

SETUP INSTRUCTIONS 2009

450 SX ATV

505 SX ATV

ART. NO. 3211428en



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.

All specifications are non-binding. KTM Sportmotorcycle AG in particular reserves the right to modify or delete technical specifications, prices, colors, forms, materials, services, designs, equipment, etc., without prior notice and without specifying reasons, to adapt these to local conditions, as well as to stop production of a particular model without prior notice. KTM accepts no liability for delivery options, deviations from illustrations and descriptions, as well as misprints and other errors. The models portrayed partly contain special equipment that does not belong to the regular scope of delivery.

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ISO 9001(12 100 6061)

According to the international quality management standard ISO 9001, KTM uses quality assurance processes that lead to the maximum possible quality of the products.

Issued by: TÜV Management Service

KTM-Sportmotorcycle AG
5230 Mattighofen, Austria

Symbols used

The symbols used are explained in the following.



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.

Specific name Identifies a proprietary name.

Name[®] Identifies a protected name.

Brand[™] Identifies a brand in merchandise traffic.

Unpacking and setting up the vehicle



- Remove the box and the plastic packaging.
- Check the vehicle for transport damage.
- Remove the vehicle from the pallet.
- Unpack the separate enclosure and check its contents on the basis of the enclosure list.
- Remove the rear fender. (👉 p. 5)



Warning

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

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep the battery away from sparks or open fire. Charge only in well-ventilated rooms.
- In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.

- Fill the battery.



Info

Observe the instructions in the separate enclosure of the battery.

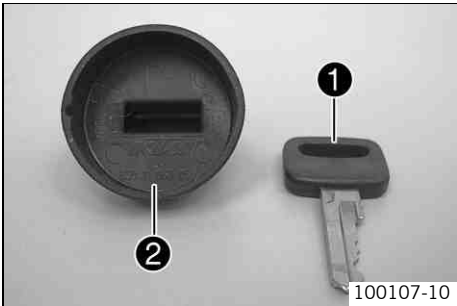
- Recharge the battery. (👉 p. 6)
- Install the battery. (👉 p. 7)
- Fill up with fuel. (👉 p. 8)
- Insert the ignition key ❶ in the key cover cap ❷.



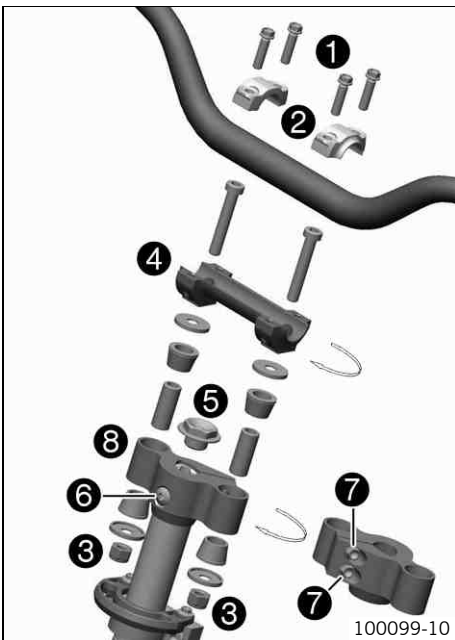
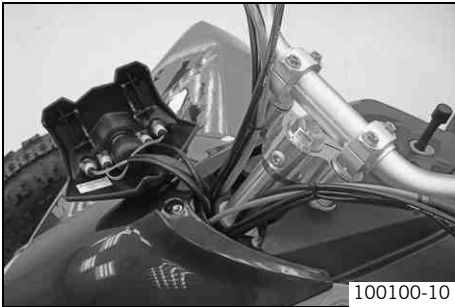
Info

The key cover cap is in the tool set.
Read the installation instructions on the inside of the cap.

- Print out the current **PDI** form found on **KTM DEALER.NET** and perform the delivery inspection.



Adjusting the handlebar position



- Pull the instrument support off the handlebar and swing it to the side.

i Info

Protect the vehicle and its attachments from damage by covering them. Do not bend the cables and lines.

- Remove the four screws ①. Remove handlebar clamps ②, swing the handlebar forward and set it down.
- Remove nuts ③ and remove handlebar support ④ with the screws.
- Remove screws ⑤ and ⑥.
- Remove screws ⑦. Remove handlebar bridge ⑧.
- Place handlebar bridge ⑧ onto the steering column in the desired position. Mount and tighten screw ⑥.

Guideline

Screw, steering bridge	M8	20 Nm (14.8 lbf ft)
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- Mount and tighten screw ⑤.

Guideline

Screw, steering column, top	M20x1.5	25 Nm (18.4 lbf ft)
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- Mount and tighten screws ⑦.

