

890 ADVENTURE R

ART. NO. 3214569EN



Perform the work described in these setup instructions before the vehicle is delivered to the customer.

Read the setup instructions in their entirety before beginning work.

These setup instructions were written to correspond to the latest state of this series. We reserve the right to make changes in the interest of technical advancement without at the same time updating this manual. We shall not provide a description of general workshop methods. Likewise, safety rules that apply in a workshop are not specified here. It is assumed that the work will be performed by a fully trained mechanic.

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ISO 9001(12 100 6061)

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Issued by: TÜV Management Service

REG.NO. 12 100 6061

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This document is valid for the following models:

890 ADVENTURE R EU (F9703V7)

890 ADVENTURE R US (F9775V7)



1 MEANS OF REPRESENTATION

1.1 Symbols used

The meaning of specific symbols is described below.



Indicates an expected reaction (e.g. of a work step or a function).



Indicates an unexpected reaction (e.g. of a work step or a function).



Indicates a page reference (more information is provided on the specified page).



Indicates information with more details or tips.



Indicates the result of a testing step.



Indicates a voltage measurement.



Indicates a current measurement.



Indicates a resistance measurement.



Indicates the end of an activity including potential rework.

1.2 Formats used

The typographical formats used in this document are explained below.

Proprietary name

Indicates a proprietary name.

Name®

Indicates a protected name.

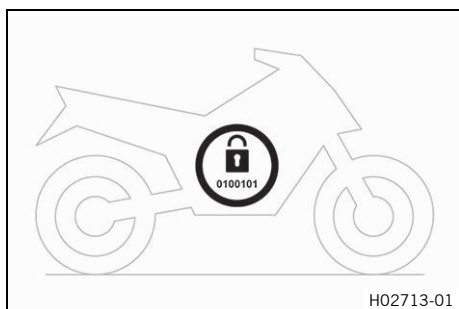
Brand™

Indicates a brand available on the open market.

Underlined terms

Refer to technical details of the vehicle or indicate technical terms, which are explained in the glossary.

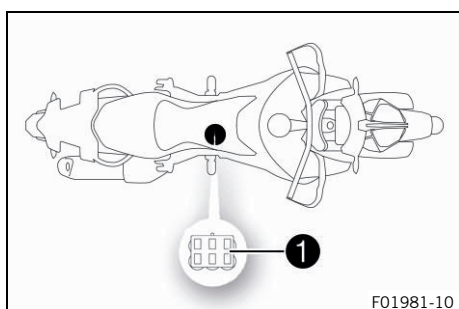
2.1 Transport mode



This vehicle was blocked for transport in the software. To operate the vehicle, the vehicle electronics must be enabled. This process is conducted during initial setup in KTM Dealer.net. Enabling ensures that the initial setup in KTM Dealer.net is documented. Enabling can be performed either temporarily, e.g. for a test ride, or permanently for vehicle handover.

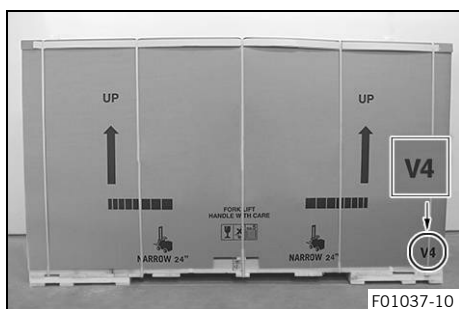
i Info
Make sure that the vehicle is permanently enabled before handing it over to the customer.

2.2 Diagnostics connector



Diagnostics connector **1** is located under the battery cover.

2.3 Unpacking and setting up the vehicle



– Remove the straps and the box.



– Remove the adhesive tape in the upper area of the motorcycle.



- Roll down the film at the sides.

Guideline

To avoid damaging the vehicle while setting it up, do not remove the protective film on each component until installing the component, and leave it on the vehicle until work has been completed.

- Remove the separate enclosure and unpack it. Check that the scope of supply is complete using the enclosed packing list.



Info

The procedure for missing components is described in the Customer Service Manual.

- Check the vehicle for transport damage.

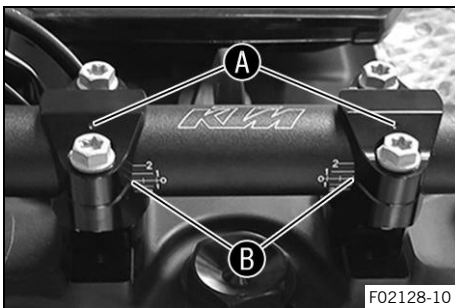


Info

The procedure in the event of transport damage is described in the Customer Service Manual.



- Remove the cable tie. Place the handlebar at the front.
- Remove the clutch and the brake assembly from the transport holder.
- Remove the screws from the handlebar clamps. Take off the handlebar clamps and transport holder.



Warning

Danger of accidents A repaired handlebar poses a safety risk.

If the handlebar is bent or straightened, the material becomes fatigued. The handlebar may break as a result.

- Change the handlebar if the handlebar is damaged or bent.

- Unpack handlebar and position.



Info

Make sure the cables and wiring are positioned correctly.

- Position the handlebar clamps. Mount and tighten the screws evenly.

Guideline

| | | |
|------------------------|----|---------------------|
| Screw, handlebar clamp | M8 | 20 Nm (14.8 lbf ft) |
|------------------------|----|---------------------|

- ✓ Markings **A** face backward.

- ✓ Handlebar scale markings **B** are located centrally between the handlebar clamps.

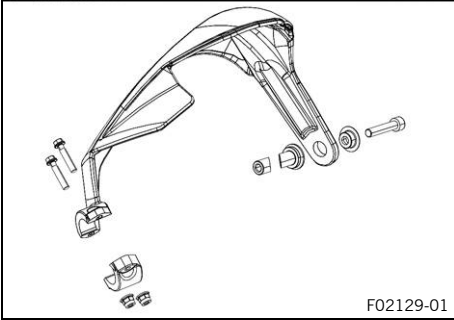
i Info
Keep the installed gap widths equal when tightening.

- Check the handlebar position.
 - » If the handlebar position is not adjusted as required by the customer:
 - Adjust the handlebar position. (📖 p. 12)

- Mount the right hand guard.

Guideline

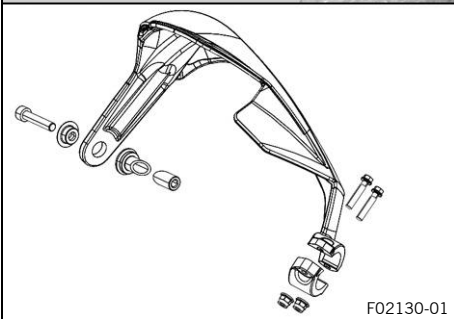
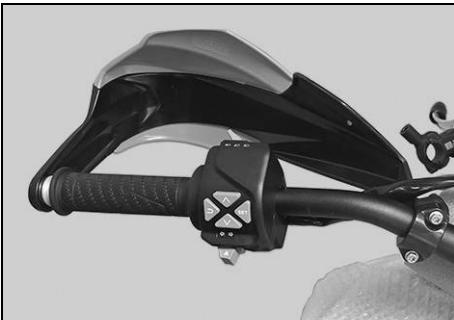
| | | |
|--------------------|----|---------------------|
| Hand guard fitting | M6 | 6 Nm (4.4 lbf ft) |
| Hand guard screw | M8 | 25 Nm (18.4 lbf ft) |

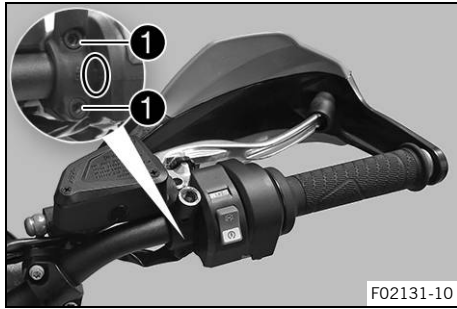


- Mount the left hand guard.

Guideline

| | | |
|--------------------|----|---------------------|
| Hand guard fitting | M6 | 6 Nm (4.4 lbf ft) |
| Hand guard screw | M8 | 25 Nm (18.4 lbf ft) |





- Position the brake assembly on the handlebar.
- Position brake assembly clamp on the handlebar.
- ✓ The holding lug of the clamp engages in the combination switch.
- Mount and tighten screws ①.

