

18. IGNITION SYSTEM

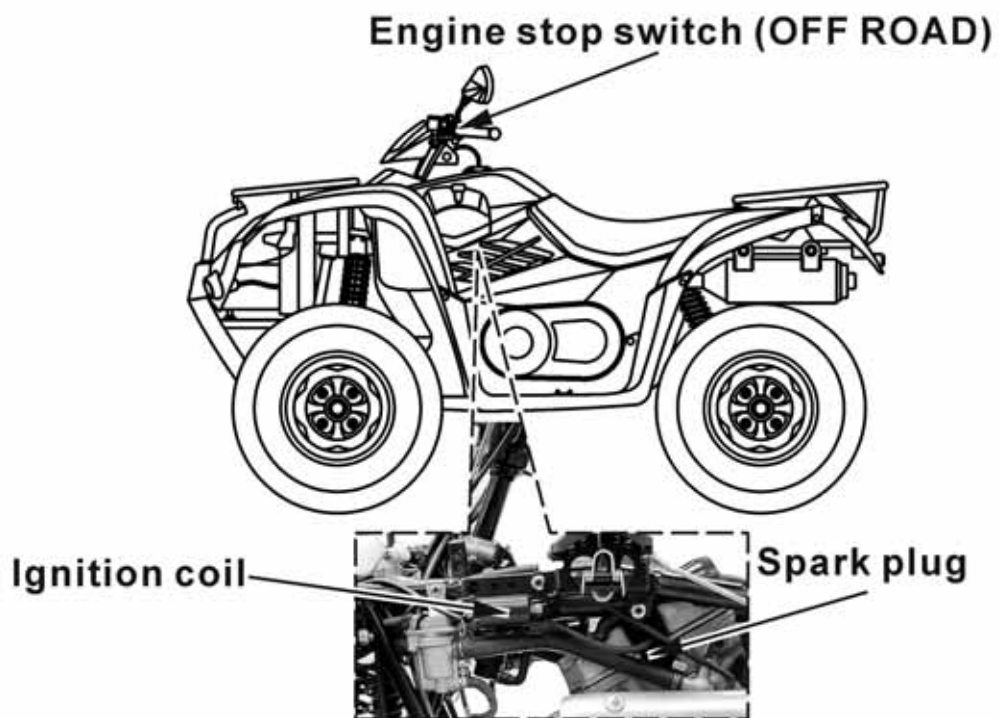
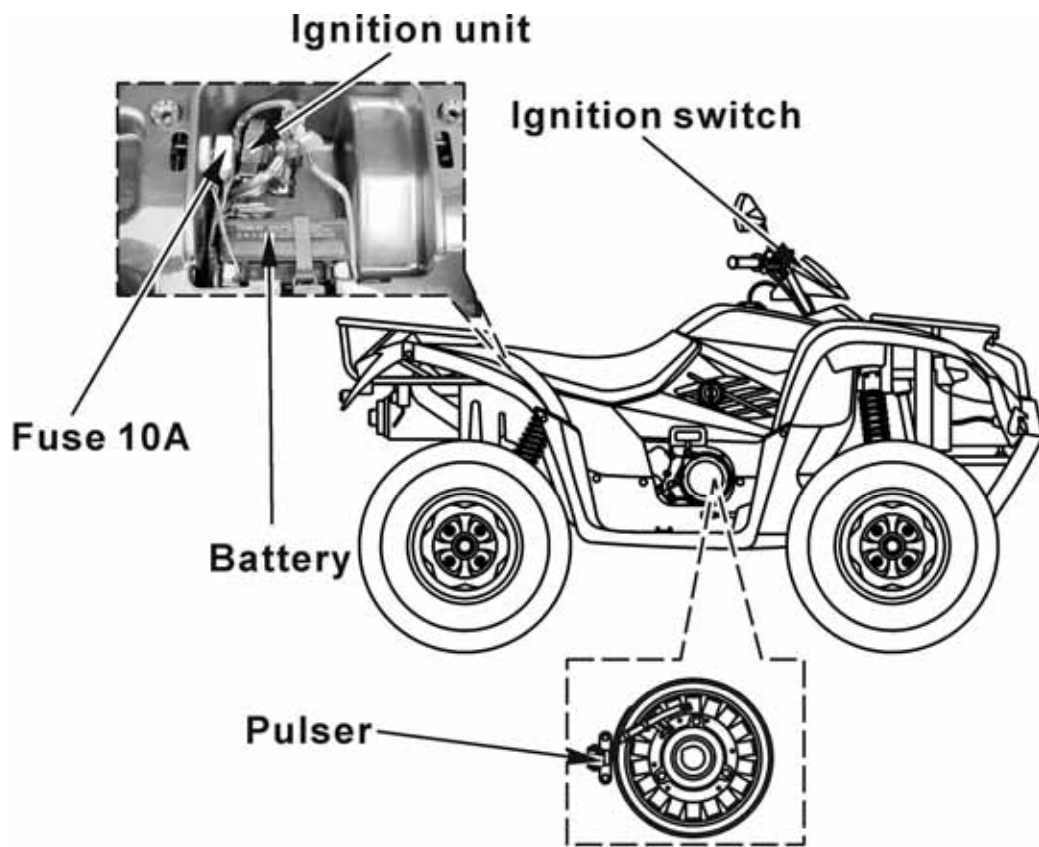
18

