

# 19. LIGHTS/INSTRUMENTS/SWITCHES

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## SERVICE INFORMATION

### GENERAL

- Some wires have different colored bands around them near the connector. These are connected to others with corresponding band colors.
- Color code
  - Bl: Black
  - Br: Brown
  - Y: Yellow
  - O: Orang
  - L: Blue
  - Lb: Light blue
  - R: Red
  - Lg: Light green
  - W: White
  - G: Green
- All plastic connectors have locking tabs that must be released before disconnecting, and must be aligned when reconnecting.
- To isolate an electrical failure, check the continuity of the electrical path through the part.
- A continuity check can usually be made removing the part from the motorcycle by simply disconnecting the wires and connecting a continuity tester or voltmeter to the terminals or connectors.

### SPECIFICATION

|                   |            |               |
|-------------------|------------|---------------|
| Headlight         |            | 12V 60/55W    |
| Stop/taillight    |            | 12V 32/3CP    |
| Turn signal light | Front/rear | 12V 32/CP x 4 |
| License light     |            | 12V 4CP       |
| Meter light       |            | 12V 1.7W x 4  |
| Indicator light   | High beam  | 12V 1.7W      |
|                   | Newtral    | 12V 3.4W      |

## TROUBLESHOOTING

### No lights come on when ignition switch is turned on:

- Bulb at fault or burned out
- Faulty switch
- Wiring to that component has an open circuit
- Fuse blown
- Wiring loose, broken or at fault
- Battery dead or disconnected

### All lights come on, but dimly, when ignition switch is turned on:

- Battery voltage low
- Wiring or switch has excessive resistance

### Headlight beam does not shift when HI-LO switch is operated:

- Beam filament burned out
- Faulty dimmer switch

## HEADLIGHT

### BULB REPLACEMENT

Disconnect the headlight bulb socket and pull the bulb cover off.

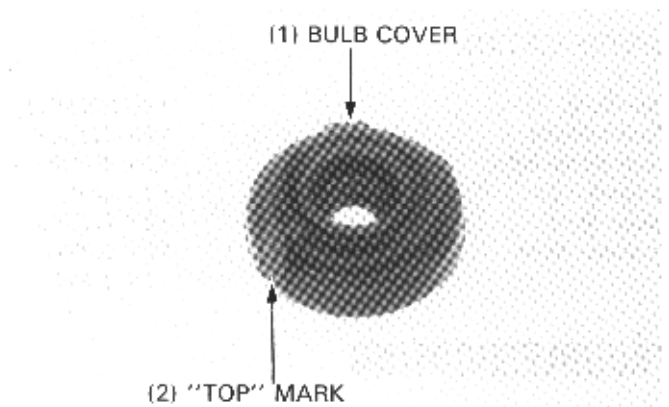
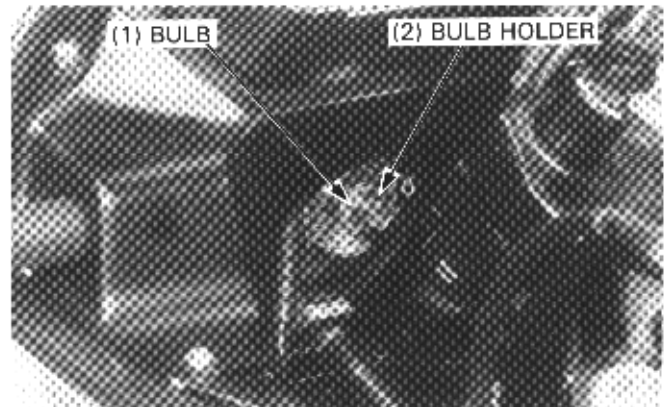
Remove the bulb holder and bulb, and install the new bulb in the reverse order of removal.

#### CAUTION

- *Wear a glove when installing the halogen bulb. If you touched the bulb with your bare hands, clean it with a cloth moistened with alcohol to prevent its early failure.*

Note the top mark on the tab of the bulb cover when installation

Install the bulb cover with the "TOP" mark facing up. Connect the bulb socket to the bulb securely.

