

Freeride E-SX

Art. no. 3213219en



KTM

Please read through this Owner's Manual carefully, exercise caution when using the vehicle, and contact an authorized KTM workshop if you have any questions.

We wish you a lot of enjoyment in riding this vehicle.

This Owner's Manual contained the latest information for this model series at the time of going to print. Slight deviations resulting from continuing development and design can, however, not be completely excluded.

This Owner's Manual serves as a technical instruction manual for use of the KTM Freeride E, explains important safety matters, and provides an overview of the main functions. This Owner's Manual is only intended for personal use. This Owner's Manual is not intended for commercial use.

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ISO 9001 (12 100 6061)

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1.1 Use definition – intended use

Only operate the electric motorcycle on closed-off properties away from public road traffic.

1.2 Safety instructions and warning labels

The safety instructions are highlighted in the text. The vehicle has warning labels in prominent locations. Do not remove any warning labels, or else you or others may fail to recognize sources of danger and become injured.






This warning label is located on top of the frame in front of the multifunction display. This warning label warns of high voltage and the danger of electric shock, and refers to the Owner's Manual.



This warning label is located on the left and right sides of the lithium ion battery. This warning label warns of high voltage and refers to the maintenance instructions in the Owner's Manual and Repair Manual.

1.3 Degrees of danger and symbols


-  **Danger**
Identifies a danger that will immediately and invariably lead to fatal or serious permanent injury if the appropriate measures are not taken.
-  **Warning**
Identifies a danger that is likely to lead to fatal or serious injury if the appropriate measures are not taken.
-  **Caution**
Identifies a danger that may lead to minor injuries if the appropriate measures are not taken.

Note

Identifies a danger that will lead to considerable machine and material damage if the appropriate measures are not taken.

- ✓ Identifies an expected reaction (e.g. to a work step or a function).
- ✗ Identifies an unexpected reaction (e.g. to a work step or a function).

1.4 Protective clothing

-  **Warning**
Danger of injury Missing or poor protective clothing presents an increased safety risk.

Wear protective clothing (helmet, boots, gloves, pants, and jacket with protectors) every time you ride the vehicle. Always wear protective clothing that is in good condition and meets the legal requirements.

In the interest of your own safety, KTM recommends that you only operate the vehicle while wearing suitable protective clothing.

1.5 Safe operation

The KTM Freeride E is a high-voltage electric motorcycle. Therefore, please note the special safety and care instructions for a battery-operated electric motor.

Because the KTM Freeride E does not have an engine brake, the vehicle handles similar to a bicycle with a freewheel. When you close the throttle, the vehicle continues rolling without significant deceleration. The vehicle speed decreases on account of rolling resistance and air resistance.

The rear brake lever is located on the left side of the handlebar. Because this vehicle does not have a manual transmission, there is no clutch.

As with all water-cooled vehicles, the operating temperature rises according to use, outside temperature, and cleanliness of the cooling surfaces. When the temperature of the motor, the high-voltage battery (KTM PowerPack, 260 V), or the control unit exceeds the operating temperature, the power is reduced considerably. This protects the system against damage from overheating. When power reduction is imminent, the active drive mode indicator flashes. When power reduction is active, all three drive mode indicators light up. When all components have returned to their normal operating temperature, full system power is restored after restarting.

1.6 Falls and accidents



Warning

Danger of injury

Damaged components on the vehicle pose an increased safety risk.

After a fall or accident, check the throttle grip, main switch, motor housing, and KTM PowerPack.

Check the chassis and suspension after a fall or accident.

Switch the vehicle off with the main switch and have the vehicle checked by an authorized KTM workshop, even if the damage is only minor.

Only begin using the vehicle again after it has been checked.

If the vehicle is lying on its side, it switches from ready mode to standby mode after seven seconds.

To switch the vehicle back into ready mode, place it in an upright position and press the start button.

1.7 Work on the motor and KTM PowerPack



Warning

Danger of injury

Work on high-voltage components requires special training.

Have all electrical work that is not described and explained in the "Electrical system" section performed by trained KTM mechanics only.

Do not open the electric motor nor the KTM PowerPack.

1.8 Danger of fire

There is no special risk of fire in the KTM Freeride E.

However, if the vehicle should catch fire, inform the responding fire department that the vehicle is an electric vehicle with a lithium-ion battery.

1.9 Environment

When you respect the rights of others and use your motorcycle legally, you will help protect the future of motorcycle sport and avoid most conflicts and problems.

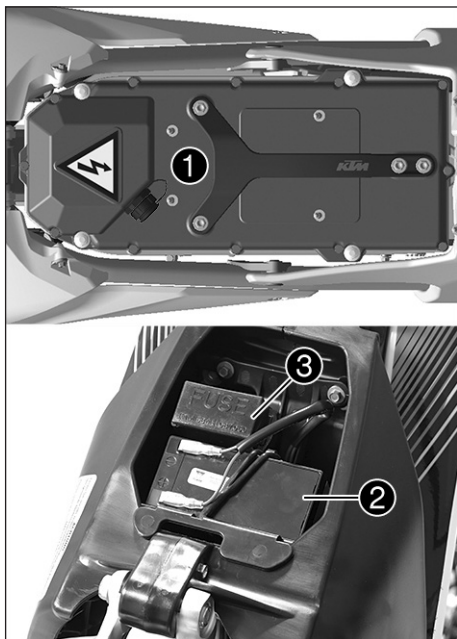
When disposing of used oil, other operating and auxiliary fluids, and used components, comply with the laws and regulations of the respective country.

When disposing of the lithium-ion battery and the 12-V battery, comply with the laws and regulations of the respective country.

Because motorcycles are not subject to the EU regulations governing the disposal of used vehicles, there are no legal regulations that pertain to the disposal of an end-of-life motorcycle. Your authorized KTM dealer will be glad to assist you.

Electrical devices like the charger may not be disposed of with household waste. Electrical devices must be disposed of through the appropriate recycling centers. Contact your municipality or your authorized KTM dealer.

2.1 Power supply



The vehicle contains a high-voltage battery ❶ (the KTM PowerPack, 260 V) and a 12-V battery ❷. The 12-V battery is located under the seat. Next to the 12-V battery there is a fuse box ❸ with two fuses.

The KTM PowerPack is located under the seat and is screwed onto the electric motor. The KTM PowerPack can be removed in just a few steps. The KTM PowerPack can be charged while it is installed in the vehicle or outside of the vehicle. Check the KTM PowerPack for damage to the housing or connector every time it is removed and reinstalled.

The 12-V battery is necessary to operate the vehicle. The vehicle control unit requires the 12-V battery to start the system. If the 12-V battery is faulty, discharged, or disconnected, the vehicle will not start.

