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## CHAPTER 8. ELECTRICAL

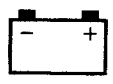
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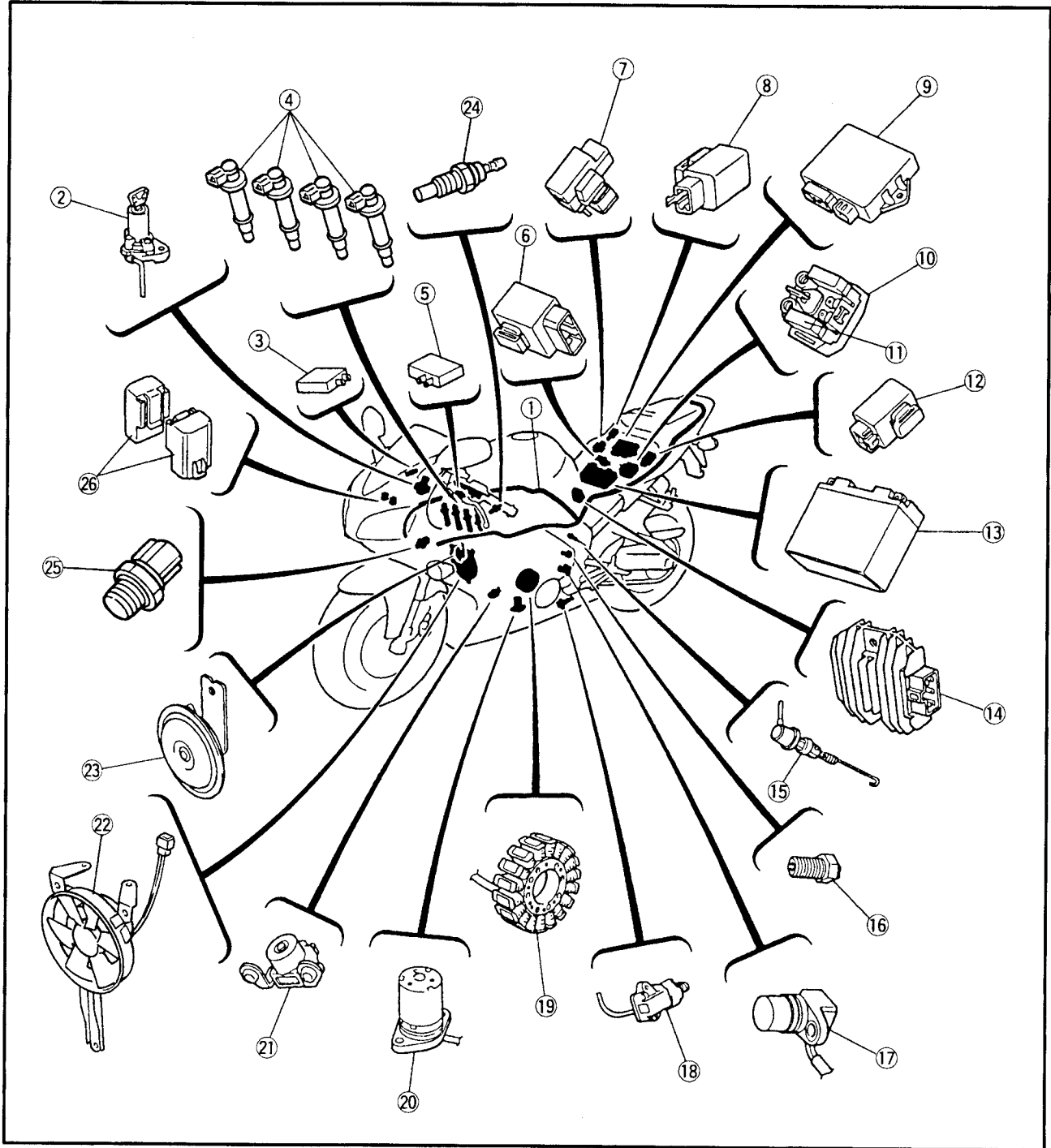


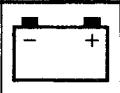
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**ELECTRICAL**