IGNITION SYSTEM

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18. IGNITION SYSTEM

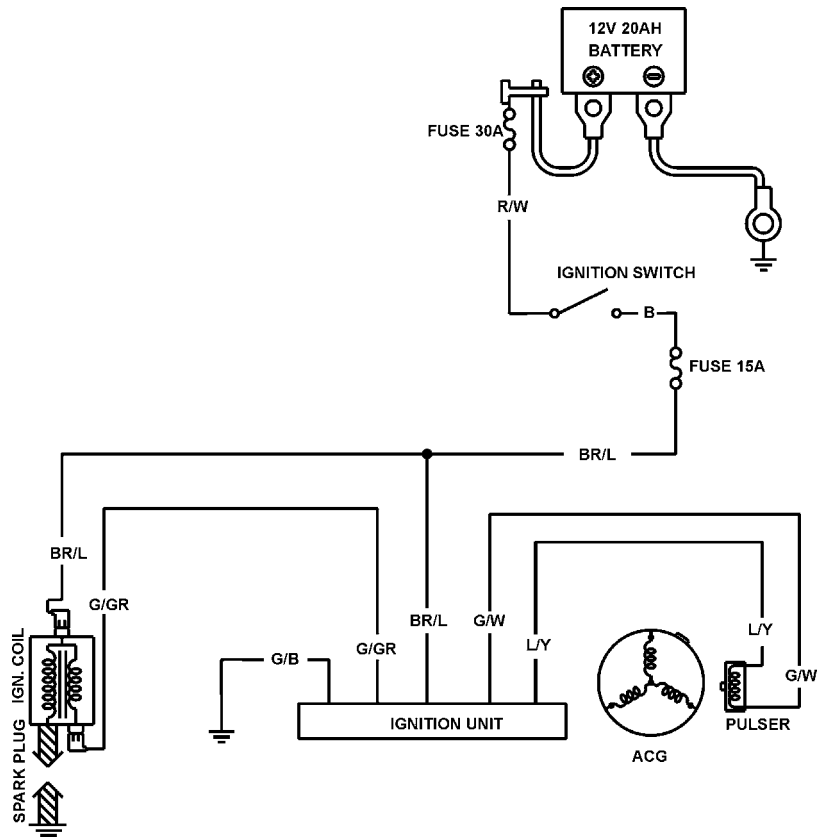
IGNITION SYSTEM LAYOUT



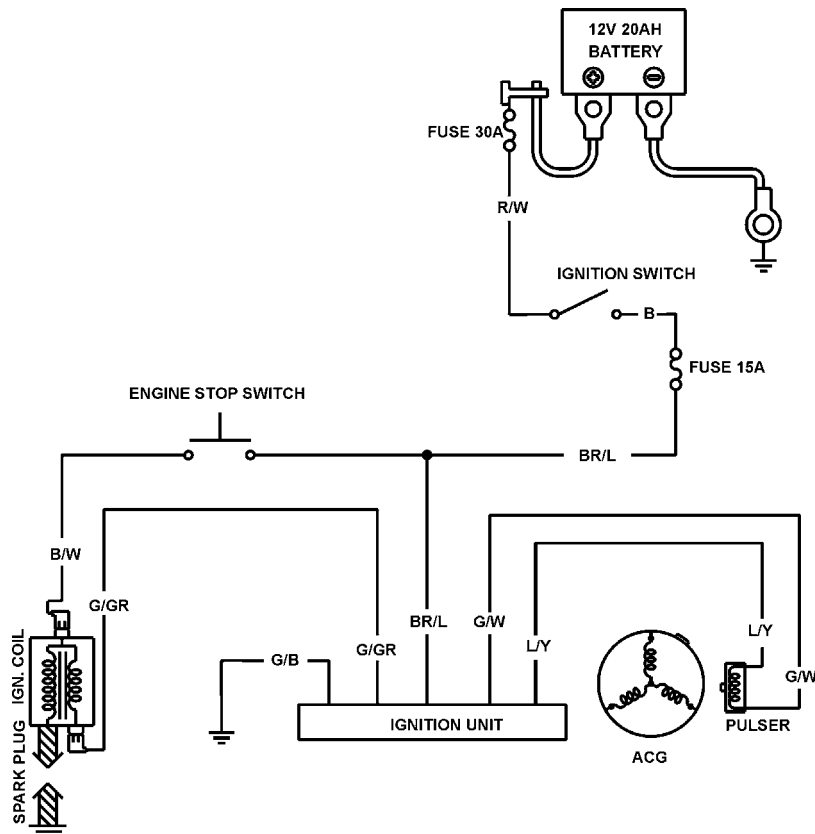
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IGNITION CIRCUIT

(ON ROAD)



(OFF ROAD)



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SERVICE INFORMATION

GENERAL INSTRUCTIONS

- Some electrical components may be damaged if terminals or connectors are connected or disconnected while the ignition switch is “ON” and current is present.
- When servicing the ignition system, always follow the steps in the troubleshooting on page **18-3**.
- The ignition timing cannot be adjusted since the ignition control module is factory preset.
- The ignition control module may be damaged if dropped. Also, if the connector is disconnected when current is flowing, the excessive voltage may damage the ignition control module. Always turn off the ignition switch before servicing.
- A faulty ignition system is often related to poor connections. Check those connections before proceeding.
- Make sure the battery is adequately charged. Using the starter motor with a weak battery results in a slower engine cranking speed as well as no spark at the spark plug.
- Use a spark plug of the correct heat range. Using spark plug with an incorrect heat range can damage the engine.
- See section 17 for ignition pulse generator removal/installation.
- See section 20 for following components:
 - Ignition switch
 - Engine stop switch

SPECIFICATIONS

Item	Standard
Spark plug	NGK-CR7E
Spark plug gap	0.7 mm (0.028 in)
Ignition system	Full transistor digital ignition
Ignition timing	5°/1500 rpm

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TROUBLESHOOTING

LOW PEAK VOLTAGE

- Cranking speed is too low (battery is undercharged).
- Poorly connected connectors or an open circuit in the ignition system.
- Faulty ignition-coil.
- Faulty ignition control module.

NO PEAK VOLTAGE

- Short circuit in engine stop switch or ignition switch wire.
- Faulty engine stop switch or ignition switch.
- Loose or poorly connected ignition control module connectors.
- Open circuit or poor connection in ground wire of the ignition control module.
- Faulty ignition pulse generator.
- Faulty ignition control module.

