

## 2. FRAME/BODY PANELS/EXHAUST SYSTEM

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## SERVICE INFORMATION

## GENERAL

- This section covers removal and installation of the body panels and exhaust system.
- Always replace the exhaust pipe gasket after removing the exhaust pipe from the engine.
- When installing the exhaust system, loosely install all of the exhaust pipe fasteners. Always tighten the exhaust joint first, then tighten the mounting fasteners. If you tighten the mounting fasteners first, the exhaust pipe may not seat properly.
- Always start the engine and inspect the exhaust system for leaks after installation.

## TORQUE VALUES

ITEM	Q'TY	THREAD DIA. (mm)	TORQUE N-m (kgf-m, lbf-ft)	REMARKS
Front reflex reflector mounting nut	2	6	1.5 (0.15, 1.1)	U-nut
Front turn signal light unit mounting nut	2	6	8.8 (0.9, 6.5)	U-nut
Tail/brake light unit mounting screw	4	4	1 (0.1, 0.7)	
Exhaust pipe joint nut	2	7	29 (3.0, 21)	For tightening sequence; See page 2-14
Muffler protector mounting bolt	2	6	10 (1.0, 7)	
Muffler mounting bolt	3	10	49 (5.0, 36)	For tightening sequence; See page 2-14
Exhaust pipe stud bolt	2	7	—	See page 2-14

## TROUBLESHOOTING

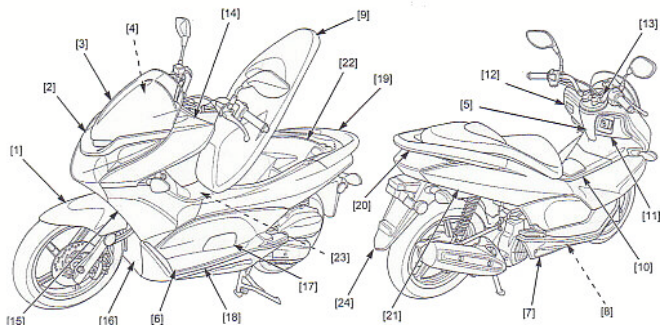
## Excessive exhaust noise

- Broken exhaust system
- Exhaust gas leak

## Poor performance

- Deformed exhaust system
- Exhaust gas leak
- Clogged muffler

# BODY PANEL LOCATIONS



[1] Front fender (page 2-4)

[2] Front grille (page 2-4)

[3] Meter visor (page 2-4)

[4] Front meter panel (page 2-5)

[5] Meter panel cover (page 2-7)

[6] Floor mat (page 2-5)

[7] Side cover (page 2-5)

[8] Under cover (page 2-6)

[9] Seat (page 2-6)

[10] Center cover (page 2-6)

[11] Right inner maintenance lid (page 2-7)

[12] Inner cover (page 2-7)

[13] Handlebar front cover (page 2-8)

[14] Rear meter panel (page 2-8)

[15] Front cover (page 2-9)

[16] Front lower cover (page 2-10)

[17] Plug maintenance lid (page 2-10)

[18] Floor step (page 2-10)

[19] Grab rail cover (page 2-11)

[20] Grab rail (page 2-11)

[21] Body cover (page 2-12)

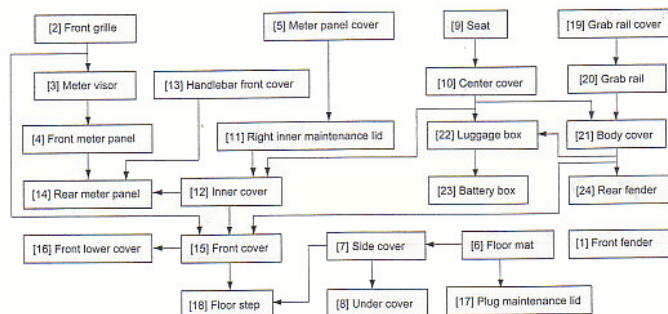
[22] Luggage box (page 2-13)

[23] Battery box (page 2-13)

[24] Rear fender (page 2-14)

## BODY PANEL REMOVAL CHART

• This chart shows removal order of body panels by means of arrow.



