

VELOCIFERO

MANUAL ELECTRIC KIDS BIKE

www.velocifero.eu



USER MANUAL

Please read this manual carefully

This manual contains important safety information

*Children under the age of 12 are not allowed to ride.

*Children under the age of 18 are not allowed to ride.

● To Customers

Important Cautions

The following warning symbols appear in various places in this manual. In order to use the vehicle safely, please observe the safety instructions that appear. Please read this manual carefully, safety tips will be highlighted and appear in key positions.

 Dangerous
This symbol indicates that if no measures are taken, the operator or surrounding personnel may die.

 Warning
This symbol indicates that operator injury or component damage may occur if measures are not taken.

 Warning
This symbol indicates that precautions need to be taken to avoid damage to components.

Caution :

There is some notice help to make the operation process more clear and simple,even without warning symbol.

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Battery and charge

1. Medicine caution

Electromagnetic radiation generated during battery charging will affect the work of nearby electronic medical equipment, which may cause death or serious injury to people. Before charging the power battery, people who are using electronic medical equipment (Such as implanted cardiac pacemaker or implanted cardioverter defibrillator, etc) should ask their physician or the manufacturer of the electronic medical device whether charging may affect them.

2. Range

Due to the characteristics of the battery, the lower the speed, the higher the range.

Different driving habits and different usage environments will affect the actual mileage of the vehicle. Continuous high-speed driving, frequent braking and starting, riding with heavy loads, going up steep slopes, installing power-consuming equipment on the car, and driving against the wind will all lead to Reduction in cruising range. Pay close attention to the cruising range of the vehicle, plan the itinerary reasonably, and replenish the power battery in time.

The cruising range is closely related to the battery capacity. As the usage time of the battery and the mileage of the vehicle increase, the capacity of the battery will gradually decay, and the total mileage of the vehicle will also gradually decay. The cruising range is also closely related to the ambient temperature, and the cruising range will significantly reduce in a low-temperature environment, which is a normal phenomenon.

If the battery is used and maintained improperly, the battery capacity will decay at an accelerated rate, and the cruising range of the vehicle will also decrease rapidly accordingly.

Please unplug the charger in time after charging.

Please use the original charger.

If the cruising range rapidly decays, please contact the after-sales service center authorized by VELOCIFERO in time.

When charging, you must strictly follow the relevant requirements of this manual to prevent accidents.

3. Vehicle-dedicated voltage system damage


The dedicated voltage for electric vehicles is high voltage, which exceeds the safe voltage of 36V, so vehicle careful operation and backup support are required during rescue work.

Dangerous

If parts of the vehicle-dedicated voltage cable are damaged and the wiring and terminals are exposed, do not touch the exposed parts under any circumstances. In addition, if you are not sure whether the damaged part is a dedicated voltage part for electric motorcycles, do not touch the leaking wiring or terminals.

Unsafe contact with wiring or terminals may result in serious injury or death from severe burns or electric shock.

If it is necessary to touch the exposed part of the electric motorcycle dedicated voltage cable or voltage parts, or there is a risk of contact, insulated protective equipment (insulated gloves, protective glasses, insulated shoes) that can withstand the dedicated voltage of electric vehicles must be used

When the relevant personnel are separated from the vehicle, such as storing it after an accident, please affix the danger sign " Working. Do not touch!" on the vehicle body to avoid serious safety hazards caused by other personnel accidentally touching the vehicle .

Preparation

When repairing or handling the dedicated voltage system of the vehicle, please prepare at least the following safety protection measures:

- Insulating protective equipment, including insulating gloves, protective glasses, insulating shoes, etc.
- ABC dry powder fire extinguisher.
- Solvent-resistant protective equipment, including gas masks against organic gases, chemical-resistant rubber gloves, etc.
- Dishcloth, towel.

The following actions may cause the battery to generate heat, smoke, catch fire or explode:

Do not add water to the battery or immerse the battery in water;

Do not place batteries near fire or heaters;

It is forbidden to place the battery in a high temperature place ($\geq 60^{\circ}\text{C}$) such as a place exposed to direct sunlight for a long time;

Do not hit or throw batteries;

It is forbidden to apply external force to cause the battery to crack or deform;

The battery is smoking or hot:

If the power battery is found to be abnormally hot, completely cut off the battery power supply;

If you find that the power battery is smoking, stay away from the vehicle immediately, contact the fire department, and be prepared for fire prevention;

Keep the vehicle still and observe it continuously for 1 hour. Remove the battery after the battery temperature drops, and contact the after-sales service center authorized by VELOCIFERO to recycle the wasted battery. Wasted batteries are "hazardous waste" and must not be disposed of by yourself.

