake pedal and stop lamp switch unit after adjusting the brake pedal height.

ASCD Brake Switch and Stop lamp Switch (Brake Pedal Play)

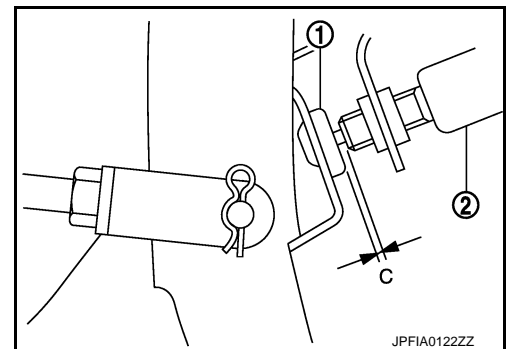
1. Disconnect the ASCD brake switch and stop lamp switch connector.
2. Loosen the ASCD brake switch and stop lamp switch by turning it 45° counterclockwise.
3. Press the ASCD brake switch and stop lamp switch (2) until the tip of the unit contacts with the stopper rubber (1).

CAUTION:

• The clearance (C) between the stopper rubber and the tip of ASCD brake switch and stop lamp switch unit must be within the specified value.

C : Refer to [BR-23, "Brake Pedal"](#).

• The stop lamp must turn off when the brake pedal is released.



BRAKE FLUID

< PERIODIC MAINTENANCE >

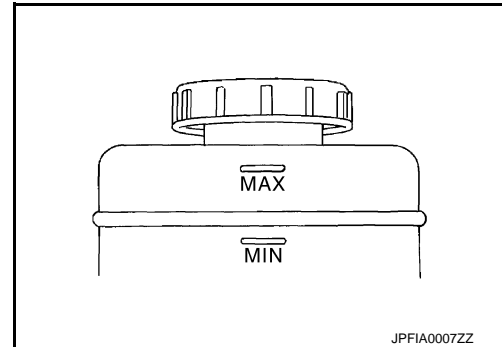
BRAKE FLUID

Inspection

INFOID:000000009159838

BRAKE FLUID LEVEL

- Check that the fluid level in the reservoir tank is within the specified range (MAX – MIN lines).
- Visually check for any brake fluid leakage around the reservoir tank.
- Check the brake system for any leakage if the fluid level is extremely low (lower than MIN).
- Check the brake system for fluid leakage if the warning lamp remains illuminated even after the parking brake lever is released.
- Check the reservoir tank for the mixing of foreign matter (e.g. dust) and oils other than brake fluid.



BRAKE LINE

1. Check the brake line (tube and hose) for any cracks or damage.
CAUTION:
Replace with new ones if necessary.
2. Depress the brake pedal with a force of 785 N (80 kg, 176 lb) and hold down the pedal for approximately 5 seconds with the engine running. Check for any fluid leakage.
CAUTION:
Retighten each part to the specified torque and repair any abnormal (damaged, worn, or deformed) part if any fluid leakage is present.

Draining

INFOID:000000009159839

CAUTION:

- **Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it out immediately and wash with water if it gets on a painted surface.**
 - **Turn the ignition switch OFF and disconnect the ABS actuator and electric unit (control unit) connector or the battery negative terminal before performing work.**
 - **Wrap the flare nut wrench with waste cloth to protect the caliper from damage.**
 - **If the brake fluid adheres to the caliper or disc rotor, quickly wipe it out.**
1. Remove tires. Refer to [WT-11, "Exploded View"](#).
 2. Connect a vinyl tube to the bleeder valve.
 3. Depress the brake pedal and loosen the bleeder valve to gradually discharge brake fluid.

Refilling

INFOID:000000009159840

CAUTION:

- **Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it out immediately and wash with water if it gets on a painted surface.**
 - **Turn the ignition switch OFF and disconnect the ABS actuator and electric unit (control unit) connector or the battery negative terminal before performing work.**
 - **Wrap the flare nut wrench with waste cloth to protect the caliper from damage.**
 - **If the brake fluid adheres to the caliper or disc rotor, quickly wipe it out.**
 - **Never allow foreign matter (e.g. dust) and oils other than brake fluid to enter the reservoir tank.**
 - **Since brake fluid is susceptible to deterioration from moisture, discard brake fluid remaining in the container.**
1. Check that there is no foreign material in the reservoir tank, and refill the brake fluid with new one.
CAUTION:
Never reuse drained brake fluid.
 2. Loosen the bleeder valve, slowly depress the brake pedal to the full stroke, and then release the pedal. Repeat this operation at intervals of 2 or 3 seconds until all of the brake fluid is discharged. Then close the bleeder valve with the brake pedal depressed. Repeat the same work on each wheel.
 3. Perform the air bleeding. Refer to [BR-10, "Bleeding Brake System"](#).

