

Arctic Leopard



ARCTIC LEOPARD



E-XE Models
(Full Range)

User Manual

Please read this manual thoroughly before using this product.

This User Manual contains important safety information. Please keep it in a secure place. A driver should possess a valid driving license. Please do not use this motorcycle until you fully understand its performance.

Dear customers,

Many thanks for buying this product manufactured by Zhejiang Arctic Leopard Electric Technology Co., Ltd. We hope you will enjoy using it. Ride safely!

Please read this User Manual thoroughly before riding this motorcycle. It contains not only instructions on operation, troubleshooting and maintenance of this motorcycle, but also guidance on how to prevent vehicle accidents and protect yourself and others from personal injuries.

It also contains the latest information on this product. With continuous improvement of the product, there may be slight differences between your motorcycle and that described in this User Manual in which case the actual product shall prevail.

Zhejiang Arctic Leopard Electric Technology Co., Ltd. reserves the right to revise this User Manual at any time without any advance notice. No responsibility shall be borne by us for such revision.

If you have any question about this User Manual, please consult the authorized dealer from whom you purchase your motorcycle.

No part of this User Manual can be reproduced without the written consent of Zhejiang Arctic Leopard Electric Technology Co., Ltd.

Illegal modification to vehicles is prohibited.

This User Manual is applicable to the following models of motorcycles: E·XE Models (Full Range)

This User Manual is prepared in compliance with the following standards: GB/T9969-2008 and GB/T19678.1-2018

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1.1 Safety guidelines

As the owner, you shall be responsible for operating your vehicle safely and properly. Every rider should be familiar with the following requirements before riding this motorcycle:

- The rider would have received training for safe and proper riding skills and possess relevant certificates.
- Please follow the warnings and maintenance requirements in this User Manual.
- Please ride this motorcycle on specified roads according to local regulations.

1.2 Riding gear

Make sure you wear the helmet, goggles and eye-catching protective clothing that conform to national certifications. Take proper measures to protect yourself against weather and road conditions while riding.

Helmet

We recommend that you choose a helmet in eye-catching colour with the proper size that complies with national standards. Failure to wear a helmet may increase the risk of serious injury or death during a crash.

Gloves

Select a pair of high-abrasion and full-finger leather gloves. Judge whether to wear warm and non-slip riding gloves according to actual weather conditions.

Boots

Select a pair of protective riding boots that fit your feet without affecting your ability to control the vehicle.

Warning

Before every ride, make sure that your shoelaces are fastened tightly. Entanglement of shoelaces with gears or chains may have serious consequences.

Clothing

Select an eye-catching long-sleeved shirt with protective effect, and a pair of durable pants (or a protective suit) suitable for riding.

1.3 Precautions for safe riding

Make sure you are healthy and able to stay focused before riding. Do not drink alcohol or take drugs before or during riding.

- Ride carefully and keep your hands on the handlebars and your feet on the footrests at all times.
- Keep an eye on the riding environment around you and stay alert and prepare for any emergency braking, dodging or detouring.
- Avoid riding when feeling tired. Fatigue and negligence can impair your capability to make proper judgements and ride safely.
- Please maintain your motorcycle properly and keep it in good condition at all times.
- The motorcycle's braking performance may be reduced in wet conditions such as slippery roads, so make sure to ride slowly and carefully.

Riding safety

1.4 Recommended treatment for special circumstances

Personal safety is your first priority. If you or anyone else is injured, carefully assess the severity of the injury and determine whether it is safe to continue riding.

If necessary, please call for emergency assistance. If other people and vehicles are involved in the crash, you need to follow local laws and regulations.

If you decide to continue riding, turn the power switch to the OFF position and assess the situation of your motorcycle.

Check whether the power battery in the motorcycle runs properly, the key nuts and bolts are tightened and whether the handlebars, brakes and wheels work properly.

After an accident occurs, please promptly send your motorcycle to a qualified maintenance shop for inspection and maintenance. During the transportation process, please pay attention to the following conditions:

- If your motorcycle is severely damaged in a crash, there may be a risk of electric shock. Please do not touch any electrical components or their wiring harnesses.
- Avoid touching any power battery.
- If a fire occurs, please use a fire extinguisher for electrical fires and promptly call the local fire department.

Danger

This motorcycle uses lithium battery above 90V. If you dispose it improperly after an accident, it may cause serious injuries or even deaths.

In the event of an accident, please follow the methods described in this User Manual for disposal.

1.5 Power battery

If the power battery emits smell or smoke, it may be faulty.

Immediately park your motorcycle in a safe outdoor place away from flammable materials, turn off the power and then contact your authorized dealer.

Do not disassemble or modify the power battery on your own.

1.6 Brake system

Precautions for the brake system:

- Avoid excessive emergency braking. Sudden braking may reduce the stability of your motorcycle. Slow down your motorcycle before turning if conditions permit, or you may slip and fall on the ground.
- Please be careful when riding on surfaces with low friction. Tires are more likely to slip on such surfaces, so the motorcycle needs longer braking distance.

- In roads with long and steep slopes, repeated braking may cause the brake to get overheated severely, thus affecting the braking effectiveness.
- To achieve better braking performance, please operate both front and rear brakes simultaneously.
- Abnormal noises without affecting the normal operation of your motorcycle after a long ride is normal.

1.7 Accessories and modifications

We strongly recommend that you do not add any accessories or make modifications to the original design of your motorcycle. They may cause safety hazards.

Modifications to your motorcycle may render our warranty invalid. Before you decide to add any accessories to your motorcycle, please firstly check which modifications are safe and legal.

Danger

Improper accessories or modifications may cause accidents that can put you and others at a risk of serious personal injury or death.

1.8 Maximum load

- Overloading may affect the operating, braking and stability of your motorcycle. Please avoid overloading, and follow the specified loading limits.

Maximum load: 75 kg

- When carrying heavy loads, please keep your ride at a safe speed.
- Securely fasten the load on the vehicle. Make sure the load is not prone to move from side to side while riding, and adjust it if necessary.
- Do not place any objects near the motor.





Warning

Overloading, improper loading or carrying too many people may cause an accident resulting in serious injury or death. Please load your motorcycle by following the loading guidelines specified in this User Manual.

Chapter 2 Important information

2.1 Warning signs

In this User Manual, particularly important information is distinguished with the following symbols.

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|  Danger | Failure to follow the instructions will result in serious injury or death. |
|  Warning | Failure to follow the instructions may result in serious injury or death. |
|  Attention | Failure to follow the instructions may result in your injury. |
|  Caution | Take special measures to prevent damage to your electric motorcycle or other property. |

Your and others' safety is very important, and it is your responsibility as the owner to operate your motorcycle safely and properly.

Safety symbol-related operation steps and other information have been provided in this User Manual to help you make the right decisions regarding safety.

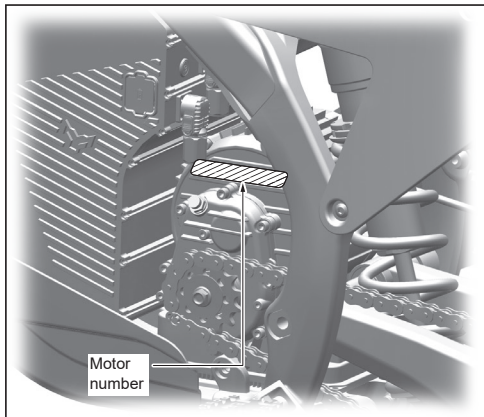
This information is intended to alert you to potential hazards that may harm you or others.

Please be sure to follow such instructions on the safe operation and proper maintenance of your motorcycle!

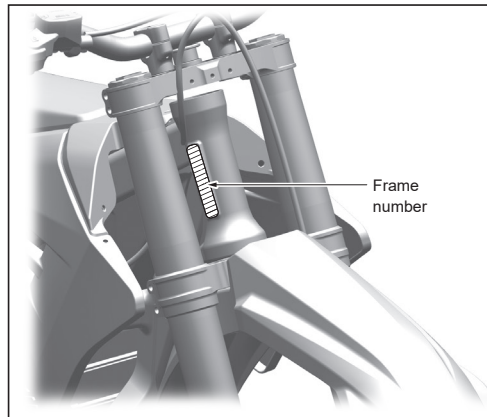
2.2 Vehicle information

They may be required by your dealer when you order any replacement part.
You can refer to the location shown below to find the information of the vehicle you purchased.

