

SETUP INSTRUCTIONS 2009

690 SMC EU
690 SMC AUS/UK
690 SMC USA

Art. no. 3211459en



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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REG.NO. 12 100 6061

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



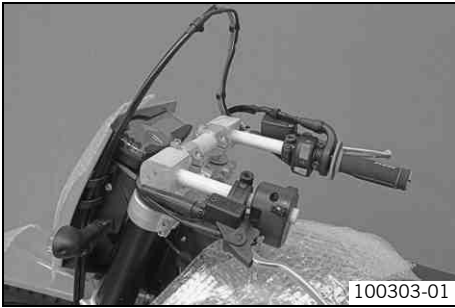
- Remove the box and the plastic packaging.



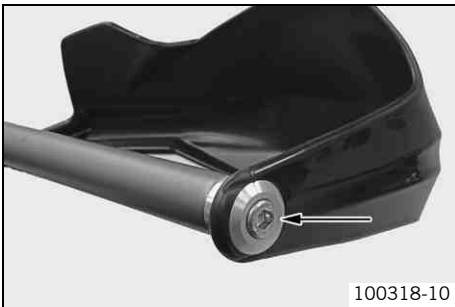
Info

To avoid damaging the motorcycle during the setup, leave the protective foil on the the vehicle until you have finished.

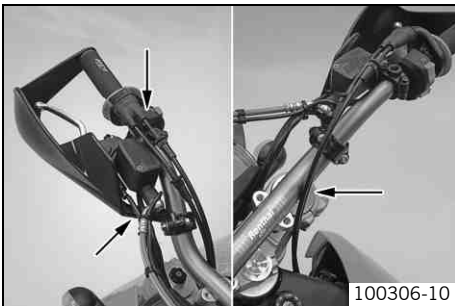
- Check the vehicle for transport damage.
- Unpack the separate enclosure and check its contents on the basis of the enclosure list.



- Remove the operating elements from the transport holder. Remove the screws and handlebar clamps. Remove the transport holder.



- Remove the M8 screw from the right hand guard.

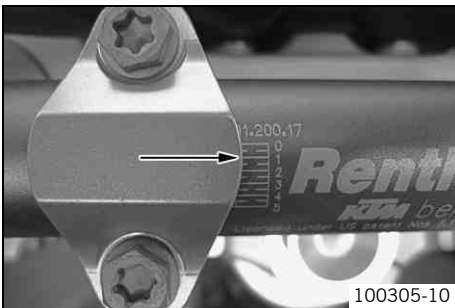


- Position the operating elements on the right half of the handlebar.



Info

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



- Position the handlebar.
 - ✓ The mark **1** of the scale on the handlebar should be in the center of the handlebar clamp.

- Position the handlebar clamps. Fit and evenly tighten the four screws.

Guideline

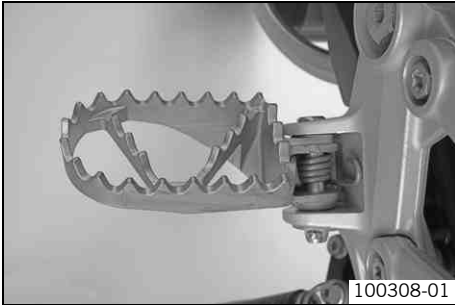
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
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- Position the operating elements on the left half of the handlebar. Fit the screws.



- Mount and tighten the rear mirror adapter and rear mirror on both sides.
- Position all operating elements exactly on the handlebar. Tighten all screws.
- Fit and tighten the M8 screw of the right hand guard.



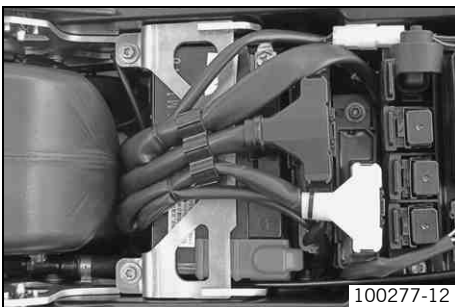
- Mount the footrests with the springs and bolts. Secure the bolts using the washers and pins.