If the high temperature of the power battery continues, but no fire or smoke occurs, use running water to cool down.

The water in which the battery is immersed is contaminated with metal ions, etc., and should be treated as wasted liquid for proper disposal.

Vehicle/battery on fire:

ABC dry powder fire extinguisher or electric fire extinguisher can quickly eliminate the fire caused by electricity. If the fire is uncontrollable, please evacuate in time, contact the fire department and remove all flammable materials nearby.

If the whole vehicle is on fire, avoid using water to extinguish it; if only the battery is on fire, you can use water to extinguish the battery and cool the battery at the same time. After extinguishing the fire, contact the after-sales service center authorized by VELOCIFERO to recycle the wasted battery. Wasted batteries are "hazardous waste" and must not be disposed of by yourself.

When the insulating coating of cables and wires burns to cause a short circuit or when a large amount of water is used to extinguish a fire, the dedicated voltage for the vehicle is cut off.

Depending on the location of the fire, the vehicle's dedicated voltage may not be cut off, so be sure to cut off the vehicle's power supply after a fire.

There are no substances that may cause explosion hazards in the dedicated voltage system for the electric motor of this vehicle.

Vehicle flooding:

If the vehicle is flooded, the infiltration of water may short-circuit the vehicle, causing the vehicle's dedicated voltage system to be cut off. If the water is shallow or water seeps into parts that will not cause a short circuit, the vehicle's dedicated voltage system may not be cut off, please completely disconnect the vehicle power supply and contact a VELOCIFERO authorized after-sales service center.

Battery damage:

If the battery is damaged by a crash or other circumstances, follow these procedures:

If you suspect that the battery is leaking, refer to the "battery smoke or heat" content;

If the battery casing is cracked or damaged, please contact the after-sales service center authorized by VELOCIFERO for recycling or repair;

How to completely cut off the power:

Wear insulating protective equipment, turn off the main switch, disconnect the battery, and remove the power battery.

If the main switch is operated while the speedometer display is off, the vehicle may be started.

Even after the main switch is turned off, it takes about ten minutes for the charge stored in the capacitor to be completely released. Wait for a period of time before starting work to avoid accidents such as short circuits.

Wait a few seconds after disconnecting the battery to allow the battery to discharge before starting to work.

If the vehicle-specific voltage cable is not damaged, but the wiring or terminals are exposed. Do not touch exposed parts under any circumstances. Also, do not touch exposed wires or terminals if you are unsure whether the damaged vehicle dedicated voltage component is involved. Accidental contact with wires or terminals could result in serious injury or death from severe burns or electric shock.

4.Battery

This vehicle uses a 60V 15.6Ah 576Wh lithium-ion battery pack, The battery has the characteristics of large capacity, small self-discharge, high energy, long service life, safety and reliability. It is an ideal power battery. The capacity of the battery gradually decreases with increasing service time and range traveled. The correct use and maintenance can effectively prolong the battery life.

Battery pack storage /using environment:

- Do not store/use in an environment prone to soaking;
- Do not store/use in high temperature environment ($\geq 60^{\circ}\text{C}$);
- Do not store/use in environments with high humidity or large humidity changes;
- Do not store/use in a dusty or gritty environment;
- Do not store/use near fire;
- Do not store/use near flammable and explosive materials;
- Do not store in airtight containers;
- Do not keep/use within the reach of young children or pets:

Batteries should be stored in a dry, cool and dark environment.

If you find that the battery casing is cracked, smokes or heats up during storage or use, refer to the content of "battery smokes or heats up" to deal with the relevant problems, and contact the after-sales service center authorized by VELOCIFERO in time for recycling or maintenance;

To replace the battery, the original power battery of VELOCIFERO must be used. If a non-original power battery is used, it may cause failure to start, circuit failure, damage to electrical parts, etc. The failure caused by the non-original power battery shall be borne by the user.

Battery maintenance

Before the first use, the power battery should be charged to at least 80% before use.

