



SERVICE BULLETIN

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KEY VALUE BRAKE PAD SERVICE INFORMATION

This amended version of NTB99-005 adds a CAUTION and a NOTE to the Service Procedure. Please discard all paper copies of NTB99-005.

APPLIED VEHICLE(S):

- 1993-97 Altima (U13U)
- 1998 Altima (L30)
- 1989-94 Maxima (J30)
- 1995-98 Maxima (A32B)
- 1993-98 Quest (V40)

SERVICE INFORMATION

When replacing brake pads on customer vehicles it is important to select the type of pad that best meets customer preference. Nissan now offers two different types of replacement pads, Nissan Original Equipment and Nissan Key Value. This bulletin describes the characteristics of the two pads and provides service information to help ensure the satisfaction of your service customers.

All current Nissan vehicles are equipped at the factory with Nissan Original Equipment (OE) brake pads. The OE pads use a non-asbestos organic (NAO) compound. The NAO material provides state of the art resistance to squeal noise. These pads continue to be available as service parts and must be used if replacing brake pads under the terms of the Nissan new car warranty. These pads should be recommended to customers that prefer new car brake noise performance over price.

Key Value brake pads are also available as a high quality service replacement part at a very attractive price. These pads use a semi-metallic compound similar to the material used in Nissan OE pads prior to the introduction of NAO compound pads; and, therefore, the braking performance of these pads is excellent. However, to permit Nissan to offer these replacement pads at such an attractive price for your price sensitive customers, these pads are manufactured without NAO compound, and some customers may experience brake squeal as a normal characteristic of these pads.

NOTE: Customers have varying sensitivity to brake noise, and the individual customer must decide which product best suits his or her requirements as to balancing price and noise. Therefore, you should ensure that the Service Advisor adequately explains the differences between Key Value brake pads and Nissan OE brake pads to ensure that the customer makes an informed decision. This will enhance customer satisfaction and minimize potential customer unhappiness with a product that does not meet that particular customer's expectations.

The following service procedure will help minimize brake noise. Be sure to follow these steps whenever replacing brake pads.

SERVICE PROCEDURE

1. Finish rotors properly. This is one of the most important aspects of preventing and eliminating brake noise.
 - a) Use an on-car brake lathe. It is the best equipment to turn the rotor surface.
 - b) Apply slow cuts with sharp cutting tools. This produces a smooth rotor surface finish. Dull bits produce a poor cut. This leaves a rough finish that can cause noise.

CAUTION: When using an on the car brake lathe, be sure to prevent metal shavings from contacting or collecting on the ABS wheel speed sensor. Remove any shavings that stick to the ABS wheel speed sensor's magnet.

NOTE: If the rotor must be removed for cleaning and/or other purposes after resurfacing with an on the car brake lathe is complete, mark its exact location on the axle prior to removal. Incorrect alignment during reinstallation will cause the run-out to change, possibly exceeding specifications. This could require the rotor to be turned again.

- c) Hand finish the newly turned rotor surface with a non-directional swirl pattern using #150 - 180 grit aluminum oxide sandpaper. This improves the rotor surface finish and helps to further reduce noise.
2. Properly install pads and shims.
 - a) Apply PBC grease (P/N 99990-00939) to the facing edge of the piston and to all facing surfaces between piston and pad. This will help dampen noise-causing vibrations (see Figure 1).
 - b) Lubricate slide pins with silicon grease (P/N 999MP-AB002) and confirm smooth movement of the calipers (see Figure 1).

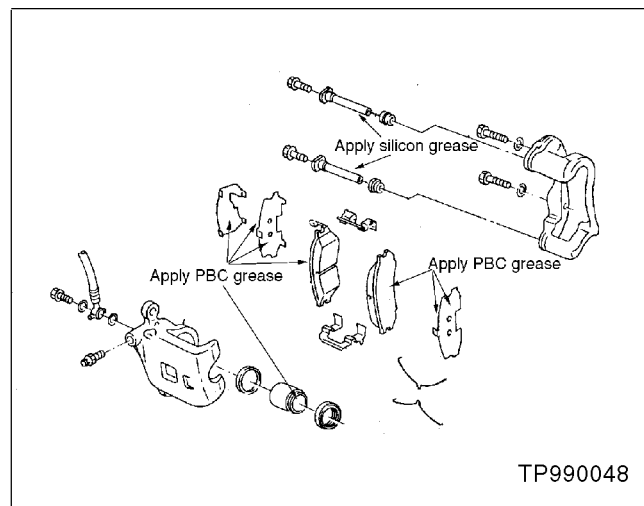


Figure 1.

3. Perform proper post-installation checks.
 - a) Confirm that brake pads fit snugly in the calipers. Replace worn components as necessary.
 - b) Test drive after the installation. Proper burnishing will influence brake performance including noise. Burnish brakes as follows:
 - 1) Drive the vehicle on a straight smooth road at about 30 mph (50 kph).
 - 2) Use medium brake pedal/foot effort to bring the vehicle to a complete stop from about 30 mph (50 kph). Adjust pedal/foot pressure such that the vehicle stopping time is 3-5 seconds.
 - 3) Cool the brake system by driving at about 30 mph (50 kph) for approximately one minute without stopping.

- 4) Repeat steps 1 to 3 between 3 to 5 times to complete the burnishing process.
4. Follow-up to ensure customer satisfaction, safety and proper brake performance.
 - a) Confirm the procedures described in steps 2-4 above have been strictly followed.
 - b) If brake noise still exists, diagnose using the applicable Nissan Service Manual. A typical troubleshooting chart is shown in Table 1. It provides a symptom/cause relationship.

Symptom	Pads-Damaged	Pads-Uneven Wear	Shims Damaged	Rotor Imbalance	Rotor Damage	Rotor Runout	Rotor Deformation	Rotor Rust	Rotor Thickness Variation	DRIVE SHAFT	AXLE & SUSPENSION	TIRES	ROAD WHEEL	STEERING
Noise	X	X	X							X	X	X	X	X
Shake				X						X	X	X	X	X
Shimmy, Judder				X	X	X	X	X	X		X	X	X	X

Table 1. Typical troubleshooting chart.

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5. If the brake noise (especially squeal) on Key Value brake pads still exceeds an acceptable level, suggest the customer upgrade to Nissan OE brake pads.

PARTS INFORMATION

DESCRIPTION	PART #/PFP	QUANTITY
Key Value Kit 1993-97 Altima	41060-9E0S0NW	1
Key Value Kit 1998 Altima	41060-9E0S0NW	1
Key Value Kit 1989-94 Maxima	41060-9E0S0NW	1
Key Value Kit 1995-98 Maxima	41060-9E0S0NW	1
Key Value Kit 1993-98 Quest	41060-1B0S0NW	1