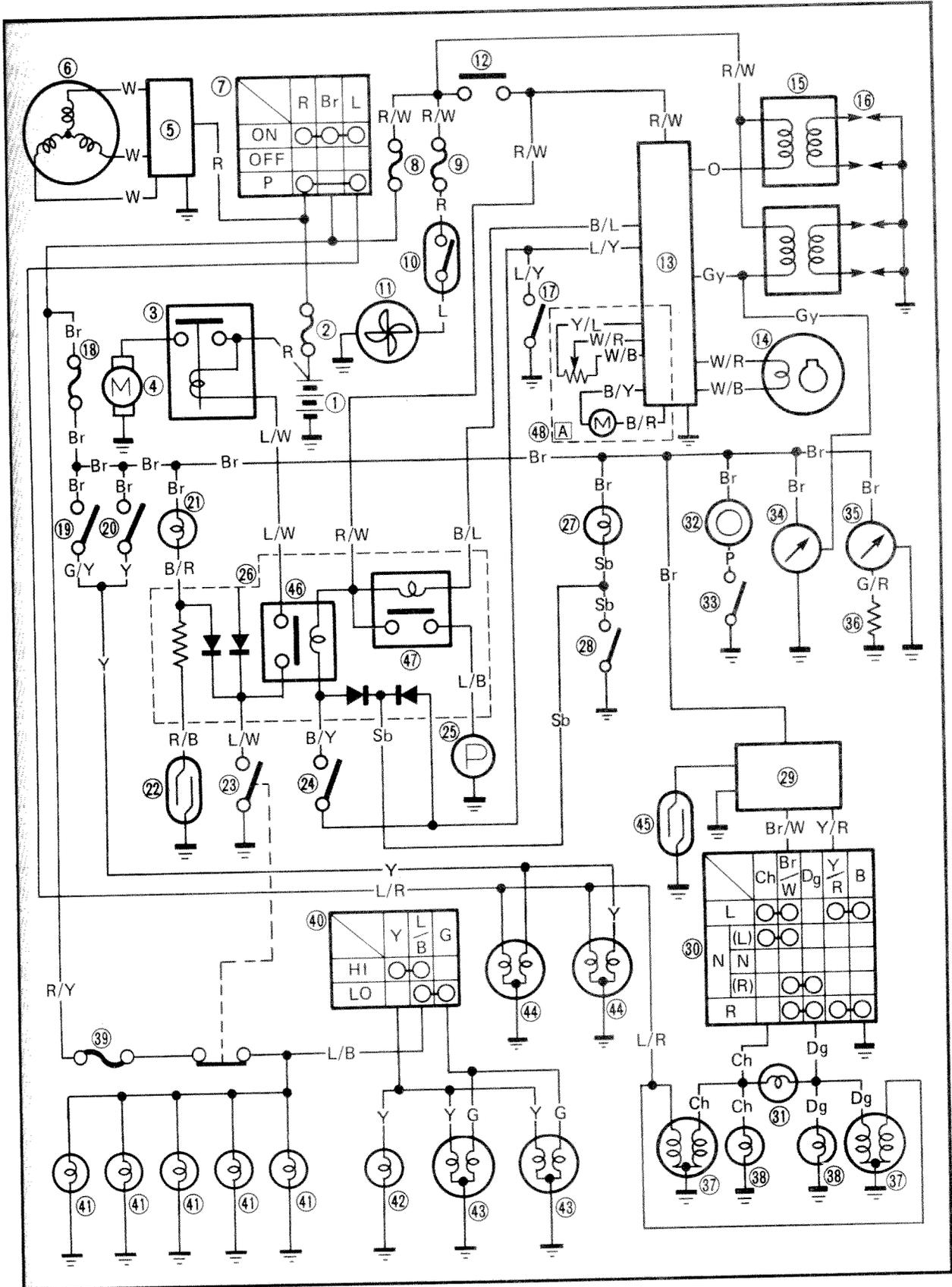




LIGHTING SYSTEM

CIRCUIT DIAGRAM



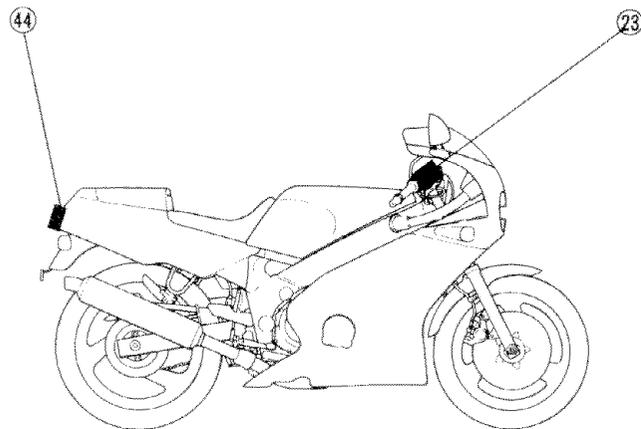
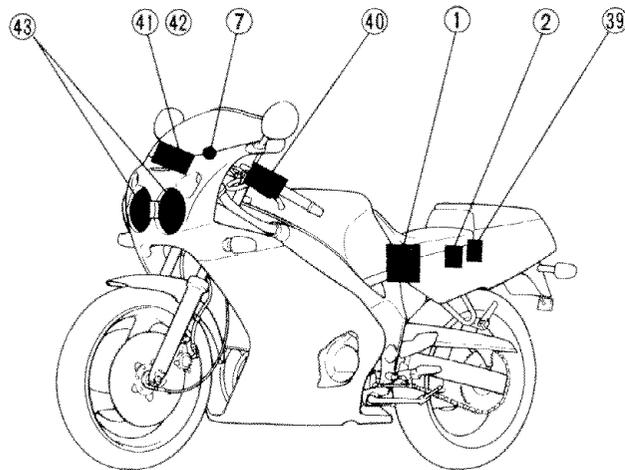


Aforementioned circuit is lighting circuit in circuit diagram.

