

EVT-168

Maintenance Manual



EVT TECHNOLOGY CO., LTD.

1.) FRONT COVER (White)

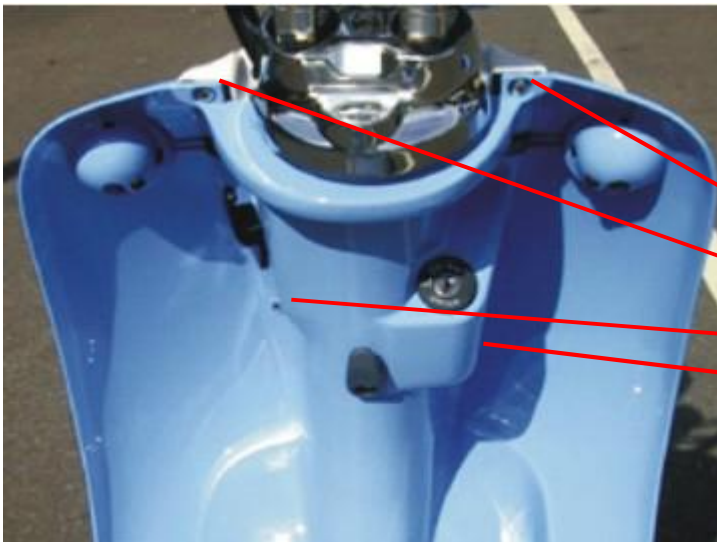
1. Release the screw on the front cover.... (picture 1)
2. Release four screws on the back of the front cover...(picture 2)
3. Remove the front cover.
4. Follow with the reversed steps to restore.

<Tools> : (1) (2) screwdriver



The screw on the front cover

(picture 1)



Four screws on the back of the cover

(picture 2)

2.) SEAT

1. Release two nuts on the seat.
 2. Remove the seat.
 3. Follow with the reversed steps to restore.
- <Tools> : (1) T-bend socket wrench (10mm)



Two nuts on the seat

3.) CENTER COVER (White)

1. Release the screw on the center cover.
 2. Remove the center cover.
 3. Follow with the reversed steps to restore.
- <Tools> : (1) T-bend socket wrench (8mm)



The screw on the center cover

4.) LEFT SIDE COVER

1. Remove the center cover.
2. Release four screws on the left side cover.
3. Remove the left side cover.
4. Follow with the reversed steps to restore.

<Tools> : (2) screwdriver

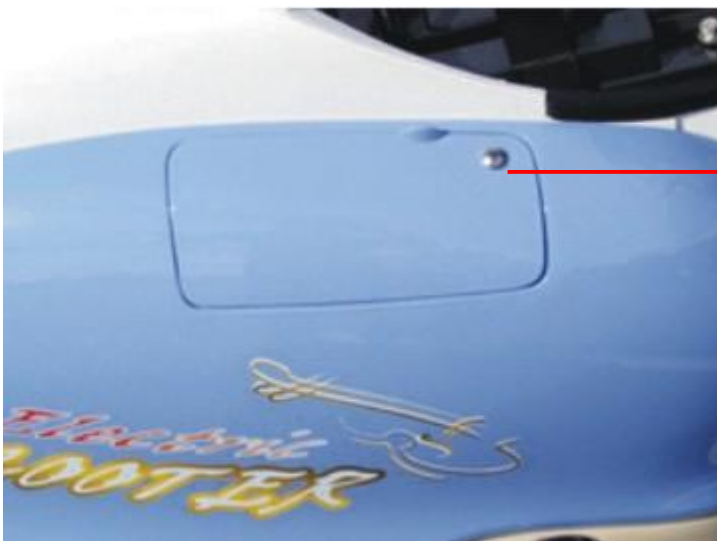


Four screws on the left side cover

5.) RIGHT SIDE COVER

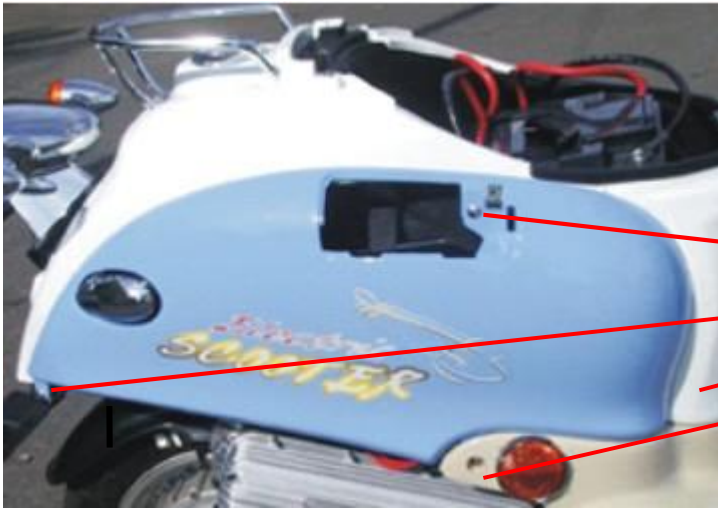
1. Release the screw on the cover... (picture 1)
2. Remove the cover.
3. Release four screws on the right side cover.
4. Remove the right side cover... (picture 2)
5. Follow with the reversed steps to restore.

<Tools> : (1)(3) screwdriver



The screw on the cover

(picture 1)

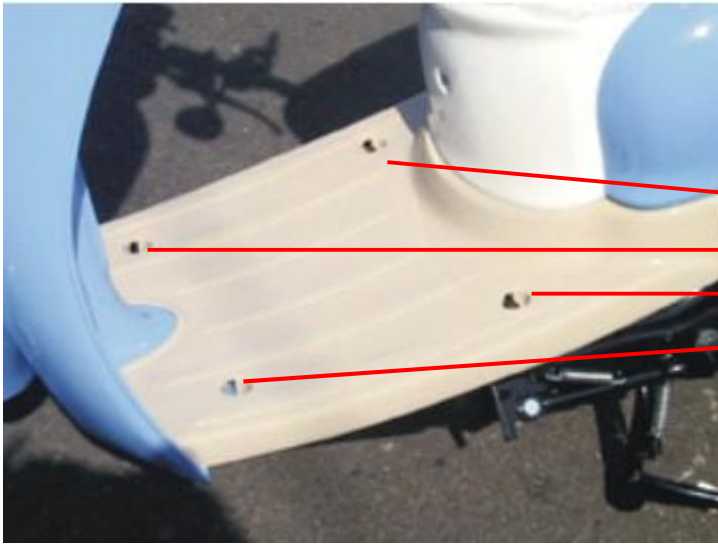


The screws on the right side cover

(picture 2)

6.) FOOTREST BOARD

- 1. Release four screws on the footrest board.
 - 2. Remove the footrest board.
 - 3. Follow with the reversed steps to restore.
- <Tools> : (1) T-bend socket wrench (10mm)

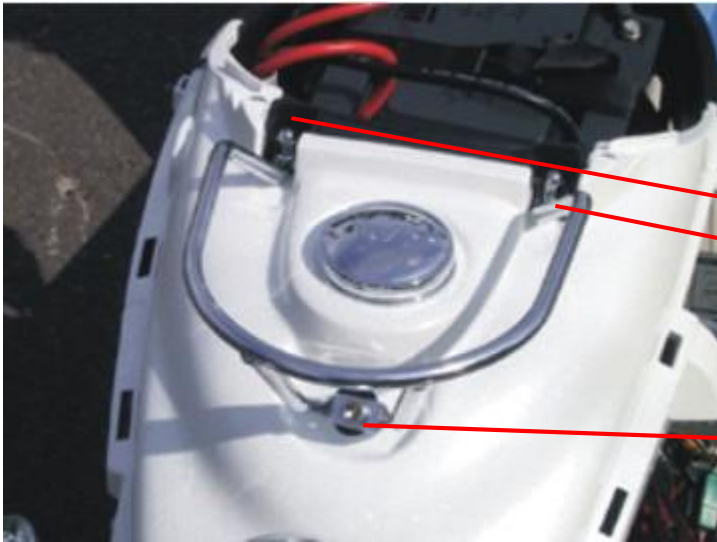


Four screws on the footrest board

7.) TAIL BRACKET

1. Release the screw on the tail bracket.
2. Release two nuts on the tail bracket.
3. Remove the tail bracket.
4. Follow with the reversed steps to restore.