## FRONT FENDER

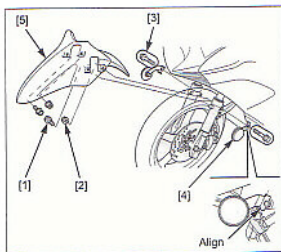
### REMOVAL/INSTALLATION

Remove the following:

- Two bolts [1]
- Two nuts [2]/bolts [3]/reflex reflectors [4]
- Front fender [5]

Installation is in the reverse order of removal.

- Tighten the nut while aligning the reflex reflector with the boss of the fork slider.



## FRONT GRILLE

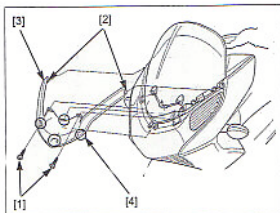
### REMOVAL/INSTALLATION

Remove the two screws [1].

Release the snap fit clips [2].

Pull the front grille [3] forward and release the hooks [4], then remove the front grille.

Installation is in the reverse order of removal.



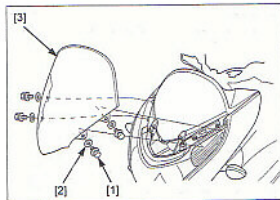
## METER VISOR

### REMOVAL/INSTALLATION

Remove the front grille (page 2-4).

Remove the four bolts/washers [1], plastic washers [2] and meter visor [3].

Installation is in the reverse order of removal.



## FRONT METER PANEL

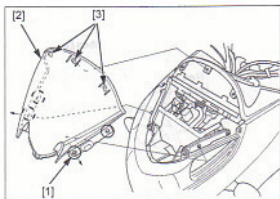
### REMOVAL/INSTALLATION

Remove the meter visor (page 2-4).

Release the holes [1] of the front meter panel [2] from the bosses of the front cover stay.

Remove the front meter panel by releasing the hooks [3] from the holes of the rear meter panel.

Installation is in the reverse order of removal.

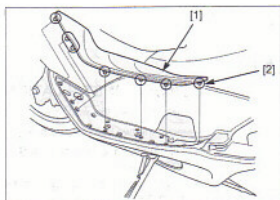


## FLOOR MAT

### REMOVAL/INSTALLATION

Remove the floor mat [1] by releasing the bosses [2] of the reverse side from the holes of the floor step.

Installation is in the reverse order of removal.



## SIDE COVER

### REMOVAL/INSTALLATION

Remove the floor mat (page 2-5).

Place the scooter on its centerstand.

Open the pillion step and remove the special bolt [1].

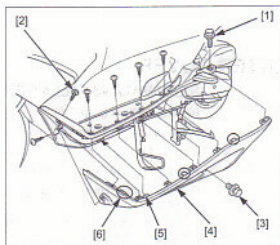
Remove the following:

- Six tapping screws [2]
- Bolt/washer [3]

Remove the side cover [4] by releasing the following:.

- Hook [5] from the slot of the under cover
- Three tabs [6] from the slots of the floor step

Installation is in the reverse order of removal.



## UNDER COVER

### REMOVAL/INSTALLATION

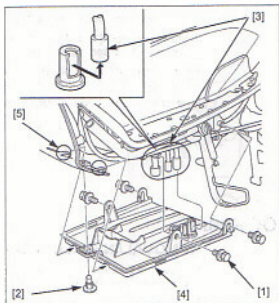
Remove the side covers (page 2-5).

Remove the four bolts/washers [1] and trim clip [2].

Release the three hoses [3] from the under cover [4] as shown.

Remove the under cover from the tabs [5] of the front lower cover.

Installation is in the reverse order of removal.



