# **SETUP INSTRUCTIONS 2020**



# **SX-E** 5

Art. no. 3214155en





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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This document is valid for the following models: SX-E 5 (F3001T6)



3214155en

01/2020

# **1 MEANS OF REPRESENTATION**

1.1	Symbols used
The mean	ing of specific symbols is described below.
$\checkmark$	Indicates an expected reaction (e.g. of a work step or a function).
X	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).
i	Indicates information with more details or tips.
<b>»</b>	Indicates the result of a testing step.
V	Indicates a voltage measurement.
Α	Indicates a current measurement.
Ω	Indicates a resistance measurement.
•	Indicates the end of an activity including potential rework.

### 1.2 Formats used

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.

### 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 seat.

#### 2.3 Unpacking and setting up the vehicle



#### Open the box.

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 cable ties on the handlebar clamp.
- Remove wooden cover.
- Remove the cable ties on the front wheel and take out the front wheel.
- Remove the separate enclosure and unpack it. Check the separate enclosure for completeness.

#### Info

The procedure in the event of missing parts is described in the customer service manual.







- Have a lift stand available.

Lift stand (78929955100)

- Lift the vehicle out of the box with the support of another person and position on a lift stand.
- Check the vehicle for transport damage.

#### • Info

- The procedure in the event of transport damage is described in the customer service manual.
- Remove the start number plate. (🕮 p. 6)
- Remove screws 1 and handlebar clamps.
- Remove the protective film from the handlebar.



#### 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.
- Position the handlebar with handlebar clamps.

#### Guideline

Make sure the cables and wiring are positioned correctly.

Mount and tighten screws 1.

Guideline

Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
Make sure the installed gaps are even.		

- Check the handlebar position.
  - » If the handlebar position is not adjusted as required by the customer:
    - Adjust the handlebar position. (I p. 6)
- Check that the controls on the handlebar are correctly positioned and firmly seated.
- Secure the handlebar cushion with two cable ties.
- Install the start number plate. (🕮 p. 7)



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

Footrest spring plier (58429083000)



- Loosen screw 2.
- Loosen screws 3.
- Remove screw **2** and remove the wheel spindle.
- Install the motor guard. (
   p. 10)
- Remove the remaining film, padding, the corrugated cardboard, and the other packaging material.
- Attach the stickers included in the scope of supply (optional).
- Charge the Powerpack LV. (🕮 p. 17)
- Prepare the vehicle according to the specifications in
   KTM Dealer.net for handover to the customer.

### Info

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

Check the factory-set frame height.

- » If the frame height is unsuitable for the rider:
  - Adjust the seat height on the shock absorber.
     () p. 10)
  - Adjust the seat height on the fork. ( $\mathbb{R}$  p. 11)
  - Adjust the seat height on the frame. (IP p. 12)

◀



#### 3.1 Removing the start number plate



- Remove screw 🚺.
- Unhook the start number plate from the brake line and remove it.

#### 3.2 Adjusting the handlebar position

### Warning

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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. Remove the handlebar and lay it to one side.

#### • Info

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

- Remove screws **2**. Take off handlebar supports.
- Place handlebar supports in required position. Mount and tighten screws 2.

Guideline

Screw, handle-	M10	40 Nm (29.5 lbf ft)
bar support		Loctite <sup>®</sup> 243™

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

- Position the handlebar.
  - Info Mak

Make sure the cables and wiring are positioned correctly.

Position the handlebar clamps. Mount screws ① and tighten evenly.

#### Guideline

Screw, handlebar	M8	20 Nm (14.8 lbf ft)
clamp		
	<u></u>	

Info

Make sure the installed gaps are even.

#### 3.3 Installing the start number plate



- \_ Attach the start number plate to the brake line. \_
  - Position the start number plate.
  - ✓ Holding lugs ① engage in the fender.

- M01683-10
- Mount and tighten screw **2**. \_ Guideline Screw, start number Μ6

plate

3.4	Installing front fender



Position the fender with drill holes 1 in the holding lugs on \_ the start number plate.

