

# Troubleshooting

- Inspect the followings before diagnosing the system.
  - Faulty spark plug.
  - Loose spark plug cap or spark plug wire connections.
  - Water got into the spark plug cap (Leaking the ignition coil secondary voltage).
- Temporarily exchange the ignition coil with the other good one and perform the spark test. If there is spark, the exchanged ignition coil is faulty.
- "Initial voltage" of the ignition primary coil is the battery voltage with the ignition switch ON and engine stop switch at RUN. (The engine is not cranked by the starter motor.)

## No spark at all plugs

Unusual Condition		Probable Cause (Check in numerical order)
Ignition coil primary voltage	No initial voltage with ignition and engine stop switches ON. (Other electrical components are normal.)	1. Faulty engine stop switch. 2. An open circuit in BI/W wire between the ignition coil and engine stop switch. 3. Loose primary terminal or an open circuit in primary coil. 4. Faulty spark unit: in case when the initial voltage is normal while disconnecting spark unit connectors.
	Initial voltage is normal, but it drops down to 2-4 V while cranking the engine.	1. Incorrect peak voltage adaptor connections. 2. Undercharged battery. 3. No voltage between the BI (+) and Body ground (-) at the spark unit 6P-Black connector or loose spark unit connection. 4. An open circuit or loose connection in G wire. 5. Open circuits or loose connections in L/Y and Y/L wires between the ignition coils and spark unit. 6. Short circuit in ignition primary coil. 7. Faulty side stand switch or neutral switch. 8. An open circuit or loose connection in No.7 related circuit wires. • Side stand switch line: G/W wire • Neutral switch line: Lg/R wire 9. Faulty pulse generator (Measure the peak voltage). 10. Faulty spark unit (in case when above No.1-9 are normal).
	Initial voltage is normal, but no peak voltage while cranking the engine.	1. Incorrect peak voltage adaptor connections. 2. Faulty peak voltage adaptor. 3. Faulty spark unit (in case when above No.1, 2 are normal).
	Initial voltage is normal, but peak voltage is lower than standard value.	1. The multimeter impedance is too low; below 10 MΩ/DCV. 2. Cranking speed is too slow (battery is undercharged). 3. The sample timing 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 spark unit (in case that above No. 1-3 are normal).
	Initial and voltage are normal, but does not spark.	1. Faulty spark plug or leaking ignition coil secondary current ampere. 2. Faulty ignition coils.
Pulse generator	Peak voltage is lower than standard value.	1. The multimeter impedance is too low; below 10 MΩ/DCV. 2. Cranking speed is too slow (battery is undercharged). 3. The sample timing 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 spark unit (in case when above No. 1-3 are normal).
	No peak voltage.	1. Faulty peak voltage adaptor. 2. Faulty pulse generator.