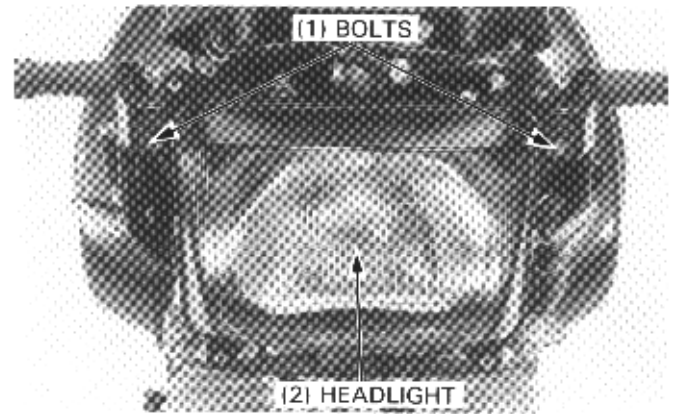


**REMOVAL/INSTALLATION**

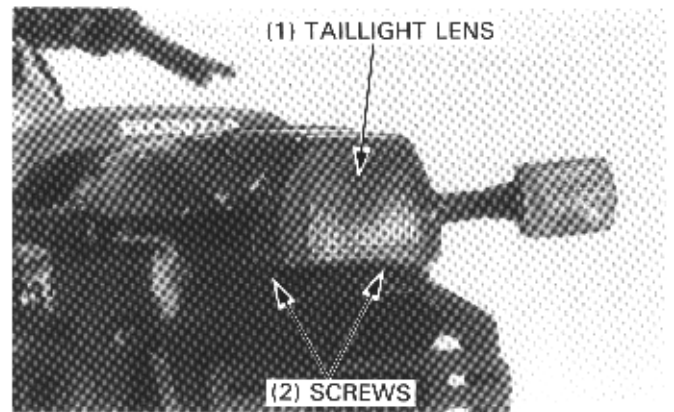
Remove the right and left fairings (page 15-2).

Disconnect the headlight bulb connector, and remove the mounting bolts and headlight.

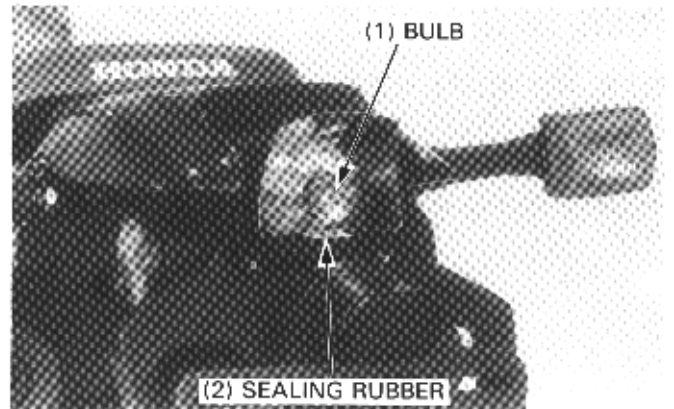
Install the headlight in the reverse order of the removal. Connect the bulb connector, and install the right and left fairings (page 15-4).

**STOP/TAILLIGHT****BULB REPLACEMENT**

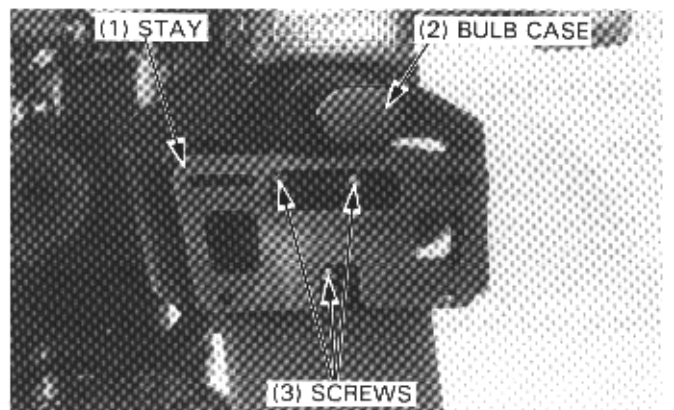
Remove the attaching screws and taillight lens. Replace the bulb with a new one.