2.2 New KTM PowerPack

When using the KTM PowerPack for the first time, the vehicle must be ridden until the KTM PowerPack is fully discharged. The vehicle will initially reduce its output power. It can be operated in this power-reduced state for several minutes before the drive switches off altogether. Then charge the KTM PowerPack until the charger completes the process at 100%. The status and charge state displayed on the charger indicate the progress. Charging can take up to four hours. Do not skip this procedure as it has a significant influence on the performance of the KTM PowerPack.

2.3 Operation at low temperatures

To protect the KTM PowerPack, the motor control unit reduces the power at low temperatures.

When the temperature of the KTM PowerPack drops to below 8 °C, the motor control unit reduces the power to 80%. Below 0 °C, 50% of power remains available. In both cases, the active drive mode indicator flashes slowly. The vehicle can continue to be operated. The KTM PowerPack is not damaged by the reduction in power.

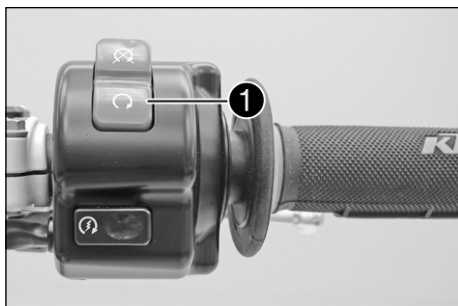
The KTM PowerPack warms up during vehicle operation. When the temperature of the KTM PowerPack rises above 0 °C, power is restored to 80% after the vehicle is restarted. When the temperature of the KTM PowerPack rises above 8 °C, full vehicle power is restored after the vehicle is restarted.

2.4 Coolant

This vehicle requires a special coolant because the cooling unit contains copper parts. Never use conventional, commercially available coolant as it will cause corrosion. Only use the coolant specified here.

KTM Special Antifreeze Ready Mix E-Bike (00062020205)

3.1 Main switch



The main switch ❶ is located on the right side of the handlebar.

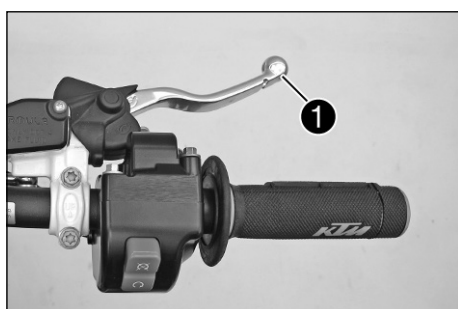
Possible states

⊗ The main switch is switched off. In this position, the vehicle is switched off.

○ The main switch is switched on. In this position, the vehicle is in standby.

The main switch is used as the emergency OFF switch.

3.2 Front brake lever



The front brake lever ❶ is located on the right side of the handlebar.

3.3 Rear brake lever



The rear brake lever ❶ is located on the left side of the handlebar.

3.4 Start button



The start button ❶ is located on the right side of the handlebar. The start button is only enabled when the main switch is switched on.

When the start button is pushed down for 1 second, the vehicle switches from standby to ready mode.

The drive mode indicator and an acoustic signal indicate operating readiness.

When the start button is pushed down again for 1 second, the vehicle switches back to standby mode.

The drive mode indicator goes out, see Section 3.5.4.

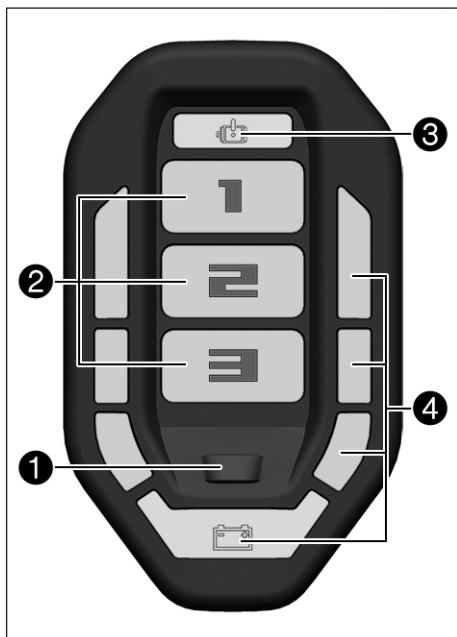
Info

Standby mode can only be switched to ready mode if the throttle grip is fully closed and the vehicle speed is less than 5 km/h.

If the vehicle is not moved for 90 seconds after ready mode is activated and the throttle grip is not turned, the vehicle automatically switches back to standby mode.

3.5 Multifunction display

3.5.1 Overview



- ❶ Map Select button
- ❷ Drive mode indicator
- ❸ Electric motor indicator lamp (MIL)
- ❹ Charge state indicator

3.5.2 Error message



For troubleshooting, see page 18, Section 8, Troubleshooting.

If there is a fault in the system, the yellow electric motor indicator lamp (MIL) ❶ flashes. Warning tones are emitted by the multifunction display in time with the flashing lamp.

While the vehicle is being activated or self-tests of the vehicle electronics are being performed, the yellow electric motor indicator lamp (MIL) ❶ lights up.

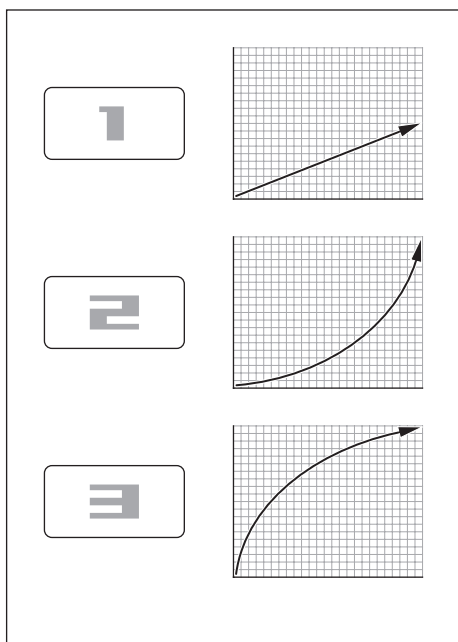
3.5.3 Map Select button



The Map Select button ❶ is only enabled when the vehicle is in standby or ready mode.

The Map Select button ❶ defines the drive mode, see Section 3.5.4.

3.5.4 Drive mode



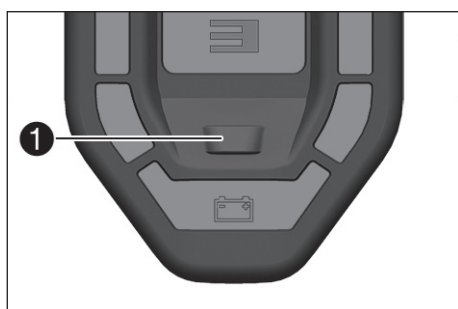
A red indicator lamp with the digit 1, 2, or 3 indicates the selected drive mode.

Three drive modes are available. The drive modes define how the vehicle will respond to operation of the throttle grip. The figures contain approximate values for illustration purposes and do not show the actual response.