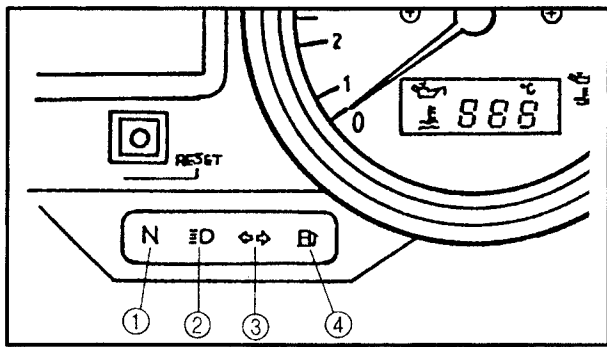
**ELECTRICAL COMPONENTS**

- |                                 |                           |                            |
|---------------------------------|---------------------------|----------------------------|
| ① Wire harness                  | ⑩ Starter relay           | ⑳ Oil level switch         |
| ② Main switch                   | ⑪ Main fuse               | ㉑ Pickup coil              |
| ③ Front brake light switch      | ⑫ Oil level relay         | ㉒ Radiator fan             |
| ④ Plug top ignition coils       | ⑬ Battery                 | ㉓ Horn                     |
| ⑤ Clutch switch                 | ⑭ Rectifier/regulator     | ㉔ Thermo unit              |
| ⑥ Starting circuit cutoff relay | ⑮ Rear brake light switch | ㉕ Thermo switch            |
| ⑦ Fuse box                      | ⑯ Neutral switch          | ㉖ Headlight relay (HI, LO) |
| ⑧ Flasher relay                 | ⑰ Speed sensor            |                            |
| ⑨ CDI unit                      | ⑱ Sidestand switch        |                            |
|                                 | ⑲ Stator coil assembly    |                            |





**INSTRUMENT FUNCTIONS**  
**INDICATOR LIGHTS**



- ① Neutral indicator light "N"
- ② High beam indicator light "≡D"
- ③ Turn indicator light "◁ ▷"
- ④ Fuel indicator light "⛛"

**Turn indicator light "◁ ▷"**

This indicator flashes when the turn switch is moved to the left or right.

**Neutral indicator light "N"**

This indicator comes on when the transmission is in neutral.

**High beam indicator light "≡D"**

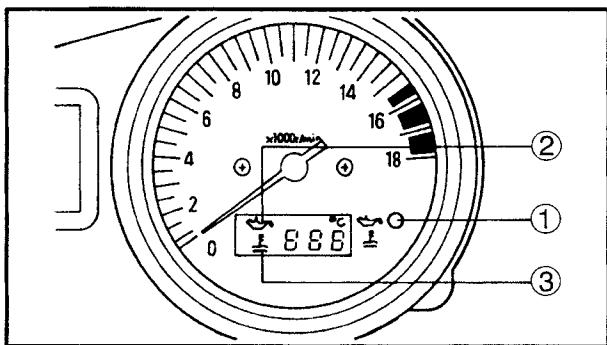
This indicator comes on when the headlight high beam is used.

**Fuel indicator light "⛛"**

When the fuel level drops below approximately 3.7 L, this light will come on.

When this light comes on, fill the fuel tank at the first opportunity.

**OIL LEVEL/COOLANT TEMPERATURE WARNING LIGHT**



- ① Oil level/coolant temperature warning light "⛛"
- ② Oil level symbol "⛛"
- ③ Coolant temperature symbol "≡"

This warning light has two functions.

- The light will come on and symbol "⛛" will flash if the engine oil level is low. If this symbol flashes, stop the engine immediately and fill it with oil to the specified level.
- The light will come on and symbol "≡" will flash if the coolant temperature is too high. The following chart shows the conditions of the indicator light, symbol and temperature display in accordance with the coolant temperature.

**CAUTION:**

- Do not run the motorcycle until you know it has sufficient engine oil.
- Do not run the motorcycle if the engine is overheated.