Motor number

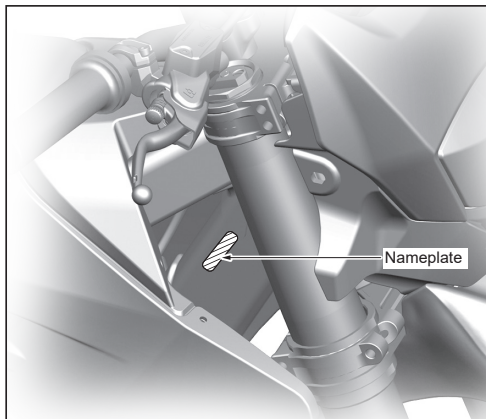


Frame number



Important information

Nameplate



2.3 User's instructions and pre-driving inspection

User's instructions

- Install the motorcycle license plate in accordance with the actual conditions, always complying with local laws and regulations.
- It is strictly forbidden for drivers under 18 years of age to ride this motorcycle on roads.
- If there is no non-motorized lane on the road, you should always ride on the right side of the driveway.
- Do not lend your motorcycle to any one who does not operate it properly to avoid injuries.
- Please carry people or items in accordance with local laws and regulations.
- Please wear a helmet and other protective equipment when riding.
- When riding in the rain or snow, the braking distance may be extended. You should therefore slow down and ride slowly. Please try not to ride on this motorcycle in severe weather including snowstorms.
- Do not park the motorcycle in building foyers, evacuation staircases, walkways and safety exits.
- Do not charge or park the motorcycle in residential buildings. When charging, please keep the motorcycle away from combustible materials. It is preferable to keep the charging time short.
- Prohibit to disassemble waste batteries on your own. Batteries should be processed and recycled by professional organizations.
- Before use, you should fully understand how to properly use and maintain the battery.
- New battery charges should be compatible with the current battery model.

Rider requirements (The following persons are not allowed to drive this electric motorcycle.):

1. Who is under 18 years old.
2. Who is unable to operate the motorcycle due to pregnancy or illness.
3. Who is under the influence of alcohol or drugs.
4. Whose weight exceeds the prescribed limit. (Maximum load 75kg)

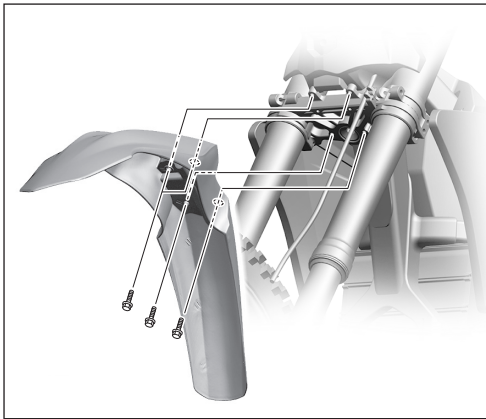
Pre-driving inspection

- Check whether the tire pressure is normal, the tire is damaged or there is any abnormal object in the tire.
- Check whether front and rear wheel shaft bolts and nuts are loose.
- Check whether the reflector is damaged or stained.
- Check whether the power supply circuit and electrical system operate normally.
- Check whether the power is sufficient for your riding.
- Check whether the front and rear brake systems operate properly.
- Check whether the speed-control grip rotates and rebounds normally.
- Check whether the front and rear shock absorbers can be compressed or rebound normally without oil leakage or abnormal objects that may affect the operation of the shock absorbers.

Chapter 3 Component installation guide

3.1 Assemble the front wheel fender

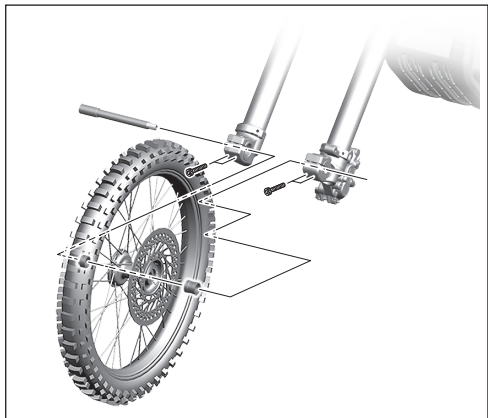
1. Assemble the front wheel fender and secure it with bolts.



Disassemble the front wheel fender in reverse order of that when assembling it.

3.2 Assemble the front wheel

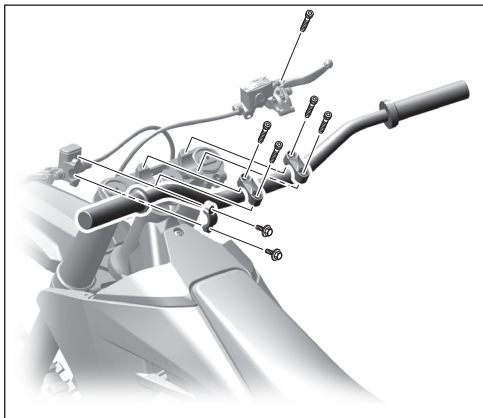
1. Remove securing bolts from the front wheel shaft.
2. Disassemble the front wheel shaft with an Allen wrench.
3. Assemble the front wheel, the front wheel shaft and the securing bolts in proper order.



Disassemble the front wheel in reverse order of that when assembling the front wheel.

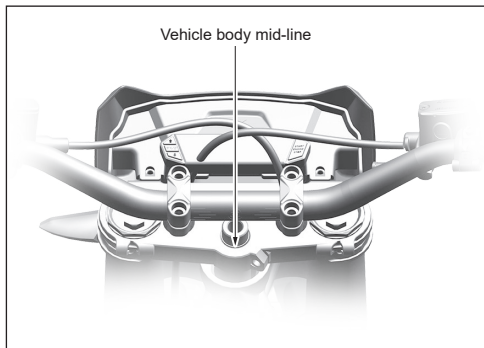
3.3 Assemble the steering handlebar

1. Fix the upper brake pump bolts of the front and rear brakes to the steering handlebar.
2. Connect the upper press block and upper yoke plate of the steering handlebar with coupling bolts, and pre-tighten the steering handlebar.
3. Adjust the steering handlebar to the appropriate position and then fasten the bolts.



3.4 Adjust the steering handlebar

1. Loosen securing bolts on the steering handlebar and adjust the steering handlebar.
2. Please align the center position of the steering handlebar with the center line of the motorcycle body. You are recommended to adjust the handlebar scale to -2, at which point you should feel most comfortable during riding. In any case, your personal habits prevail.

