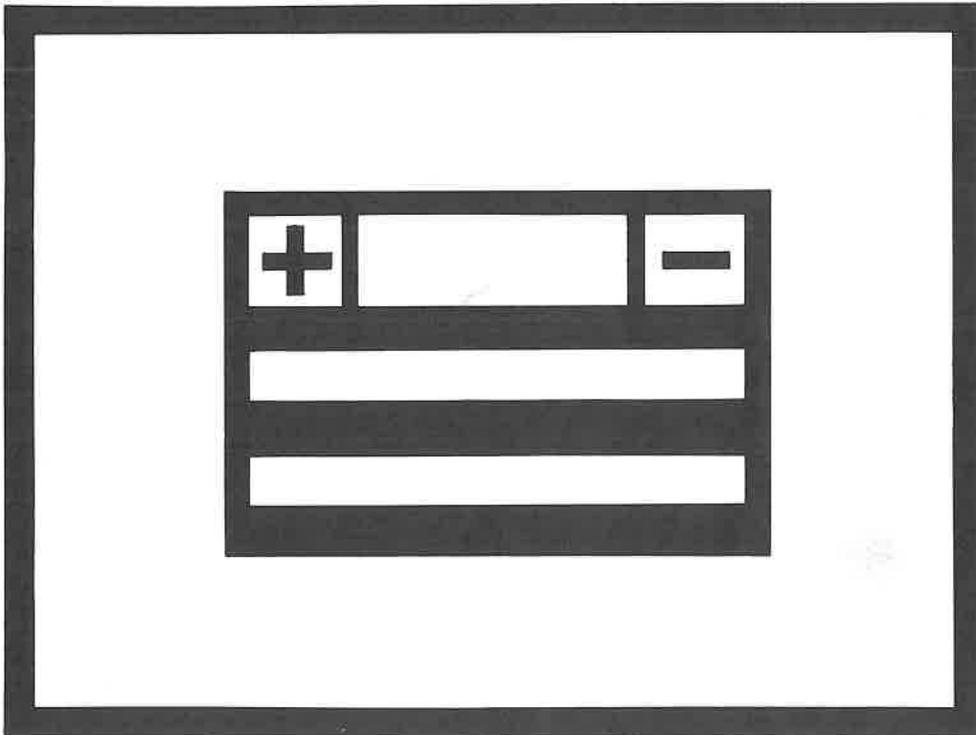




CHAPTER 6 ELECTRICAL





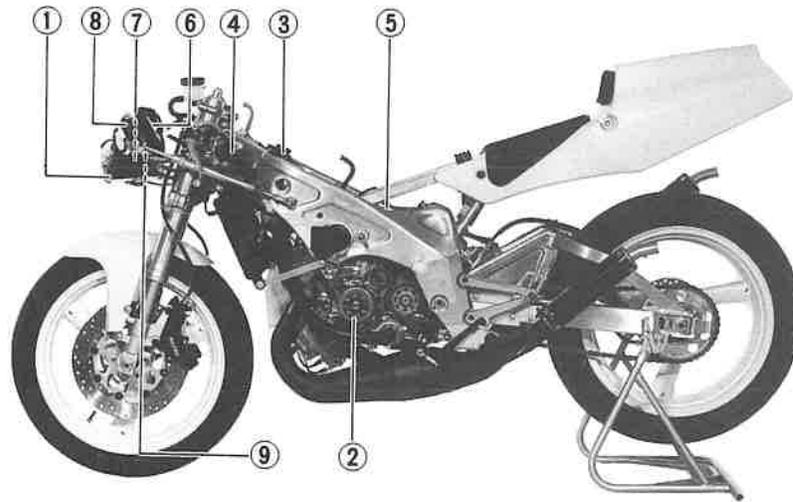
ELECTRICAL COMPONENTS AND WIRING DIAGRAM

- ① CDI unit
- ② CDI magnet
- ③ Ignition coil
- ④ Spark plug
- ⑤ "ENGINE STOP" button
- ⑥ Solenoid valve
- ⑦ Tachometer
- ⑧ Servo motor
- ⑨ Rectifier/Regulator
- ⑩ Condenser

