

# 18. IGNITION SYSTEM

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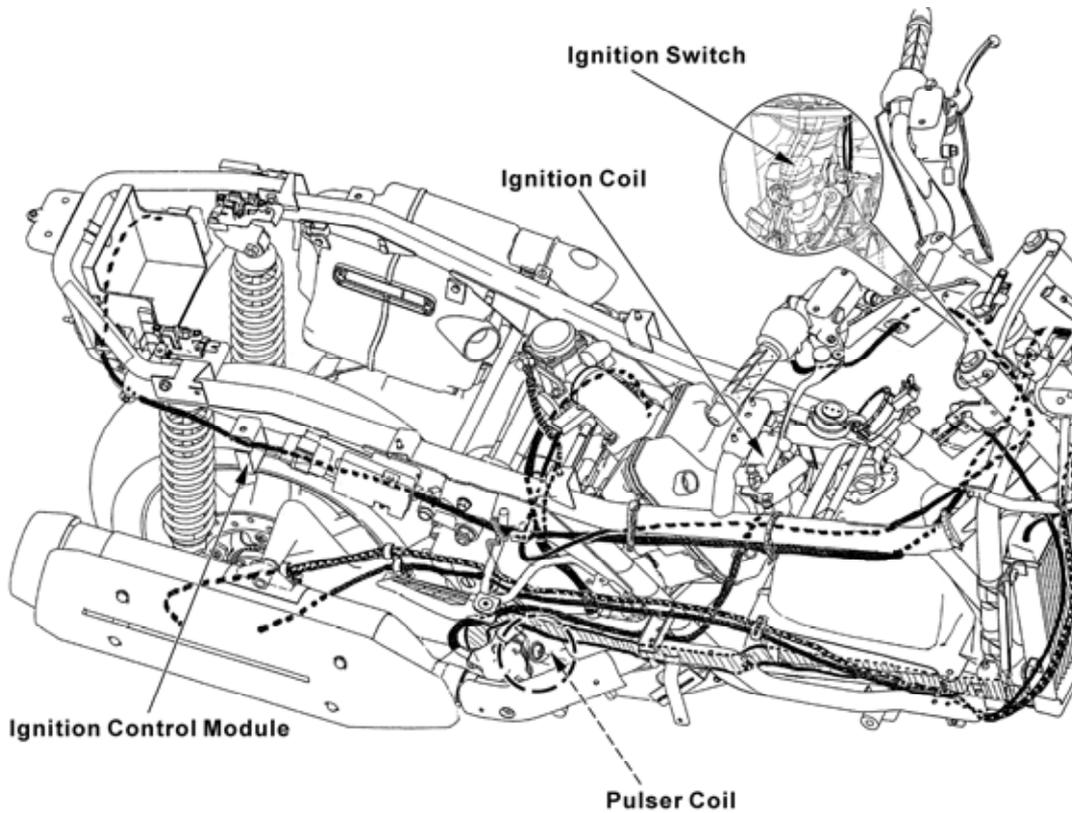
## IGNITION SYSTEM