BRAKE FLUID

< PERIODIC MAINTENANCE >

Bleeding Brake System

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AFTER DISASSEMBLY OF BRAKE LINE AND CALIPER

CAUTION:

- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it out immediately and wash with water if it gets on a painted surface.
- Turn the ignition switch OFF and disconnect the ABS actuator and electric unit (control unit) connector or the battery negative terminal before performing work.
- Wrap the flare nut wrench with waste cloth to protect the caliper from damage.
- If the brake fluid adheres to the caliper or disc rotor, quickly wipe it out.
- Monitor the fluid level in the reservoir tank while performing the air bleeding.
- Always fill with new brake fluid. Never reuse the drained brake fluid.
- Never allow foreign matter (e.g. dust) and oils other than brake fluid to enter the reservoir tank.
- Since brake fluid is susceptible to deterioration from moisture, discard brake fluid remaining in the container.

1. Remove tires. Refer to [WT-11, "Exploded View"](#).
2. Connect a vinyl tube to the bleeder valve of the rear right brake.
3. Fully depress the brake pedal 4 to 5 times.
4. Loosen the bleed valve and bleed air with the brake pedal depressed, and then quickly tighten the bleeder valve.

Specified torque : 14 N·m (1.4 kg·m, 10 ft·lb)

5. Repeat steps 3 to 4 until all of the air is out of the brake line.
6. Repeat steps 2 to 5. Occasionally fill with the brake fluid in order to keep the reservoir tank at least half full. Bleed air in the following order: rear right → rear left → front right → front left.
7. Check that the fluid level in the reservoir tank is within the specified range after air bleeding.
8. Check each item of brake pedal. Adjust if outside the specification. Refer to [BR-7, "Inspection and Adjustment"](#).
9. Run the vehicle until the surface temperature of caliper reaches 70 to 80°C (158 to 176°F), and then perform the stops 2 to 8 with the caliper heated.

CAUTION:

- Be careful because the temperature of caliper is very hot.
- Depress the brake pedal rapidly to drain the brake fluid quickly.

10. Check each item of brake pedal again. Adjust if outside the specification. Refer to [BR-7, "Inspection and Adjustment"](#).

AFTER REPLACING BRAKE PAD AND DISC ROTOR

CAUTION:

- Never spill or splash brake fluid on painted surfaces. Brake fluid may seriously damage paint. Wipe it out immediately and wash with water if it gets on a painted surface.
- Turn the ignition switch OFF and disconnect the ABS actuator and electric unit (control unit) connector or the battery negative terminal before performing work.
- Wrap the flare nut wrench with waste cloth to protect the caliper from damage.
- If the brake fluid adheres to the caliper or disc rotor, quickly wipe it out.
- Monitor the fluid level in the reservoir tank while performing the air bleeding.
- Always fill with new brake fluid. Never reuse the drained brake fluid.
- Never allow foreign matter (e.g. dust) and oils other than brake fluid to enter the reservoir tank.
- Since brake fluid is susceptible to deterioration from moisture, discard brake fluid remaining in the container.

1. Remove tires. Refer to [WT-11, "Exploded View"](#).
2. Perform the running-in of brake pad and disc rotor.
 - Front disc brake: refer to [BR-14, "BRAKE PAD : Inspection and Adjustment"](#).
 - Rear disc brake: refer to [BR-17, "BRAKE PAD : Inspection and Adjustment"](#).
3. Connect a vinyl tube to the bleeder valve of the rear right brake.
4. Fully depress the brake pedal 5 to 6 times.

CAUTION:

- Depress the brake pedal quickly.

BRAKE FLUID

< PERIODIC MAINTENANCE >

5. Loosen the bleed valve and bleed air with the brake pedal depressed, and then quickly tighten the bleeder valve.

Specified torque : 14 N·m (1.4 kg-m, 10 ft-lb)

CAUTION:

- **Be careful because the temperature of caliper is very hot.**
- **Drain the brake fluid swiftly.**

6. Repeat steps 4 to 5 until all of the air is out of the brake line.
7. Repeat steps 3 to 6. Occasionally fill with the brake fluid in order to keep the reservoir tank at least half full. Bleed air in the following order: rear right → rear left → front right → front left.
8. Check each item of brake pedal. Adjust if outside the specification. Refer to [BR-7, "Inspection and Adjustment"](#).

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BRAKE MASTER CYLINDER

< PERIODIC MAINTENANCE >

BRAKE MASTER CYLINDER

Inspection

INFOID:000000009159842

FLUID LEAK

Check for brake fluid leakage from the master cylinder assembly mounting surface, reservoir tank mounting surface and brake tube connection.