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



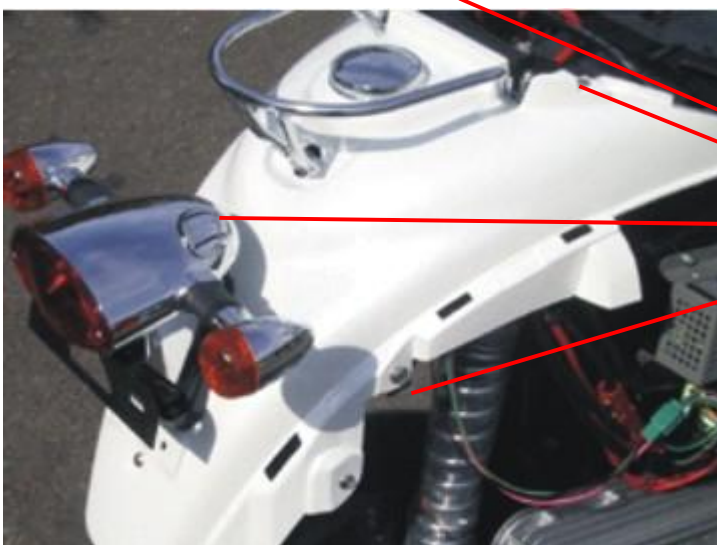
Two nuts on the tail bracket

The screw on the tail bracket

8.) REAR BODY COVER, WHITE

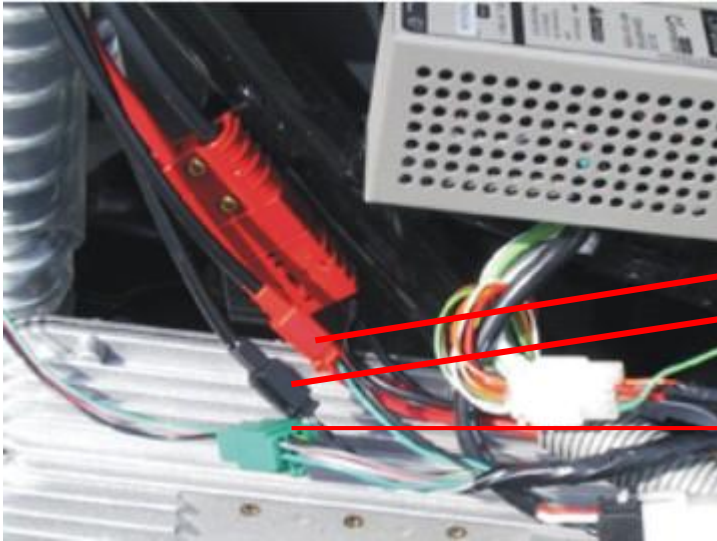
1. Release four screws on the rear cover... (picture 1)
2. Remove the plastic cover on the seat lock.
3. Release the 6 pin connector and 2 pin connectors... (picture 2)
4. Remove the rear cover.
5. Follow with the reversed steps to restore.

<Tools> : (1) screwdriver



Four screws on the rear cover

(picture 1)



2 pin connector for direction lamp

6 pin connector for tail lamp

(picture 2)

9.) LOWER COVER

1. Remove the footrest board and release the screw on the front of the lower cover.
2. Remove the lower cover.
3. Follow with the reversed steps to restore.

<Tools> : (1) screwdriver

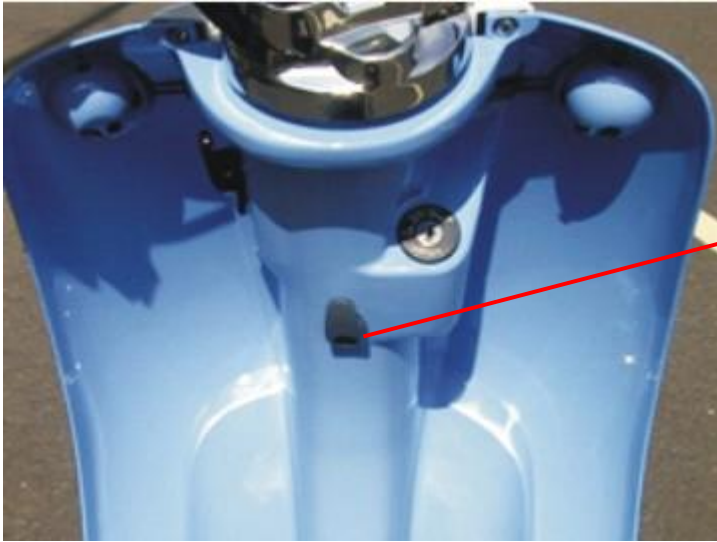


The screw on the front of the lower cover

10.) FAIRING (blue)

1. Remove the footrest board and the hanger on the back of the fairing.
2. Remove the fairing.
3. Follow with the reversed steps to restore.

<Tools> : (1) T-bend socket wrench (8mm)

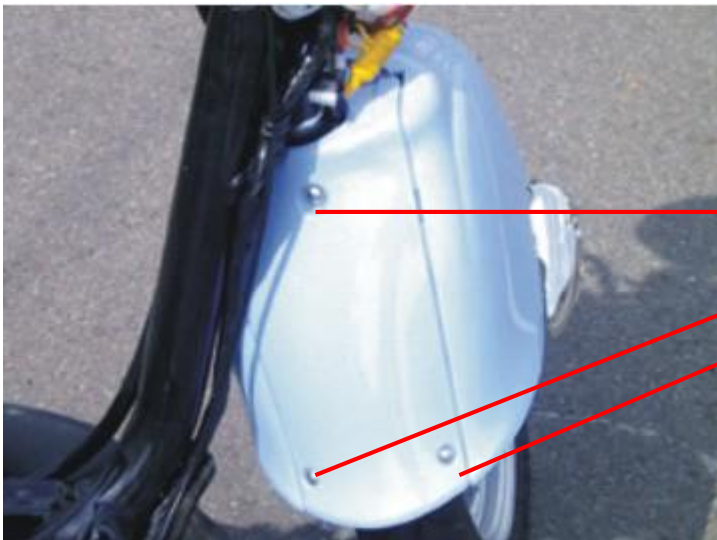


The hanger on the back of the fairing

11.) FRONT FENDER

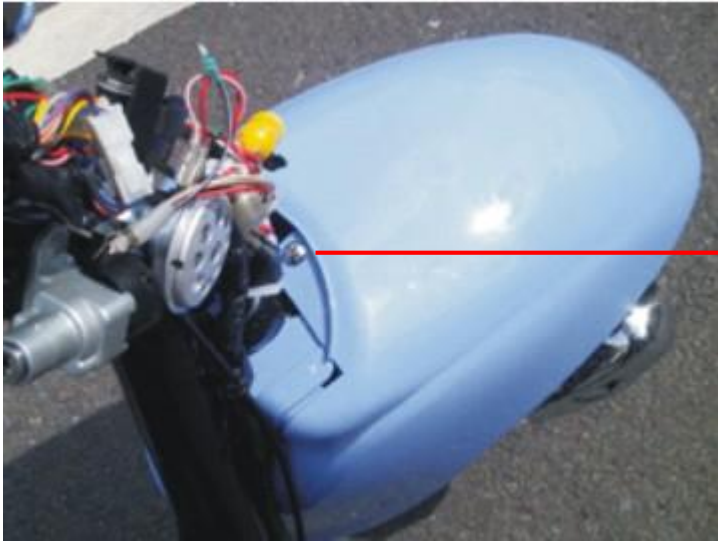
1. Release three screws on the “front fender, rear”... (picture 1)
2. Release the screw on the top of the “front fender, rear” and remove “the front fender, rear”... (picture 2)
3. Follow with the reversed steps to restore.