## SEAT

### REMOVAL/INSTALLATION

Unlock and open the seat.

Remove the two bolts [1] and seat [2].

Install the seat and tighten the bolts so that the seat is completely centered.

- Apply grease to the seat hinge sliding area if necessary.



## CENTER COVER

### REMOVAL/INSTALLATION

Remove the seat (page 2-6).

Unlock and open the fuel lid.

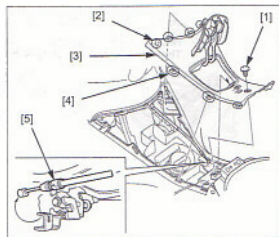
Remove the special screw [1].

Release the front side five tabs [2].

Pull the center cover [3] rearward and release the hooks [4].

Pull up the center cover and disconnect the fuel lid cable [5] as shown.

Installation is in the reverse order of removal.



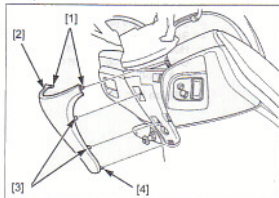
## METER PANEL COVER

### REMOVAL/INSTALLATION

Release the both upper side hooks [1].

Remove the meter panel cover [2] by releasing the two snap fit clips [3] and lower side hook [4].

Installation is in the reverse order of removal.



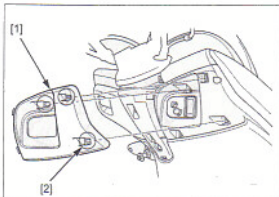
## RIGHT INNER MAINTENANCE LID

### REMOVAL/INSTALLATION

Remove the meter panel cover (page 2-7).

Remove the right inner maintenance lid [1] by releasing the snap fit clips [2].

Installation is in the reverse order of removal.



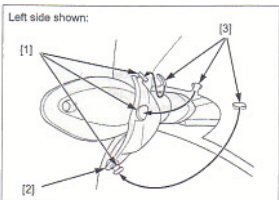
## INNER COVER

### REMOVAL/INSTALLATION

Remove the following:

- Right inner maintenance lid (page 2-7)
- Center cover (page 2-6)

Release the bosses [1] of the front turn signal light rubber cover [2] from the grooves [3] of the inner cover as shown.



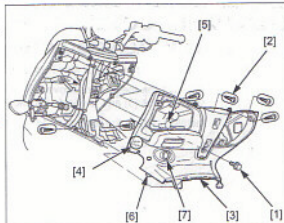
Remove the bolt [1].

Open the inner pocket and remove the six tapping screws [2].

Remove the inner cover [3] by releasing the following:

- Snap fit clips [4]
- Boss [5] from the grommet of the front cover stay
- Hooks [6] from the slots of the front cover
- Brake lock knob rubber cover hole [7] from the brake lock knob

Installation is in the reverse order of removal.

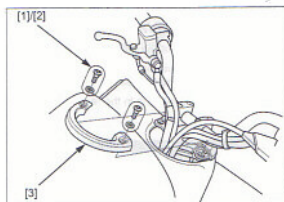


## HANDLEBAR FRONT COVER

### REMOVAL/INSTALLATION

Remove the two socket bolts [1]/plastic washers [2] and handlebar front cover [3].

Installation is in the reverse order of removal.



## REAR METER PANEL

### REMOVAL/INSTALLATION

Remove the following:

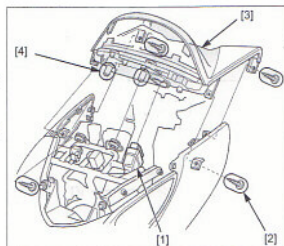
- Front meter panel (page 2-5)
- Inner cover (page 2-7)
- Handlebar front cover (page 2-8)

Pull off the dust cover and disconnect the speedometer 20P connector [1].

Remove the four screws [2].

Remove the rear meter panel [3] by releasing the bosses [4] from the grommets of the front cover stay.