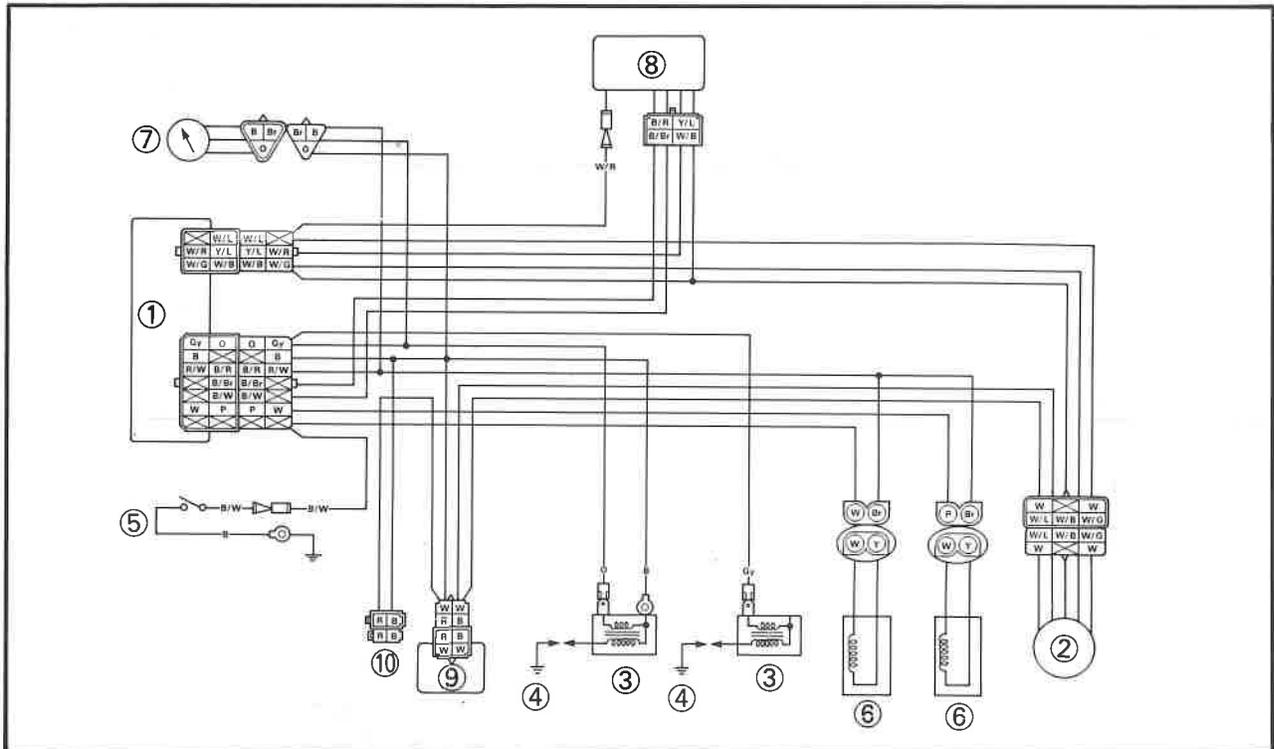
- COLOR CODE**
- B Black
 - Br Brown
 - Gy Gray
 - L Blue
 - O Orange
 - P Pink
 - R Red
 - Y Yellow
 - W White

- B/Br Black/Brown
- B/R Black/Red
- B/W Black/White
- G/W Green/White
- R/W Red/White
- W/B White/Black
- W/G White/Green
- W/L White/Blue
- W/R White/Red
- Y/L Yellow/Blue

