Front Brake Pad Inspection and Replacement

Special Tools Required
Brake Caliper Piston Compressor 07AAE-SEPA101

**CAUTION**
Frequent inhalation of brake pad dust, regardless of material composition, could be hazardous to your health.

- Avoid breathing dust particles.
- Never use an air hose or brush to clean brake assemblies. Use an OSHA-approved vacuum cleaner.

**Inspection**
1. Raise the vehicle on a lift (see page 1-8).
2. Remove the front wheels.
3. Check the thickness (A) of the inner pad (B) and the outer pad (C). Do not include the thickness of the backing plate.

**Brake pad thickness:**
- **Standard:** 10.6—11.2 mm (0.42—0.44 in)
- **Service limit:** 1.6 mm (0.06 in)

**Inner pad**

**Outer pad**

4. If any part of the brake pad thickness is less than the service limit, replace the front brake pads as a set.
5. Clean the mating surfaces between the brake disc and the inside of the wheel, then install the front wheels.

(cont'd)
Conventional Brake Components

Front Brake Pad Inspection and Replacement (cont'd)

Replacement

1. Remove some brake fluid from the master cylinder.
2. Raise the vehicle on a lift (see page 1-8).
3. Remove the front wheels.
4. Remove the flange bolt (A), and pivot the caliper (B) up out of the way. Check the hose and the pin boots for damage and deterioration.
5. Remove the pad springs (A) while holding the brake pads.

6. Remove the pad shims (A) and the brake pads (B).
7. Remove the pad retainers (A).

NOTE: The upper and lower pad retainers are different. During installation, make sure the pad retainers are in proper positions.

8. Clean the caliper bracket (B) thoroughly; remove any rust, and check for grooves and cracks. Verify that the caliper pins (C) move in and out smoothly. Clean and lube if needed.

9. Inspect the brake disc, for runout, thickness, parallelism (see page 19-17) and check for damage and cracks.

10. Apply a thin coat of M-77 assembly paste (P/N 08798-9010) to the retainer mating surface of the caliper bracket (indicated by the arrows).

11. Install the pad retainers. Wipe excess assembly paste off the retainers. Keep any assembly paste off the brake disc and the brake pads.

12. Install the brake caliper piston compressor tool (A) on the caliper body (B).

13. Press in the piston with the brake caliper piston compressor tool so the caliper will fit over the brake pads. Make sure the piston boot is in position to prevent damaging it when pivoting the caliper down.

NOTE: Be careful when pressing in the piston; brake fluid might overflow from the master cylinder’s reservoir. If brake fluid gets on any painted surface, wash it off immediately with water.

14. Remove the brake caliper piston compressor tool.

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Conventional Brake Components

Front Brake Pad Inspection and Replacement (cont'd)

15. Apply a thin coat of M-77 assembly paste (P/N 08798-9010) to the pad side of the shims (A), the back of the brake pads (B) and the other areas indicated by the arrows. Wipe excess assembly paste off the pad shims and the brake pads friction material. Keep grease and assembly paste off the brake disc and brake pads. Contaminated brake disc or brake pads reduce stopping ability.

16. Install the brake pads and pad shims correctly. Install the brake pad with the wear indicator (C) on the upper inside. If you are reusing the brake pads, always reinstall the brake pads in their original positions to prevent a temporary loss of braking efficiency.

17. Install the pad springs (A) while holding the brake pads.

18. Pivot the caliper down into position. While holding the brake pads, install the flange bolt (A), and tighten it to the specified torque.

19. Clean the mating surfaces between the brake disc and the inside of the wheel, then install the front wheels.

20. Press the brake pedal several times to make sure the brakes work.

NOTE: Engagement may require a greater pedal stroke immediately after the brake pads have been replaced as a set. Several applications of the brake pedal will restore the normal pedal stroke.

21. Add brake fluid as needed.

22. After installation, check for leaks at hose and line joints or connections, and retighten if necessary. Test-drive the vehicle, then recheck for leaks (see page 19-41).
Front Brake Disc Inspection

Runout
1. Raise the vehicle on a lift (see page 1-8).
2. Remove the front wheels.
3. Remove the brake pads (see page 19-14).
4. Inspect the brake disc to wheel surface for damage and cracks. Clean the brake disc thoroughly, and remove all rust.
5. Install suitable flat washers (A) and wheel nuts (B), and tighten the wheel nuts to the specified torque to hold the brake disc securely against the hub.
6. Set up the dial gauge against the brake disc as shown, and measure the runout at 10 mm (3/8 in) from the outer edge of the brake disc.

Brake disc runout:
Service limit: 0.04 mm (0.002 in)

7. If the brake disc is beyond the service limit, refinish the brake disc with a Honda-approved commercially available on-car brake lathe.

Max. refishing limit: 26.0 mm (1.02 in)

NOTE:
- If the brake disc is beyond the service limit for refishing, replace it (see page 19-19).
- If the brake disc is replaced with a new one, check the new disc for runout. If the new disc is out of specification, refinish the disc.

8. Install the brake pads (see page 19-14).
9. Clean the mating surfaces between the brake disc and the inside of the wheel, then install the front wheels.

(cont’d)
Conventional Brake Components

Front Brake Disc Inspection (cont'd)

Thickness and Parallelism

1. Raise the vehicle on a lift (see page 1-8).
2. Remove the front wheels.
3. Remove the brake pads (see page 19-14).
4. Using a micrometer, measure the brake disc thickness at eight points, about 45° apart and 10 mm (3/8 in) in from the outer edge of the brake disc. Replace the brake disc if the smallest measurement is less than the max. refinishing limit.

   Brake disc thickness:
   Standard:  27.9 – 28.1 mm (1.10 – 1.11 in)
   Max. refinishing limit:  28.0 mm (1.02 in)
   Brake disc parallelism:  0.015 mm (0.0006 in) max.

   NOTE: This is the maximum allowable difference between the thickness measurements.

5. If the brake disc is beyond the service limit for parallelism, refinish the brake disc with a Honda-approved commercially available on-car brake lathe.

   NOTE: If the brake disc is beyond the service limit for refinishing, replace it (see page 19-19).

6. Install the brake pads (see page 19-14).

7. Clean the mating surfaces between the brake disc and the inside of the wheel, then install the front wheels.
Front Brake Disc Replacement

NOTE: Keep any grease off the brake disc and brake pads.
1. Raise the vehicle on a lift (see page 1-8).
2. Remove the front wheel.
3. Remove the brake hose mounting bolt (A).

4. Remove the brake caliper bracket mounting bolts (B), then remove the caliper assembly (C) from the knuckle. To prevent damage to the caliper assembly or brake hose, use a short piece of wire to hang the caliper assembly from the undercarriage. Do not twist the brake hose excessively.

5. Remove the brake disc flathead screws (A).

6. Remove the brake disc (B) from the hub bearing unit.
   NOTE: If the brake disc is stuck to the hub bearing unit, thread two 8 x 1.25 mm bolts (C) into the brake disc to push it away from the hub bearing unit. Turn each bolt 90 degrees at a time to prevent the brake disc from binding.

7. Install the brake disc in the reverse order of removal.
   NOTE: Before installing the brake disc, clean the mating surfaces between the hub bearing unit and the inside of the brake disc.

8. Inspect the brake disc runout (see page 19-17).
9. Clean the mating surfaces between the brake disc and the inside of the wheel, then install the front wheel.