Drive mode 1 is "Beginner".
The motor torque is reduced by 50%.

Drive mode 2 is "Enduro".
The further the throttle grip is opened, the more the motor power is increased.

Drive mode 3 is "Cross".
The greatest increase in power occurs at the very outset, after which the motor power increases more slowly.



The Map Select button ❶ is only enabled when the vehicle is in standby or ready mode.

- To change the drive mode, press the Map Select button ❶ for at least one second. The drive mode is activated when the button is released.

If the throttle grip is fully closed and the vehicle speed is less than 5 km/h, the drive mode can also be changed while the vehicle is being operated.

3.5.5 Drive mode/power reduction

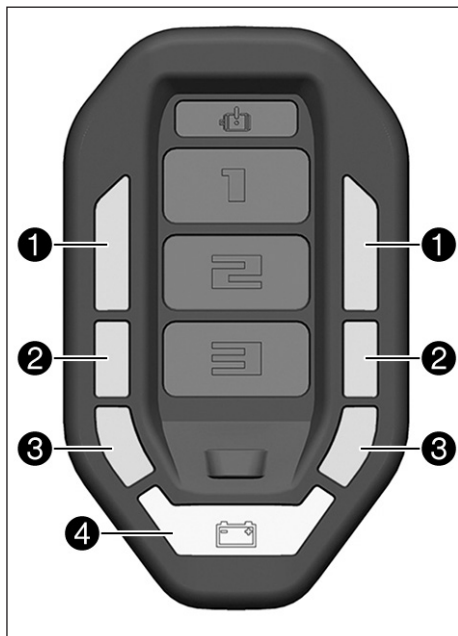


Possible states

- The selected drive mode lights up:
The vehicle is ready to operate and delivers full power.
- The selected drive mode flashes slowly:
High temperature; the system is still fully operational.
Adjust your riding style.
Low temperature; the system delivers 80% of power under 8 °C and 50% of power under 0 °C. After the KTM PowerPack has warmed up sufficiently, either full power or 80% of power will be available after a restart, depending on the temperature.
- All three drive mode indicators light up, blink code 22, 23, or 24:
Warning that the system has exceeded the maximum operating temperature. To protect the system against damage, power has been reduced considerably.
- If possible, park the vehicle and let it cool down. The vehicle does not return to full power until the affected component has cooled down and the vehicle is restarted.
- All three drive mode indicators light up, blink code 41:
A throttle grip fault has been detected. The system goes into emergency mode and delivers 50% of power.

- The selected drive mode flashes slowly and the charge state indicator lights up red or flashes red:
The charge state of the KTM PowerPack is below 20%. Vehicle power will be reduced. Park the vehicle and charge the KTM PowerPack, see Section 5.1.3.

3.5.6 Charge state indicator



- ① Charge state 80% – 100%
- ② Charge state 60% – 80%
- ③ Charge state 40% – 60%
- ④ Lights up yellow: charge state 20% – 40%
- ④ Lights up red: charge state 10% – 20%
- ④ Flashes red: charge state 0% – 10%

4.1 Starting procedure

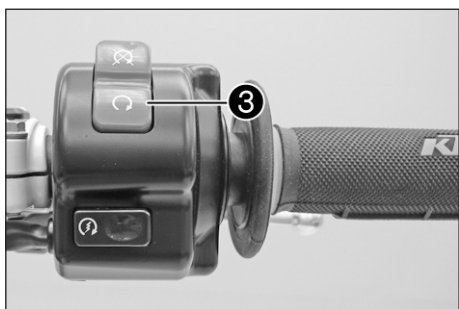


Preparations:

- Install the KTM PowerPack, see Section 5.1.3.
- Check the protection cap of the charging socket ① and the seal. Do not start up the vehicle if the protection cap of the charging socket is damaged or is not mounted.



- Set and adjust the controls.
- Wear protective clothing.
- Remove the vehicle from the side stand.
- Secure the side stand using the rubber strap ②.
- Mount the vehicle.



Activation:

- Press the main switch ③ into position \odot .

Info

The vehicle must be at a standstill during the starting procedure as the self-test of the vehicle electronics cannot be performed while the vehicle is rolling.

- ✓ The vehicle is in standby.



- Press the start button ④.

- ✓ The vehicle is ready to operate and responds to turning of the throttle grip.



- Select the drive mode using the Map Select button ⑤, see Section 3.5.4.

4.2 Starting off

- First familiarize yourself with the new riding and handling behavior of the electric motorcycle.
- Turn the throttle grip carefully. The absence of engine noise belies the actual power of the electric motorcycle.

4.3 Applying the brakes

**Warning****Danger of accident**

Excessively forceful application of the brakes blocks the wheels.

Adjust application of the brakes to the respective riding situation and riding surface conditions.

**Warning****Danger of accident**

Reduced braking efficiency caused by spongy pressure point of front or rear brake.

Check the brake system and do not continue riding.

**Warning****Danger of accident**

Reduced braking efficiency due to a wet or dirty brake system.

If the brake system is wet or dirty, apply the brakes carefully to dry or clean them.

Info

The rear brake lever is located on the left side of the handlebar since this vehicle does not have a manual transmission with a clutch.

- When braking, release the throttle and apply the front and rear brakes at the same time.
- If possible, complete the braking procedure before riding into a curve.

4.4 Stopping, parking

**Warning****Danger of misappropriation**

Usage by unauthorized persons.

Never leave the vehicle unattended while it is ready to operate. Protect the vehicle against access by unauthorized persons.

Note**Danger of damage**

The parked vehicle may roll away or fall over.

Always park the vehicle on a firm and level surface.

Note**Material damage**

Damage to or destruction of components due to excessive load.

The side stand is only designed for the weight of the motorcycle. Do not sit on the motorcycle while it is resting on the side stand. The side stand or the frame may become damaged and the motorcycle may fall over.

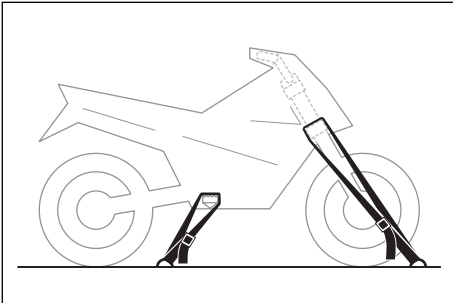
- Apply the brakes to stop the motorcycle.
- Switch off the main switch.
- Park the motorcycle on firm ground.

4.5 Transport

Note

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

Always park the vehicle on a firm and level surface.



- Press the main switch into position ☒.
- Use tension belts or other suitable devices to secure the motorcycle against falling over or rolling away.

4.6 Transporting the KTM PowerPack



Warning

Danger of injury

The KTM PowerPack is very heavy.

A collision with or dropping of the KTM PowerPack causes serious injury and damages the transport vehicle. Secure the KTM PowerPack with tension belts or other suitable fixing materials.