Installation is in the reverse order of removal.





## FRONT COVER

## REMOVAL/INSTALLATION

Remove the following:

- Front grille (page 2-4)
- Inner cover (page 2-7)
- Body cover (page 2-12)

**Left side:** Disconnect the left front turn signal light 2P (Black) connector [1].

**Right side:** Disconnect the right front turn signal light 2P connector [2].

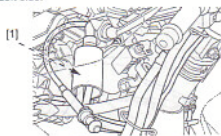
Remove the six screws [3] and two screws/washers [4].

Remove the front cover [5] by releasing the following:

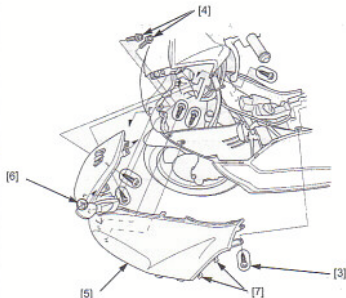
- Tab [6] from the groove of the headlight unit
- Hooks [7] from the slots of the floor step

Installation is in the reverse order of removal.

**Left side:**



**Right side:**



## DISASSEMBLY/ASSEMBLY

Release the following:

- Rubber cover boss [1] from the front cover hole [2].
- Front turn signal light wire [3] from the wire holder [4].

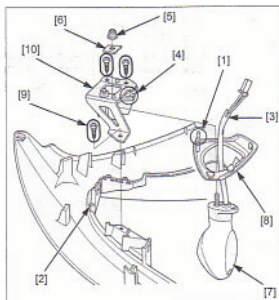
Remove the nut [5], set plate [6] and front turn signal light unit [7].

Remove the rubber cover [8] from the front turn signal light unit.

Remove the three screws [9] and front turn signal light unit stay [10] from the front cover.

Assembly is in the reverse order of disassembly.

**TORQUE:** Front turn signal light unit mounting nut:  
8.8 N-m (0.9 kgf-m, 6.5 lbf-ft)



## FRONT LOWER COVER

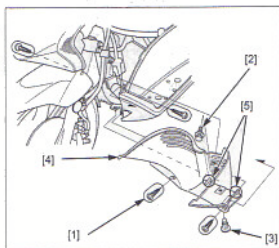
### REMOVAL/INSTALLATION

Remove the front cover (page 2-9).

Remove the four screws [1], bolt/washer [2] and trim clip [3].

Remove the front lower cover [4] by releasing the tabs [5] from the slots of the under cover.

Installation is in the reverse order of removal.



## PLUG MAINTENANCE LID

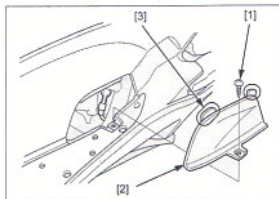
### REMOVAL/INSTALLATION

Remove the left floor mat (page 2-5).

Remove the screw [1].

Remove the maintenance lid [2] by releasing the tabs [3].

Installation is in the reverse order of removal.



## FLOOR STEP

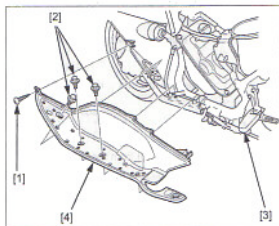
### REMOVAL/INSTALLATION

Remove the following:

- Side cover (page 2-5)
- Front cover (page 2-9)

Remove the screw [1] and three special bolts [2]. Open the pillion step [3] and remove the floor step [4].

Installation is in the reverse order of removal.



## GRAB RAIL COVER

### REMOVAL/INSTALLATION

Unlock the seat with the seat opener.  
Open the seat.

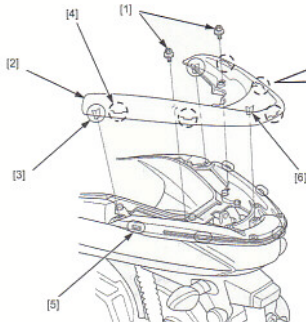
Remove the two screws/washers [1].