ELECTRICAL COMPONENTS



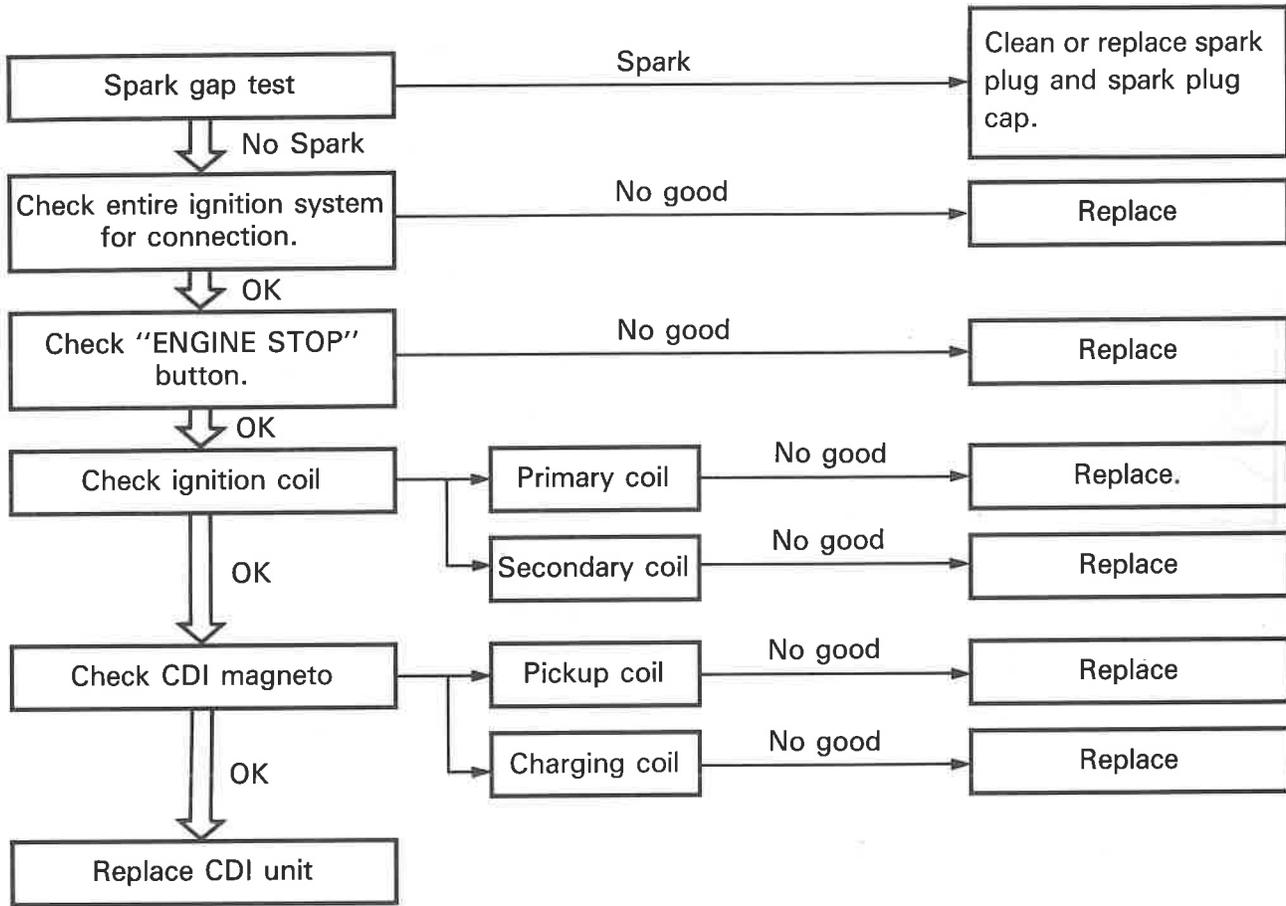
WIRING DIAGRAM



IGNITION SYSTEM

INSPECTION STEPS

Use the following steps for checking the possibility of the malfunctioning engine being attributable to ignition system failure and for checking the spark plug which will not spark.



NOTE:

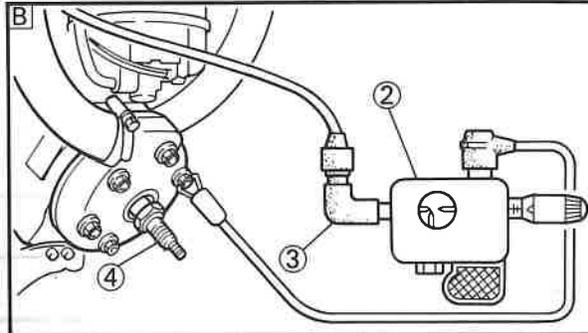
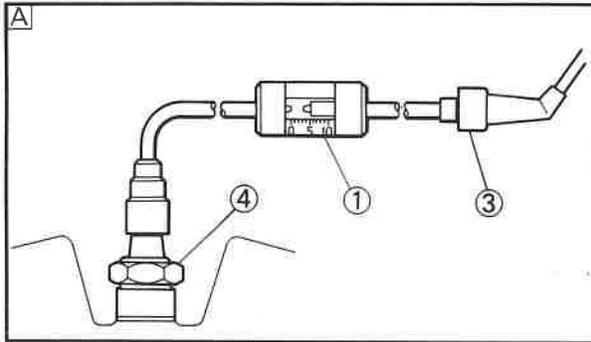
- Remove the following parts before inspection.
 - 1) Cowling
 - 2) Fuel tank
- Use the following special tools in this inspection.