Take the following steps when transporting the KTM PowerPack:

- To ensure rapid access in the event of an emergency, always transport the KTM PowerPack close to the cargo door.
- Transport the KTM PowerPack separately from flammable liquids or ignition sources such as fuel, gas, or oil.
- Have available a suitable fire extinguisher.

5.1 KTM PowerPack charger

5.1.1 Overview of the KTM PowerPack charger



Danger
Danger of injury

A faulty or damaged charger or device component, including cables and connections, poses an electric shock hazard.

Do not use the charger if the charger is faulty or damaged.
Contact an authorized KTM workshop.



Danger
Danger of injury

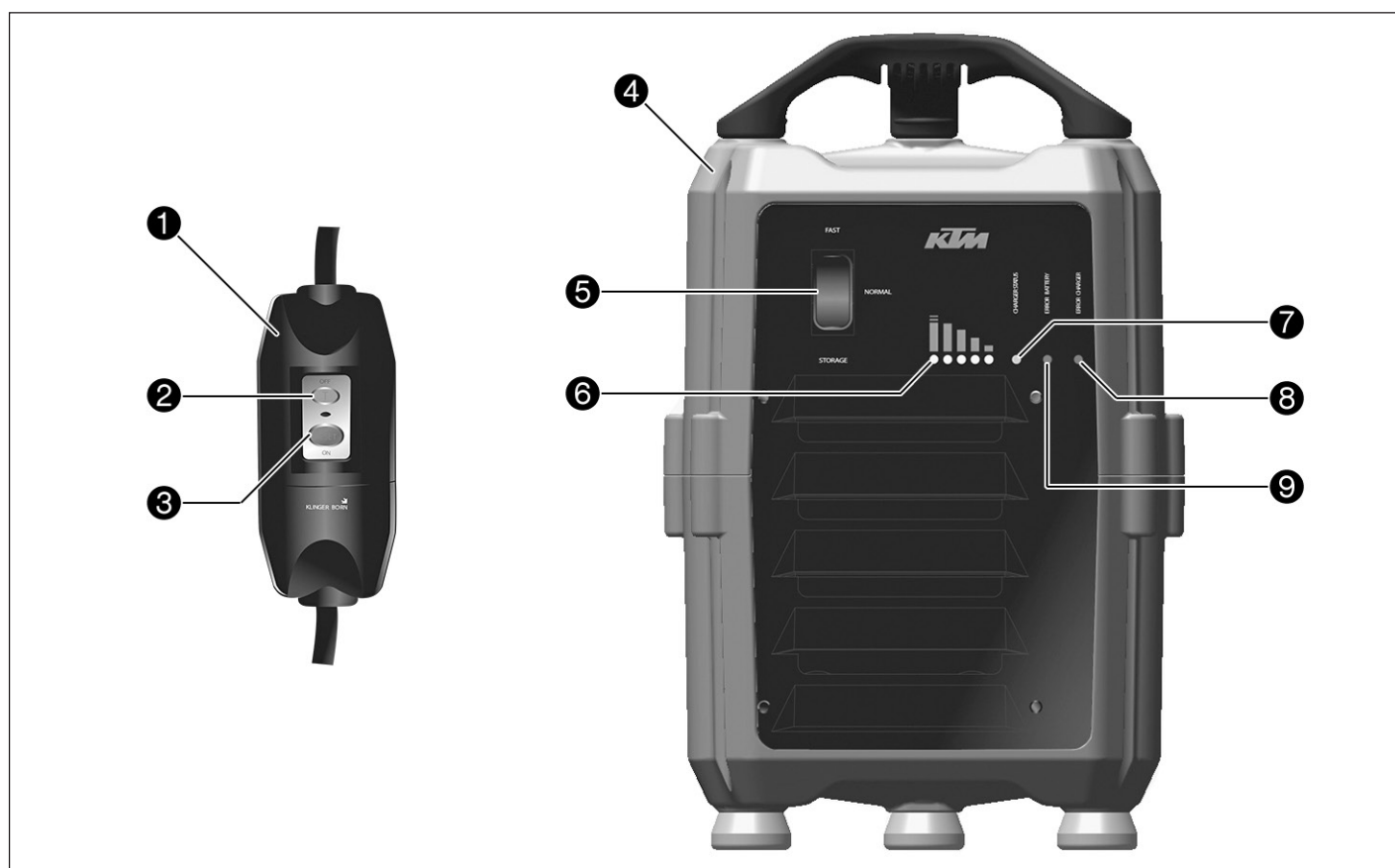
Using the charger in a wet environment poses an electric shock hazard.

Only use the charger in dry environments.

The charger is designed for the following specifications:

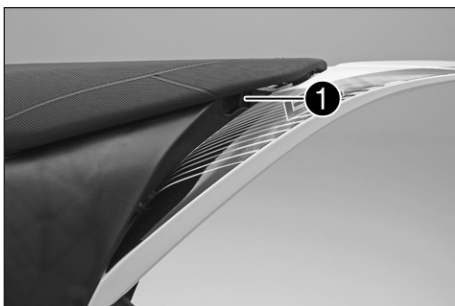
Line voltage: 230 V

Line frequency: 50 Hz

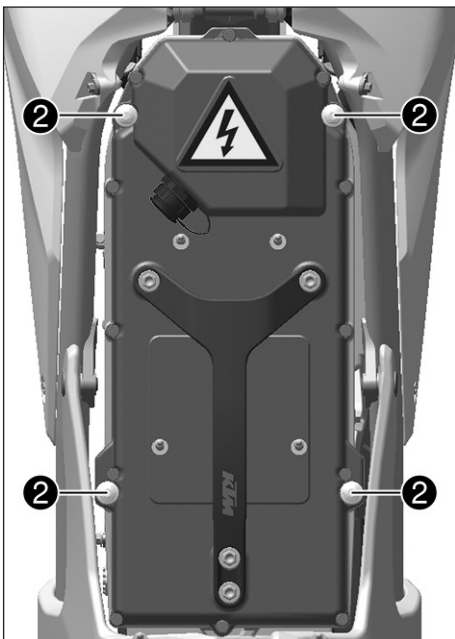


- 1 Residual current circuit breaker
- 2 Charger switch off
- 3 Charger switch on
- 4 Charger
- 5 Charge mode switch
- 6 Charge status indicator
- 7 Status indicator
- 8 LED for charger fault
- 9 LED for KTM PowerPack fault

5.1.2 Removing the KTM PowerPack



- Switch off the main switch.
- Push the release lever ❶ back.
- Lift the seat and fold it up.



- Loosen screws ❷.

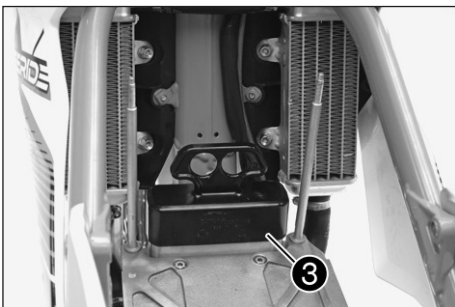
Note

Material damage

Water and dirt damage or destroy components.