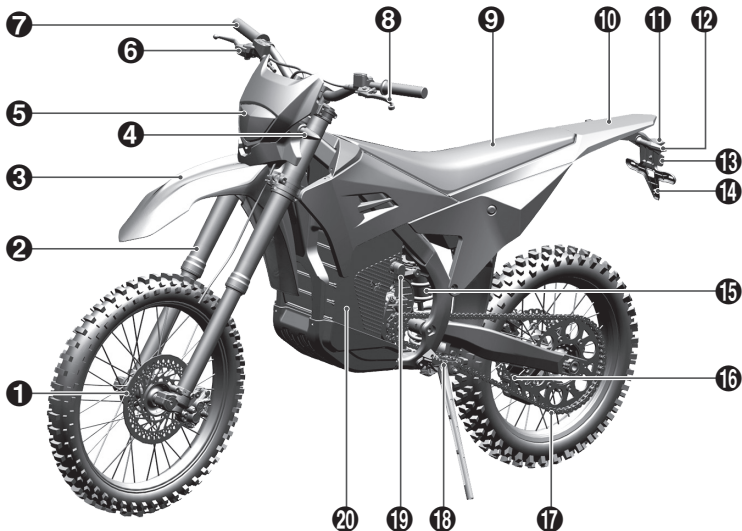


Chapter 4 Motorcycle introduction

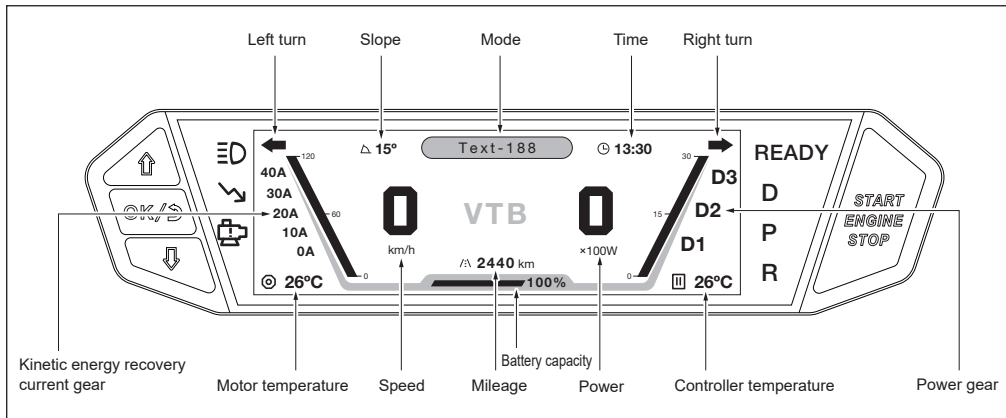
4.1 Main components

Climb version

- ① Front brake disc
- ② Front shock absorber
- ③ Front wheel fender
- ④ Front turn signal light
- ⑤ Headlight
- ⑥ Front brake handle
- ⑦ Throttle twist grip
- ⑧ Rear brake handle
- ⑨ Seat cushion
- ⑩ Rear wheel fender
- ⑪ Rear taillight
- ⑫ Rear turn signal light
- ⑬ Rear reflector
- ⑭ License plate holder
- ⑮ Rear shock absorber
- ⑯ Rear brake disc
- ⑰ Chain
- ⑱ Footrest
- ⑲ Charging port
- ⑳ Lithium battery



4.2 Meter

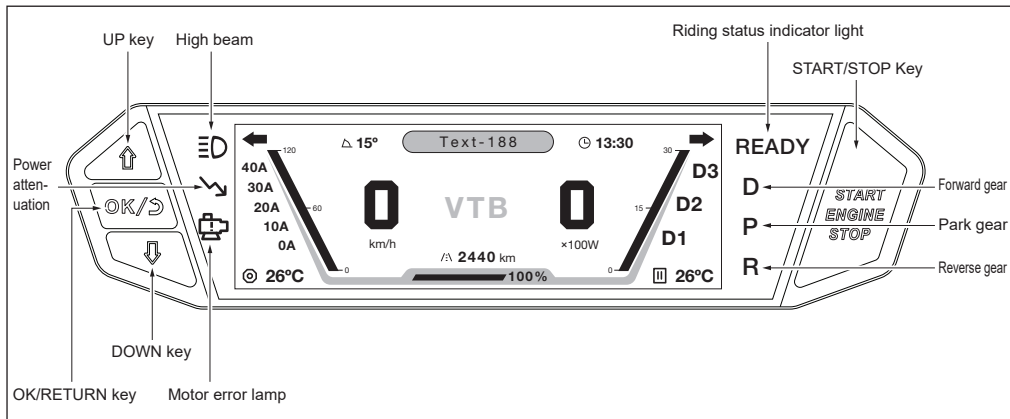


Meter

Display inspection

Start-up animation appears when the motorcycle is started. If any display area that is supposed to be displayed is not displayed, please send it to a designated maintenance shop for repairs.

Motorcycle introduction



Indicator light

Display inspection

After pressing the ON switch of the power supply, all indicator lights will light up briefly and then go out.

If the indicator light fails to function as described above, please contact the designated dealer for troubleshooting.

4.3 Right handlebar switch

PARK button

Set or cancel the parking status of the motorcycle.

READY button

Enable the motorcycle to be ridden.

TRAVEL button

Enable the motorcycle to be traveled.

MODE button

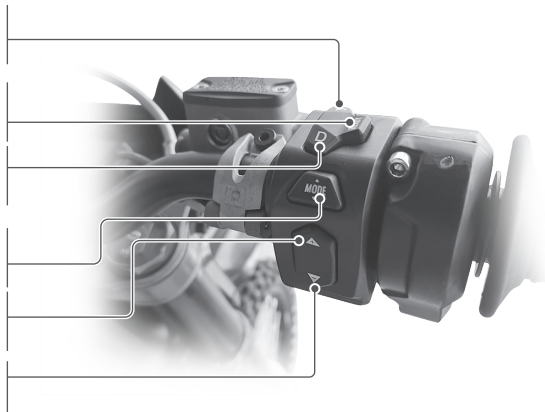
Switch to the desired mode.

POWER GEAR + button

Press to increase the power gear.

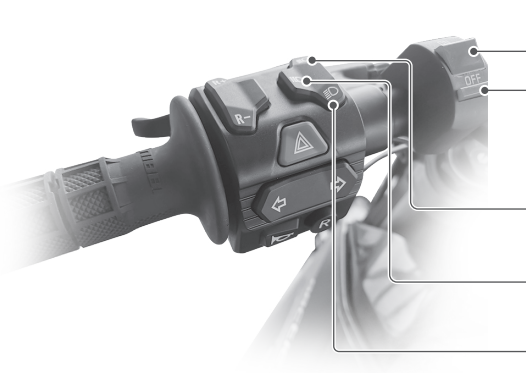
POWER GEAR - button

Press to decrease the power gear.



Motorcycle introduction

4.4 Left handlebar switch



POWER ON button

Press to switch on the power of the motorcycle.

POWER OFF button

Press to switch off the power of the motorcycle.

HIGH BEAM button

Press to switch on high beam.

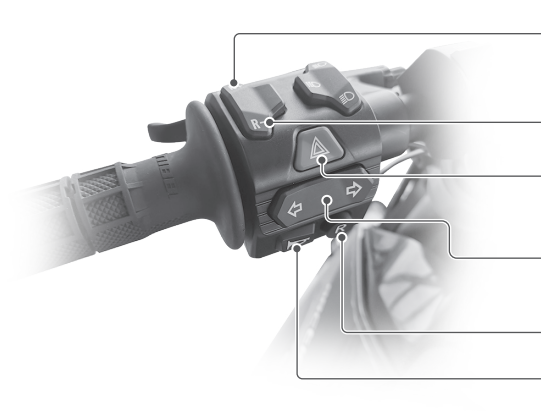
PASSING LIGHT button

Press to switch on passing light.

LOW BEAM button

Press to switch on low beam.

Motorcycle introduction



KINETIC ENERGY RECOVERY + button

Press to increase the intensity of kinetic energy recovery.

KINETIC ENERGY RECOVERY - button

Press to reduce the intensity of kinetic energy recovery.

DANGER INDICATOR LIGHT button

Press to flash the front and rear turn signal lights.

TURN SIGNAL LIGHT button

Press to activate the turn signal light for corresponding position.

REVERSE button

Press enter reversing mode; release to deactivate reversing mode.

HORN button

Press this button to sound the horn.

Motorcycle introduction

4.5 Charge the power battery

Precautions for charging

- The power battery has the following features:
As it is being repeatedly charged and discharged, its capacity will decrease over time. When the battery capacity decreases, the distance you can ride will gradually become shorter, even if the power scale shown is full (fully charged).
- Depending on your riding conditions and the service time of your motorcycle, its discharge performance will gradually decline. The mileage will decrease when the motorcycle is operated in cold environments.
- Turn on the battery switch to enable charging and discharging.

Caution

- Because the battery can be self-discharged, its capacity will drop when the motorcycle is not in use.
- If you want to store your motorcycle for a long time and keep the battery healthy, please charge it once every 3 months with the official charger to keep the battery pack capacity at 40%~60%.
- If the motorcycle runs out of power due to storage for a long time and cannot be started, please connect the charger to charge the whole motorcycle for over 30min, and then start it.
- Please do not wait till the battery completely runs out of power before recharging it. It may greatly affect the battery service life.
- This electric motorcycle is only safe for use at altitudes below 2,000 meters.

Please follow the following rules during charging:

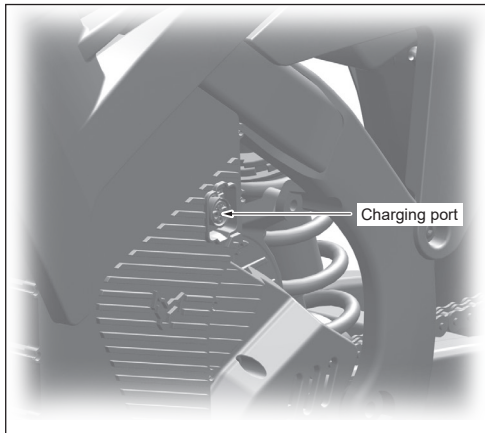
- Please use original power batteries of the motorcycle, and do not use power batteries of other brands or other models.
- Please prevent the power battery from contacting water, beverage or corrosive liquid.
- Please prevent the power battery from approaching heat sources, open flames, flammable and explosive gases (liquids), etc.
- Please prevent the power battery from excessive physical shocks.
- Please prevent metal objects from contacting the terminal on the power battery.
- If you find any irregularity (e.g. power battery overheating, smoke or unusual smell), stop using the motorcycle immediately, stay away from it, and contact your authorized dealer.

