



Brake Booster

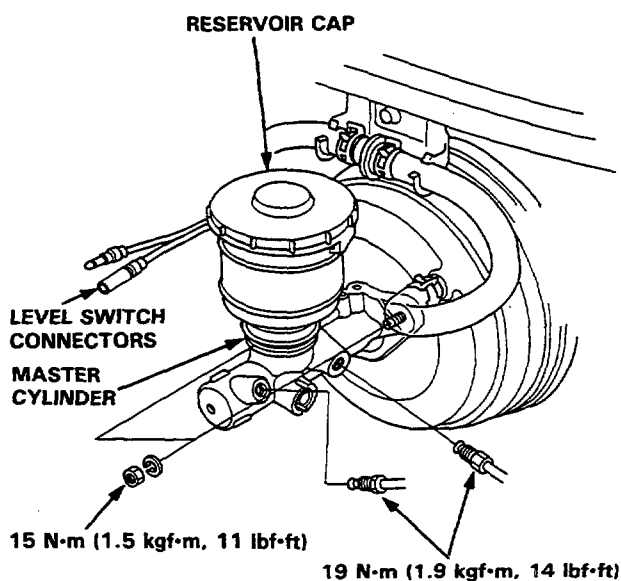
Installation

CAUTION:

- When connecting the brake pipes, make sure that there is no interference between the brake pipes and other parts.
- Be careful not to bend or damage the brake pipes when installing the master cylinder.

NOTE: If replacing the master cylinder or brake booster, check and adjust the pushrod clearance before installing the master cylinder. (see page 19-19).

1. Install the master cylinder on the brake booster with the mounting nuts.
2. Connect the brake pipes to the master cylinder.
3. Fill the master cylinder reservoir and bleed the brake system (see page 19-6).
4. Install the reservoir cap, and connect the brake fluid level switch connectors.



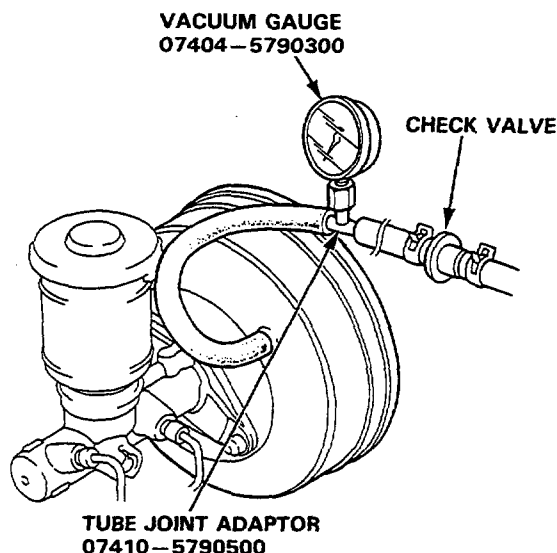
5. After installation, perform the following inspections and adjust if necessary.

- Brake pedal height (see page 19-4)
- Brake pedal free play (see page 19-4)

Inspection

Leak Test

1. Install the vacuum gauge between the brake booster and check valve.



2. Start the engine, adjust the engine speed with the accelerator pedal so that the vacuum gauge readings show 40.0–66.7 kPa (300–500 mmHg, 11.8–19.7 in-Hg), then stop the engine.
3. Read the vacuum gauge.

If the vacuum reading decreases 2.7 kPa (20 mmHg, 0.8 in-Hg) or more after 30 seconds, check following parts for leaks.

- Check valve
- Vacuum hose, pipe
- Seals
- Brake booster
- Master cylinder

CAUTION: Do not try to disassemble the brake booster. Replace the brake booster as an assembly with new one.

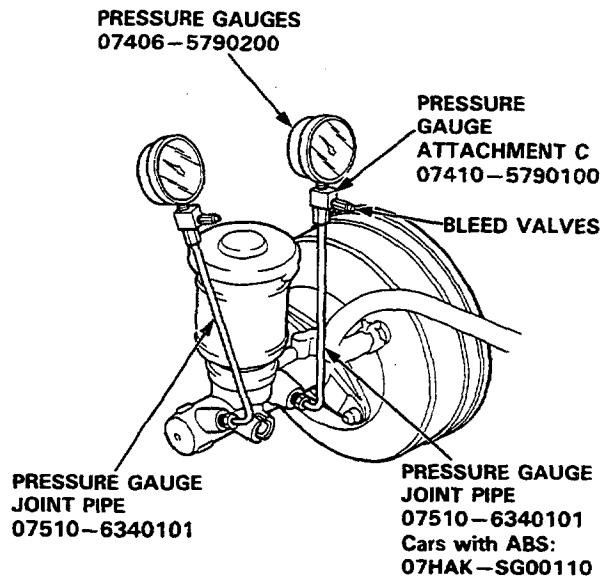
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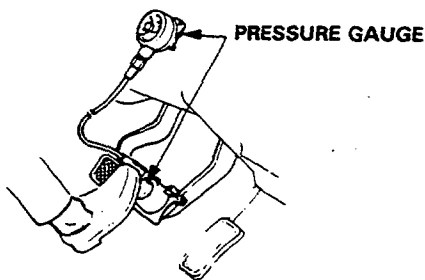
Inspection (cont'd)

Function Test

1. Install the vacuum gauge as same the leak test.
2. Connect the oil pressure gauges to the master cylinder using the attachments as shown.
3. Bleed air through the valves.



4. Start the engine.
5. Depress the brake pedal with a 196 N (20 kgf, 44 lbf) or pressure. The following pressures should be observed at the pressure gauges in each vacuum.



Cars Without ABS

Vacuum mm (in) Hg	Min. Line Pressure kPa (kgf/cm ² , psi)
0 (0)	1,290 (13.1, 190)
300 (11.8)	5,420 (55, 782)
500 (19.7)	8,170 (82.9, 1,170)

Cars With ABS

Vacuum mm (in) Hg	Min. Line Pressure kPa (kgf/cm ² , psi)
0 (0)	957 (9.7, 137)
300 (11.8)	5,550 (56.3, 800)
500 (19.7)	8,620 (87.4, 1,240)

6. Inspect the master cylinder for leaks if the readings do not fall within the limits shown above.

Check Valve Test

1. Disconnect the brake booster vacuum hose at the booster.
2. Start the engine and let it idle. There should be vacuum available. If no vacuum is available, the check valve is not working correctly. Replace the check valve and retest.