Dynamic spark tester:
YM-34487
Ignition Checker:
90890-06754



Pocket Tester:
YU-03112/90890-03112



SPARK GAP TEST

1. Disconnect the spark plug cap from spark plug.
2. Connect the Dynamic Spark Tester (1) (Ignition Checker (2)) as shown.
 - Spark plug cap (3)
 - Spark plug (4)

- A** For USA and CDN
B Except for USA and CDN

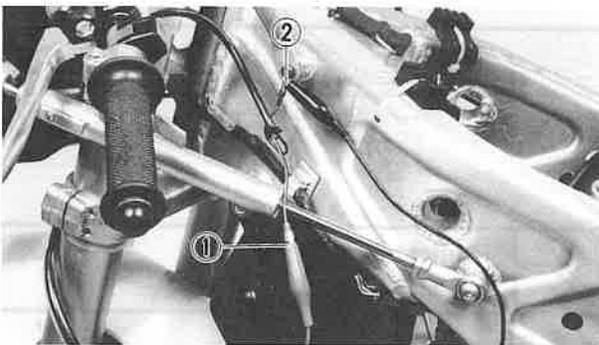
3. Start the engine.
4. Check the ignition spark gap.
5. Start engine, and increase spark gap until mis-fire occurs.



Minimum Spark Gap:
5.0 mm (0.20 in)

COUPLERS AND LEADS CONNECTION INSPECTION

1. Check:
 - Couplers and leads connection
 Rust/Dust/Looseness/Short-circuit → Repair or replace.



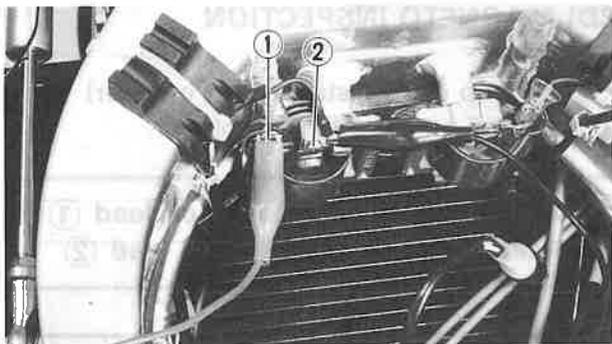
"ENGINE STOP" BUTTON INSPECTION

1. Inspect:
 - "ENGINE STOP" button conduct

Tester (+) lead → Black/White lead (1)
Tester (-) lead → Black lead (2)

Tester selector position	B/W (1)	B (2)	Tester selector position
	PUSH IN	○	
FREE			

No continuity while being pushed → Replace.
 Continuity while being freed → Replace.



IGNITION COIL INSPECTION

1. Inspect:
- Primary coil resistance
Out of Specification → Replace.

Tester (+) lead → Orange lead ①
Tester (-) lead → Black lead ②

	Primary Coil Resistance	Tester Selector Position
	0.14 ~ 0.18Ω at 20°C (68°F)	Ω × 1

= 0

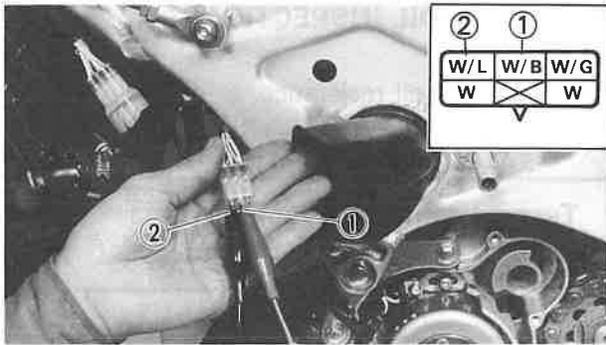


2. Inspect:
- Secondary coil resistance
Out of specification → Replace.

Tester (+) lead → Spark plug lead ①
Tester (-) lead → Black lead ②

	Secondary Coil Resistance	Tester Selector Position
	5.0 ~ 7.4kΩ at 20°C (68°F)	kΩ × 1

= 14



CDI MAGNETO INSPECTION

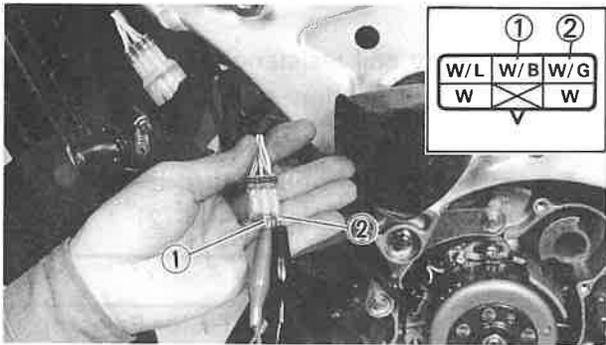
1. Inspect:

- Pick-up coil resistance (left cylinder)
Out of specification → Replace.