Plier for footrest spring (58429083000)

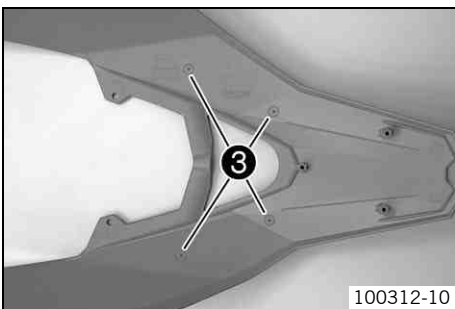
- Remove the protective plastic.
- Carefully loosen and remove the tensioning belt over the link fork.

i Info

An assistant prevents the motorcycle from falling over.



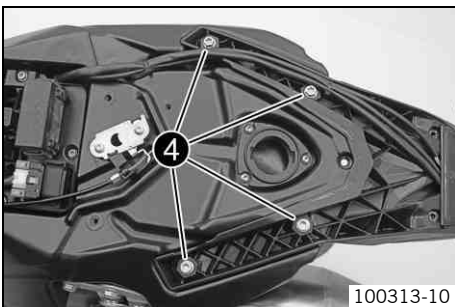
- Carefully loosen and remove the tensioning belts around the lower triple clamp.
- ✓ The vehicle is released at the front.
- Together with an assistant, take the vehicle off of the palette.
- Recharge the battery. (☛ p. 7)
- Install the battery. (☛ p. 8)



- Remove the rear fairing. (☛ p. 8)
- 4 markings ③ can be seen on the underside of the rear cover. At these positions, drill holes in three steps of the prescribed size.

Guideline

Hole diameter for grip handles	14.50 mm (0.5709 in)
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- Remove screws ④.
- Fit the rear fairing. (☛ p. 9)



- Mount the reflector.

Operation as 2-seater

- Fit the rear footrest bracket. (☛ p. 9)

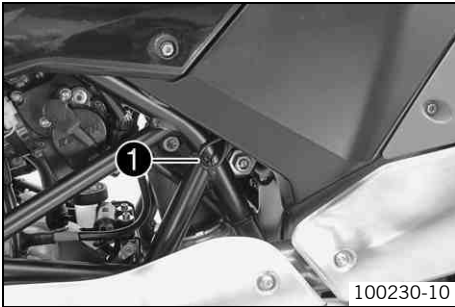
Operation as 1-seater (at customer request only)

**Warning**

Forfeiture of homologation and insurance cover The vehicle is homologated as 2-seater. If the heel protector is fitted instead of the footrest bracket, the vehicle no longer conforms to the homologation and must not be operated in this form without alterations to the registration papers.

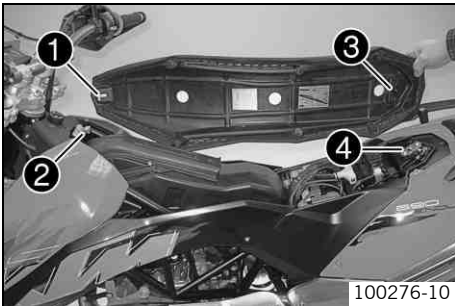
- Set up and operate the vehicle as a 2-seater or have changes made to the registration papers.
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- Fit the heel protector. (☛ p. 9)
 - Refuel. (☛ p. 10)
 - Print out the current **PDI** form found on **KTM DEALER.NET** and perform the delivery inspection.
 - Set kilometers or miles. (☛ p. 11)

Removing the seat



- Pull on strap ❶ and raise the rear of the seat at the same time.
- Pull back the seat and lift it off.

Mounting the seat



- Hook slot ❶ of the seat onto screw ❷, press the rear downward and at the same time push it forward.
- Push locking pin ❸ into lock housing ❹ and push the back of the seat down until the locking pin locks in place with an audible click.
- Finally, check that the seat is correctly mounted.

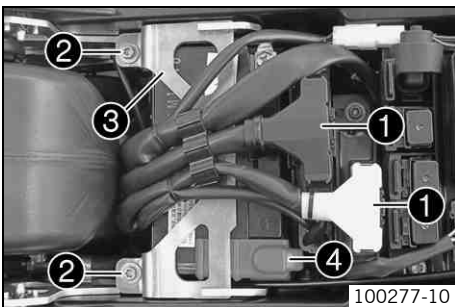
Removing the battery



Warning

Risk of injury Battery acid and battery gases cause serious cauterization.