BRAKE BOOSTER

< PERIODIC MAINTENANCE >

BRAKE BOOSTER

Inspection

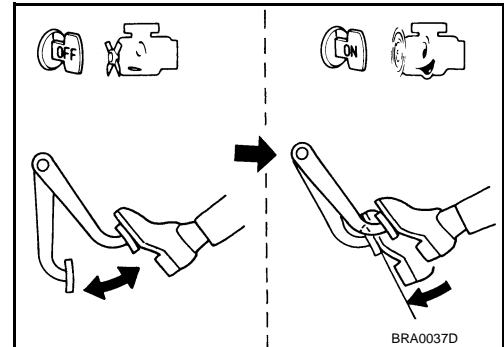
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OPERATION

Depress the brake pedal several times at 5-second intervals with the engine stopped. Start the engine with the brake pedal fully depressed. Check that the clearance between brake pedal and dash lower panel decreases.

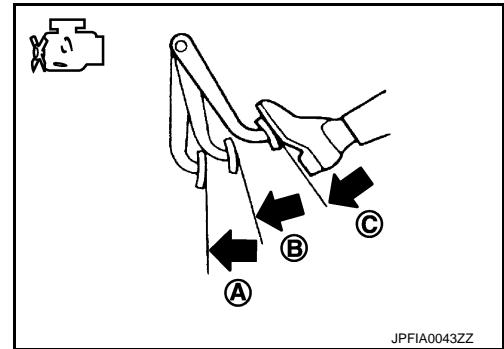
NOTE:

A slight impact with a small click may be felt on the pedal when the brake pedal is fully depressed. This is a normal phenomenon due to the brake system operation.



AIR TIGHT

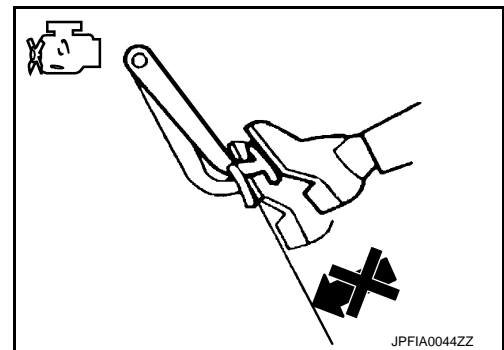
- Idle the engine for 1 minute to apply vacuum to the brake booster, and stop the engine. Then depress the brake pedal several times at 5-second intervals until the accumulated vacuum is released to atmospheric pressure. Check that the clearance between brake pedal and dash lower panel gradually increases (A → B → C) each time the brake pedal is depressed during this operation.



- Depress the brake pedal with the engine running. Then stop the engine while holding down the brake pedal. Check that the brake pedal stroke does not change after holding down the brake pedal for 30 seconds or more.

NOTE:

A slight impact with a small click may be felt on the pedal when the brake pedal is fully depressed. This is a normal phenomenon due to the brake system operation.



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FRONT DISC BRAKE

< PERIODIC MAINTENANCE >

FRONT DISC BRAKE BRAKE PAD

BRAKE PAD : Inspection and Adjustment

INFOID:000000009159844

INSPECTION

1. Remove tires. Refer to [WT-11, "Exploded View"](#).
2. Check the thickness of brake pad from the inspection hole on caliper. Use a scale to check if necessary.

Wear thickness : Refer to [BR-23, "Front Disc Brake"](#).

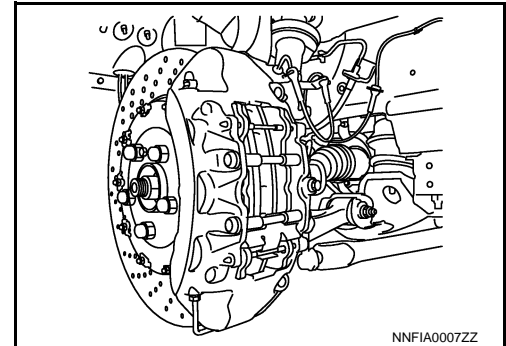
3. Check the brake pad for whitening (carbonizing), uneven wear and crack. Replace if necessary. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

CAUTION:

When replacing brake pad, replace all four brake pads together. (Replacement depends on inspection results shown below.)

- Front brake pads (a set of right and left) can be replaced alone only when a certified technician checks for scratches and cracks and judges that the rear brake pads are reusable and when there is no history of sport driving. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- Replace right and left front brake pads together with disc rotors if the replacement of front brake pad for a front disc rotor is a second replacement. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- Replace right and left front brake pads together with front disc rotors if there is a judder. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

4. Install tires. Refer to [WT-11, "Exploded View"](#).



ADJUSTMENT

Perform the following procedure when replacing the brake pad and disc rotor.

CAUTION:

- Be careful of the vehicle speed, because the effectiveness of the brake is decreased by the anti-corrosion paint (silver color) applied for the contact surface with the brake pad for new disc rotor.
- Perform the procedure only on a safe road and be careful of the traffic conditions.