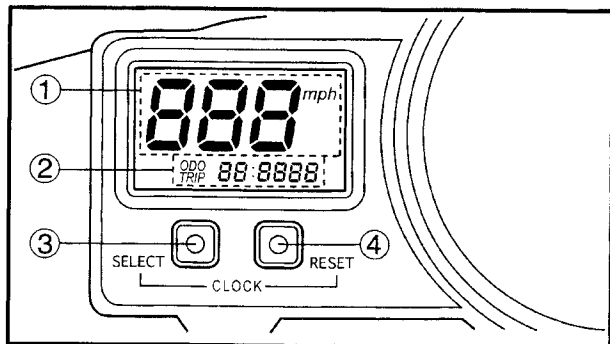
**NOTE:**

Even if the oil is filled to the specified level, the warning light may flicker when riding on a slope or during sudden acceleration or deceleration, but this is normal.



Coolant temperature	Display	Conditions	What to do
0°C ~ 40°C (0°F ~ 104°F)		Symbol is on and "LO" is displayed.	Go ahead with riding.
41°C ~ 117°C (106°F ~ 243°F)		Symbol is on and temperature is displayed.	Go ahead with riding.
118°C ~ 140°C (244°F ~ 284°F)		Symbol and temperature flashes and indicator light comes on.	Stop the motorcycle and allow it to idle until the coolant temperature goes down. If the temperature does not go down, stop the engine. Refer to "OVERHEATING" in chapter 9.
141°C ~ (286°F)		Symbol flashes, "HI" is displayed and flashes, and the indicator light comes on.	Stop the engine and allow it to cool. Refer to "OVERHEATING" in chapter 9.

**COMBINATION METER**



- ① Speedometer
- ② Clock, odometer
- ③ "SELECT" button
- ④ "RESET" button

This combination meter is equipped with the following.

- A speedometer
- An odometer
- Two trip odometers
- A fuel reserve tripmeter
- A clock

To change the speedometer display from kilometers to miles, press the "SELECT" button for at least two seconds.

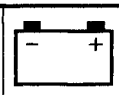
**Odometer and trip meters**

Use the trip meters to estimate how far you can ride on a tank of fuel.

Use the fuel reserve trip meter to see the distance traveled from when the fuel level dropped to the reserve level.

Push the "SELECT" button to change between the odometer mode "ODO" and the trip odometer modes "TRIP 1" and "TRIP 2" in the following order:

"ODO" → "TRIP 1" → "TRIP 2" → "ODO"



When the fuel level indicator light comes on the odometer display will automatically change to the fuel reserve trip meter mode "TRIP F" and start counting the distance traveled from that point. Push the "SELECT" button to change between the fuel odometer, trip odometer and odometer modes in the following order: "TRIP F" → "TRIP 1" → "TRIP 2" → "ODO" → "TRIP F"

To reset a trip odometer to 0.0, select it by pushing the "SELECT" button and push the "RESET" button for at least one second. To reset the fuel reserve trip meter, select it by pushing the "SELECT" button and push the "RESET" button for at least one second.

The display will return to "TRIP 1". If you do not reset the fuel reserve trip meter manually, it will automatically reset and return to "TRIP 1" after refueling and the motorcycle has traveled both 5 km and for approximately 3 minutes.

#### **Clock**

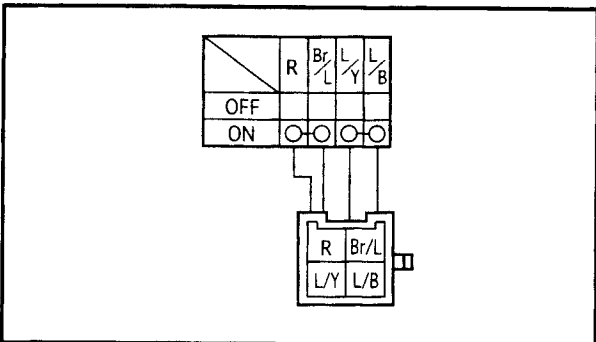
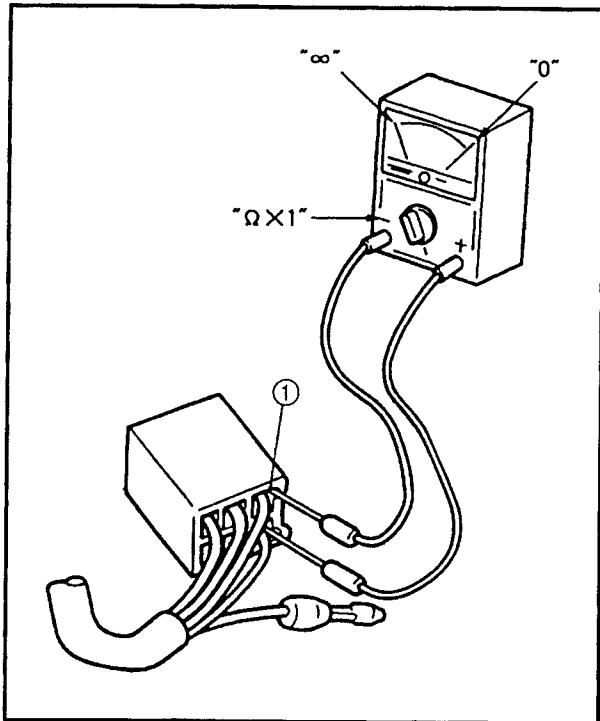
To change the display to the clock mode, push both the "SELECT" and "RESET" buttons.