Guideline

| | | |
|-----------------------|----|-------------------|
| Screw, brake assembly | M6 | 5 Nm (3.7 lbf ft) |
|-----------------------|----|-------------------|

- Tighten all the screws on the controls on the right half of the handlebar.

Guideline

| | | |
|----------------------------------|----|----------------------|
| Screw for throttle grip | M5 | 3.5 Nm (2.58 lbf ft) |
| Screw, combination switch, right | M5 | 5 Nm (3.7 lbf ft) |



Info

Pay attention to the markings on the handlebar. Make sure the cables and wiring are positioned correctly.

- Tie the cables and wires together with the rubber straps supplied.
- Check the throttle grip for smooth operation.
- Position the clutch assembly on the handlebar.



Info

Pay attention to the markings on the handlebar.

- Position the clutch assembly clamp on the handlebar.
- Mount and tighten screws ②.

Guideline

| | | |
|------------------------|----|-------------------|
| Screw, clutch assembly | M6 | 5 Nm (3.7 lbf ft) |
|------------------------|----|-------------------|

- Tighten all the screws on the controls on the left half of the handlebar.

Guideline

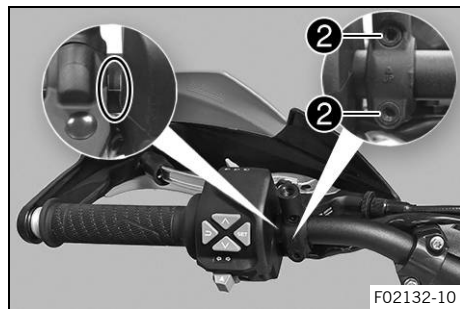
| | | |
|---------------------------------|----|-------------------|
| Screw, fixed grip, left | M4 | 3 Nm (2.2 lbf ft) |
| Screw, combination switch, left | M5 | 2 Nm (1.5 lbf ft) |

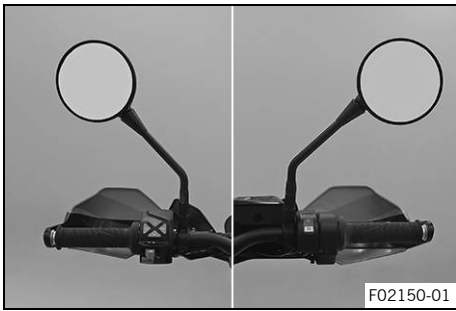


Info

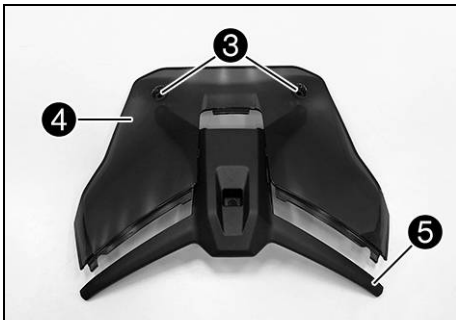
Pay attention to the markings on the handlebar. Make sure the cables and wiring are positioned correctly.

- Tie the cables and wires together with the rubber straps supplied.





- Mount and tighten the rear mirror on both sides.

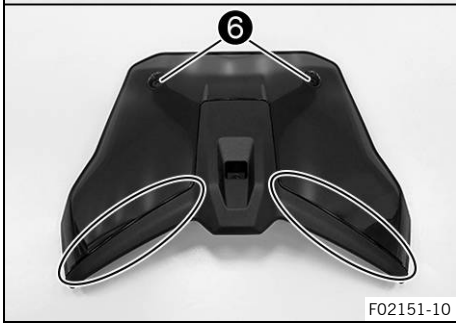


- Mount rubber bushings ③ on windshield ④.
- Mount windshield ④ on windshield bracket ⑤.
- ✓ The windshield engages on the left and right in the recesses of the windshield bracket.

- Mount and tighten screws ⑥.

Guideline

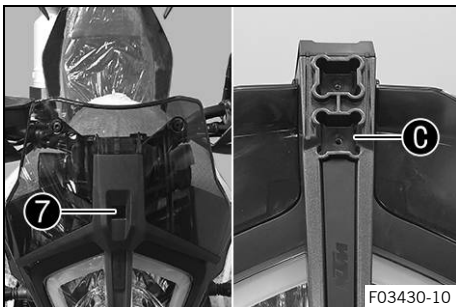
| | | |
|---------------------------|----|-------------------|
| Remaining screws, chassis | M5 | 5 Nm (3.7 lbf ft) |
|---------------------------|----|-------------------|

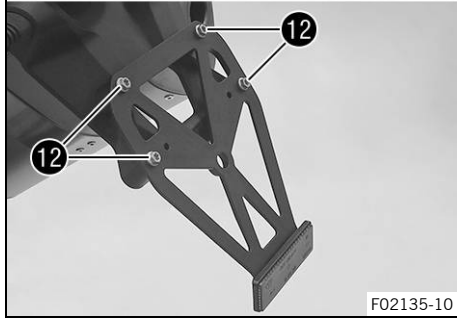
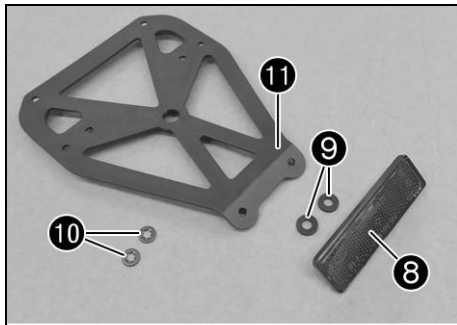


- Position the windshield bracket with the windshield in lower recess ①.
- Mount and tighten screw ⑦.

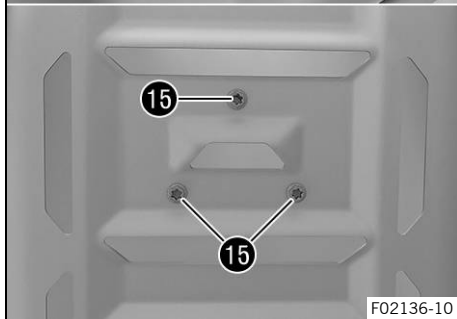
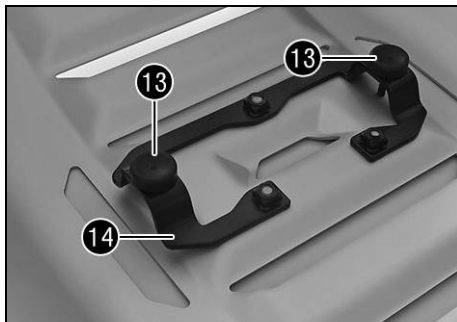
Guideline

| | | |
|---------------------------|----|-------------------|
| Remaining screws, chassis | M5 | 5 Nm (3.7 lbf ft) |
|---------------------------|----|-------------------|





F02135-10



F02136-10

(EU)

- Mount reflector **8** with rubber bushings **9** and tension washers **10** on the license plate holder **11**.
- Position the license plate bracket on the license plate support.
- Mount and tighten screws **12**.

Guideline

| | | |
|-----------------------------|----|------------------------------------------|
| Screw, license plate holder | M5 | 5 Nm (3.7 lbf ft) Loctite®243™ |
|-----------------------------|----|------------------------------------------|

- Carefully loosen and remove the rear tension belt.



Info

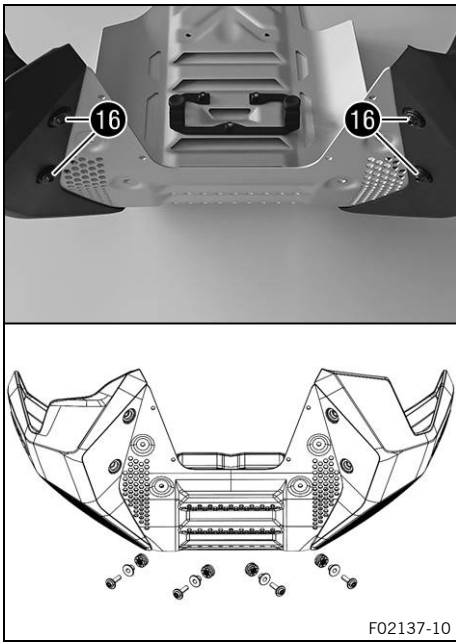
An assistant prevents the motorcycle from falling over.

- Carefully loosen and remove the tension belts around the lower triple clamp.
- ✓ The vehicle is released at the front.
- Together with an assistant, take the vehicle off the pallet.