<Tools> : (1)(2) screwdriver



Three screws on the “front fender, rear”

(picture 1)



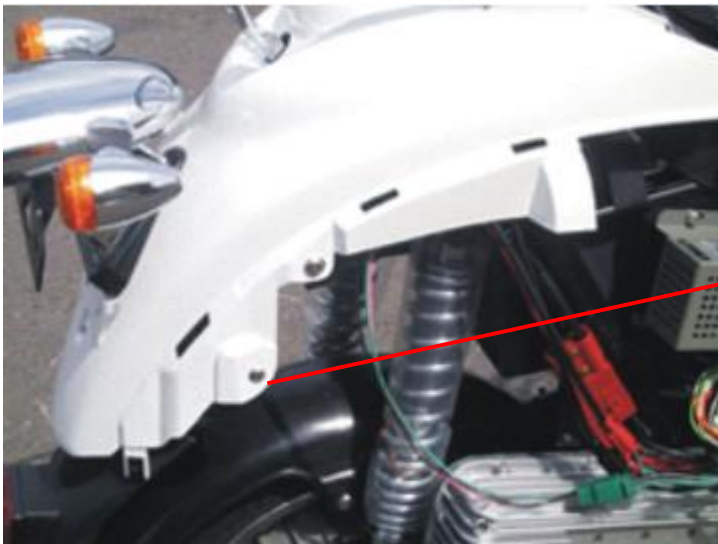
The screw on the top of the “front fender, front”

(picture 2)

12.) REAR FENDER, black

1. Remove the right and left side covers and release two screws on the rear fender.
2. Remove the rear fender.
3. Follow with the reversed steps to restore.

<Tools> : (1) screwdriver



Two screws on the rear fender

13.) HEAD LAMP BULB

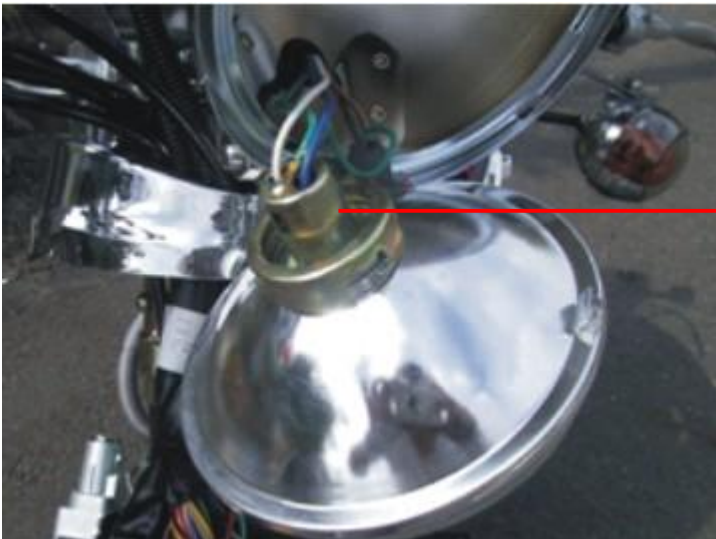
1. Release the screw on the head lamp ring... (picture 1)
2. Release the head lamp ring.
3. Release the spring on the bulb base.
4. Remove the bulb base and replace the bulb... (picture 2)
5. Follow with the reversed steps to restore.

<Tools> : (1) screwdriver



The screw on the head lamp ring

(picture 1)



The bulb Base

(picture 2)

14.) FRONT DIRECTION LAMP (WINKER) BULB

1. Release the screw on the base of the direction lamp... (picture 1)
2. Release the screw on the cover of the bulb... (picture 2)
3. Replace the bulb and follow the reversed steps to restore.

<Tools> : (1)(2) screwdriver



The screw on the base
of the direction lamp

(picture1)



The screw on the cover
of the bulb

(picture 2)

15.) TAIL LAMP BULB

1. Release two screws on the tail lamp cover and remove the cover.
2. Replace the light bulb.
3. Follow the reversed steps to restore.

<Tools> : (1) screwdriver



Two screws on the
tail lamp cover

16.) REAR DIRECTION LAMP (WINKER) BULB <EU>

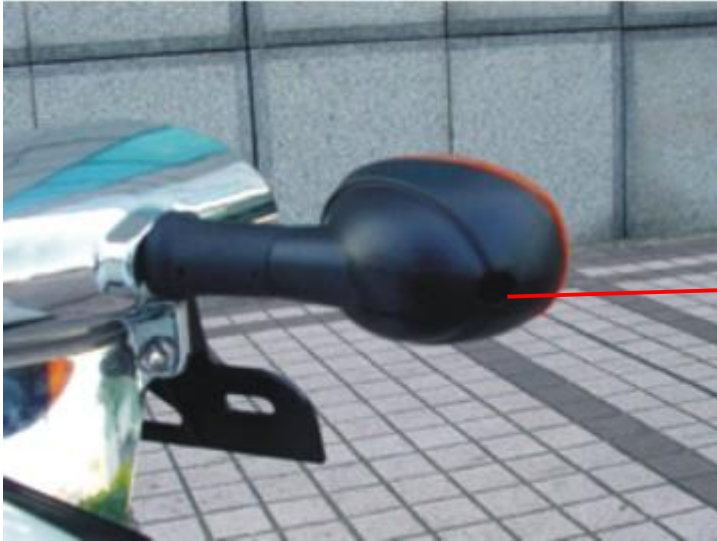
1. Remove the cover of the rear direction lamp.
2. Replace the light bulb.
3. Follow the reversed steps to restore.



16.) REAR DIRECTION LAMP BULB <DOT>

1. Release the screw on the base of the direction lamp... (picture 1)
2. Remove the cover of the direction lamp... (picture 2)
3. Replace the bulb and follow the reversed steps to restore.

<Tools> : (1) screwdriver



The screw on the base
of the direction lamp

(picture1)

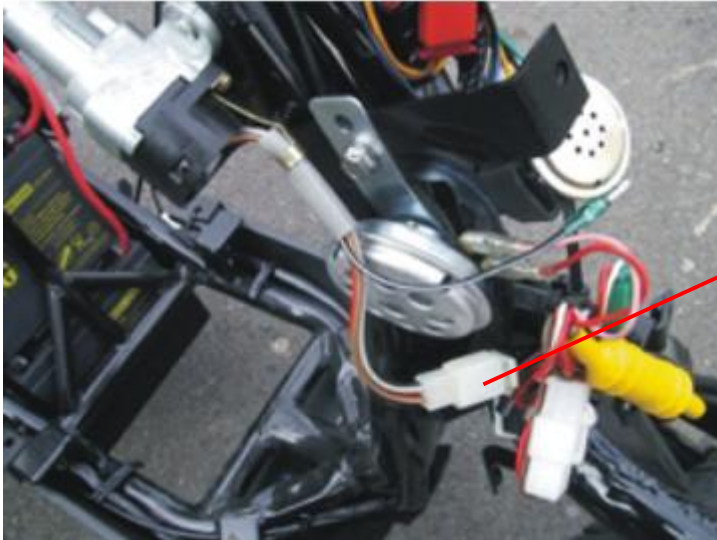


(picture 2)

17.) MAIN SWITCH

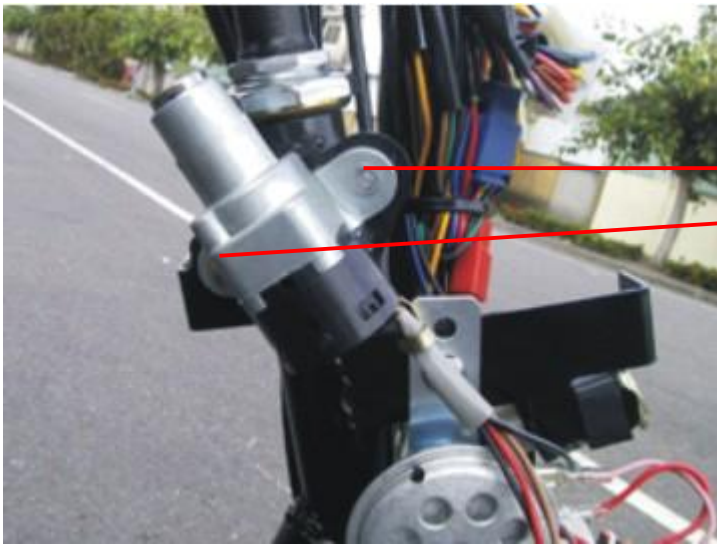
1. Remove front covers (white and color)
2. Release the 4 pin connector ...(picture 1)
3. Release two screws on the main switch and remove the key switch...(picture 2)
4. Follow with the reversed steps to restore.