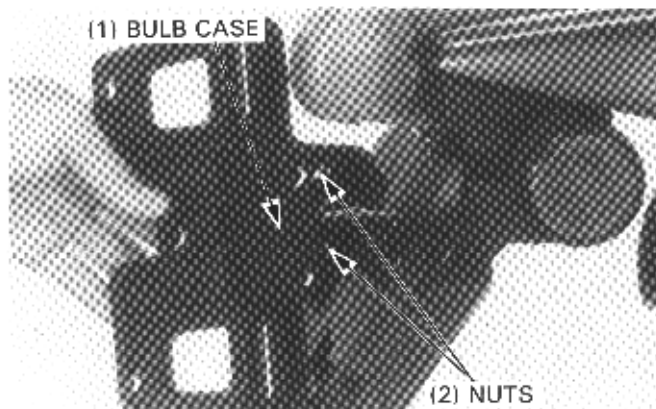
Install the sealing rubber in the groove, and secure the taillight lens with screws.

**LICENSE LIGHT****BULB REPLACEMENT**

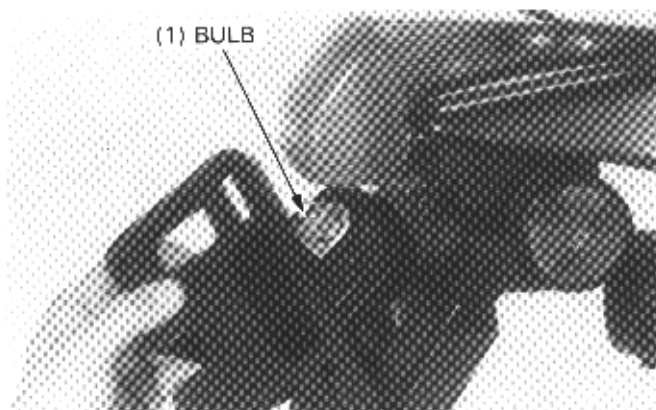
Remove the mounting screws and license plate stay.



Remove the nuts and bulb case.



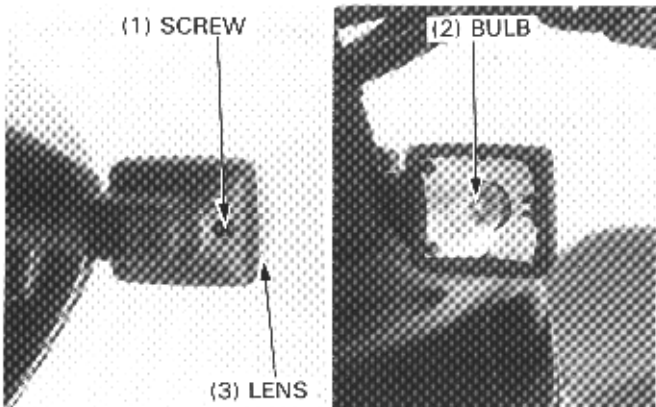
Replace the bulb with a new one, and install the removed parts in the reverse order of the removal.



## TURN SIGNAL LIGHT

### BULB REPLACEMENT

Remove the screw and lens, and replace the bulb with a new one.  
Reinstall the lens and secure with the screw.