1. Drive on flat straight roads.
2. Depress the brake pedal to stop the vehicle within 3 to 5 seconds.
3. Cool the brake.
4. Repeat the above steps 1 to 3 until the operational feeling of brake pedal becomes equal to the pre-operation condition.
5. Check that the anti-corrosion paint (silver color) of disc rotor is eliminated. If the anti-corrosion paint (silver color) remains, repeat the above steps 1 to 3.
6. If brake noise occurs, loosen the caliper mounting bolts after checking that the anti-corrosion paint (silver color) does not remain at the disc rotor, and then perform the caliper position adjustment by tightening to the specified torque. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

CAUTION:

If the anti-corrosion paint (silver color) remains on the surface of brake pad, polish it with sandpaper until completely eliminated.

7. Use a brake tester to check that it is within the normal range.

DISC ROTOR

DISC ROTOR : Inspection and Adjustment

INFOID:000000009159845

INSPECTION

Appearance

FRONT DISC BRAKE

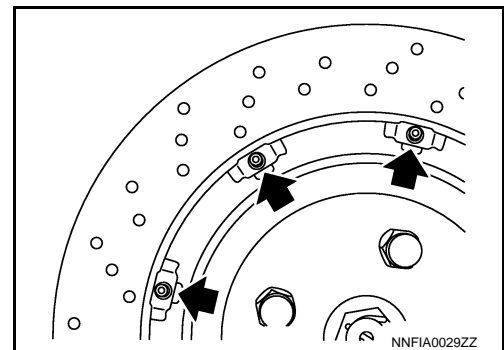
< PERIODIC MAINTENANCE >

- If the drilled hole of disc rotor is clogged by the brake pad wear particles, clean the dust with a brush or a vacuum dust collector.
- Check the following item and then replace the disc rotor if necessary.

CAUTION:

When replacing front disc rotors, replace them together with right and left front brake pads. (Replacement depends on inspection results shown below.)

- Front disc rotors (a set of right and left) can be replaced alone only when a certified technician checks for scratches and cracks and judges that the front brake pads are reusable and when there is no history of sport driving. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
 - Replace right and left front brake pads together with front disc rotors if there is a judder. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- The surface of the disc rotor for over burnt, uneven wear, cracks, serious damage, peel-off, remarkable groove or vertical streaks.
 - Confirm if there is no crack larger than 4mm around drilled hole of a disc rotor.
 - The floating pin and nut for wear or damage.
 - Any different groove in 0.3 mm (0.012 in) for disc rotor with brake noise.
- Check disc rotor nut (←) for rust.
 - Check that brake pad replacement is not performed twice for a single disc rotor.



Thickness

1. Remove tires. Refer to [WT-11, "Exploded View"](#).
2. Check the thickness of the disc rotor using a micrometer. Replace the disc rotor if the thickness is below the wear limit.

CAUTION:

When replacing front disc rotors, replace them together with right and left front brake pads. (Replacement depends on inspection results shown below.)

- Front disc rotors (a set of right and left) can be replaced alone only when a certified technician checks for scratches and cracks and judges that the front brake pads are reusable and when there is no history of sport driving. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- Replace right and left front brake pads together with front disc rotors if there is a judder. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

Wear thickness : Refer to [BR-23, "Front Disc Brake"](#).

3. Install tires. Refer to [WT-11, "Exploded View"](#).

ADJUSTMENT

Perform the following procedure when replacing the brake pad and disc rotor.

CAUTION:

- Be careful of the vehicle speed, because the effectiveness of the brake is decreased by the anti-corrosion paint (silver color) applied for the contact surface with the brake pad for new disc rotor.
 - Perform the procedure only on a safe road and be careful of the traffic conditions.
1. Drive on flat straight roads.
 2. Depress the brake pedal to stop the vehicle within 3 to 5 seconds.
 3. Cool the brake.

FRONT DISC BRAKE

< PERIODIC MAINTENANCE >

4. Repeat the above steps 1 to 3 until the operational feeling of brake pedal becomes equal to the pre-operation condition.
5. Check that the anti-corrosion paint (silver color) of disc rotor is eliminated. If the anti-corrosion paint (silver color) remains, repeat the above steps 1 to 3.
6. If brake noise occurs, loosen the caliper mounting bolts after checking that the anti-corrosion paint (silver color) does not remain at the disc rotor, and then perform the caliper position adjustment by tightening to the specified torque. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
7. Use a brake tester to check that it is within the normal range.

REAR DISC BRAKE

< PERIODIC MAINTENANCE >

REAR DISC BRAKE

BRAKE PAD

BRAKE PAD : Inspection and Adjustment

INFOID:000000009159846

INSPECTION

1. Remove tires. Refer to [WT-11, "Exploded View"](#).
2. Check the thickness of brake pad from the inspection hole on caliper. Use a scale to check if necessary.

