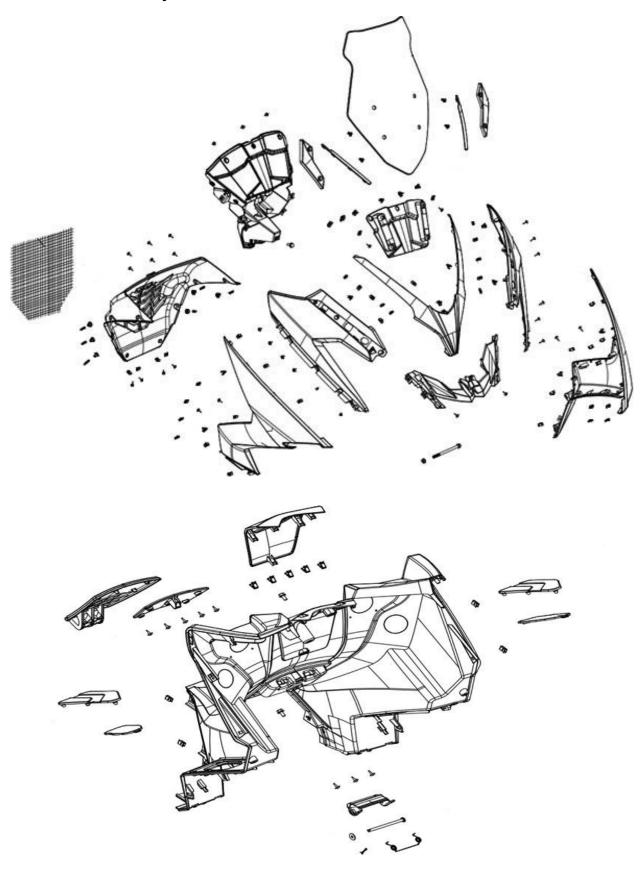


# 1. Body

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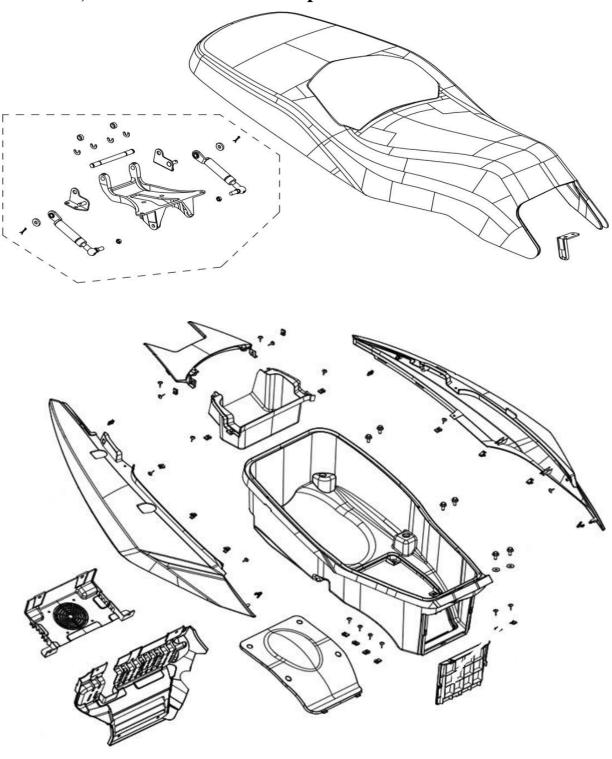