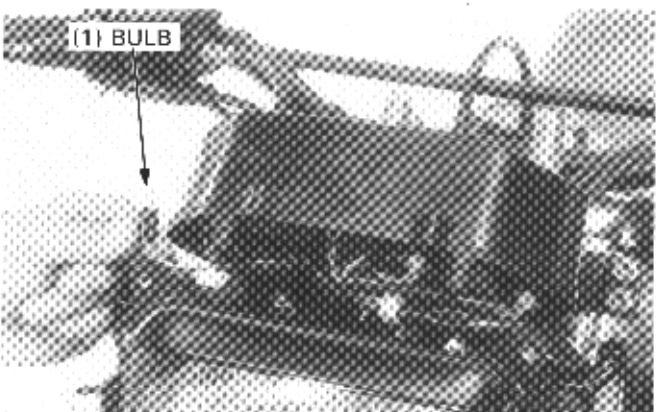
## INSTRUMENTS

### BULB REPLACEMENT

#### NOTE

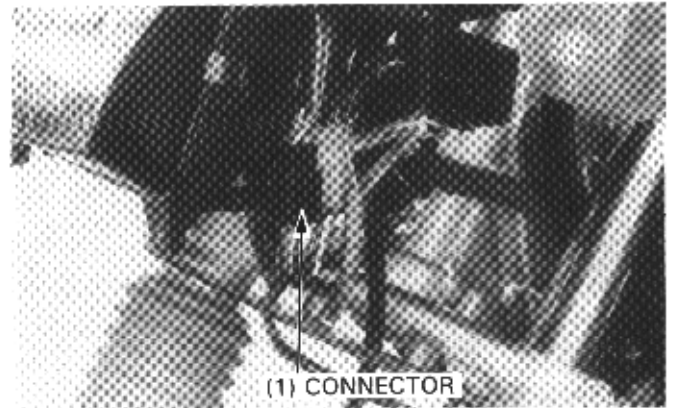
- You can replace the bulb with only the headlight plate removed; it is not necessary to remove the right and left fairings.

Refer to 15-3 for headlight plate removal.

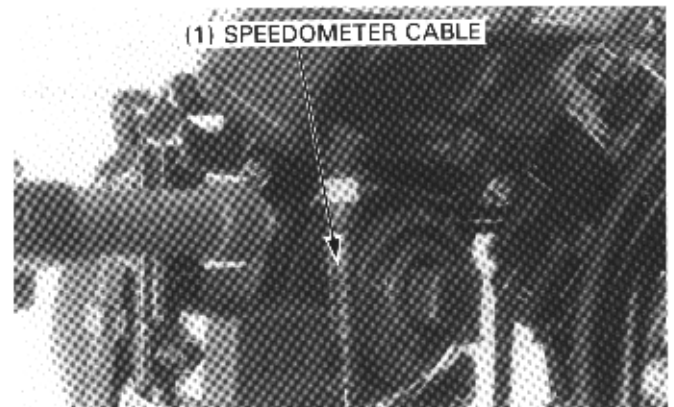


**REMOVAL**

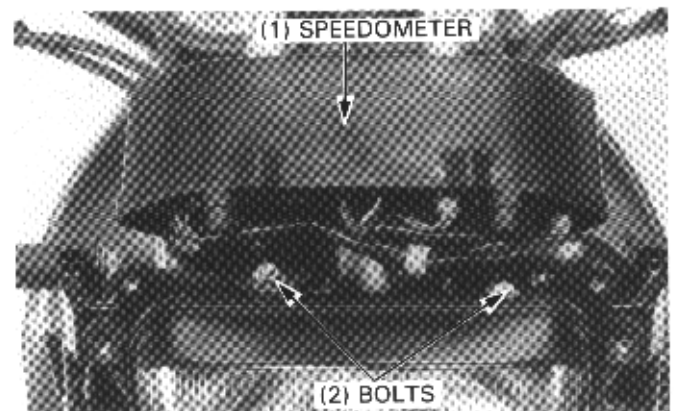
Remove the headlight plate (page 15-3).  
Disconnect the speedometer 9P connector.