<Tools> : (3) T-bend socket wrench (10mm)



4Pin connector for
the main switch.

(picture 1)



Two screws on
the main switch

(picture 2)

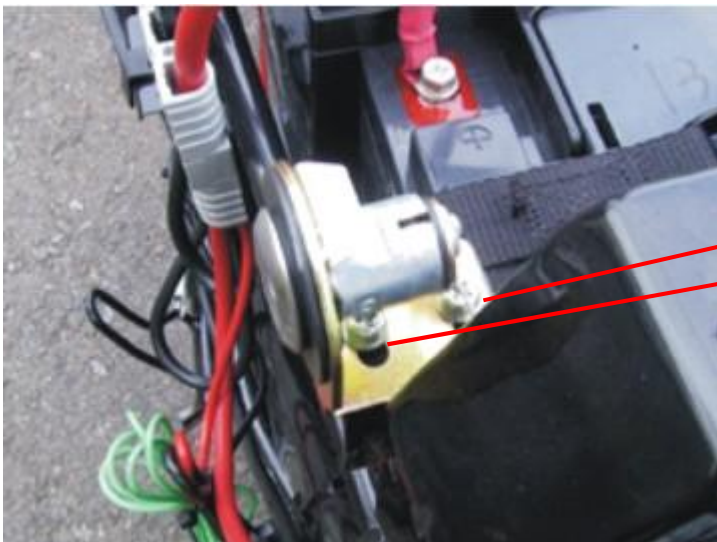
18.) SEAT LOCK ASSY

1. Remove the “rear body cover, white”.
 2. Remove the seat box rim.
 3. Release two screws on the seat lock... (picture1)
 4. Release two screws on the seat lock switch... (picture2)
 5. Remove the seat lock and seat lock switch.
 6. Follow with the reversed steps to restore.
- <Tools> : (3)(4) screwdriver



Two screws on
the seat lock

(picture 1)

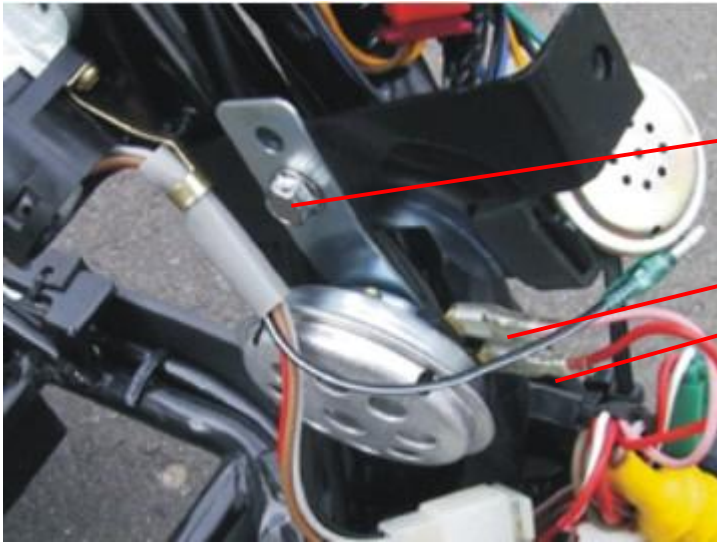


Two screws on the
seat lock switch

(picture 2)

19.) HORN

1. Remove the front cover (white).
 2. Release two connectors on the horn.
 3. Release the screw on the horn.
 4. Follow with the reversed steps to restore.
- <Tools> : (3) open-end wrench (10mm)



The screw on the horn

Two connectors on the horn

20.) FLASHER RELAY

1. Remove the front cover (white).
2. Release the 2 pin connector on the flasher relay.
3. Follow with the reversed steps to restore.

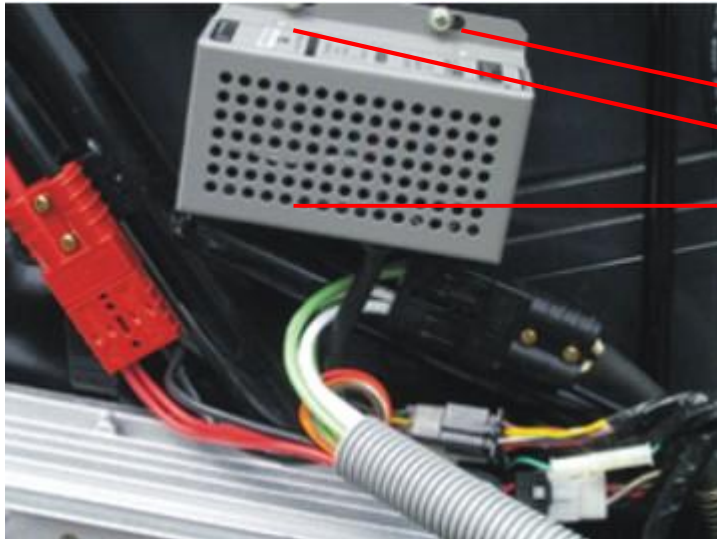


2 pin connector for the flasher relay

21.) DC TO DC CONVERTER

1. Remove the side covers and footrest board.
2. Release the 4 pin connector for the converter.
3. Release three screws on the converter.
4. Follow with the reversed steps to restore.

<Tools> : (3) screwdriver

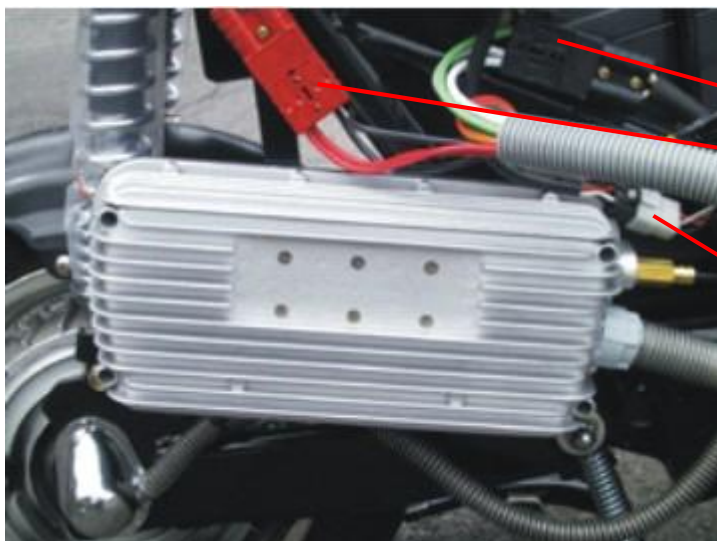


Three screws on the converter

22.) CONTROLLER

1. Remove the right side cover.
2. Release connectors of controller wire harness (black×1、red×1、black 9 pin×1、white 9 pin×1).
3. 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 & picture 2)
4. Release four screws on the controller, and cut off the band... (picture 3)
5. Follow with the reversed steps to restore.