# 1.1. Diagrams1.1.1. Front body



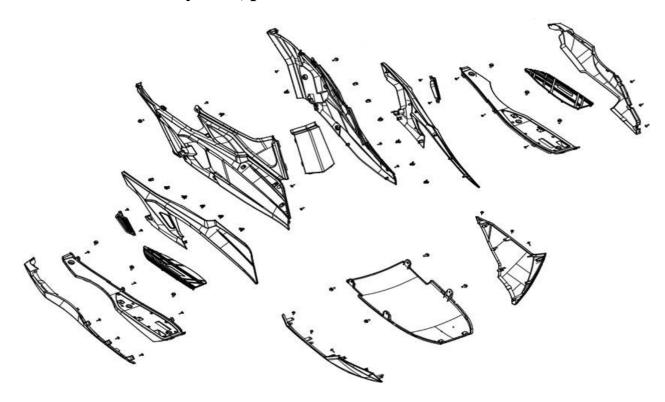


# 1.1.2. Seat, helmet box and rear side panels

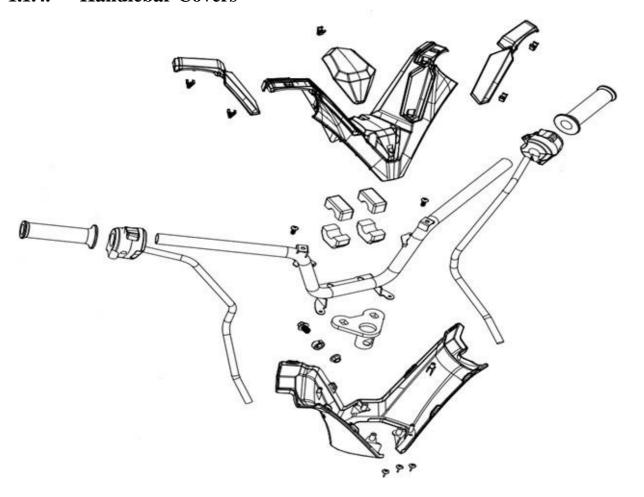




# 1.1.3. Central bodywork, platforms and keel

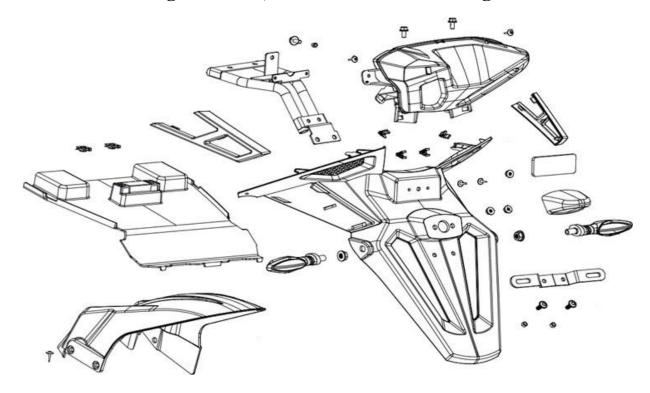


# 1.1.4. Handlebar Covers

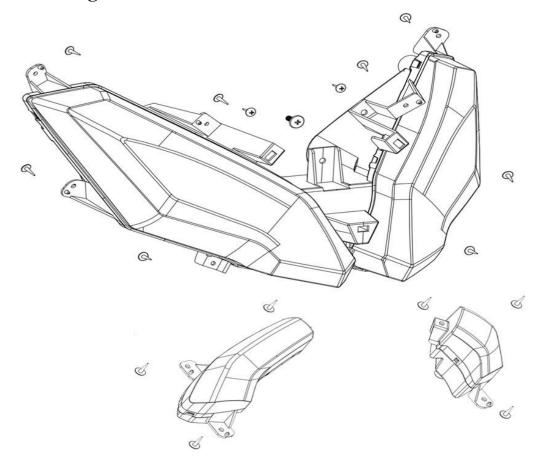




# 1.1.5. Rear mudguard/skirt, rear indicators and taillight

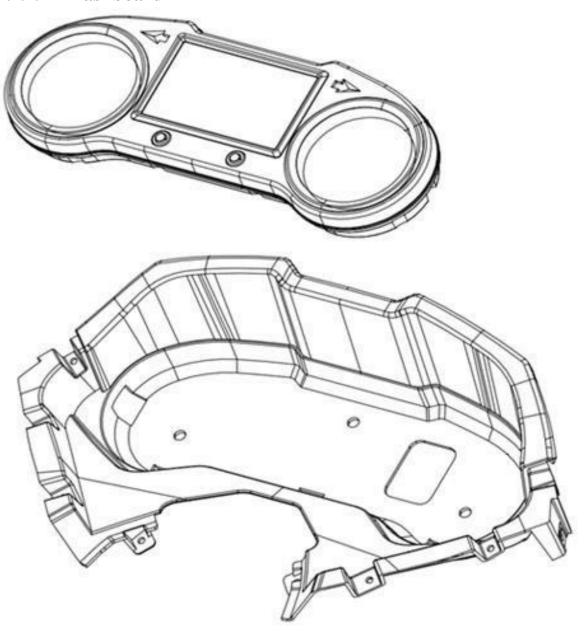


# 1.1.6. Headlight and front indicators





# 1.1.7. Dashboard





# 1.2. Introduction to body fittings

In order to aesthetically avoid visible screws, the Nerva Exe uses different solutions to join the different parts that make up the bodywork together. Avoid forcing these connections so as not to damage them.

# **1.2.1.** Nipples

The nipples are elastic plastic parts with a pointed profile which facilitates the insertion into the square eyelet of the other piece to be joined, preventing it from coming out once inserted, immediately after a rabbet joint.

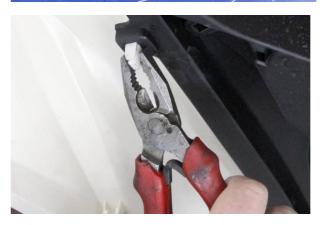


The correct tool for separating parts joined by nipples is a plastic disassembly tool, which will minimise scratches that may occur on the surface of the bodywork.



If the contact is hard, we recommend that you do not force the separation of the nipple from the eyelet.

Use pliers from the inside of the bodywork to compress the pointed profile of the nipple and facilitate its extraction.





#### 1.2.2. Plastic rivets

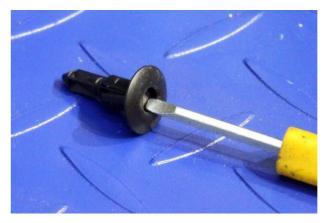
Plastic rivets are small parts that join two bodywork components via a common hole. The rivet is made up of an outer cantilever piece and the centre pin. When the centre pin is mounted flush with the outer surface of the rivet, it widens the bottom of the rivet making it larger than the hole and preventing separation of the lower component part of the bodywork.

