

POWER BRAKE UNIT INSPECTION

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Note

- The following inspection methods are simple inspection methods to judge the function of the power brake unit.
- If there is any malfunction in the power brake unit, replace the power brake unit as a single unit.

Without Using SST

Operation inspection

1. With the engine stopped, pump the pedal a few times.
2. With the pedal depressed, start the engine.
3. If the pedal moves down slightly immediately after starting the engine, the unit is normal.

Vacuum function inspection

1. Start the engine.
2. Stop the engine after driving the vehicle for **1—2 min.**
3. Depress the pedal with normal force.
4. If the first pedal stroke is long and becomes shorter with subsequent strokes, the unit is normal.
 - If a problem is found, inspect for damage to or improper installation of the check valve and vacuum hose. After repairing, inspect again.

Vacuum loss function inspection

1. Start the engine.
2. Depress the pedal with normal force.
3. With the pedal depressed, stop the engine.
4. Hold the pedal depressed for **approx. 30 s.**
5. If the pedal height does not change during this time, the unit is normal.

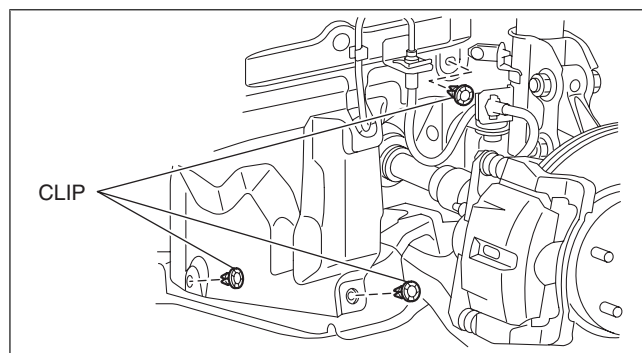
Using SST

Note

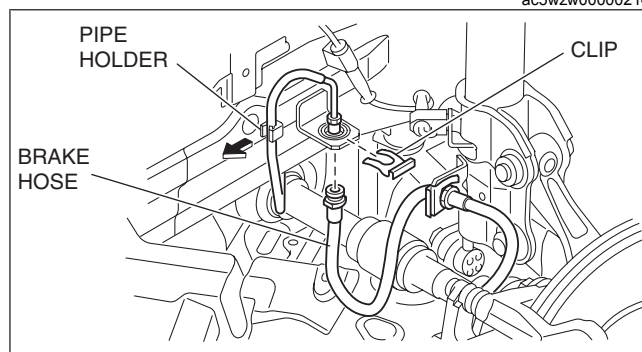
- When performing the inspection using the **SST**, inspect the brake pipe on the left or right front wheel.
- The following procedure and figures show the inspection for the brake pipe on the left front wheel.

Pre-inspection preparation

1. Remove the clips.
2. Set the splash shield out of the way.
3. Disconnect the brake pipe from the brake hose.
4. Remove the clip.
5. Remove the brake hose from the bracket.
6. Detach the brake pipe from the pipe holder.

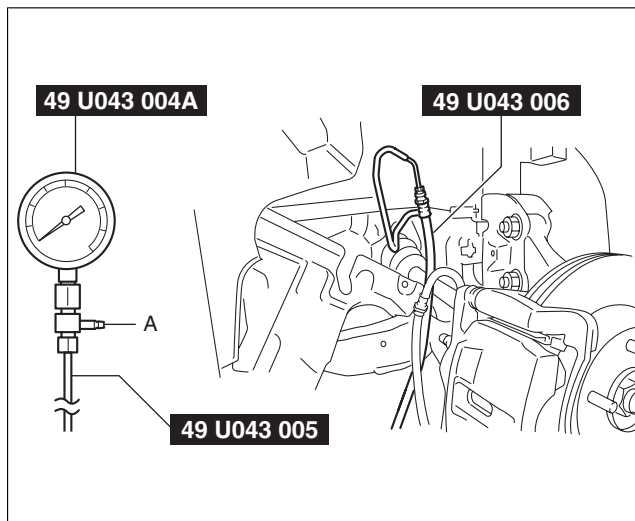


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7. Install the **SST** to the brake pipe as shown in the figure.
8. Bleed the brake line and the **SSTs** of air. Bleed the air from the **SSTs** using bleeder screw A.
9. Install the pedal force gauge to the brake pedal.
10. Connect the vacuum gauge to the vacuum line.



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Vacuum loss inspection

1. Start the engine.
2. Depress the brake pedal with a force of **200 N {20.4 kgf, 45.0 lbf}**.
3. Stop the engine when the vacuum gauge reading reaches **68 kPa {510 mmHg, 20 inHg}** with the pedal depressed.
4. With the engine off, observe the vacuum gauge for **15 s**.
5. If the gauge has dropped **3.3 kPa {25 mmHg, 1.0 inHg}** or less, the unit is normal.

Lack of hydraulic pressure inspection

1. If the pedal force and fluid pressure correlation is within the specification with the engine stopped and a vacuum amount of **0 kPa {0 mmHg, 0 inHg}**, the system is normal.

Master cylinder fluid pressure

Vacuum amount at 0 kPa {0 mmHg, 0 inHg}	
Pedal force	Fluid pressure
200 N {20.4 kgf, 45.0 lbf}	630 kPa {6.42 kgf/cm ² , 91.4 psi} or more

Hydraulic pressure inspection

1. Start the engine. Depress the brake pedal when the vacuum reaches **66.7 kPa {500 mmHg, 19.7 inHg}**.
2. At this time, apply the indicated pedal force and if the fluid pressure is within the specification, the unit is normal.

Master cylinder fluid pressure

Vacuum amount at 66.7 kPa {500 mmHg, 19.7 inHg}	
Pedal force	Fluid pressure
200 N {20.4 kgf, 45.0 lbf}	6,900 kPa {70.36 kgf/cm ² , 1,001 psi} or more

After-inspection procedure

1. After the inspection, remove the **SSTs**, install the brake hose, clamp, and brake pipe to the original positions, and then bleed the air from the brake line. (See BRAKE HOSE (FRONT) REMOVAL/INSTALLATION.) (See BRAKE FLUID AIR BLEEDING.)