

## **17. LIGHTS/INSTRUMENTS/SWITCHES**

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**17**

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### **LIGHTS/INSTRUMENTS/SWITCHES**

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## 17. LIGHTS/INSTRUMENTS/SWITCHES

### ELECTRICAL EQUIPMENT LAYOUT



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### **SERVICE INFORMATION**

#### **GENERAL INSTRUCTIONS**

- An electric tester is needed to measure or test the electric equipment.
- Be sure to use fuses and bulbs of the same specifications to avoid damage of electrical equipment.
- After installation of each switch, a continuity check must be performed. A continuity check can usually be made without removing the part from the motorcycle.

### **TROUBLESHOOTING**

#### **Lights do not come on and horn does not sound when ignition switch is “ON”**

- Faulty ignition switch
- Fuse burned out
- Weak battery
- Burned bulb
- Faulty switch
- Faulty horn
- Poorly connected, broken or shorted wire

#### **Fuel gauge pointer does not move**

- Faulty fuel gauge
- Faulty fuel unit
- Poorly connected, broken or shorted wire

#### **Engine starts but stalls during idling**

- Faulty auto bystarter
- Faulty auto bystarter resistor
- Poorly connected or broken wire
- Clogged carburetor

#### **Fuel gauge pointer does not register correctly**

- Faulty fuel gauge
- Faulty fuel unit
- Faulty fuel unit float

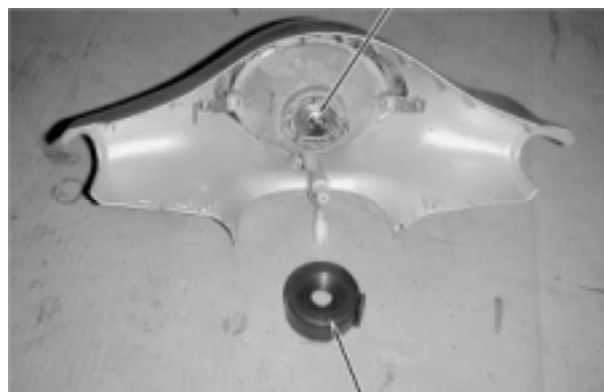
## 17. LIGHTS/INSTRUMENTS/SWITCHES

### HEADLIGHT

#### BULB REPLACEMENT

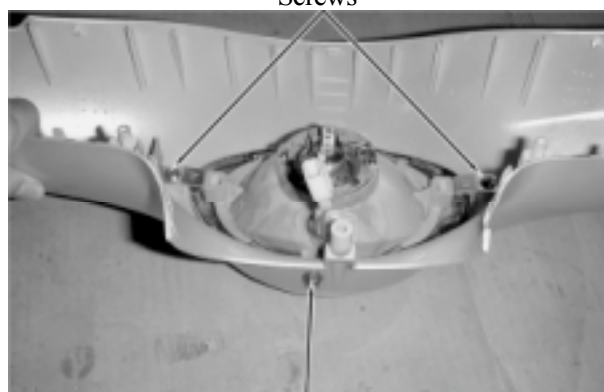
Remove the handlebar front cover. (⇒2)  
Remove the rubber boot from the bulb socket.  
Remove the bulb socket by turning it counter-clockwise.  
Remove the bulb for replacement.  
Install a new bulb, aligning the groove on the bulb socket with the tab on the bulb.  
Install the bulb socket.  
Install the rubber boot.  
Install the front cover. (⇒2)

Bulb Socket



Rubber Boot

Screws



Bolt

#### HEADLIGHT REMOVAL

Remove the handlebar front cover. (⇒2)  
Remove the two screws attaching the headlight.  
Remove the headlight unit.  
Remove adjust the headlight beam bolt.  
The installation sequence is the reverse of removal.  
After installation, adjust the headlight beam. (⇒3-9)

### FRONT TURN SIGNAL LIGHT

Remove the turn signal bulb shell screw. (⇒2)  
Remove the front turn signal bulb socket and replace the bulb.  
The installation sequence is the reverse of removal.



Screw

Position Light Shell

### POSITION LIGHT/REAR TURN SIGNAL LIGHT

#### BULB REPLACEMENT

Remove the bulb shell screw.  
The installation sequence is the reverse of removal.



Turn Signal Bulb Shell

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## IGNITION SWITCH

### INSPECTION

Remove the front cover. (⇒2-4)

Disconnect the ignition switch wire coupler. Check for continuity between the wire terminals.