NOTE:

For color codes, see page 8-2.

- ① Battery
- ② Fuse (main)
- ⑦ Main switch
- ⑳ "START" switch
- ⑳ Fuse (head)
- ④① "LIGHTS" (dimmer) switch
- ④① Meter light
- ④② "HIGH BEAM" indicator light
- ④③ Headlight
- ④④ Tail/brake light





TROUBLESHOOTING

HEADLIGHT "HIGH BEAM" INDICATOR LIGHT, TAILLIGHT, FRONT POSITION LIGHT AND/OR METER LIGHT DO NOT COME ON.

Procedure

Check;

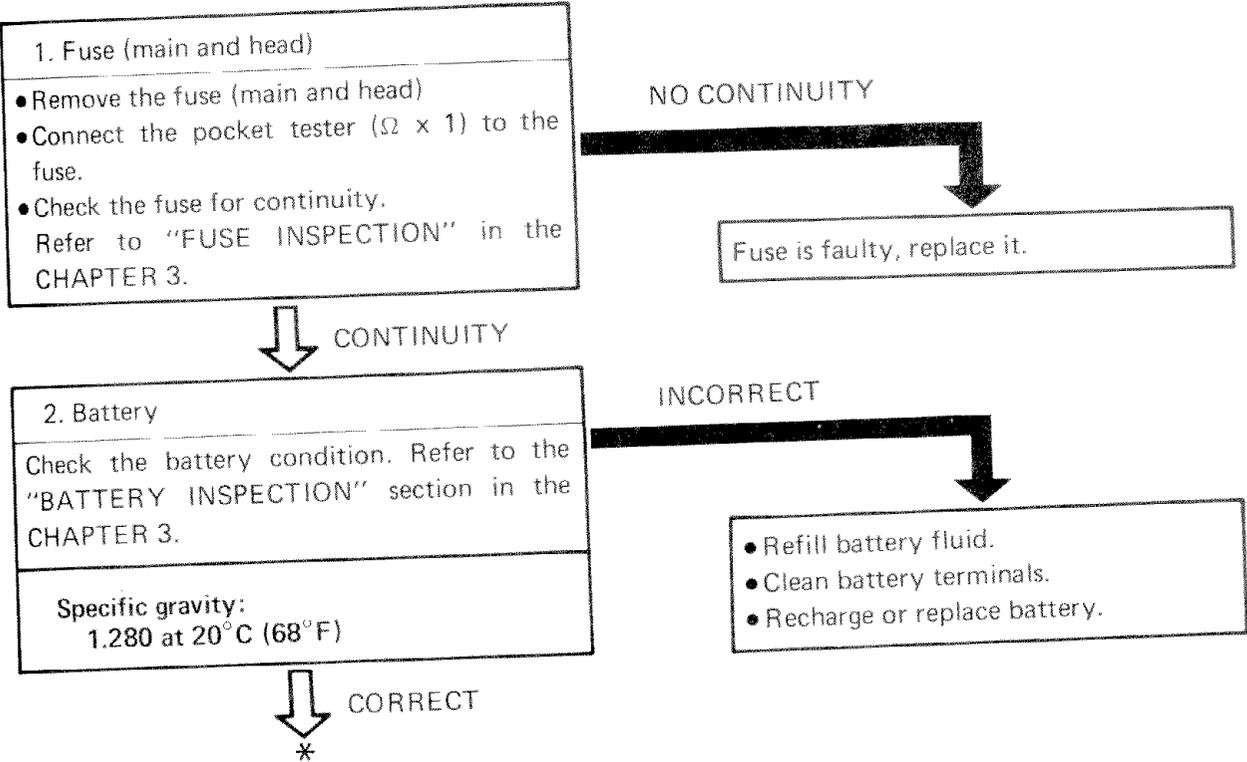
1. Fuse (main and head)
2. Battery
3. Main switch
4. "LIGHTS" (Dimmer) switch
5. Wiring connection
(Entire lighting system)

NOTE:

- Remove the following parts before troubleshooting.
 - 1) Seat
 - 2) Side cowling
 - 3) Top cover
 - 4) Air filter case
- Use the following special tool(s) in this troubleshooting.



