

## Brake Pad: Service and Repair

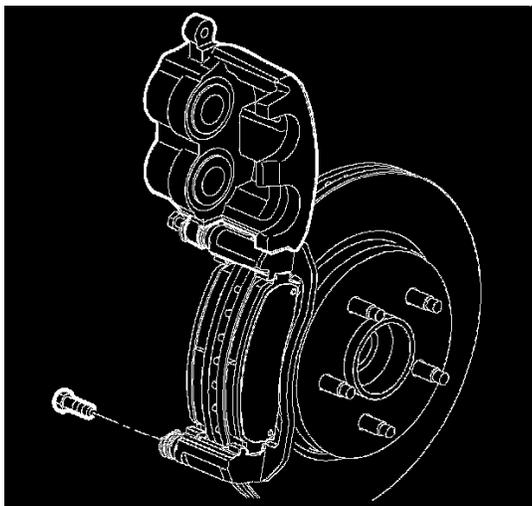
### Brake Pads Replacement

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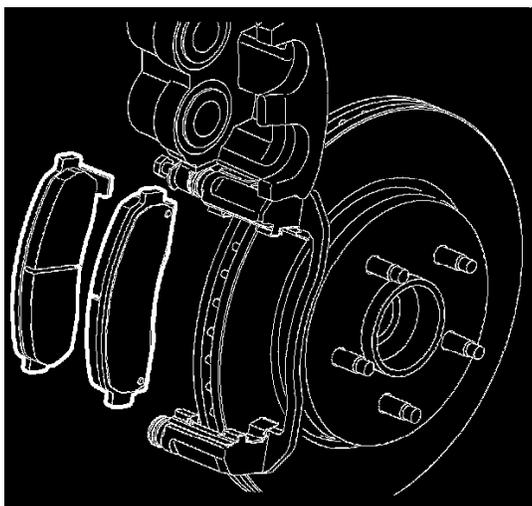
**Caution:** Refer to Brake Dust Caution in Service Precautions.

**Caution:** Refer to Brake Fluid Irritant Caution in Service Precautions.

#### Removal Procedure



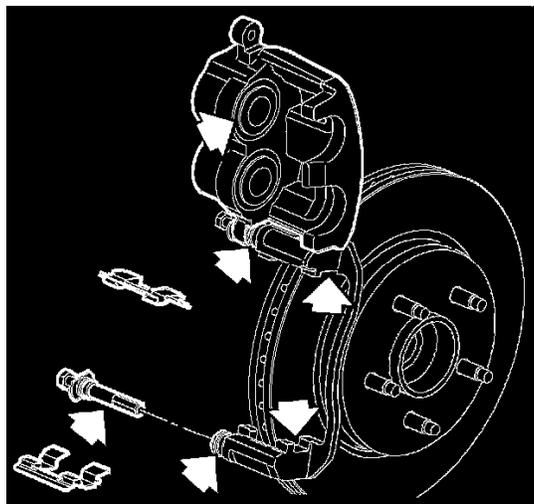
1. Inspect the fluid level in the brake master cylinder auxiliary reservoir.
2. If the brake fluid level is midway between the maximum-full point and the minimum allowable level, no brake fluid needs to be removed from the reservoir before proceeding.
3. If the brake fluid level is higher than midway between the maximum-full point and the minimum allowable level, remove brake fluid to the midway point before proceeding.
4. Raise and support the vehicle. Refer to Vehicle Lifting.
5. Remove the tire and wheel assembly.
6. Install and firmly hand tighten 2 wheel nuts to opposite wheel studs in order to retain the rotor to the hub.
7. Install a large C-clamp over the body of the brake caliper with the C-clamp ends against the rear of the caliper body and against the outboard brake pad.
8. Tighten the C-clamp evenly until the caliper piston is compressed into the caliper bore enough to allow the caliper to slide past the brake rotor.
9. Remove the C-clamp from the caliper.
10. Remove the brake caliper lower guide pin bolt.



11. **Notice:** Support the brake caliper with heavy mechanic's wire, or equivalent, whenever it is separated from its mount and the hydraulic flexible brake hose is still connected. Failure to support the caliper in this manner will cause the flexible brake hose to bear the weight of the caliper, which may cause damage to the brake hose and in turn may cause a brake fluid leak.

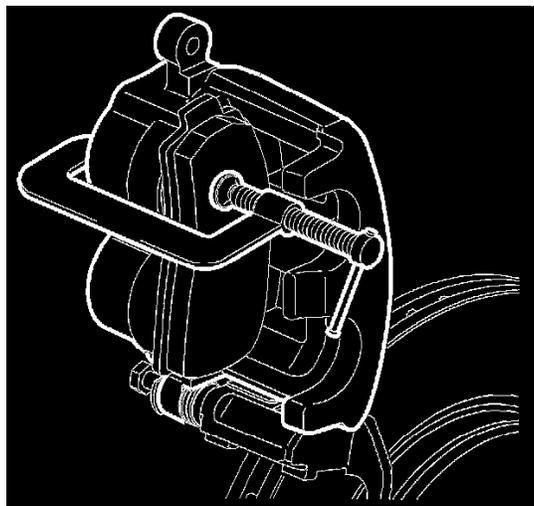
Without disconnecting the hydraulic brake flexible hose, pivot the caliper upward and secure the caliper with heavy mechanics wire, or equivalent.