Wear thickness : Refer to [BR-23, "Rear Disc Brake"](#).

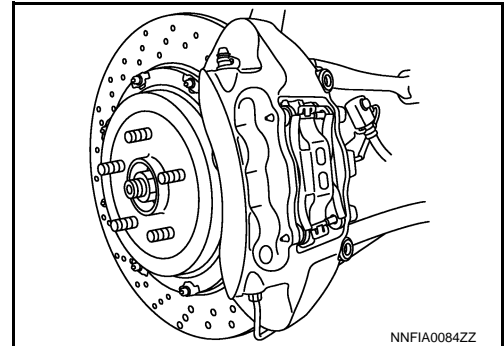
3. Check the brake pad for whitening (carbonizing), uneven wear and crack. Replace if necessary. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

CAUTION:

When replacing brake pad, replace all four brake pads together. (Replacement depends on inspection results shown below.)

- Replace four brake pads together with four disc rotors if the replacement of rear brake pad for a rear disc rotor is the second one. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- Replace right and left rear brake pads together with rear disc rotors if there is a judder. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

4. Install tires. Refer to [WT-11, "Exploded View"](#).



ADJUSTMENT

Perform the following procedure when replacing the brake pad and disc rotor.

CAUTION:

- Be careful of the vehicle speed, because the effectiveness of the brake is decreased by the anti-corrosion paint (silver color) applied for the contact surface with the brake pad for new disc rotor.
- Perform the procedure only on a safe road and be careful of the traffic conditions.

1. Drive on flat straight roads.
2. Depress the brake pedal to stop the vehicle within 3 to 5 seconds.
3. Cool the brake.
4. Repeat the above steps 1 to 3 until the operational feeling of brake pedal becomes equal to the pre-operation condition.
5. Check that the anti-corrosion paint (silver color) of disc rotor is eliminated. If the anti-corrosion paint (silver color) remains, repeat the above steps 1 to 3.
6. If brake noise occurs, loosen the caliper mounting bolts after checking that the anti-corrosion paint (silver color) does not remain at the disc rotor, and then perform the caliper position adjustment by tightening to the specified torque. (This work is recommended to be performed by GT-R certified NISSAN dealer.)

CAUTION:

If the anti-corrosion paint (silver color) remains on the surface of brake pad, polish it with sandpaper until completely eliminated.

7. Use a brake tester to check that it is within the normal range.

DISC ROTOR

DISC ROTOR : Inspection and Adjustment

INFOID:000000009159847

INSPECTION

Appearance

- If the drilled hole of disc rotor is clogged by the brake pad wear particles, clean the dust with a brush or a vacuum dust collector.
- Check the following item and then replace the disc rotor if necessary.

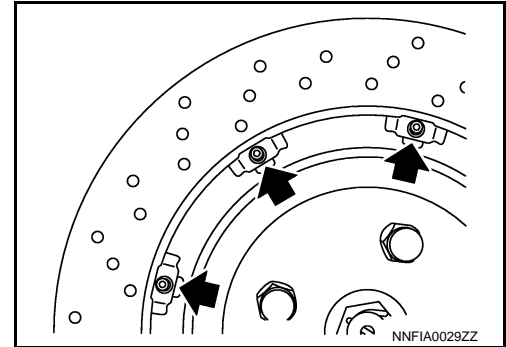
CAUTION:

REAR DISC BRAKE

< PERIODIC MAINTENANCE >

When replacing rear disc rotors, replace them together with right and left rear brake pads. (Replacement depends on inspection results shown below.)

- Rear disc rotors (a set of right and left) can be replaced alone only when a certified technician checks for scratches and cracks and judges that the rear brake pads are reusable and when there is no history of sport driving. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- Replace right and left rear brake pads together with rear disc rotors if there is a judder. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- The surface of the disc rotor for over burnt, uneven wear, cracks, serious damage, peel-off, remarkable groove or vertical streaks.
- Confirm if there is no crack larger than 4mm around drilled hole of a disc rotor.
- The floating pin and nut for wear or damage.
- Any different groove in 0.3 mm (0.012 in) for disc rotor with brake noise.
- Check disc rotor nut (◀) for rust.
- Check that brake pad replacement is not performed twice for a single disc rotor.



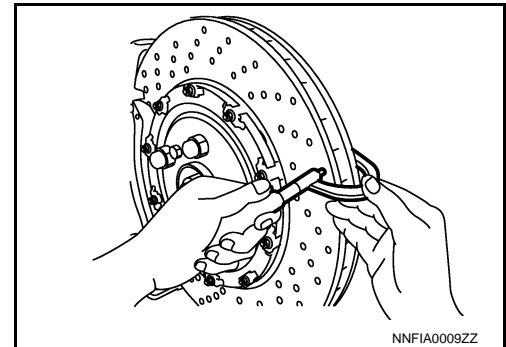
Thickness

1. Remove tires. Refer to [WT-11, "Exploded View"](#).
2. Check the thickness of the disc rotor using a micrometer. Replace the disc rotor if the thickness is below the wear limit.