Guideline

Screw, steering bridge	M8	20 Nm (14.8 lbf ft)
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- Mount handlebar support ④ in the desired position using the screws. Mount new self-locking nuts ③ and tighten.

Guideline

Nut, handlebar support	M10	45 Nm (33.2 lbf ft)
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- Position the handlebar and fix it with handlebar clamps ②. Mount and tighten screws ①.

Guideline

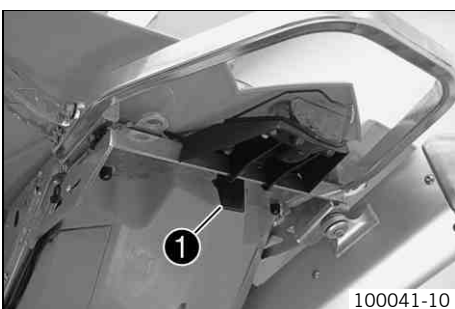
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
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i Info

Make sure cables and wiring are positioned correctly.

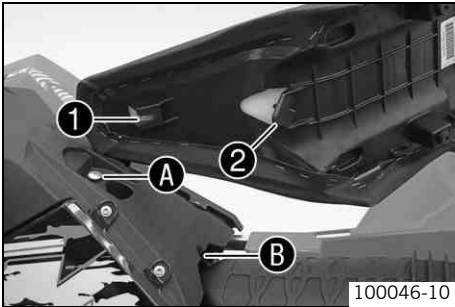
- Position the instrument support on the handlebar.

Removing the seat

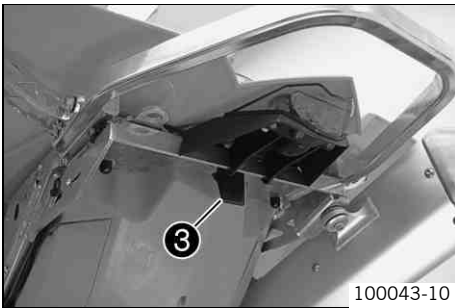


- Pull the release hook ① back. Lift up the seat at the rear, pull it back and then remove from above.

Mounting the seat

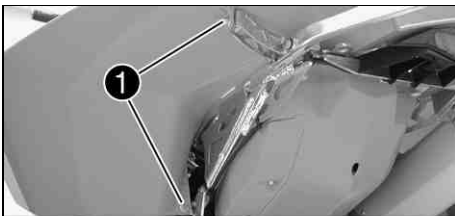


- Hook slot ① on the seat into collar sleeve ④ of the fuel tank, lower the rear of the seat and slide tab ② under fuel tank ③.

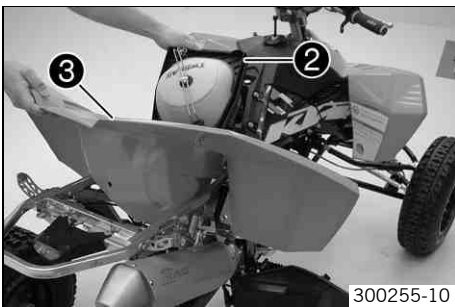
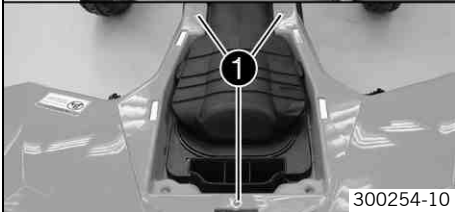
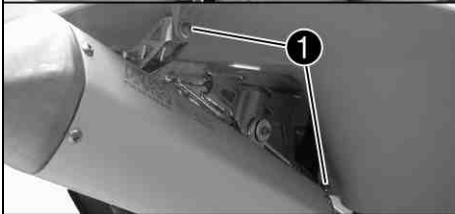


- Push down the rear of the seat until release hook ③ engages.
- Make sure that the seat is correctly locked in.

Removing the rear fender

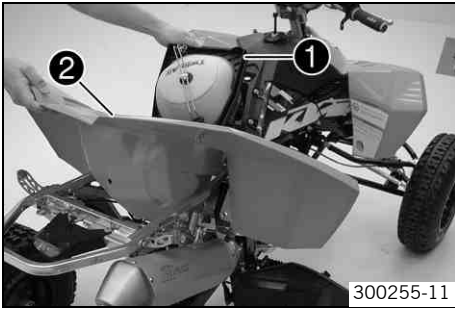


- Remove the seat (☛ p. 4)
- Remove screws ①.



- Raise the rear of the air filter box lid ②. At the same time, use your other hand to press on the carburetor connection boot to kink it at that location. This prevents the carburetor connection boot from disconnecting from the carburetor.
- Raise fender ③ at the rear and remove it.