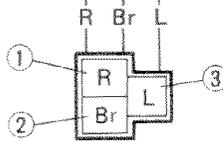
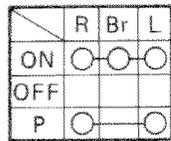
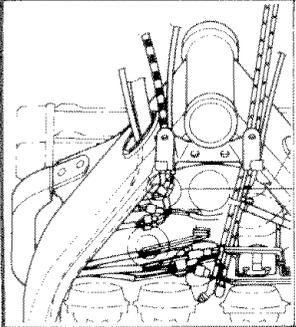
Pocket tester:
YU-03112
90890-03112





3. Main switch

- Disconnect the main switch coupler from the wireharness.
- Check the switch component for the continuity between "Red ① and Brown ②", "Red ① and Blue ③". Refer to the "CHECKING OF SWITCHES" section.



INCORRECT

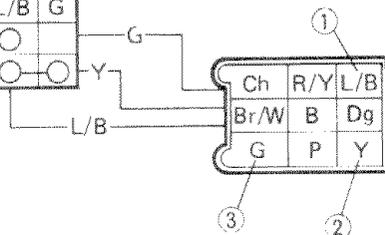
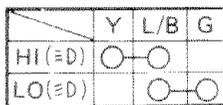
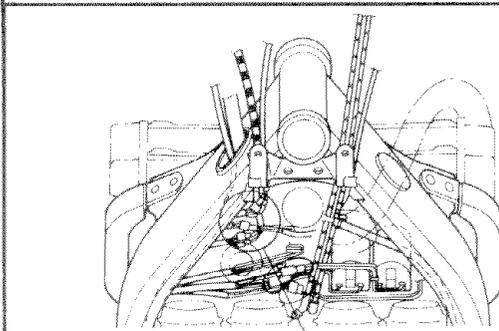
Main switch is faulty, replace it.



CORRECT

4. "LIGHTS" (dimmer) switch

- Turn the "LIGHTS" switch to "ON" position.
- Check the switch component for the continuity between "Blue/Black ① and Yellow ②" and "Blue/Black ① and Green ③". Refer to the "CHECKING OF SWITCHES" section.



INCORRECT

"LIGHTS" (dimmer) switch is faulty, replace handlebar switch (left).



CORRECT

*



5. Wiring connection

Check the entire lighting system for connections. Refer to the "WIRING DIAGRAM" section.

POOR CONNECTION



Correct.



CORRECT

Check condition of each circuit for lighting system. Refer to "LIGHTING SYSTEM CHECK" section.



LIGHTING SYSTEM CHECK

1. Headlight and "HIGH BEAM" indicator light do not come on.

1. Bulb and bulb socket

Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

NO CONTINUITY

Bulb and/or bulb socket are faulty, replace.

CONTINUITY

2. Voltage

- Connect the pocket tester (DC 20V) to the headlight and "HIGH BEAM" indicator light leads.

Head light:
 Tester (+) lead → Yellow ① or Green ② lead.
 Tester (-) lead → Black ③ lead

"HIGH BEAM" indicator light:
 Tester (+) lead → Yellow ④ lead
 Tester (-) lead → Black ⑤ lead

[A] When "LIGHTS" (dimmer) switch is "LO" position.
 [B] When "LIGHTS" (dimmer) switch is "HI" position.

OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.



- Turn the main switch to "ON".
- Turn the "LIGHTS" switch to "ON".
- Turn the "LIGHTS" (dimmer) switch to "LO" or "HI" position.
- Check for voltage (12V) on the "Green" and "Yellow" lead at bulb socket connector.

MEETS SPECIFICATION (12V)

This circuit is good.

2. Meter light does not come on.

1. Bulb and bulb socket

Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

NO CONTINUITY

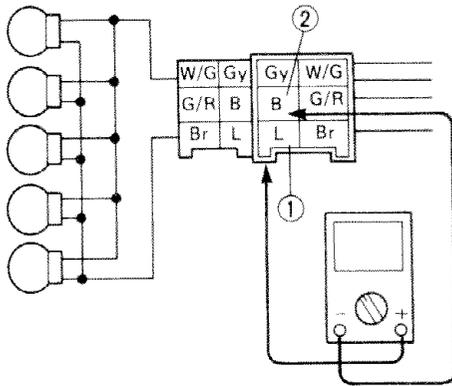
Bulb and/or bulb socket are faulty, replace.

CONTINUITY

2. Voltage

• Connect the pocket tester (DC20V) to the bulb socket leads.

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



OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.

- Turn the main switch to "ON".
- Turn the "LIGHTS" switch to "PO" or "ON".
- Check for voltage (12V) on the "Blue" lead at the bulb socket connector.

MEETS SPECIFICATION (12V)

This circuit is good.



3. Front position light does not come on.

1. Bulb and bulb socket
 Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

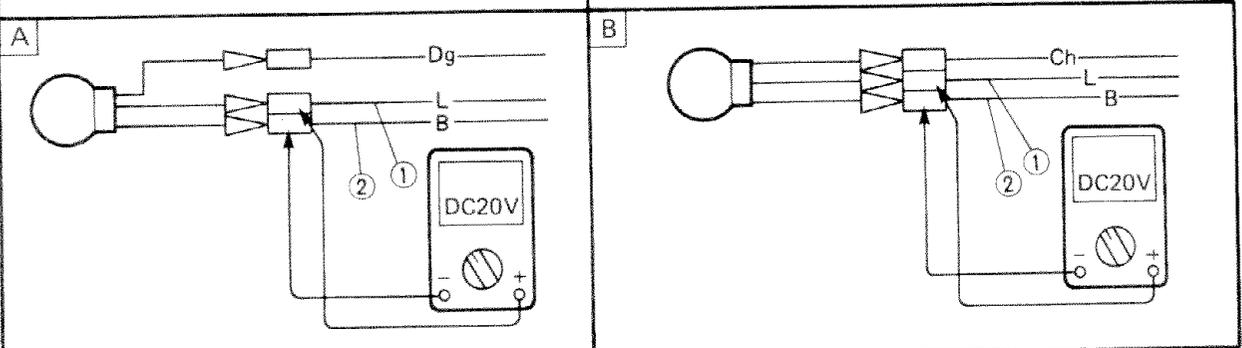
CONTINUITY

NO CONTINUITY

Bulb and/or bulb socket are faulty, replace.

