

# SETUP INSTRUCTIONS 2010

**125 SX**

**150 SX**

**250 SX**

Art. no. 3211561en



**KTM**



The work described in these setup instructions must be performed before the vehicle is delivered to the customer.

Read the setup instructions in their entirety before beginning work.

Print out the current **PDI** form found on the **KTM DEALER.NET**.

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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Issued by: TÜV Management Service

KTM-Sportmotorcycle AG  
5230 Mattighofen, Austria

## Symbols used

The symbols used are explained 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).



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

## Formats used

The typographical and other formats used are explained in the following.

**Proprietary name**

Identifies a proprietary name.

**Name<sup>®</sup>**

Identifies a protected name.

**Brand<sup>™</sup>**

Identifies a brand available on the open market.

## Unpacking and setting up the vehicle



### Package 1

- Remove the box and the plastic packaging.



#### Info

An assistant prevents the motorcycle from falling over. To avoid damaging the motorcycle during assembly, leave the protective film on the vehicle until you have finished.

- Remove the separate enclosure and unpack it. Check that the scope of delivery is complete on the basis of the enclosed packing list.
- Set up the work stand.

Work stand (54829055000)

- Together with an assistant, take the vehicle off the palette.
- Position the vehicle on a work stand.
- Check the vehicle for transport damage.

### Package 12

- Remove the box and the plastic packaging.



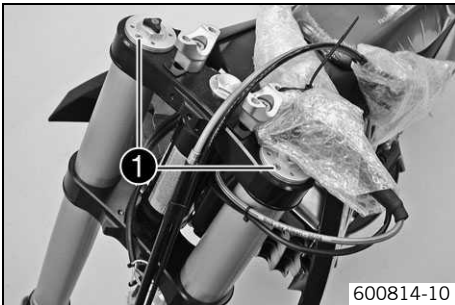
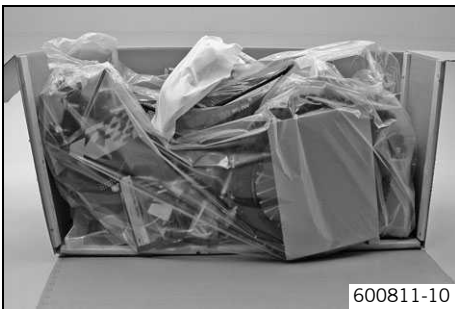
#### Info

An assistant prevents the motorcycle from falling over. To avoid damaging the motorcycle during assembly, leave the protective film on the vehicle until you have finished.

- Remove the separate enclosure and unpack it. Check that the scope of delivery is complete on the basis of the enclosed packing list.
- Set up the work stand.

Work stand (54829055000)

- Together with an assistant, take the vehicle off the palette.
- Position the vehicle on a work stand.
- Check the vehicle for transport damage.
- Install the shock absorber. (🔧 p. 5)



- Position the fork legs and tighten the screws of the triple clamp.

#### Guideline

Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)



#### Info

The upper milled groove in the fork leg must be flush with the top edge of the upper triple clamp. Position bleeder screws ❶ toward the front.



600824-10

- Mount the handlebar.
- ✓ The scale on the handlebar should be in the center of the handlebar clamp.
- Position the handlebar clamp. Mount and evenly tighten the four screws.

Guideline

Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
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B00092-01

- Position the operating elements on the right half of the handlebar.



**Info**

The routing of the cables and throttle cables can be seen in the figure.



B00093-01

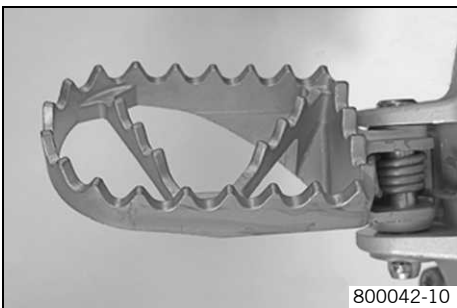
- Position the controls on the left half of the handlebar.



**Info**

The figure shows how to route the clutch line and wiring harness.

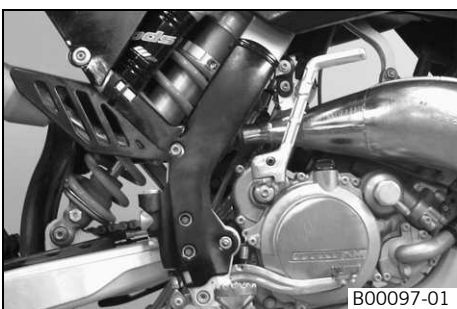
- Install the front fender. (☛ p. 6)
- Correctly mount the fuel tank breather.
- Install the start number plate. (☛ p. 6)



800042-10

- Mount the footrests with the springs and bolts. Secure the bolts using the washers and pins.

Plier for footrest spring (58429083000)
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B00097-01

- Mount the frame protector.