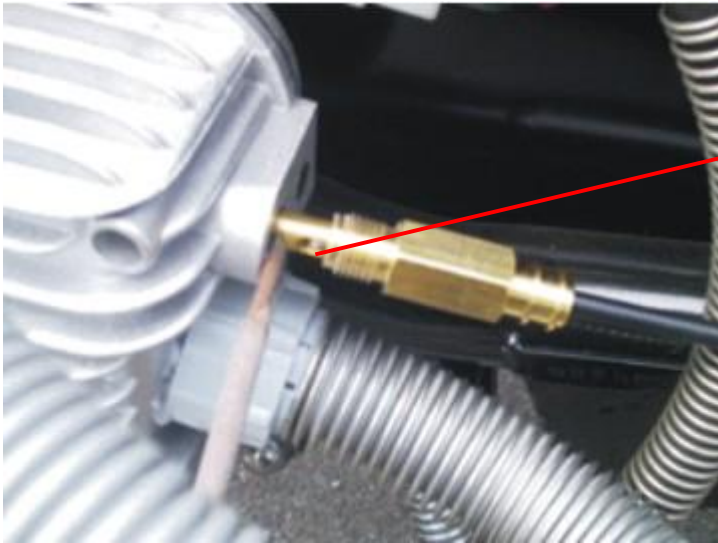
<Tools> : (4) screwdriver



Red and black connectors for the controller wire harness

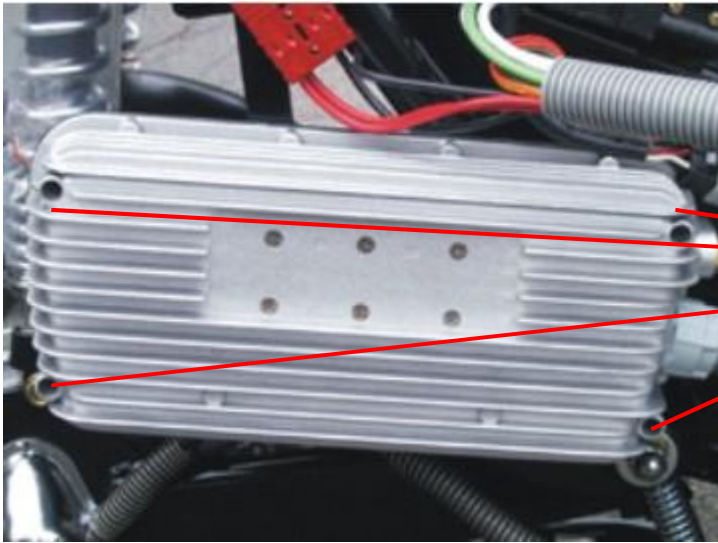
White and black 9 pin connector for the controller wire harness

(picture 1)



The throttle pilar

(picture 2)



Four screws on the controller

(picture 3)

23.) REAR SHOCK ABSORBER

1. Remove the “rear body cover, white”.
2. Release two screws on the rear shock absorber.
3. Follow with the reversed steps to restore.

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

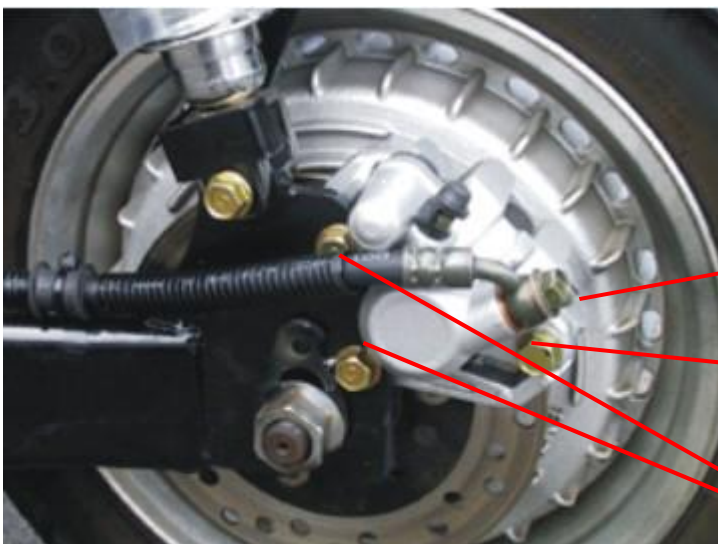


Two screws on the rear shock absorber

24.) REAR CALIPER

1. Release the screw on the rear caliper, avoid fluid leaking to the pad.
2. Release the screw on the pad.
3. Release two mounting screws on the caliper.
4. Follow with the reversed steps to restore.

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



The screw on the rear caliper

The screw on the pad

Two mounting screws on the caliper

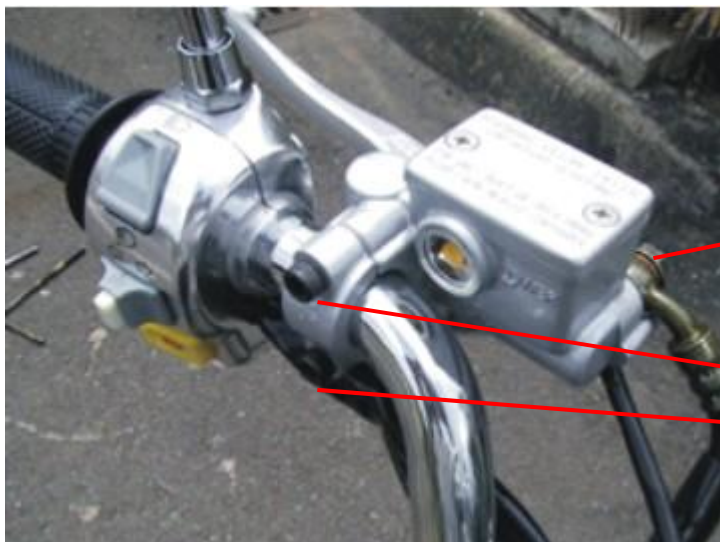
NOTE: Refuel the brake fluid and pump out the air right after replacement of the caliper.

25.) BRAKE MASTER CYLINDER

1. Check the fluid in reservoir for refuel or replace the brake fluid.
2. Replace reservoir (a) Gasket fail or wear out (b) leaking.
3. Release the screw on the brake hose...(picture 1)
4. Release two screws on the reservoir...(picture 1)
5. Release two connectors and remove the master cylinder... (picture 2)
6. Follow with the reversed steps to restore.

<Tools> : (3) box wrench (12mm)

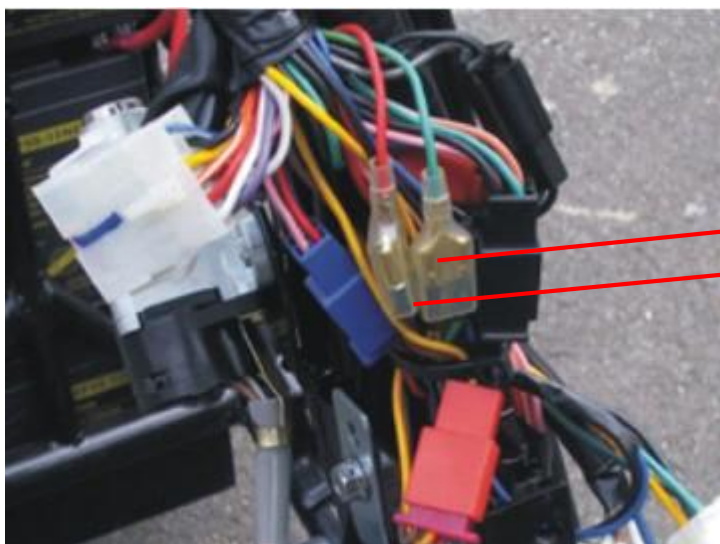
(4) hex-key wrench (5mm)



The screw on the brake hose

Two screws on the reservoir

(picture 1)



Two connectors for the brake switch

(picture 2)

26.) BRAKE HOSE

1. Remove all the covers and fenders.
2. Release the screw on the brake hose of the rear caliper, avoid fluid leaking to the pad...(picture 1)
3. Release the screw on the brake hose of the master cylinder... (picture 2)
4. Cut off the band on the brake hose and remove the brake hose.
5. Follow with the reversed steps to restore.