Position	BAT1	IG	E	BAT2
LOCK		○	○	
OFF		○	○	
ON	○			○
COLOR	Red	Black/White	Green	Black

### Replacement

Remove the two mounting bolts to remove the ignition switch holder.

Remove the two screws to remove the ignition switch for replacement.

Ignition Switch Coupler



Ignition Switch Bolts

Headlight Switch



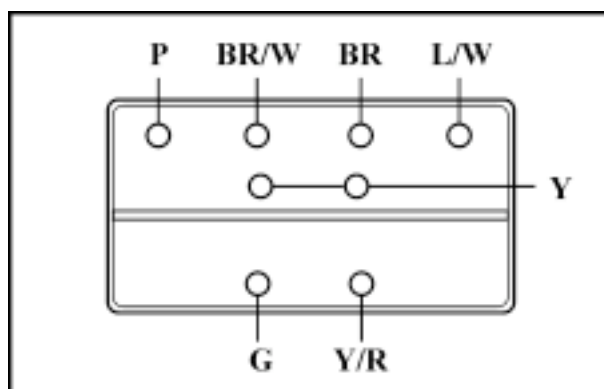
## HANDLEBAR SWITCHES

### HEADLIGHT SWITCH INSPECTION

Remove the handlebar front and rear covers. (⇒2-4)



Disconnect the headlight switch wire couplers. Check for continuity between the wire terminals.

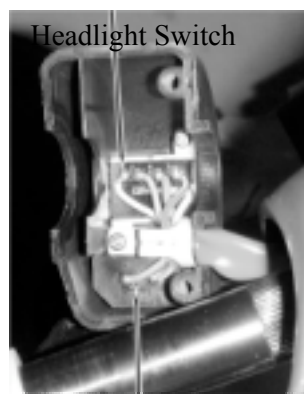
Position	CI	RE	TL	HL	PO
OFF	○	○			
N	○		○		
P	○		○		○
N	○		○	○	
H	○		○	○	
COLOR	Yellow	Pink	Brown	Blue/White	Brown/White



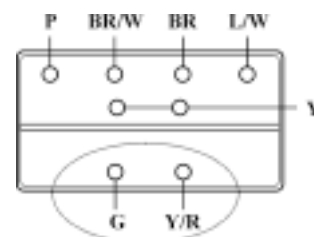
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### STARTER SWITCH



POSITION	ST	E
FREE		
PUSH		
COLOR	Yellow/Red	Green



Headlight Switch

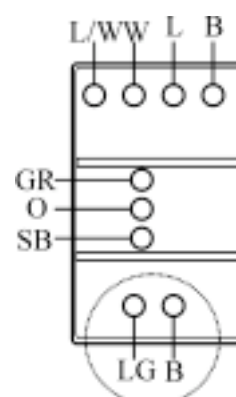


### HORN SWITCH





POSITION	HO	BAT
FREE		
PUSH		
COLOR	Light Green	Brown/Blue



Starter Switch

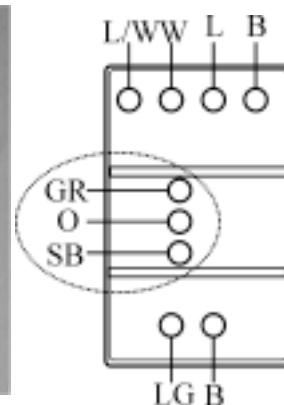


### TURN SIGNAL SWITCH













POSITION	R	L	WR
L			
N			
R			
COLOR	Sky Blue	Orange	Gray

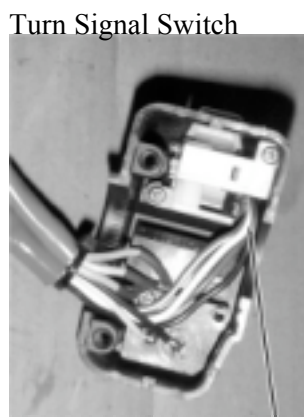


Horn Button

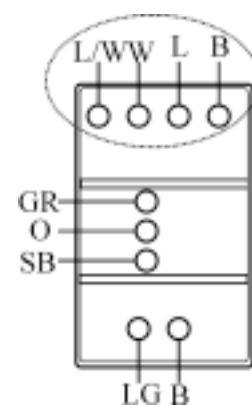


### DIMMER SWITCH

POSITION	HI	HL	BAT	LO
PASS				
LO				
N				
HI				
COLOR	Blue	Blue/White	Black	White