12. Remove the brake pads from the caliper mounting bracket.

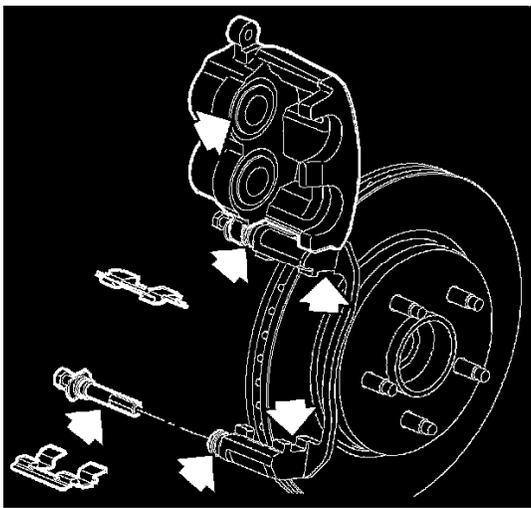


13. Remove the brake pad retainers from the caliper bracket.
14. Thoroughly clean the brake pad hardware mating surfaces of the caliper bracket, of any debris and corrosion.
15. Inspect the brake caliper guide pins for freedom of movement, and inspect the condition of the guide pin boots. Move the guide pins inboard and outboard within the bracket bores, without disengaging the slides from the boots, and observe for the following:
  - ^ Restricted caliper guide pin movement
  - ^ Looseness in the brake caliper mounting bracket
  - ^ Seized or binding caliper guide pins
  - ^ Split or torn boots
16. If any of the conditions listed are found, the brake caliper guide pins and/or boots require replacement.

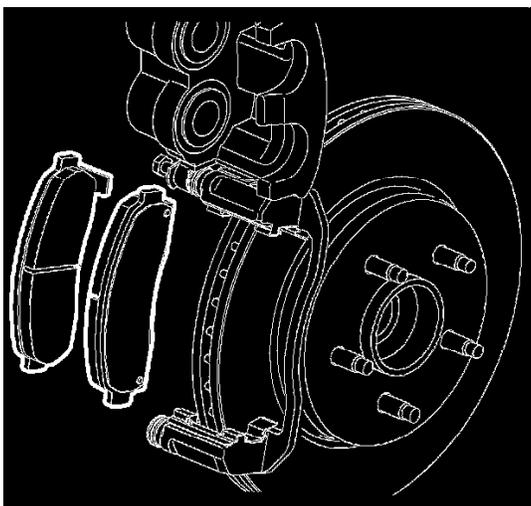
### Installation Procedure



1. Install a large C-clamp over the body of the brake caliper, with the C-clamp ends against the rear of the caliper body and against an old inboard brake pad or a wood block installed against the caliper piston.
2. Tighten the C-clamp evenly until the caliper piston is compressed completely into the caliper bore.
3. Remove the C-clamp and the old brake pad or wood block from the caliper.



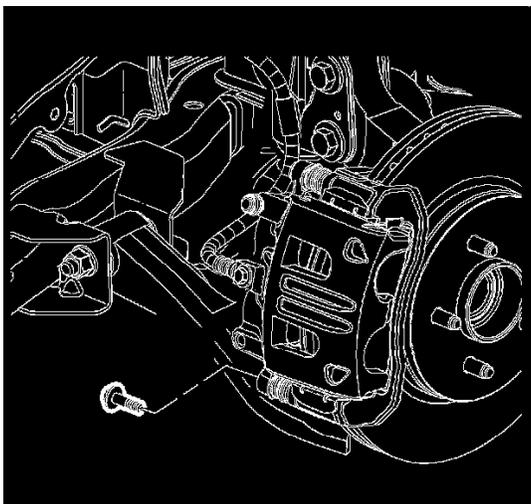
4. Apply a very thin coating of high temperature silicone brake lubricant to the pad hardware mating surfaces of the caliper bracket only.
5. Install the brake pad retainers to the brake caliper bracket.



6. **Important:** The wear sensor equipped disc brake pad must be mounted inboard of the rotor with the leading edge of the sensor facing the brake rotor during forward wheel rotation, or at the top of the pad when installed in vehicle position.

Install the brake pads to the caliper bracket.

7. Remove the support, and rotate the brake caliper into position over the disc brake pads and to the caliper mounting bracket.



8. **Notice:** Refer to Fastener Notice in Service Precautions.

Install the lower brake caliper guide pin bolt.

Tighten the bolt to **44 Nm (32 ft. lbs.)**.

9. Remove the wheel nuts retaining the brake rotor to the hub.
10. Install the tire and wheel assembly.
11. Lower the vehicle.
12. With the engine OFF, gradually apply the brake pedal approximately 2/3 of its travel distance.
13. Slowly release the brake pedal.
14. Wait 15 seconds, then gradually apply the brake pedal approximately 2/3 of its travel distance again until a firm brake pedal apply is obtained.  
This will properly seat the brake caliper pistons and brake pads.
15. Fill the master cylinder auxiliary reservoir to the proper level.
16. Burnish the pads and rotors.