

EVT-4000e

## **Maintenance Manual**



***EVT TECHNOLOGY CO., LTD.***

# **(1) HEAD LIGHT ASSY**

## **Replace Head Light Assy :**

(1) Release three screws on the handle cover

(Picture 1)

(2) Release two mounting screws on the instrument panel, and then release three screws on the head light assy (Picture 2)

(3) Follow with the reversed steps to restore

**Tools! " (1) (2) screwdriver**



Three screws on  
the handle cover

**(Picture 1)**



Three screws on  
the head light assy

Signal light bulb set

Two mounting screws  
on the instrument

## **(Picture 2)**

### **Replace Head Light Bulb"**

(1) Release three screws on the handle cover

(Picture 1)

(2) Release two mounting screws on the instrument panel so can easily replace the bulb (Picture 2)

(3) Follow with the reversed steps to restore

**Tools! " (1) (2) screwdriver**



### **Replace Signal Light Bulb"**

(1) Release three screws on the handle cover

(Picture 1)

(2) Release signal light bulb set for replacement

(Picture 2)

(3) Follow with the reversed steps to restore

**Tools! " (1) screwdriver**



## (2) SPEEDOMETER ASSY

### Replace Instrument Panel :

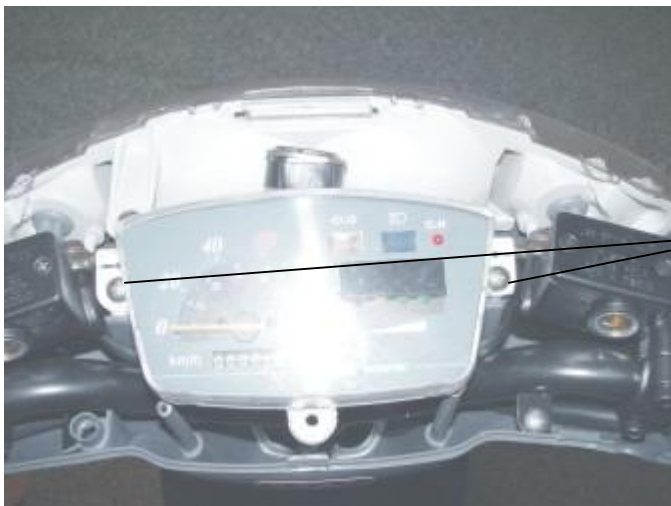
- (1) Release three screws on the handle cover·····(Picture 1)
- (2) Release two mounting screws on the instrument panel·····(Picture 2)
- (3) Release the nut for the speedometer·····(Picture 3)
- (4) Follow with the reversed steps to restore

<Tools> : (1) (2) screwdriver



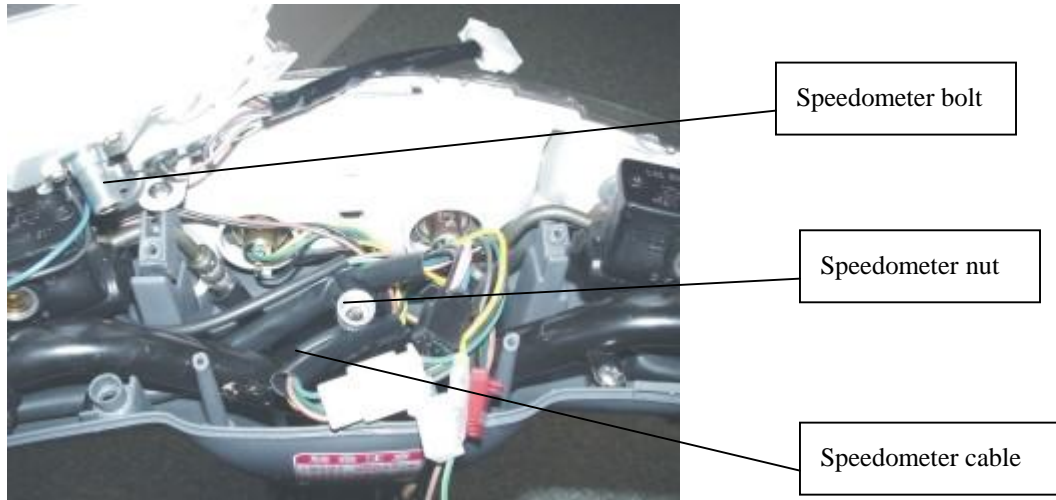
Three screws on  
the handle cover

(Picture 1)



Two mounting  
screws on the  
instrument panel

(Picture 2)



**(Picture 3)**

**Replace Speedometer Cable:**

- (1) Release three screws on the handle cover  
.....(Picture 1)
  - (2) Release two mounting screws on the instrument panel  
.....(Picture 2)
  - (3) Release the nut for the speedometer  
.....(Picture 3)
  - (4) Release three screws on the front cover  
.....(Picture 4)
  - (5) Release speedometer nut on the front wheel  
.....(Picture 5)
  - (6) Follow with the reversed steps to restore
- <Tools> : (1) (2) (4) screwdriver**





Three screws on the front cover

(Picture 4)



Speedometer nut

Front axle nut

(Picture 5)

### Replace Speedometer Gear:

- (1) Release front axle nut  
.....(Picture 5)
  - (2) Remove the front wheel
  - (3) Follow with the reversed steps to restore
- <Tools> : (1) box wrench (17mm)



Speedometer gear

### (3) KEY SWITCH AND HORN

#### **Replace Key Switch :**

- (1) Release three screws on the front cover  
.....(Picture 1)
- (2) Release six screws on the front fender  
.....(Picture 1)
- (3) Release three screws on the glove box  
.....(Picture 2)
- (4) Release 4 pin connector and two screws on the key switch  
.....(Picture 3)
- (5) Follow with the reversed steps to restore