2. Voltage
 • Connect the pocket tester (DC20V) to the bulb socket connector.

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



A Right side
B Left side
 • Turn the main switch to "ON" or "PO" position.
 • Check for voltage (12V) on the "Blue" lead at the bulb socket connector.

OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.

MEETS SPECIFICATION (12V)

This circuit is good.



4. Taillight does not come on.

1. Bulb and bulb socket

Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

CONTINUITY

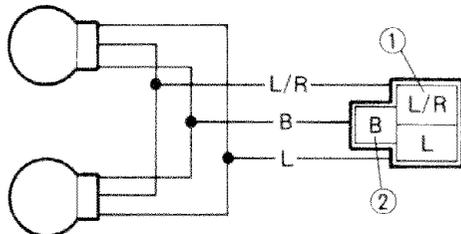
NO CONTINUITY

Bulb and/or bulb socket are faulty, replace.

2. Voltage

- Connect the pocket tester (DC20V) to the bulb socket connector.

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



OUT OF SPECIFICATION

- Turn the main switch to "ON" or "PO" position
- Check for voltage (12V) on the "Blue" lead at the bulb socket connector.

MEETS SPECIFICATION (12V)

Wiring circuit from main switch to bulb socket connector is faulty, repair.

This circuit is good.



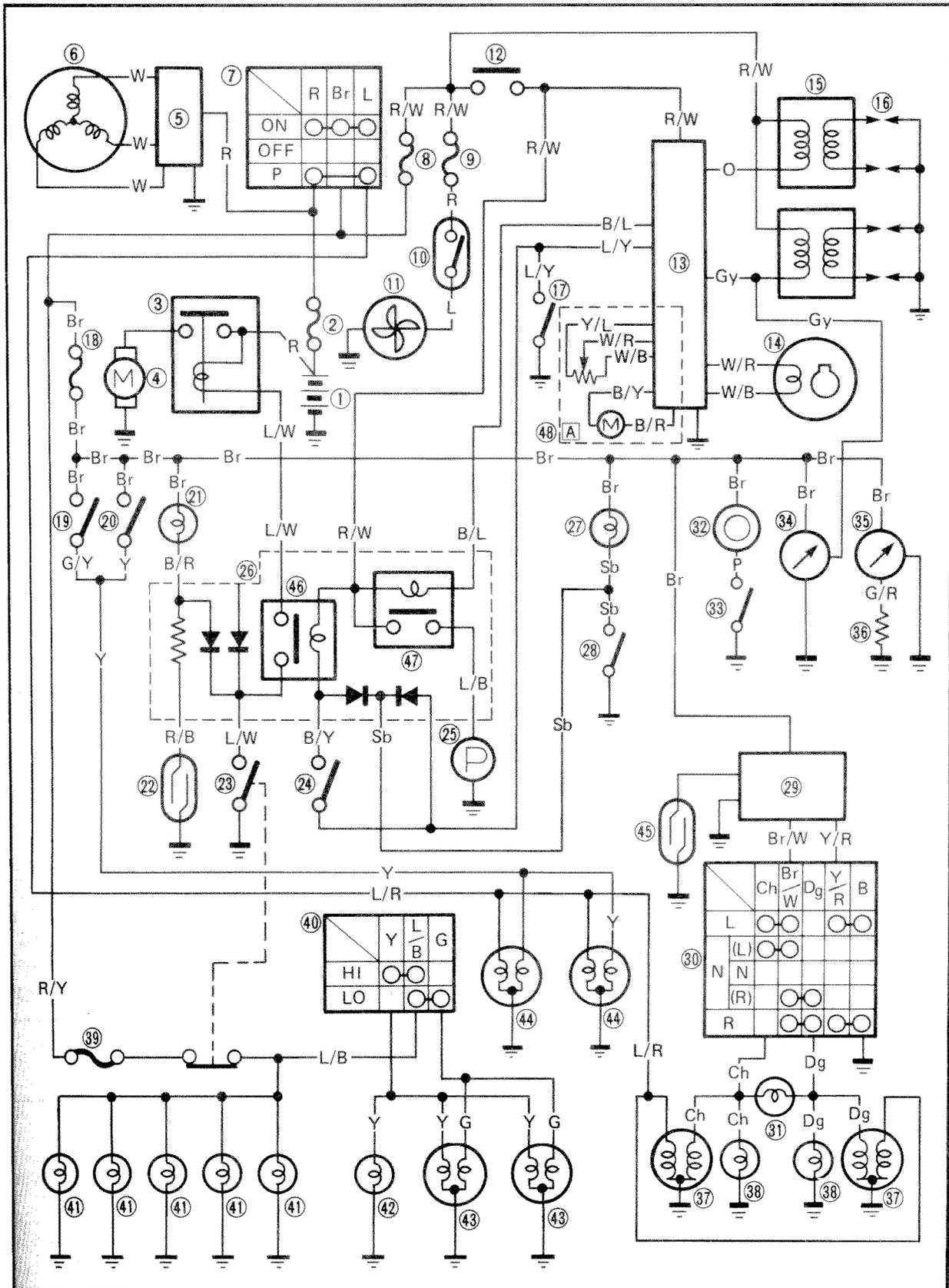
— MEMO —

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SIGNAL SYSTEM

CIRCUIT DIAGRAM

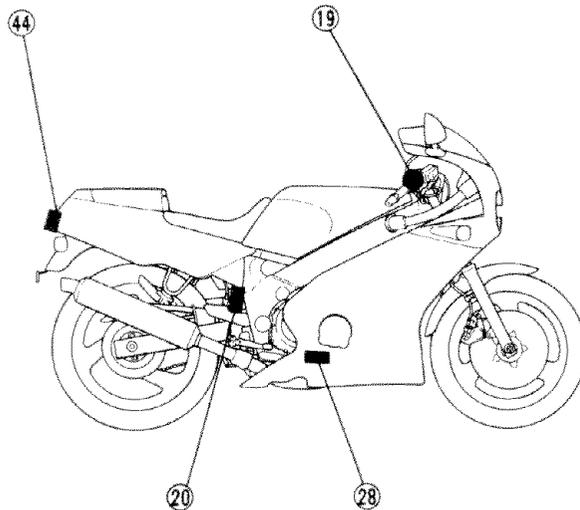
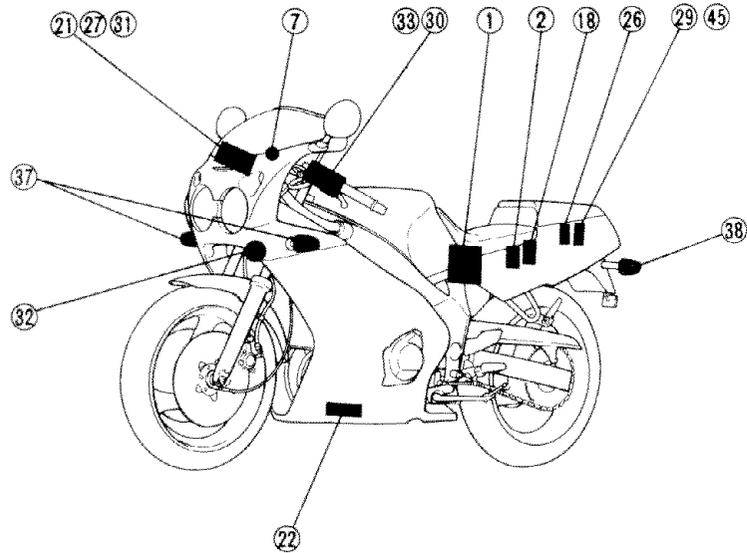


Aforementioned circuit diagram shows the signal circuit in the circuit diagram.

