

COMPRESSION INSPECTION [LF]

B3E011002000W02

Warning

- Hot engines and oil can cause severe burns. Be careful not to burn yourself during removal/installation of each component.

1. Verify that the battery is fully charged.

- Recharge it if necessary. (See [BATTERY INSPECTION](#).)

2. Warm up the engine to the normal operating temperature.

3. Stop the engine and allow it to cool down for **about 10 min**.

4. Perform "Fuel Line Safety Procedures". Leave the fuel pump relay removed. (See [BEFORE SERVICE PRECAUTION \[ZJ, Z6, LF\]](#).)

Warning

- Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.
- Fuel line spills and leakage are dangerous. Fuel can ignite and cause serious injuries or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure". (See [Fuel Line Safety Procedure](#).)

5. Remove the plug hole plate (See [PLUG HOLE PLATE REMOVAL/INSTALLATION \[LF\]](#).)

6. Remove the ignition coils. (See [IGNITION COIL REMOVAL/INSTALLATION \[LF\]](#).)

7. Remove the spark plugs. (See [SPARK PLUG REMOVAL/INSTALLATION \[LF\]](#).)

8. Connect a compression gauge into the spark plug hole.

9. Fully depress the accelerator pedal and crank the engine.

10. Note down the maximum gauge reading.

11. Inspect each cylinder as above.

- If the measured value is less than the limited value, or there is a cylinder whose compression value varies from that of other cylinders by **196.1 kPa {2.0 kgf/cm², 28.5 psi}** or more, add a small amount of engine oil through the spark plug hole. Then measure the compression pressure and perform the respective operations for the following cases.
 - If the compression increases, the piston, the piston rings, or cylinder wall may be worn and overhaul is required.
 - If the compression stays low, a valve may be stuck or improperly seated and overhaul is required.
 - If the compression in adjacent cylinders stays low, the cylinder head gasket may be damaged or the cylinder head distorted and overhaul is required.

Compression

kPa {kgf/cm², psi} [rpm]

Item	Engine type
	LF
Standard	1,720 {17.54, 249.5} [300]
Minimum	1,204 {12.28, 174.6} [300]
Maximum difference between cylinders	196.1 {2.0, 28.5}

12. Disconnect the compression gauge.

13. Install the following parts.

- (1) Spark plug (See [SPARK PLUG REMOVAL/INSTALLATION \[LF\]](#).)
- (2) Ignition coils (See [IGNITION COIL REMOVAL/INSTALLATION \[LF\]](#).)
- (3) Fuel pump relay (See [BEFORE SERVICE PRECAUTION \[ZJ, Z6, LF\]](#).)
- (4) Plug hole plate (See [PLUG HOLE PLATE REMOVAL/INSTALLATION \[LF\]](#).)