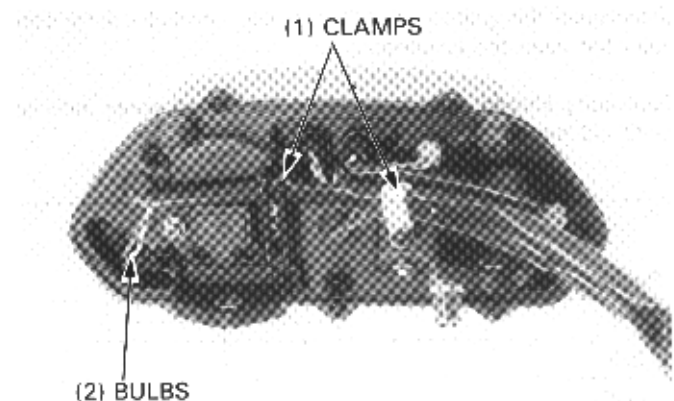
Disconnect the speedometer cable.



Remove the two mounting bolts and speedometer.

**DISASSEMBLY**

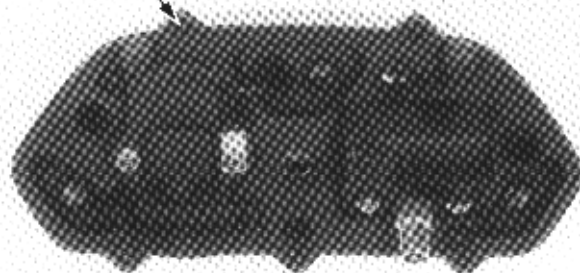
Disconnect one clamp and remove the other clamp with the screw.  
Pull the bulb sockets out of the meter case.



## LIGHTS/INSTRUMENTS/SWITCHES

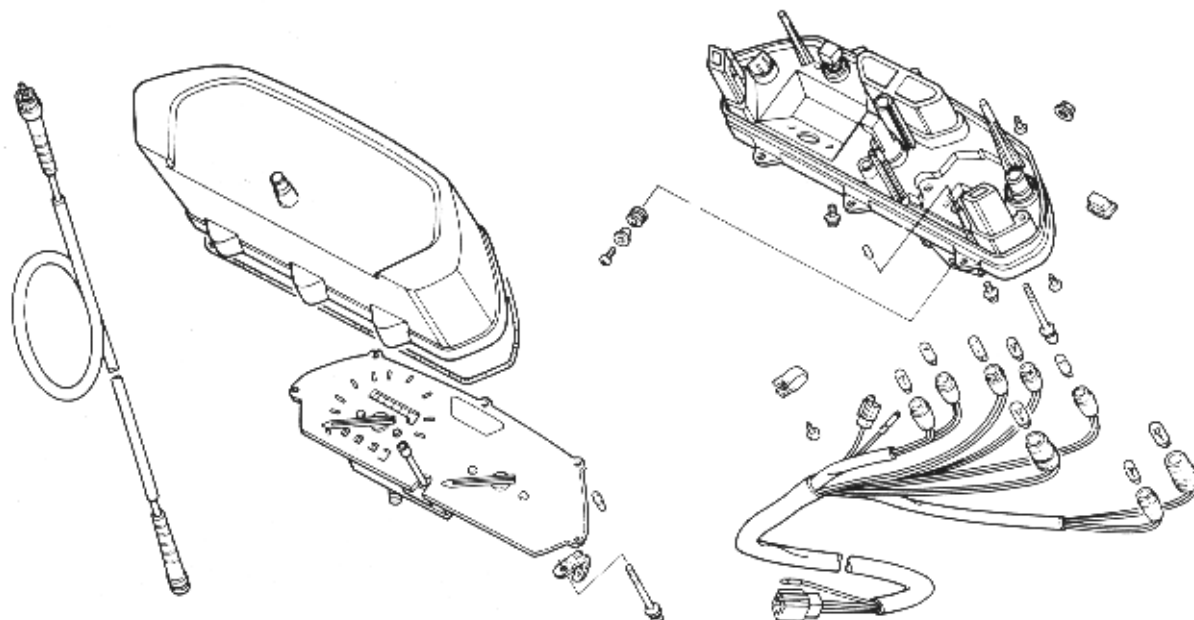
Remove the screws and disassemble the speedometer.

