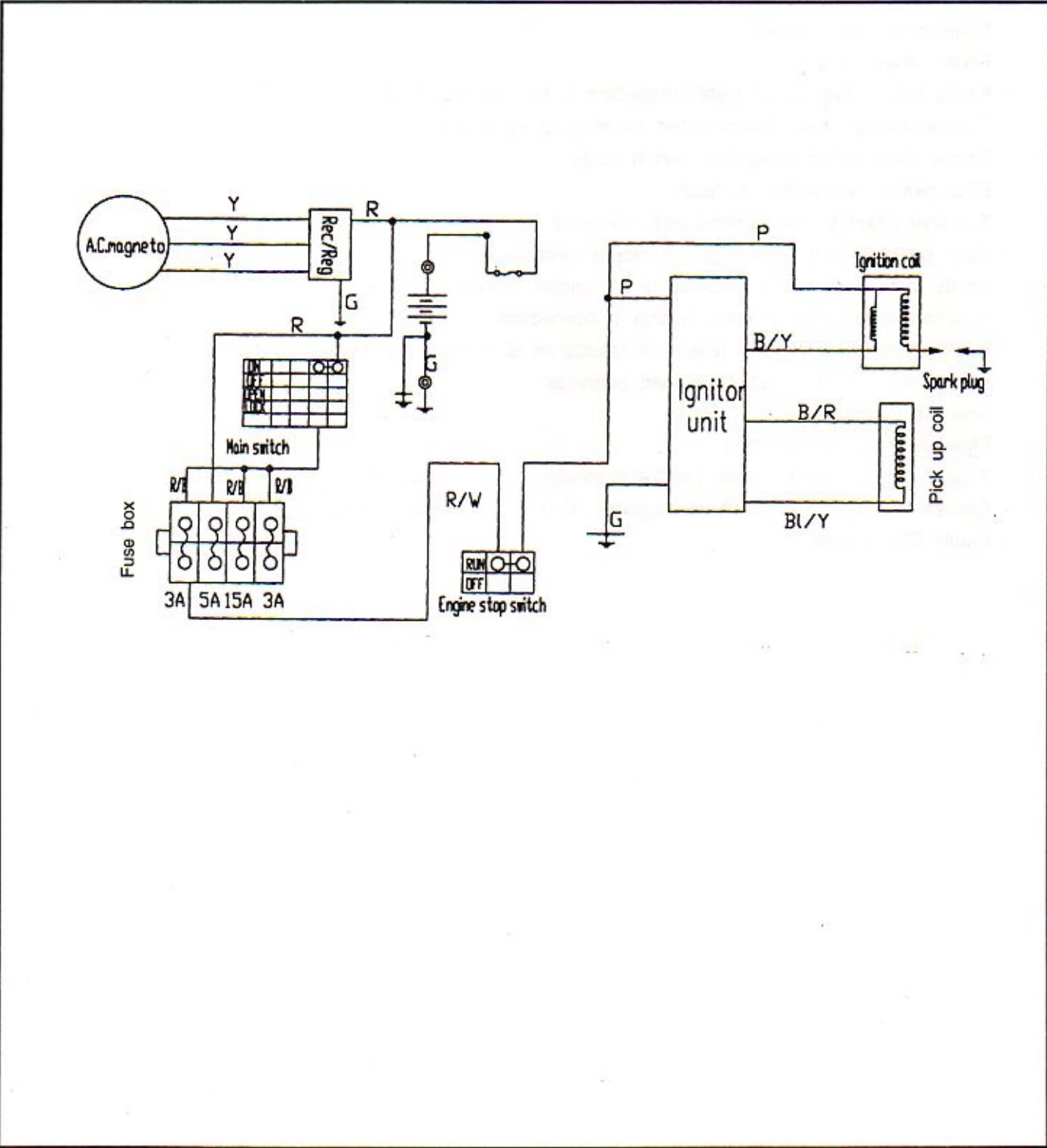


IGNITION SYSTEM TROUBLESHOOTING

No Spark, Weak or Intermittent Spark

- Spark plug gap incorrect
- Fouled spark plug
- Faulty spark plug cap or poor connection to high tension lead
- Related wiring loose, disconnected, shorted, or corroded
- Engine Stop switch or ignition switch faulty
- ETC switch misadjusted or faulty
- Terminal board or connections wet, corroded
- Poor ignition coil ground (e.g. coil mount loose or corroded)
- Faulty stator (measure resistance of all ignition related windings)
- Incorrect wiring (inspect color coding in connectors etc)
- Faulty ignition coil winding (measure resistance of primary and secondary)
- Worn magneto (RH) end Crankshaft bearings
- Sheared flywheel key
- Flywheel loose or damaged
- Trigger coil air gap too wide (where applicable) – should be .016–.030" (.4–.75 mm)
- Excessive crankshaft runout on magneto (RH) end – should not exceed .005"
- Faulty CDI module