Mount the cover cap after you have removed the KTM PowerPack. Place the KTM PowerPack on a clean and dry surface.

- Remove the KTM PowerPack.



- Mount the cover cap ❸.

5.1.3 Installing the KTM PowerPack

Note

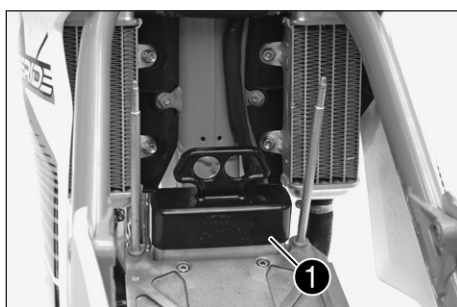
Material damage Water and dirt damage or destroy components.

Before installing the KTM PowerPack, check the discharging plug on the motor and the discharging socket on the KTM PowerPack for cleanliness.

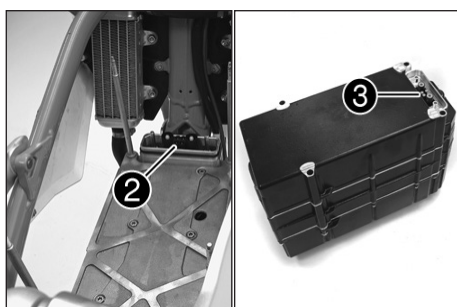
Check the sealing lips on the discharging plug and discharging socket.

If the connectors are soiled, clean them carefully without using water or compressed air.

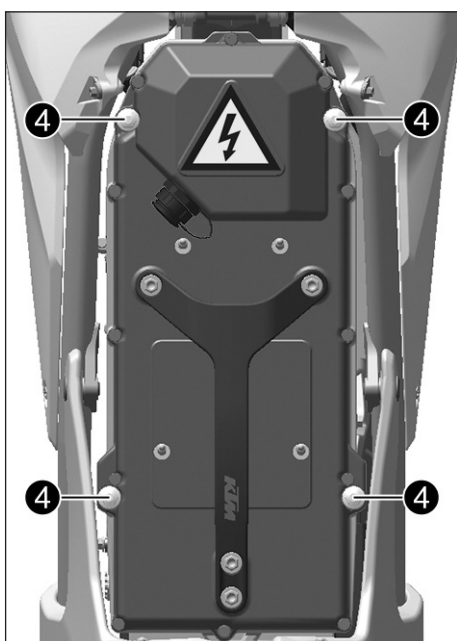
Spray the sealing lips of the discharging connectors with silicone spray.



- Remove the cover cap ①.



- Check the discharging plug ② on the motor and the discharging socket ③ on the KTM PowerPack for cleanliness.
- Check the sealing lips of the discharging plug and discharging socket and exchange them if necessary.
- If the discharging plug and discharging socket are soiled, clean them and spray silicone spray on the sealing lips.



- Position the KTM PowerPack in the vehicle.
- Tighten screws ④.

Guideline

KTM PowerPack fixation	M6	10 Nm
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- Fold down the seat and lock it.

5.1.4 Charging the KTM PowerPack

Note
Material damage Water and dirt damage or destroy components.

Mount the protection cap of the charging socket while the KTM PowerPack is not connected to the charger.

Note
Material damage Overload damages the line supply system.

The "Fast" charge mode requires at least 13 amperes of continuous current. The "Normal" charge mode requires at least 10 amperes of continuous current.

Ensure that the line supply is specified for these continuous currents and that it features the necessary fuse protection.

Note
Material damage The charging socket becomes damaged from incorrect handling.

Ensure that the connector is correctly positioned when mounting it.



The charging procedure is identical regardless of where the KTM PowerPack is charged – while installed in the vehicle or outside of the vehicle. However, the 12-V battery is only charged while the KTM PowerPack is being charged in the vehicle.

Do not activate the vehicle while the charger is connected to the KTM PowerPack.

If the vehicle is activated while the vehicle is being charged with the KTM PowerPack installed, the vehicle switches to the fault state. Charging of the KTM PowerPack continues but charging of the 12-V battery stops.

If you have problems charging the KTM PowerPack, consult Section 8 Troubleshooting.

- Switch off the main switch.
- Unlock the seat and fold it up.
- Remove the protection cap of the charging socket ❶.
- Check the seal of the protection cap of the charging socket.
- Connect the charger with the KTM PowerPack. Note the connector marking ❸.

- Connect the power plug of the charger to the line socket.
- Set the charge mode switch ❷ to "Fast" or "Normal".



- Switch on the charger using switch ❸.

Charging starts automatically. The status indicator flashes while the system is charging, see Section 5.1.1.





The charge state is indicated by five LEDs.

- LED 1: 20 %
- LED 2: 40 %
- LED 3: 60 %
- LED 4: 80 %
- LED 5: flashes until 100% is reached.

After the charging process is completed, all five LEDs light up while the status indicator is switched off.



- Switch off the charger using switch ④.
- Disconnect the charging cable from the KTM PowerPack.
- Check the seal of the protection cap of the charging socket.
- Mount the protection cap of the charging socket.
- Fold down the seat and lock it.

If LED 5 of the charge state indicator on the charger flashes, the KTM PowerPack is ready to use. However, full capacity is not yet available.

To ensure maximum power of the KTM PowerPack, fully discharge the KTM PowerPack and recharge it again fully every 20 charge cycles. If this procedure is not followed, the vehicle may switch off due to a low charge state without first reducing the power.

The KTM PowerPack is fully discharged when the vehicle switches off with blink code 11, see Section 8.1.

If the temperature of the KTM PowerPack exceeds the permissible value while it is being charged, the charger stops charging. The status indicator lights up permanently.

After the temperature of the KTM PowerPack returns to the permissible range, charging is resumed automatically.

6.1 Cleaning the motorcycle

Note

Material damage The vehicle and the KTM PowerPack are not suitable for cleaning with high pressure cleaners.

The high pressure forces water into the electrical components, connectors, bearings, etc. As a result, components may be damaged or destroyed.

Never clean the vehicle and the KTM PowerPack with a high-pressure cleaner or a powerful jet of water.

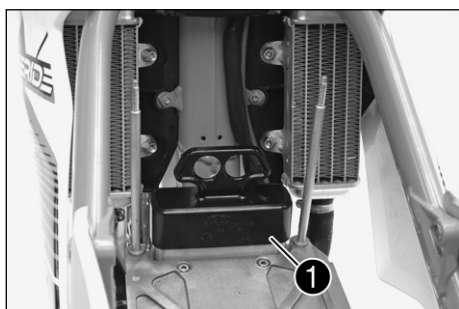
Note

Material damage Water and dirt damage or destroy components.