To set the clock:

1. Push both the "SELECT" and "RESET" buttons for at least two seconds.
2. When the hour digits start flashing, push the "RESET" button to set the hours.
3. Push the "SELECT" button to change the minutes.
4. When the minute digits start flashing, push the "RESET" button to set the minutes.
5. Push the "SELECT" button to start the clock.

#### **NOTE:**

After setting the clock, be sure to push the "SELECT" button before turning the main switch to "OFF", otherwise the clock will not be set.



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## SWITCHES

### CHECKING SWITCH CONTINUITY

Check each switch for continuity with the pocket tester. If the continuity reading is incorrect, check the wiring connections and if necessary, replace the switch.

#### CAUTION:

Never insert the tester probes into the coupler terminal slots ①. Always insert the probes from the opposite end of the coupler, taking care not to loosen or damage the leads.



Pocket tester  
90890-03112

#### NOTE:

- Before checking for continuity, set the pocket tester to "0" and to the " $\Omega \times 1$ " range.
- When checking for continuity, switch back and forth between the switch positions a few times.

The terminal connections for switches (e.g., main switch, engine stop switch) are shown in an illustration similar to the one on the left.

The switch positions are shown in the far left column and the switch lead colors are shown in the top row in the switch illustration.

#### NOTE:

"○—○" indicates a continuity of electricity between switch terminals (i.e., a closed circuit at the respective switch position).

#### The example illustration on the left shows that:

There is continuity between blue/red and red when the switch is set to "P".

There is continuity between blue/red and blue, between brown/blue and red, and between blue/yellow and blue/black when the switch is set to "ON".