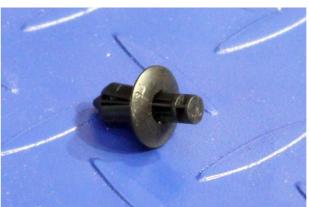


To release the rivet, depress the centre pin using a small screwdriver or a punch of a suitable width.

Thus, the enlargement is released, reducing its section and offering easier dismantling. Once the centre pin is depressed, remove the rivet from its housing by pulling outward from the overhang.

During assembly, re-insert the rivet through the two holes in both body parts, but with the centre pin protruding beyond the exterior surface of the rivet.





Once the rivet has passed through both body parts, press the centre pin in with your finger until it is flush with the exterior surface of the rivet.





# 1.2.3. Staples/Threaded sheet metal screws

The staple is a sheet of metal folded on itself, with a hole going through both sides and threaded on one side only. The clip is located at the bottom of the body, with the threaded side facing outward from the fitting. The appropriate threaded sheet metal screw is inserted from the outer part and screwed onto the clip, thus joining the two parts of the body.



#### **1.2.4.** Tabs

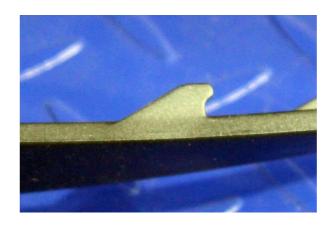
The tab is the addition from another fitting, since it fixes the parts in such a way that they do not separate in the direction perpendicular to the surfaces of the tab.

Once the other fitting is separated, the tab is released by simply pulling the piece outwards.



#### **1.2.5.** Claws

The claw is a projection which is introduced into the part to be joined. To disassemble it, you must pull the part containing the claw towards the side opposite to the orientation of the claw.