PEAK VOLTAGE IS NORMAL, BUT NO SPARK JUMPS AT THE PLUG

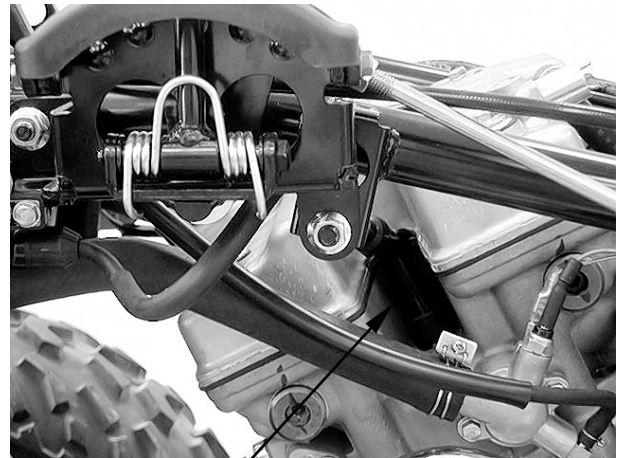
- Faulty spark plug or leaking ignition coil secondary current.
- Faulty ignition coil.

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IGNITION COIL INSPECTION

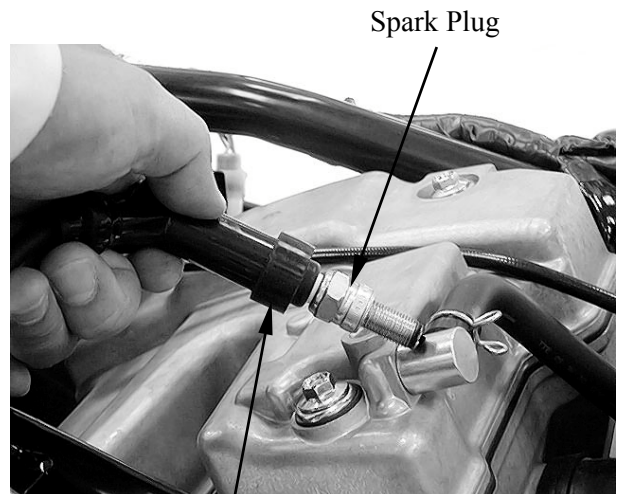
IGNITION COIL PRIMARY PEAK VOLTAGE

Check cylinder compression and check that the spark plug is installed correctly in the cylinder. Disconnect the spark plug cap from the spark plug.



Spark Plug Cap

Connect known good spark plug to the spark plug cap and ground the spark plugs to the cylinder as done in the spark test.



Spark Plug Cap

Turn the ignition switch to “ON” and engine stop switch ON.

Turn the engine stop switch in RUN (OFF ROAD).

Connect the multi-meter (+) probe to the Brown/Blue wire and the multi-meter (-) to the body ground.

Check for initial voltage at this time.

The battery voltage should be measured.

If the initial voltage cannot be measured, check the power supply circuit.



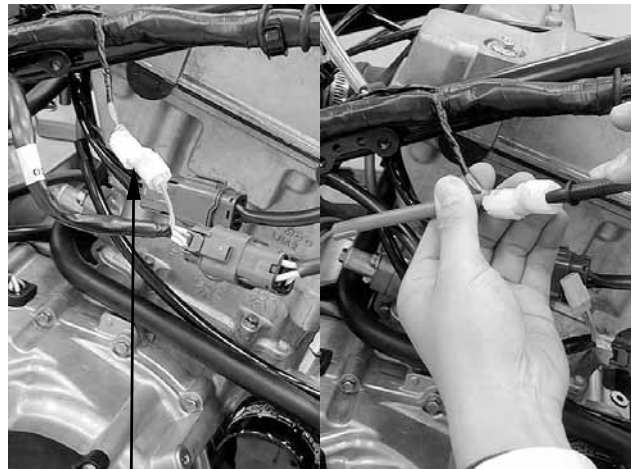
Ignition Coil

18. IGNITION SYSTEM

IGNITION PULSE GENERATOR INSPECTION

Disconnect the ignition pulse generator connector.
 Measure the ignition pulse generator resistance between the Green/White wire and Blue/Yellow wire.

