

# 18. STARTING SYSTEM

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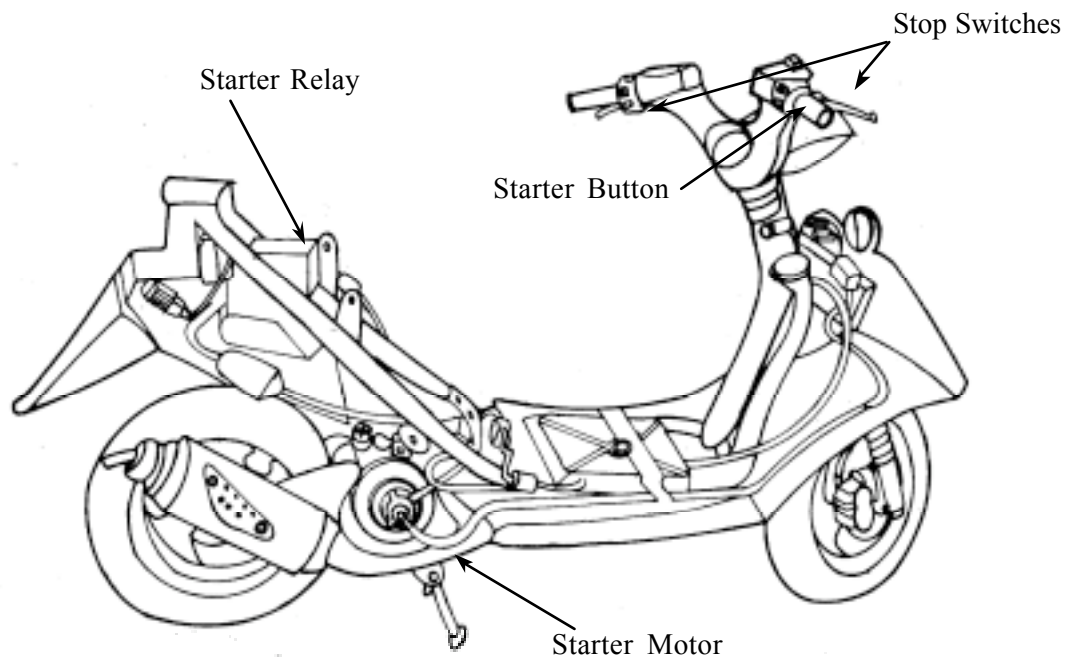
## STARTING SYSTEM

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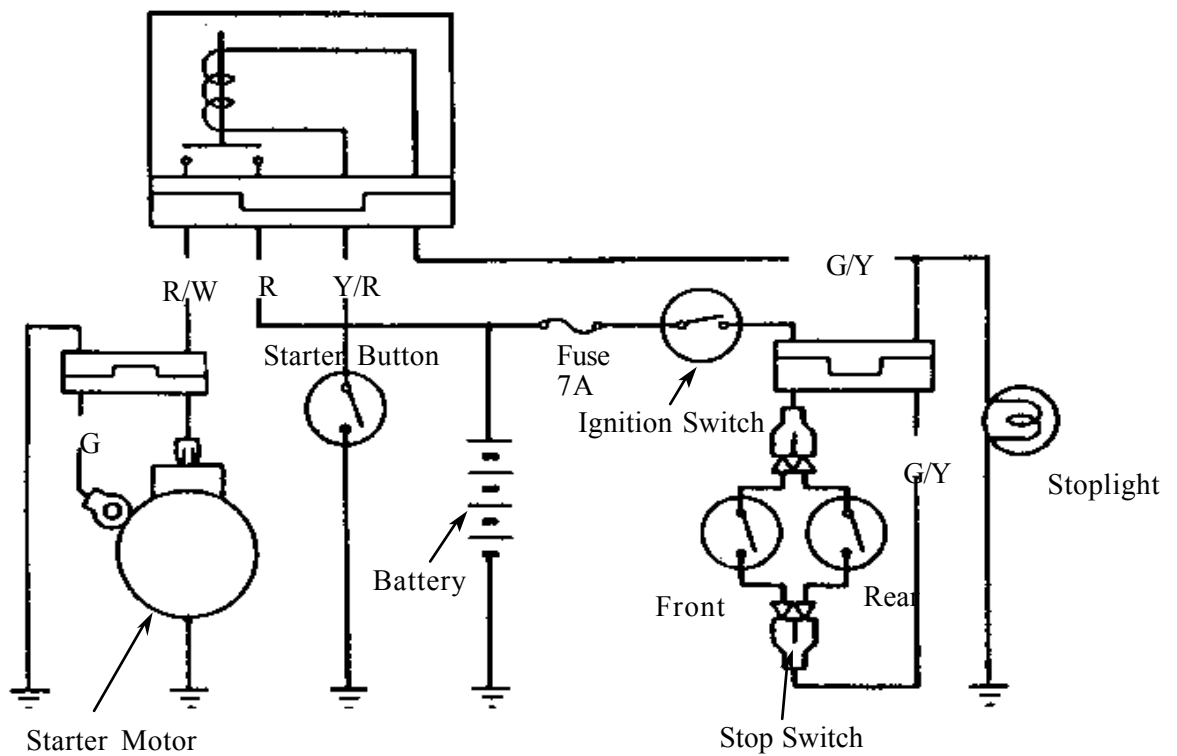
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## 18. STARTING SYSTEM

