

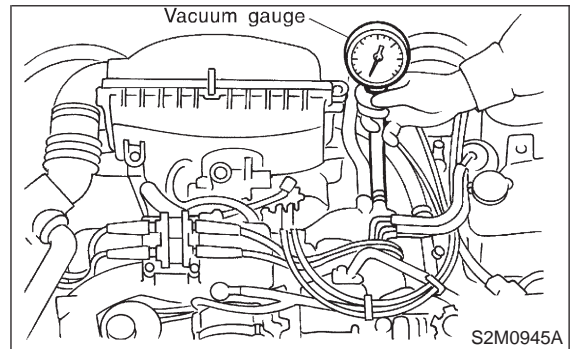
## 5. Intake Manifold Vacuum

### A: MEASUREMENT

- 1) Warm-up the engine.
- 2) Disconnect the brake vacuum hose and install the vacuum gauge to the hose fitting on the manifold.

- 3) Keep the engine at the idle speed and read the vacuum gauge indication.  
By observing the gauge needle movement, the internal condition of the engine can be diagnosed as described below.

**Vacuum pressure (at idling, A/C "OFF"):**  
**Less than -60.0 kPa (-450 mmHg, -17.72 inHg)**

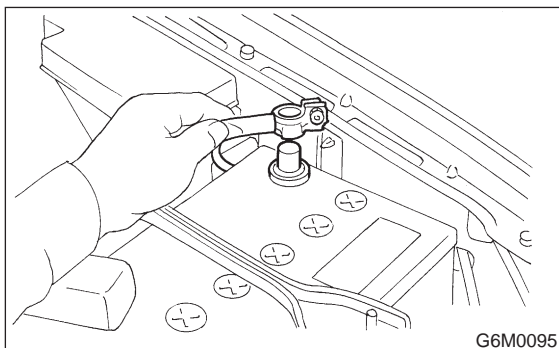


Diagnosis of engine condition by measurement of manifold vacuum	
Vacuum gauge indication	Possible engine condition
1. Needle is steady but lower than normal position. This tendency becomes more evident as engine temperature rises.	Leakage around intake manifold gasket or disconnection or damaged vacuum hose
2. When engine speed is reduced slowly from higher speed, needle stops temporarily when it is lowering or becomes steady above normal position.	Back pressure too high, or exhaust system clogged
3. Needle intermittently drops to position lower than normal position.	Leakage around cylinder
4. Needle drops suddenly and intermittently from normal position.	Sticky valves
5. When engine speed is gradually increased, needle begins to vibrate rapidly at certain speed, and then vibration increases as engine speed increases.	Weak or broken valve springs
6. Needle vibrates above and below normal position in narrow range.	Defective ignition system or throttle chamber idle adjustment

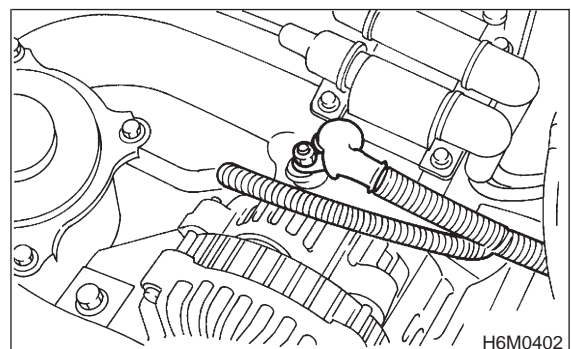
## 6. Engine Oil Pressure

### A: MEASUREMENT

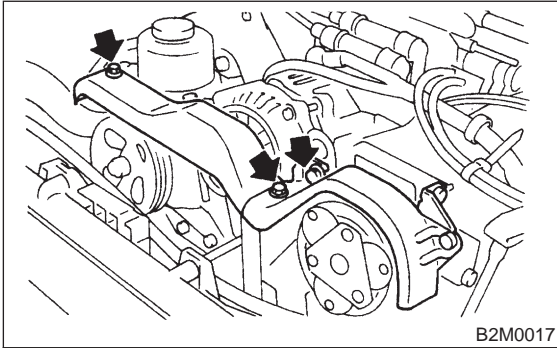
- 1) Disconnect battery ground cable.



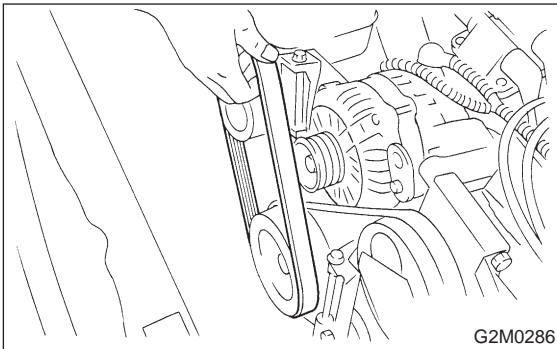
- 2) Remove generator from bracket.  
(1) Disconnect connector and terminal from generator.