NOTE:

For the color codes, see page 8-2.

- | | |
|-------------------------------|---|
| ① Battery | ②⑧ Neutral switch |
| ② Fuse (main) | ②⑨ Flasher relay |
| ⑦ Main switch | ③⑩ "TURN" switch |
| ⑧ Fuse (signal) | ③① "TURN" indicator light |
| ⑨ Front brake switch | ③② Horn |
| ⑩ Rear brake switch | ③③ Horn switch |
| ⑪ "OIL LEVEL" indicator light | ③⑦ Front position light/Front flasher light |
| ⑫ Oil level switch | ③⑧ Rear flasher light |
| ⑮ Relay assembly | ④④ Tail/brake light |
| ⑯ Neutral indicator light | ④⑤ Reed switch |



TROUBLESHOOTING

- FLASHER LIGHT, BRAKE LIGHT AND/OR INDICATOR LIGHT DO NOT COME ON.
- HORN DOES NOT SOUND.
- TACHOMETER DOES NOT OPERATE.

Procedure

Check;

1. Fuse (main and signal)
2. Battery
3. Main switch
4. Wiring connection
(entire signal system)

NOTE:

- Remove the following parts before troubleshooting.
 - 1) Seat (front and rear)
 - 2) Side cover (left)
 - 3) Side cowlings
 - 4) Top cover
 - 5) Air filter case
- Use the following special tool(s) in this troubleshooting.

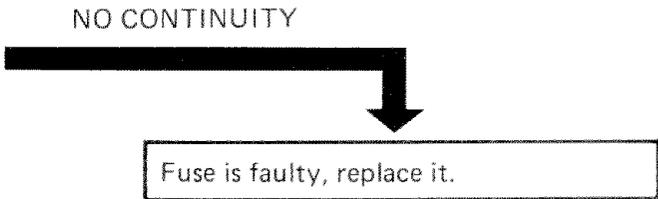


Pocket tester:
 YU-03112
 90890-03112

1. Fuse (main and signal)

- Remove the fuse (main and signal).
- Connect the pocket tester ($\Omega \times 1$) to the fuse.
- Check the fuse for continuity.