4 Nm (3 lbf ft)



Position front fender. Mount and tighten screws **2**. \_ Guideline

	Screw, fender	M6	6 Nm (4.4 lbf ft)
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### Guideline

Screw, fork stub

10 Nm (7.4 lbf ft)

#### 3.7 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.

Μ6

- Lift stand (78929955100)
- Neither wheel is in contact with the ground.
- Secure the motorcycle against falling over. \_

#### 3.8 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.



#### 3.9 Installing the motor guard



- Attach the motor guard on the frame at the rear and swing up at the front.
- Mount and tighten screws 1 and 2.
   Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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#### 3.10 Adjusting the seat height on the shock absorber

#### Warning

**Danger of accidents** Modifications to the suspension setting may seriously alter the handling characteristic.

Make sure your child rides slowly to start with after making adjustments in order that he or she can assess the new handling characteristic.

#### Info

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If the seat height is adjusted on the shock absorber, the seat height should also be adjusted on the fork.



#### Main work

Preparatory work

- Hold the rear wheel with the link fork and remove screw  $oldsymbol{1}$ .
- Position the shock absorber according to the required seat height.

Guideline

High seat position		
Low seat position	B	

- Mount and tighten screw **1**.



#### Guideline

Screw, top	M10	45 Nm (33.2 lbf ft)
shock absorber		Loctite®243™

#### **Finishing work**

- Remove the motorcycle from the lift stand. (EP p. 10)

#### 3.11 Adjusting the seat height on the fork

#### Warning

**Danger of accidents** Modifications to the suspension setting may seriously alter the handling characteristic.

Make sure your child rides slowly to start with after making adjustments in order that he or she can assess the new handling characteristic.

Info

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The seat height can be infinitely adjusted by pushing the fork legs through. If the seat height is adjusted on the fork, the seat height should also be adjusted on the shock absorber.



#### **Preparatory work**

Raise the motorcycle with a lift stand. (
 p. 9)

#### Main work

- Loosen screw 1.
- Loosen screws 2.
- Position the fork leg according to the required seat height.

# Guideline Condition

Seat position as low as possible, fork fully inserted

Minimum distance 🚯	3 mm (0.12 in)
between the fork and han-	
dlebar	

#### Condition

Seat position as high as possible, fork pulled out completely

Bottom edge of screw cap B closes flush with the upper edge of the triple clamp

Position the fork leg only within the described range.

#### - Tighten screws 2.

Guideline		
Screw, bottom triple	M8	15 Nm (11.1 lbf ft)
clamp		

#### - Tighten screw 🚺.

Guideline

Screw, top triple	M8	20 Nm (14.8 lbf ft)
clamp		

- Repeat the procedure on the other fork leg.

	line

Position both fork legs equally.

#### **Finishing work**

- Install the front wheel. ( P. 8)

#### 3.12 Adjusting the seat height on the frame

#### Preparatory work

- Remove the seat. (I p. 14)

#### Main work

- Remove screw **1** and the front fairing.





- Remove screws 2 with bushings and splash protector 3.
- Remove screws 4 with bushings and rear fairing 5.



- Remove screws **(6)** and position subframe **(7)** at the drill holes at the desired seat height.

Guideline

ĺ	Pay attention to the wiring harness.		
	High seat position Drill holes		
	Low seat position	Drill holes B	

Mount and tighten screws 6.

Guideline

Screw, sub-	M8	30 Nm (22.1 lbf ft)
frame		Loctite <sup>®</sup> 243™







- Position rear fairing (5), mount screws (4) with bushings, and tighten.

Guideline

Screw, subframe	M6	10 Nm (7.4 lbf ft)
connection		

 Position splash protector ③, mount screws ② with bushings, and tighten.

Guideline

Screw, subframe	M6	10 Nm (7.4 lbf ft)
connection		

#### Condition

High seat position

 Make sure that thread adapter (3) is mounted and tightened.

Guideline

Threaded adapter	M6	8 Nm (5.9 lbf ft)
for front fairing		

#### Condition

Low seat position

- Make sure that the thread adapter is removed.



#### Info Pote

Retain the thread adapter for later assembly.



- Position the front fairing on holders (C).
  - The holding lugs of the front fairing engage in the recesses of the rear fairing on both sides.



• Mount and tighten screw **①**.

