

**50 SX**  
**50 SX Mini**

Art. no. 3213590en





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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Issued by: TÜV Management Service

REG.NO. 12 100 6061

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5230 Mattighofen, Austria

This document is valid for the following models:

50 SX (F6001Q4)

50 SX Mini (F6001Q5)



## 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.



Denotes a voltage measurement.



Denotes a current measurement.



Denotes a resistance measurement.

## 1.2 Formats used

The typographical formats used in this document are explained below.

<b>Proprietary name</b>	Identifies a proprietary name.
<b>Name<sup>®</sup></b>	Identifies a protected name.
<b>Brand<sup>™</sup></b>	Identifies a trademark.
<b><u>Underlined terms</u></b>	Refer to technical details of the vehicle or indicate technical terms, which are explained in the glossary.

## 2.1 Unpacking and setting up the vehicle



- Open the box.



**Info**

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 where possible until work has been completed.

- Remove the separate enclosure and unpack it. Check that the scope of supply is complete on the basis of the enclosed packing list.
- Lift the vehicle out of the box with the assistance of another person.
- Raise the motorcycle with a lift stand. (📖 p. 4)
- Check the vehicle for transport damage.
- Remove the protective film from the handlebar.
- Position the handlebar with handlebar clamps.
- Mount and tighten the screws.

Guideline

Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
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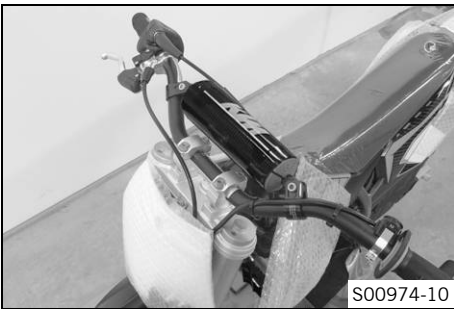
- Check the handlebar position.
  - » If the handlebar position is not adjusted as required by the customer:
    - Adjust the handlebar position. (📖 p. 4)
- Remove the screw of the brake line guide. Position the brake line. Mount the brake line guide again and tighten the screw.
- Check that the wiring harness, throttle cables, and brake line have the necessary freedom of movement and are correctly routed.
- Check that the controls on the handlebar are correctly positioned and firmly seated.
- Mount the footrests with the springs and pins. Secure the pins using the washers and cotter pins.

Pliers for footrest spring (58429083000)

- Fill up with fuel. (📖 p. 5)

**(50 SX Mini)**

- Fill up with oil. (📖 p. 6)
- Remove the motorcycle from the lift stand. (📖 p. 4)
- Rest the vehicle on the plug-in stand.
- Prepare the vehicle according to the specifications in the **KTM Dealer.net** for hand-over to the customer.

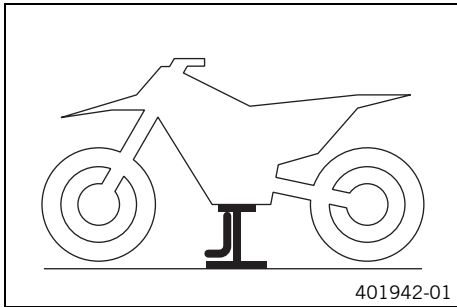


## 3.1 Raising the motorcycle with a lift stand

**Note**

**Danger of damage** The parked vehicle can roll away or fall over.

- Park the vehicle on a firm and level surface.



- Raise the motorcycle at the frame underneath the engine.

Lift stand (78929955100)

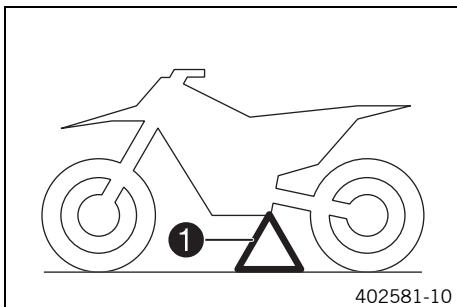
- ✓ Neither wheel is in contact with the ground.
- Secure the motorcycle against falling over.