Refer to "FUSE INSPECTION" in the CHAPTER 3.



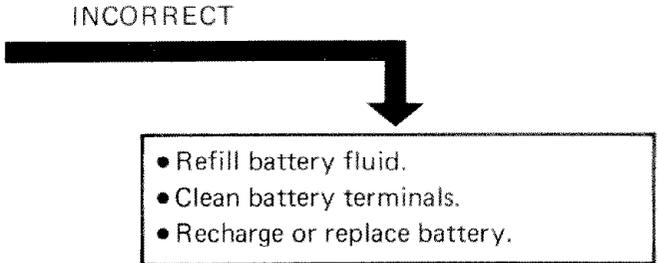
CONTINUITY



2. Battery

Check the battery condition. Refer to the "BATTERY INSPECTION" section in the CHAPTER 3.

Specific gravity:
1.280 at 20°C (68°F)



CORRECT



*

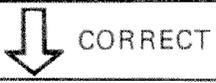


3. Main switch

- Disconnect the main switch coupler from the wireharness.
- Check the switch component for the continuity between "Red ① and Brown ②". Refer to the "CHECKING OF SWITCHES" section.

	R	Br	L
ON	○	○	○
OFF			
P	○		○

INCORRECT



4. Wiring connection

Check the entire signal system for connections. Refer to the "WIRING DIAGRAM" section.

POOR CONNECTION



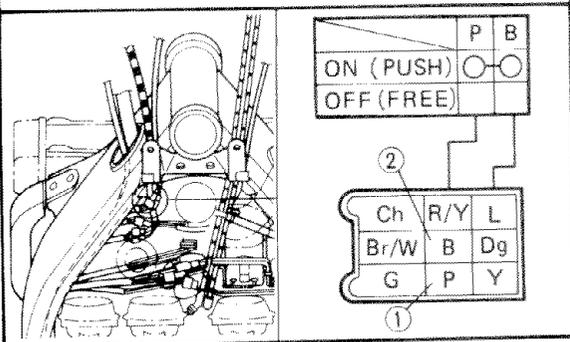
Check condition of each circuit for signal system. Refer to "SIGNAL SYSTEM CHECK" section.

SIGNAL SYSTEM CHECK

1. Horn does not sound.

1. "HORN" switch.

- Disconnect the handlebar switch coupler from the wireharness.
- Check the switch component for the continuity between "Pink ① and Black ②". Refer to the "CHECKING OF SWITCHES" section.



The diagram shows a handlebar switch assembly with various terminals labeled: Ch, R/Y, L, Br/W, B, Dg, G, P, Y. A continuity tester is shown with terminals P and B, and positions for ON (PUSH) and OFF (FREE). Terminals ① and ② are marked on the tester leads.

INCORRECT

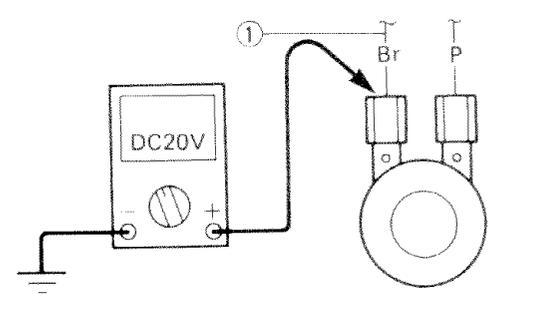
"HORN" switch is faulty, replace handlebar switch (left).

CORRECT

2. Voltage

- Connect the pocket tester (DC20V) to the horn lead.

Tester (+) lead → Brown ① lead
 Tester (-) lead → frame ground



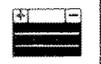
The diagram shows a DC20V pocket tester with its positive lead connected to a terminal labeled 'Br' (Brown) and its negative lead connected to a ground symbol. A horn terminal is also shown with a 'P' label.

- Turn the main switch to "ON".
- Check for voltage (12V) on the "Brown" lead at the horn terminal.

OUT OF SPECIFICATION

Wiring circuit from main switch to horn terminal is faulty, repair.

MEETS SPECIFICATION (12V)
 *



3. Horn

- Disconnect the "Pink" lead at the horn terminal.
- Connect a jumper lead ① to the horn terminal and ground the jumper lead.
- Turn the main switch to "ON".

HORN IS SOUNDED

Horn is good.



4. Voltage

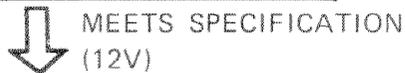
- Connect the pocket tester (DC20V) to the horn at the Pink terminal.

Tester (+) lead → Pink ① lead
Tester (-) lead → frame ground

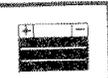
- Turn the main switch to "ON".
- Check for voltage (12V) on the "Pink" lead at the horn terminal.

OUT OF SPECIFICATION

Horn is faulty, replace it.



Adjust or replace horn.