When the remaining 20% of the battery indicator is indicated, please charge it as soon as possible, try not to consume the battery power to the minimum, which will affect the life of the battery. After the battery pack is fully discharged, it must be charged for at least 1 hour within 24 hours to avoid continuous self-consumption damage to the battery pack.

It is forbidden to install any electrical equipment on the vehicle. Inferior electrical equipment may cause short circuit of the equipment, fire, electric shock and other accidents. The installed electrical equipment will affect the cruising range of the vehicle and reduce the battery life.

Climbing for a long time or driving at high speed for a long time will cause the battery temperature to be too high.

It is recommended to go to the official dealer authorized by VELOCIFERO for inspection and maintenance every three months to confirm whether the relevant joints are loose, whether the battery needs maintenance, etc.

The original charger or designated charging pile must be used for charging. Non-original chargers or non-designated charging piles may lead to charging failure or circuit/battery failure.

If the vehicle is parked for a long time, check the power battery status every two weeks to avoid low power battery.

Battery recycling

Damaged or used batteries are classified as "hazardous waste", and private disposal or recycling is prohibited. Please contact the after-sales service center authorized by VELOCIFERO for recycling or contact relevant departments for recycling.

Battery check

If the battery pack has been charged more than 500 times or has been used for more than two years, contact an official VELOCIFERO authorized dealer to check the power battery thoroughly and replace it if necessary.

5.Charge

Warning

Do not charge or park in residential buildings. When charging, keep away from flammable and explosive materials, beware of flames and sparks, and do not charge for too long.

Do not charge in a closed space or in a high temperature environment, and do not charge in a rainy and humid environment.

Do not plug or unplug the plug with wet hands.

Personnel should be supervised during charging to avoid accidents.

If the temperature of the vehicle's power battery is too high or it has just been discharged quickly from intense riding, it should be left to cool down before charging. High temperature charging will shorten the life of the vehicle's power battery.

6.Charger

When the battery is fully charged, the battery management system will automatically cut off the charging current to prevent overcharging.

When the battery is fully charged or stops charging halfway, first unplug the charging plug from the charging socket, and then unplug the charger from the battery interface. When charging, please use the original charger offered by manufacture and the stable 220V * or 110V * AC power supply. It is forbidden to use generators or other equipment to charge the vehicle.

During the charging process, if the indicator light is abnormal, there is a strange smell or the casing is overheated, stop charging immediately, unplug the power supply, and go to the after-sales service center authorized by VELOCIFERO to overhaul or replace the charger.

Do not use chargers for other electrical equipment, otherwise it may cause abnormal conditions such as battery overcharge damage.

High voltage is dangerous, do not disassemble and repair or replace the components in the charger by yourself.

Using a charger with abnormal charging characteristics will cause the battery to be undercharged or overcharged.

The use and storage environment of the charger should be kept dry and ventilated, and prevent liquids, granular objects or metal objects from entering the charger, so as not to cause an internal short circuit of the charger.

Only outdoor power outlets are allowed.

Any modifications to chargers, including extension cords, power strips, splitters, grounding adapters, surge protectors, or any similar electrical devices are prohibited.

Do not use the charging cable if it is frayed, if the insulation is broken, if the wire is exposed or shows any major damage.

Do not continue to use if the charger case or charging connector is broken, broken or shows any major damage.

The charger must be properly grounded when in use. If the charger fails, correct grounding will reduce the risk of electric shock. If you are not sure that the socket you are using has a grounding function, please contact a qualified electrician for inspection and verification.

7.High voltage warning

Dangerous

Working on high voltage components requires special training, qualifications and tools.

All work not described and explained may only be performed by trained VELOCIFERO technicians.

Do not open the motor or lithium battery.

8.Breakdown Maintenance

If there is any failure in the vehicle power supply or charging system, please go to an authorized VELOCIFERO after-sales service center for repair or replacement.

9. Precautions for extreme environments

Low temperature environment

Generally, the low temperature environment has no permanent impact on the vehicle power battery, but the low temperature will temporarily affect the release of power battery energy. The colder the environment, the more the driver can feel the changes brought about by this influence on the driving experience, such as power Correspondingly, the time for the vehicle to reach the maximum speed will also be extended. Generally, the low temperature environment has no permanent impact on the vehicle power battery, but the low temperature will temporarily affect the release of power battery energy. The colder the environment, the more the driver can feel the changes brought about by this influence on the driving experience, such as power Correspondingly, the time for the vehicle to reach the maximum speed will also be extended.