#### Guideline

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

#### Finishing work

– Mount the seat. (🕮 p. 14)

### 3.13 Removing the seat



# Open quick release 1 and raise the rear of the seat. Pull back the seat and remove it.

#### 3.14 Mounting the seat



- Hook the seat onto holding lug ①, lower the seat at the rear, and push it forward.
  - ✓ Holding lug ❷ hangs on the front fairing.
- Close quick release **3**.



#### 3.15 Unlocking procedure for battery management control unit



- Connect the diagnostics tool and start it.
- Select the vehicle in the diagnostics tool.
- Ensure external power supply for VCI using 12-V battery.
- Connect battery charger to the 12-V battery.
- Execute "Battery management" > "Functions" > "Activate/deactivate transport mode".
- Clear the fault memory using the KTM diagnostics tool.
- Read out the fault memory using the KTM diagnostics tool.
  - » When fault memory is empty: work is complete.

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#### 3.16 Positioning the battery charger



#### Warning

**Risk of injury** If the battery charger is used incorrectly, its intrinsic safety cannot be guaranteed. The battery charger is only suitable for use with a Powerpack HV.

- Only use the battery charger with a Powerpack HV.
- Only operate the battery charger using household sockets with a ground conductor.
- Do not use any additional adapters or extensions.
- Follow the applicable safety instructions of the power connection.



#### Warning

**Risk of injury** There is a risk of electric shock if the battery charger or the cables have been manipulated or damaged.

The battery charger does not contain any parts which require maintenance.

- Do not modify the battery charger or the cables.
- Only use original cables.
- Never open the battery charger housing.
- Do not insert any objects into the battery charger housing from the outside.
- Do not use the battery charger if cables, plugs, or parts of the battery charger have been damaged or are soiled.

#### Info

The battery charger contains sensitive electronics and must be handled with appropriate care. The battery charger may be damaged or destroyed if it is dropped, knocked or otherwise subject to mechanical overload.

When transporting the battery charger, ensure appropriate means of securing the cargo. Damage caused due to improper handling or improper transport is excluded from the manufacturer warranty.

The battery charger only meets **IP66** when the original power cord is being used.



Place the battery charger on a firm, level, and horizontal surface.

#### • Info

- Despite **IP66**, the battery charger should only be used in a dry environment, as moisture may penetrate into the interior when connecting and disconnecting the connections.
- Check the battery charger and mains cable for external damage.
- Ensure the battery charger is adequately ventilated.
- Use the battery charger in the temperature range permitted.
   Guideline

Ambient temperature	−20 50 °C (−4 122 °F)	
Temperature range of the Powerpack LV	0 50 °C (32 122 °F)	
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Do not operate the battery charger directly in a warm environment if it has previously been stored in a cold environment.

#### lnfo

The change in temperature can cause moisture to condense on the battery charger.

 Ensure that the power plug for the battery charger always remains easily accessible.

#### 3.17 Charging the Powerpack LV

#### Caution

**Danger of burns** The metal housing of the battery charger becomes hot during operation.

- Only touch the battery charger by the carrying handle.
- After charging, allow the battery charger to cool before stowing it away.

#### Note

Material damage The power supply will be damaged in the event of an overload.

- Ensure that the power outlet can supply the steady current required and is protected by a suitable fuse.

Fuse protection at mains voltage 100 V minimum 15 A

Fuse protection at mains voltage 120 V minimum 13 A

Fuse protection at mains voltage 230 V minimum 10 A

## Note Envir

**Environmental hazard** A lithium-ion battery (Powerpack HV) contains components and elements that are harmful to the environment.

- Never throw a Powerpack HV into the household trash.
- Dispose of the Powerpack HV properly and in compliance with the applicable regulations.

#### Info

Do not activate the vehicle while the battery charger is connected to the Powerpack LV. If the vehicle is activated during the charging process, the vehicle switches to the fault state.

#### Info

If the temperature of the Powerpack LV exceeds the permissible value while it is being charged, the battery charger stops charging. The fault is displayed on the multifunctional element. After the temperature of the Powerpack LV returns to the permissible range, charging is resumed automatically.

#### **Preparatory work**

- Position the battery charger. (
  p. 15)
- Press and hold the On/Off button until the multifunctional element goes out.

#### Main work

Remove charging socket protection cap ①.







Make sure that all plugs, bushings, and cables are dry.

Remove charging plug protection cap **2**.