Turn Signal Switch



Dimmer Switch

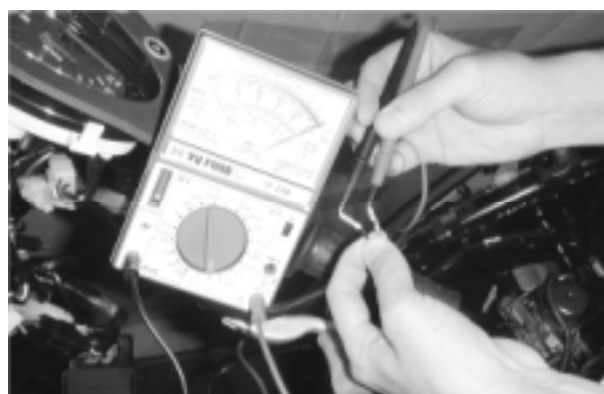


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## STOP SWITCH

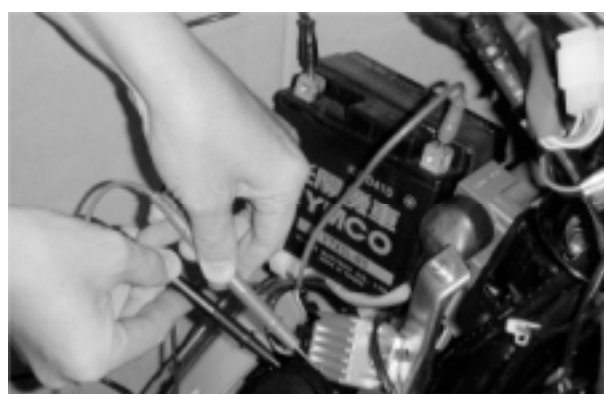
### INSPECTION

Remove the handlebar front cover. (⇒2)  
 Disconnect the front stop switch wire coupler.  
 Check for continuity between the wire terminals when the front brake lever is applied. The switch is normal if there is continuity.



## HORN INSPECTION

Remove the front cover. (⇒2)  
 Disconnect the horn wire coupler.  
 The horn is normal if it sounds when a 12V battery is connected across the horn wire terminals.



## FUEL GAUGE

### INSPECTION

Remove the rear right side cover. (⇒2)  
 Disconnect the fuel gauge wire connector.  
 Turn the ignition switch ON.  
 Connect the green and yellow/white wires and the fuel gauge needle should move from E to F.  
 Connect the green and blue/white wires and the fuel gauge needle should move from F to E.



## FUEL UNIT

### REMOVAL

Remove the met-in box. (⇒2)  
 Remove the rear right side cover. (⇒2)  
 Disconnect the fuel unit wire connector.  
 Remove the fuel unit.

\* Be careful not to bend or damage the fuel unit float arm.



Fuel Unit Connector

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### INSPECTION

Measure the resistance between the fuel unit wire terminals with the float at upper and lower positions.

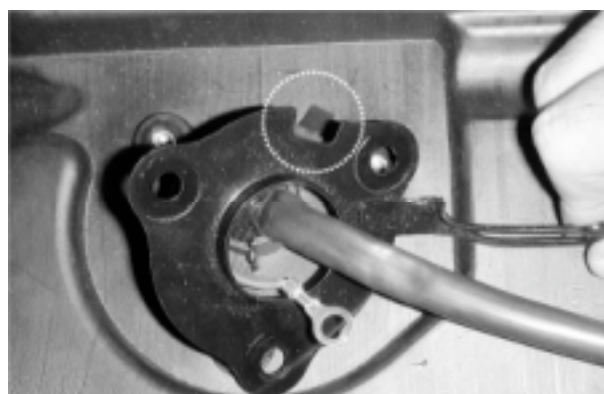
RESISTANCES Unit:  $\Omega$

Float		Upper		Lower	
Color					
G_	Y/W	26_	38	450_	550
G_	L/W	450_	550	26_	38
Y/W_	L/W	450_	550	450_	550



The installation sequence is the reverse of removal.

- \* Install the fuel unit by aligning the groove on the fuel unit with the tab on the fuel tank.



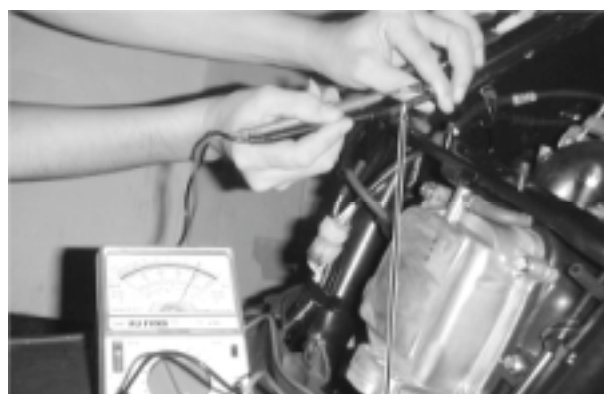
### AUTO BYSTARTER

#### AUTO BYSTARTER INSPECTION

Remove the rear right side cover. ( $\Rightarrow$ 2)  
Disconnect the auto bystarter wire connector.  
Measure the resistance between the yellow and green/black wire terminals.