Carefully pull up the front side of grab rail cover [2] and release the two snap fit clips [3].

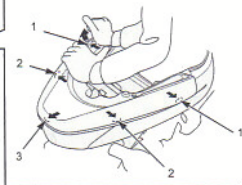
Push the grab rail cover to outside and release the grooves [4] from the bosses [5] of the grab rail as shown.

Carefully pull up the rear side of grab rail cover and release the snap fit clip [6] and remove the grab rail cover.

Installation is in the reverse order of removal.



Releasing the grooves procedure:



## GRAB RAIL

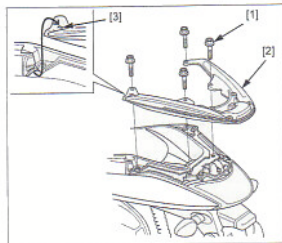
### REMOVAL/INSTALLATION

Remove the grab rail cover (page 2-11).

Remove the four bolts [1].

Remove the grab rail [2] by releasing the bosses [3] from the grooves of the body cover as shown.

Installation is in the reverse order of removal.



## BODY COVER

### REMOVAL/INSTALLATION

Remove the following:

- Center cover (page 2-6)
- Grab rail (page 2-11)

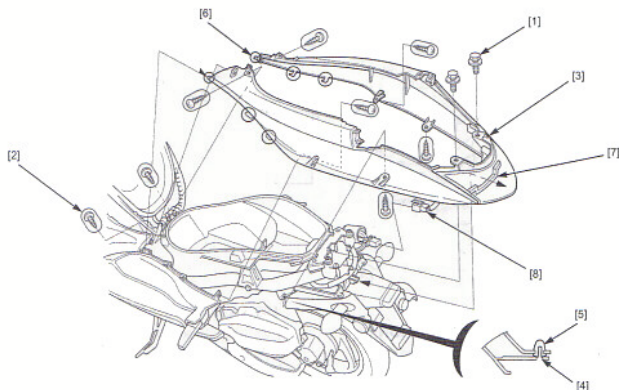
Remove the two bolts/washers [1] and eight tapping screws [2].

Slightly slide the body cover [3] backward and release the following:

- Lower side holes [4] from the cone plugs [5] of the frame
- Hooks [6] from the slots
- Groove [7] from the stopper of the tail/brake light unit

Pull the body cover backward and disconnect the brake/tail light 6P connector [8], then remove the body cover.

Installation is in the reverse order of removal.



### DISASSEMBLY/ASSEMBLY

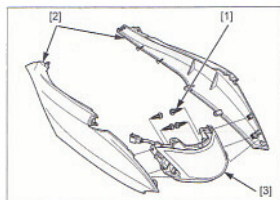
Remove the following:

- Four tapping screws [1]
- Right/left body covers [2]
- Tail/brake light unit [3]

Assembly is in the reverse order of disassembly.

#### TORQUE:

Tail/brake light unit mounting screw:  
1 N·m (0.1 kgf·m, 0.7 lbf·ft)



## LUGGAGE BOX

### REMOVAL/INSTALLATION

Remove the following:

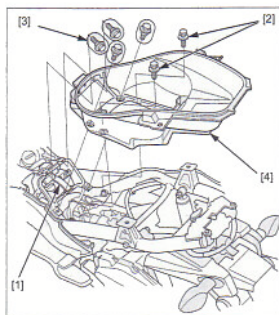
- Center cover (page 2-6)
- Body cover (page 2-12)
- Battery maintenance lid (page 20-6)

Release the battery band [1].

Remove the following:

- Two bolts/washers [2]
- Four special bolts [3]
- Luggage box [4]

Installation is in the reverse order of removal.