<Tools> : (2)(3) box wrench (12mm)
(4) diagonal cutting pliers



The screw on the brake hose of the rear caliper

(picture 1)



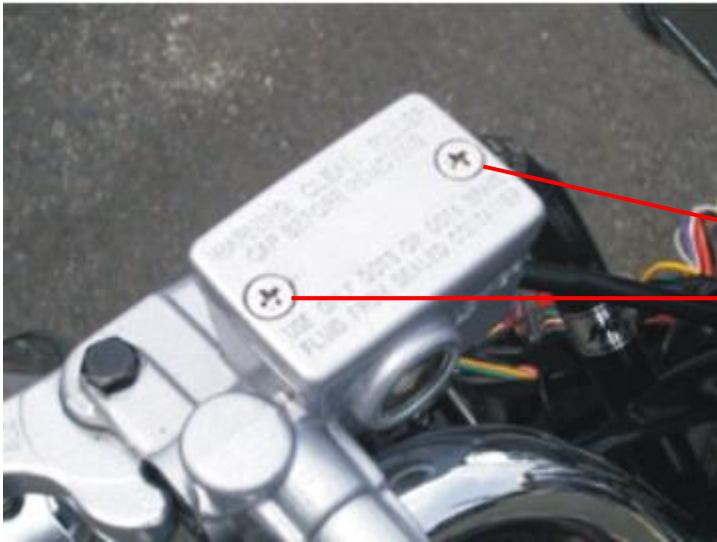
The screw on the brake hose of the master cylinder

(picture 2)

27.) BRAKE FLUID

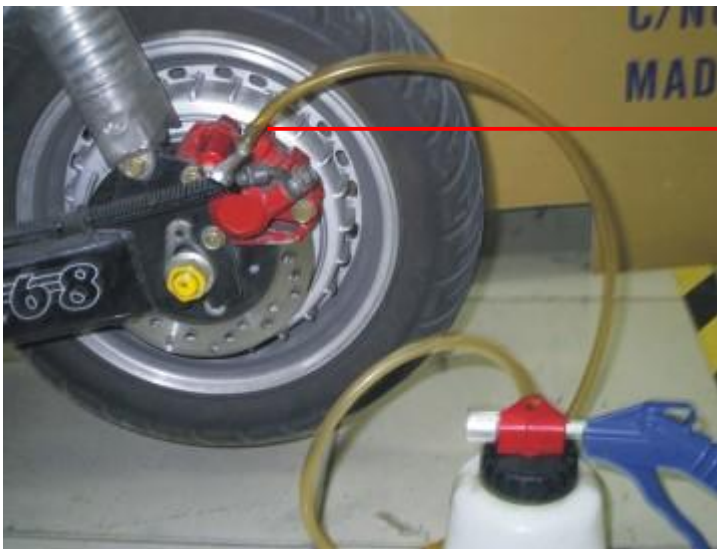
1. Release two screws on the cover of the master cylinder... (picture 1)
2. Place tube and fluid vacuum on the rear caliper's screw... (picture 2)
3. Pour brake fluid into the master cylinder.
4. Release the screw on the rear caliper and operate the fluid vacuum.
5. Pull the brake lever several times, and make sure the brake is normal functioning and no air in the brake hose.
6. Restore the cover of the master cylinder.

<Tools> : (1) screwdriver



Two screws on the cover of the master cylinder

(picture 1)



The screw on the rear caliper

(picture 2)

28.) BRAKE PAD

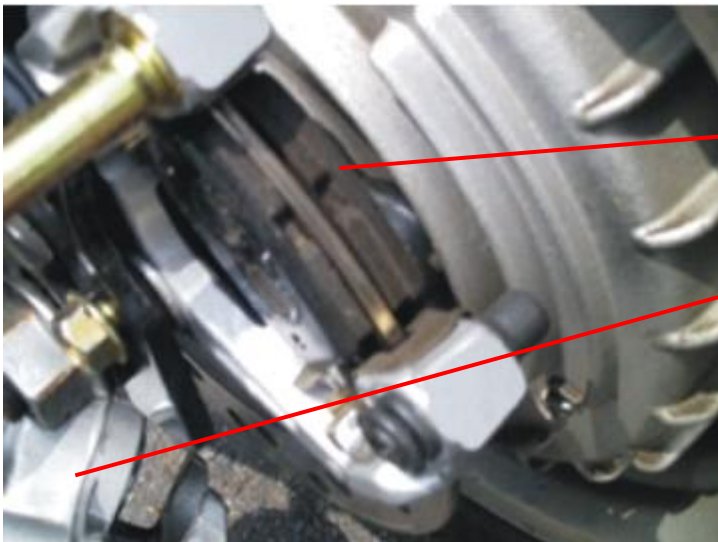
1. Release the screw on the rear caliper...(picture 1)
2. Remove the rear caliper... (picture 2)
3. Remove the brake pad from the base of the caliper...(picture 2)
4. Follow with the reversed steps to restore.

<Tools> : (1) Y-bend socket wrench (12mm)



The screw on the caliper

(picture 1)



The brake pad

The caliper

(picture 2)

29.) DIRECT DRIVEN HUB-MOTOR :

1. Release three screws on the motor cord cover...(picture 1)
2. Cut off the band.
3. Release the black connector of the motor cord.
4. Remove the rear caliper.
5. Release two nuts for the motor shaft... (picture 2)
6. Remove the orientation boards (right and left)...(picture 3, 4)
7. Remove the motor.
8. Follow with the reversed steps to restore.

<Tools> : (1) screwdriver ; (5) open-end wrench (24mm)



Three screws on the motor cord cover

(picture 1)



Two nuts for the motor shaft

(picture 2)



Left orientation board

(picture 3)



Right orientation board

(picture 4)

30.) BRAKE DISK

1. Remove the motor from the frame.
2. Release three screws on the brake disk.
3. Remove the brake disk.
4. Follow with the reversed steps to restore.

<Tools> : (2) hex-key wrench (6mm)



Three screws on the
brake disk

31.) REAR FORK

1. Remove the rear caliper, rear motor and rear shock absorber.
2. Cut off the band on the brake hose and release the screw on the rear fork.
3. Remove the rear fork.
4. Follow with the reversed steps to restore.

<Tools> : (2) box wrench (17mm)



The screw on the
rear fork

32.) FRONT SHOCK ABSORBER

1. Remove the front fender.
2. Release the screw on the front fork cover and remove the front fork cover...(picture 1)
3. Release two screws on the front shock absorber and remove the shock absorber...(picture 2)
4. Follow with the reversed steps to restore.

<Tools> : (2) screwdriver ;

(3) Y-bend socket wrench (12mm)



The screw on the front fork cover

(picture 1)



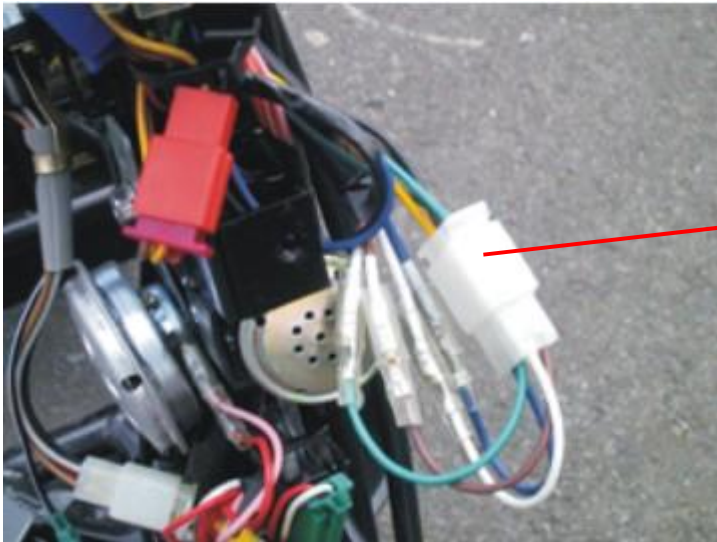
Two screws on the front shock absorber

(picture 2)

33.) HEAD LAMP

1. Remove the front cover (white).
2. Release the 6Pin connector (white)... (picture 1)
3. Release the screw on the head lamp holder...(picture 2)
4. Follow with the reversed steps to restore.

<Tools> : (3) box wrench (14mm)



6pin connector for the head lamp

(picture 1)



The screw on the head lamp holder

(picture 2)

34.) FRONT DIRECTION LAMP (WINKER)

1. Remove the front cover (white).
2. Release the 2pin connector on the front direction lamp.(green for the left, and red for the right).
3. Release the screw on the handle switch and remove the direction lamp.
4. Follow with the reversed steps to restore.