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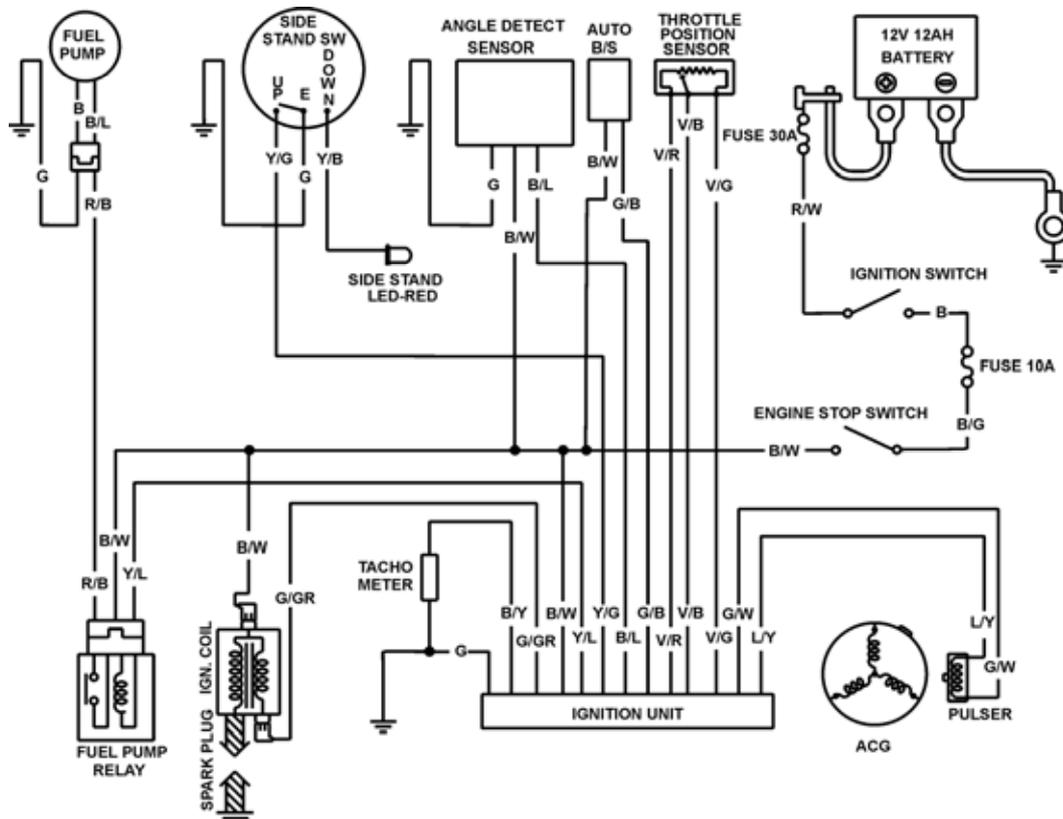
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## IGNITION SYSTEM LAYOUT



## IGNITION CIRCUIT



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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 ???](#).
- 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 12 for ignition pulse generator removal/installation.
- See section 20 for following components:
  - Ignition switch
  - Engine stop switch

### SPECIFICATIONS

Item	Standard
Spark plug	NGK-CR8E
Spark plug gap	0.7 mm (0.028 in)
Ignition system	Full transistor digital ignition
Ignition timing	TPS

## 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.

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

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

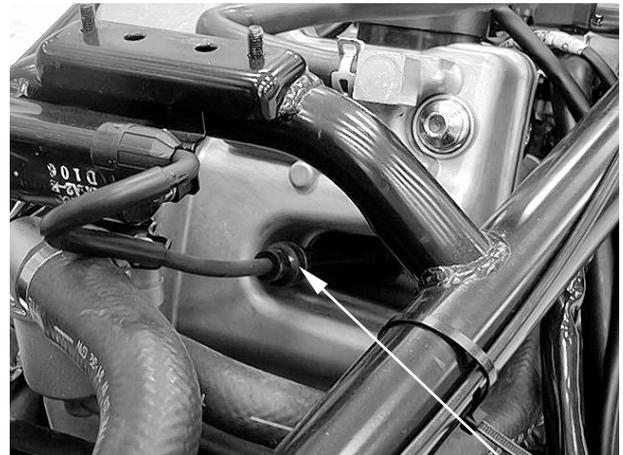
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### IGNITION COIL INSPECTION

#### IGNITION COIL PRIMARY PEAK VOLTAGE

Remove the floorboard (page 2-6).

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



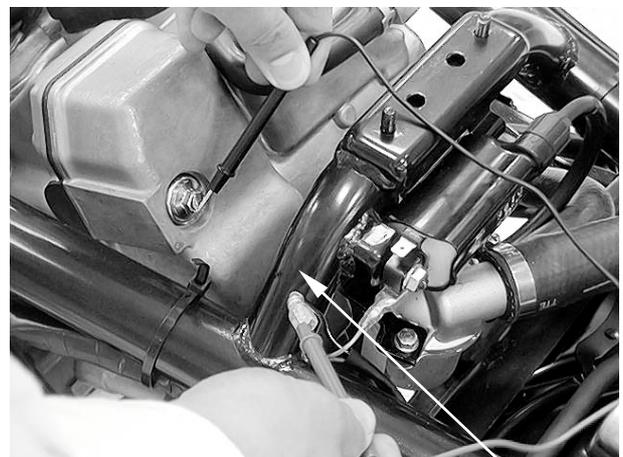
Spark Plug Cap

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.  
Connect the multimeter (+) probe to the Black/White wire and the multimeter (-) 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.



