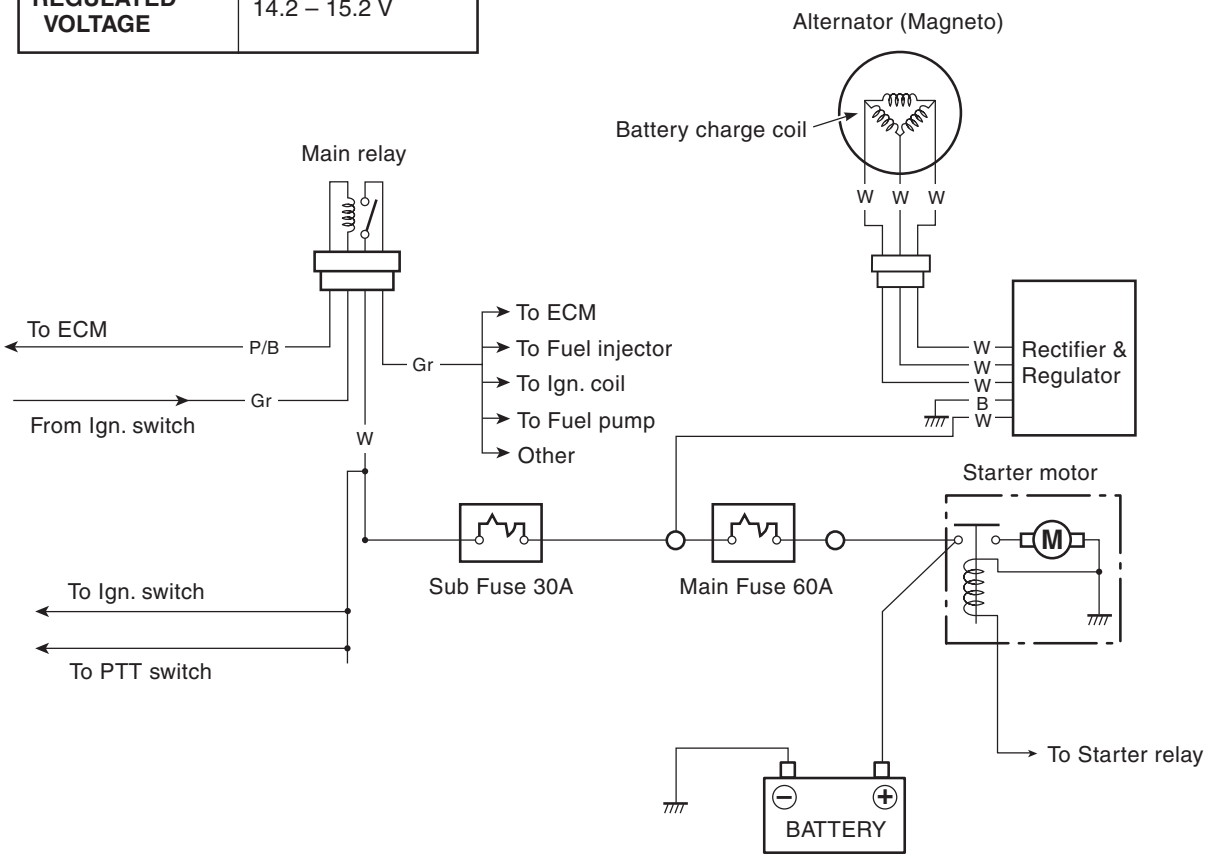
BATTERY CHARGING SYSTEM

OUTLINE

The battery charging system circuit is illustrated below.
It is composed of the BATTERY CHARGE COIL, RECTIFIER & REGULATOR and BATTERY.
The three phase AC current generated from battery charge coil is converted by the rectifier & regulator into regulated DC current which is used to charge the battery.