**<Tools> : (1) (2) screwdriver ; (3) T-bend socket wrench ( 8mm ) & screwdriver ;**



**(4) T-bend socket wrench ( 10mm )**

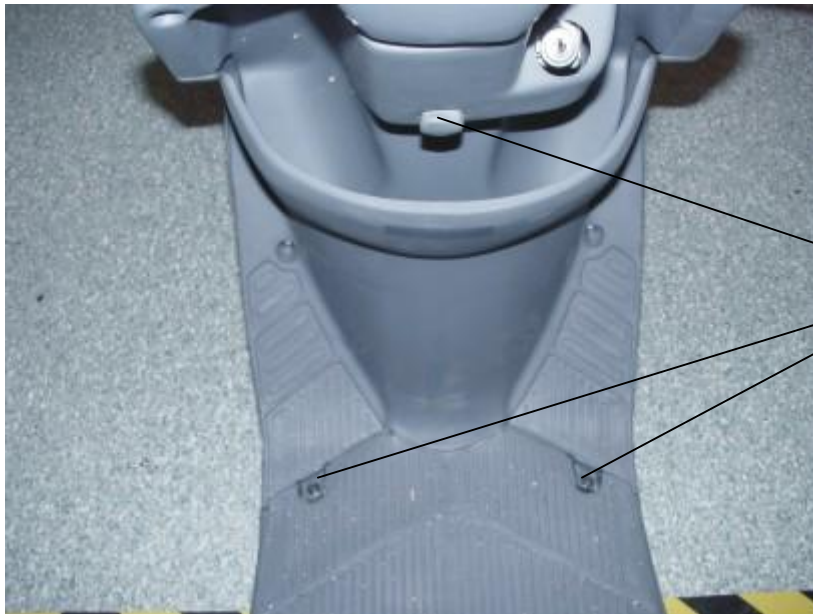


Three screws on the  
front cover

Six screws on the  
front fender

**(Picture 1)**





Three screws on  
the glove box

**(Picture 2)**



Two screws for the key  
switch on left and right side

4 pin connector

**(Picture 3)**



### **Replace Horn:**

(1) Release three screws on the front cover

.....(Picture 1)

(2) Release two connectors on the horn

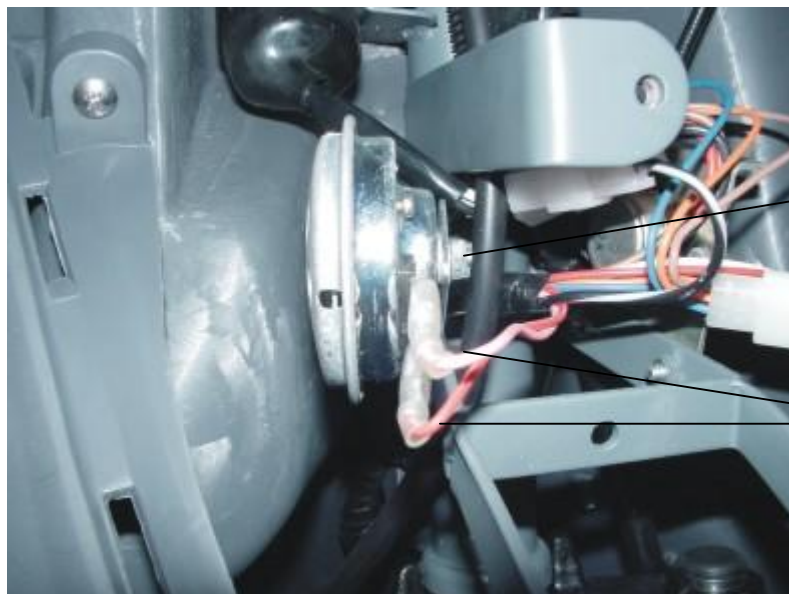
.....(Picture 2)

(3) Release the mounting screws on the horn

.....(Picture 4)

(4) Follow with the reversed steps to restore

**<Tools> : (1) screwdriver ; (3) open-end wrench ( 10mm )**



Two mounting screws  
on the horn

Two connectors on  
the horn

**(Picture 4)**

## (4) MAIN CONTROL CORD

### Replace Main Control Cord :

- (1) Release three screws on the handle cover, two mounting screws on the instrument panel, three screws on the head light, three screws on the front cover and two screws on the right trim

.....(Picture 1 & 2)

- (2) Release all of the connectors stored inside the handle cover

.....(Picture 3)

- (3) Release all of the connectors stored inside the front cover

.....(Picture 4)

- (4) Release all of the connectors stored inside the right cover

.....(Picture 5)