<Tools> : (3) screwdriver

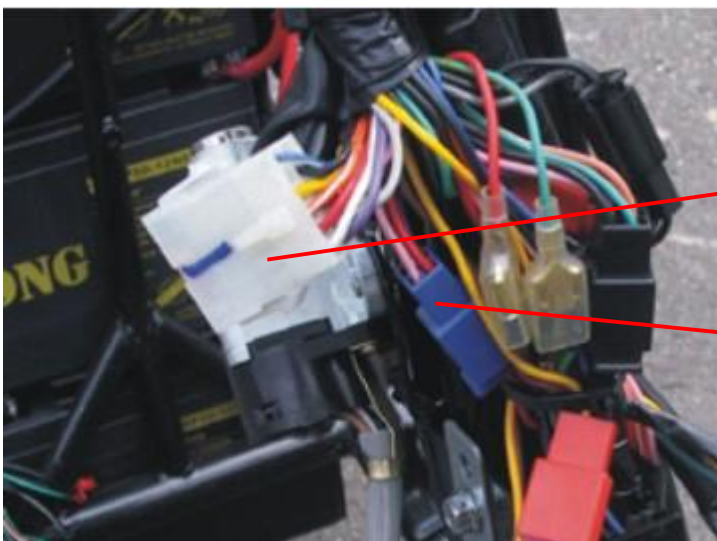


2pin connectors for the direction lamp

35.) Current Meter and Speedometer

1. Remove the front cover (white).
2. Release the 6pin connector (white) and the 2pin connector (blue) on the meters (picture 1)
3. Release two screws on the instrument panel...(picture 2)
4. Release the nut for the speedometer and remove the instrument panel...(picture 3)
5. Follow with the reversed steps to restore.

<Tools> : (3) T-bend socket wrench (8mm)



6Pin connector (white) for the current meter

2Pin connector (blue) for the speedometer

(picture 1)



Two screws on the meter bracket

(picture 2)



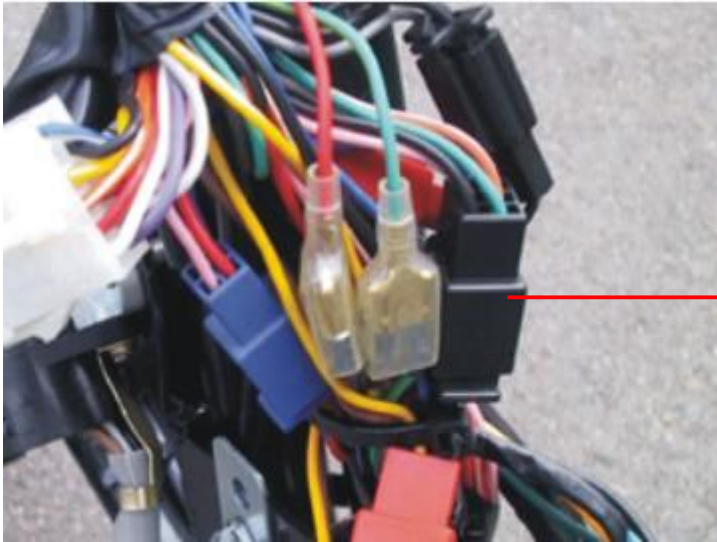
The nut for the speedometer

(picture 3)

36.) LEFT HANDLE SWITCH

1. Remove the front cover (white).
2. Release all connectors for the left handle switch. (Black 6pinX1, white 6pinX1, yellow 1pinX1)... (picture 1)
3. Release two screws on the left handle switch... (picture 2)
4. Follow with the reversed steps to restore.

<Tools> : (3) screwdriver



6pin connectors for the switch

(picture 1)



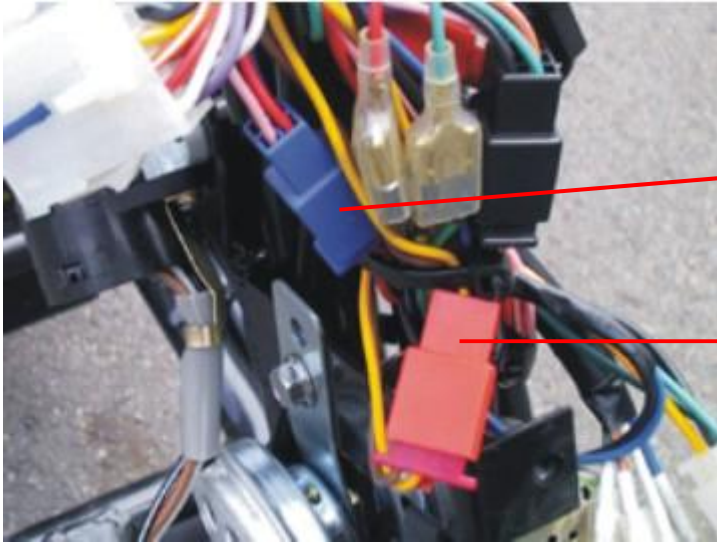
Two screws on the left handle switch

(picture 2)

37.) RIGHT HANDLE SWITCH

1. Remove the front cover (white).
2. Release all connectors for the left handle switch. (Red 3pinX1, blue 4pinX1)
... (picture 1)
3. Release two screws on the right handle switch... (picture 2)
4. Follow with the reversed steps to restore.

<Tools> : (3) screwdriver



Blue 4Pin connector
for the switch

Red 3pin connector
for the switch

(picture 1)



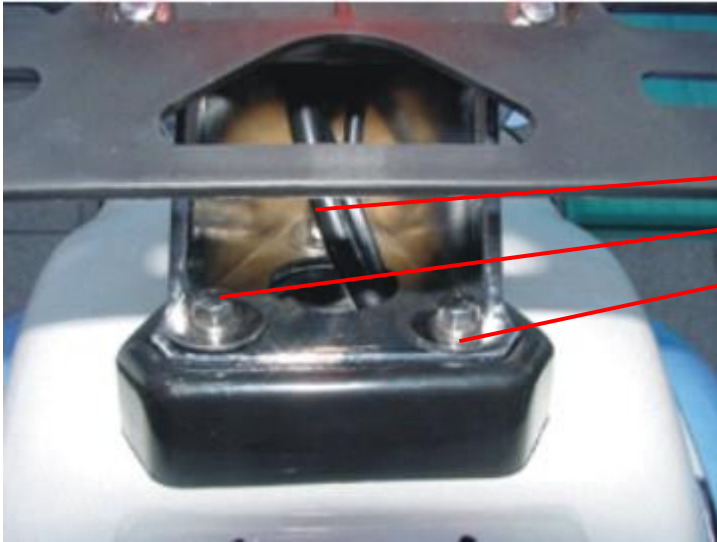
Two screws on the
right handle switch

(picture 2)

38.) TAIL LAMP ASSY

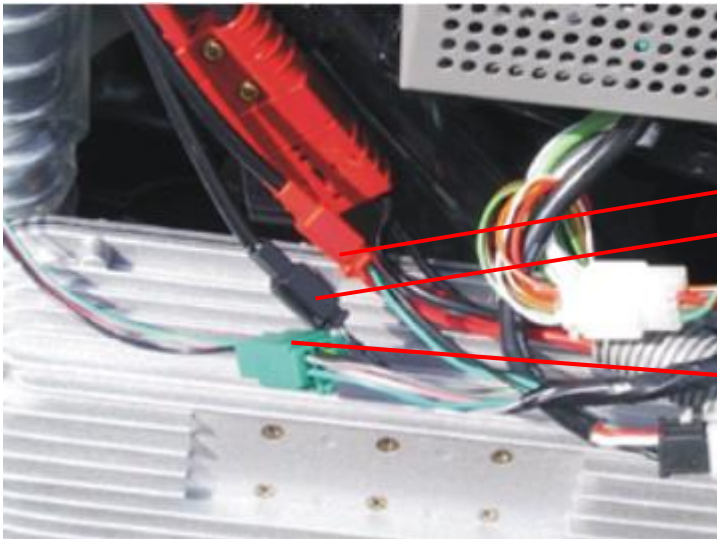
1. Remove the rear fender, black.
2. Release three screws on the base of tail lamp assy... (picture 1)
3. Release all connectors for the tail lamp assy. (White 6pinX1, green 2pinX2)
... (picture 2)
4. Follow with the reversed steps to restore.