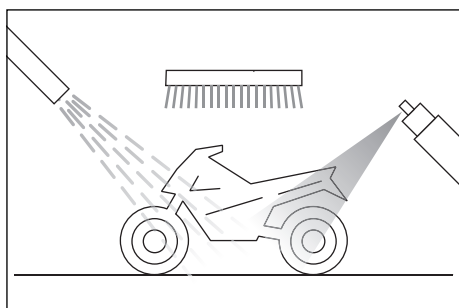
Always mount the cover cap after removing the KTM PowerPack.
Do not direct the water jet toward the connector, even if the cover cap is mounted.

Info

To preserve the value and appearance of the vehicle, clean it regularly.
Avoid direct sunlight on the vehicle during cleaning.
The KTM PowerPack may be removed if desired but does not have to be.



- If the KTM PowerPack is removed for cleaning, mount the cover cap ①.



- Remove coarse dirt particles with a gentle spray of water.
- Spray very dirty areas with a commercial motorcycle cleaner and clean with a brush.

Info

Do not apply motorcycle cleaner to the vehicle while it is dry. First rinse the vehicle with water.

- Use warm water with commercially available motorcycle cleaner and a soft sponge.
- After cleaning, rinse the vehicle thoroughly with a soft spray of water.
- Dry the vehicle with a soft cloth.



Warning
Danger of accident

Reduced braking efficiency due to a wet or dirty brake system.

If the brake system is wet or dirty, apply the brakes carefully to dry or clean them.

- Drive a short distance after cleaning.

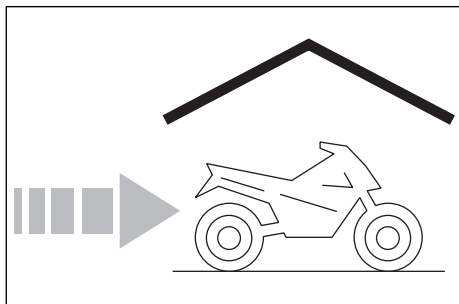
7.1 Storage

Info

The maximum period of inactivity of the KTM PowerPack is 1 year.

If it remains inactive for a longer period, the maximum power of the KTM PowerPack is no longer guaranteed.

If the vehicle will not be ridden for an extended period, additional steps are recommended:



- Ride the vehicle until the KTM PowerPack is below 50% capacity.
- Remove the KTM PowerPack.
- Store the KTM PowerPack in a dry location that is not subject to large temperature fluctuations.
- Charge the KTM PowerPack in the "Storage" charge mode of the charger.
- Clean the vehicle.
- Check the tire inflation pressure.
- Remove the 12-V battery.
- Charge the 12-V battery.
- Store the 12-V battery in a dry location that is not subject to large temperature fluctuations.
- Store the 12-V battery and the KTM PowerPack at 10... 25 °C, avoiding direct sunlight.
- Park the vehicle in a dry location that is not subject to large temperature fluctuations.

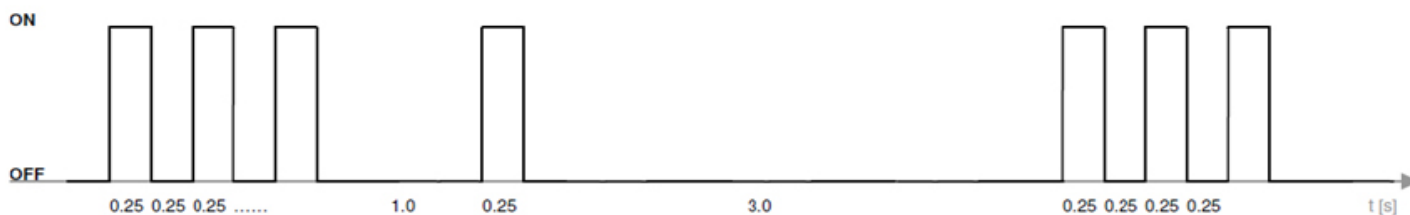
If the vehicle is placed on a lift stand, the tires and spring elements will be relieved of weight.

- Position the vehicle on a lift stand.
- Cover the vehicle with a tarp or similar cover that is permeable to air.

Do not use materials that are impermeable to air as they will trap moisture and promote corrosion.

8.1 Vehicle troubleshooting

The blink codes are displayed by the yellow electric motor indicator lamp.
The following example shows blink code 31:



The pause between the signal of the 1st digit is 0.25 seconds.
The pause between the 1st and 2nd digits is 1 second.
The pause until the blink code repeats is 3 seconds.

Important

For all faults that do not appear in the table, switch the vehicle off and on again. If this does not eliminate the fault, contact an authorized KTM workshop.

Fault	Blink code	Measure 1	Measure 2	Measure 3	Measure 4
Switch-off due to low charge state	11	Charge the KTM PowerPack	Test the new KTM PowerPack	Contact an authorized KTM workshop	
Fault during charging	13	Stop charging, switch off the main switch, and restart charging	Contact an authorized KTM workshop		
Overtemperature of the control unit	22	Check the coolant level	Check the radiator for dirt	Contact an authorized KTM workshop	
Overtemperature of the motor	23	Check the coolant level	Check the radiator for dirt	Contact an authorized KTM workshop	
Overtemperature of the KTM PowerPack	24	Let the KTM PowerPack cool down	Contact an authorized KTM workshop		
Fault in the CAN communication	31	Switch the main switch off and on	Check the correct positioning of the KTM PowerPack	Check the connection of the multifunction display for loose connectors	Contact an authorized KTM workshop
Fault in the communication with the KTM PowerPack	33	Switch the main switch off and on	Check the correct positioning of the KTM PowerPack	Contact an authorized KTM workshop	
Fault in the communication with the multifunction display	34	Switch the main switch off and on	Check the connection of the multifunction display for loose connectors	Contact an authorized KTM workshop	

Fault	Blink code	Measure 1	Measure 2	Measure 3	Measure 4
Fault in the throttle grip	41	Switch the main switch off and on	Check the throttle grip for external damage	Contact an authorized KTM workshop	
Fault in the rotor position sensor	42	Switch the main switch off and on	Contact an authorized KTM workshop		
Fault in the KTM PowerPack	43	Switch the main switch off and on	Contact an authorized KTM workshop		
Fault in the 12-V supply	44	Check the charge state of the 12-V battery	Install a new 12-V battery	Contact an authorized KTM workshop	
Fault in the motor	45	Switch the main switch off and on	Contact an authorized KTM workshop		
Fault in the onboard network wiring harness or in a switch	46	Switch the main switch off and on	Check the on-board network wiring harness and plug-in connections for external damage	Contact an authorized KTM workshop	
Fault in the ECU	51	Switch the main switch off and on	Contact an authorized KTM workshop		
Fault in the moisture monitor	52	Switch the main switch off and on	Contact an authorized KTM workshop		
Fault in the KTM PowerPack relay	53	Switch the main switch off and on	Contact an authorized KTM workshop		
Fault in the insulation monitor	54	Dry and clean the discharging connectors on the motor and KTM PowerPack	Contact an authorized KTM workshop		