- Mount rubber spacers **13** on the retaining bracket **14**.
- Position retaining bracket **14** on the engine guard.
- Mount and tighten screws **15**.

Guideline

| | | |
|---------------------------------------|----|-------------------------------------------|
| Screw, engine guard retaining bracket | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
|---------------------------------------|----|-------------------------------------------|



- Position the left fuel tank cover.
- Mount and tighten screws **16** with the collar bushings and the absorbing elements.

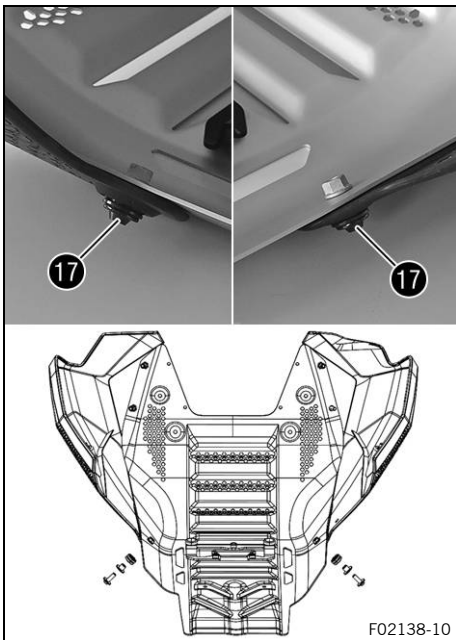
Guideline

| | | |
|------------------------|-------|-------------------|
| Screw, fuel tank cover | M6x22 | 8 Nm (5.9 lbf ft) |
|------------------------|-------|-------------------|

- Position the right fuel tank cover.
- Mount and tighten screws **16** with the collar bushings and the absorbing elements.

Guideline

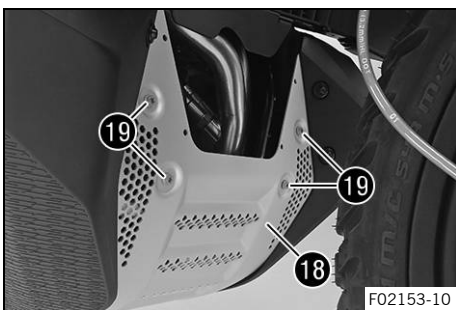
| | | |
|------------------------|-------|-------------------|
| Screw, fuel tank cover | M6x22 | 8 Nm (5.9 lbf ft) |
|------------------------|-------|-------------------|



- Mount and tighten fitting **17** with the collar bushings and the absorbing elements.

Guideline

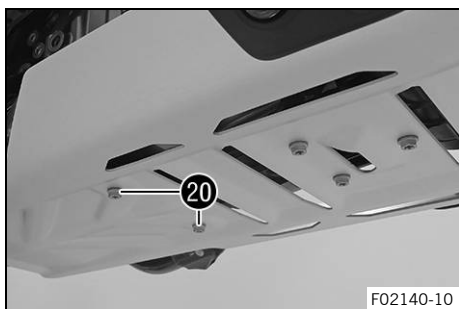
| | | |
|----------------------------|----|-------------------|
| Screw cap, fuel tank cover | M6 | 5 Nm (3.7 lbf ft) |
|----------------------------|----|-------------------|



- Position engine guard **18** with the mounted fuel tank covers.
- Mount screws **19**, but do not tighten yet.

Guideline

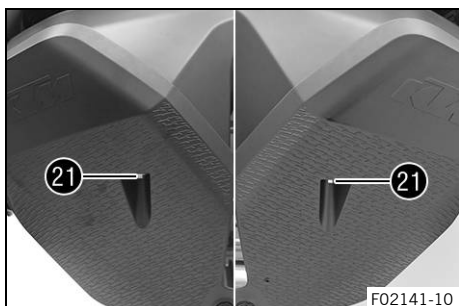
| | | |
|---------------------|-------|-------------------------------------------|
| Screw, engine guard | M6x10 | 10 Nm (7.4 lbf ft) Loctite®243™ |
|---------------------|-------|-------------------------------------------|



- Mount screws **20**, but do not tighten yet.

Guideline

| | | |
|---------------------|------|-------------------|
| Screw, engine guard | M6x8 | 8 Nm (5.9 lbf ft) |
|---------------------|------|-------------------|



- Mount screws **21**, but do not tighten yet.

Guideline

| | | |
|------------------------|-------|-------------------|
| Screw, fuel tank cover | M6x12 | 8 Nm (5.9 lbf ft) |
|------------------------|-------|-------------------|

✓ The engine guard is directed evenly toward the front.

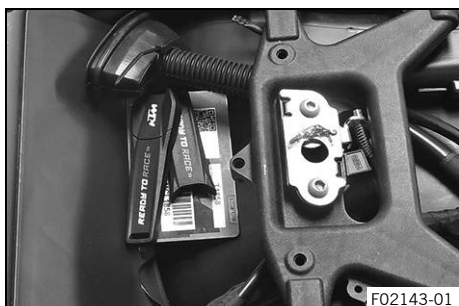
- Tighten all the screws of the engine guard.

Guideline

| | | |
|------------------------|-------|-------------------------------------------|
| Screw, engine guard | M6x8 | 8 Nm (5.9 lbf ft) |
| Screw, engine guard | M6x10 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, fuel tank cover | M6x12 | 8 Nm (5.9 lbf ft) |



- Mount hose **22** with the angle piece.



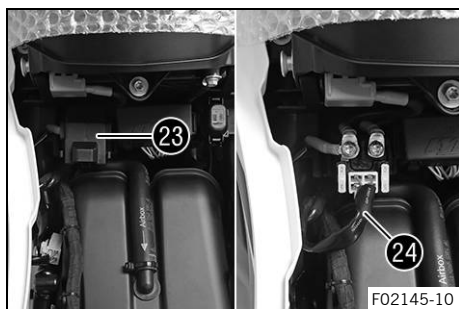
- Remove the seat. (📖 p. 12)
- Remove spare key and **KEYCODECARD** from under the seat and keep in a safe place for the handover.
- Charge the 12-V battery. (📖 p. 19)

Guideline

| |
|----------------------------------------------------------------------------------|
| The 12-V battery must be fully charged before it is handed over to the customer. |
|----------------------------------------------------------------------------------|

i Info

The first charging process may take longer with a new 12-V battery.

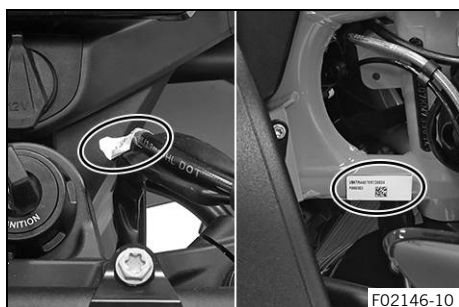


- Remove protection cap 23.
- Plug in the plug 24 of the starter relay.
- Mount protection cap 23.



i Info
The tool set can be stored in the left or right storage compartment.
The left storage compartment is described as an example.

- Remove the left side cover. (📖 p. 13)
- Open storage compartment on the left. (📖 p. 13)
- Store the tool set in the storage compartment.
- Close storage compartment on the left. (📖 p. 14)
- Install the left side cover. (📖 p. 14)
- Remove the labels from the brake line and the frame.
- Unpack and mount the **KTM PowerParts** included in the delivery (optional).



i Info
Read the accompanying **KTM PowerParts** fitting instructions.

- Attach the stickers included in the scope of supply (optional).
- Check the headlight setting. (📖 p. 22)
- Turn the knurled screws on both fuel cocks counterclockwise as far as possible.
- Refuel. (📖 p. 23)
- Position all controls in their exact positions on the handlebar. Tighten all screws.
- Remove the remaining film, padding, the corrugated cardboard, and the other packaging material.
- Prepare the vehicle according to the specifications in **KTM Dealer.net** for handover to the customer.

i Info
Transport mode must be deactivated to be able to start the motorcycle.