<Tools> : (2) open-end wrench (10mm)



Three screws on the base of the tail lamp assy

(picture 1)



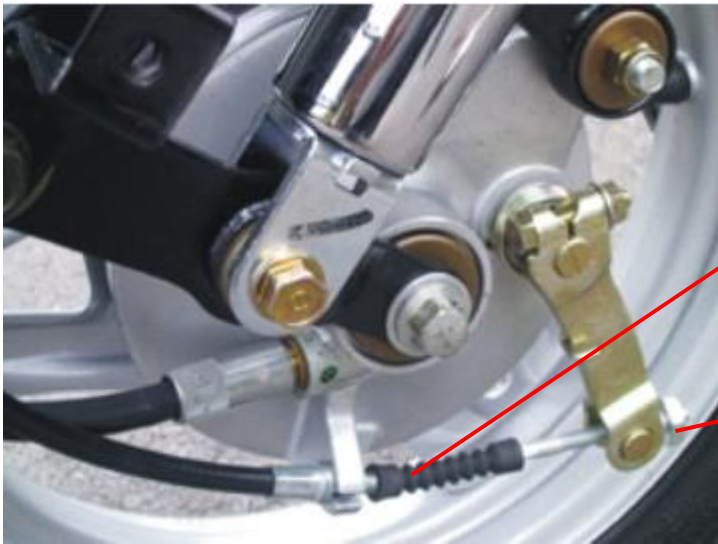
2pin connector for the direction lamp

6pin connector for the tail lamp

(picture 2)

39.) FRONT BRAKE CABLE

1. Remove the front cover (white).
2. Release the adjusting bolt on the brake cable and pull out the brake cable... (picture 1)
3. Remove the brake cable from the brake cable head... (picture 2)
4. Follow with the reversed steps to restore.



Brake cable

Adjusting bolt on the
brake cable

(picture 1)



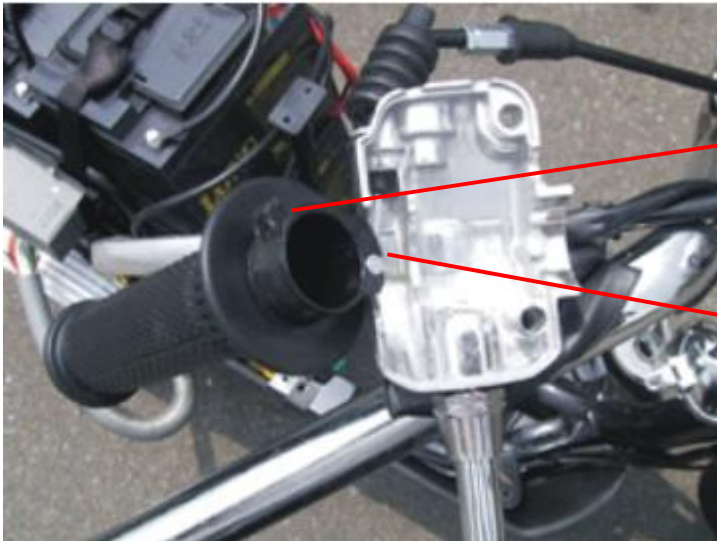
Brake cable head

(picture 2)

40.) THROTTLE CABLE

1. Follow the 22.(step 1 to step 3) to pull the throttle pillar out.
2. Follow the 37.(step 1 to step 3) to remove the handle switch.
3. Remove the throttle cable head on the handle grip... (picture 1)
4. Release the screw on the right handle switch... (picture 2)
5. Remove the throttle cable.
6. Follow with the reversed steps to restore.

<Tools> : (4) screwdriver



Handle grip

Throttle cable head

(picture 1)



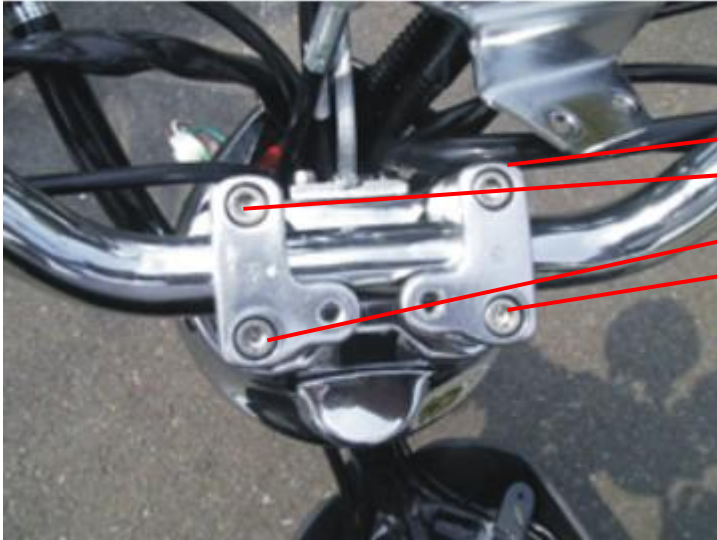
The screw on the right handle switch

(picture 2)

41.) HANDLE

1. Remove the instrument panel, handle switches (right and left) and brake master cylinder.
2. Release four screws on the handle Clamp ... (picture 1)
3. Remove the handle.
4. Follow with the reversed steps to restore.

<Tools> : (2) hex-key wrench (5mm)



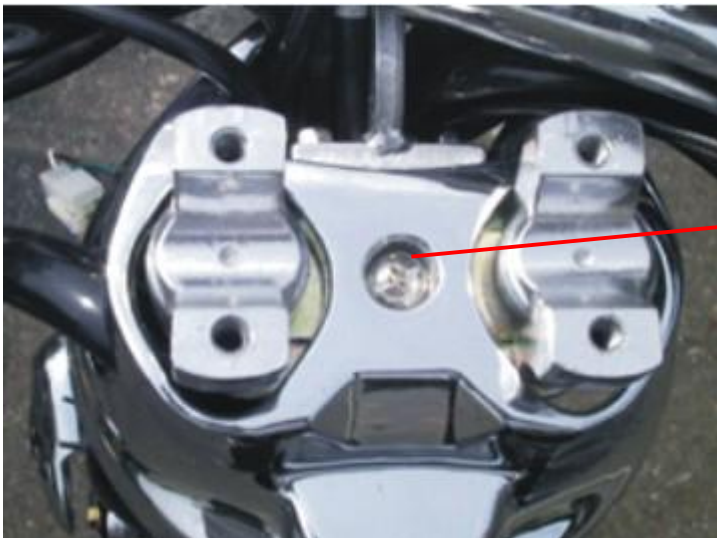
The screws on
the handle clamp

(picture 1)

42.) STEERING BRACKET

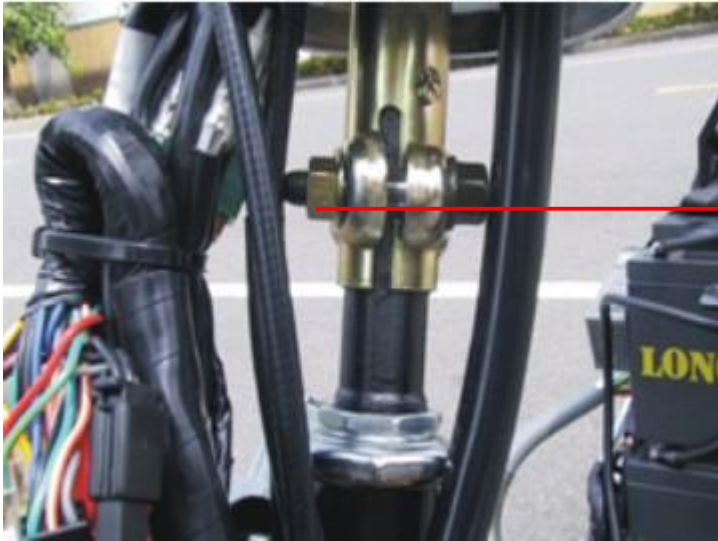
1. Remove handle.
2. Release the screw on the steering bracket cover...(picture 1)
3. Remove the steering bracket cover.
4. Release the screw on the steering bracket...(picture 2)
5. Remove the steering bracket.
6. Follow with the reversed steps to restore.

<Tools> : (2) screwdriver ; (4) box wrench (14mm)



The screw on the
steering bracket cover

(picture 1)



The screw on the steering bracket

(picture 2)

43.) FRONT FORK & BALL RACE

1. Remove front covers, instrument panel, head lamp, handle and steering bracket.
2. Remove front wheel.
3. Release the nut on the ball race and check the steel balls to see if they are missing.
4. Properly adjust the front fork clearance and follow with the reversed steps to restore.

<Tools> : (4) open-end wrench (32mm, 45mm)



Front fork

The nut on the ball race