- 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 doctor.



- Switch off all power consumers and switch off the engine.
- Remove the seat. (☛ p. 6)
- Disconnect the negative (minus) cable of the battery.
- Pull off the plug connector ❶ upwards.
- Remove screws ❷.
- Pull the retaining bracket ❸ of the battery forward and remove it.
- Take off the positive pole cover ❹.
- Disconnect the positive (plus) cable of the battery.
- Push the wiring harness to the side and pull the battery out of the battery rack.



Info

Never operate the motorcycle with a discharged battery or without a battery. In both cases, electrical components and safety devices can be damaged. The vehicle is therefore no longer roadworthy.

Recharging the battery



Warning

Risk of injury Battery acid and battery gases cause serious cauterization.

- 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 doctor.



Warning

Environmental hazard Battery parts and acid are harmful to the environment.

- Do not discard batteries with the household trash. Dispose of a defective battery in an environmentally compatible manner. Give the battery to your KTM dealer or to a recycling center that accepts used batteries.



Warning

Environmental hazard Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.



Info

Even when there is no load on the battery, it still loses power steadily. The charge state and the type of charge are very important for the service life of the battery. Rapid recharging with a high charging current shortens the battery's service life. If the charging current, charging voltage and charging time are exceeded, electrolyte escapes through the safety valves. This reduces the battery capacity. If the battery is depleted from starting the vehicle repeatedly, the battery must be charged immediately. If the battery is left in a discharged state for an extended period, it will become over-discharged and sulfate, destroying the battery. The battery is maintenance-free, which means that the acid level does not need to be checked.

- Switch off all power consumers and switch off the engine.
- Remove the battery. (☛ p. 6)
- 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 alternator. With this device, you cannot overcharge the battery.

Info

Never remove lid ❶. Charge the battery with a maximum of 10% of the capacity specified on the battery housing ❷.

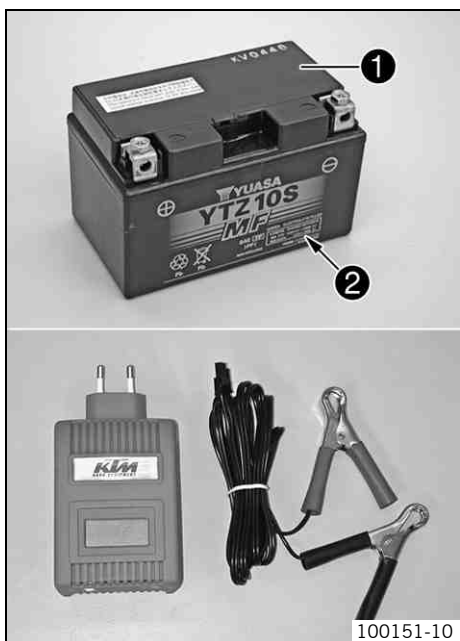
- Switch off and disconnect the charger after charging.

Guideline

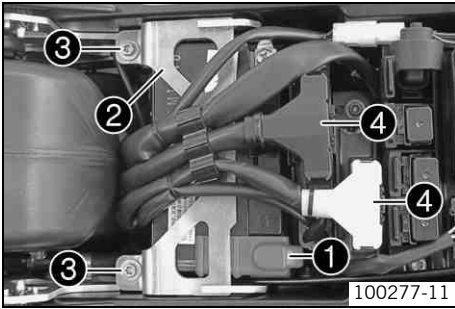
The charge current, charge voltage and charge time must not be exceeded.

Charge the battery regularly when the motorcycle is not in use	3 months
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- Install the battery. (☛ p. 8)



Installing the battery



- Slide the battery into the battery rack.



Info

The battery terminals must be at the rear.

- Attach the positive cable and mount positive terminal cover ❶.
- Position retaining bracket ❷.
- Mount and tighten screws ❸.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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- Plug in connector ❹.
- Attach the minus cable .
- Mount the seat. (☛ p. 6)
- Set the clock. (☛ p. 11)

Opening filler cap



- Lift the cover of the filler cap ❶ and insert the ignition key.
- Turn the ignition key 90° counterclockwise and remove the filler cap.