(1) SCREW



## ASSEMBLY/INSTALLATION

Assemble and install the speedometer in the reverse order of removal.



## IGNITION SWITCH

### INSPECTION

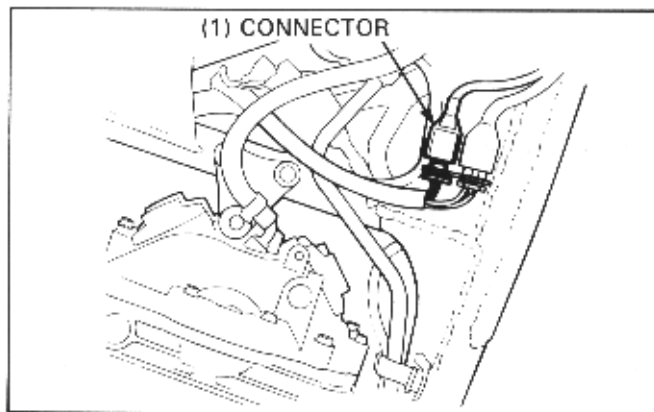
Remove the fuel tank (page 4-3).

Disconnect the ignition switch connector and check for continuity between the terminals.

Continuity should exist between color coded wires indicated by O—O marks.

| Color    | R   | R/BI |
|----------|-----|------|
| Position |     |      |
| ON       | O—O | O—O  |
| OFF      |     |      |
| LOCK     |     |      |

(1) CONNECTOR





Disconnect the ignition switch connector.  
Remove the mounting bolts and ignition switch.

### CONTACT BASE REPLACEMENT

Cut the wire band and discard it.  
Remove the attaching screws and contact base.

Install the new contact base, and secure it with three screws.  
Clamp the ignition switch wire with a new wire band.

Apply a locking agent to the ignition switch mounting bolts.  
Install the ignition switch in the reverse order of the removal,  
and secure with bolts.

**TORQUE: 27 N·m (2.7 kg-m, 20 ft-lb)**

## LEFT HANDLEBAR SWITCH

### INSPECTION

Disconnect the 9P connector (white) and check for continuity,  
referring the below charts.  
The switch is normal if there is continuity between O—O  
marks.

### DIMMER SWITCH

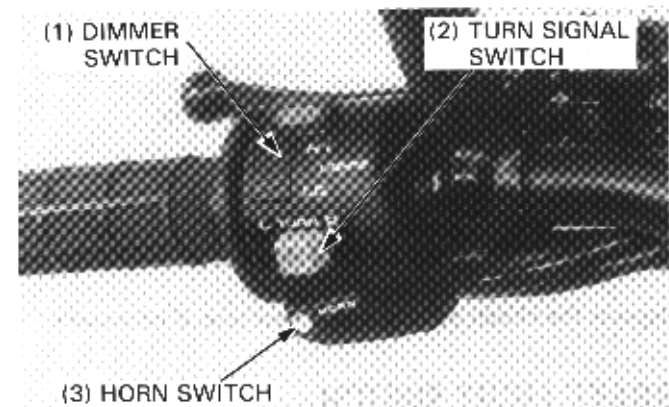
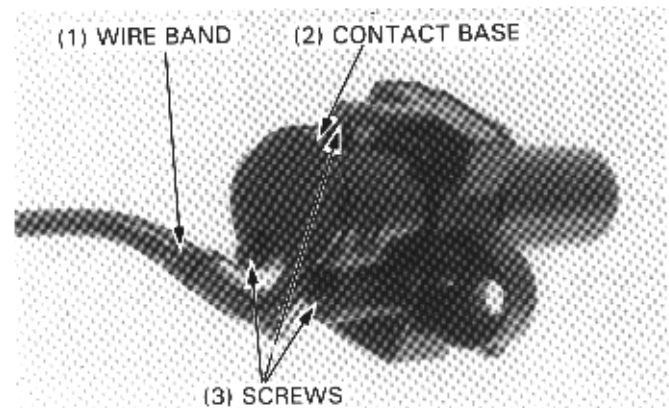
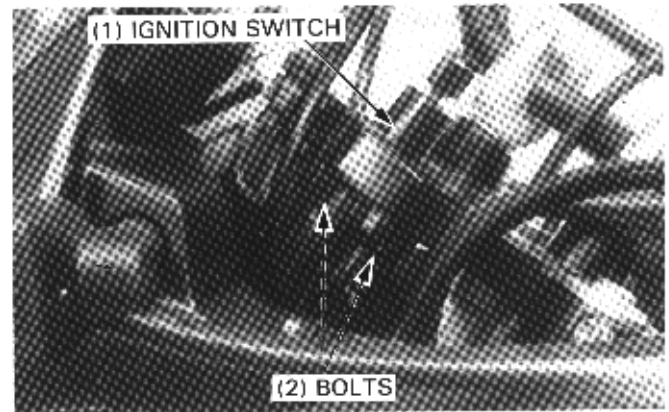
| Color<br>Position | L/W | W | L |
|-------------------|-----|---|---|
| Lo                | ○   | ○ |   |
| (H)               | ○   | ○ | ○ |
| Hi                | ○   |   | ○ |

