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**BMW 3-Series (92-98) & Z3 (96-98) Haynes Online Manual**

## 4 Front brake pads - replacement

04:23

**Caution:**

This video is for familiarization purposes only. Read below for specific information on your vehicle.

**Warning:**

Replace both sets of front brake pads at the same time - never replace the pads on only one wheel, as uneven braking may result. Note that the dust created by wear of the pads may contain asbestos, which is a health hazard. Never blow it out with compressed air, and do not inhale any of it. An approved filtering mask should be worn when working on the brakes. DO NOT use gasoline or petroleum-based solvents to clean brake parts; use brake cleaner or clean brake fluid only.

1 Apply the parking brake, then jack up the front of the vehicle and support it on axle stands. Remove the front wheels.

2 Unclip the anti-rattle spring from the side of the brake caliper, noting its installed position (see illustration) .

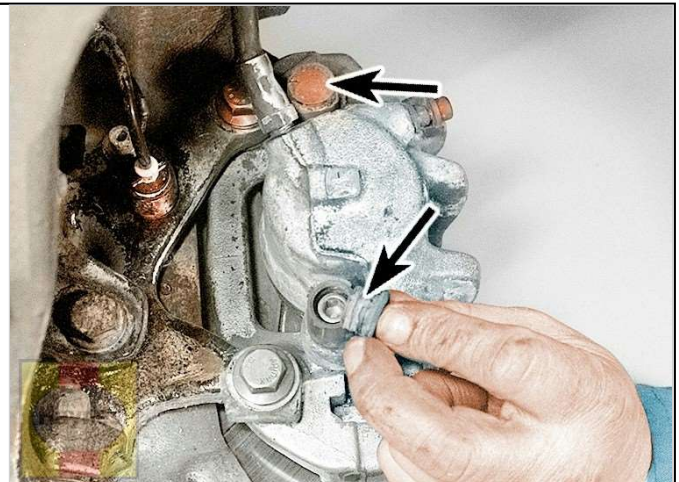
**4.2 Using a large screwdriver, carefully unclip the anti-rattle spring from the caliper**



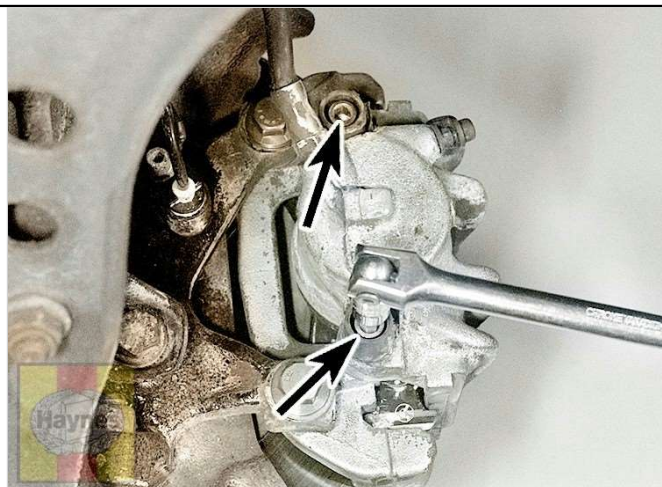
3 Unclip the brake pad wear sensor (if equipped) and remove it from the caliper aperture.

4 Remove the plastic plugs from the caliper guide bushings to gain access to the guide pin bolts (see illustration) .

**4.4 Remove the plastic plugs (arrows) to gain access to the guide pin bolts**



5 Loosen and remove the guide pin bolts, noting that an Allen socket may be needed. Lift the caliper away from the caliper mounting bracket, and tie it to the suspension strut using a suitable piece of wire (see illustrations) . Do not allow the caliper to hang unsupported on the flexible brake hose.

**4.5a Unscrew the guide pin bolts (arrows) .****..****4.5b . . . and lift the caliper away from the disc**

6 Unclip the inner brake pad from the caliper piston, and withdraw the outer pad from the caliper mounting bracket (see illustrations) .

**4.6a Unclip the inner pad from the caliper piston . . .**

**4.6b . . . and remove the outer pad from the caliper mounting bracket**



7 First measure the thickness of each brake pad's friction material. If either pad is worn at any point to the specified minimum thickness or less, all four pads must be replaced. Also, the pads should be replaced if any are fouled with oil or grease; there is no satisfactory way of degreasing friction material, once contaminated. If any of the brake pads are worn unevenly, or are fouled with oil or grease, trace and rectify the cause before reassembly.

8 If the brake pads are still serviceable, clean them with brake system cleaner. Clean out the grooves in the friction material (where applicable), and pick out any large embedded particles of dirt or debris. Carefully clean the pad locations in the caliper body/mounting bracket.

9 Prior to installing the pads, check that the guide pin bolts are a light, sliding fit in the caliper body bushings, with little sign of freeplay. Inspect the dust seal around the piston for damage, and the piston for evidence of fluid leaks, corrosion or damage. If attention to any of these components is necessary, refer to [Section 10](#).

10 If new brake pads are to be installed, the caliper piston must be pushed back into the cylinder to make room for them. Either use a C-clamp or similar tool, or use suitable pieces of wood as levers. Provided that the master cylinder reservoir has not been overfilled with brake fluid, there should be no spillage, but keep a careful watch on the fluid level while retracting the piston. If the fluid level rises above the "MAX" level line at any time, the surplus should be siphoned off or ejected through a plastic tube connected to the bleed screw (see [Section 2](#)). **Note:** *Do not siphon the fluid by mouth, as it is poisonous; use a syringe or an old poultry baster. Warning: If a baster is used, never again use it for preparing food.*

11 Apply a smear of brake grease (the manufacturer recommends Plastilube lubricant) to the backing plate of each pad; do not apply excess grease, nor allow the grease to contact the friction material.

12 Install the outer pad to the caliper mounting bracket, ensuring that its friction material is against the brake disc.

13 Clip the inner pad into the caliper piston, and maneuver the caliper assembly into position.

14 Install the caliper guide pin bolts, and tighten them to the specified torque setting. Install the plugs to the ends of the caliper guide bushings.

15 Clip the pad wear sensor back into position in the outer pad, making sure its wiring is correctly routed.

16 Clip the anti-rattle spring into position in the caliper. Depress the brake pedal repeatedly, until the pads are pressed into firm contact with the brake disc, and normal (non-assisted) pedal pressure is restored.

17 Repeat the above procedure on the remaining front brake caliper.

18 Install the wheels, then lower the vehicle to the ground and tighten the wheel bolts to the specified torque setting. **Note:** *New pads will not give full braking efficiency until they have bedded in. Be prepared for this, and avoid hard braking as far as possible for the first hundred miles or so after pad replacement.*

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