Info

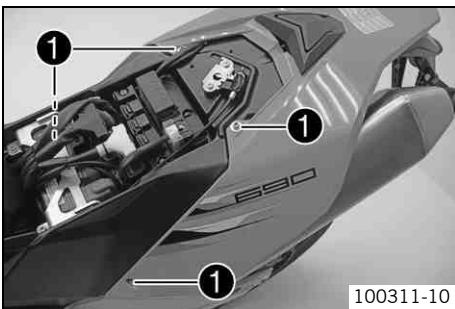
The filler cap has a tank air vent system.

Closing filler cap

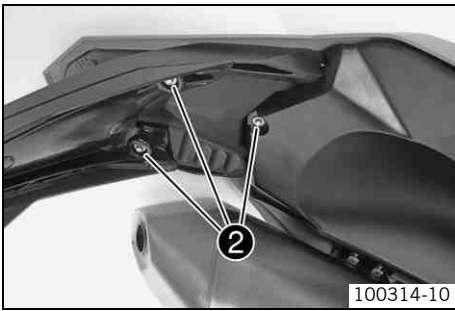


- Put the filler cap back on and turn the ignition key 90° clockwise.
- Remove the ignition key and fold down the cover.

Removing rear fairing

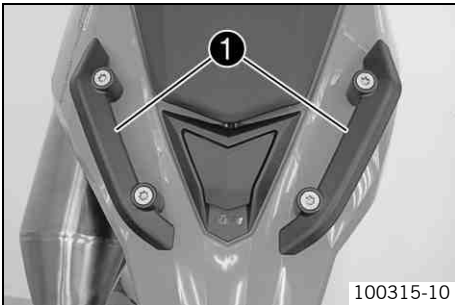


- Remove the seat. (☛ p. 6)
- Remove screws ❶.



- Remove screws ②.
- Open the filler cap. (☞ p. 8)
- Take off the rear fairing.
- Close the filler cap. (☞ p. 8)

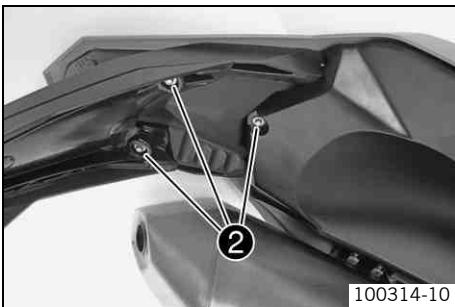
Fitting rear fairing



- Position the license plate holder and cable harness.
- Open the filler cap. (☞ p. 8)
- Position the rear fairing and grab handles ① as shown in the figure. Fit and slightly tighten the screws of the grab handles.
- Close the filler cap. (☞ p. 8)
- Fit and tighten the screws on the rear fairing.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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- Mount and tighten screws ②.
- Tighten the screws of the grab handles.

Guideline

Screw, handrail	M8	20 Nm (14.8 lbf ft)
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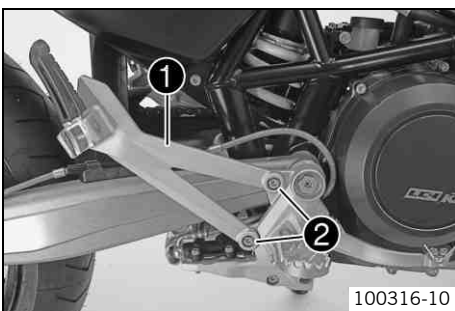
- Mount the seat. (☞ p. 6)

Fitting the rear footrest bracket



Info

The operations are the same for the left and right sides.



- Position the footrest bracket ①. Mount and tighten screws ②.

Guideline

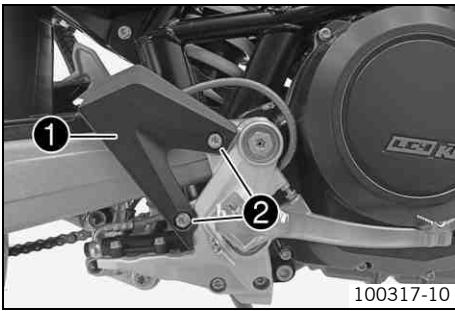
Screw, rear footrest bracket	M8x16	25 Nm (18.4 lbf ft)
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Fitting heel protector



Info

The operations are the same for the left and right sides.