### TURN SIGNAL SWITCH

| Color<br>Position | G/R | LB | O |
|-------------------|-----|----|---|
| L                 | ○   |    | ○ |
| N                 |     |    |   |
| R                 | ○   | ○  |   |

### HORN SWITCH

| Color<br>Position | LG | BI |
|-------------------|----|----|
| FREE              |    |    |
| PUSH              | ○  | ○  |



## RIGHT HANDLEBAR SWITCH

### INSPECTION

Disconnect the 9P connector (red), and check for continuity, referring the charts below.

The switch is normal if there is continuity between ○—○ marks.

### ENGINE STOP SWITCH

| Position \ Color | BI/R | BI/W |
|------------------|------|------|
|                  |      |      |
| OFF              |      |      |
| RUN              | ○—○  | ○—○  |

### STARTER SWITCH

| Position \ Color | Y/R | L/W | W/G |
|------------------|-----|-----|-----|
|                  |     |     |     |
| FREE             |     | ○—○ | ○—○ |
| PUSH             | ○—○ |     | ○—○ |

## CLUTCH SWITCH

### INSPECTION

Disconnect the clutch switch wire connectors.

Check for continuity between the switch terminals.

There should be continuity with the clutch lever pulled in and should be no continuity with the clutch lever released.

Replace the clutch switch with a new one, if necessary.