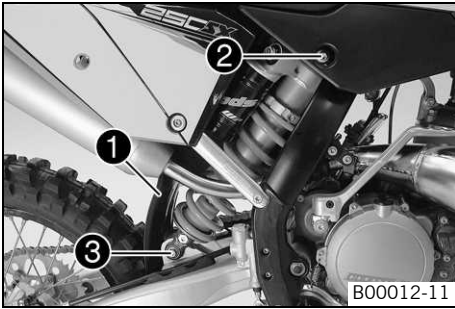


**Info**

Read the accompanying **KTM PowerParts** installation instructions.

- Refuel. (☛ p. 6)
- Position all controls in their exact positions on the handlebar. Tighten all screws.
- Print out the current **PDI** form found on **KTM DEALER.NET** and perform the delivery inspection.

**Installing the shock absorber**



- Push splash protector ❶ to the side and position the shock absorber. Mount and tighten screw ❷.

Guideline

Screw, top shock absorber	M12	80 Nm (59 lbf ft)	Loctite® 243™
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- Mount and tighten screw ❸.

Guideline

Screw, bottom shock absorber	M12	80 Nm (59 lbf ft)	Loctite® 243™
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**i Info**

The heim joint for the shock absorber at the swing arm is Teflon coated. It must not be greased with grease or with other lubricants. Lubricants dissolve the Teflon coating, thereby drastically reducing the service life.

- Remove the motorcycle from the work stand.

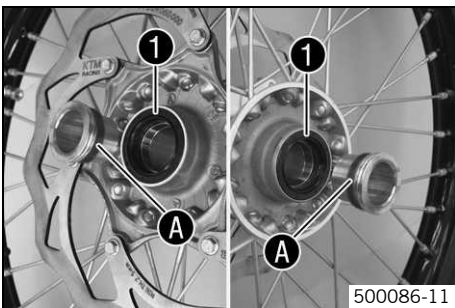
**Installing the front wheel**



**Warning**

**Danger of accidents** Reduced braking efficiency due to oil or grease on the brake discs.

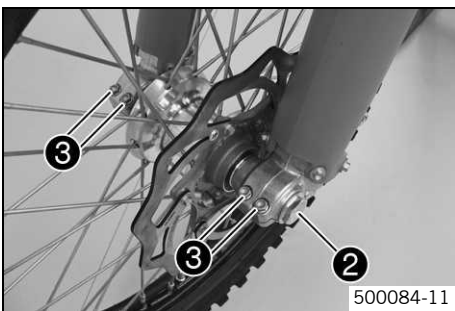
- Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.



- Clean and grease shaft seal rings ❶ and bearing surface A of the spacers.

Long-life grease (☛ p. 10)
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- Insert the spacers.



- Lift the front wheel into the fork, position it, and insert the wheel spindle.
- Mount and tighten screw ❷.

Guideline

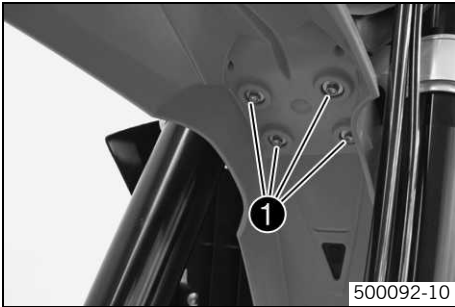
Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)
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- Operate the hand brake lever several times until the brake linings are lying correctly on the brake disc.
- Remove the motorcycle from the work stand.
- Pull the front wheel brake and push down hard on the fork several times to align the fork legs.
- Tighten screws ❸.

Guideline

Screw, fork stub	M8	15 Nm (11.1 lbf ft)
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## Installing the front fender



- Ensure that the spacers are mounted in the fender.
- Position the front fender. Mount and tighten screws ❶.

Guideline

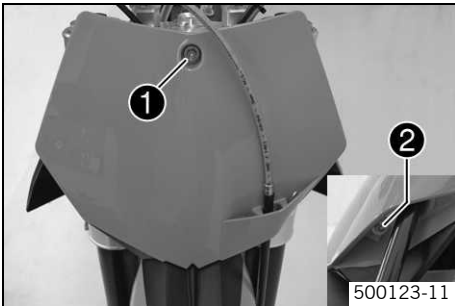
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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**Info**

Make sure the holding lugs engage in the start number plate.

## Installing the start number plate



- Position the start number plate. Mount and tighten screw ❶.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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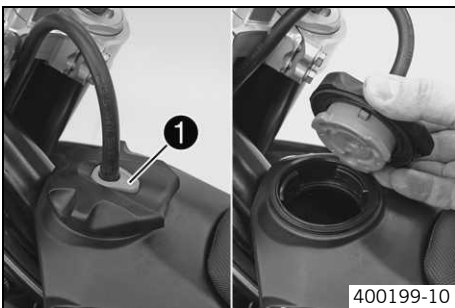


**Info**

Ensure that the holding lugs engage in the fender.