Standard: 791 Ω (20°C/68°F)



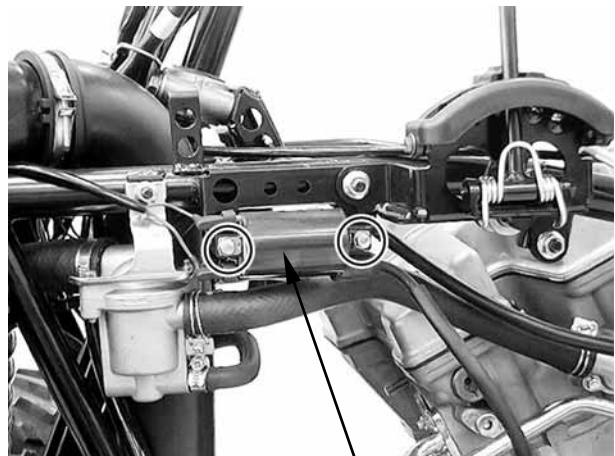
Ignition Pulse Generator Connector

IGNITION COIL REMOVAL/INSTALLATION

Disconnect the spark plug cap from the spark plug (page 18-4).

Disconnect the ignition coil primary connectors.
 Remove the two bolts and the ignition coil.

Installation is in the reverse order of removal.



Ignition Coil

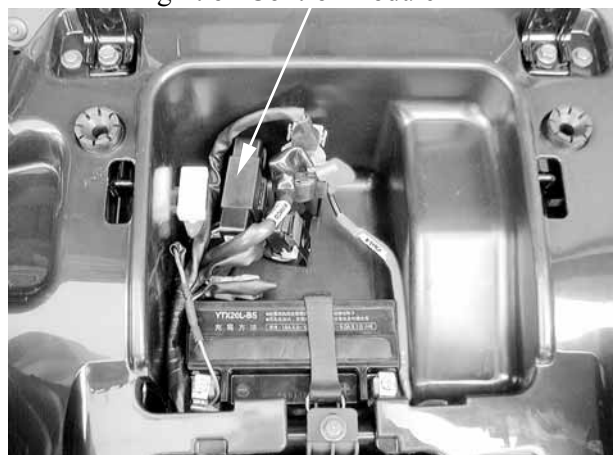
IGNITION CONTROL MODULE

REMOVAL/INSTALLATION

Remove the seat (refer to the “**FRAME COVERS**” section in the chapter 2).

Disconnect the ignition control module connectors and remove the ignition control module.

Ignition Control Module

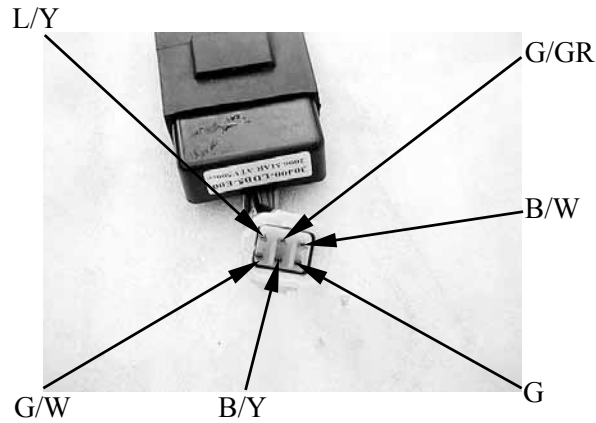


18. IGNITION SYSTEM

RESISTANCE INSPECTION

Measure the resistance between the terminals.

* Due to the semiconductor in circuit, it is necessary to use a specified tester for accurate testing. Use of an improper tester in an improper range may give false readings.



Unit: Ω

(-) (+)	B/W	G/GR	L/Y	G/W	B/Y	G
B/W						
G/GR			6.7 M	6.7 M		6.7 M
L/Y				0.785 K		Continue
G/W			0.778 K			0.785 k
B/Y						
G			Continue	0.785 K		