# 1.3. Front bodywork removal

# 1.3.1. Front wheel arch grille removal

#### **Necessary tools**





#2 Phillips screwdriver

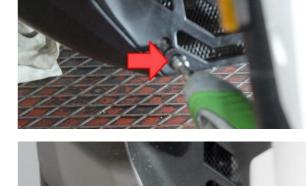
Small screwdriver or punch

Remove the screw from the lower right corner of the front wheel well using a no.2 Phillips screwdriver. Repeat this step with the lower left corner screw.

#### **Tightening torque:**

Lower side grille screw 4-5 Nm

Remove the 3 plastic rivets that join the right side of the grille to the left side part. Repeat the process for the three rivets on the left side.





Remove the screw holding the lower right side to the grille with the keel using a no.2 Phillips screwdriver. Repeat the process with the left side screw.





Manually remove the front wheel arch grille.



#### Removing the front side part 1.3.2.

This process is explained in order to remove the front right side part of the bodywork. If you are going to remove the left front side piece, follow the same steps as on the left side.

#### **Preliminary operations:**

Front wheel arch grille removal ( See point 1.3.1. Front wheel arch grille removal)

#### **Necessary tools**



Plastic

tool

disassembly





#2 Phillips screwdriver



10mm socket wrench

Manually remove the rubber mat from the right inclined platform.





Remove the indicated screw using a no.2 Phillips screwdriver.



Remove the screw hidden under the mat using a no.2 Phillips screwdriver.



Remove the screw that joins the front end of the right side body piece (just in front of the turn signal) using a no.2 Phillips screwdriver.



From inside the front wheel arch, remove the screw that joins the front indicator mount to the front structure under the headlight. Use a no.2 Phillips screwdriver.





Proceed with the four remaining nipples that join the front right side part to the leg cover and the right side skirt. The figure illustrates the position of these four nipples in orange circles.



It may be easier to disassemble the skirt to make it easier to remove the two lower nipples, attached to the skirt. To do this, remove the rubber mat, then the four screws that hold the skirt to the platform using a no.2 Phillips screwdriver, except the left screw that is removed with a 10mm socket wrench.



Peel off the four nipples using a plastic removal tool. Take into account that the two upper nipples are attached to the leg cover and are oriented at 90° to the two lower nipples. Start with these.



You must release the three nipples from the upper part of the front side. The figure illustrates the position of these three nipples in orange circles. Start by peeling them off from the front and be careful not to damage the claw of the green circle which will move the body part forward.





Use a plastic removal tool to peel off these three nipples. If the contact is hard, use pliers from inside the front wheel well to compress the tip of the nipple.



Access the right turn signal connector and unplug it. Remove the right front side part.



#### 1.3.3. Windshield removal

#### **Necessary tools**



5 mm Allen key

Manually remove the black mouldings from the windshield. Avoid using the plastic removal tool to peel them off, as you may scratch the windshield glass.





Remove the four screws appearing under the mouldings using a 5mm Allen key.



Manually remove the windshield by lifting it up.



# 1.3.4. Removal of the central covering

### **Preliminary operations:**

• Removal of the windshield ( See 1.3.3. Windshield removal)

### **Necessary tools**



Plastic disassembly tool

Peel off the central covering by separating its nipples.





Remove the covering towards the front so as not to damage the end claws



# 1.3.5. Disassembly of the front protection

This process is explained in order to remove the right front protection from the bodywork. If you are going to remove the left front guard, follow the same steps on the left side.

#### **Preliminary operations:**

- Front wheel arch grille removal ( See point 1.3.1. Front wheel arch grille removal)
- Removing the front side part ( See point 1.3.2. Removing the front side art)
- Removal of the windshield ( See 1.3.3. Windshield removal)
- Extraction of the central covering ( Refer to point 1.3.4 Extraction of the central covering)

Before removing the right side cover, you will need to remove the three screws marked with arrows that connect it to the headlight. Access these screws from inside the front wheel well using a no.2 Phillips screwdriver.

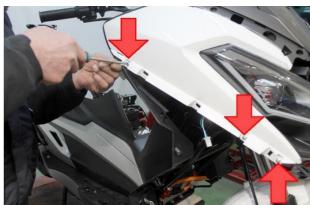




Remove the top three screws from the right side of the front cover using a #2 Phillips screwdriver. Repeat the process for the left side.