3.1 Adjusting the handlebar position

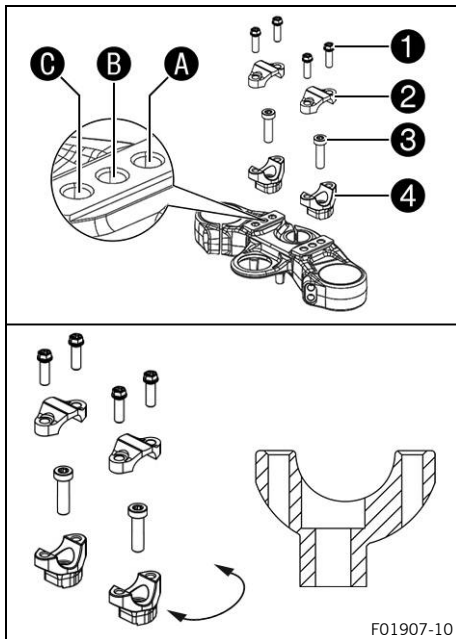


Warning

Danger of accidents A repaired handlebar poses a safety risk.

If the handlebar is bent or straightened, the material becomes fatigued. The handlebar may break as a result.

- Change the handlebar if the handlebar is damaged or bent.



- Remove screws **1**. Take off the handlebar clamps **2**. Position the handlebar so that screws **3** are accessible.



Info

Cover the components to protect them against damage. Do not kink the cables and lines.

- Remove screws **3**. Take off handlebar supports **4**.
- Move the handlebar supports into the desired position **B**, **A** or **C**. Mount and tighten screws **3**.

Guideline

Mount the left and right handlebar supports in the same position.

| | | |
|--------------------------|-----|--------------------------------------------|
| Screw, handlebar support | M10 | 45 Nm (33.2 lbf ft) Loctite®243™ |
|--------------------------|-----|--------------------------------------------|

- Position the handlebar.



Info

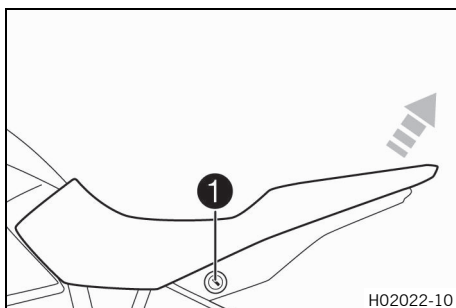
Make sure the cables and wiring are positioned correctly.

- Position handlebar clamp. Mount screws **1** and tighten evenly.

Guideline

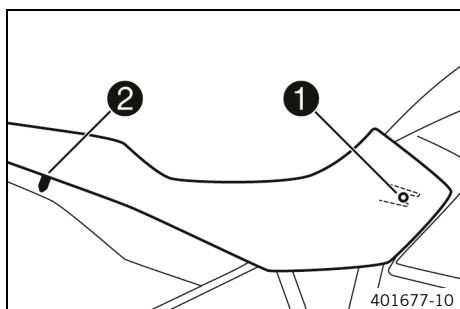
| | | |
|------------------------|----|---------------------|
| Screw, handlebar clamp | M8 | 20 Nm (14.8 lbf ft) |
|------------------------|----|---------------------|

3.2 Removing the seat



- Insert the ignition key in seat lock **1** and turn it clockwise.
- Raise the rear of the seat, pull the seat back, and lift it off.
- Remove the ignition key.

3.3 Mounting the seat



- Hook holding lug ① of the seat onto the fuel tank, lower the rear and push it forward.
- Insert locking pin ② into the lock housing and push down the rear of the seat until the locking pin engages with a click.
- Check that the seat is correctly mounted.



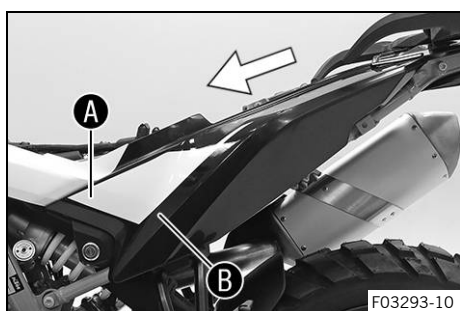
3.4 Removing the left side cover

Preparatory work

- Remove the seat. (📖 p. 12)

Main work

- Remove left side cover from the rubber bushings in the areas A and B.
- Pull off the left side cover sideways and remove it toward the front.



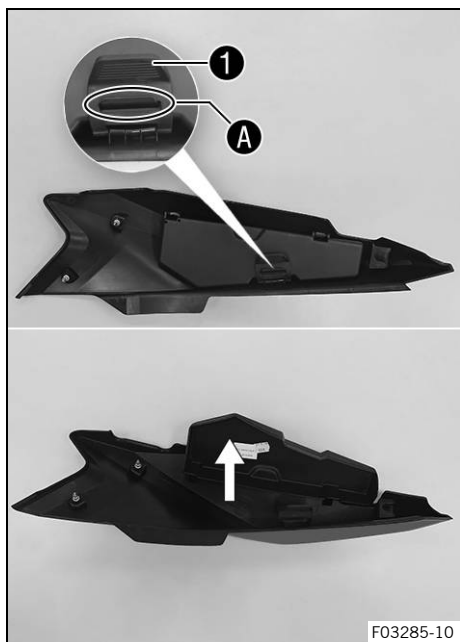
3.5 Opening the storage compartment on the left

Preparatory work

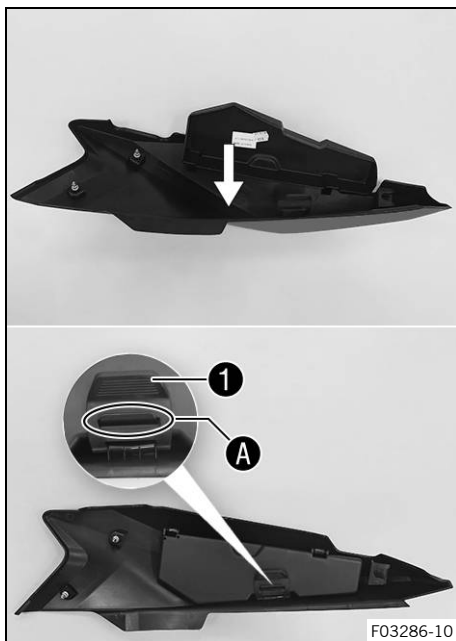
- Remove the seat. (📖 p. 12)
- Remove the left side cover. (📖 p. 13)

Main work

- Lift the elastic fastener ① and detach in area A.
- Open storage compartment.



3.6 Closing the storage compartment on the left



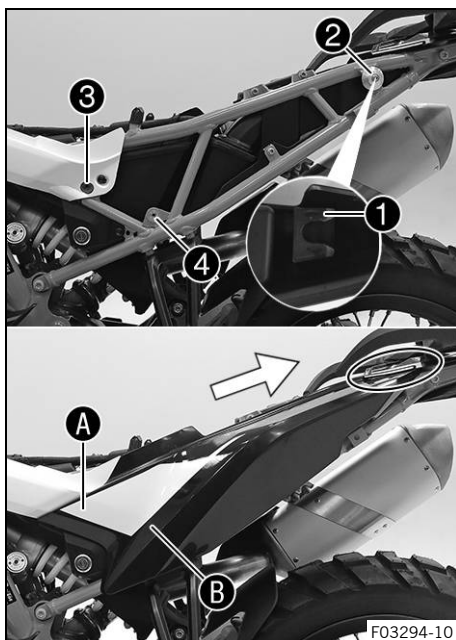
Main work

- Close the storage compartment.
- Raise elastic fastener ① and hang up in area A.

Finishing work

- Install the left side cover. (📖 p. 14)
- Mount the seat. (📖 p. 13)

3.7 Installing the left side cover



Main work

- Position the left side cover with holding lug ① on bushing ② and push backward.
- ✓ The left side cover engages under the tail part.
- Press the left side cover in area A into rubber bushing ③ and press into rubber bushing ④.

Finishing work

- Mount the seat. (📖 p. 13)

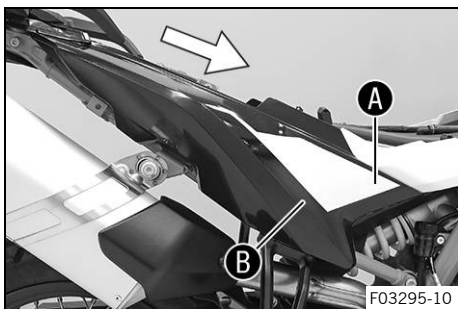
3.8 Removing the right side cover

Preparatory work

- Remove the seat. (📖 p. 12)

Main work

- Remove the side cover from the rubber bushings in areas **A** and **B**.
- Pull off the right side cover sideways and remove it toward the front.