Warning

Forfeiture of homologation and insurance cover The vehicle is homologated as 2-seater. If the heel protector is fitted instead of the footrest bracket, the vehicle no longer conforms to the homologation and must not be operated in this form without alterations to the registration papers.

- Set up and operate the vehicle as a 2-seater or have changes made to the registration papers.

- Position the heel protector ①. Mount and tighten screws ②.

Guideline

Screw, heel protector	M8x12	8 Nm (5.9 lbf ft)
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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

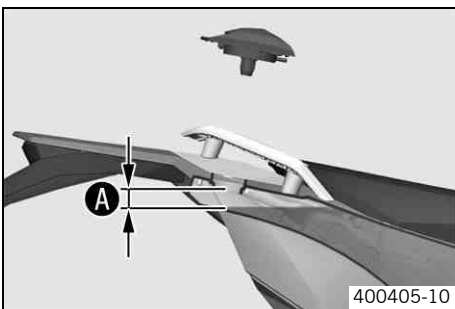
Environmental hazard Improper handling of fuel is a danger to the environment.

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



Info

This motorcycle is equipped with a regulated catalyst. Leaded fuel will destroy the catalyst. You should therefore use unleaded fuel only.



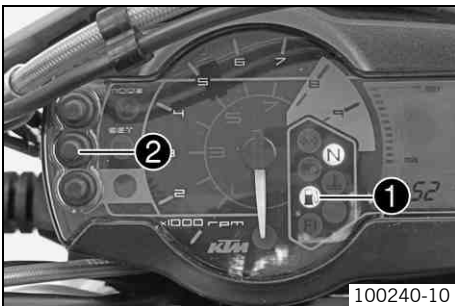
- Switch off engine.
- Open the filler cap. (☛ p. 8)
- Fill the fuel tank with fuel up to measurement A.

Guideline

Measurement of A	20 mm (0.79 in)	
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Total fuel tank capacity, approx.	12 l (3.2 US gal)	Super unleaded (ROZ 95 / RON 95 / PON 91) (☛ p. 14)
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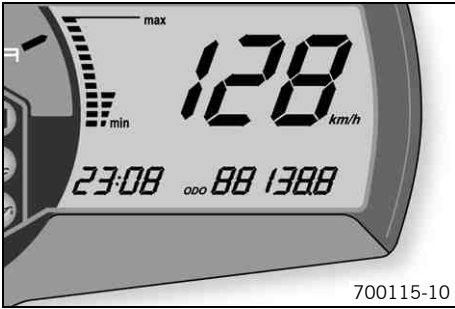
- Close the filler cap. (☛ p. 8)
- Press the **SET** button ② for two seconds.
- ✓ The fuel level warning lamp ① switches off. **TRIP F** is set to **0.0** and appears in the previous display mode.



Info

If you do not press the **SET** button ②, the reset takes place automatically after about three minutes.

Setting the clock



Condition

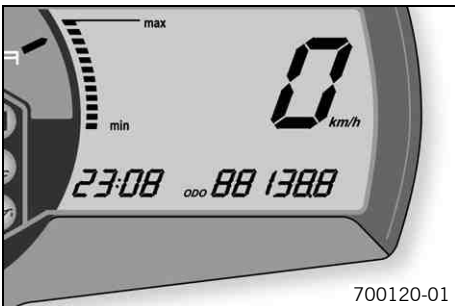
The motorcycle is stationary.

- Switch on the ignition by turning the ignition key to position **ON**
- Press the **MODE** button repeatedly until the **ODO** mode is active.
- Keep the **MODE** button and the **SET** button pressed simultaneously.
 - ✓ The time display begins to flash.
- Press the **MODE** button to set the hour.
- Press the **SET** button to set the minute.
- Keep the **MODE** button and the **SET** button pressed simultaneously.
 - ✓ The time is set.

Setting kilometers or miles

i Info

If you change the unit, the value **ODO** is retained and converted accordingly.
Making the setting according to the country.



Condition

The motorcycle is stationary.

- Switch on the ignition by turning the ignition key to position **ON**
- Press the **MODE** button repeatedly until the **ODO** mode is active.
- Keep the **MODE** button pressed until the display mode changes from **km/h** to **mph** or from **mph** to **km/h**.