CAUTION:

When replacing rear disc rotors, replace them together with right and left rear brake pads. (Replacement depends on inspection results shown below.)

- Rear disc rotors (a set of right and left) can be replaced alone only when a certified technician checks for scratches and cracks and judges that the rear brake pads are reusable and when there is no history of sport driving. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
- Replace right and left rear brake pads together with rear disc rotors if there is a judder. (This work is recommended to be performed by GT-R certified NISSAN dealer.)



Wear thickness : Refer to [BR-23, "Rear Disc Brake"](#).

3. Install tires. Refer to [WT-11, "Exploded View"](#).

ADJUSTMENT

Perform the following procedure when replacing the brake pad and disc rotor.

CAUTION:

- Be careful of the vehicle speed, because the effectiveness of the brake is decreased by the anti-corrosion paint (silver color) applied for the contact surface with the brake pad for new disc rotor.
- Perform the procedure only on a safe road and be careful of the traffic conditions.

1. Drive on flat straight roads.
2. Depress the brake pedal to stop the vehicle within 3 to 5 seconds.
3. Cool the brake.
4. Repeat the above steps 1 to 3 until the operational feeling of brake pedal becomes equal to the pre-operation condition.
5. Check that the anti-corrosion paint (silver color) of disc rotor is eliminated. If the anti-corrosion paint (silver color) remains, repeat the above steps 1 to 3.

REAR DISC BRAKE

< PERIODIC MAINTENANCE >

6. If brake noise occurs, loosen the caliper mounting bolts after checking that the anti-corrosion paint (silver color) does not remain at the disc rotor, and then perform the caliper position adjustment by tightening to the specified torque. (This work is recommended to be performed by GT-R certified NISSAN dealer.)
7. Use a brake tester to check that it is within the normal range.