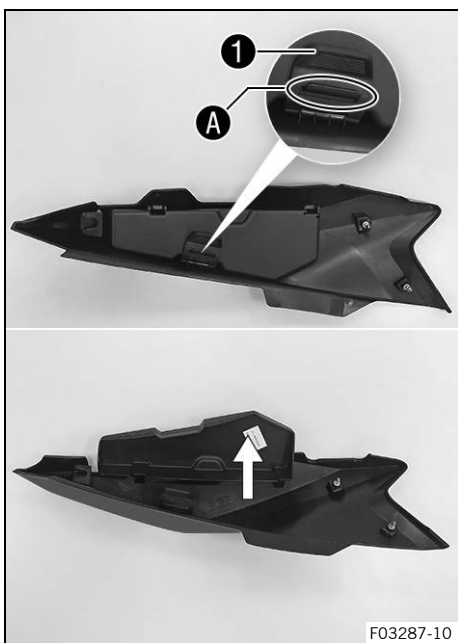
3.9 Opening the storage compartment on the right

Preparatory work

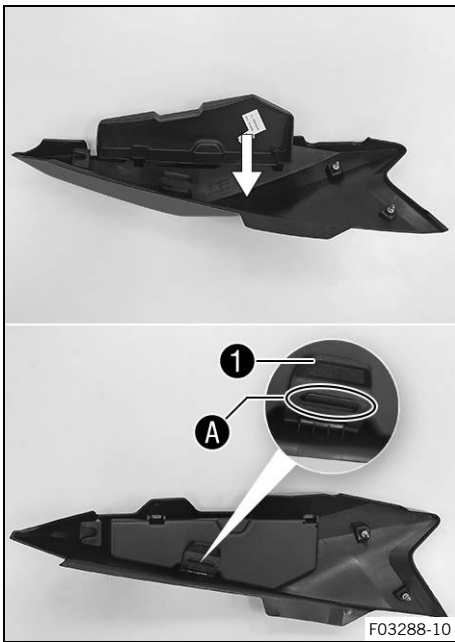
- Remove the seat. (📖 p. 12)
- Remove the right side cover. (📖 p. 15)

Main work

- Lift the elastic fastener **1** and detach in area **A**.
- Open storage compartment.



3.10 Closing the storage compartment on the right



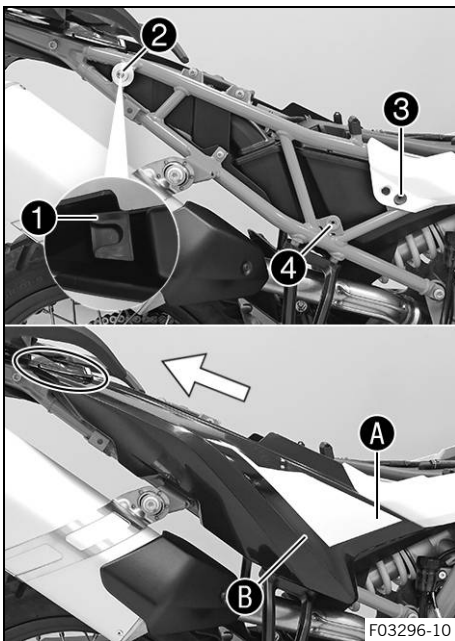
Main work

- Close the storage compartment.
- Raise elastic fastener ① and hang up in area ②.

Finishing work

- Install the right side cover. (📖 p. 16)
- Mount the seat. (📖 p. 13)

3.11 Installing the right side cover



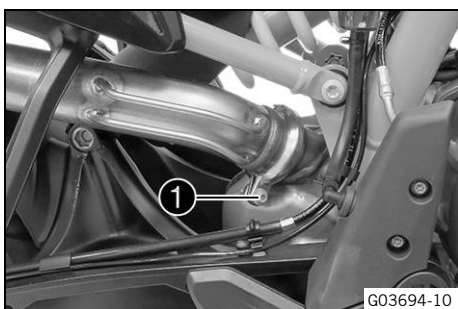
Main work

- Position the right side cover with holding lug ① on bushing ② and push backward.
- ✓ The right side cover engages under the tail part.
- Press the right side cover in the area ③ into rubber bushing ④ and press into rubber bushing ⑤ in area ⑥.

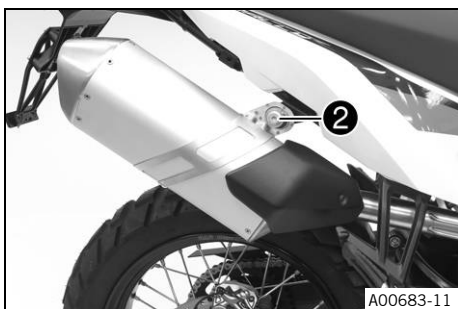
Finishing work

- Mount the seat. (📖 p. 13)

3.12 Removing the main silencer



- Remove screw 1.
- Remove the clamp.



- Remove screw 2 with the washer.
- Take off the main silencer.

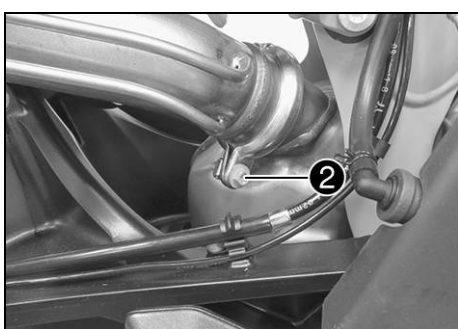
3.13 Installing the main silencer



- Position the main silencer with the gasket.
- Mount screw 1 with the washer, but do not tighten yet.

Guideline

| | | |
|-----------------------------|----|---------------------|
| Screw, main silencer holder | M8 | 25 Nm (18.4 lbf ft) |
|-----------------------------|----|---------------------|



- Position the clamp.

Guideline

| | |
|------------|----------------|
| Distance A | 1 mm (0.04 in) |
|------------|----------------|



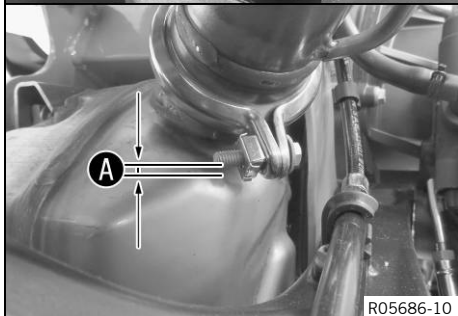
Info

The clamp must not touch the brake line when the rear wheel suspension compresses.

- Mount and tighten screw 2.

Guideline

| | | |
|----------------------------------|----|-----------------------------------|
| Screw, presilencer exhaust clamp | M6 | 8 Nm (5.9 lbf ft) Copper paste |
|----------------------------------|----|-----------------------------------|





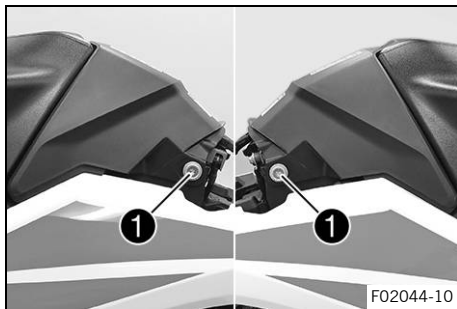
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- Tighten screw ①.

Guideline

| | | |
|-----------------------------|----|---------------------|
| Screw, main silencer holder | M8 | 25 Nm (18.4 lbf ft) |
|-----------------------------|----|---------------------|

3.14 Removing the battery cover



F02044-10

Preparatory work

- Remove the seat. (📖 p. 12)

Main work

- Remove screws ① with the bushings.
- Remove the battery cover from above.

3.15 Installing the battery cover



F03297-10

Main work

- Position the battery cover with holding lugs ① on bushings ② and push downward.
 - ✓ The battery cover engages on the left and right under the fuel tank spoiler.
- Mount screws ③ with the bushings and tighten.

Guideline

| | | |
|--------------------|----|-------------------|
| Screw, seat fixing | M6 | 6 Nm (4.4 lbf ft) |
|--------------------|----|-------------------|

Finishing work

- Mount the seat. (📖 p. 13)

3.16 Charging the 12-V battery



Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep 12 V batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the 12 V battery.
- Only charge 12 V batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the eyes.

Note

Danger of damage An incorrectly selected charging mode will damage the 12-V battery.

- Always select a charging mode that is compatible with the type of battery.



Note

Environmental hazard 12 V batteries contain environmentally hazardous materials.