Danger

- Improper use of the power battery may result in an electric shock or fire, which may lead to death or serious injury.
- Do not disassemble the waste battery on your own. You need to deliver it to professional departments for disposal and recycling.

Charging method

Please always use the power battery charger supplied with the motorcycle to charge your power battery.



When charging, you need to turn off the power of your motorcycle first, connect the charger connector to the charger and then connect the charger to the mains electricity.

Charging environment

Please charge the power battery in the following locations.

- Park the motorcycle on a firm horizontal ground.
- Charge it at the ambient temperature between 0 °C and 40 °C.
- A well-ventilated and non-humid location.
- Charge it in places permitted by laws and regulations.

Danger

Please strictly abide by the relevant laws and regulations and charge the battery in places permitted by laws and regulations. Non-professionals are prohibited from disassembling the internal structure of the battery to prevent accidents from occurring.

Charging time

It takes about three hours to charge the power battery from empty-to-full. The charging time may be longer under higher or lower ambient temperatures. Do not charge it for more than four hours to prevent the service life of the power battery from being affected.

Motorcycle introduction

4.6 Charger

Please store the power battery charger far away from direct sunlight and rain. During charging, you can judge the charging status according to the charger indicator display:

Instructions for charger indicator light status			
	Charger status	Indicator light	Remarks
Status indication	1 Standby	The red indicator lamp is constantly on	
	2 Charging in progress	The red indicator lamp is flashing	
	3 Full charge	The green indicator light is constantly on	
	4 No-load (short circuit, under voltage, reverse polarity)	The red and green indicators flash alternately (0.5s)	Check the voltage at the output end
Fault indication	5 Communication error	Red, red, green-	Check the communication cable
	6 AC input anomaly	Red, green, green-	Check AC input voltage
	7 Output over voltage	Red, green, green, green-	Check whether the output connection is normal and check the voltage at the output end
	8 Internal overheating	Red, red, green, green-	

Instructions for the charger

Please follow the rules below when using the charger:

- When the battery is charged using the charger, insert the charger into the motorcycle body first, and then insert the power plug. If you hear a "click", it is normal.
- At the end of charging, pull out the power plug first, and then the plug from the motorcycle body.
- The charger shall be unique to the specific motorcycle, and cannot be borrowed for use by other motorcycles to avoid any damage.
- The DC output of the charger is marked with "+" and "-" symbols. During usage, please note that these symbols are the same with those of the load.
- Do not immerse the charger into water. When the plug or the adapter

is immersed in water, stop using it immediately.

- When the charger is used, keep it away from explosive gases, and try to avoid any flames or sparks.
- Heat is generated when the charger is in use. Therefore, you should ensure that its surrounding environment is well ventilated, and it cannot be placed on sofas or other flammable objects.
- The charger works under high voltage. Please therefore use it safely. Do not open it on your own if you are not professionally-trained, so as to avoid any electric shocks or failures.
- Because the charger is fan-cooled, it is normal to hear noises (i.e. airflow sounds generated by rotation of fan blades).
- If the charger or the power socket is damaged or deformed, or the power cable is damaged, stop using it immediately, and ask professionals to replace the damaged part.
- Do not charge when the motorcycle is covered. Keep its surroundings well ventilated during charging.
- Do not charge the battery in places where there is a risk of thunderstorms.
- Do not plug too many power cables into the same power outlet.
- Do not plug/unplug the charger by pulling the cable.
- Please read this User Manual thoroughly before using this charger. If the indicator display is abnormal, or the charger cover is overheated, stop charging immediately and ask professionals for inspection and maintenance.

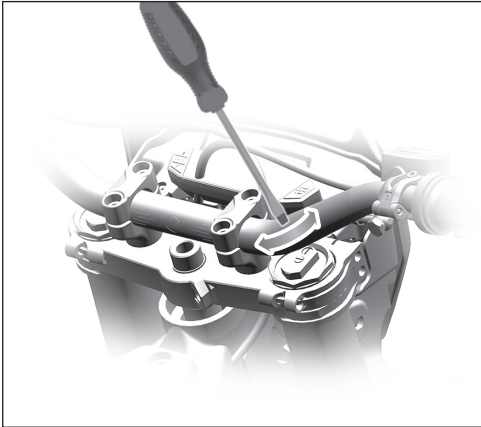
Warning

If a fire occurs in the motorcycle or its batteries, please comply with the following principles:

- If the power battery emits smoke, please stay away from this motorcycle immediately, contact the fire department, and prepare to extinguish any fire.
- ABC dry powder fire extinguishers or electrical fire extinguishers can be used to put out any fire.
- After the fire is extinguished, please contact the dealer to deal with waste batteries. Do not dispose of them on your own.
- The motorcycle's voltage may not be cut off depending on the location of the fire. After the fire is extinguished, the power must be cut off.

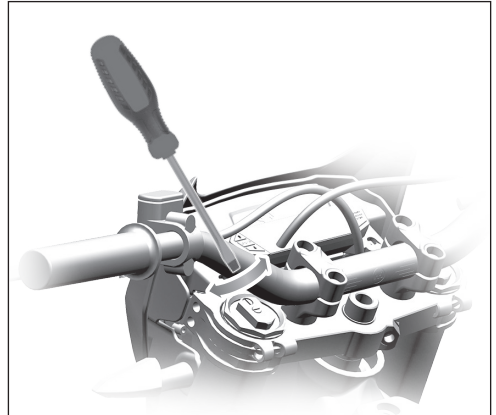
4.7 Adjust the front right shock absorber rebound damping

1. Turn the damping adjustment knob to adjust the shock absorber damping value with a flat head screwdriver.
2. Turn it counterclockwise to decrease the damping value. Turn it clockwise to increase the damping value.



4.8 Adjust the front left shock absorber compression damping

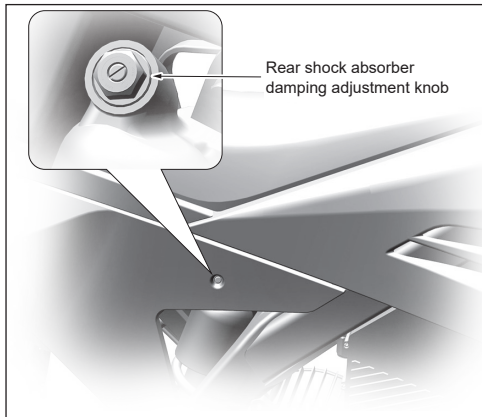
1. Turn the knob to adjust the shock absorber preloaded value with a flat head screwdriver.
2. Turn it counterclockwise to decrease the preloaded value. Turn it clockwise to increase the preloaded value.



Motorcycle introduction

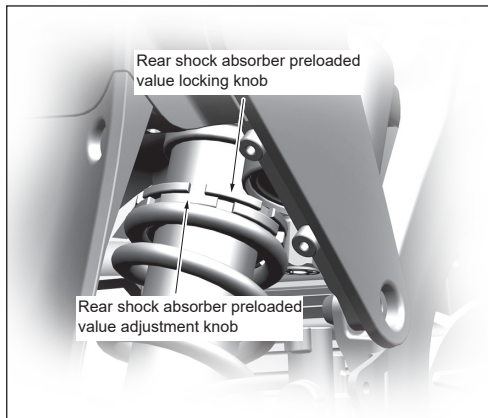
4.9 Adjust the rear shock absorber damping

1. Turn the rear shock absorber damping adjustment knob to adjust the rear shock absorber damping value.
2. Turn it counterclockwise to decrease the damping value. Turn it clockwise to increase the damping value.



4.10 Adjust the rear shock absorber preloaded value

1. Turn the rear shock absorber preload adjustment knob to adjust the preloaded value of the rear shock absorber.
2. When the rear shock absorber is compressed, the preloaded value will decrease. When the rear shock absorber rebounds, the preloaded value will increase.