Tester (+) lead → White/Black lead ①
Tester (-) lead → White/Blue lead ②

x10 = 10

 Pick-up Coil Resistance	Tester Selector Position
94 ~ 140Ω at 20°C (68°F)	Ω × 100



2. Inspect:

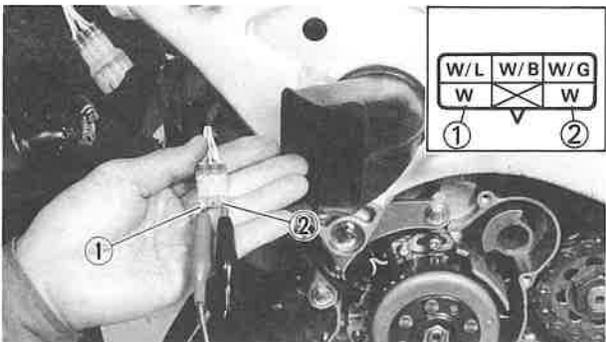
- Pick-up coil resistance (right cylinder)
Out of specification → Replace.

Tester (+) lead → White/Black lead ③
Tester (-) lead → White/Green lead ④

x10 = 10

 Pick-up Coil Resistance	Tester Selector Position
94 ~ 140Ω at 20°C (68°F)	Ω × 100

6



3. Inspect:

- Source coil resistance
Out of specification → Replace.

