

**Haynes**
shows you how

BMW 3-Series 320i & 320xi (12-14), 325i, 325xi, 330i & 330xi (06) & 328i & 328xi (07-14) 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:

Disc brake pads must be replaced on both front wheels at the same time - never replace the pads on only one wheel. Also, the dust created by the brake system is harmful to your health. Never blow it out with compressed air and don't inhale any of it. An approved filtering mask should be worn when working on the brakes. Do not, under any circumstances, use petroleum-based solvents to clean brake parts. Use brake system cleaner only!

1 Apply the parking brake, then loosen the front wheel bolts. Raise the front of the vehicle and support it securely on jackstands. Remove both front wheels.

Teves and ATE (floating) calipers

2 Follow **illustrations 4.2a through 4.2dd** for the actual pad replacement procedure. Be sure to stay in order and read the caption under each illustration, and note the following points:

- A. New pads may have an adhesive foil on the back of the pad. Remove this foil prior to installation.
- B. Thoroughly clean the caliper guide surfaces, and apply a little high-temperature brake assembly grease.
- C. When pushing the caliper piston back to accommodate new pads, keep a close eye on the fluid level in the reservoir.
- D. The manufacturer recommends that the brake pad wear sensor be replaced if it's been removed.

4.2a Pry the spring away from the hub, and out from the caliper (Teves caliper)

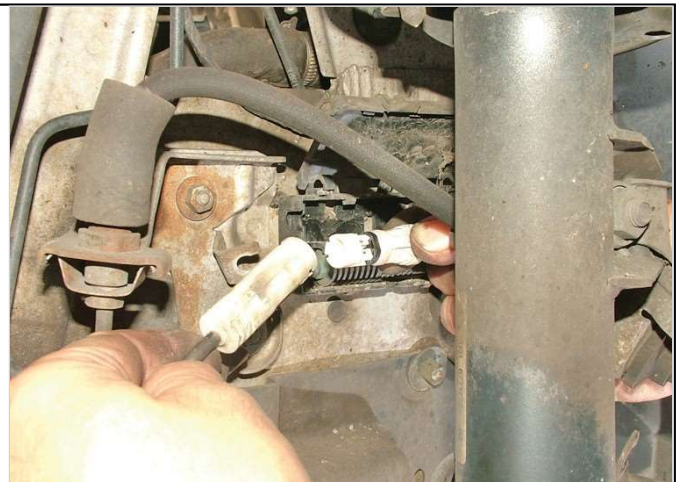


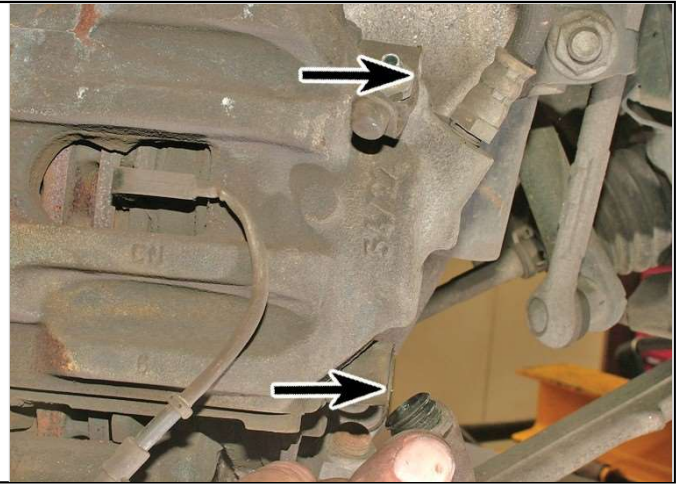
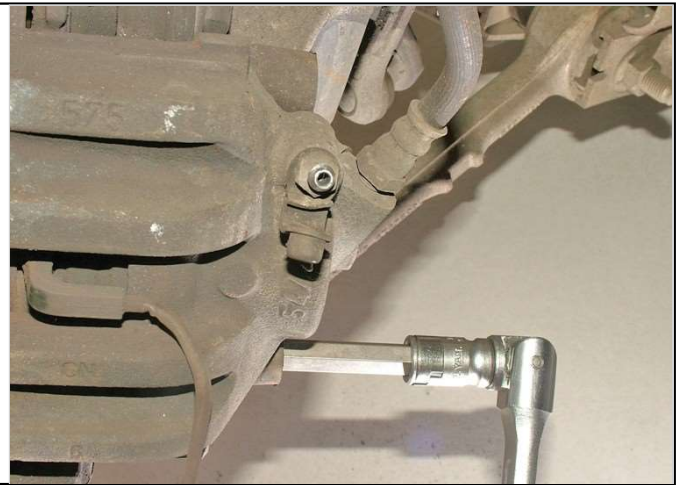
4.2b Pry the spring away from the hub, and out from the caliper (ATE caliper)