OUTPUT	480 W (12V 40A)
REGULATED VOLTAGE	14.2 – 15.2 V



INSPECTION

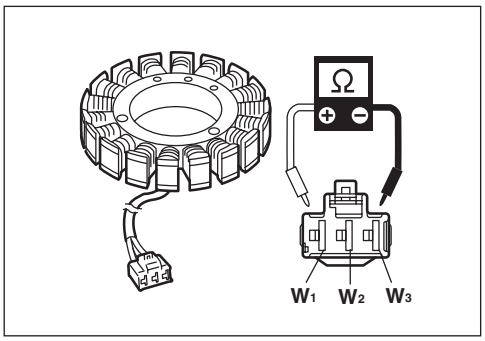
BATTERY CHARGE COIL

Measure battery charge coil resistance.

09930-99320 : Digital tester

Tester range : Ω (Resistance)

1. Disconnect battery charge coil leads from rectifier & regulator.
2. Measure resistance between leads in the combinations shown.



Battery charge coil resistance :

Terminal for tester probe connection	Resistance
White 1 to White 2	0.16 – 0.24 Ω
White 2 to White 3	
White 3 to White 1	

If out of specification, replace battery charge coil.

FUSE CASE / FUSE

09930-99320 : Digital tester

Tester range : (Continuity)

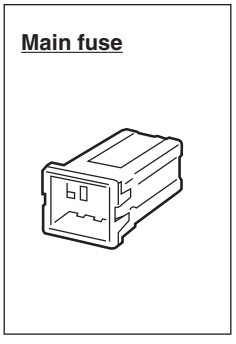
Fuse

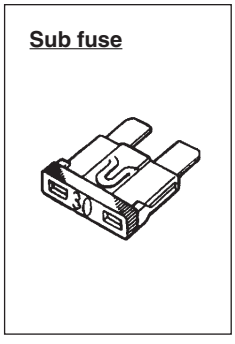
1. Remove fuse from fuse case (or fuse terminal).
2. Inspect continuity between both terminals of fuse. If no continuity is exists, replace fuse.

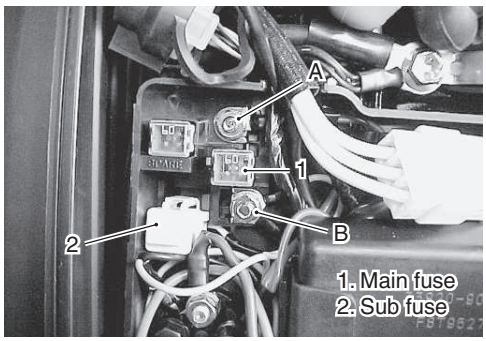
Main fuse : 60A
Sub fuse : 30A

Main fuse terminal

Inspect continuity between terminal (A) and (B).
If no continuity is exists, replace fuse terminal and/or fuse.

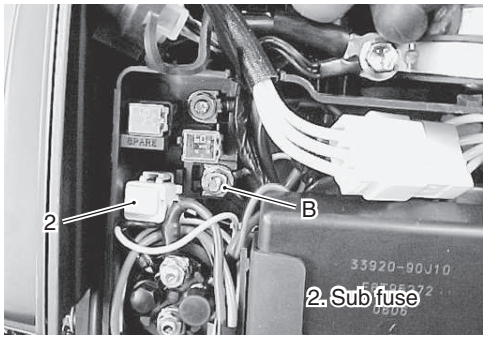


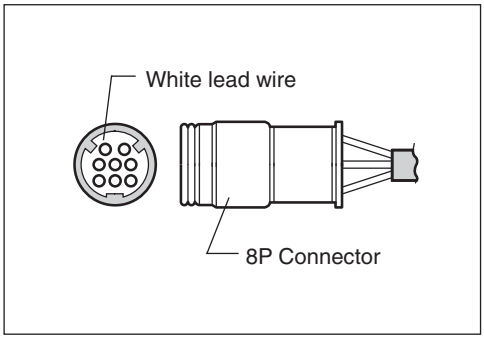




Sub fuse case

1. Disconnect white lead wire of fuse case from terminal (B).
2. Inspect continuity between White lead wire with plate terminal and White lead wire of main harness 8P connector. If no continuity is exists, replace main harness and/or fuse.