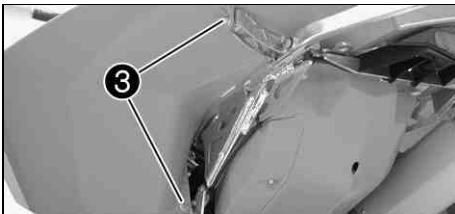
Installing the rear fender



- Raise the rear of air filter box lid ❶. At the same time, use your other hand to press on the carburetor connection boot to kink it at that location. This prevents the carburetor connection boot from disconnecting from the carburetor.
- Position front fender ❷.
- Fix the air filter box lid in the fender.

i Info

If the air filter box lid is not correctly mounted, dust and dirt can penetrate into the engine and cause damage.

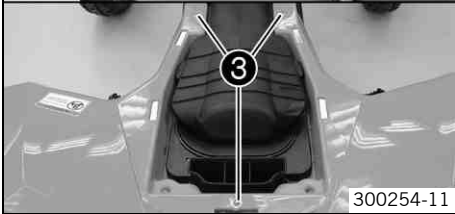
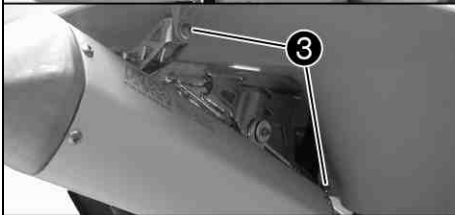


- Mount and tighten screws ❸.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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- Mount the seat. (☛ p. 5)



Recharging the battery

⚠ Warning

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

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep the battery away from sparks or open fire. Charge only in well-ventilated rooms.
- In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.

☼ Warning

Environmental hazard Components and battery acid are a danger to the environment.

- Do not dispose of batteries in normal household waste. Take defective or used batteries to a battery recycling operator.

☼ Warning

Environmental hazard Problem materials cause environmental damage.

- Dispose of oil, grease, filters, fuel, cleaning substances, brake fluid, batteries, etc. according to regulations.

i Info

Even if there is no load on the battery, it loses power every day. The charge state and the type of charge are very important for the service life of the battery. Fast recharging with a high charge current shortens the battery's service life. If the charge current, the charge voltage and the charge time are exceeded, electrolyte escapes through the breathing holes. The battery capacity is then reduced. If the battery is discharged from starting, it must be recharged immediately. If it stands for a long time in a discharged state, the battery becomes over-discharged and sulfated, and then it is destroyed. The battery is maintenance-free, i.e., the acid level does not have to be checked.

- Switch off all power-consuming components and switch off the engine.
- Remove the rear fender. (☛ p. 5)
- Disconnect the minus (negative) cable of the battery to avoid damage to the vehicle's electronics.
- Connect the battery charger to the battery. Switch on the battery charger.

Battery charger (58429074000)

You can also use the battery charger to test rest potential and start potential of the battery, and to test the generator. With this device, you cannot overcharge the battery.

i Info

Never remove the lid ❶.
Charge the battery according to the instructions ❷ on the battery casing.

- Switch off the charger after charging. Disconnect the battery.

Guideline

The charge current, charge voltage and charge time must not be exceeded.

Charge the battery regularly when the vehicle is not in use.	3 months
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- Install the rear fender. (☛ p. 6)



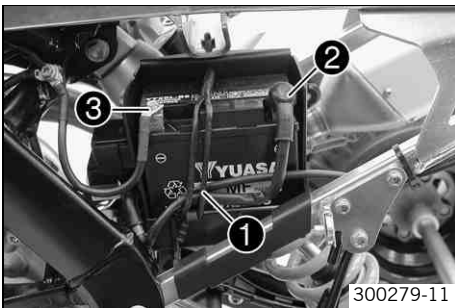
100087-10

Installing the battery

- Place the battery in the battery holder.

4Ah battery (YTX5L-BS)

- Reconnect rubber band ❶.
- Attach the positive (plus) cable and replace the plus pole cover ❷.
- Connect the negative (minus) cable ❸ of the battery.
- Install the rear fender. (☛ p. 6)



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Opening filler cap

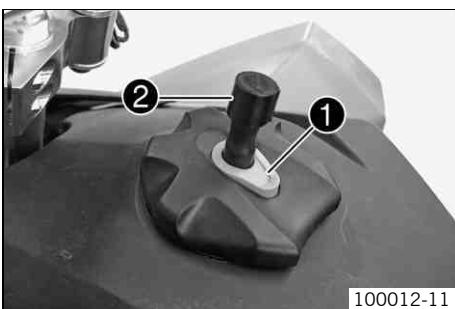
- Press release button ❶, turn filler cap counterclockwise and lift it free.