IGNITION SYSTEM
CIRCUIT DIAGRAM



TROUBLESHOOTING

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

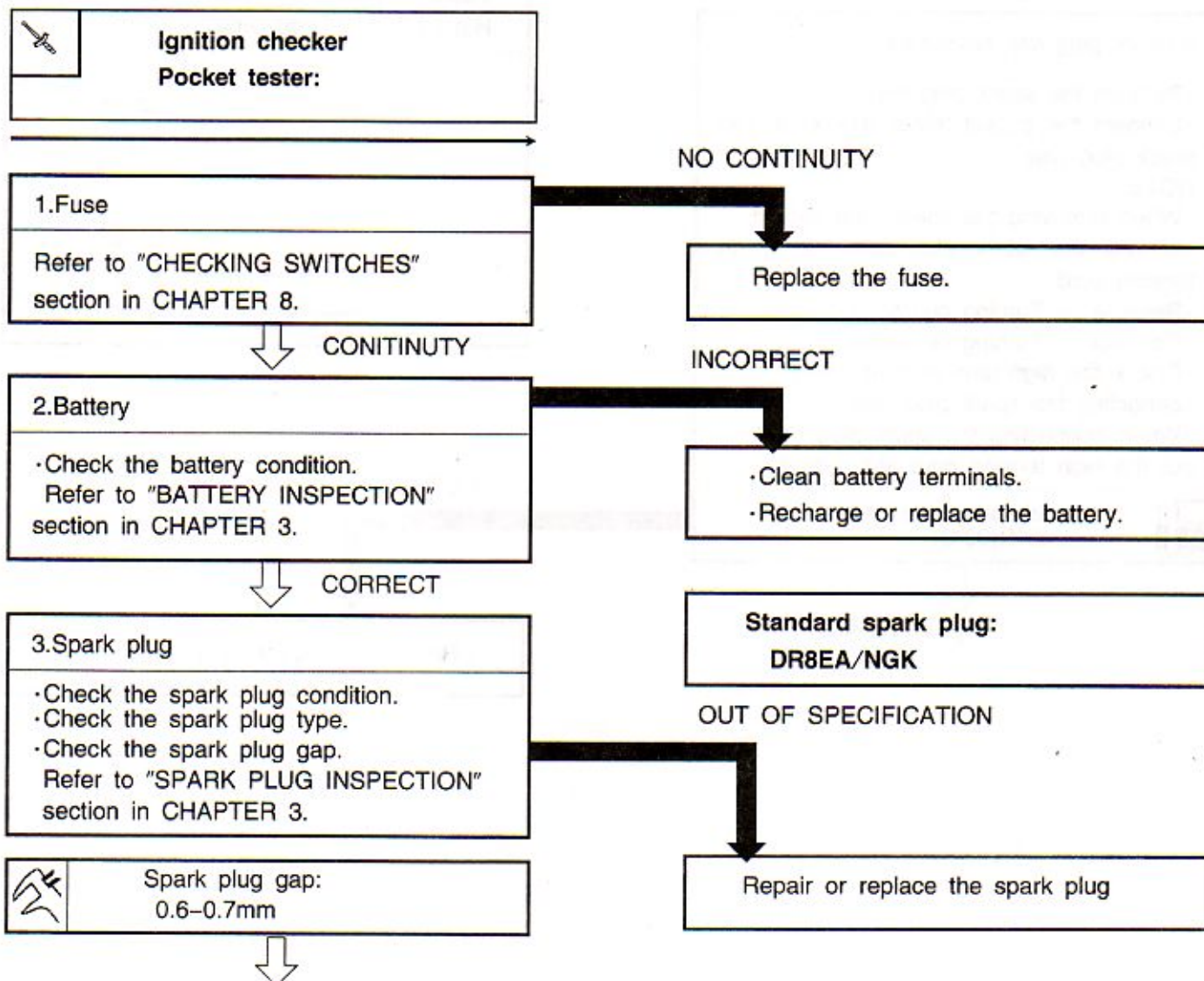
Procedure

Check:

- | | |
|-----------------------------|--------------------------|
| 1.Fuse (Main) | 7.Pickup coil resistance |
| 2.Battery | 8.Main switch |
| 3.Spark plug | 9.Engine stop switch |
| 4.Ignition spark gap | 10.Sidestand switch |
| 5.Spark plug cap resistance | 11.Wiring connection |
| 6.Ignition coil | (entire ignition system) |

NOTE:

- Remove the following parts before troubleshooting.
 - 1) Not on ATV
 - 2) Cowling body
- Use the special tools specified in the trouble shooting section.



IGNITION SYSTEM



4. Ignition spark gap

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

Minimum spark gap:
6mm (0.24 in)