- Do not dispose of 12 V batteries as household waste.
- Dispose of 12 V batteries at a collection point for used batteries.



Note

Environmental hazard Hazardous substances cause environmental damage.

- Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.



Info

Even when there is no load on the 12-V battery, it discharges steadily each day.

The charging level and the method of charging are very important for the service life of the 12-V battery. Rapid recharging with a high charging current shortens the service life of the battery.

If the charging current, charging voltage, and charging time are exceeded, the 12-V battery will be destroyed.

If the 12-V battery is depleted from starting the vehicle repeatedly, the battery must be charged immediately.

If the 12-V battery is left in a discharged state for an extended period, it will become deeply discharged and sulfating occurs, destroying the battery.

The 12-V battery is maintenance-free, i.e. the acid level does not have to be checked.

Preparatory work

- Remove the seat. (📖 p. 12)
- Disconnect the negative cable of the 12-V battery. (📖 p. 20)

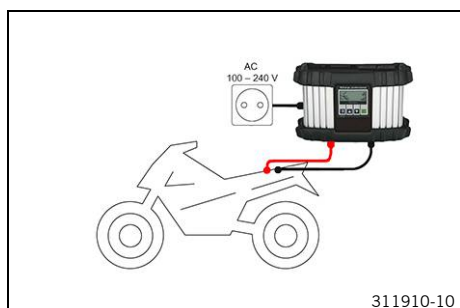
Main work

- Connect a battery charger to the 12-V battery. Adjust the battery charger.

EU battery charger **XCharge-professional** (00029095050)

Alternative 1

US battery charger **XCharge-professional**
(00029095051)



Alternative 2

| |
|-----------------------------------------------------------------|
| UK battery charger XCharge-professional (00029095052) |
|-----------------------------------------------------------------|

**Info**

Follow the instructions of the charger and the manual.

- Disconnect the battery charger after charging the 12-V battery.

Guideline

| | |
|---------------------------------------------------------------------------------|----------|
| The charging current, charging voltage, and charging time must not be exceeded. | |
| Recharge the 12-V battery regularly when the motorcycle is not being used | 3 months |

Finishing work

- Connect the negative cable of the 12-V battery. (📖 p. 21)
- Mount the seat. (📖 p. 13)
- Set the time and date.

3.17 Disconnecting the negative cable of the 12-V battery**Warning**

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep 12 V batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the 12 V battery.
- Only charge 12 V batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the eyes.

**Caution**

Danger of accidents Electronic components and safety devices will be damaged if the 12-V battery is discharged or missing.

If the 12-V battery is discharged or defective, malfunctions in the vehicle electronics can occur, especially when starting.

- Never operate the vehicle with a discharged 12-V battery or without a 12-V battery.

Preparatory work

- Remove the seat. (📖 p. 12)



Main work

- Disconnect negative cable ① from the 12-V battery.

3.18 Connecting the negative cable of the 12-V battery



Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep 12 V batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the 12 V battery.
- Only charge 12 V batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the eyes.



Caution

Danger of accidents Electronic components and safety devices will be damaged if the 12-V battery is discharged or missing.

If the 12-V battery is discharged or defective, malfunctions in the vehicle electronics can occur, especially when starting.

- Never operate the vehicle with a discharged 12-V battery or without a 12-V battery.



Main work

- Connect negative cable ① to the 12-V battery.

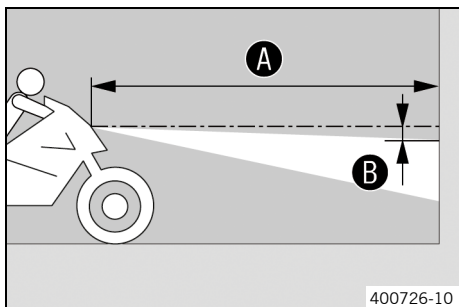
Guideline

| | | |
|-------------------------|----|-------------------------|
| Screw, battery terminal | M6 | 4.5 Nm (3.32 lbf ft) |
|-------------------------|----|-------------------------|

Finishing work

- Mount the seat. (📖 p. 13)
- Set the time and date.

3.19 Checking the headlight setting



400726-10

- Park the vehicle on a horizontal surface in front of a light-colored wall and make a mark at the height of the center of the low beam headlight.
- Make another mark at a distance **B** under the first marking.

| | |
|-------------------|-------------|
| Distance B | 5 cm (2 in) |
|-------------------|-------------|

- Position the vehicle upright at distance **A** from the wall and switch on the low beam.

| | |
|-------------------|-------------|
| Distance A | 5 m (16 ft) |
|-------------------|-------------|

- The rider now mounts the motorcycle with luggage and passenger if applicable.
- Check the headlight setting.

The light-dark boundary must be exactly on the lower marking when the motorcycle is ready to be operated with the rider mounted along with any luggage and a passenger if applicable.

- » If the boundary between light and dark does not meet specifications:
 - Adjust headlight range. (📖 p. 22)

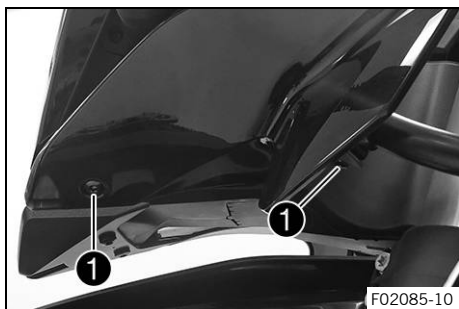
3.20 Adjusting the headlight range

Preparatory work

- Check the headlight setting. (📖 p. 22)

Main work

- Remove screws **1**.
- Remove the left mask spoiler.



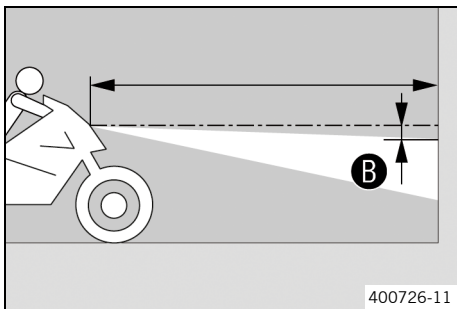
F02085-10

- Turn adjusting screw **2** to adjust the headlight range.



F02086-10

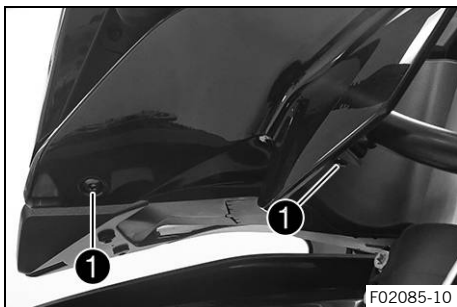
i Info
Turn clockwise to reduce the headlight range; turn counterclockwise to increase the headlight range. If you have a payload, you may have to correct the headlight range.



- Set the headlight to marking **B**.

Guideline

The light-dark boundary must lie exactly on lower marking **B** when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger, if applicable.



- Position left mask spoiler.
- Mount and tighten screws **1**.

Guideline

| | | |
|---------------------------|----|-------------------|
| Remaining screws, chassis | M5 | 5 Nm (3.7 lbf ft) |
|---------------------------|----|-------------------|

3.21 Refueling

Danger **Fire hazard** Fuel is highly flammable. The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not fuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

Warning **Danger of poisoning** Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.

Note

Material damage Inadequate fuel quality causes the fuel filter to quickly become clogged.

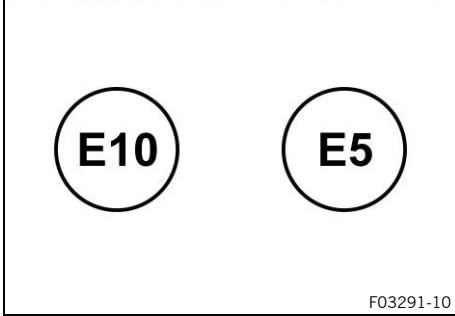
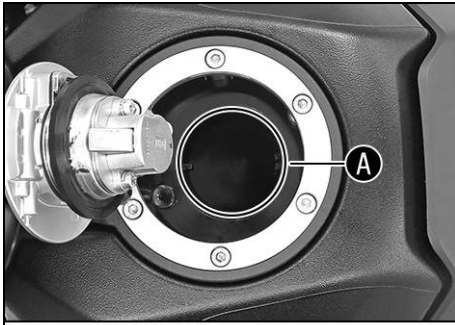
In some countries and regions, the available fuel quality and cleanliness may not be sufficient. This will result in problems with the fuel system.