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BRAKE PEDAL

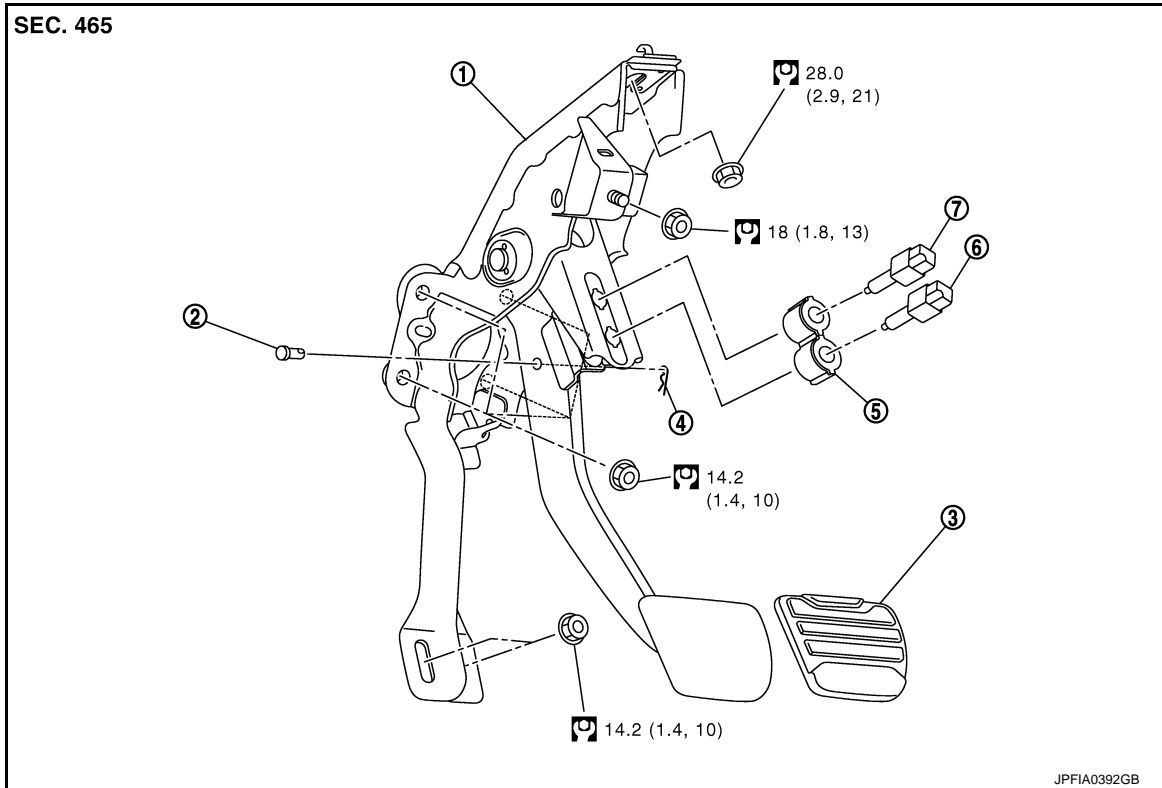
< REMOVAL AND INSTALLATION >

REMOVAL AND INSTALLATION

BRAKE PEDAL

Exploded View

INFOID:000000009159848



- | | | |
|-------------------------|---------------|---------------------|
| 1. Brake pedal assembly | 2. Clevis pin | 3. Brake pedal pad |
| 4. Snap pin | 5. Clip | 6. Stop lamp switch |
| 7. ASCD brake switch | | |

Refer to [GI-4, "Components"](#) for the symbols in the figure.

BRAKE PIPING

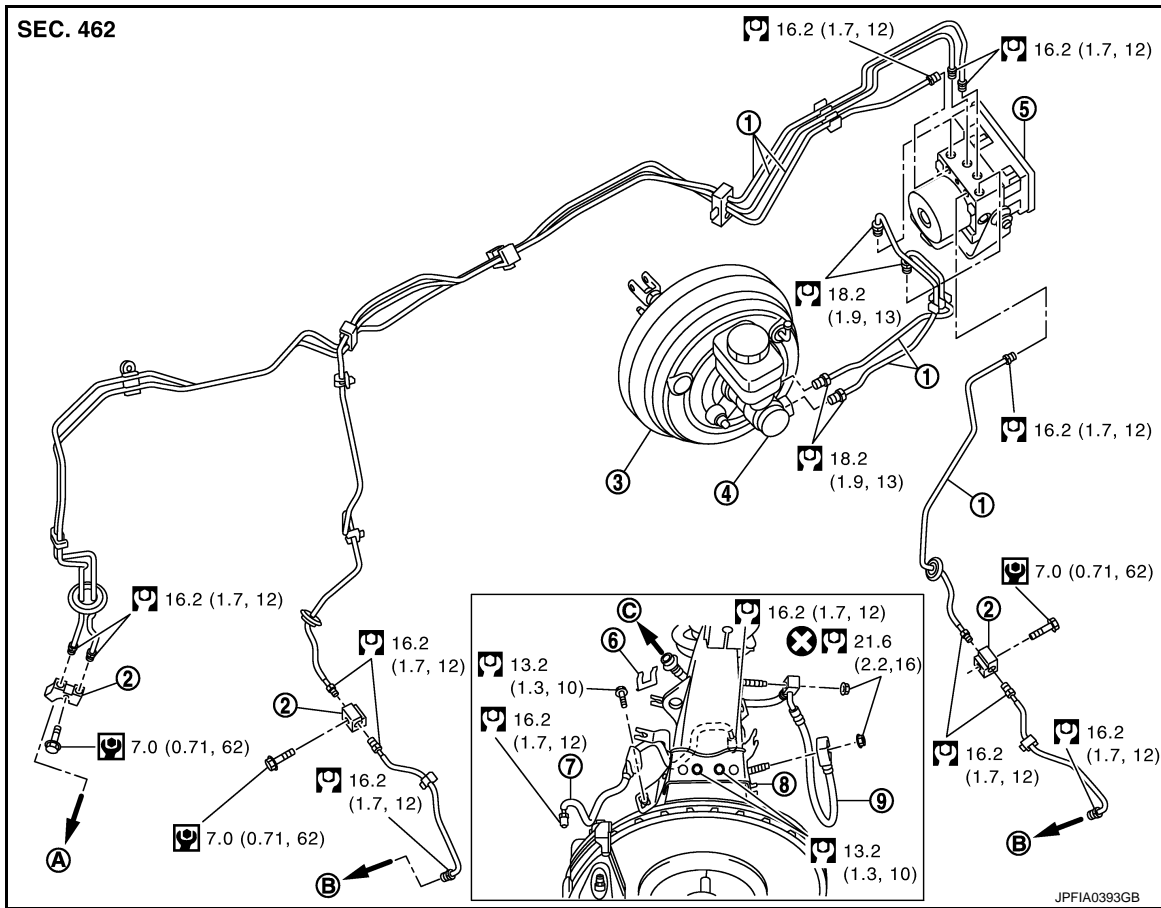
< REMOVAL AND INSTALLATION >

BRAKE PIPING

FRONT

FRONT : Exploded View

INFOID:000000009159851



- | | | |
|-----------------------|--|------------------------|
| 1. Brake tube | 2. Connector | 3. Brake booster |
| 4. Master cylinder | 5. ABS actuator and electric unit (control unit) | 6. Lock plate |
| 7. Brake tube | 8. Brake hose bracket | 9. Brake hose |
| A. To rear brake tube | B. To front brake hose | C. To front brake tube |

Refer to [GI-4, "Components"](#) for the symbols in the figure.