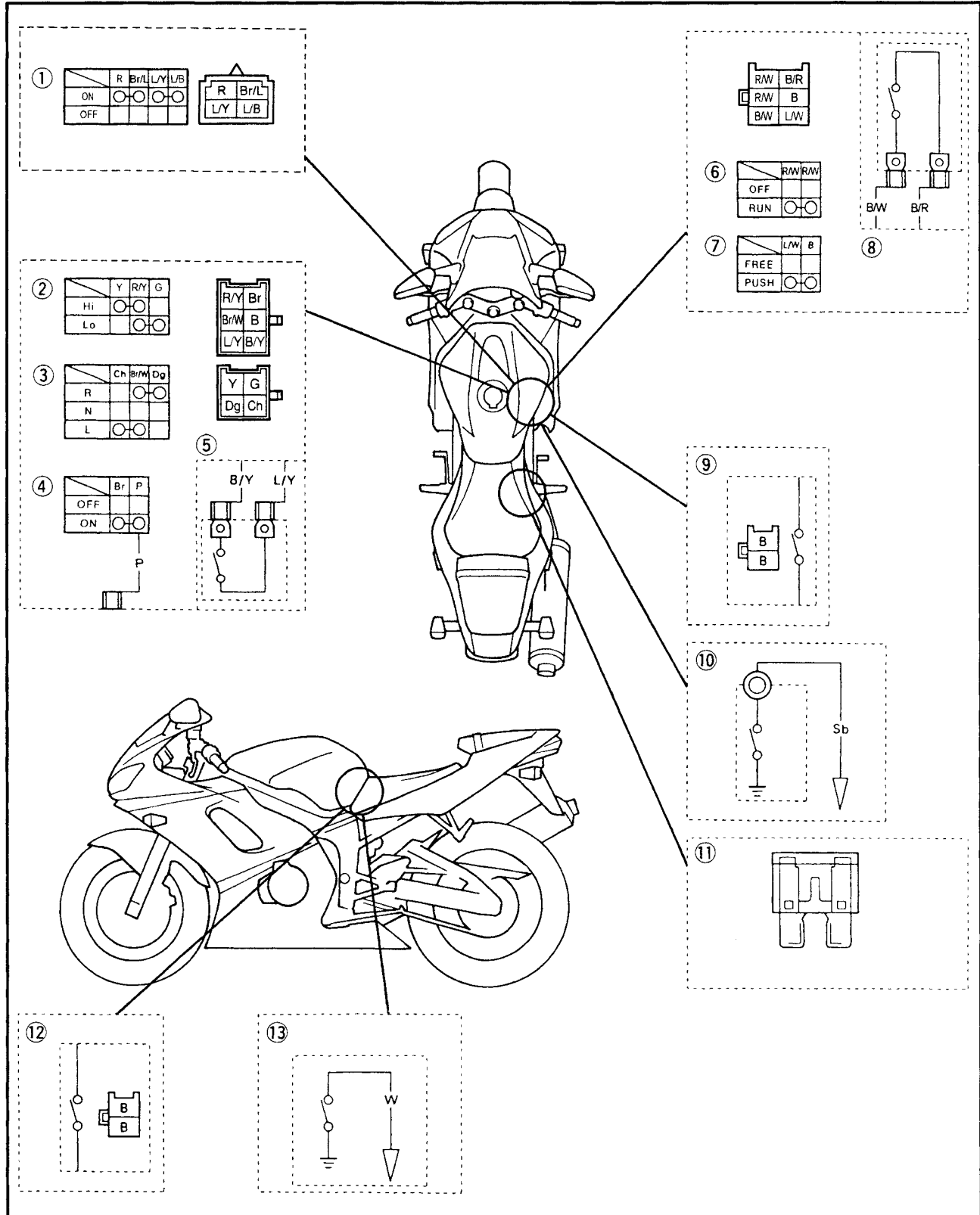


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### CHECKING THE SWITCHES

Check each switch for damage or wear, proper connections, and also for continuity between the terminals. Refer to "CHECKING SWITCH CONTINUITY".

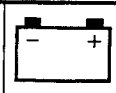
- Damage/wear → Repair or replace the switch.
- Improperly connected → Properly connect.
- Incorrect continuity reading → Replace the switch.



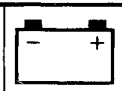


## CHECKING THE SWITCHES

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- |                      |                            |
|----------------------|----------------------------|
| ① Main switch        | ⑦ Start switch             |
| ② Dimmer switch      | ⑧ Front brake light switch |
| ③ Turn signal switch | ⑨ Rear brake light switch  |
| ④ Horn switch        | ⑩ Neutral switch           |
| ⑤ Clutch switch      | ⑪ Fuse                     |
| ⑥ Engine stop switch | ⑫ Sidestand switch         |
|                      | ⑬ Oil level switch         |



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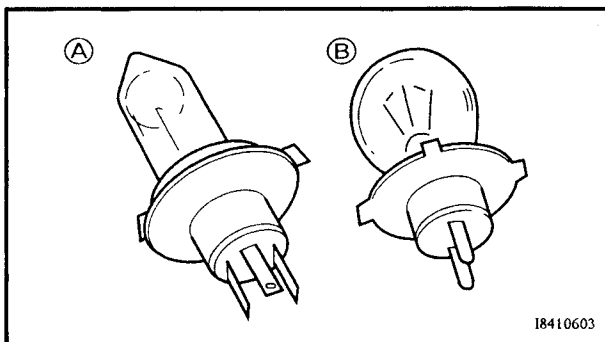
## CHECKING THE BULBS AND BULB SOCKETS

Check each bulb and bulb socket for damage or wear, proper connections, and also for continuity between the terminals.