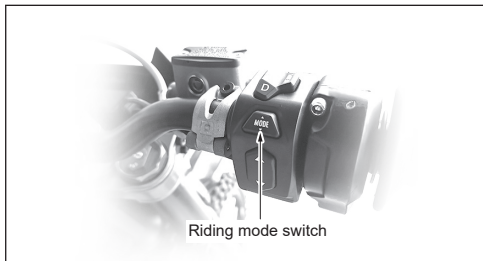
5.1 Riding mode

This motorcycle has 3 speed modes.

- Gear 1 mode (standard):
The output power in this gear mode is 34% of the maximum power of this motorcycle.
- Gear 2 mode (sports):
The output power in this gear mode is 67% of the maximum power of this motorcycle.
- Gear 3 mode (competition):
The output power in this gear mode is the maximum power of this motorcycle.

Switching method

Toggle the button on the right handlebar to switch modes.



5.2 Burglar alarm system

The burglar alarm system uses low-intensity radio waves, which may affect medical devices (e.g. cardiac pacemakers).

Caution

The burglar alarm system cannot work when the capacity of the motorcycle battery is low.

If any of the following conditions occurs, it means that the power battery has run out or there is a system fault. Please consult your authorized dealer.

- The alarm does not sound.
- The alarm sounds, but the alarm sound gradually disappears.
- The alarm keeps on sounding without stopping.

Chapter 6 Riding guide

6.1 Inspection before riding

You are recommended to check the following items each time before you ride your motorcycle to ensure that it is in safe operating conditions.

Make sure to follow the inspection items, maintenance procedures, and maintenance schedule specified in this User Manual.

Inspection items	Inspection contents
Battery capacity	Check the remaining capacity of the power battery, and recharge it if necessary.
Steering handlebar	Check whether it operates smoothly in all steering positions.
Speed-control handle	Check the free gap of the speed-control handlebar and check whether the reset is normal after acceleration.
Brake handle	Check whether the brake can operate smoothly or the rebound can operate smoothly without jamming.
Front/ Rear brake	Check the brake fluid level and brake pad wear.
Tire	Check whether there is any damage and the tire pressure is normal.

6.2 Start the motorcycle

1. Disable the motorcycle burglar alarm system.
2. Start the motorcycle.
3. Collapse the side stand.
4. Select the gear you want to ride using the switching mode adjustment button on the right handlebar.
5. After it is confirmed that the riding conditions in surrounding environment are met, slowly turn the acceleration handlebar to start riding.



Caution

If the motorcycle inclines to one side, make sure to turn off the motorcycle's power supply immediately.

6.3 Braking

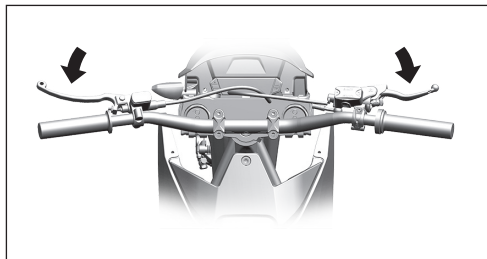
Turn off the speed-control handle, and then hold the front and rear brake handles at the same time.

Caution

When you are about to make a turn or stop during riding, you need to brake the motorcycle in advance. Turn on the direction light in advance, keep an eye on vehicles coming from the side and rear, and hold the front and rear brake handles at increasing force to slow down the motorcycle.

Warning

- Avoid excessive force or emergency braking (especially when the motorcycle turns to one side); otherwise it may slip or turn over.
- Braking on wet roads may cause skidding or even danger. Please slow down and ride carefully.
- In roads with long and steep slopes, repeated braking may cause the brake to get overheated severely, thus affecting the braking effectiveness. To ensure safety, operate the front and rear brakes simultaneously, and use the brakes intermittently to slow down.



Riding guide

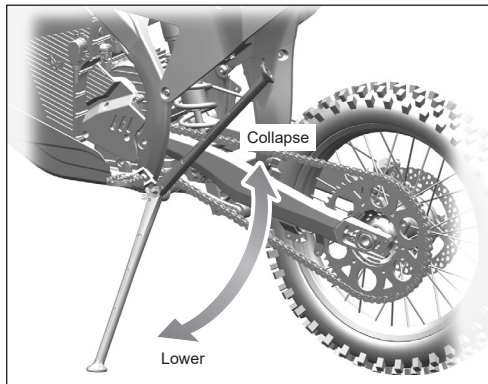
6.4 Parking

1. Turn off the power supply of your motorcycle.
2. Lower the side stand, slowly tilt the motorcycle to the left until its weight shifts onto the side stand.
3. Turn the steering handlebar to the left as far as it can go. After it is confirmed that your surrounding environment is safe, dismount your motorcycle from the left side.

If you have to park on the slightly tilted or loose ground, make sure to park stably, and keep the motorcycle from moving or tipping over.

Caution

Before you leave your motorcycle, make sure to turn off its power supply and enable its burglar alarm system.



7.1 Importance of maintenance

Always keep your motorcycle well maintained. It is so as to keep yourself safe, protect your properties, achieve optimal performance and prevent it from any faults.

Warning

Failure to carry out normal maintenance or correct any malfunctions before riding may result in serious or fatal accidents. Follow the inspection and maintenance recommendations and maintenance schedule specified in this User Manual.

Maintenance item	Maintenance schedule	Inspection item before riding	Riding mileage (km)	1000	4000	8000	12000
			Riding time (months)	1	6	12	18
Check by rotating the speed-control handlebar		√		√	√	√	√
Motor					√	√	√
Lithium battery				√	√	√	√
Front/rear brake pad		√		√	√	√	√
Front/rear brake pump fluid level		√			√	√	√
Tire pressure and status		√		√	√	√	√
Gear oil in the gearbox				√	√	√	√
Check whether front and rear shock absorbers leak		√		√	√	√	√
Chain tightness		√			√	√	√
Check whether the front/rear wheels rotate normally		√			√	√	√
Check whether all bolts are tightened					√	√	√
Check whether overall wiring harness is damaged		√		√	√	√	√
Check whether front/rear brake fluid hose is damaged				√	√	√	√
Check whether handlebar steering operates normally without any jams		√		√	√	√	√

√: Inspection (when necessary, cleaning, adjustment, lubrication or replacement should be carried out)

7.2 Parts replacement

To ensure reliability and safety, please use genuine parts. When you need to replace any parts, please consult your authorized dealer.

Warning

Installing non-genuine parts may make your motorcycle unsafe, thus causing an accident which may in turn lead to serious injury or even death.

Please use certified genuine parts or equivalent products that have been specifically designed for your motorcycle.

7.3 Motor and controller

The controller of a motorcycle, one of the most important parts and components, is a core control device that is used to control the start and operation of the motorcycle's motor.

Please follow the rules below:

- Please do not modify the motor on your own, otherwise your motorcycle will be vulnerable to spontaneous combustion, traffic accidents or other severe consequences.
- Please do not ride in deep water, much less ride in water which exceeds the rear wheel's central axis.
- Please check the fastening status of securing bolts of the motor often. If you find that the screw is loose, please let maintenance personnel to tighten it.

7.4 Check tires

Visually check the tires and measure the tire pressure with the barometer at least once a month or whenever you feel that the tire pressure is insufficient.

Please check the tire pressure when the tires are cool. The maximum tire pressure is shown below:

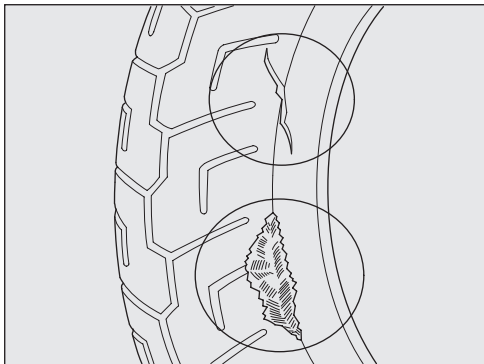
Front wheel: 0.5 bar - 1.5 bar Rear wheel: 0.5 bar - 1.5 bar

Warning

When tire pressure is abnormal, the motorcycle will be difficult to operate. In worse scenarios, tire blowouts may occur, thus causing the motorcycle to be out of control, thereby leading to severe personal injuries or even deaths.