2. Brake light does not come on.

1. Bulb and bulb socket

Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

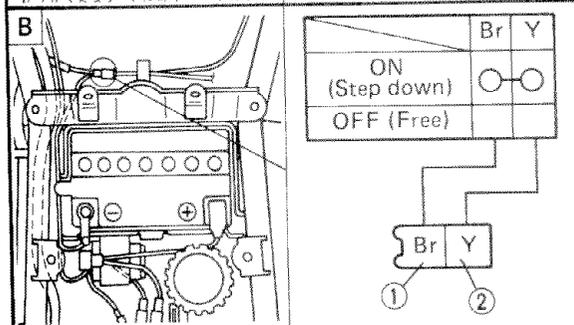
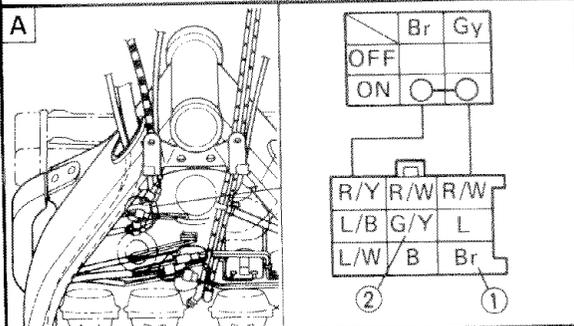
NO CONTINUITY

Bulb and/or bulb socket are faulty, replace.

CONTINUITY

2. Brake switch

- Disconnect the brake switch coupler from the wireharness.
- Check the switch component for the continuity between "Brown ① and Green/Yellow ②", or "Brown ① and Yellow ③". Refer to the "CHECKING OF SWITCHES" section.



- A** Front brake switch
- B** Rear brake switch

INCORRECT

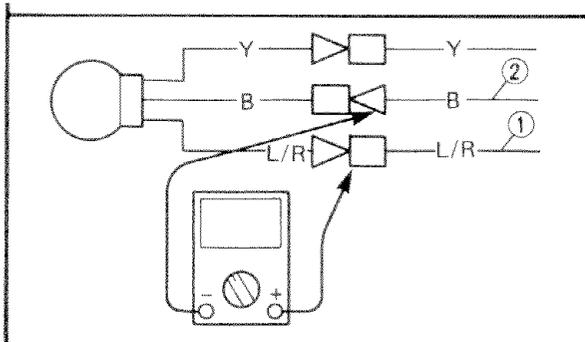
Brake switch is faulty, replace it.

CORRECT

3. Voltage

- Connect the Pocket Tester (DC20V) to the bulb socket connector.

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



- Turn the main switch to "ON".
- The brake level is pulled in or brake pedal is stepped down.
- Check for voltage (12V) on the "Yellow" lead at the bulb socket connector.

OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.

MEETS SPECIFICATION (12V)

This circuit is good.

3. Flasher light and/or "TURN" indicator light do not blink.

1. Bulb and bulb socket

Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

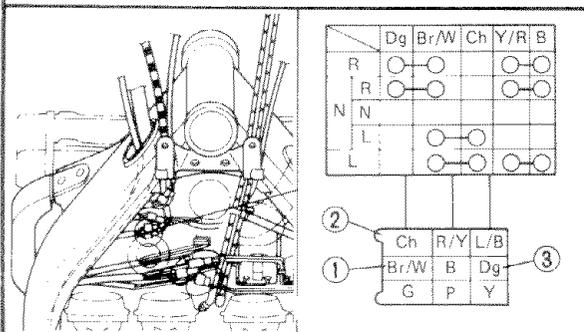
NO CONTINUITY

Bulb and/or bulb socket are faulty, replace.

CONTINUITY

2. "TURN" switch

- Disconnect the handlebar switch coupler from the wireharness.
- Check the switch component for the continuity between "Brown/White ① and Chocolate ②" and "Brown/White ① and Dark green ③". Refer to the "CHECKING OF SWITCHES" section.



INCORRECT

"TURN" switch is faulty, replace handlebar switch (left).

CORRECT *



3. Voltage

- Connect the Pocket Tester (DC20V) to the flasher relay.

Tester (+) lead → Brown ① lead
 Tester (-) lead → frame ground

- Turn the main switch to "ON".
- Check for voltage (12V) on the "Brown" lead at the flasher relay terminal.

OUT OF SPECIFICATION

Wiring circuit from main switch to flasher relay connector is faulty, repair.

MEETS SPECIFICATION (12V)

4. Voltage

- Connect the pocket tester (DC20V) to the flasher relay.

Tester (+) lead → Brown/White ① lead
 Tester (-) lead → frame ground

- Turn the main switch to "ON".
- Check for voltage (12V) on the "Brown/White" lead at the flasher relay terminal.

OUT OF SPECIFICATION

Flasher relay is faulty, replace it.

MEETS SPECIFICATION (12V)

*



5. Voltage

- Connect the Pocket Tester (DC20V) to the Bulb socket connector.

At flasher light (left):
 Tester (+) lead → Chocolate ① lead
 Tester (-) lead → frame ground

At flasher light (right):
 Tester (+) lead → Dark green ② lead
 Tester (-) lead → frame ground

A

B

A Front
B Rear

- Turn the main switch to "ON".
- Turn the "TURN" switch to "L" or "R".
- Check for voltage (12V) on the "Chocolate" lead or "Dark green" lead at the bulb socket connector.

OUT OF SPECIFICATION

Wiring circuit from "TURN" switch to bulb socket connector is faulty, repair.

MEETS SPECIFICATION (12V)

This circuit is good.