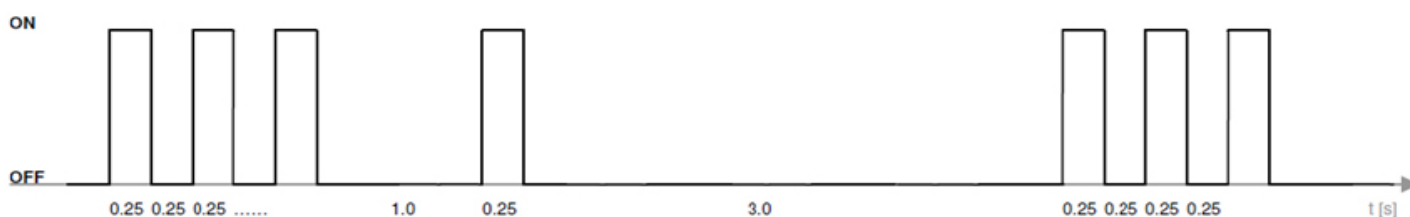
8.2 Troubleshooting of the charger



If LED ❶ flashes, there is a charger fault.

All of the following blink codes are displayed on the charger and refer to the charger itself.

The following example shows blink code 31:



The pause between the signal of the 1st digit is 0.25 seconds.
 The pause between the 1st and 2nd digits is 1 second.
 The pause until the blink code repeats is 3 seconds.

- Read out the fault.
- Switch off the charger.
- Wait 15 seconds.
- Remedy the fault as instructed in the table.
- Switch on the charger.

Important

For all faults that are not listed in the table, switch the charger off and on again. If this does not eliminate the fault, contact an authorized KTM workshop.

Fault	Blink code	Measure 1	Measure 2	Measure 3
Fault in the charging cable	11	Check the charging plug and charging cable for external damage and reconnect	Contact an authorized KTM workshop	
Fault in the charging cable	12	Check the charging plug and charging cable for external damage and reconnect	Contact an authorized KTM workshop	
Fault in the charging cable	13	Check the charging plug and charging cable for external damage and reconnect	Contact an authorized KTM workshop	
Overtemperature of the charger	51	Let the charger cool down	Resume charging in a cooler location	Contact an authorized KTM workshop
Fault in the supply voltage	63	Use the "Normal" charge mode	Choose a socket closer to the central supply	Contact an authorized KTM workshop
Fault in the supply voltage	65	Use the "Normal" charge mode	Choose a socket closer to the central supply	Contact an authorized KTM workshop

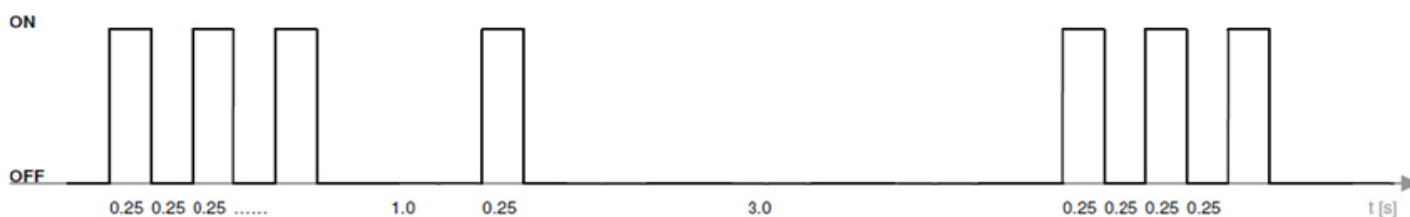
8.3 Troubleshooting of the KTM PowerPack when connected to the charger



If LED ❶ flashes, there is a KTM PowerPack fault.

All of the following blink codes are displayed on the charger and refer to the KTM PowerPack.

The following example shows blink code 31:



The pause between the signal of the 1st digit is 0.25 seconds.

The pause between the 1st and 2nd digits is 1 second.

The pause until the blink code repeats is 3 seconds.

- Read out the fault.
- Switch off the charger.
- Wait 15 seconds.
- Remedy the fault as instructed in the table.
- Switch on the charger.

Important

For all faults that are not listed in the table, switch the charger off and on again. If this does not eliminate the fault, contact an authorized KTM workshop.

Fault	Blink code	Measure 1	Measure 2	Measure 3
Overtemperature of the KTM PowerPack	33	Let the KTM PowerPack cool down	Continue charging in a cooler location	Contact an authorized KTM workshop
The KTM PowerPack is too cold	34	Place the KTM PowerPack in a warmer location and let it warm up	Continue charging in a warmer location	Contact an authorized KTM workshop
The KTM PowerPack is too cold	36	Place the KTM PowerPack in a warmer location and let it warm up	Continue charging in a warmer location	Contact an authorized KTM workshop
Fault in the charging cable	65	Check the charging plug and charging cable for external damage and reconnect	Contact an authorized KTM workshop	
The charge state of the KTM PowerPack is too high for the "Storage" charge mode	66	Ride the vehicle until the KTM PowerPack is depleted to 50%	Contact an authorized KTM workshop	
Charging fault	11	Check the charging plug and charging cable for external damage and reconnect	Contact an authorized KTM workshop	

Fault	Blink code	Measure 1	Measure 2	Measure 3
Fault in the charging cable or the vehicle was activated	64	Check the charging plug and charging cable for external damage and reconnect	Switch off the main switch on the vehicle and restart charging	Contact an authorized KTM workshop
The KTM PowerPack is not enabled	73	Contact an authorized KTM workshop		

9.1 Service schedule

	Every 20 operating hours	Once after 1 operating hour
Read out the fault memory using the KTM diagnostics tool.	○	●
Check and charge the 12-V battery.		●
Check and charge the KTM-PowerPack.	○	●
Check the front brake linings.		●
Check the rear brake linings.		●
Check the brake discs.		●
Check the brake lines for damage and leakage.		●
Check the frame and swingarm.		●
Check the heim joints at the top and bottom of the shock absorber.		●
Check the tire condition.	○	●
Check the tire air pressure.	○	●
Check the wheel bearing for play.		●
Check the wheel hubs.		●
Check the rim run-out.	○	●
Check the spoke tension.	○	●
Check the chain, rear sprocket, engine sprocket and chain guide.		●
Check the chain tension.	○	●
Grease all moving parts (e.g., side stand, hand lever, chain, ...) and check for smooth operation.	○	●
Check the brake fluid level of the front brake.		●
Check the rear brake fluid level.		●
Check the travel of the brake levers.		●
Check the steering head bearing play.	○	●
Check all hoses and bellows for cracking, leaks and incorrect routing.	○	●
Check the antifreeze and coolant level.	○	●
Check the cables for damage and routing without sharp bends.		●
Check the sealing lips on the discharging plug for damage.	○	●
Check the screws and nuts for tightness.	○	●
Final check: Check the vehicle for safe operation and take a test ride.	○	●
Read out the fault memory using the KTM diagnostics tool after a test ride.	○	●
Make the service entry in KTM DEALER.NET and in the service record.	○	●