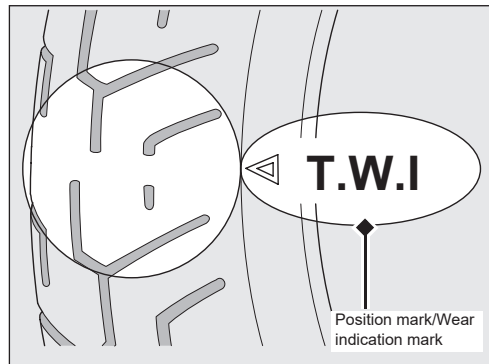
Check tire damage

Check the tire for cuts, cracks, exposed fabric or tire threads, or nails or other foreign objects embedded in the tire side or tread. Also check the tire side walls for bulges or swelling.



Check tread depth

Check the indication marks of the tread wear. If any wear indication marks are visible, please replace the worn tire immediately. Minimum tread depth: 2 mm



Warning

Riding with severely-worn tires will reduce the riding performance of the motorcycle and potentially cause accidents.

Maintenance

Please follow the rules below:

- Use recommended tires or equivalent products with the same size, structure, speed rating and load capacity.
- Do not overload. Riding an overloaded vehicle may cause an accident.
- The replacement of all wheels and brake-related parts (including tires) should be completed by the maintenance personnel with professional skills and operating experience.

Warning

Installing unsuitable tires may affect the operation and stability of this motorcycle, and cause accidents, such as serious injury or even death.

Use the size and type of tires recommended in this User Manual.

7.5 Check brake fluid

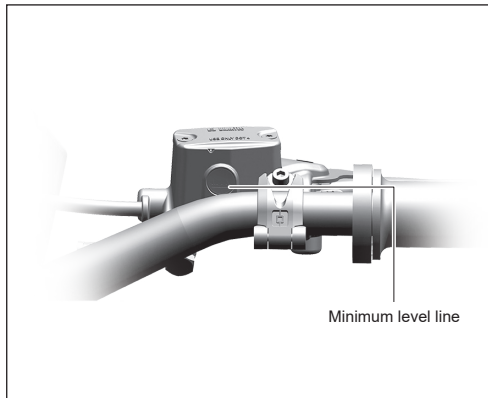
Park the motorcycle in a flat and hard place and keep it horizontal. Turn the steering handlebar, and check whether the brake fluid level is above the mark of the lower limit to the fluid level, when the brake fluid level is aligned with the mark line.

If the brake fluid level in the reservoir is below the mark of the lower limit to the fluid level, or if the free stroke of the brake handle exceeds its limit, please refer the motorcycle to your authorized dealer for service.

Recommended brake fluid: DOT 4 brake fluid

Caution

Brake fluid can damage plastic and painted surfaces. If any fluid spills over, please wipe it immediately, and clean the affected area completely.



7.6 Check brake pads and brake discs

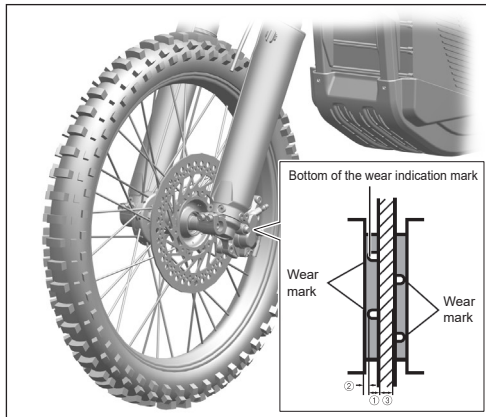
Check the condition of the wear-and-tear mark of front and rear brake pads.

If the wear-and-tear of the brake pads has reached the bottom of indication mark, the pads need to be replaced.

Check the wear-and-tear condition of front and rear brake discs.

If the thickness of the front and rear brake discs is worn to the value specified by the manufacturer, the discs would need to be replaced.

- ① Lower limit: 3 mm
- ② Extremely lower limit of the brake pad thickness: 2 mm
- ③ If the thickness of the brake disc is less than 3 mm, the brake disc needs to be replaced.



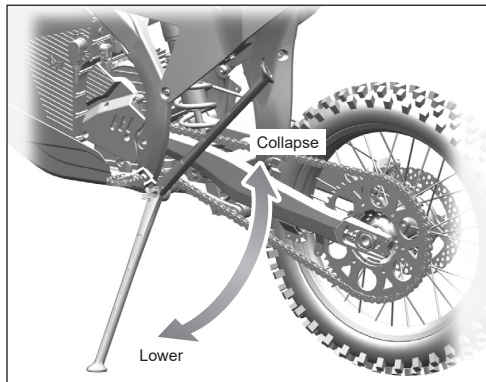
Caution

- Please replace the brake pads at an authorized dealer. Make sure to replace the left and right brake pads at the same time.
- Your safety may be at risk if the brake pads are severely worn, and you fail to replace them in time.

7.7 Side stand

Inspection

- Check whether the side stand works smoothly. If the side stand is stiff or rattling, clean the rotary shaft area and lubricate the pivot bolt with clean grease.
- Check the springs for damage or loss of elasticity.
- Check whether the side stand is deformed or cracked. If it does, please go to a designated maintenance shop for repairs.



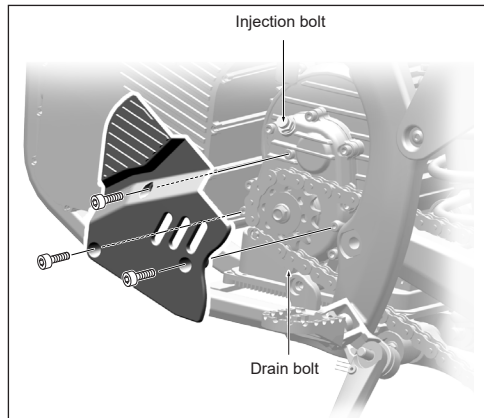
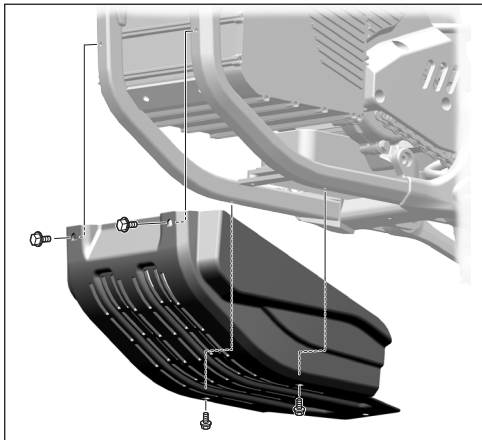
7.8 Speed-control handle

When the power supply is turned off, check whether the speed-control handlebar can be turned smoothly from a fully-closed to the fully-opened position, whether it can reset automatically and rotate on acceleration without jams.



7.9 Replace gear oil

1. Remove the four bolts, and then remove the wheel fender under the motorcycle as shown in the illustration.

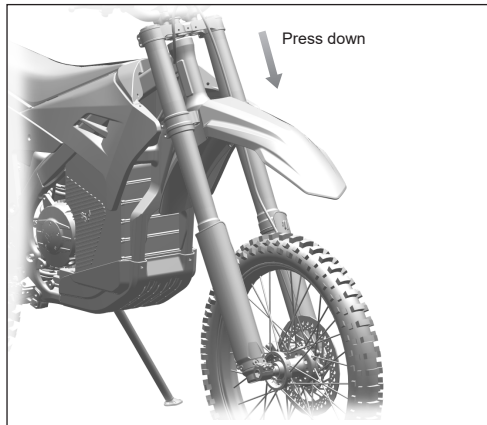


Maintenance

7.10 Check and maintain the front shock absorber

Check whether the front shock absorber is damaged or cracked externally or other parts are damaged, and replace the faulty parts when necessary.

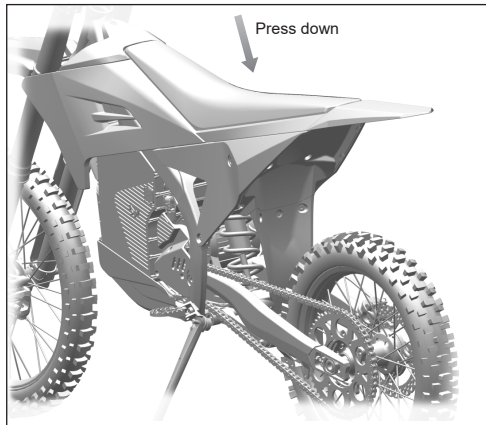
Clean the dust and mud from the front shock absorber; hold the steering handlebar and press it down several times to check whether the front shock absorber compression and rebound are normal.