## 3.2 Removing the motorcycle from the lift stand

**Note**

**Danger of damage** The parked vehicle can roll away or fall over.

- Park the vehicle on a firm and level surface.



- Remove the motorcycle from the lift stand.
- Remove the lift stand.
- To park the motorcycle, insert plug-in stand ❶ into the plug-in stand bracket on the left side of the vehicle.

**i Info**  
Remove the plug-in stand before riding.

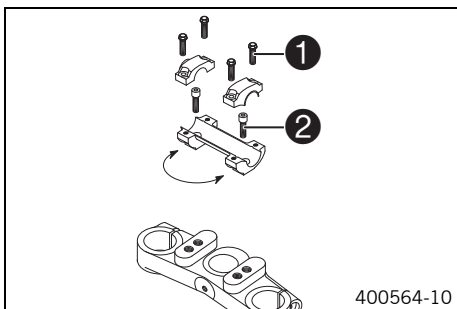
## 3.3 Adjusting the handlebar position

**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 ❶. Take off the handlebar clamps. Remove the handlebar and lay it to one side.

**i Info**  
Protect the motorcycle and its attachments against damage by covering them.  
Do not kink the cables and lines.

- Remove screws ❷. Remove the handlebar support.
- Place the handlebar support in the required position. Mount and tighten screws ❷.

Guideline

Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	Loctite® 243™
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- Position the handlebar.

**i Info**  
Make sure the cables and wiring are positioned correctly.

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

Guideline

Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
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**i Info**  
Make sure the gap widths are even.

## 3.4 Refueling

**! Danger**  
**Fire hazard** Fuel is highly flammable.

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

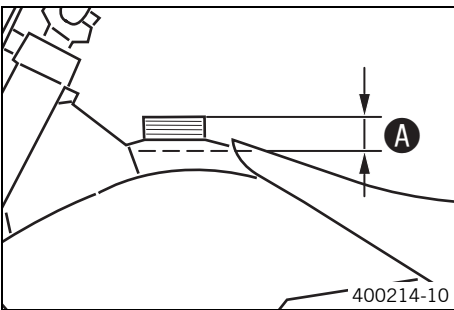
- Do not refuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

**! 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.

**☀ Warning**  
**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 filler cap. (📖 p. 5)
- Fill the fuel tank with fuel up to measurement ❶.

Guideline

Measurement of ❶	35 mm (1.38 in)	
Fuel tank capacity, approx. (50 SX Mini)	2.1 l (2.2 qt.)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 9)
Fuel tank capacity, approx. (50 SX)	2.3 l (2.4 qt.)	Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60) (📖 p. 9)

- Close the filler cap. (📖 p. 6)

## 3.5 Opening 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 refuel 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.

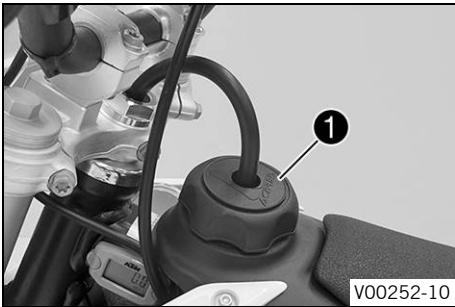
- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.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



**Warning**

**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.



- Turn the tank cap ❶ counterclockwise and pull it up.

### 3.6 Closing the filler cap



- Mount the filler cap and turn it clockwise until the fuel tank is firmly closed.



**Info**

Route fuel tank breather hose ❶ without kinks.

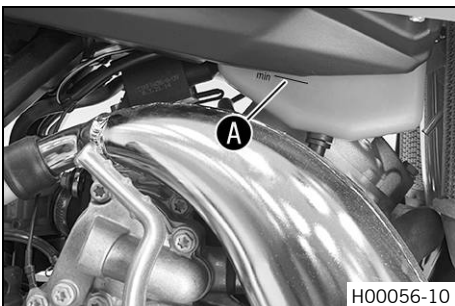
### 3.7 Filling up with oil (50 SX Mini)



**Warning**

**Engine damage** The engine will not be lubricated unless there is 2-stroke oil in the oil tank.

- For a full fuel tank, fill the oil tank at least up to the **MIN**mark.