RECTIFIER & REGULATOR

09900-25010 : Pocket tester

Tester range : ×1 kΩ (Resistance)

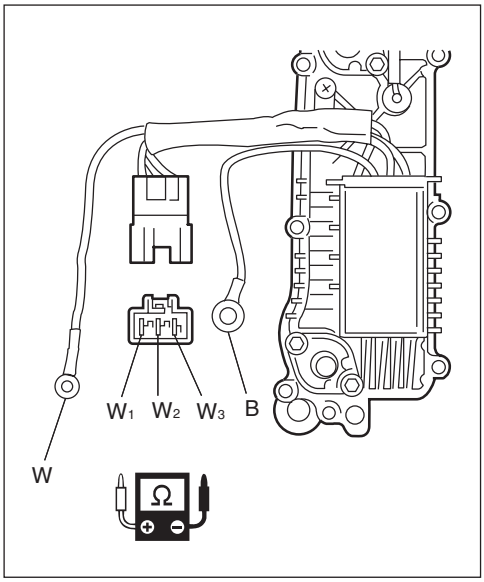
1. Disconnect all lead wires of rectifier & regulator.
2. Measure resistance between leads in combinations shown.

NOTE:
The values given below are for a SUZUKI pocket tester.
As thyristors, diodes, etc. are used inside this rectifier & regulator, the resistance values will differ when an ohmmeter other than SUZUKI pocket tester is used.

Rectifier & regulator resistance :

Unit : Approx. kΩ

	Tester probe ⊕ (Red)					
Tester probe ⊖ (Black)		Black	White	White 1	White 2	White 3
	Black		1~20	0.5~100	0.5~100	0.5~100
	White	3~60		4~80	4~80	4~80
	White 1	4~80	0.5~10		5~100	5~100
	White 2	4~80	0.5~10	5~100		5~100
	White 3	4~80	0.5~10	5~100	5~100	



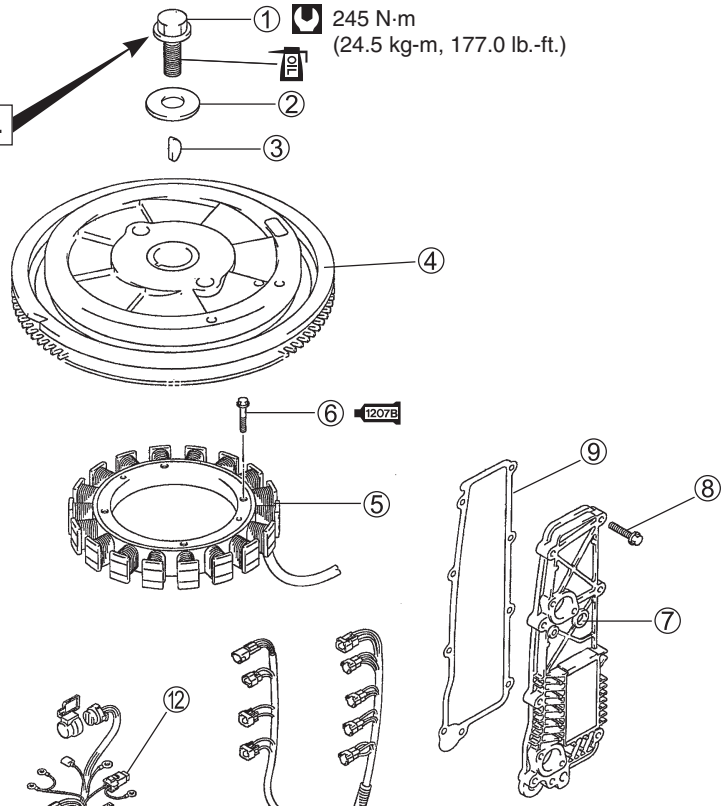
If measurement exceeds specification, replace rectifier & regulator.