Screw, license plate holder, bottom	EJOT	3 Nm (2.2 lbf ft)	–
Screw, SLS valve	EJOT	2 Nm (1.5 lbf ft)	–
Spoke nipple, front wheel	M4.5	4 Nm (3 lbf ft)	–
Bolt, foot brake lever stub	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Remaining screws, chassis	M5	4 Nm (3 lbf ft)	–
Screw, electrical holder	M5	3 Nm (2.2 lbf ft)	–
Screw, exhaust heat shield	M5	8 Nm (5.9 lbf ft)	–
Screw, fuel level sensor	M5	3 Nm (2.2 lbf ft)	–
Screw, fuel pump	M5	6 Nm (4.4 lbf ft)	–
Screw, headlight mask	M5	5 Nm (3.7 lbf ft)	–
Screw, seat lock	M5	3 Nm (2.2 lbf ft)	Loctite® 222
Screw, side cover	M5	2 Nm (1.5 lbf ft)	–
Screw, side stand switch	M5	3 Nm (2.2 lbf ft)	–
Screw, starter cable on starter	M5	3 Nm (2.2 lbf ft)	–
Spoke nipple, rear wheel	M5	4 Nm (3 lbf ft)	–
Nut, foot brake cylinder screw	M6	10 Nm (7.4 lbf ft)	–
Remaining nuts, chassis	M6	15 Nm (11.1 lbf ft)	–
Remaining screws on fuel tank	M6	6 Nm (4.4 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)	Loctite® 243™
Screw, brake fluid reservoir of rear brake	M6	5 Nm (3.7 lbf ft)	–
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, ignition lock	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, magnetic holder on side stand	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, radiator bracket	M6	5 Nm (3.7 lbf ft)	–
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, voltage regulator	M6	8 Nm (5.9 lbf ft)	–
Nut, manifold on cylinder head	M8	25 Nm (18.4 lbf ft)	Copper paste
Nut, rear sprocket screw	M8	35 Nm (25.8 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, bottom triple clamp	M8	12 Nm (8.9 lbf ft)	–
Screw, connection lever on frame	M8	30 Nm (22.1 lbf ft)	–
Screw, exhaust clamp on main silencer	M8	25 Nm (18.4 lbf ft)	–
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	–
Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft)	–
Screw, fuel tank, bottom	M8	20 Nm (14.8 lbf ft)	–
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, handrail	M8	20 Nm (14.8 lbf ft)	–
Screw, heel protector	M8x12	8 Nm (5.9 lbf ft)	–
Screw, license plate holder, top	M8	20 Nm (14.8 lbf ft)	–
Screw, main silencer holder	M8	25 Nm (18.4 lbf ft)	–
Screw, main silencer holder on fuel tank	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, rear footrest bracket	M8x16	25 Nm (18.4 lbf ft)	–
Screw, side stand bracket	M8	25 Nm (18.4 lbf ft)	–
Screw, spring holder on side stand bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, steering stem	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)	–
Upper fuel tank screw	M8	20 Nm (14.8 lbf ft)	–

Engine carrying screw	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Remaining nuts, chassis	M10	50 Nm (36.9 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Screw, engine bearer on frame	M10	45 Nm (33.2 lbf ft)	–
Screw, foot brake lever	M10LH	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	–
Screw, side stand	M10	35 Nm (25.8 lbf ft)	Loctite® 243™
Screw, top shock absorber	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft)	Loctite® 243™
Lambda sensor	M12x1.25	24.5 Nm (18.07 lbf ft)	Copper paste
Screw, swingarm pivot	M12x1.75	80 Nm (59 lbf ft)	–
Nut, linkage lever on swingarm	M14x1.5	100 Nm (73.8 lbf ft)	–
Nut, linkage lever to rocker arm	M14x1.5	100 Nm (73.8 lbf ft)	–
Screw, bottom steering head	M20x1.5	60 Nm (44.3 lbf ft)	Loctite® 243™
Screw, top steering head	M20x1.5	10 Nm (7.4 lbf ft)	–
Screw, front wheel spindle	M24x1.5	40 Nm (29.5 lbf ft)	–
Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	–

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

According to

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



3211459en



02/2010 Photo: Mitterbauer



KTM-Sportmotorcycle AG
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<http://www.ktm.com>