Remove the lower three screws from the right side of the front cover using a #2 Phillips screwdriver. Repeat the process for the left side.



Each side of the protection is attached with two studs to the central structure and one to the upper part of the leg cover. Precisely peel off the latter (the one in the right circle) at the end, taking into account the 90° angle of the connection in relation to the two previous ones.



Remove the upper right side cover.





The figure illustrates what the scooter will look like without the right side and centre front parts.



# 1.3.6. Disassembly of the front protection and headlight

#### **Preliminary operations:**

- Front wheel arch grille removal ( See point 1.3.1. Front wheel arch grille removal)
- Removing the front side parts ( See point 1.3.2. Removing the front side part.
  Proceed with disassembly on both sides)
- Removal of the windshield ( See 1.3.3. Windshield removal)
- Extraction of the central covering ( Refer to point 1.3.4 Extraction of the central covering)

#### **Necessary tools**





Plastic disassembly tool

#2 Phillips screwdriver

Remove the left and right elongated mouldings. Remove them by pulling on them.

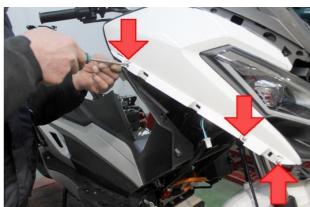




Remove the top three screws from the right side of the front cover using a #2 Phillips screwdriver. Repeat the process for the left side.



Remove the lower three screws from the right side of the front cover using a #2 Phillips screwdriver. Repeat the process for the left side.



Each side of the protection is attached with two studs to the central structure and one to the upper part of the leg cover. Precisely peel off the latter (the one in the right circle) at the end, taking into account the 90° angle of the connection in relation to the two previous ones.



Peel off the three studs on each side of the front protection manually or using a plastic removal tool.





Remove the screw that holds the headlight assembly to the centre frame.



Remove the two screws marked with an arrow using a #2 Phillips screwdriver, freeing the centre piece from the rest of the body.



Disconnect the headlight connector.



Separate and remove the headlight assembly with the side parts of the front protection.





#### 1.3.7. Central structure and dashboard

#### **Preliminary operations:**

- Front wheel arch grille removal ( See point 1.3.1. Front wheel arch grille removal)
- Removing the front side parts ( See point 1.3.2. Removing the front side parts)
- Removal of the windshield ( See 1.3.3. Windshield removal)
- Disassembly the front protection and the headlight ( See point 1.3.4.
  Disassembly of the front protection and headlight)

#### **Necessary tools**









13 mm socket

Plastic disassembly tool

#2 Phillips screwdriver

12mm ratchet wrench

Remove the three screws holding the brake fluid reservoir cover to the pump using a no.2 cross-point screwdriver.



Remove the screw (13mm socket wrench) and nut (12mm ratchet wrench) holding the centre frame to the upper steering column anchor.

#### **Tightening torque:**

Central structure fixing screw to the upper steering column anchor 25 Nm.





Remove the screw (13mm socket wrench) holding the centre frame to the lower steering column anchor.

### **Tightening torque:**

Central structure fixing screw to the lower steering column anchor 25 Nm.

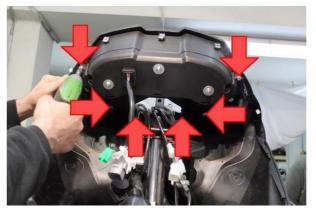
Cut the flange that brings together the wiring and disconnect all the connectors one after the other.



Remove the central structure.



Remove the six screws that hold the instrument panel housing to the top of the leg cover.





Separate the dashboard housing with the dashboard from the upper part of the leg cover.



# **1.3.8.** Removing the handlebar covers

#### **Necessary tools**







No.1/2 crosspoint screwdriver



6 mm Allen key



15 mm socket wrench



12mm ratchet wrench

Using a plastic removal tool, remove the centre piece from the handlebar. It is held by a nipple at the back and a claw at the front.



Using a no.2 Phillips screwdriver, remove the three screws from the centre of the top cover.





Use the plastic removal tool again to separate the two nipples from the left moulding on the upper handlebar cover. The second stud is just at the other end of the moulding not shown in the figure.