- (5) Follow with the reversed steps to restore

**<Tools> : (1) screwdriver**



Three screws on  
the handle cover

Three screws on the  
front cover

**(Picture 1)**

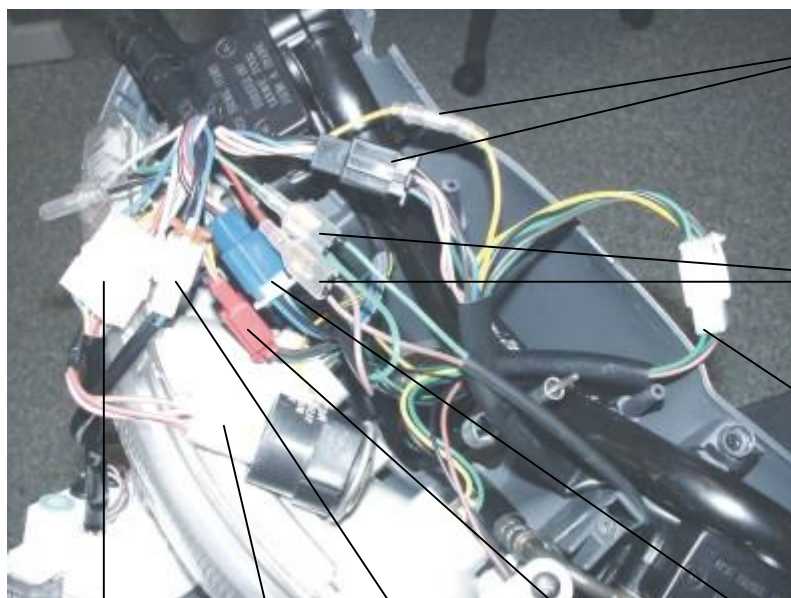


Three screws on  
the head light

Two mounting  
screws on the  
instrument panel

**(Picture 2)**

### Connectors inside the handle cover



6 pin connector for left  
handle switch

Connectors for  
power cut off and  
brake functions

6 pin connector for the  
head light assy

4 pin connector for right  
handle switch

3 pin connector for  
E/P switch

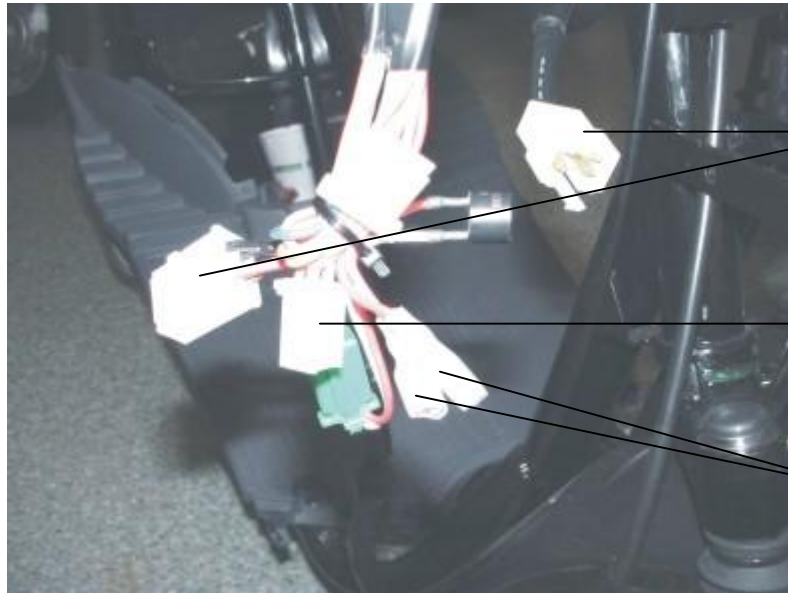
2 pin connector for  
Instrument panel  
light

2 pin connector for  
flasher relay

12 pin connector for  
speedometer assy

**(Picture 3)**

## Connectors inside the front cover



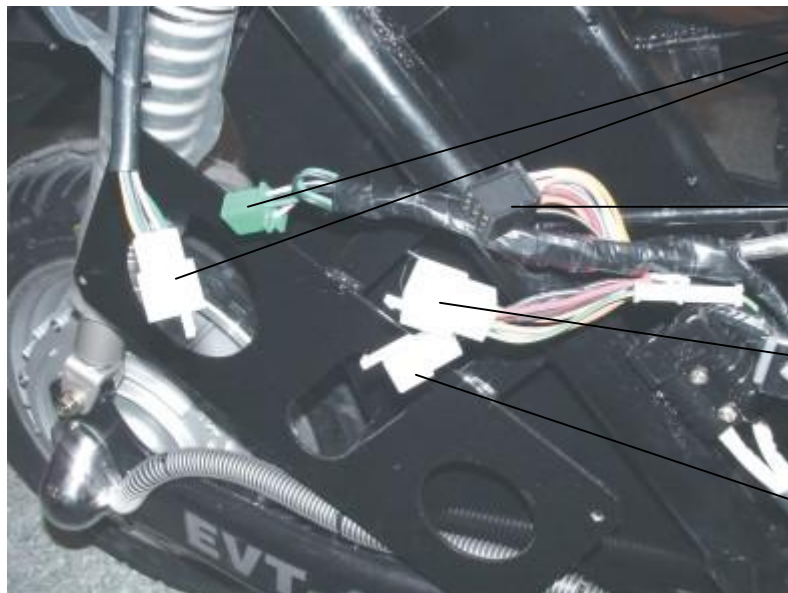
4 pin connector for key switch

4 pin connector for DC  
to DC converter

Two connectors for the horn

(Picture 4)

## Connectors inside the right cover



6 pin connector for the  
tail light assy

9 pin black connector

9 pin white connector

2 pin white connector

(Picture 5)

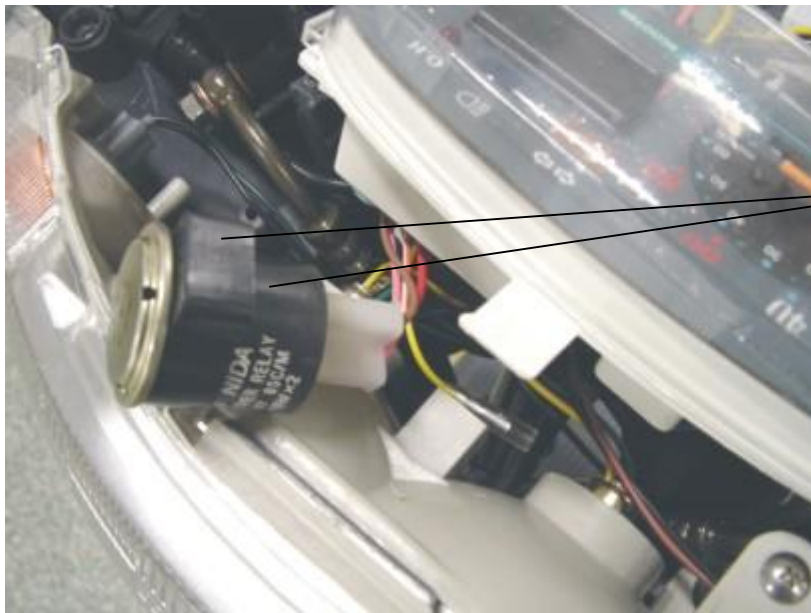
### Replace Flasher Relay:

- (1) Release three screws on the handle cover, remove the rubber sleeve so can see the 2 pin connector for the flasher relay

.....(Picture 1 & 6)

- (2) Follow with the reversed steps to restore

**<Tools> : (1) screwdriver**



Rubber sleeve and 2 pin  
connector for flasher  
relay

**(Picture 6)**





**(Picture 7)**

**Replace DC to DC converter:**

- (1) Release three screws on the front cover so can see the DC to DC converter  
.....(Picture 7)
- (2) Release two screws and 4 pin connector for the DC to DC converter  
.....(Picture 7 & 8)
- (3) Follow with the reversed steps to restore

**<Tools> : (1) (2) screwdriver**



**(Picture 8)**

## **(5) HANDLE SWITCH LEFT AND RIGHT**

### **Replace Left Handle Switch:**

Remove left rear view mirror and release three screws on the handle cover

.....(Picture 1)

(1) Release two mounting screws on the instrument panel

.....(Picture 1)

(2) Release two screws on the left handle switch

.....(Picture 1)

(4) Follow with the reversed steps to restore

**<Tools> : (1) open-end wrench ( 14mm ) & screwdriver ; (2) (3) screwdriver**



Two screws on the  
left handle switch

Two mounting  
screws on the  
instrument panel

**(Picture 1)**



### **Replace Right Handle Switch:**

- (1) Remove the right rear mirror and three screws on the handle cover  
.....(Picture 2)
- (2) Release two mounting screws on the instrument panel  
.....(Picture 1)
- (3) Release two screws on the right handle switch and one screw for the throttle cable  
.....(Picture 2)
- (4) Follow with the reversed steps to restore

**<Tools> : (1) open-end wrench ( 14mm ) & screwdriver ; (2) (3) screwdriver**



Two mounting screws on  
the right handle switch

The screw for the  
throttle cable

**(Picture 2)**

## **(6) BRAKE MASTER CYLINDER R & L**

### **Replace Master Cylinder Right and Left:**

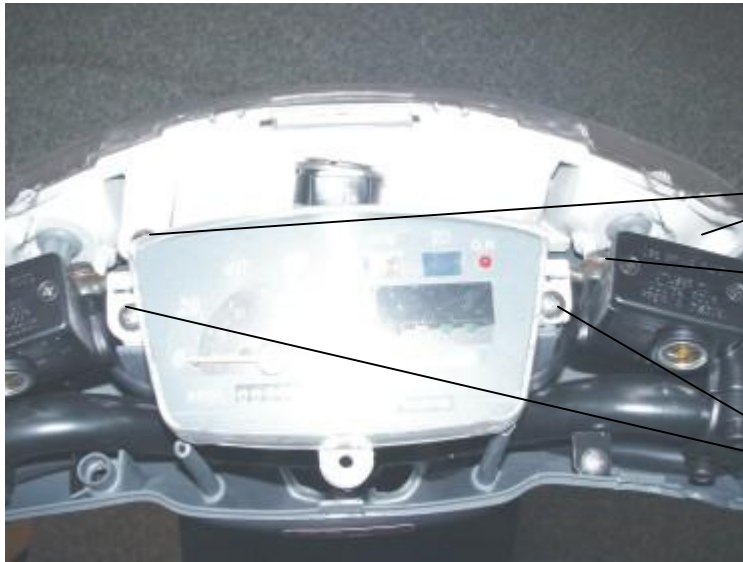
- (1) Release three screws on the handle cover, two mounting screws on the instrument panel and three screws on the head light assy  
.....(Picture 1 & 2)
- (2) Check the fluid in reservoir for refuel or replace the brake fluid  
.....(Picture 2)
- (3) Replace reservoir
  - (a) Gasket fail or wear out (b) leaking
- (4) Release the screw on the brake hose  
.....(Picture 2)
- (5) Release two screws on the reservoir  
.....(Picture 3)

**<Tools> : (1) screwdriver ; (4) box wrench ( 12mm ) ; (5) hex-key wrench ( 5mm )**



Three screws on the  
handle cover

**(Picture 1)**



Three screws on the head  
light assy

The screw on the brake  
hose

Two mounting screws on  
the instrument panel

**(Picture 2)**



Two screws on the  
reservoir

**(Picture 3)**

## **(7) FRONT FORK AND REAR**

### **SHOCK ABSORBER**

#### **Replace Front Fork:**

- (1) Release three screws on the front cover  
.....(Picture 1)
  - (2) Release six screws on the front fender  
.....(Picture 2)
  - (3) Release three screws on the glove box  
.....(Picture 3)
  - (4) Release clamping screw for the handle  
.....(Picture 4)
  - (5) Release front axle nut to remove the wheel  
.....(Picture 5)
  - (6) Release two screws on the caliper  
.....(Picture 6)
  - (7) Release two screws on the front fork and check the steel balls to see if they are missing..... (Picture 4)
  - (8) Properly adjust the front fork clearance and follow the reversed steps to restore
- <Tools> : (1) (2) screwdriver ; (3) T-bend socket wrench ( 8mm ) & screwdriver ;**