It is not recommended for users to drive the vehicle in an environment below -5°C . If you must drive, please charge the vehicle in an environment above 0°C after driving. It should be noted that the battery management system prohibits the power battery from being discharged in an environment lower than -30°C . When the power battery is charged in a low temperature environment, it will give priority to returning the battery to normal temperature, and then charge the battery when the battery temperature reaches an appropriate temperature.

Storage temperature below -35°C may cause permanent deterioration of power battery performance, so it is not recommended to store vehicles at extremely low temperatures. Above this temperature, and adherence to long-term storage requirements will ensure that the power battery will not be permanently affected during winter storage, even if the storage temperature is well below freezing.

High temperature environment

The high temperature environment will not cause any significant performance changes to the vehicle operation, but if the temperature of the power battery exceeds 55°C , the battery management system will prohibit the power battery from continuing to discharge.

When the ambient temperature is greater than 40°C , the charging speed of the battery will decrease. When the ambient temperature exceeds 55°C , the battery will stop charging.

Storing the vehicle in an environment above 40°C in direct sunlight may cause permanent degradation of the performance of the power battery.

● Before using

Warning

There are different warning stickers on the visible position of the vehicle, please do not remove any warning stickers. If these decals are missing, you or others may not recognize the hazard, resulting in injury.

Dangerous

This product is only suitable for trained people who hold a corresponding driver's license to drive reasonably and carefully in road traffic.

Note the following:

Before driving, the user should check all parts of the vehicle according to the daily safety inspection chapter. If any problem is found, repair it before driving.

Users should abide by local laws and regulations.

Driving under the influence of alcohol or drugs is prohibited.

Please wear appropriate protective equipment during all rides, such as helmets, boots, gloves, and protective pants or jackets.



 **Dangerous**

Users are requested not to make any modifications to the vehicle. Irregular modifications may lead to serious consequences.

Modification of the device or electrical parts of this product will affect driving safety, battery life and vehicle performance.

Incorrect loading behavior can cause serious consequences.

Unsuitable mounting accessories can cause safety hazards.

Always use VELOCIFERO original parts and our approved accessories. The use of non-VELOCIFERO original parts, improper installation or improper loading of accessories will affect the performance of the vehicle, and even violate the regulatory requirements. Please be aware that you are responsible for your own safety and the safety of others.

 **Warning**

The parts and accessories equipped with this electric motorcycle have been specially designed and verified, so we strongly recommend that you use VELOCIFERO original parts and install our approved accessories.

 **Warning**

The change of the weight of the vehicle has a great impact on the power performance of the vehicle, so you must accept our regulations on the weight of the loaded goods, the number of passengers and the installation accessories.

Caution

Due to continuous improvements in the design and quality of product components, there may be minor differences between the printed manual and the latest current vehicle. The descriptions and procedures in the currently printed instructions are for informational purposes only.

Some of the features described in the manual may not apply to models currently on the market. All descriptions and directions given in this manual are based on the operator's vision when sitting on the vehicle.

Some configurations in this manual may not be applicable to the vehicle you purchased. Please view the content of the manual selectively according to the configuration of the vehicle.

1. General information

Before driving, pay attention to the following basic items:

1. Any occupant must be very familiar with the particularity of electric motorcycle driving. If the occupant's seat is not suitable, the center of gravity of the human body deviates too much from the center plane of the electric motorcycle during driving, or the sudden movement during driving may affect the handling of the electric motorcycle. Control; the occupant should try to keep sitting on the occupant's seat as smoothly as possible during driving, and should not affect the driver's manipulation; no animals can be vehicleried on the electric motorcycle.
2. Pay attention to the following when vehiclerying luggage: In order to reduce the impact on the center of gravity of the electric motorcycle, all luggage vehicleried on the electric motorcycle must be as low as possible. The weight of the luggage must be evenly distributed on both sides of the e-scooter. Avoid luggage sticking too far behind the electric scooter. Luggage must be safely fixed on the vehicle, and the luggage must not be moved before driving. When the electric motorcycle feels unstable during driving, the firmness of the luggage should be rechecked and readjusted if necessary. Do not vehiclery heavy or bulky luggage. Overloading will definitely affect handling and power performance.