7.11 Check and maintain the rear shock absorber

Check whether the rear shock absorber is damaged or cracked externally or other parts are damaged, and replace the faulty parts when necessary.

Clean the dust and mud from the rear shock absorber; hold the cushion and press it down several times to check whether the rear shock absorber compression and rebound are normal.



7.12 Check and adjust the chain sag

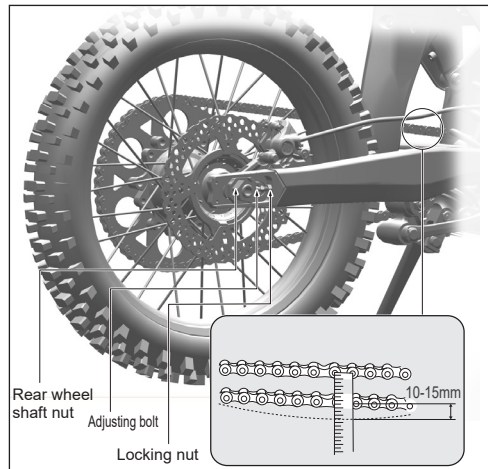
Check: The standard of a chain sag is 10-15 mm

Adjust: Loosen the rear wheel shaft nut, release the locking nut, and adjust the chain sag by tightening or loosening the adjusting bolt.

While adjusting the chain, keep the front and rear sprockets in a straight line to prevent improper adjustment from affecting the chain service life. After the adjustment, tighten the rear wheel shaft nut again and tighten the locking nut.

Warning

If the chain is too loose or too tight, it may result in chain release or chain breakage, thus bringing hidden dangers to your personal safety. Please regularly check and adjust chains at an authorized service station.



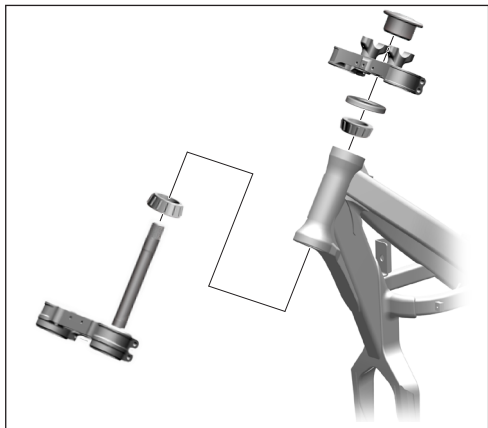
7.13 Check and maintain the steering column

Inspection

1. Place the motorcycle vertically on a flat and hard road.
2. Perform the following spot inspection:
 - a. Hold the steering handlebar and shake it to check the limit block.
 - b. Check if the handlebar and front wheel steering are in the same direction.
 - c. Hold the steering handlebar and then press down the front brake to check if there is any gap.
If the steering handlebar is jammed or loose or has a gap, it should be adjusted. If the steering column is not in the same direction as the wheel, check the handlebar and shock absorber. If the steering column limit block is damaged or the steering column is deformed, replace the steering column.

Repair

You need to have a certain level of technical skills to repair a steering column. If not, please send it to a designated maintenance shop for repairs.



Chapter 8 Troubleshooting

Faults and troubleshooting

	Item	Cause	Troubleshooting
1	The motor fails to function when the power is switched on	<ol style="list-style-type: none"> 1. The battery connection cable becomes loose 2. The speed controller connector for speed control is disconnected 3. The motor wiring is loose or disconnected 4. The brake handle fails to reset or the brake switch malfunctions 	<ol style="list-style-type: none"> 1. Check whether the connecting cable is securely connected 2. Inspect the brake handle and the brake switch
2	The speed control is malfunctioning, or the maximum speed is relatively low	<ol style="list-style-type: none"> 1. The battery voltage is excessively low 2. The speed-control grip is faulty 	<ol style="list-style-type: none"> 1. Fully charge the battery 2. Replace the speed controller at the maintenance and after-sales outlet
3	The mileage per full charge is shorter than anticipated	<ol style="list-style-type: none"> 1. The tire pressure is insufficient 2. The battery is not fully charged or the charger is faulty 3. The brake is improperly adjusted, and the driving resistance is excessively high 4. The battery is aged or damaged 5. There are many uphill slopes, headwinds, frequent acceleration and deceleration, and heavy loads during riding 	<ol style="list-style-type: none"> 1. Inflate tires to the correct pressure 2. Sufficiently charge the battery or check the charger plug contacts 3. Re-adjust the brake 4. Replace the battery 5. A reduced mileage under such conditions is normal

	Item	Cause	Troubleshooting
4	The charger does not charge	<ol style="list-style-type: none"> 1. The charger plug has become disconnected or loose 2. The battery pack connection cable plug becomes loose 	<ol style="list-style-type: none"> 1. Tighten the plug or connector 2. Open the battery compartment cover and firmly insert the plug
5	Abnormal noises from the motorcycle body while driving	The chain is not reasonably tightened	Adjust chain tension
6	The charger fails to function properly upon connection to the power supply, and there is no power indication on the coulombmeter	The battery is protected from over-discharge due to prolonged periods of time without charging or improper storage of the battery	In case of the above circumstances, please contact the supplier or maintenance shop. Never open the parts without authorization, otherwise the company's warranty will be invalidated
7	Other faults	<ol style="list-style-type: none"> 1. In the event of a malfunction not covered by the above instructions or a malfunction that cannot be clearly identified 2. Damage to motor, controller, charger, battery 	In case of the above circumstances, please contact the supplier or maintenance shop. Never open the parts without authorization, otherwise the company's warranty will be invalidated

Please read through the above exclusions from the free warranty carefully.

9.1 Maintenance

Regular cleaning and polishing can ensure that your motorcycle has long service life. It is easier to detect potential faults in a clean motorcycle.

Particular attention shall be paid to the fact that anti-icing seawater and salt applied on roads can accelerate corrosion.

Make sure to completely clean your motorcycle after riding along the coast or on roads that have been treated with the above methods.

Cleaning

Wait for the motor, brakes and other hot parts to cool before cleaning.

1. Completely rinse the motorcycle with water from a hose to remove loose dirt.
2. If necessary, remove dust and dirt on its surface with a sponge or soft towel dipped in a neutral detergent.
 - Take special care when cleaning panels and other plastic components to prevent them from scratching. Prevent water from entering electrical components.
3. Completely rinse the motorcycle with plenty of clean water and wipe it dry with a clean and soft cloth.
4. Afterwards, lubricate all moving parts.
 - Make sure no lubricant spills over on any brakes or tires. The braking performance of oil-contaminated brake discs and pads will be greatly reduced, and may cause an accident.
5. Apply a layer of wax on plastic exterior parts to avoid corrosion.
 - Avoid using products that contain strong degreasers or chemical solvents. These substances can damage the metal parts, paint layer and plastic parts of your motorcycle.

- Do not wax tires and brakes.
- If your motorcycle is equipped with parts with the matte finish, do not wax the matte finish.

Precautions for cleaning

- Follow the following guidelines when cleaning:
 - Do not use high-pressure water guns: High-pressure water guns can damage moving parts as well as electrical parts.
 - Dry brakes: Water on brakes can reduce braking performance. After cleaning, riding at a low speed and using the brakes at intervals will help dry them.
 - Do not clean the power battery or power battery box in water or with detergents. This may lead to a starting fault and malfunction.
 - Do not apply wax or polishing compounds to the matte paint finish. Clean the matte finish with the soft cloth or sponge, plenty of water and neutral detergent. Dry it with a soft and clean cloth.

9.2 Storage

If you place your motorcycle outdoors, you should consider covering it with a full-body shield.

- If your motorcycle is not in use for a long time, please follow the guidelines below to store it.
 - To prevent the power battery performance from degrading, store your motorcycle in a cool place.
Recommended temperature: 0-25 °C
 - Before storing your motorcycle for a long time, please fully charge its power. Check the power battery coulombmeter every two months.

9.3 Transportation

If you want to transport your motorcycle, you will need a motorcycle trailer, a flatbed truck or trailer equipped with the loading platform, lifting platform and motorcycle straps. Before transportation, try to keep the front wheel of your motorcycle to point along the direction of the trailer or truck. At the same time, bind the fixed parts of the motorcycle body with crossbars or sturdy and inelastic straps, such as the frame, front forks, rear flat forks, etc.

Caution

Towing the motorcycle may seriously damage its transmission devices. If you need to move the motorcycle manually, make sure to wear protective gloves. to prevent body parts from being pinched by the motorcycle during transportation, especially wheel hubs, front and rear brakes and other parts.