- Refuel only with clean fuel that meets the specified standards.

Note

Environmental hazard Improper handling of fuel is a danger to the environment.

- Do not allow fuel to enter the groundwater, the soil, or the sewage system.



- Switch off the engine.
- Open the fuel tank filler cap. (📖 p. 24)
- Fill the fuel tank with fuel up to the lower edge **A** of the filler neck.

| | | |
|-----------------------------------|----------------------|--------------------------------------|
| Total fuel tank capacity, approx. | 20 l (5.3 US gal) | Super unleaded (ROZ 95) (📖 p. 31) |
|-----------------------------------|----------------------|--------------------------------------|

- Close the fuel tank filler cap. (📖 p. 25)

3.22 Opening the fuel tank filler cap



Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not fuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.



Warning

Danger of poisoning Fuel is poisonous and a health hazard.

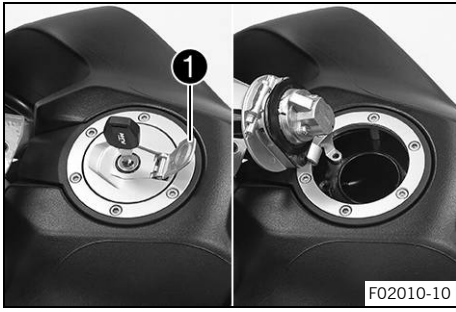
- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.
- Keep fuels correctly in a suitable canister, and out of the reach of children.



Note

Environmental hazard Improper handling of fuel is a danger to the environment.

- Do not allow fuel to enter the groundwater, the soil, or the sewage system.



- Lift cover **1** of the fuel tank filler cap and insert the ignition key into the lock.

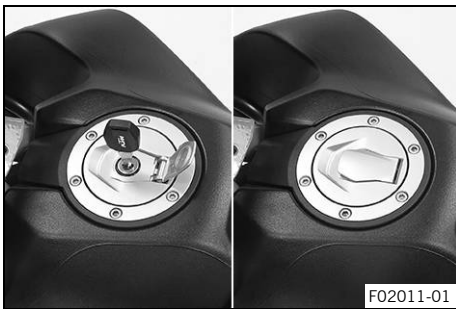
Note

Danger of damage The ignition key may break if overloaded. Damaged ignition keys must be replaced.

- Push down on the fuel tank filler cap to take pressure off the ignition key.
- Turn the ignition key 90° clockwise.
- Lift the fuel tank filler cap.



3.23 Closing the fuel tank filler cap



- Fold down the fuel tank filler cap.
- Turn the ignition key 90° clockwise.
- Push down the fuel tank filler cap and turn the ignition key counterclockwise until the lock closes.



Warning

Fire hazard Fuel is highly flammable, toxic and a health hazard.

- Check that the fuel tank filler cap is locked correctly after closing.
- Change your clothing if fuel spills on them.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.

- Remove the ignition key and close the cover.



4 TECHNICAL DATA

4.1 Chassis tightening torques

| | | |
|--------------------------------------------------|-------------------------------|--------------------------------------------|
| Brake fluid reservoir cover, front | - | 1 Nm (0.7 lbf ft) |
| Brake fluid reservoir cover, rear | - | 1.5 Nm (1.11 lbf ft) |
| Compensating tank cover | - | 1.1 Nm (0.81 lbf ft) |
| Nut, valve | ISO 10V2 | 12 Nm (8.9 lbf ft) Loctite®2701™ |
| Remaining screws, chassis | EJOTPT® K45x12 | 1 Nm (0.7 lbf ft) |
| Remaining screws, chassis | EJOTPT® K50x12 | 1 Nm (0.7 lbf ft) |
| Remaining screws, chassis | EJOTPT® K50x14 | 1 Nm (0.7 lbf ft) |
| Remaining screws, chassis | EJOTPT® K50x16 | 2 Nm (1.5 lbf ft) |
| Remaining screws, chassis | EJOTPT® K50x18 | 2 Nm (1.5 lbf ft) |
| Screw, tail light | EJOT DELTA PT® 45x12-Z | 1.5 Nm (1.11 lbf ft) |
| Socket for electrical accessories | - | 4 Nm (3 lbf ft) |
| Throttle valve body hose clamp | - | 2.8 Nm (2.07 lbf ft) |
| Remaining nuts, chassis | M4 | 3 Nm (2.2 lbf ft) |
| Remaining screws, chassis | M4 | 3 Nm (2.2 lbf ft) |
| Screw, fixed grip, left | M4 | 3 Nm (2.2 lbf ft) |
| Remaining nuts, chassis | M5 | 5 Nm (3.7 lbf ft) |
| Remaining screws, chassis | M5 | 5 Nm (3.7 lbf ft) |
| Screw for throttle grip | M5 | 3.5 Nm (2.58 lbf ft) |
| Screw, air filter box | M5 | 3 Nm (2.2 lbf ft) |
| Screw, brake fluid reservoir for rear brake | M5 | 5 Nm (3.7 lbf ft) Loctite®243™ |
| Screw, brake line holder on link fork | M5 | 1 Nm (0.7 lbf ft) |
| Screw, combination instrument | M5 | 4 Nm (3 lbf ft) |
| Screw, combination switch, left | M5 | 2 Nm (1.5 lbf ft) |
| Screw, combination switch, right | M5 | 5 Nm (3.7 lbf ft) |
| Screw, engine sprocket cover | M5 | 5 Nm (3.7 lbf ft) Loctite®243™ |
| Screw, foot brake lever stub | M5 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, fork protector | M5x12 | 5 Nm (3.7 lbf ft) |
| Screw, fork protector | M5x17 | 5 Nm (3.7 lbf ft) |
| Screw, fuel level sensor | M5 | 3 Nm (2.2 lbf ft) |
| Screw, fuel tank clamp | M5 | 3 Nm (2.2 lbf ft) |
| Screw, fuel tank insert | M5 | 3 Nm (2.2 lbf ft) |
| Screw, headlight mask | M5 | 3.5 Nm (2.58 lbf ft) |
| Screw, headlight mask intermediate part | M5 | 3.5 Nm (2.58 lbf ft) |
| Screw, heat guard | M5 | 5 Nm (3.7 lbf ft) Loctite®243™ |
| Screw, instrument support on mask support, front | M5 | 3.5 Nm (2.58 lbf ft) |
| Screw, instrument support on mask support, rear | M5 | 5 Nm (3.7 lbf ft) |

| | | |
|------------------------------------------------------|-------|---------------------------------------------|
| Screw, license plate holder | M5 | 5 Nm (3.7 lbf ft) Loctite®243™ |
| Screw, lower rear panel | M5 | 3 Nm (2.2 lbf ft) |
| Screw, mask support | M5 | 3.5 Nm (2.58 lbf ft) |
| Screw, mask support cover | M5 | 3.5 Nm (2.58 lbf ft) |
| Screw, side stand sensor | M5 | 2 Nm (1.5 lbf ft) Loctite®243™ |
| Screw, splash protector | M5 | 2.8 Nm (2.07 lbf ft) |
| Screw, trim | M5 | 3 Nm (2.2 lbf ft) |
| Spoke nipple | M5 | 6 Nm (4.4 lbf ft) |
| Hand guard fitting | M6 | 6 Nm (4.4 lbf ft) |
| Nut, foot brake lever adjustment | M6 | 6 Nm (4.4 lbf ft) |
| Nut, hand brake lever | M6 | Attach torque to nut. 10 Nm (7.4 lbf ft) |
| Nut, push rod, foot brake lever | M6 | 6 Nm (4.4 lbf ft) |
| Nut, shift rod | M6 | 6 Nm (4.4 lbf ft) |
| Nut, shift rod | M6LH | 6 Nm (4.4 lbf ft) |
| Remaining nuts, chassis | M6 | 10 Nm (7.4 lbf ft) |
| Remaining screws, chassis | M6 | 10 Nm (7.4 lbf ft) |
| Screw activated carbon filter on retaining bracket | M6 | 8 Nm (5.9 lbf ft) |
| Screw cap, fuel tank cover | M6 | 5 Nm (3.7 lbf ft) |
| Screw, 6-D sensor | M6 | 5 Nm (3.7 lbf ft) |
| Screw, ABS module | M6 | 8 Nm (5.9 lbf ft) |
| Screw, ball joint of push rod on foot brake cylinder | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, battery support bracket | M6 | 5 Nm (3.7 lbf ft) |
| Screw, battery terminal | M6 | 4.5 Nm (3.32 lbf ft) |
| Screw, brace for mask support | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, brake assembly | M6 | 5 Nm (3.7 lbf ft) |
| Screw, cable on starter motor | M6 | 5 Nm (3.7 lbf ft) |
| Screw, cable on starter relay | M6 | 4.5 Nm (3.32 lbf ft) |
| Screw, clutch assembly | M6 | 5 Nm (3.7 lbf ft) |
| Screw, cross member in rear | M6x13 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, cross member in rear | M6x12 | 6 Nm (4.4 lbf ft) Loctite®243™ |
| Screw, engine guard | M6x8 | 8 Nm (5.9 lbf ft) |
| Screw, engine guard | M6x10 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, engine guard retaining bracket | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, foot brake cylinder | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, footrest bracket, rear | M6 | 9 Nm (6.6 lbf ft) Loctite®243™ |