4. "NEUTRAL" indicator light does not come on.

1. Bulb and bulb socket
Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.



CONTINUITY

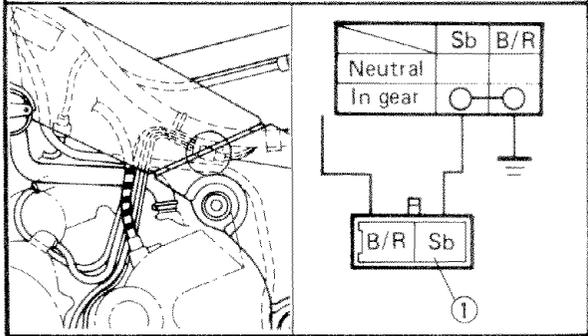
NO CONTINUITY



Bulb and/or bulb socket are faulty, replace.

2. Neutral switch

- Disconnect the neutral switch lead from the wireharness.
- Check the switch component for the continuity between "Sky blue ① and ground". Refer to the "CHECKING OF SWITCHES" section.



CORRECT

INCORRECT

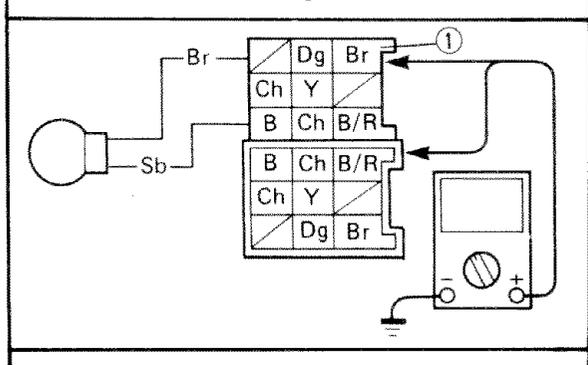


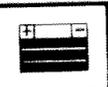
Neutral switch is faulty, replace it.

3. Voltage

- Connect the pocket tester (DC20V) to the bulb socket connector.

Tester (+) lead → Brown ① lead
Tester (-) lead → frame ground





- Turn the main switch to "ON".
- Check for voltage (12V) on the "Brown" lead at bulb socket connector.

MEETS SPECIFICATION (12V)

This circuit is good.

OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socket connector is faulty, repair.

5. "OIL LEVEL" indicator light does not come on when engine oil level is low.

1. Bulb and bulb socket
Check the bulb and bulb socket for continuity. Refer to the "CHECKING OF BULBS" section.

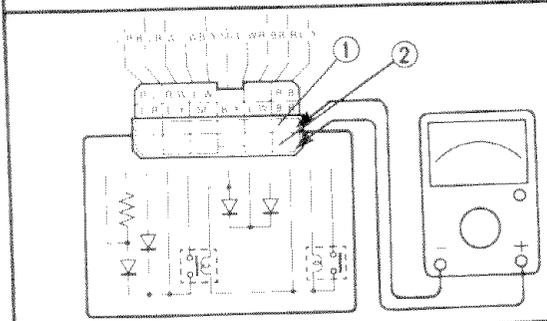
NO CONTINUITY

Bulb and/or bulb socket are faulty, replace.

CONTINUITY

2. Resistor
• Remove the relay assembly from the wire-harness.
• Connect the pocket tester ($\Omega \times 1$) to the relay assembly terminal.

Tester (+) lead → Black/Red terminal ①
Tester (-) lead → Red/Black terminal ②



• Check the resistor for continuity.

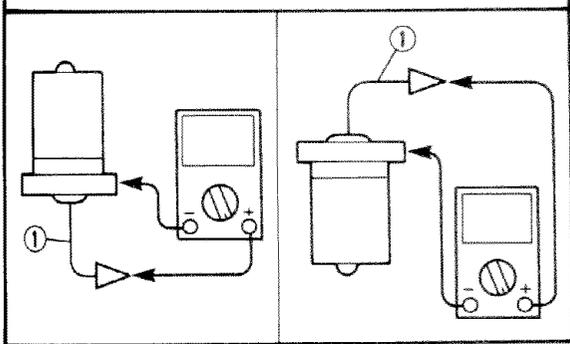
NO CONTINUITY

Resistor is faulty, replace relay assembly.

CONTINUITY

3. Oil level switch
• Drain the engine oil and remove the oil level switch from the oil pan.
• Connect the pocket tester ($\Omega \times 1$) to the oil level gauge.

Tester (+) lead → Red/Black ① lead
Tester (-) lead → Oil level switch body



• Check the oil level switch for continuity.

Switch position	Good condition	Bad condition		
A Upright position	X	○	X	○
B Upside down position	○	X	X	○

○ : Continuity X : Nocontinuity

BAD CONDITION

Oil level switch is faulty, replace it.

GOOD CONDITION

4. Voltage

• Connect the pocket tester (DC20V) to the bulb socket connector.

Tester (+) lead → Black/Red ① lead
 Tester (-) lead → frame ground

• Turn the main switch to "ON".
 • Check for voltage (12V) on the "Brown" lead at bulb socket connector.

OUT OF SPECIFICATION

Wiring circuit from main switch to bulb socketed connector is faulty, repair.

MEETS SPECIFICATION (12V)

This circuit is good.



— MEMO —

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