- (4) box wrench ( 14mm ) ; (5) box wrench ( 17mm ) ; (6) Y-bend socket wrench ( 12mm ) ;**



- (7) special wrench**





Three screws on

**(Picture 1)**



Six screws on  
the front fender

**(Picture 2)**



**(Picture 3)**



**(Picture 4)**





Front axle nut

**(Picture 5)**



Two screws

**(Picture 6)**



### **Replace Rear Shock Absorber:**

(1) Release two screws on the trim on each left and right side

.....(Picture 7)

(2) Release two screws on the left shock absorber

.....(Picture 9)

(3) Same as above mentions to replace the right shock absorber

(4) Follow with the reversed steps to restore

**<Tools> : (1) screwdriver ; (2) T-bend socket wrench ( 12mm,14mm )**



Two screws on the  
trim on each left and  
right side

**(Picture 7)**



Left and Right shock  
absorber

**(Picture 8)**



Two screws on the  
shock absorber

**(Picture 9)**

## **(8 ) BRAKE HOSE FRONT & REAR**

### **Replace Front Brake Hose:**

- (1) Release three screws on the handle cover  
.....(Picture 1)
- (2) Release two screws on the right reservoir  
.....(Picture 2)
- (3) Release the screw on the brake hose of the front wheel, avoid fluid leaking to the pad .....(Picture 3)
- (4) Release the screw on the right side brake hose  
.....(Picture 2)
- (5) Release three screws on the front cover  
.....(Picture 4)
- (6) Cut off the band, and then pull out the hose slowly
- (7) Follow with the reversed steps to restore

**<Tools> : (1) (2) screwdriver ; (3) (4) box wrench ( 12mm ) ; (5) screwdriver ;**



**(6) diagonal cutting pliers**



Three screws on the  
handle cover

**(Picture 1)**



Two screws on the  
reservoir

The screw on the  
right side brake hose

**(Picture 2)**



The screw on the brake hose  
of the front wheel

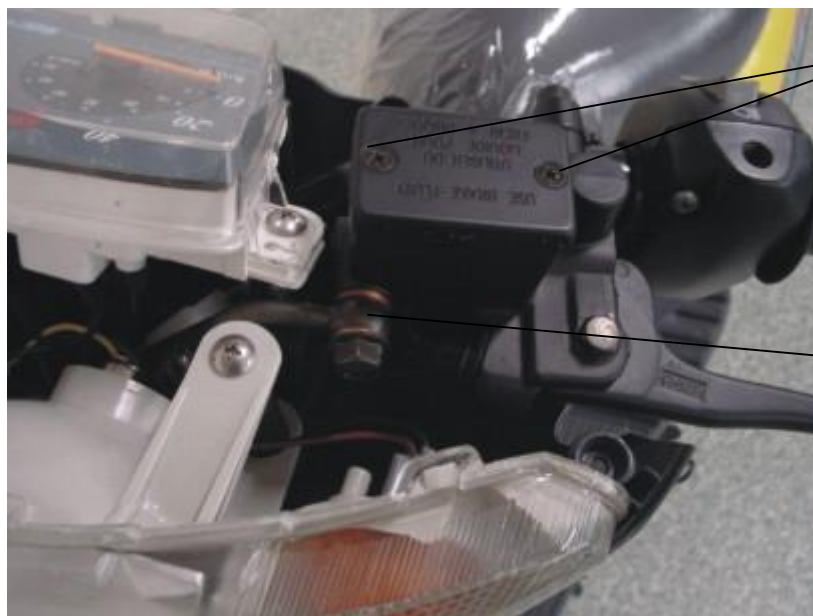
**(Picture 3)**



Three screws on the front cover

Six screws on the front fender

(Picture 4)



Two screws on the reservoir

The screw on the right side brake hose

(Picture 5)

### Replace Rear Brake Hose:

- (1) Release three screws on the handle cover  
.....(Picture 1)
- (2) Release two screws on the left reservoir  
.....(Picture 5)
- (3) Release the screw on the brake hose of the rear wheel, avoid fluid leaking to the pad .....(Picture 6)
- (4) Release the screws on the left side brake hose  
.....(Picture 5)
- (5) Release three screws on the front cover  
.....(Picture 4)
- (6) Release six screws on the front fender  
.....(Picture 4)
- (7) Release two screws on the left trim
- (8) Cut off the band, pull out the hose slowly
- (9) Follow with the reversed steps to restore

**<Tools> : (1) (2) screwdriver ; (3) (4) box wrench ( 12mm ) ; (5) (6) (7) screwdriver ;**



**(8) diagonal cutting pliers**



The screw on the brake  
hose of the rear wheel

**(Picture 6)**



## **(9) CALIPER FRONT & REAR**

### **Replace Front Caliper:**

- (1) Release three screws on the handle cover  
.....(Picture 1)
- (2) Release the screw on the front caliper, avoid fluid leaking to the pad  
.....(Picture 2)
- (3) Release the screw on the pad, and then remove the pad  
.....(Picture 2)
- (4) Release two mounting screws on the caliper  
.....(Picture 2)