### STARTING SYSTEM LAYOUT



### STARTING CIRCUIT



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## SERVICE INFORMATION

### GENERAL INSTRUCTIONS

- The removal of starter motor can be accomplished with the engine installed.
- For the starter clutch removal, refer to page 7-14.
- After the starter clutch is installed, be sure to add the engine oil and coolant and then bleed air from the cooling system.

### TORQUE VALUES

Starter motor mounting bolt      0.7\_    1.1kg-m

### SPECIAL TOOLS

Flywheel holder

Flywheel puller

## TROUBLESHOOTING

### Starter motor won't turn

- Fuse burned out
- Weak battery
- Faulty ignition switch
- Faulty starter clutch
- Faulty front or rear stop switch
- Faulty starter relay
- Poorly connected, broken or shorted wire
- Faulty starter motor

### Lack of power

- Weak battery
- Loose wire or connection
- Foreign matter stuck in starter motor or gear

### Starter motor rotates but engine does not start

- Faulty starter pinion
- Starter motor rotates reversely
- Weak battery

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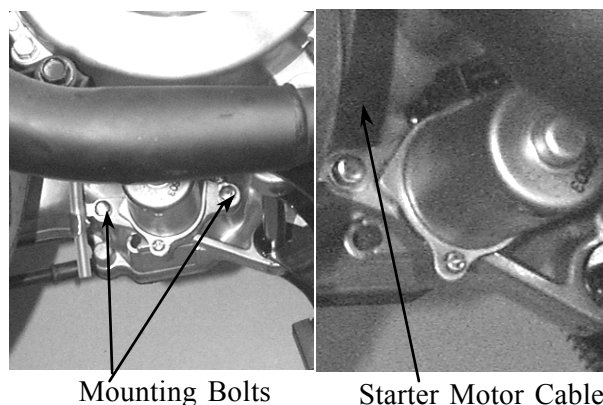
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### STARTER MOTOR

#### STARTER MOTOR REMOVAL

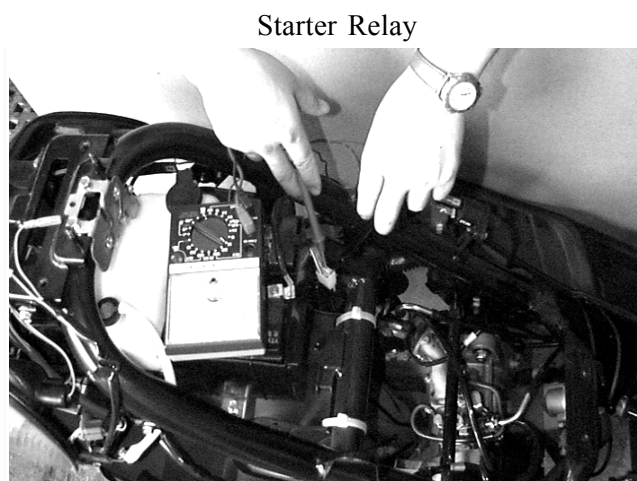
Disconnect the starter motor cable.  
Remove the two bolts attaching the starter motor and remove the starter motor.

The installation sequence is the reverse of removal.



#### STARTER RELAY INSPECTION

Remove the battery cover.  
Disconnect the starter relay coupler and then remove the starter relay.



Connect the starter relay green/yellow terminal to the 12V battery positive (+) terminal and the relay yellow/red terminal to the battery negative (-) terminal. Check for continuity between the starter relay red and red/white terminals. The relay is normal if there is continuity.