#### Warning

**Risk of injury** The intrinsic safety of the Powerpack HV can only be guaranteed if the original battery charger is used. The Powerpack HV may only be charged with the original battery charger.

- Only use the original battery charger to charge the Powerpack HV.
- Connect the battery charger to the Powerpack LV.

Guideline

Observe plug marking <b>A</b> .
Insert the plug straight so that the contacts are not bent.

- Connect the power plug for the battery charger to the mains connection.
  - Charging starts automatically.
  - ✓ The multifunctional element indicates the charging level.
- Monitor the charging level of the Powerpack LV on the <u>multifunctional element</u>.

### • Info

- It is recommended not to leave the vehicle unattended for long periods during charging. When charging is complete, three beeps are emitted and all segments of the charging level indicator light up continuously.
- Press and hold the On/Off button until the multifunctional element goes out.
- Make sure that all plugs, bushings, and cables are dry.
- Disconnect the battery charger power plug from the mains connection.







Unlock the charging plug lock counterclockwise and disconnect the charging cable from the Powerpack LV.
 Guideline

Pull on the structured part of the plug. Do not pull on the cable.

- Mount charging plug protection cap 2.

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- M01686-10
- Check charging socket protection cap ①.
  - » If the charging socket protection cap is dirty:
    - Clean the charging socket protection cap without water or compressed air.
  - If the charging socket protection cap is damaged or worn:
     Change the charging socket protection cap.
- Mount the charging socket protection cap.

### 4.1 Chassis tightening torques

Screw, brake line clamp on fork protector	EJOT PT <sup>®</sup> K60x20-AL	2 Nm (1.5 lbf ft)	
Screw, brake line clamp on link	EJOT SF®M5x10-K	2 Nm (1.5 lbf ft)	
fork			
Screw, magnetic switch on handle-	M3	0.8 Nm (0.59 lbf ft)	
bar			
Spoke nipple	M3.5	3 Nm (2.2 lbf ft)	
Screw, fixed grip	M4	5 Nm (3.7 lbf ft)	Loctite®243™
Screw, throttle grip	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, 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)	
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)	
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	
Screw, chain sliding guard	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)	
			Loctite <sup>®</sup> 243™
Screw, rear brake caliper	M6x16	10 Nm (7.4 lbf ft)	Loctite®243™
Screw, rear brake caliper	M6x40	10 Nm (7.4 lbf ft)	Loctite <sup>®</sup> 243™
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	Loctite <sup>®</sup> 243™
Screw, start number plate	M6	4 Nm (3 lbf ft)	
Screw, subframe connection	M6	10 Nm (7.4 lbf ft)	
Threaded adapter for front fairing	M6	8 Nm (5.9 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)	
			Loctite®243™
Screw, front brake caliper	M8x60	20 Nm (14.8 lbf ft)	Loctite®243™
Screw, front brake caliper	M8x40	20 Nm (14.8 lbf ft)	Loctite <sup>®</sup> 243™
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	
Screw, Powerpack LV front	M8x25	20 Nm (14.8 lbf ft)	
Screw, Powerpack LV rear	M8x50	20 Nm (14.8 lbf ft)	Loctite <sup>®</sup> 243™

Screw, rear sprocket	M8	25 Nm (18.4 lbf ft)	
· ·			Loctite®243™
Screw, steering stem	M8	20 Nm (14.8 lbf ft)	
Screw, subframe	M8	30 Nm (22.1 lbf ft)	
			Loctite <sup>®</sup> 243™
Screw, top triple clamp	M8	20 Nm (14.8 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)	
			Loctite®243™
Screw, front wheel spindle	M10	40 Nm (29.5 lbf ft)	
			Loctite <sup>®</sup> 243™
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	
			Loctite <sup>®</sup> 243™
Screw, top shock absorber	M10	45 Nm (33.2 lbf ft)	
			Loctite®243™
Nut, rear wheel spindle	M12x1	40 Nm (29.5 lbf ft)	
Nut, swingarm pivot	M12x1	45 Nm (33.2 lbf ft)	
Nut, steering head	M20x1.5	10 Nm (7.4 lbf ft)	

### Long-life grease

Recommended supplier MOTOREX® – Bike Grease 2000



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Photo: Mitterbauer/KISKA/KTM