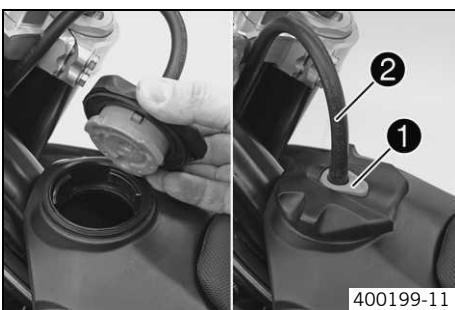
- Position the brake line. Position the clamp and mount and tighten screw ❷.

## Opening the filler cap



- Press release button ❶, turn the filler cap counterclockwise and lift it free.

## Closing the filler cap



- Replace the filler cap and turn clockwise until the release button ❶ locks in place.



**Info**

Run the fuel tank breather hose ❷ without kinks.

## Refueling



**Danger**

**Fire hazard** Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the notes on refueling.



**Warning**

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

- Avoid contact of the fuel with skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come into contact with fuel.

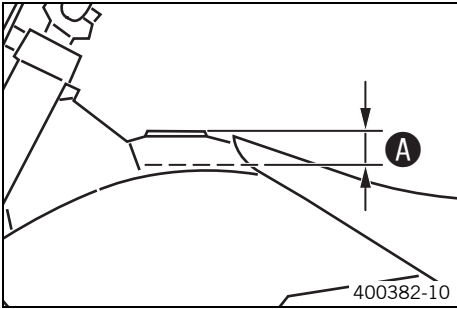




**Warning**

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

- Do not allow fuel to get into the ground water, the ground, or the sewage system.



- Switch off the engine.
- Open the filler cap. (☛ p. 6)
- Fill the fuel tank with fuel up to measurement **A**.

Guideline

Measurement of <b>A</b>	35 mm (1.38 in)	
Total fuel tank capacity, approx.	8 l (2.1 US gal)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 9) (125 SX, 150 SX)
		Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 9) (250 SX)

- Close the filler cap. (☛ p. 6)

Spoke nipple, front wheel	M4.5	5... 6 Nm (3.7... 4.4 lbf ft)	–
Spoke nipple, rear wheel	M5	5... 6 Nm (3.7... 4.4 lbf ft)	–
Remaining nuts, chassis	M6	15 Nm (11.1 lbf ft)	–
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	–
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	–
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	–
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	–
Screw, shock absorber adjusting ring	M6	5 Nm (3.7 lbf ft)	–
Nut, rear sprocket screw	M8	35 Nm (25.8 lbf ft)	<b>Loctite® 243™</b>
Nut, rim lock	M8	10 Nm (7.4 lbf ft)	–
Remaining nuts, chassis	M8	30 Nm (22.1 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 brace	M8	33 Nm (24.3 lbf ft)	–
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	–
Screw, front brake caliper	M8	25 Nm (18.4 lbf ft)	<b>Loctite® 243™</b>
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, subframe	M8	35 Nm (25.8 lbf ft)	<b>Loctite® 243™</b>
Screw, top steering stem	M8	17 Nm (12.5 lbf ft)	<b>Loctite® 243™</b>
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)	–
Engine bracket screw	M10	60 Nm (44.3 lbf ft)	–
Remaining nuts, chassis	M10	50 Nm (36.9 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	<b>Loctite® 243™</b>
Screw, bottom shock absorber	M12	80 Nm (59 lbf ft)	<b>Loctite® 243™</b>
Screw, top shock absorber	M12	80 Nm (59 lbf ft)	<b>Loctite® 243™</b>
Nut, seat fixing	M12x1	20 Nm (14.8 lbf ft)	–
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)	–
Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)	–
Screw, top steering head	M20x1.5	10 Nm (7.4 lbf ft)	–
Screw-in nozzles, cooling system	M20x1.5	12 Nm (8.9 lbf ft)	<b>Loctite® 243™</b>
Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)	–

## Super unleaded gasoline, mixed with 2-stroke engine oil (1:40)

**According to**

- DIN EN 228
- JASO FC (☛ p. 11) (1:40)

**Mixture ratio**

1:40	2-stroke engine oil Super unleaded (ROZ 95 / RON 95 / PON 91)
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## Super unleaded gasoline, mixed with 2-stroke engine oil (1:60)

**According to**

- DIN EN 228
- JASO FC (☛ p. 11) (1:60)

**Mixture ratio**

1:60	2-stroke engine oil Super unleaded (ROZ 95 / RON 95 / PON 91)
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## Long-life grease

### Guideline

- KTM recommends **Motorex®** products.

### Supplier

- **Motorex®**  
– **Fett 2000**

## **JASO FC**

JASO FC is a classification for a 2-stroke engine oil that was specifically developed for the extreme demands of racing. Thanks to first rate synthetic esters and specially designed additives, superb combustion is achieved even under extreme operating conditions.



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07/2009 Photo: Mitterbauer



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