4 TECHNICAL DATA

| | | |
|---------------------------------------------|-------|----------------------------------------------------------------------------------------|
| Screw, front brake disc | M6 | 14 Nm (10.3 lbf ft) Loctite®243™ |
| Screw, front wheel speed sensor | M6 | 6 Nm (4.4 lbf ft) |
| Screw, fuel pump | M6 | 6 Nm (4.4 lbf ft) |
| Screw, fuel tank cover | M6x12 | 8 Nm (5.9 lbf ft) |
| Screw, fuel tank cover | M6x22 | 8 Nm (5.9 lbf ft) |
| Screw, fuel tank spoiler attachment | M6 | 3 Nm (2.2 lbf ft) |
| Screw, fuel tap | M6 | 6 Nm (4.4 lbf ft) |
| Screw, ground wire on frame | M6 | 6 Nm (4.4 lbf ft) |
| Screw, ground wire to starter motor | M6 | 10 Nm (7.4 lbf ft) |
| Screw, ignition lock (tamper-proof screw) | M6 | Tighten until the head tears off. Loctite®243™ |
| Screw, magnetic holder on side stand | M6 | 2 Nm (1.5 lbf ft) Loctite®243™ |
| Screw, mask support on steering head | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, presilencer exhaust clamp | M6 | 8 Nm (5.9 lbf ft) Copper paste |
| Screw, radiator bracket, bottom | M6 | 5 Nm (3.7 lbf ft) |
| Screw, rear brake disc | M6 | 14 Nm (10.3 lbf ft) Loctite®243™ |
| Screw, rear wheel speed sensor | M6 | 6 Nm (4.4 lbf ft) |
| Screw, seat fixing | M6 | 6 Nm (4.4 lbf ft) |
| Screw, seat lock | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, shift rod | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, shift shaft deflector on shift shaft | M6 | 10 Nm (7.4 lbf ft) Loctite®243™ |
| Screw, voltage regulator | M6 | 6 Nm (4.4 lbf ft) |
| Foot brake lever, fitting | M8 | 25 Nm (18.4 lbf ft) Loctite®2701™ |
| Hand guard screw | M8 | 25 Nm (18.4 lbf ft) |
| Nut, manifold on cylinder head | M8 | Tighten the nuts evenly. Do not bend the metal. 20 Nm (14.8 lbf ft) Copper paste |
| Nut, rear sprocket screw | M8 | 35 Nm (25.8 lbf ft) Loctite®2701™ |
| Pin, rear brake caliper | M8 | 22 Nm (16.2 lbf ft) Loctite®243™ |
| Remaining nuts, chassis | M8 | 25 Nm (18.4 lbf ft) |
| Remaining screws, chassis | M8 | 25 Nm (18.4 lbf ft) |
| Screw, bottom triple clamp | M8 | 12 Nm (8.9 lbf ft) |
| Screw, engine fixing arm linkage bracket | M8 | 25 Nm (18.4 lbf ft) Loctite®243™ |

| | | |
|--------------------------------------------------|----------|---------------------------------------------|
| Screw, engine guard frame | M8 | 25 Nm (18.4 lbf ft) Loctite®243™ |
| Screw, foot brake lever return spring pin | M8 | 12 Nm (8.9 lbf ft) Loctite®2701™ |
| Screw, fork stub | M8 | 15 Nm (11.1 lbf ft) |
| Screw, front brake caliper | M8 | 25 Nm (18.4 lbf ft) |
| Screw, grab handle | M8 | 25 Nm (18.4 lbf ft) Loctite®243™ |
| Screw, handlebar clamp | M8 | 20 Nm (14.8 lbf ft) |
| Screw, main silencer fastening | M8 | 15 Nm (11.1 lbf ft) |
| Screw, main silencer holder | M8 | 25 Nm (18.4 lbf ft) |
| Screw, presilencer on frame | M8 | 25 Nm (18.4 lbf ft) Loctite®243™ |
| Screw, rear footrest bracket | M8 | 25 Nm (18.4 lbf ft) Loctite®243™ |
| Screw, seat bracket | M8 | 25 Nm (18.4 lbf ft) Loctite®243™ |
| Screw, shift lever | M8 | 25 Nm (18.4 lbf ft) Loctite®2701™ |
| Screw, spring holder plate on side stand bracket | M8 | 15 Nm (11.1 lbf ft) Loctite®2701™ |
| Screw, steering damper on holder | M8 | 8 Nm (5.9 lbf ft) Loctite®243™ |
| Screw, steering damper on triple clamp | M8 | 8 Nm (5.9 lbf ft) Loctite®243™ |
| Screw, steering stem | M8 | 20 Nm (14.8 lbf ft) Loctite®243™ |
| Screw, subframe | M8 | 25 Nm (18.4 lbf ft) Loctite®243™ |
| Screw, top triple clamp | M8 | 15 Nm (11.1 lbf ft) |
| Securing bolt for brake linings | M8 | 10 Nm (7.4 lbf ft) |
| Remaining nuts, chassis | M10 | 45 Nm (33.2 lbf ft) |
| Remaining screws, chassis | M10 | 45 Nm (33.2 lbf ft) |
| Screw, engine bracket | M10 | 45 Nm (33.2 lbf ft) Loctite®243™ |
| Screw, front footrest bracket | M10x30 | 45 Nm (33.2 lbf ft) Loctite®243™ |
| Screw, front footrest bracket | M10x40 | 45 Nm (33.2 lbf ft) Loctite®243™ |
| Screw, front footrest bracket | M10x65 | 45 Nm (33.2 lbf ft) Loctite®243™ |
| Screw, handlebar support | M10 | 45 Nm (33.2 lbf ft) Loctite®243™ |
| Screw, side stand | M10 | 40 Nm (29.5 lbf ft) Loctite®243™ |
| Screw, subframe | M10 | 50 Nm (36.9 lbf ft) Loctite®243™ |
| Banjo bolt, brake line | M10x1 | 25 Nm (18.4 lbf ft) |
| Nut, turn signal | M10x1.25 | 4 Nm (3 lbf ft) |

4 TECHNICAL DATA

| | | |
|------------------------------|-----------|-------------------------------------------------------------------------|
| Screw, front brake caliper | M10x1.25 | 45 Nm (33.2 lbf ft) Loctite®243™ |
| Screw, bottom shock absorber | M12 | 80 Nm (59 lbf ft) Loctite®2701™ |
| Screw, swingarm pivot | M12 | 100 Nm (73.8 lbf ft) |
| Screw, top shock absorber | M12 | 80 Nm (59 lbf ft) Loctite®2701™ |
| Lambda sensor | M18x1.5 | 50 Nm (36.9 lbf ft) |
| Adjusting screw, swingarm | M20LHx1.5 | 10 Nm (7.4 lbf ft) |
| Nut, rear wheel spindle | M25x1.5 | 90 Nm (66.4 lbf ft) Thread and contact area of wheel spindle greased |
| Screw, front wheel spindle | M25x1.5 | 45 Nm (33.2 lbf ft) Thread greased |
| Screw, steering head | M25x1.5 | 18 Nm (13.3 lbf ft) |

Super unleaded (ROZ 95)

Standard/classification

- DIN EN 228 (ROZ 95)

Guideline

- Only use super unleaded fuel that matches or is equivalent to the specified standard.
 - Fuel with an ethanol content of up to 10% (E10 fuel) is safe to use.
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Info

Do **not** use fuel containing methanol (e.g., M15, M85, M100) or more than 10% ethanol (e.g., E15, E25, E85, E100).



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