Tester (+) lead → White lead ①
Tester (-) lead → White lead ②

 Source Coil Resistance	Tester Selector Position
1.3 ~ 1.9Ω at 20°C (68°F)	Ω × 1

x1 = 3

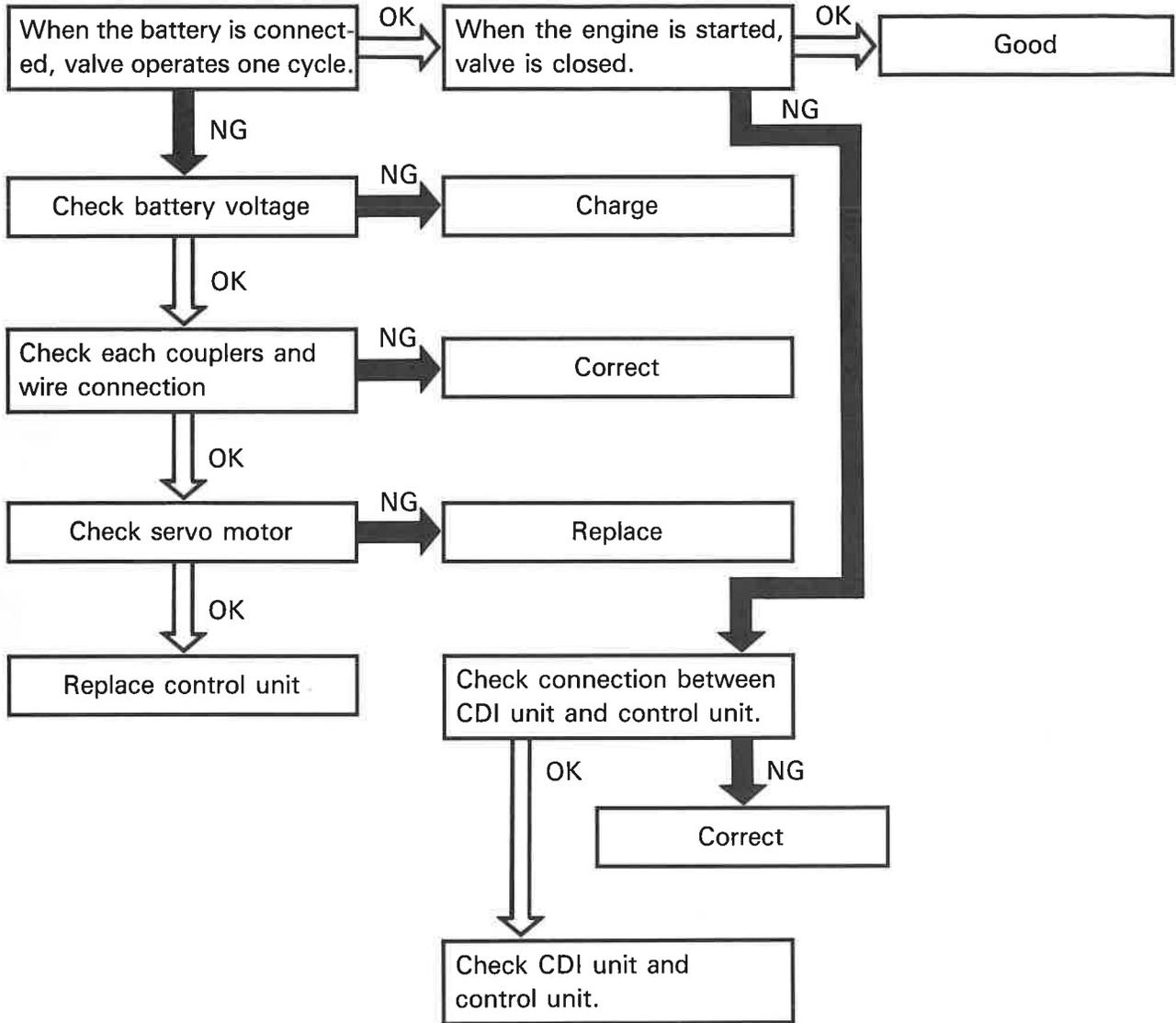


CDI UNIT INSPECTION

Check all electrical components. If no fault is found, replace the CDI unit. Then check the electrical components again.



**YPVS SYSTEM
INSPECTION STEPS**

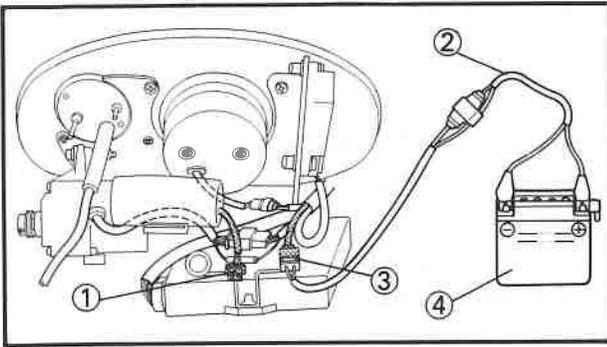


NOTE:

•Remove the following parts before inspection.

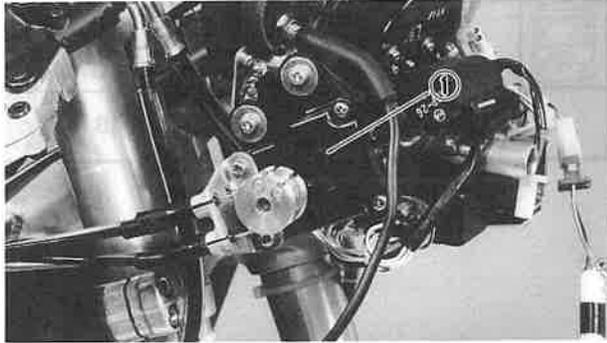
- 1) Cowling
- 2) Fuel tank

•Use 12V battery in this inspection.



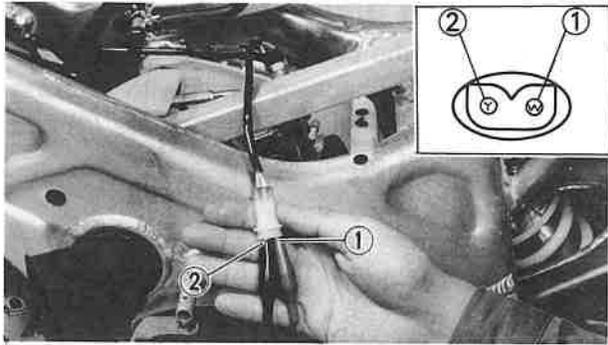
SERVOMOTOR INSPECTION

1. Disconnect the condenser lead ①
2. Connect the checking lead (with packing parts) ② between the wire harness ③ and battery (12V) ④.



3. Inspect:

- Servomotor ①
Not operate → Replace.



SOLENOID VALVE
SOLENOID VALVE INSPECTION

1. Inspect:
- Solenoid resistance
 Out of specification → Replace.

Tester (+) lead → White lead ①
 Tester (-) lead → Yellow lead ②

	Solenoid Resistance	Tester Selector Position
	52.0 ~ 63.6Ω at 20°C (68°F)	Ω × 10