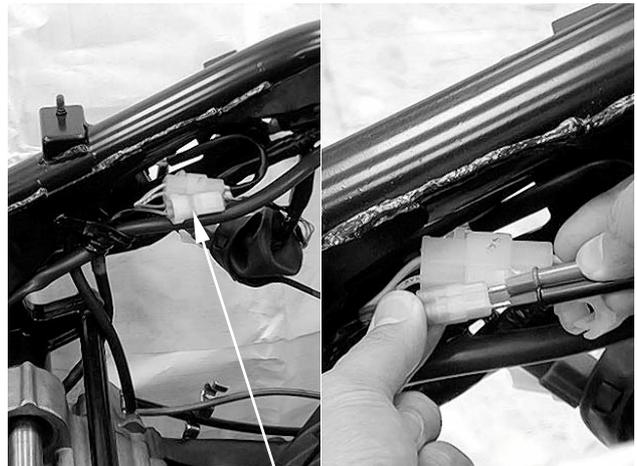
Spark Plug Cap

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### IGNITION PULSE GENERATOR INSPECTION

Remove the luggage box (page 2-3).  
Disconnect the ignition pulse generator connector.  
Measure the ignition pulse generator resistance between the Green/White wire and Blue/Yellow wire.

**Standard: 516Ω (20°C/68°F)**



Ignition Pulse Generator Connector

### IGNITION COIL REMOVAL/INSTALLATION

Remove the floorboard (page 2-6).  
Disconnect the spark plug cap from the spark plug (page 18-4).

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

Installation is in the reverse order of removal.



Spark Plug Cap

### IGNITION CONTROL MODULE REMOVAL/INSTALLATION

Remove the side body cover (page 2-8).

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



Ignition Control Module

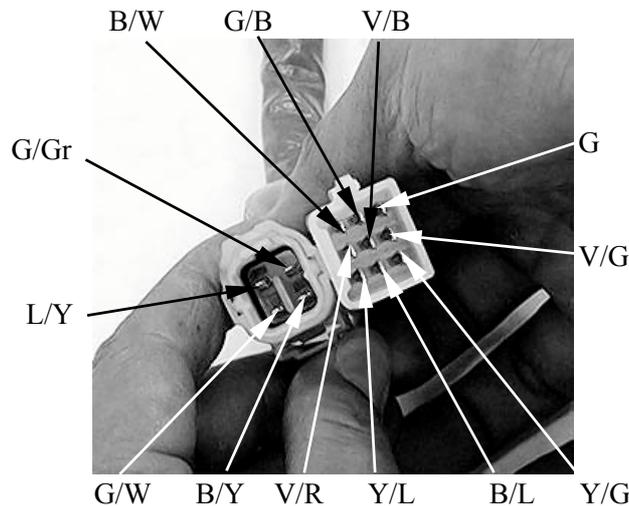
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## RESISTANCE INSPECTION

Measure the resistance between the terminals.

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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:  $\Omega$

(+) / (-)	L/Y	G/GR	G/W	B/Y	B/W	G/B	G	V/R	V/B	V/G	Y/L	B/L	Y/G
L/Y			91.6K	6.67M	6.68M		46.2K	49.5K	150K	46.2K	12.59M	49.7K	
G/GR	9.5M		9.3M				9.23M	9M	9.16M	8.97M		8.96M	
G/W	91.8K			6.67M	6.68M		47K	50.3K	150.9K	47K	12.59M	50.3K	
B/Y	15.96M		15.6M		994		15.33M	14.88M	15.04M	14.74M	3.35M	14.7M	
B/W	15.96M		15.6M	994			14.96M	14.88M	15.02M	14.74M	3.35M	14.7M	
G/B													
G	44.3K		44.9K	6.62M	6.63M			3.54K	103.9K		12.51M	3.54K	
V/R	47.5K		48.4K	6.62M	6.63M		3.53K		100.2K	3.54K	12.51M	1.99K	
V/B	148.5K		149.4K	6.75M	6.76M		102.8K	99.3K		102.7K	12.67M	101.2K	
V/G	44.3K		44.9K	6.62M	6.63M			3.55K	103.9K		12.51M	3.55K	
Y/L	8.13M		8.1M				7.81M	7.77M	7.91M	7.72M		7.72M	
B/L	47.5K		48.4K	6.62M	6.62M		3.53K	1.99K	102.2K	3.53K	12.51M		
Y/G													