REMOVAL / INSTALLATION

System construction

CAUTION

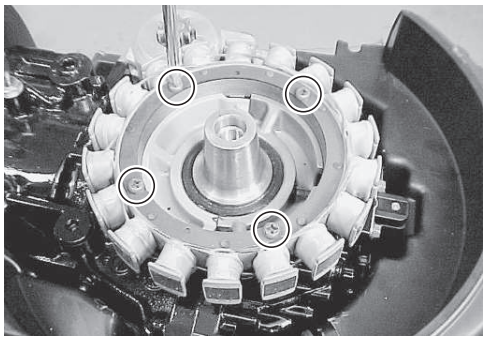
Flywheel bolt is a left hand thread.



① Bolt (1)
② Washer (1)
③ Key (1)
④ Flywheel (1)
⑤ Battery charge coil (1)
⑥ Screw (4)
⑦ Rectifier & regulator (1)
⑧ Bolt (9)
⑨ Gasket
⑩ Main harness
⑪ Main fuse 60A
⑫ Sub fuse 30A

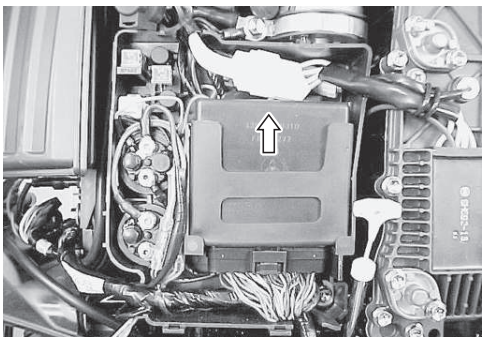
REMOVAL

Prior to removing electrical parts :
- **Disconnect battery cables from battery.**



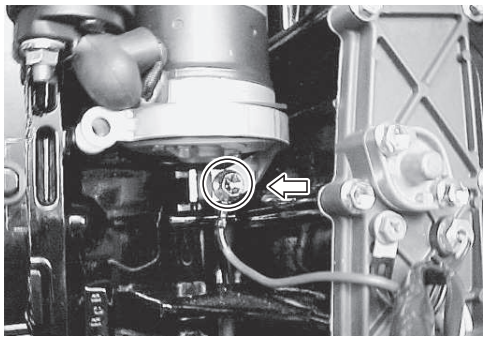
Battery charge coil

1. Remove flywheel. (See page 3-51)
2. Remove four screws securing battery charge coil.
3. Disconnect battery charge coil lead wire connector from rectifier & regulator.
4. Remove battery charge coil.

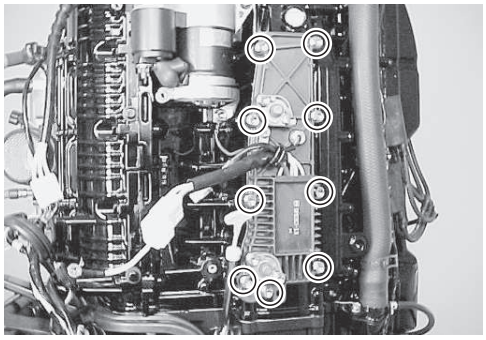


Rectifier & regulator

1. Remove electric parts holder. (See page 4-25)
2. Remove bolt securing ground lead wire of Rectifier & regulator.



3. Remove bolts securing exhaust cover (Rectifier & regu lator).
4. Remove exhaust cover with rectifier & regulator.



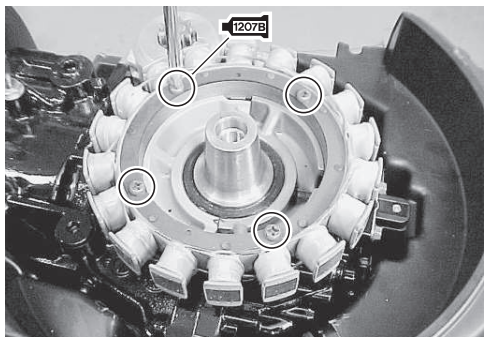
INSTALLATION

Installation is reverse order of removal with special attention to the following step.

Battery charge coil

Apply Suzuki Bond to coil securing screws.

1207B **99000-31140 : Suzuki Bond 1207B**



Wire routing

Check wire routing. (See page 10-2 to 10-7)