## BRAKE LIGHT SWITCH

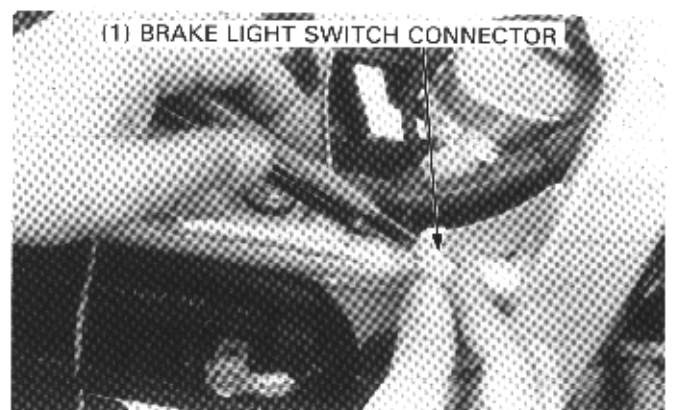
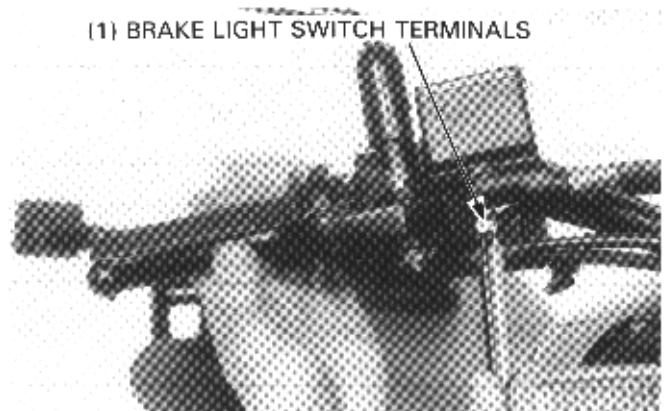
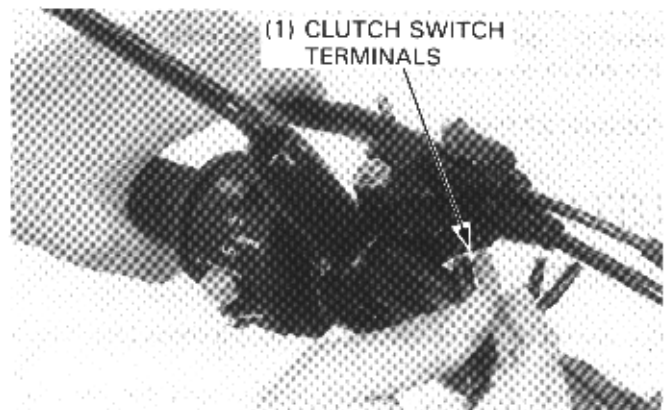
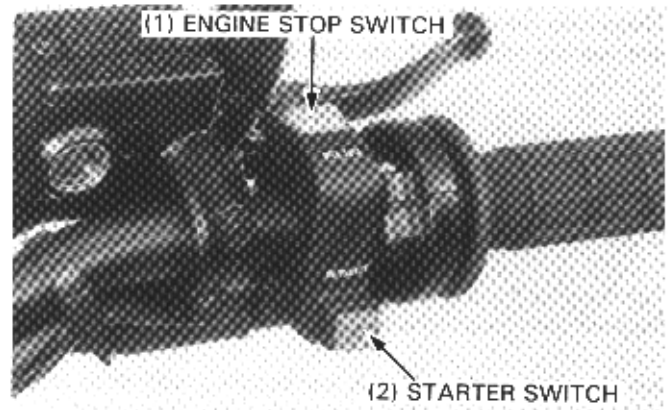
### FRONT

Disconnect the switch wires, and check for continuity. The switch is normal if there is continuity between the terminals with the front brake applied.

### REAR

Remove the seat and disconnect the switch connector. Check for continuity.

The switch is normal if there is continuity between the terminals with the rear brake applied.

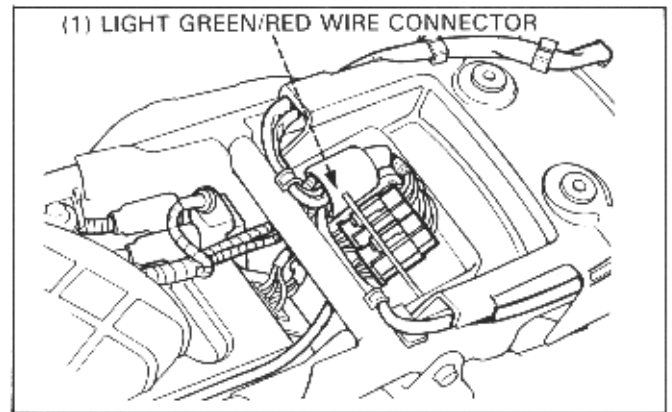




## NEUTRAL SWITCH

Remove the seat (page 15-2).  
Disconnect the light green/red wire connector.  
Check the continuity between the light green/red wire and ground with any gear position.

There should be continuity between the green/red wire and ground with the transmission in the neutral position, and should be no continuity in any other gear position.



## HORN

The horn is normal when it sounds by connecting 12V battery to the horn terminals.

