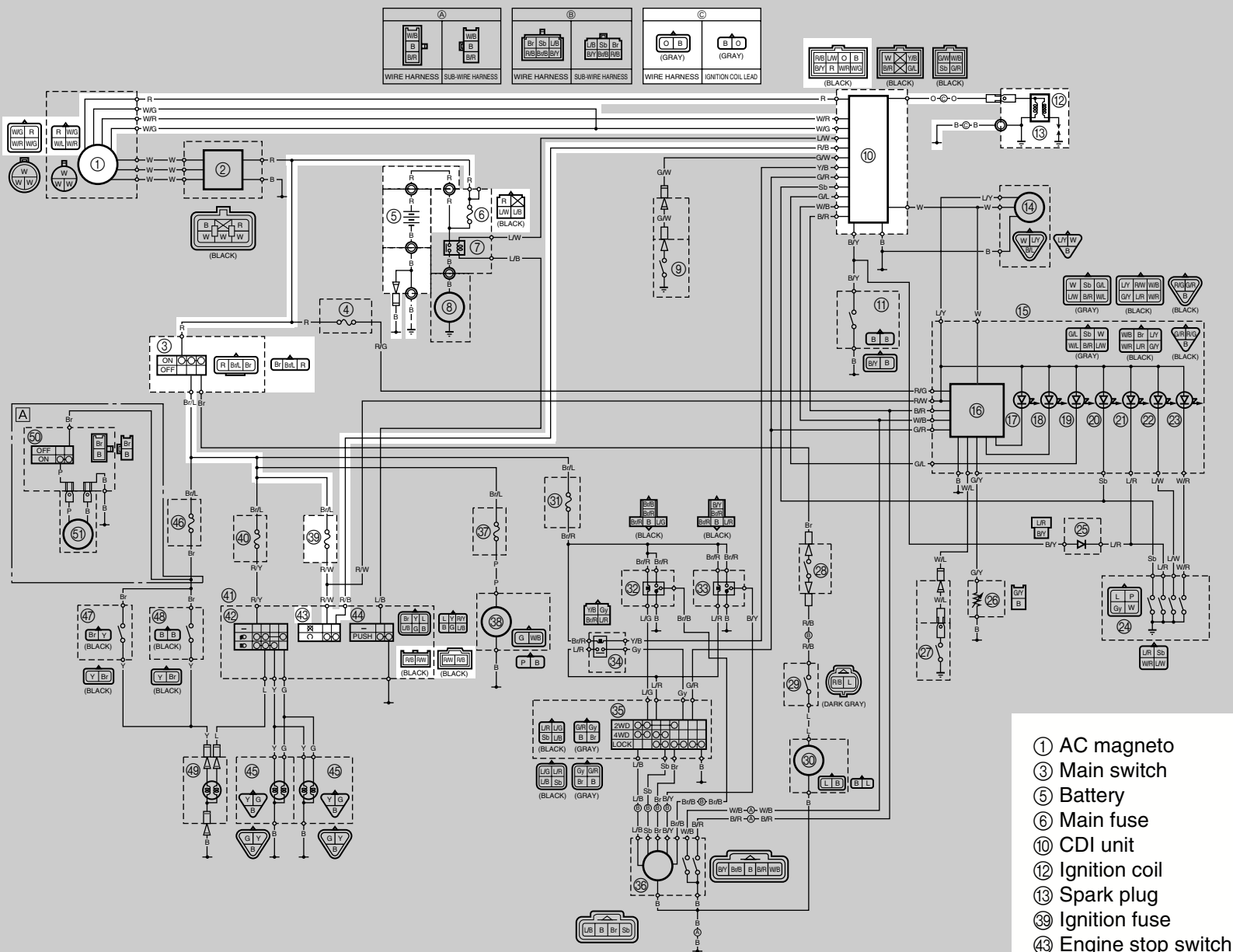
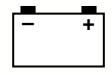


IGNITION SYSTEM CIRCUIT DIAGRAM

IGNITION SYSTEM

ELEC


- ① AC magneto
- ③ Main switch
- ⑤ Battery
- ⑥ Main fuse
- ⑩ CDI unit
- ⑫ Ignition coil
- ⑬ Spark plug
- ③⑨ Ignition fuse
- ④③ Engine stop switch



EB802010

TROUBLESHOOTING

IF THE IGNITION SYSTEM FAILS TO OPERATE (NO SPARK OR INTERMITTENT SPARK):

Procedure

Check:

- 1.Fuse (main, ignition)
- 2.Battery
- 3.Spark plug
- 4.Ignition spark gap
- 5.Spark plug cap resistance
- 6.Ignition coil resistance
- 7.Engine stop switch
- 8.Main switch
- 9.Pickup coil resistance
- 10.Charging/rotor rotation direction detection coil resistance
- 11.Wiring connection (the entire ignition system)

NOTE:

- Remove the following part(s) before troubleshooting:
 - 1)Seat
 - 2)Fuel tank side panels
 - 3)Front carrier
 - 4)Front fender
- Use the following special tool(s) for troubleshooting.