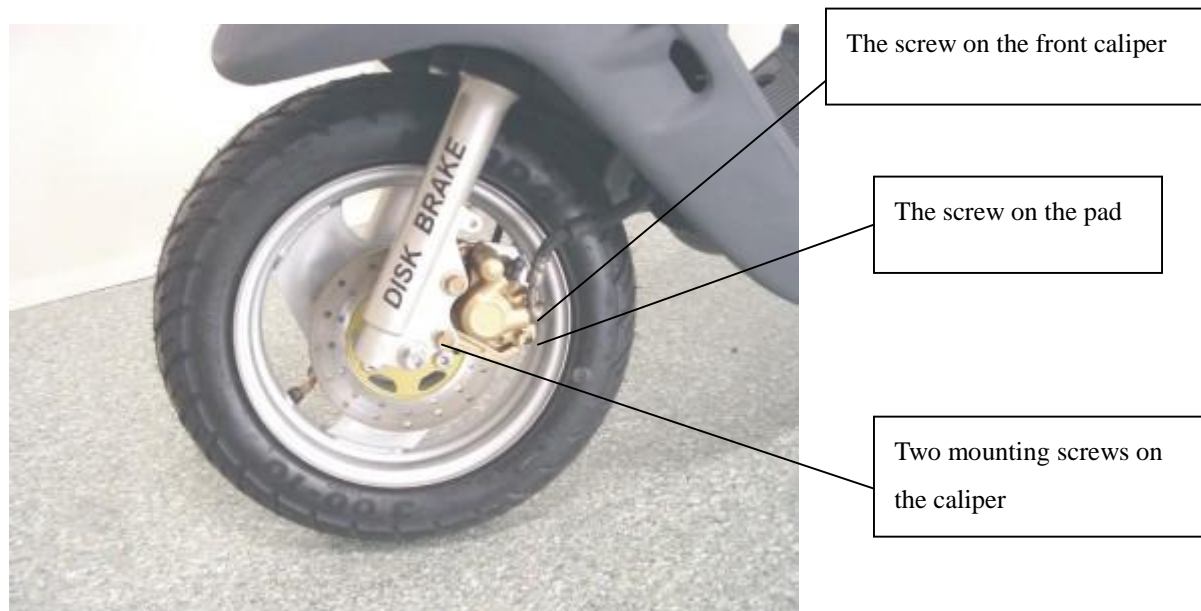
**<Tools> : (1) screwdriver; (2) box wrench( 12mm ); (3)(4)Y-bend socket wrench( 12mm );**



Three screws on the  
handle cover

**(Picture 1)**





**(Picture 2)**

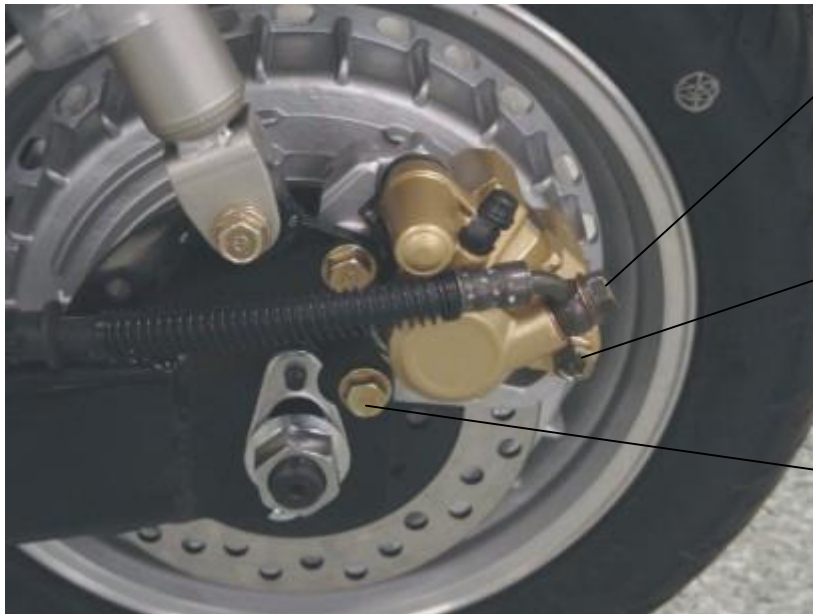
### **Replace Rear Caliper:**

- (1) Release three screws on the handle cover  
.....(Picture 1)
- (2) Release the screw on the rear caliper, avoid fluid leaking to the pad  
.....(Picture 3)
- (3) Release the screw on the pad  
.....(Picture 3)
- (4) Release two mounting screws on the caliper  
.....(Picture 3)

**<Tools> : (1) screwdriver ; (2) box wrench ( 12mm ) ; (3)(4) Y-bend socket wrench ( 12mm )**



**\* Refuel the brake fluid and pump out the air right after replacement of the caliper.**



The screw on the rear caliper

The screw on the pad

Two mounting screws on the rear caliper

**(Picture 3)**

## (10) CONTROLLER

### Replace Controller:

- (1) Release two screws on the right side trim  
.....(Picture 1)
  - (2) Release the connectors of controller wire harness (black×1、red×1、black 9 pin×1、white 9 pin×1). Release the copper nut of throttle cable and pull it out, then you can see a small hole on the throttle pillar, put a nail through the hole so can prevent the pillar to draw back  
..... (Picture 1 & 2)
  - (3) Release four screws on the controller, and cut off the band to remove the controller .....(Picture 1)
  - (4) Follow with the reversed steps to restore
- <Tools> : (1) (3) screwdriver**