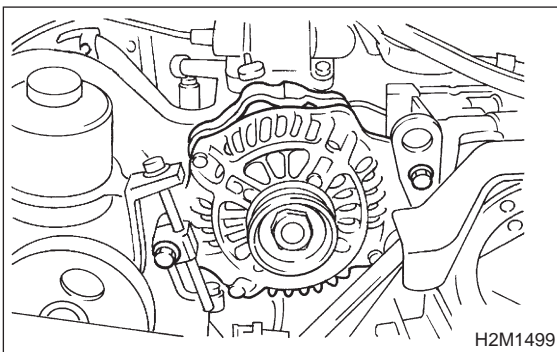
(2) Remove V-belt cover



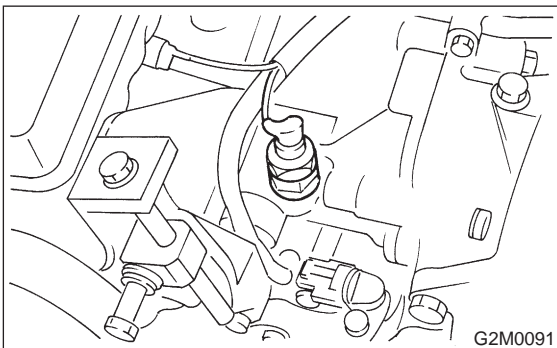
(3) Loosen lock bolt and slider bolt, and remove front side V-belt.



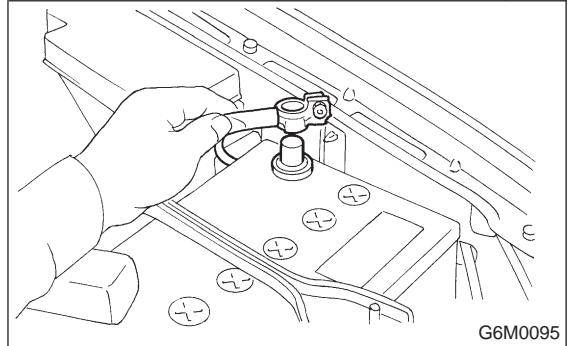
(4) Remove generator lock bolt.  
 (5) Remove bolt which install generator on bracket.



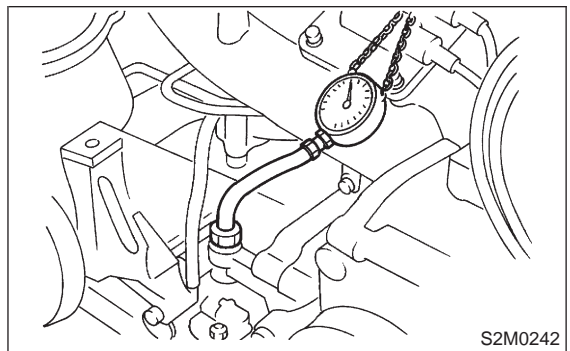
3) Disconnect connector from oil pressure switch.  
 4) Remove oil pressure switch from engine cylinder block. <Ref. to 2-4 [W3A0].>



5) Connect oil pressure gauge hose to cylinder block.  
 6) Connect battery ground cable.



7) Start the engine, and measure oil pressure.



**Oil pressure:**  
 98 kPa (1.0 kg/cm<sup>2</sup>, 14 psi) or more at 800 rpm  
 294 kPa (3.0 kg/cm<sup>2</sup>, 43 psi) or more at 5,000 rpm

**CAUTION:**

- If oil pressure is out of specification, check oil pump, oil filter and lubrication line. <Ref. to 2-4 ENGINE LUBRICATION SYSTEM.>
- If oil pressure warning light is turned ON and oil pressure is in specification, replace oil pressure switch. <Ref. to 2-4 ENGINE LUBRICATION SYSTEM.>

**NOTE:**  
 The specified data is based on an engine oil temperature of 80°C (176°F).

8) After measuring oil pressure, install oil pressure switch. <Ref. to 2-4 [W3B0].>

**Tightening torque:**  
 25±3 N·m (2.5±0.3 kg·m, 18.1±2.2 ft·lb)

9) Install generator and V-belt in the reverse order of removal, and adjust the V-belt deflection. <Ref. to 1-5 [G2A0].>