- Switch off the engine.
- Open the oil tank cap. (📖 p. 7)
- Fill the oil tank at least up to the **MIN**mark ❶.

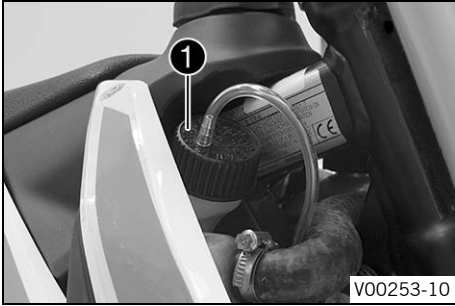
Guideline

<b>MIN</b> mark	Sufficient for a single tank filling	
Oil tank contents ca.	0.2 l (0.2 qt.)	Engine oil, 2-stroke (📖 p. 9)

- Close the oil tank cap. (📖 p. 7)



## 3.8 Opening oil tank cap (50 SX Mini)



- Turn the oil tank cap ① counterclockwise and pull it up.

## 3.9 Closing oil tank cap (50 SX Mini)



- Put the oil tank cap on and turn it clockwise.



### Info

Run the oil tank breather hose ① without kinks.

## 4.1 chassis tightening torques

Spoke nipple	M3.5	3 Nm (2.2 lbf ft)	–
Screw, brake linings	M5	8 Nm (5.9 lbf ft)	–
Nut, push rod ball joint on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	–
Rear brake caliper screw	M6	10 Nm (7.4 lbf ft)	<b>Loctite® 243™</b>
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)	–
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	–
Screw, chain sliding piece	M6	3 Nm (2.2 lbf ft)	–
Screw, fender	M6	6 Nm (4.4 lbf ft)	–
Screw, fork stub	M6	10 Nm (7.4 lbf ft)	–
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	<b>Loctite® 243™</b>
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	<b>Loctite® 243™</b>
Screw, start number plate	M6	4 Nm (3 lbf ft)	–
Screw, throttle grip	M6	4.5 Nm (3.32 lbf ft)	–
Nut, foot brake lever	M8	22 Nm (16.2 lbf ft)	–
Nut, rim lock	M8	10 Nm (7.4 lbf ft)	–
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	15 Nm (11.1 lbf ft)	–
Screw, chain sliding piece	M8	15 Nm (11.1 lbf ft)	–
Screw, engine bracket	M8	25 Nm (18.4 lbf ft)	<b>Loctite® 243™</b>
Screw, front brake caliper	M8	20 Nm (14.8 lbf ft)	<b>Loctite® 243™</b>
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, rear sprocket	M8	25 Nm (18.4 lbf ft)	<b>Loctite® 243™</b>
Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)	–
Nut, swingarm pivot	M10	45 Nm (33.2 lbf ft)	–
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>
Screw, front wheel spindle	M10	40 Nm (29.5 lbf ft)	<b>Loctite® 243™</b>
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	<b>Loctite® 243™</b>
Screw, top shock absorber	M10	45 Nm (33.2 lbf ft)	<b>Loctite® 243™</b>
Nut, rear wheel spindle	M12x1	40 Nm (29.5 lbf ft)	–
Nut, steering head	M20x1.5	10 Nm (7.4 lbf ft)	–
Nut, steering head	M20x1.5	9 Nm (6.6 lbf ft)	Only applies when using: Holding wrench for steering head bearing (45229050000)

## Engine oil, 2-stroke

### Standard/classification

- JASO FD (📖 p. 10)

### Guideline

- Only use high grade 2-stroke engine oil of a reputable brand.

Fully synthetic
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### Recommended supplier

#### Motorex®

- Cross Power 2T

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

### Standard/classification

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

### Guideline

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



### Info

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

## Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60)

### Standard/classification

- DIN EN 228
- JASO FD (📖 p. 10) (1:60)

### Mixture ratio

1:60	Engine oil, 2-stroke (📖 p. 9) Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 9)
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### Recommended supplier

#### Motorex®

- Cross Power 2T

## JASO FD

JASO FD 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.

**READY TO RACE**

>> [www.ktm.com](http://www.ktm.com)



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