REAR

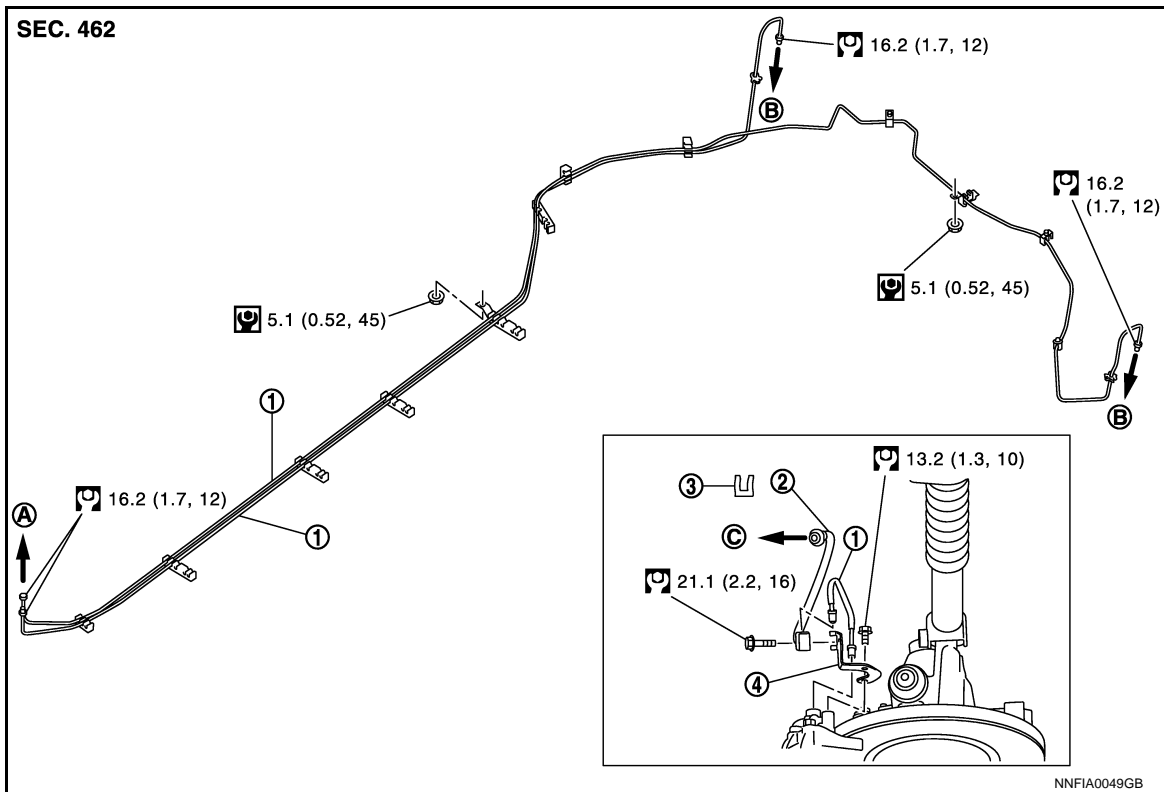
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BRAKE PIPING

< REMOVAL AND INSTALLATION >

REAR : Exploded View

INFOID:000000009159855



- 1. Brake tube
- 2. Brake hose
- 3. Lock plate
- 4. Brake hose bracket
- A. To connector
- B. To rear brake hose
- C. To rear brake tube

Refer to [GI-4. "Components"](#) for the symbols in the figure.

SERVICE DATA AND SPECIFICATIONS (SDS)

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

Brake Pedal

INFOID:000000009159884

Unit: mm (in.)

Item	Standard
Brake pedal height	169.0 – 179.0 (6.65 – 7.05)
Clearance between the stop lamp switch and ASCD brake switch threaded end and the stopper rubber	0.2 – 1.96 (0.008 – 0.0772)
Brake pedal play	3.0 – 11.0 (0.118 – 0.433)
Depressed brake pedal height [Depressing 490 N (50 kg, 110 lb) while turning the engine ON]	100 (3.94) or more

Front Disc Brake

INFOID:000000009159886

Unit: mm (in.)

Item		Limit
Brake pad	Wear thickness	4.5 (0.177)
Disc rotor	Wear thickness	30.6 (1.205)

Rear Disc Brake

INFOID:000000009159887

Unit: mm (in.)

Item		Limit
Brake pad	Wear thickness	4.5 (0.177)
Disc rotor	Wear thickness	28.0 (1.102)