Separate the left moulding from the upper handlebar cover and repeat the process of separating the two nipples from the right moulding from the upper handlebar cover.



Remove the screw that attaches the upper cover to the handlebar pipe using a no.2 Phillips screwdriver. Also remove the symmetrical screw on the right side.



Separate the four nipples that join the upper covering from the lower one.





Separate and remove the top covering.



Remove the upper left screw that attaches the lower cover to the handlebar using a no.2 Phillips screwdriver. Do the same with the upper right screw.



Remove the lower left screw that attaches the lower cover to the handlebar using a no.2 Phillips screwdriver. Do the same with the lower right screw.



Remove the four screws holding the handlebar bridges using a 6mm Allen key.

#### **Tightening torque:**

Handlebar bridge screws 25 Nm.





Remove both handlebar bridges and hold the handlebar.



Lift the handlebars and remove the bottom covering. Move the handlebars away from the steering shaft, protecting the contact points with a cloth so as not to damage the bodywork.





# 1.3.9. Removing the leg cover

#### **Preliminary operations:**

- Front wheel arch grille removal ( See point 1.3.1. Front wheel arch grille removal)
- Removing the front side parts ( See point 1.3.2. Removing the front side parts)
- Removal of the windshield ( See 1.3.3. Windshield removal)
- Disassembly the front protection and the headlight ( See point 1.3.4.
  Disassembly of the front protection and headlight)
- Disassembly of the central structure and the dashboard ( See point 1.3.5.
  Disassembly of the central structure and dashboard)

#### **Necessary tools**





No.1/2 cross point screwdriver

10 mm socke wrench

If you have removed the handlebars, place them in front of the steering column.



Remove the moulding around the ignition lock, then the top screw holding the leg cover to the chassis using a 16mm socket wrench.





Remove the right screw from the inside that holds the leg cover to the chassis using a no.2 Phillips screwdriver. Repeat the process for the left screw.



Remove the screw above the charging port using a no.2 Phillips screwdriver.



Release the cable from the charging socket cover.



Pull the leg cover away from the chassis.





# 1.3.10. Front mudguard

### **Necessary tools**



5 mm Allen key

Remove the two screws holding the front mudguard to the fork cylinders on each side using a 5m Allen wrench.

Remove the mudguard tie rod screw only from the right side (left in the figure) using a 5mm Allen wrench.

Remove the front mudguard.

### **Tightening torques:**

Cylinder fixing screw 10-12 Nm. Screw pulling right side 10-12 Nm.





# 1.4. Central/rear bodywork removal

# 1.4.1. Dismantling the seat

#### **Necessary tools**



10 mm socket wrench

Remove the four screws holding the rear portion of the seat to the hinge using a 10mm socket wrench. Remove the seat.

### **Tightening torque:**

Seat fixing screw 10-12 Nm.



# 1.4.2. Dismantling the helmet box

#### **Necessary tools**



10 mm socket

Remove the two screws from the rear of the helmet box using a 10mm socket wrench.





Remove the two screws from the central part of the helmet box using a 10mm socket wrench.



Remove the two screws from the front part of the helmet box using a 10mm socket wrench.



Remove the container from the helmet box by manually pulling it upwards.

# **Tightening torques**:

Box mounting screw 10-12 Nm.





# 1.4.3. Disassembly of the rear assembly

#### **Preliminary operations:**

Dismantling the helmet box ( See point 1.4.2. Dismantling the helmet box)

#### **Necessary tools**







No.1/2 crosspoint screwdriver



6 mm Allen key



15 mm socket wrench



12mm ratchet wrench

Remove the two screws holding the side handles (two on each side) using a 6mm Allen key. Remove the right and left handles.

#### **Tightening torque:**

Side handle screws 25 Nm.

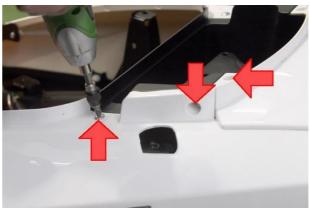
Using a no.2 Phillips screwdriver, remove the three screws holding the top on each rear side to the upper tail light cover.

