

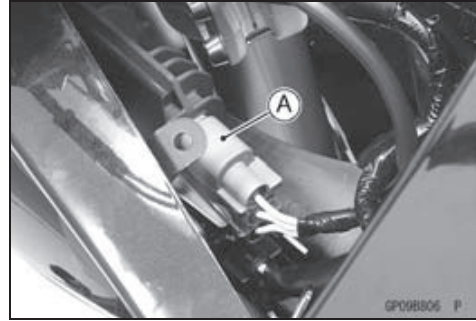
## 16-30 ELECTRICAL SYSTEM

### Charging System

- To check the alternator output voltage, do the following procedures.
  - Turn the ignition switch OFF.
  - Remove the right upper inner fairing (see Upper Inner Fairing Removal in the Frame chapter).
  - Disconnect the alternator lead connector [A].
  - Connect the hand tester as shown in the table 1.

**Special Tool - Hand Tester: 57001-1394**

- Start the engine.
- Run it at the rpm given in the table 1.
- Note the voltage readings (total 3 measurements).



**Table 1 Alternator Output Voltage at 4 000 r/min (rpm)**

Tester Range	Connections		Reading
	Tester (+) to	Tester (-) to	
AC 250 V	One W lead	Another W lead	54 V or more

- ★ If the output voltage shows the value in the table, the alternator operates properly. The regulator/rectifier is damaged.
- ★ If the output voltage shows a much lower reading than that given in the table, stop the engine and inspect the stator coil resistance.
- Check the stator coil resistance as follows.
  - Stop the engine.
  - Connect the hand tester as shown in the table 2.

**Special Tool - Hand Tester: 57001-1394**

- Note the readings (total 3 measurements).

**Table 2 Stator Coil Resistance at 20°C (68°F)**

Tester Range	Connections		Reading
	Tester (+) to	Tester (-) to	
$\times 1 \Omega$	One W lead	Another W lead	0.11 ~ 0.17 $\Omega$

- ★ If there is more resistance than shown in the table, or no hand tester reading (infinity) for any two leads, the stator has an open lead and must be replaced. Much less than this resistance means the stator is shorted, and must be replaced.
- Using the highest resistance range of the hand tester, measure the resistance between each of the white leads and chassis ground.
- ★ Any hand tester reading less than infinity ( $\infty$ ) indicates a short, necessitating stator replacement.
- ★ If the stator coil has normal resistance, but the voltage check showed the alternator to be defective; then the rotor magnets have probably weakened, and the rotor must be replaced.