Dynamic spark tester:

P/N. YM-34487

Ignition checker:

P/N. 90890-06754

Pocket tester:

P/N. YU-03112, 90890-03112

EB802011

1.Fuse (main, ignition)

Refer to "CHECKING THE SWITCH".



CONTINUITY

EB802012

2.Battery

- Check the battery condition.
Refer to "CHECKING THE BATTERY" in CHAPTER 3.

Open-circuit voltage:
12.8 V or more at 20 °C (68 °F)



CORRECT

3.Spark plug

- Check the spark plug condition.
- Check the spark plug type.
- Check the spark plug gap.
Refer to "CHECKING THE SPARK PLUG" in CHAPTER 3.

NO CONTINUITY



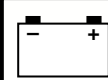
Replace the fuse.

INCORRECT



- Clean the battery terminals.
- Recharge or replace the battery.

Standard spark plug:
DPR8EA-9/NGK



Spark plug gap:
0.8 ~ 0.9 mm (0.03 ~ 0.04 in)



CORRECT

INCORRECT

Repair or replace the spark plug.

4. Ignition spark gap

- Disconnect the spark plug cap from the spark plug.
- Connect the dynamic spark tester ① as shown.
- ② Spark plug cap
- ③ Spark plug
- Turn the main switch to "ON".
- Check the ignition spark gap.
- Crank the engine by pushing the starter switch, and increase the spark gap until a misfiring occurs.



Minimum spark gap:
6.0 mm (0.24 in)



OUT OF SPECIFICATION
OR NO SPARK

MEETS SPECIFICATION

The ignition system is not faulty.

5. Spark plug cap resistance

- Remove the spark plug cap.
- Connect the pocket tester ($\Omega \times 1k$) to the spark plug cap.

OUT OF SPECIFICATION

Replace the spark plug cap.

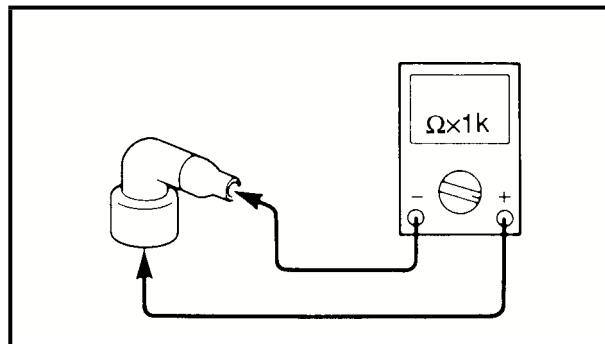
- Check that the spark plug cap has the specified resistance.

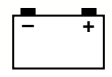


Spark plug cap resistance:
10 k Ω at 20 °C (68 °F)



MEETS
SPECIFICATION





6. Ignition coil resistance

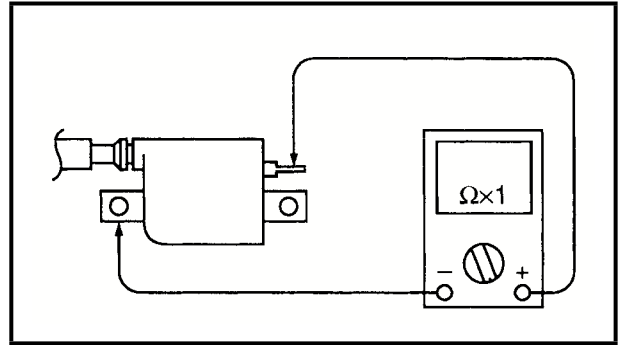
- Disconnect the ignition coil connector from the wire harness.
- Connect the pocket tester ($\Omega \times 1$) to the ignition coil.

Tester (+) lead → Orange lead terminal
Tester (–) lead → Ignition coil base

- Check that the primary coil has the specified resistance.