4.2c Release the pad wear sensor wiring from the rubber clip



4.2d Open the junction box . . .**4.2e . . . and disconnect the wear sensor wiring plug****4.2f Pull the wiring from the bracket on the suspension strut**

4.2g Pry out the rubber caps . . .**4.2h . . . and unscrew the caliper guide pins****4.2i On ATE calipers, use a screwdriver to pry the caliper to the outside (which pushes the piston into the caliper body)**

4.2j Pull the caliper rearwards**4.2k On Teves calipers, pull the inner pad from the piston. On all calipers, pull the wear sensor from the pad****4.2l On ATE calipers, both pads are clipped into the caliper**

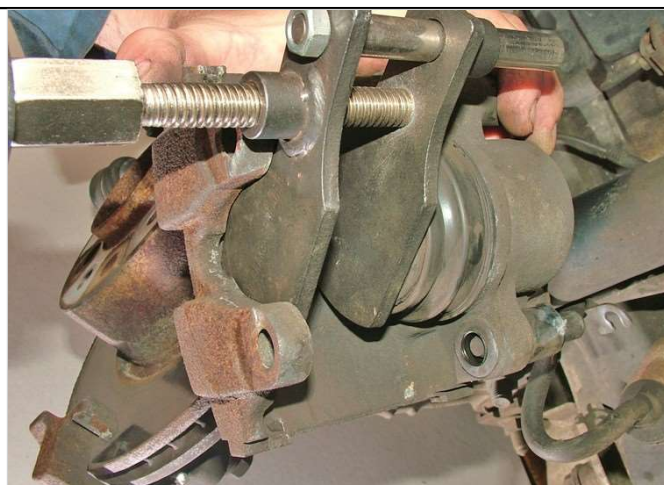
4.2m Suspend the caliper from the suspension spring so no strain is placed on the flexible hose



4.2n On Teves calipers, remove the outer pad from the caliper mounting bracket



4.2o If new pads are installed, force the piston back into the caliper body with a piston retraction tool



4.2p Use a wire brush to clean the pad mounting surfaces - Teves calipers only



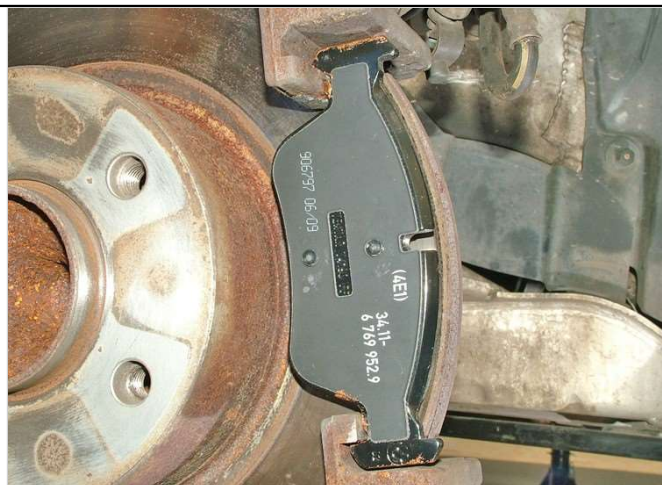
4.2q Apply a small amount of anti-seize compound to the pad mounting surfaces - do not get any on the friction surfaces



4.2r Press the inner pad into the caliper piston - Teves calipers



4.2s On Teves calipers, install the outer pad to the mounting bracket - ensure the friction material is against the disc . . .