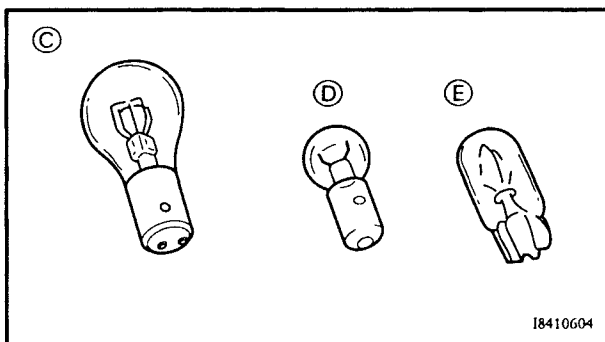
Damage/wear → Repair or replace the bulb, bulb socket or both.

Improperly connected → Properly connect.

Incorrect continuity reading → Repair or replace the bulb, bulb socket or both.



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### TYPES OF BULBS

The bulbs used on this motorcycle are shown in the illustration on the left.

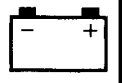
- Bulbs (A) and (B) are used for headlights and usually use a bulb holder which must be detached before removing the bulb. The majority of these bulbs can be removed from their respective socket by turning them counterclockwise.
- Bulb (C) is used for turn signal and tail/brake lights and can be removed from the socket by pushing and turning the bulb counterclockwise.
- Bulbs (D) and (E) are used for meter and indicator lights and can be removed from their respective socket by carefully pulling them out.

### CHECKING THE CONDITION OF THE BULBS

The following procedure applies to all of the bulbs.

1. Remove:
  - bulb





**CHECKING THE CONDITION OF THE BULB SOCKETS**

The following procedure applies to all of the bulb sockets.

1. Check:
  - bulb socket (for continuity) (with the pocket tester)
  - No continuity → Replace.

	<p><b>Pocket tester</b> <b>90890-03112</b></p>
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**NOTE:** \_\_\_\_\_

Check each bulb socket for continuity in the same manner as described in the bulb section; however, note the following.



- a. Install a good bulb into the bulb socket.
- b. Connect the pocket tester probes to the respective leads of the bulb socket.
- c. Check the bulb socket for continuity. If any of the readings indicate no continuity, replace the bulb socket.



**CHECKING THE LEDs**

The following procedure applies to all of the LEDs.

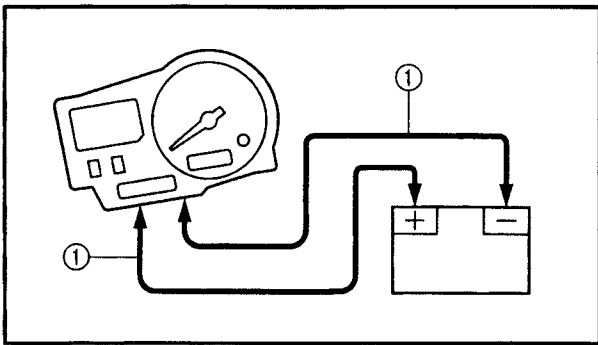
1. Check: LED (for proper operation)



- a. Disconnect the meter assembly coupler (meter assembly side).
- b. Connect two jumper leads ① from the battery terminals to the respective coupler terminals as shown.

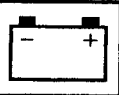
**⚠ WARNING** \_\_\_\_\_

- A wire that is used as a jumper lead must have at least the same capacity of the battery lead, otherwise the jumper lead may burn.
- This check is likely to produce sparks, therefore make sure that no flammable gas or fluid is in the vicinity.