**Resistance:** 10  $\Omega$  max.

- \* Perform this operation when the engine is cold.



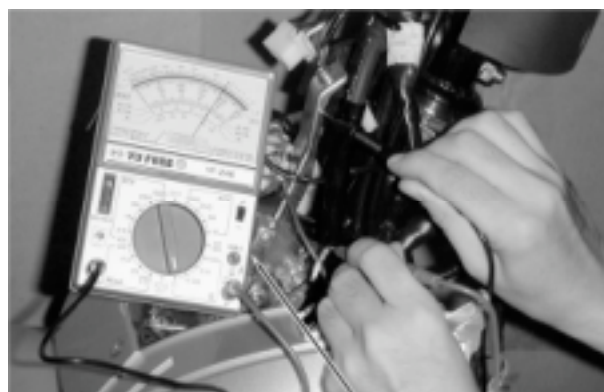
Auto Bystarter

#### RESISTOR INSPECTION

Remove the front cover. ( $\Rightarrow$ 2)  
Disconnect the green/black and green wires and measuring the resistance between the wire terminals.

**Resistance:** 5  $\Omega$  max.

If the needle remains at “•”, it indicates that the resistor is faulty and must be replaced.



Auto Bystarter Resistor



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## INSTRUMENTS

### BULB REPLACEMENT

Remove the front cover. (⇒2)  
 Remove the bulb socket and replace the bulb.  
 The installation sequence is the reverse of removal.

### INSTRUMENTS REPLACEMENT

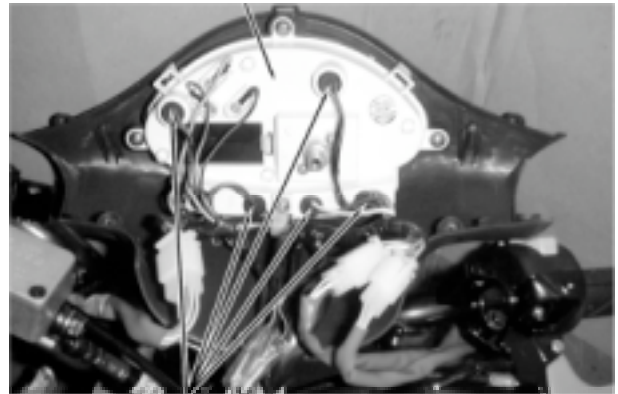
Remove the handlebar front cover. (⇒2)  
 Remove the handlebar rear cover. (⇒2)  
 Disconnect the right and left handlebar switches wire couplers.  
 Disconnect the speedometer cable.  
 Remove the instrument bulb sockets  
 Disconnect the three fuel gauge wires.  
 Remove the instrument wire clamp screw.

Remove the three screws attaching the instruments to the handlebar rear cover.  
 Remove the instruments.

### ASSEMBLY/INSTALLATION

The assembly and installation sequence is the reverse of removal.

Instruments



Bulb Socket

Dimmer/

Fuel Gauge Wires Speedometer Cable Passing Wires



Lighting/  
Start Wires

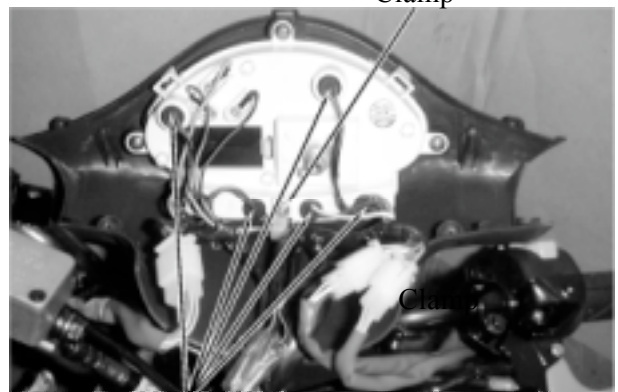
Stop Light  
Wires

Turn Signal  
Wires



Screws

Clamp



Bulb Socket

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### DISASSEMBLY

Remove the screws to disassemble the instruments.