OUT OF SPECIFICATION OR
NO SPARK

5. Spark plug cap resistance

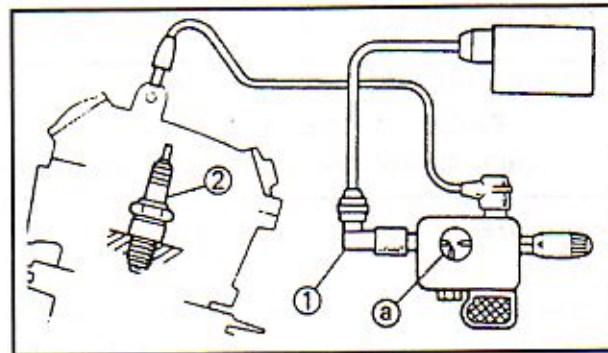
- Remove the spark plug cap.
- Connect the pocket tester ($\Omega \times 1k$) to the spark plug cap.

NOTE:

- When removing the spark plug cap, do not pull the spark plug cap from high tension cord.
- Remove → Turning counterclockwise.
- Connect → Turning clockwise.
- Check the high tension cord when connecting the spark plug cap.
- When connecting the spark plug cap, cut the high tension cord about 5mm.

Spark plug cap resistance:
5K Ω (20°C)

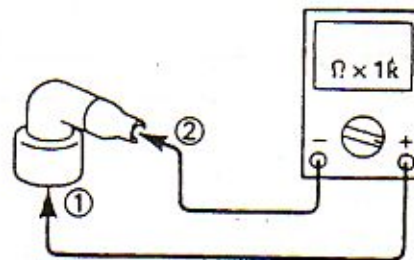
* CORRECT



MEETS SPECIFICATION

The ignition system is not faulty.

Tester (+) lead →
Spark plug side ①
Tester (-) lead →
High tension cord side ②



OUT OF SPECIFICATION

Replace the spark plug cap.