9.4 Environmental protection

Owning and riding the motorcycle is enjoyable, but you must do your duty to protect the environment.

- Select a suitable detergent

When cleaning your motorcycle, select a biodegradable detergent. Avoid sprays containing chlorofluorocarbons (CFCs). They can destroy the protective ozone layer of the atmosphere.

- Waste recycling

Place engine oil and other toxic wastes in approved containers, and then deliver them to a recycling center. Call the local or national public affairs or environmental services office to find local recycling centers in your area, and obtain instructions on how to dispose non-recyclable wastes. Do not pour used engine oil from gearboxes into rubbish bins or drain pipes, or on the ground. Used engine oil, brake fluid and detergents contain toxic substances that may harm cleaners, or pollute drinking water, lakes, rivers and oceans.

- When disposing of power batteries
If your motorcycle cannot be repaired any more, please consult your authorized dealer for disposal of the power batteries.

- * The promotional pictures, functions, performance and other parameters in this User Manual are only for your reference. Please refer to the actual product.
- * The final interpretation right is owned by Zhejiang Arctic Leopard Electric Technology Co., Ltd.

10.1 After-sales service package for repair, replacement, and refund

Warranty content

Dear customers: Many thanks for your purchase of this product manufactured by Zhejiang Arctic Leopard Electric Technology Co., Ltd. Please carefully read the following warranty information.

1. The warranty period for the entire motorcycle is one year, including the motor, controller battery and charger, as well as other hard-wearing parts. Free repairs are available for performance faults that are not attributable to human errors.
2. No returns or exchanges are supported except in case of quality problems. In case of a functional fault or a quality problem, if it is confirmed by the authorized service outlet designated by the company that the quality problem is not caused by human errors, an exchange can be arranged.

Warranty period and scope

1. For offline and online purchasers, the date of purchase is determined by the date of the actual signing of the receipt (starting from the day after the customer's signing date). The delivery receipt is regarded as valid proof. In the absence of a receipt, or if the receipt is missing or illegible, the date of the sales entry in the system prevails.
2. Warranty details

Warranty name	Service package content	Warranty period
Lithium battery	When the lithium battery is used in the specified environment (the rechargeable ambient temperature range of the lithium battery is 0-45°C, and the ambient temperature range during the normal operation of the lithium battery is -20-60°C) without any external shocks after it is charged, we shall provide the service package if any fault occurs, including abnormal voltage, inability to charge, or the detected capacity is less than 75% (Its capacity differs depending on the temperature. It should have 70% remaining capacity at -10°C, 85% remaining capacity at 0°C, and 100% remaining capacity at 25°C).	12 months
Motor	Broken motor components, missing phase(s) of the coil, magnet demagnetization, damaged bearing, cover cracking, burning (due to non-human reasons) and other faults.	12 months
Charger controller	Unable to charge or charging is abnormal due to irreparable quality problems.	12 months

Warranty name	Service package content	Warranty period
Main wiring harness converter assembly	The appearance is not broken or deformed by external force. If the inside has not been opened privately and the label has not been torn, a short circuit, broken circuit and other quality problems affecting the use of the motorcycle occur in the whole circuit.	12 months
Meter	Performance faults or quality problems due to the irreparable product reasons.	12 months
Frame, handlebar, steering column, rear fork, shock absorbers, front wheel hub, brake assembly, pedal bracket, side stand, sprockets, grip	If natural open welding, desoldering, fracture, distortion, tilted steering column or handlebar and shock absorber leakage and deformation occur, the faulty component can be replaced. Damage due to hitting, private alteration and other personal reasons is not covered.	12 months

Warranty name	Service package content	Warranty period
Entire motorcycle bearings (excluding motor bearings), brake handle, belts, chains, shock absorber oil seals, inner and outer tires, brake discs, brake pads, direction control assembly, wheel fenders, seat cushions, fuses, spokes, decorative parts, plastic parts and other spare parts not included in the above categories	Wear parts	Not covered by warranty

Note: All damages to spare parts due to human factors and wearing parts do not fall within the scope of the warranty; in the event of a failure of the above-mentioned spare parts during the warranty period, they can be replaced free of charge if they cannot be used normally after repair.

After-sales service

Issues not covered by this warranty

1. Scope beyond the warranty:
 - Failure to carry out regular or improper maintenance and poor conditions due to personal reasons.
 - Failure to comply with the operating methods or exceeding the maximum operating limit specified in the User Manual.
 - Use of non-original parts or parts outside the specifications.
 - Poor conditions caused by natural disasters, accidents and force majeure factors.
 - Sensory phenomena that do not affect the functions (such as vibration, etc.).
 - Poor conditions caused by repairs outside of our designated service stations.
 - Poor conditions caused by external reasons such as kerosene, sulfur, bird droppings, salt or chemicals (liquid).
 - Self modification, disassembly, addition, change of original specifications or change of mileage.
 - Poor conditions caused by the use of the motorcycle under special road conditions beyond normal road conditions permitted for the motorcycle.
2. Costs not covered by this warranty:
 - Regular maintenance cost.
 - Various costs and compensation for damage (such as motorcycle rental expenses, telephone charges, fax, freight fee, suspension pay, etc.) due to repairs during the warranty period.
 - Fine incurred by the owner for failure to use or ride the motorcycle properly.
 - Please follow the maintenance schedule in this User Manual.

Scope of this warranty

All products sold by Zhejiang Arctic Leopard Electric Technology Co., Ltd. or its designated dealer.

Warranty period

1. When a fault is found, the user should promptly send the motorcycle to a specified maintenance shop for repairs. If repair is delayed and the warranty period expires, it will be deemed as a waiver of the warranty right by the user.
2. If the warranty period expires due to delay by the warranty repairer, the warranty repairer shall be responsible for the consequences.

No replacement is available for this User Manual.

10.2 Product warranty card

Motorcycle owner's name		Contact number	
Vehicle information		Battery information	
Model		Battery manufacturer	
Frame number		Battery model	
Motor number		Battery serial number	
Spot check items			
<input type="checkbox"/> Check the attached instructions and information (including the motor number, frame number, certificate of conformity, etc.)			
<input type="checkbox"/> Instructions on battery inspection, installation and use precautions			
<input type="checkbox"/> Instructions on charger and charging status			
<input type="checkbox"/> Motorcycle start and preparation for riding			
<input type="checkbox"/> Check the tire pressure			
<input type="checkbox"/> Check the suspension system/left and right rotation of the steering handlebar/fastener			
<input type="checkbox"/> Check/adjust the front and rear brakes (including the brake fluid level)			
<input type="checkbox"/> Instructions on regular maintenance			
Confirmed by the dealer		Confirmed by the customer	
Dealer chop:		The dealer has demonstrated and explained all inspection items and safety instructions to me.	
Contact number:		Signed by the customer:	
Signed by the inspector:		Date:	
Date:			

After-sales service

Maintenance & repair records			
No.	Date	Record	Fault and repair
1			
2			
3			
4			
5			
6			

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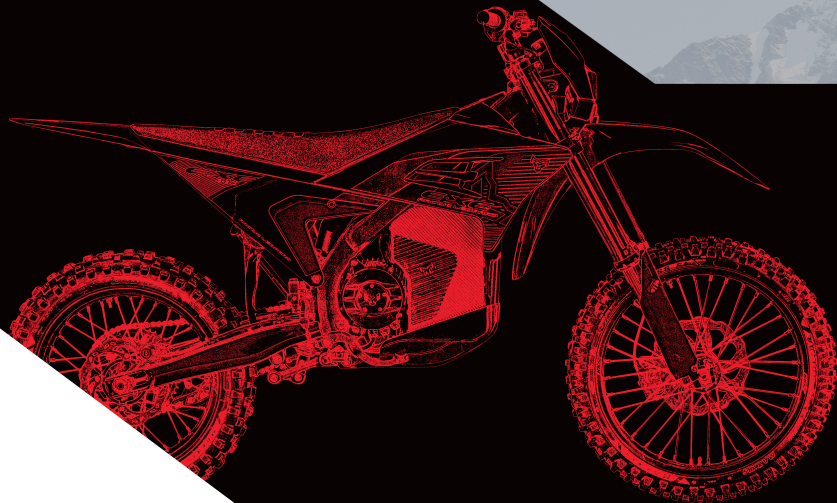
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