

HOW TO INSTALL BRAKE PADS CORRECTLY

Avoid brake noise, caliper rattle and pad movement with these simple steps

INTRODUCTION

For some specific car applications, when installing new brake pads, there can be some movement of the pads before closing the caliper. However, this is a feature of the caliper design and is not a cause for concern. Once the caliper is closed the pads are secured.

If you hear rattling or noise following installation and the caliper has been fully re-assembled, this is a warning sign that something is wrong and should be investigated. We recommend following the steps below to ensure correct installation of your brake pads.

CORRECT INSTALLATION STEPS

1. Clean and check the caliper

After disassembly, check and clean the mounting surfaces on the brake calipers to ensure maximum sliding effort of 3 - 4 kg.

2. Brake grease application

A small amount of a special temperature-resistant brake grease can be applied to the following components:



Abutment of the brake pad



Caliper guideline



Brake pad clip

This will help to eliminate noise during braking.

⚠ **NEVER** use copper-based grease for brake system parts since it could cause electrochemical corrosion and may also lead to sticking at high temperatures.



We recommend the use of a **copper free mounting paste** based on high-viscosity silicon, containing pure natural graphite (reference FBG001).

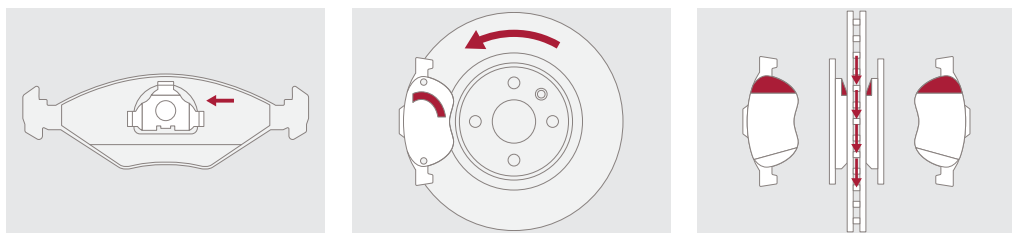
3. Identifying the correct position

↳ 3a. Directional brake pads

Some braking systems now use asymmetrical brake pad designs, which apply the brake pad to the disc at an angle, to significantly reduce vibration and noise.

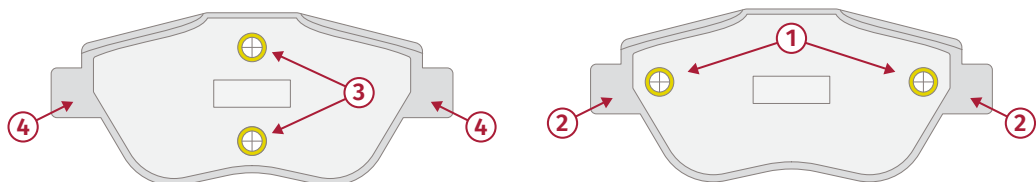
This type of pad may have a chamfer on the friction surface, or a cut-out in the noise reduction shim on the backing plate. Both must be positioned on the caliper in a specific way to ensure correct fitment.

It is important that the arrow marking on the backplate of the pad matches the direction of brake disc rotation. When not following these instructions, noise may occur.



↳ 3b. Brake pads with backplate rivets

Some pads contain rivets on the backplate. In this case, these must be fitted in the right position to avoid misalignment of the pads, which can generate vibration and noise.



The pad shown on the left must be fitted on vehicle reaction side, identified with the rivets (3) at right angles with locking tabs (4). The pad shown on the right must be fitted on the piston-side. This pad is identified with the rivets (1) parallel to locking tabs (2).

↳ 3c. How to properly remove 3M Protective paper

If the brake pads are supplied with an adhesive foil, only the paper needs to be removed. Please leave the adhesive foil on the backplate, as this secures the brake pad to the caliper and avoids movement.



⚠ **NEVER** apply any grease on the sticky surface of the pad backplate.

4. Always use new installation accessories (springs & bolts)

The springs limit movement and vibration as long as locking sealant is applied to the caliper bolts, which protects the bolt from loosening and helps you to avoid tightening the bolts with excessive torque. This allows for a secure hold, reducing risk of brake noise and vibration. Check the appearance of additional mounting accessories (such as retainers, anti-noise shim, etc.) - if there are any signs of deformation, corrosion or damage, replacement is required.



Springs



Bolts

5. Use specific tooling:

Fix the caliper and wheel bolts with the right torque recommended by the vehicle manufacturer (generally caliper bolt torque is 30Nm, and wheel bolts/nuts around 110Nm). Always follow car manufacturer specifications for recommended torque.

⚠ **NEVER** use a pneumatic impact wrench or thread lubrication when tightening bolts/nuts. We recommend using a gentle compressed air tool and then a torque wrench when tightening wheel bolts/nuts.

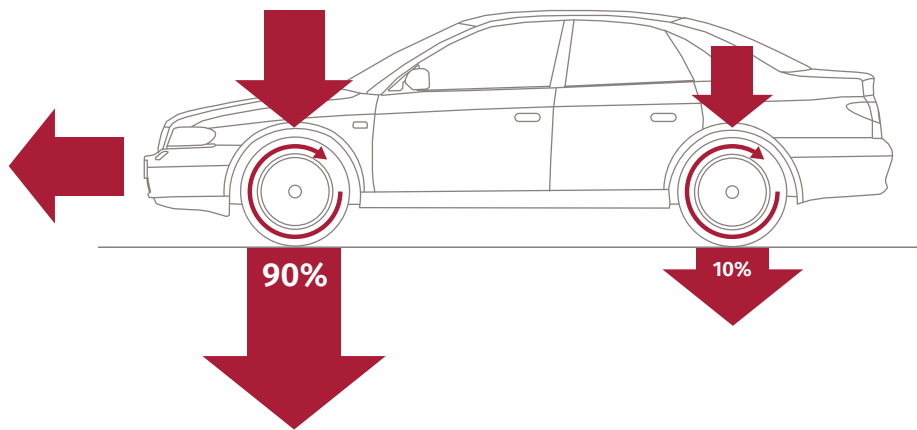


6. Three rules of bedding-in:

1. As a safety measure before driving, check the brake pedal free travel and its hardness when pressed.
2. Initial bedding-in: observing all necessary safety measures, perform 20 brakings from 80 to 30 km/h with a slight or moderate pressure on the pedal.
⚠ **IMPORTANT:** keep the interval between brakings for at least 30 seconds, in order not to overheat the brakes!
3. During the first 200-300 km, avoid sudden braking, braking from high speed, as well as on an overloaded car.

GENERAL RECOMMENDATIONS




- We strongly recommend using brake pads and brake discs of the same brand to ensure full compatibility. Combining parts from different manufacturers can cause brake noise, regardless of their quality.
- Check the condition and performance of rear brakes. Generally dynamic axle load distribution at braking is as follows: 70% on the front axle and 30% on the rear axle. If the performance of the rear brakes is reduced, up to 90% of the braking load is applied to the front. The front brakes are not designed to cope with this load, which can result in noise when braking.



More Support Tools available on:

- Garage Gurus Youtube channel (scan QR-code)
- Garage Gurus Website www.garagegurus.tech/en-gb/
- Call Garage Gurus On-Call at **00800-33337256**
- E-mail us at support@gurusoncall.tech
- Trouble Tracer - simple steps to put a stop to brake noise



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