4.2t . . . and slide the caliper into place, over the outer pad



4.2u On ATE calipers, clip the inner pad to the piston . . .



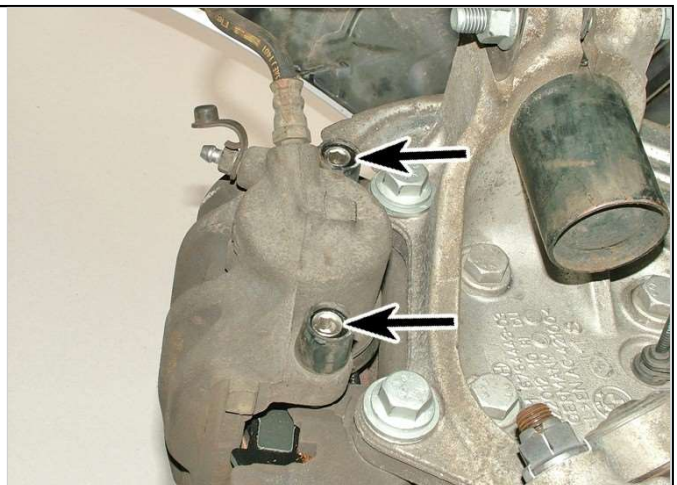
4.2v . . . and the outer pad to the caliper body . . .



4.2w . . . then slide the caliper into place



4.2x Push the caliper guide pins into place, and tighten them to the specified torque



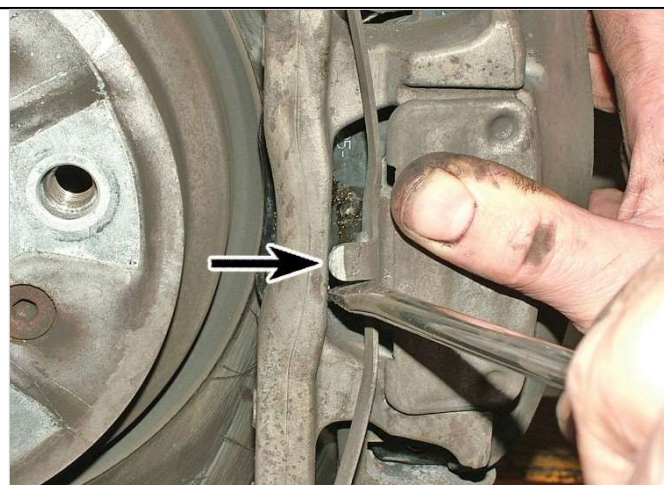
4.2y Install the rubber caps over the guide pins



4.2z Position the spring, lever it away from the hub, and push it into the caliper holes - Teves calipers



4.2aa With the ends of the spring in place, pry the spring away from the hub, and engage the tab in the hole - ATE calipers



4.2bb Press the new wear sensor . . .**4.2cc . . . into place in the inner pad****4.2dd Reconnect the wear sensor wiring plug, and install it to the connection box on the inner wing. Don't forget to secure the wiring**

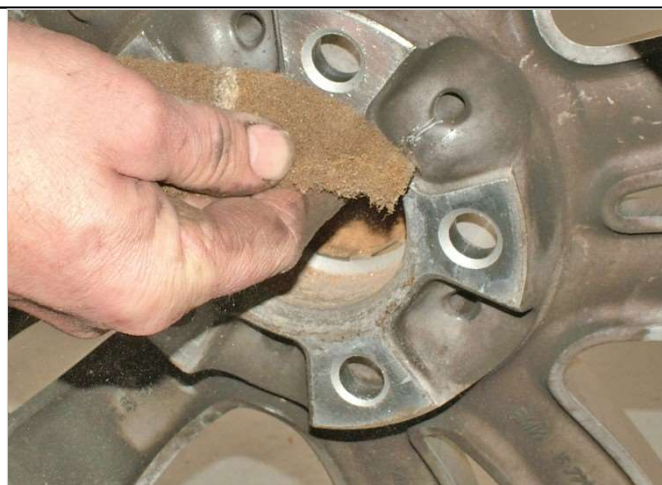
3 Repeat the above procedure on the remaining front brake caliper.