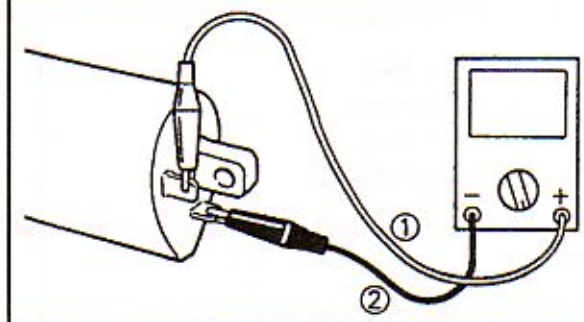
6. Ignition coil resistance

- Disconnect the ignition coil connector from the wireharness.
- Connect the pocket tester ($\Omega \times 1$) to the ignition coil.
- Check if the primary coil has the specified resistance.

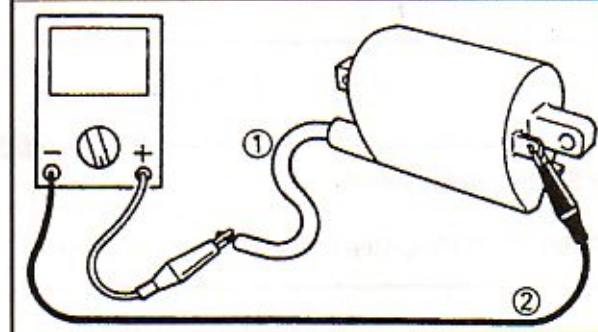


Primary coil resistance:
3.6–4.8 Ω (20°C)

Tester (+) lead →
Pink Terminal ①
Tester (–) lead →
B/Y Terminal ②



Tester (+) lead →
Spark plug lead ①
Tester (–) lead →
Pink Terminal ②



- Connect the pocket tester ($\Omega \times 1k$) to the ignition coil.
- Check the secondary has the specified resistance.



Secondary coil resistance:
0.7–14.5k Ω (20°C)



BOTH MEET
SPECIFICATION

OUT OF SPECIFICATION

Replace the ignition coil.

IGNITION SYSTEM



7. Pickup coil resistance

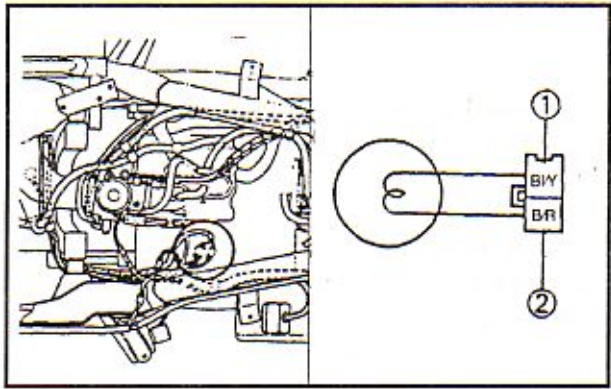
- Disconnect the pickup coil coupler from the wireharness.
- Connect the pocket tester ($\Omega \times 100$) to the pickup coil coupler.

Tester (+) lead →
BI/Y Terminal ①

Tester (-) lead →
B/R Terminal ②

- Check the pickup coil has the specified resistance.

 Primary coil resistance:
3.6–4.8 Ω (20°C)



OUT OF SPECIFICATION

Replace the pickup coil.

NO CONTINUITY

Replace the main switch.

NO CONTINUITY

Replace the right handlebar switch.

NO CONTINUITY

Replace the sidestand switch.

8.Main switch

Refer to "CHECKING SWITCHES" section in the CHAPTER 8.

CONTINUITY

9.Engine stop switch

Refer to "CHECKING SWITCHES" section

CONTINUITY

10.Sidestand switch

Refer to "CHECKING SWITCHES" section

CORRECT

11.Wiring connection

- Check the connection of the entire ignition system

Refer to "CIRCUIT DIAGRAM".

CORRECT

POOR CONNECTIONS

Correct.

Replace the ignitor unit.