#### **Tightening torque:**

Rear side part fixing screw 4-5 Nm.

Doing so will release the plastic tray beneath the seat hinge system. Remove this tray.









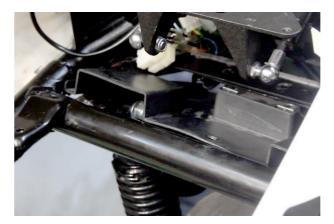
Remove the screw holding the front of each rear side using a no.2 Phillips screwdriver.



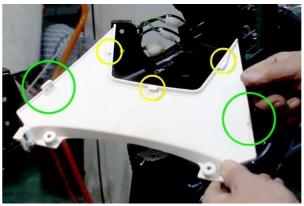
Remove the screw holding the front of each rear side using a no.2 Phillips screwdriver.



Remove the upper rear wheel arch cover by manually unhooking the rear retainer from the inside of the rear mudguard.



The figure shows the inside of the rear light upper cover. The green circles indicate the claws that join it to the rear side covers, while the yellow ones correspond to the tabs that hold it to the top of the taillight.





Remove the top cover of the taillight by moving it backwards and upwards.



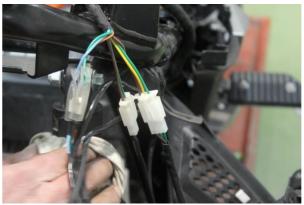
Removing the cover will reveal the screw to be loosened using the 12mm socket wrench. Remove it and the same screw on the right side.



The orange circles indicate the position of the three nipples that hold the right rear side. The circle on the left groups two nipples: only release the upper nipple. Do the same with the left rear part.



Disconnect the taillight and rear indicator signal connectors.





Separate the assembly of the rear side parts, light, rear mudguard and rear subframe, by moving it towards the rear.





# 1.4.4. Removing passenger footrest

## **Necessary tools**



Small flat screwdriver

Unfold the passenger footrest you wish to remove.



Release the circlip holding the footrest axle using a narrow flathead screwdriver. Remove the footrest from its housing by pulling upwards carefully so as not to lose the plate, the spring and the ball.



To reassemble the footrest, insert the spring into the small hole.





Press the ball onto the outer end of the spring.



The figure illustrates how the plate is oriented between the footrest and its attachment to the frame. The spring and the ball are absent in the figure.



Position the plate above the ball and, holding the entire assembly, insert it into the footrest support.

Reinstall the footrest axle and secure it with the circlip. Check that the footrest folds and unfolds smoothly and that once folded, it does not unfold on its own.



# 1.4.5. Dismantling central bodywork platforms/keel

#### **Preliminary operations:**

- Dismantling the helmet box ( See point 1.4.2. Dismantling the helmet box)
- Disassembly of the rear assembly ( See point 1.4.3. Disassembly of the rear assembly)
- Removing the passenger footrest ( See point 1.4.4. Removing passenger footrest)

#### **Necessary tools**









Screwdriver cross-pointed no.1/2 and flat



6 mm Allen key



15 mm socket wrench



12mm ratchet wrench

Start by peeling off the six nipples which hold the central moulding to the central side part of the bodywork.



Use a plastic removal tool to peel off the six nipples and remove the left centre moulding. Repeat this process for the right centre moulding.



Remove the screw under the footrest using a 10mm socket wrench.

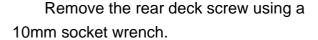




Remove the two screws holding the centre side portion to the leg cover. Use a no.2 cross-pointed screwdriver.

### **Tightening torque:**

Central side part fixing screw 1.5-3 Nm.







Remove the rubber mat from the platform and the two screws to be removed using the 10mm wrench will appear.

## **Tightening torque:**

Platform mounting screw 10-12 Nm.

Remove the lower left skirt. Repeat these last five steps for the lower right skirt.







When removing the centre side part, the centre piece located under the front part of the seat will be removed and can be removed manually.



The platform is joined to the lower part of the leg cover using a tab of the leg cover which holds a circular nipple of the platform. To release this lock, insert the tip of a flat screwdriver into the front end of the rectangular hole (as shown) and push down on the tab. At the same time, pull the platform backwards.