- One-time interval
- Periodic interval

9.2 Service work (as additional order)

	Every 60 operating hours	Once after 20 operating hours	Annually
Change the front brake fluid.			●
Change the rear brake fluid.			●
Grease the steering head bearing.			●
Change the sealing lips on the discharging plug.		●	
Perform a fork service.	○	●	
Service the shock absorber.		●	
Check the swingarm bearing.		●	
Change the gear oil.		●	



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RESCUE CARD

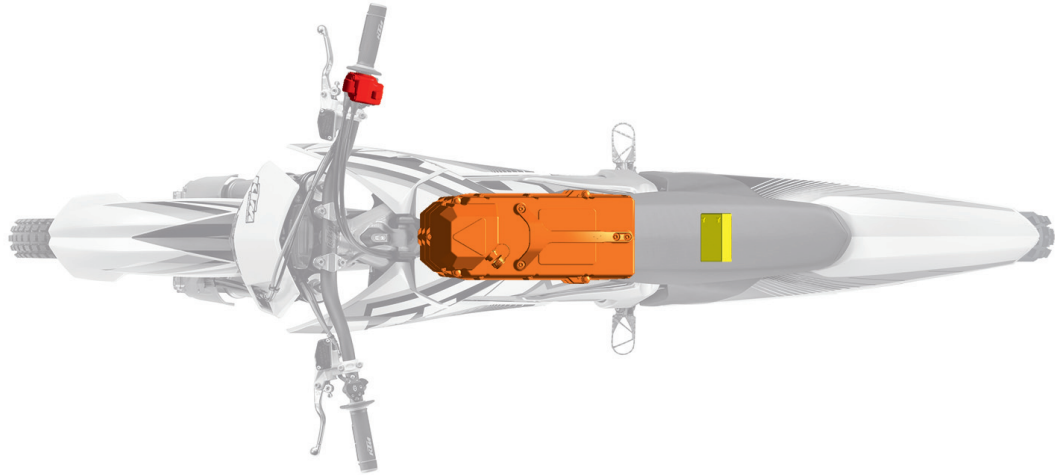
KTM Freeride E-SX 2014

112 European emergency number

Technical emergency number (service fee)

- +49 151 16033041
- +41 (0)52 725 0888
- +358 10 8411 218
- +39 035 3233808
- ÖAMTC emergency number 120 for accidents and breakdowns

- +33 (0)4 37 25 14 67
- +31 (0)24-343 7220
- +32 10471140
- +46 705 487960
- CEE +421 911816239
-



Main switch

High-voltage cabling in motor housing

KTM PowerPack (high-voltage battery, 260 V)

12-V battery for onboard network



General information

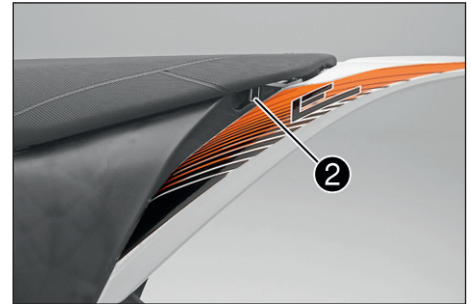
- The KTM Freeride E-SX is a high-voltage electric motorcycle with a lithium-ion battery (KTM PowerPack, 260 V).
- The high-voltage components in the vehicle are identified by yellow warning labels.
- The high-voltage cables in the motor housing and in the KTM PowerPack can be identified by the orange color of their insulation.
- Before beginning work on the vehicle, switch off the main switch ❶ on the right side of the handlebar ❷.



Version 1: Lightly damaged vehicle

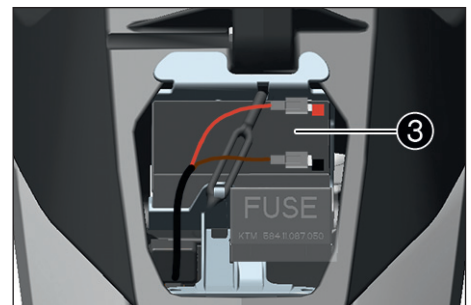
(Orange high-voltage cable is not visible, no visible damage to KTM PowerPack)

1. Switch off the main switch ❶ ❷.
2. Unlock the seat ❸ and fold it up.
3. Disconnect the 12-V battery ❹.
4. Loosen the hex screws size 10 ❺.
5. Remove the KTM PowerPack ❻.



Version 2: Severely damaged vehicle

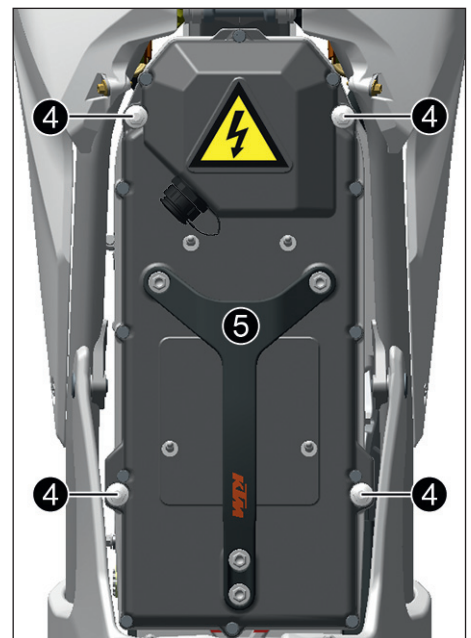
(Orange high-voltage cable is visible and/or metallic penetration of the KTM PowerPack)



i The intrinsic safety of the high-voltage system of the vehicle cannot be determined from the outside.

⚠ Using suitable high-voltage protective equipment, the vehicle must be de-energized by removing the KTM PowerPack (high-voltage battery).

1. Switch off the main switch ❶ ❷.
2. Unlock the seat ❸ and fold it up.
3. Disconnect the 12-V battery ❹.
4. Loosen the hex screws size 10 ❺.
5. Remove the KTM PowerPack (high-voltage battery, 260 V) ❻ and store in a safe place until it can be submitted to a specialist workshop.



Version 3: Vehicle fire

- In the event of a vehicle fire, the usual regulations for low-voltage systems apply.
- If the KTM PowerPack was affected by the fire, the extinguishing and cooling process may take up to 24 hours. The surroundings must be protected accordingly.
- To cool a burning KTM PowerPack, use large quantities of water.
- When using branch pipes and water as an extinguishing agent, maintain a safety distance of **1 m for spraying** and **5 m for a full jet of water**.