4 When reinstalling the caliper, be sure to tighten the mounting bolts to the torque listed in this Chapter's Specifications . Before installing the wheels, use a wire brush or mildly abrasive cloth to clean the mating surfaces of the hub and wheel. Apply some anti-seize compound to the hub and wheel surface prior to installation (see illustrations) .

4.4a Clean the corrosion from the hub surface . . .



4.4b . . . and the wheel center



4.4c Apply a little anti-seize grease to the hub



Brembo (fixed) calipers

5 Disconnect the brake pad sensor harness connector, then detach the harness from the brackets.

6 Follow the harness to the sensor and press the clips together and pull the brake pad sensor forward the off on the inner pad.

7 To replace the front or rear pads, working from the large opening on the caliper, locate the two horizontal pad pins that go through the caliper and the brake pad backing plates. Using a small punch and hammer, drive out the top retaining pin.

8 Push the lower end of the cross-spring away from the bottom pad pin, then drive the pad pin out to the same side that the upper pin was removed. Remove the lower pad pin and the cross-spring.

Note:

The pad pins can only be driven out in one direction; they are removed towards the inboard side of the calipers.

9 Using needle-nose pliers, pull the inboard (inner) brake pad from the caliper.

Note:

Note if special tool #34 1 050 is available (this is a tool that depresses the caliper pistons into their bores simultaneously), both pads may be removed at this time. If this tool is not available, remove only one pad during this step.

10 Using a small prybar or two screwdrivers, slowly push the caliper pistons into the bores on the inboard side. Front calipers have two pistons on each side of the caliper for a total of four. Rear calipers have one piston on each side. As a pistons are depressed to the bottom of the caliper bore, the fluid in the master cylinder reservoir will rise. Remove enough brake fluid so the reservoir is about half full. Continue to make sure that it doesn't overflow while pushing on all of the caliper pistons.

11 On front calipers, it's possible that one piston can be forced out of the caliper bore while the other is being pushed in on the same side. To prevent this, depress both pistons at the same time.

Caution:

Do not use grease on the back or sides of the brake pad surfaces; BMW specifies to use brake pad paste.

12 Position the new inboard brake pad into the caliper.

13 Using needle-nose pliers, pull the outboard (outer) brake pad from the caliper.

14 Perform Step 10 on the outboard side of the caliper.

15 Position the new outboard brake pad into the caliper.

16 Install the top pad pin and place the cross-spring in position.

17 Press the bottom end of the cross-spring down and install the bottom pad pin.

18 Carefully drive the pins into the caliper until they are fully seated.

19 Install the wear sensor to the inboard brake pad.

20 Fully depress brake pedal several times so that brake pads contact brake discs.

21 Repeat the above procedure on the remaining caliper.

All models

22 Install the wheels, then lower the vehicle to the ground and tighten the wheel bolts to the specified torque.

23 After the job has been completed, firmly depress the brake pedal a few times to bring the pads into contact with the disc. **Caution:** *New pads will not give full braking efficiency until they have seated-in. Be prepared for this, and avoid hard braking as far as possible for the first hundred miles or so after pad replacement*

24 Check the level of the brake fluid, adding some if necessary.

25 Turn the ignition key to the accessory position and leave it there for at least 30 seconds (don't start the engine) to turn the brake pad warning light off and to reset any associated trouble codes. If the light doesn't go off, refer to [Chapter 1, Section 30](#) and reset the Condition Based Service (CBS) display.

26 Check the operation of the brakes carefully before placing the vehicle into normal service.

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