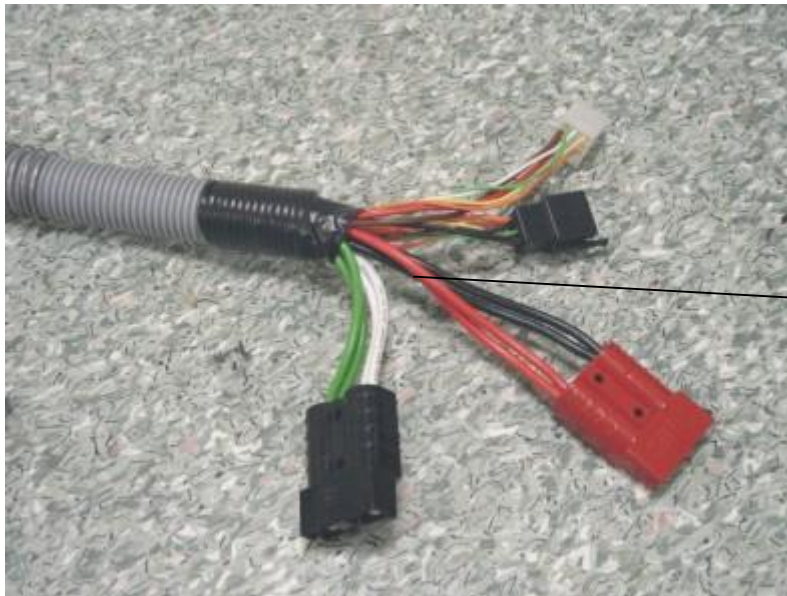


Two screws on the right side trim

Four screws on the controller

The throttle pillar

**(Picture 1)**



Controller wire harness

**(Picture 2)**



Tie band to prevent the pillar to draw back

The Throttle pillar

**(Picture 3)**

## **(11) MOTOR AND BRAKE DISK**

### **Replace Motor:**

- (1) Release the black connector of the motor cord  
.....(Picture 1)
- (2) Cut off the band  
.....(Picture 1)
- (3) Release three screws on the motor cord cover  
.....(Picture 1)
- (4) Release two nuts for the motor shaft  
.....(Picture 2)
- (5) Release the rear caliper so can remove the motor  
.....(Picture 3)
- (6) Follow with the reversed steps to restore

**<Tools> : (2) diagonal cutting pliers ; (3) screwdriver ; (4) open-end wrench ( 24mm ) ;**



**(5) Y-bend socket wrench ( 12mm )**



Motor cord

Three tie bands on the  
main cord

Three screws on the  
motor cover

**(Picture 1)**



Two nuts for the motor shaft

**(Picture 2)**



Two screws for the brake assy

**(Picture 3)**



### Replace Rear Brake Disk:

- (1) Release the black connector of the motor cord  
.....(Picture 1)
- (2) Cut off the band (Picture 1)
- (3) Release three screws on the motor cord cover (Picture 1)
- (4) Release two nuts for the motor shaft (Picture 2)
- (5) Release the rear caliper so can remove the motor (Picture 2)
- (6) Release three screws on the brake disk so can remove the disk
- (7) Follow with the reversed steps to restore

**<Tools> : (2) diagonal cutting pliers ; (3) screwdriver ; (4) open-end wrench ( 24mm ) ;**



**(5) Y-bend socket wrench ( 12mm ) ; (6) hex-key wrench ( 6mm )**



Three screws on the disk

**(Picture 4)**



### Replace Front Brake Disk:

(1) Release the screw for the front axle nut to remove the front wheel

.....(Picture 5)

(2) Release three screws on the disk

(3) Follow with the reversed steps to restore

<Tools> : (1) box wrench ( 17mm ) ; (2) hex-key wrench ( 6mm )



The screws for the  
front axle nut

(Picture 5)



Three screws on the  
brake disk

(Picture 6)

## (12) REAR LIGHT ASSY

### **Replace Rear Light:**

Release three screws on the tail comp

.....(Picture 1)

(1) Release four screws on the trim on each left and right side

.....(Picture 2)

(3) Release the screw on the center cover

.....(Picture 3)

(4) Release three screws on the side cover on each left and right side

.....(Picture 2)

(5) Release two screws on the tail fender

.....(Picture 2)

(6) Follow with the reversed steps to restore

**<Tools> : (1) hex-key wrench ( 6mm ) & Y-bend socket wrench ( 10mm ) ;**



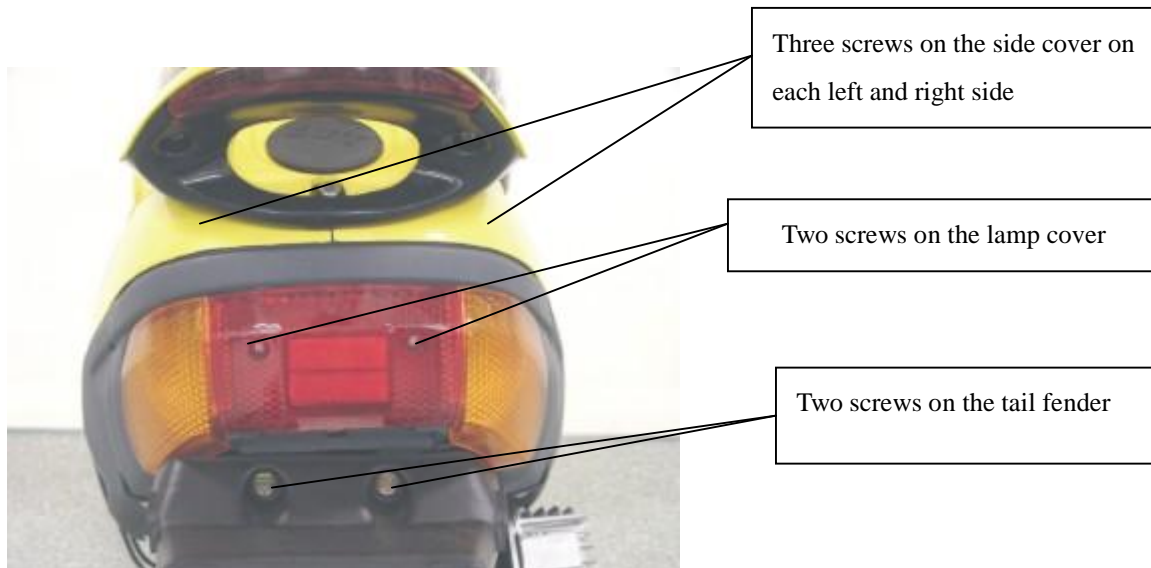
**(2) (3) (4) screwdriver ; (5) T-bend socket wrench ( 10mm )**



