

SERVICE INFORMATION

GENERAL

- When servicing the ignition system, always follow the steps in the troubleshooting sequence on (page 4-3).
- The ignition timing cannot be adjusted since the Ignition Control Module (ICM) is factory preset.
- The Ignition Control Module (ICM) may be damaged if dropped. Also if the connector is disconnected when current is flowing, the excessive voltage may damage the module.
- A faulty ignition system is often related to poor connections. Check those connections before proceeding.
- Use spark plug of the correct heat range. Using a spark plug with an incorrect heat range can damage the engine.

TROUBLESHOOTING

Inspect the following before diagnosing the system.

- Loose spark plug cap or spark plug wire connection
- Loose spark plug cap or spark plug wire
- Water got into the spark plug cap (Leaking the ignition coil secondary voltage)

No spark at plug

	Unusual condition	Probable cause (check in numerical order)
Ignition coil primary voltage	Low peak voltage.	1. The multimeter impedance is too low; below 10 MΩ/DCV. 2. Cranking speed is too slow. (Battery is undercharged or operating force of the kickstarter is weak) 3. The sampling time of the tester and measured pulse were not synchronized. (System is normal if measured voltage is over the standard voltage at least once) 4. Poorly connected connectors or an open circuit in the ignition system. 5. Faulty ignition coil. 6. Faulty ignition control module (ICM). (in case when above No. 1 – 5 are normal)
	No peak voltage.	1. Incorrect peak voltage adapter connections. 2. Faulty ignition switch. 3. Loose or poorly connected ICM connector. 4. Open circuit or poor connection in the Red/black wire of the ICM. 5. Open circuit or poor connection in the Green wire of the ICM. 6. Faulty peak voltage adapter. 7. Faulty ignition pulse generator. (Measure the peak voltage) 8. Faulty ICM. (in case when above No.1 – 7 are normal)
	Peak voltage is normal, but no spark jumps at the plug.	1. Faulty spark plug or leaking ignition coil secondary current. 2. Faulty ignition coil.
Ignition pulse generator	Low peak voltage.	1. The multimeter impedance is too low; below 10 MΩ/DCV. 2. Cranking speed is too slow. (Battery is undercharged or operating force of the kickstarter is weak) 3. The sampling time of the tester and measured pulse were not synchronized. (System is normal if measured voltage is over the standard voltage at least once) 4. Faulty ignition pulse generator. (in case when above No.1 – 3 are normal)
	No peak voltage.	1. Faulty peak voltage adapter. 2. Faulty ignition pulse generator.