## BATTERY BOX

### REMOVAL/INSTALLATION

Remove the following:

- Luggage box (page 2-13)
- Battery (page 20-6)

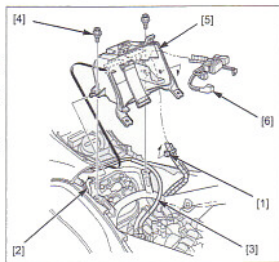
Remove the wire band boss [1] and disconnect the battery box drain hose [2] from the joint.

Release the EVAP canister-to-intake pipe hose [3] from the case grooves.

Remove the two special bolts [4].

Remove the battery box [5] by pulling out the main wire harness [6].

Installation is in the reverse order of removal.



## REAR FENDER

### REMOVAL/INSTALLATION

Remove the body cover (page 2-12).

Disconnect the following connectors:

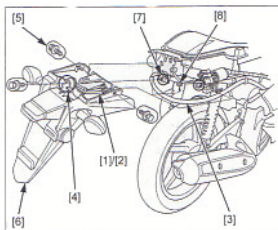
- Turn signal light (Light blue, Orange, Green) wire connectors [1]
- License light (Brown, Green) wire connectors [2]

Release the radiator siphon hose [3] from the hose groove [4].

Remove the three bolts/washers [5].

Remove the rear fender [6] from the frame bosses [7] and boss [8] of the radiator reserve tank.

Installation is in the reverse order of removal.



## EXHAUST PIPE/MUFFLER

### REMOVAL/INSTALLATION

Remove the joint nuts [1].

Remove the three muffler mounting bolts [2] and exhaust pipe/muffler [3].

Remove the gasket [4] from the exhaust pipe.

Installation is in the reverse order of removal.

- Always replace the gasket with a new one.
- Tighten the exhaust pipe joint nuts fast, then tighten the muffler mounting bolts.
- After installation, start the engine and inspect the exhaust system for leaks.

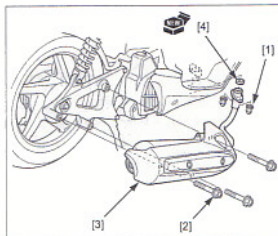
#### TORQUE:

Exhaust pipe joint nut:

29 N·m (3.0 kgf·m, 21 lbf·ft)

Muffler mounting bolt:

49 N·m (5.0 kgf·m, 36 lbf·ft)



### EXHAUST PIPE STUD BOLT REPLACEMENT

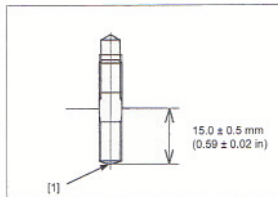
Thread two nuts to the stud bolt and tighten them together, then use a wrench on them to turn the stud bolt out.

*Install the stud bolts with their rounded end [1] facing out.*

Install and tighten new stud bolts into the cylinder head to the specified torque.

**TORQUE: 9 N·m (0.92 kgf·m, 6.6 lbf·ft)**

After tightening the stud bolts, check that the length from the bolt head to the cylinder head surface is within specification.

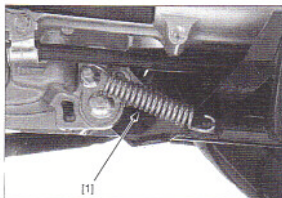


## CENTERSTAND

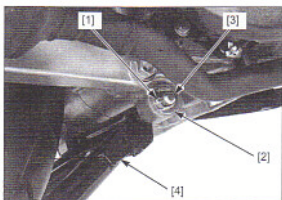
### REMOVAL/INSTALLATION

Retract the centerstand and support the scooter securely.

Remove the centerstand spring [1].



Remove the cotter pin [1] and washer [2].  
Pull out the pivot shaft [3] and remove the centerstand [4].



Apply thin coat of grease to the centerstand pivot shaft [1] surface.

Install the centerstand [2] and insert the pivot shaft while aligning its hole with the crankcase boss.

Install the washer [3] and a new cotter pin [4].

Install the centerstand spring in the reverse order of removal.