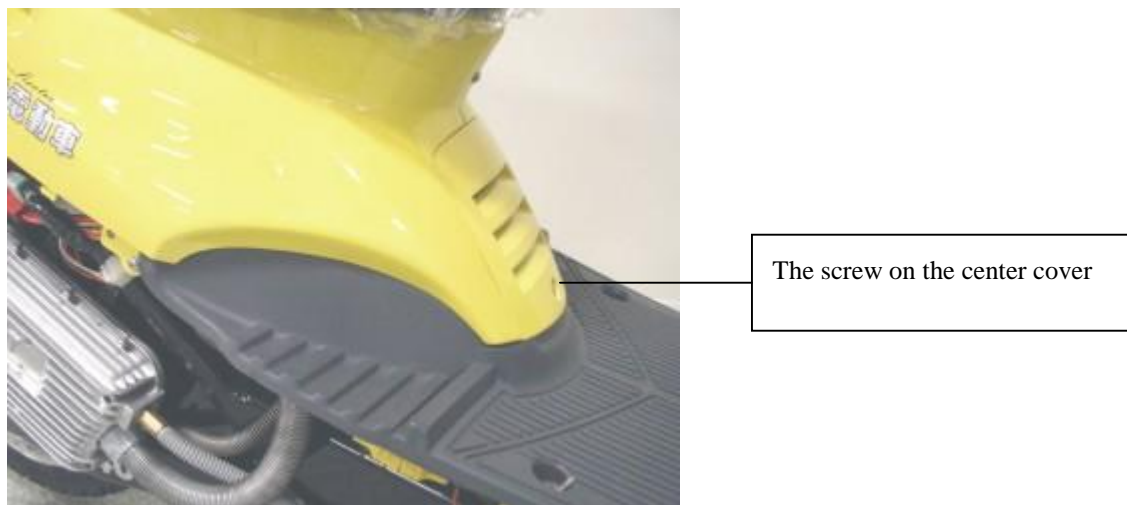
Three screws on the tail comp

Tail comp

**(Picture 1)**



**(Picture 2)**



**(Picture 3)**

**Replace the bulb for Rear Lamp & Signal Light:**

- (1) Release two screws on the rear lamp cover  
 .....(Picture 2)
- (2) Remove the cover so can replace the bulb  
 .....(Picture 4)
- (3) Follow with the reversed steps to restore

**<Tools> : (1) screwdriver**





The bulb for brake light

The bulb for the signal  
left and right

**(Picture 4)**

# EVT-4000e Trouble Shooting and Repair

<i>Conditions</i>	<i>Inspect</i>	<i>Repair</i>
Display Panel indicator light is working, but there is no move while twisting throttle.	<ol style="list-style-type: none"> <li>1. The power will cut off while braking.</li> <li>2. Brake switch breakdown</li> <li>3. Check Controller cable is fixed</li> <li>4. Check Motor cable is fixed</li> <li>5. Motor breakdown</li> <li>6. Controller breakdown</li> </ol>	<ol style="list-style-type: none"> <li>1. Release the brake and then gently twisting throttle</li> </ol> <p>2~6. See your agent</p>
Display Panel indicator light is not working or no starting beep sound while you turn the switch to the “ON” position.	<ol style="list-style-type: none"> <li>1. Has the fuse blown</li> <li>2. Serious insufficient energy left</li> <li>3. Key switch breakdown</li> <li>4. Check main switch cable is fixed</li> <li>5. Controller breakdown</li> <li>6. Display panel breakdown</li> <li>7. The starting beeper breakdown.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove the fuse and replace or see your agent</li> <li>2. Recharge battery</li> </ol> <p>3~7. See your agent</p>
The first red light blinking (1)	<ol style="list-style-type: none"> <li>1. Serious insufficient energy left</li> <li>2. The battery is aged or useless</li> </ol>	<ol style="list-style-type: none"> <li>1. Recharge battery immediately</li> <li>2. Replace the battery</li> </ol>
The second yellow light blinking (2)	1. Insufficient energy left	<ol style="list-style-type: none"> <li>1. Recharge battery</li> </ol> <p>(The power cut off while driving, please switch the power to “OFF” position, and wait for several minutes then restart. You may still drive a short distance.)</p>
The third green light blinking while driving (3)	<ol style="list-style-type: none"> <li>1. Over current</li> <li>2. Controller breakdown</li> </ol>	<ol style="list-style-type: none"> <li>1. Switch the power to “OFF” position, and wait for few seconds to restart.</li> <li>2. See your agent</li> </ol>
The fourth green light blinking (4)	<ol style="list-style-type: none"> <li>1. Throttle stuck</li> <li>2. Twisting throttle to pull away before the panel indicator stop blinking or the starting beep sound stop</li> <li>3. Controller breakdown</li> </ol>	<ol style="list-style-type: none"> <li>1. See your agent</li> <li>2. Switch the power to “OFF” position, and wait for few seconds to restart</li> <li>3. See your agent</li> </ol>
The OH indicator blinking	<ol style="list-style-type: none"> <li>1. Controller over heat</li> <li>2. Controller breakdown</li> </ol>	<ol style="list-style-type: none"> <li>1. Switch the power to “OFF” position, and wait for several minutes than restart.</li> <li>2. See your agent</li> </ol>
Charging indicator is not lit	<ol style="list-style-type: none"> <li>1. Are the outlet and inlet plugged secure?</li> <li>2. Wrong input voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Pull out and insert again or change outlet</li> </ol>

# Instrument Panel (Trouble Shooting and Repair)