Primary coil resistance:
0.18 ~ 0.28 Ω at 20 °C (68 °F)



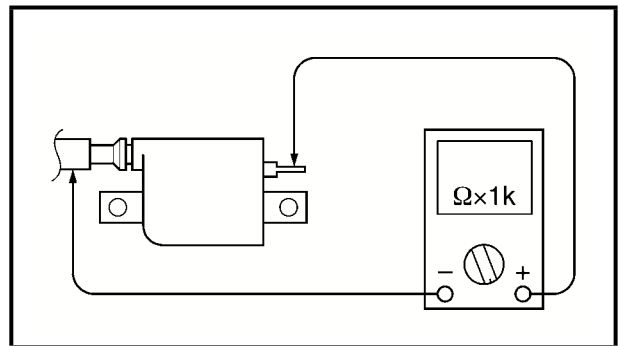
- Connect the pocket tester ($\Omega \times 1k$) to the ignition coil.


Tester (+) lead → Orange lead terminal
Tester (–) lead → Spark plug lead

- Check that the secondary coil has the specified resistance.



Secondary coil resistance:
6.32 ~ 9.48 k Ω at 20 °C (68 °F)



 BOTH MEET SPECIFICATION

OUT OF SPECIFICATION

Replace the ignition coil.

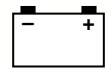
7. Engine stop switch

Refer to "CHECKING THE SWITCH".

 CORRECT

INCORRECT

Replace the handlebar switch (left).



8. Main switch

Refer to "CHECKING THE SWITCH".

INCORRECT



CORRECT

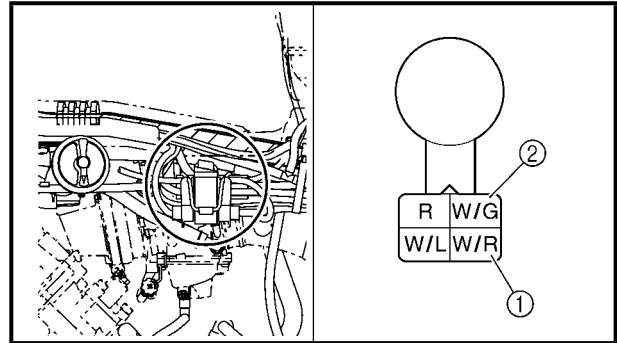
Replace the main switch.

9. Pickup coil resistance

- Disconnect the AC magneto coupler from the wire harness.
- Connect the pocket tester ($\Omega \times 100$) to the pickup coil terminal.

Tester (+) lead → White/Red terminal ①

Tester (-) lead → White/Green terminal ②



- Check the pickup coil for the specified resistance.



Pickup coil resistance:
459 ~ 561 Ω at 20 °C (68 °F)
(White/Red – White/Green)

OUT OF SPECIFICATION

Replace the pickup coil/stator assembly.



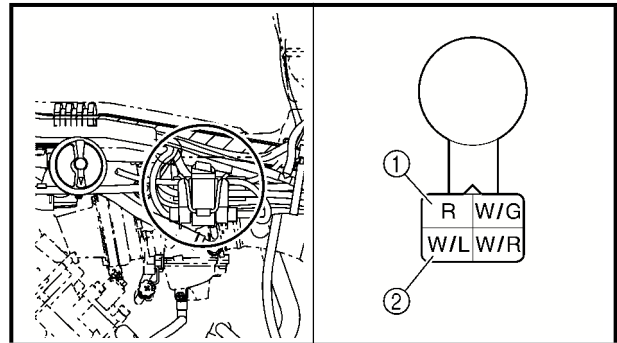
MEETS
SPECIFICATION

10. Charging/rotor rotation direction detection coil resistance

- Disconnect the AC magneto coupler from the wire harness.
- Connect the pocket tester ($\Omega \times 100$) to the charging/rotor rotation direction detection coil terminal.

Tester (+) lead → Red terminal ①

Tester (-) lead → White/Blue terminal ②



- Check the charging/rotor rotation direction detection coil for the specified resistance.



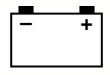
Rotor rotation direction sensing coil resistance:
0.063 ~ 0.077 Ω at 20 °C (68 °F)
(Red – White/Blue)

OUT OF SPECIFICATION

Replace the pickup coil/stator assembly.



MEETS
SPECIFICATION



11.Wiring connection

- Check the connections of the entire ignition system.
Refer to "CIRCUIT DIAGRAM".



CORRECT

Replace the CDI unit.

POOR CONNECTION



Properly connect the ignition system.