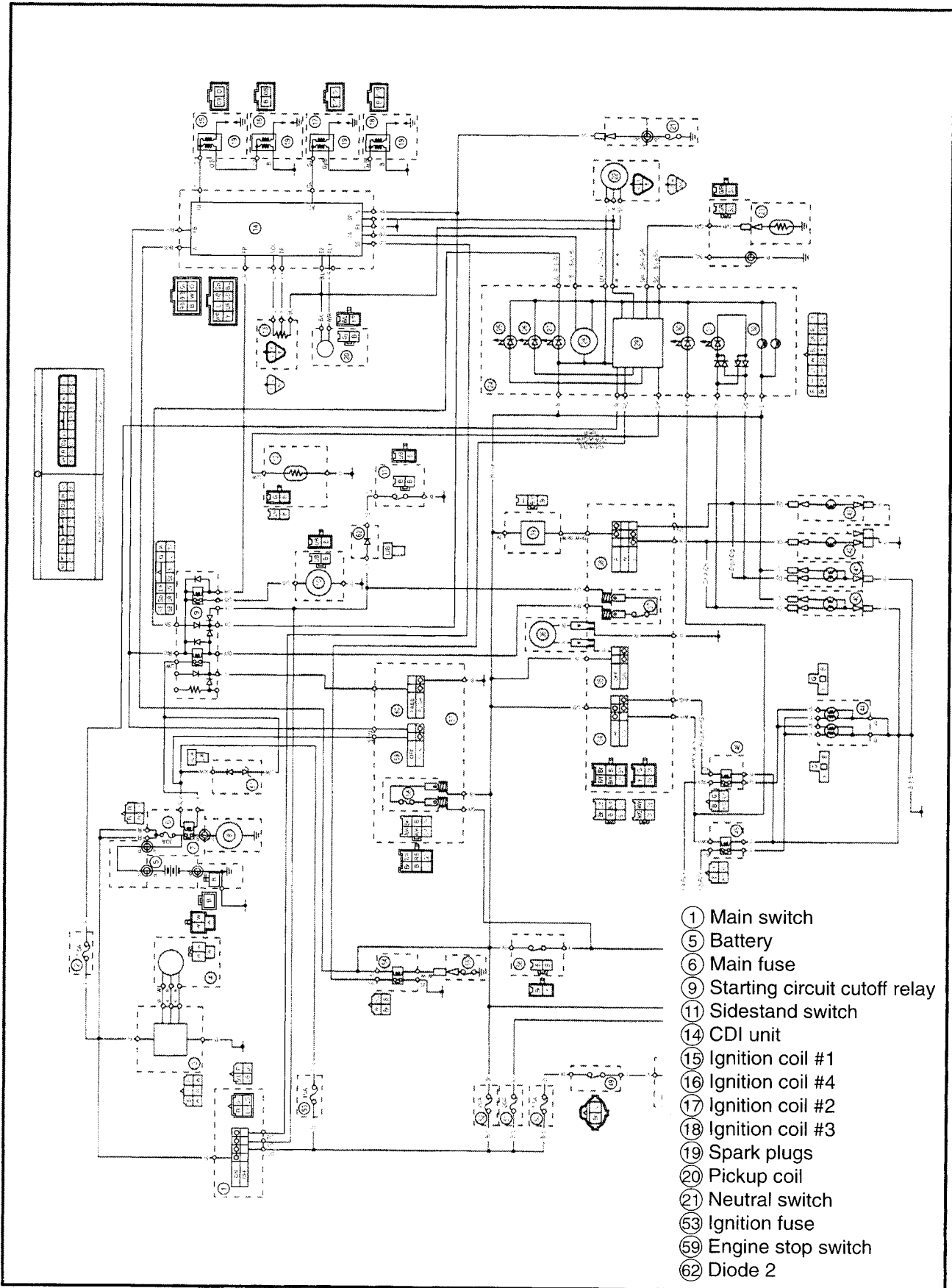
- c. When the jumper leads are connected to the terminals the respective LED should illuminate. Does not light → Replace the meter assembly.





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**IGNITION SYSTEM  
CIRCUIT DIAGRAM**



- ① Main switch
- ⑤ Battery
- ⑥ Main fuse
- ⑨ Starting circuit cutoff relay
- ⑪ Sidestand switch
- ⑭ CDI unit
- ⑮ Ignition coil #1
- ⑯ Ignition coil #4
- ⑰ Ignition coil #2
- ⑱ Ignition coil #3
- ⑲ Spark plugs
- ⑳ Pickup coil
- ㉑ Neutral switch
- ⑤③ Ignition fuse
- ⑤⑨ Engine stop switch
- ⑥② Diode 2