100012-10

Closing filler cap

- Replace the filler cap and turn clockwise until the release button ❶ locks in place.
- Check the fuel tank breather ❷ to ensure it is properly seated.
 - » If the fuel tank breather is at an angle or loose:
 - Correctly mount the fuel tank breather.



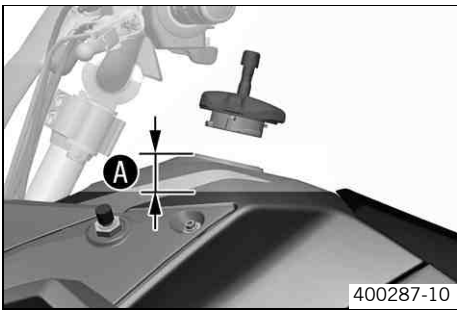
100012-11

Refueling

- Danger**
Fire hazard Fuel can easily catch fire.
- Never fill up 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 specifications on filling up with fuel.

- Warning**
Danger of poisoning Fuel is poisonous and a health hazard.
- Avoid contact between fuel and 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. 7)
- Fill the fuel tank with fuel up to measurement **A**.

Guideline

Measurement of A	35 mm (1.38 in)	
Total fuel tank capacity approx.	10.3 l (2.72 US gal)	Super unleaded (ROZ 95 / RON 95 / PON 91) (☛ p. 10)

- Close the filler cap. (☛ p. 7)

TECHNICAL DATA - TIGHTENING TORQUES FOR CHASSIS

Remaining nuts, chassis	M6	15 Nm (11.1 lbf ft)	–
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	–
Screw on fuel tank	M6	6 Nm (4.4 lbf ft)	–
Screw, clamping nut, rear axle	M6	10 Nm (7.4 lbf ft)	–
Screw, foot brake cylinder	M6	7 Nm (5.2 lbf ft)	Loctite® 243™
Remaining nuts, chassis	M8	30 Nm (22.1 lbf ft)	–
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)	–
Screw, bearing support, steering	M8	25 Nm (18.4 lbf ft)	–
Screw, front brake caliper	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, front brake disc	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, rear brake caliper	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, rear brake disc	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, rear wheel eccentric element	M8	20 Nm (14.8 lbf ft)	–
Screw, steering bridge	M8	20 Nm (14.8 lbf ft)	–
Screw, subframe	M8	35 Nm (25.8 lbf ft)	Loctite® 243™
Engine bracket screw	M10	60 Nm (44.3 lbf ft)	–
Engine carrying screw	M10	60 Nm (44.3 lbf ft)	–
Nut, handlebar support	M10	45 Nm (33.2 lbf ft)	–
Remaining nuts, chassis	M10	50 Nm (36.9 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, A-arm bottom	M10x70	45 Nm (33.2 lbf ft)	–
Screw, A-arm top	M10x52	45 Nm (33.2 lbf ft)	–
Screw, footrest	M10	45 Nm (33.2 lbf ft)	–
Screw, front shock absorber	M10	45 Nm (33.2 lbf ft)	–
Screw, steering column at bottom of steering lever	M10	25 Nm (18.4 lbf ft)	–
Nut, ball head, A-arm top	M10x1.25	35 Nm (25.8 lbf ft)	–
Nut, rear sprocket screw	M10x1.25	45 Nm (33.2 lbf ft)	Loctite® 243™
Nut, tie rod end	M10x1.25	45 Nm (33.2 lbf ft)	–
Wheel nut	M10x1.25	45 Nm (33.2 lbf ft)	–
Nut, front wheel hub	M12	70 Nm (51.6 lbf ft)	–
Screw, rear bottom shock absorber	M12	70 Nm (51.6 lbf ft)	–
Screw, rear top shock absorber	M12	60 Nm (44.3 lbf ft)	–
Lock nut, tie rod, inside	M12LHx1.25	20 Nm (14.8 lbf ft)	–
Lock nut, tie rod, outside	M12x1.25	20 Nm (14.8 lbf ft)	–
Nut, A-arm top	M12x1.25	30 Nm (22.1 lbf ft)	–
Nut, ball head, A-arm bottom	M12x1.5	40 Nm (29.5 lbf ft)	–
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)	–
Nut, rear wheel hub	M18x1.5	130 Nm (95.9 lbf ft)	–
Screw, steering column, bottom	M20x1.5	40 Nm (29.5 lbf ft)	–
Screw, steering column, top	M20x1.5	25 Nm (18.4 lbf ft)	–
Clamping nut, rear axle	2"-10UNS-2B-LH	25 Nm (18.4 lbf ft)	Only applies when using: Open-end wrench accessory 46mm (83019010461)

Super unleaded (ROZ 95 / RON 95 / PON 91)

According to

- DIN EN 228 (ROZ 95 / RON 95 / PON 91)



3211428en



7/2008 Photo: Mitterbauer



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