3. Pay attention to the following when adding accessories: Do not install accessories that reduce vehicle performance or vehicle luggage that reduces vehicle performance, and make sure that everything you do will not affect any lighting system, ground clearance, braking performance, roll angle, Handling performance, tire compression travel, fork working travel or other related electric motorcycle drivability. Adding weight to the handlebar or front fork will affect the steering performance and cause unsafe driving factors. The fairing, windshield, backrest and other large parts will affect the stability and handling performance of the electric motorcycle. Not only will they add weight, but their area will also reduce the dynamic performance when the electric motorcycle is moving. Due to the lack of design verification, it may cause unsafe factors after installation. It cannot be converted into a side three-wheeled electric motorcycle, and cannot be used to tow trailers or other vehicles. We will not be responsible for any damage or injury caused by the user's own modification of the vehicle.

2. Protective device

Drivers and passengers must always wear appropriate protective equipment, including:

1. Certified helmet
2. Goggles
3. Gloves
4. Long-sleeved shirt or jacket
5. Trousers
6. Boots that go over the ankle

Depending on the weather, you may need some additional riding gear. Examples include anti-fog goggles and thermal underwear or a face mask for cold weather. Do not wear any loose clothing that may become entangled in vehicles or hang on branches or shrubs.

Helmets and eye protection

A certified helmet can reduce damage to the head and brain. In the event of an accident, using a helmet can greatly reduce the risk of brain injury. Be aware that even the best quality helmet is no guarantee against injury.

The helmet you choose should meet the standards for your country and be the right size. A helmet with face protection is a better choice as it will also protect against impacts from the front, including insects, flying stones, dust, loose parts, etc.

Half-shield helmets do not provide equal protection for the face and jaw. If you wear a half-shield helmet, you should use a detachable face shield and goggles.

Ordinary glasses or sunglasses do not provide adequate eye protection for the driver, they can fly out or shatter causing secondary injury, and they do not stop wind and airborne objects from entering the glasses.

Use tinted face shields or sun goggles only during the day or in bright light, never at night or in low light, they can affect your ability to discern colors, if your color discrimination is affected in any way, Do not use them.

Gloves

Full-finger gloves can effectively prevent hands from being hurt by wind, sun, heat, severe cold and splashes. A well-fitting glove will help you stay in control and reduce hand fatigue. Conversely, if the glove is too bulky, it is difficult to operate the vehicle.

In the event of an accident or rollover, a pair of firm reinforced motorcycle gloves can better protect your hands. In colder regions, snowmobile gloves should be used to protect the hands, which have sufficient protection against the cold and can effectively operate the vehicle.

Jackets, trousers and motorcycle suits

Wear a jacket/long-sleeved shirt and long pants or full motorcycle clothing. High-quality protective gear is more comfortable and has the ability to prevent adverse environmental elements from distracting you. In the event of an accident, high-quality protective gear made of strong materials can reduce or even prevent injuries.

When driving in cold regions, take vehicle to protect yourself from hypothermia, a condition in which the body temperature is too low, causing distraction, reduced reflexes, and an inability to make smooth and precise muscle movements. In cold conditions, proper protective equipment such as wind jackets and layers of clothing insulation are necessary. Even when driving in moderate temperatures, you can feel quite cold from the wind. Protective gear designed for cold weather driving can feel overheated when stopped. Wear layers of clothing to shed as needed. Wearing protective gear with a windproof outer layer on top will prevent cold air from reaching the skin.

Boots

Always wear closed-toed boots that go over the ankle, firm ankle boots with non-slip soles will provide more protection and allow you to place your feet properly on the pedals. Avoid long shoelaces that can get caught in the rear brake pedal. Sneakers with nylon or leather uppers and removable insoles are best worn in winter driving conditions. Avoid rubber boots. The rubber boots will get stuck behind or between the pedals, which is not conducive to the normal operation of the brake and accelerator pedals.

Other protective equipment

Rain-proof equipment

If you must drive in rainy weather, a raincoat or waterproof motorcycle suit is recommended. When driving long distances, it is recommended to bring rainproof gear. Drivers are more comfortable and alert when they stay dry.

Hearing protection

Exposure to wind for long periods of time while driving can permanently damage hearing. Proper wearing of hearing protection, such as earplugs, can prevent hearing damage. Check local laws before using any hearing protection equipment.

VIN number

Please record the VIN number at the location indicated in the following diagram.

Frame No.:
Motor No.:



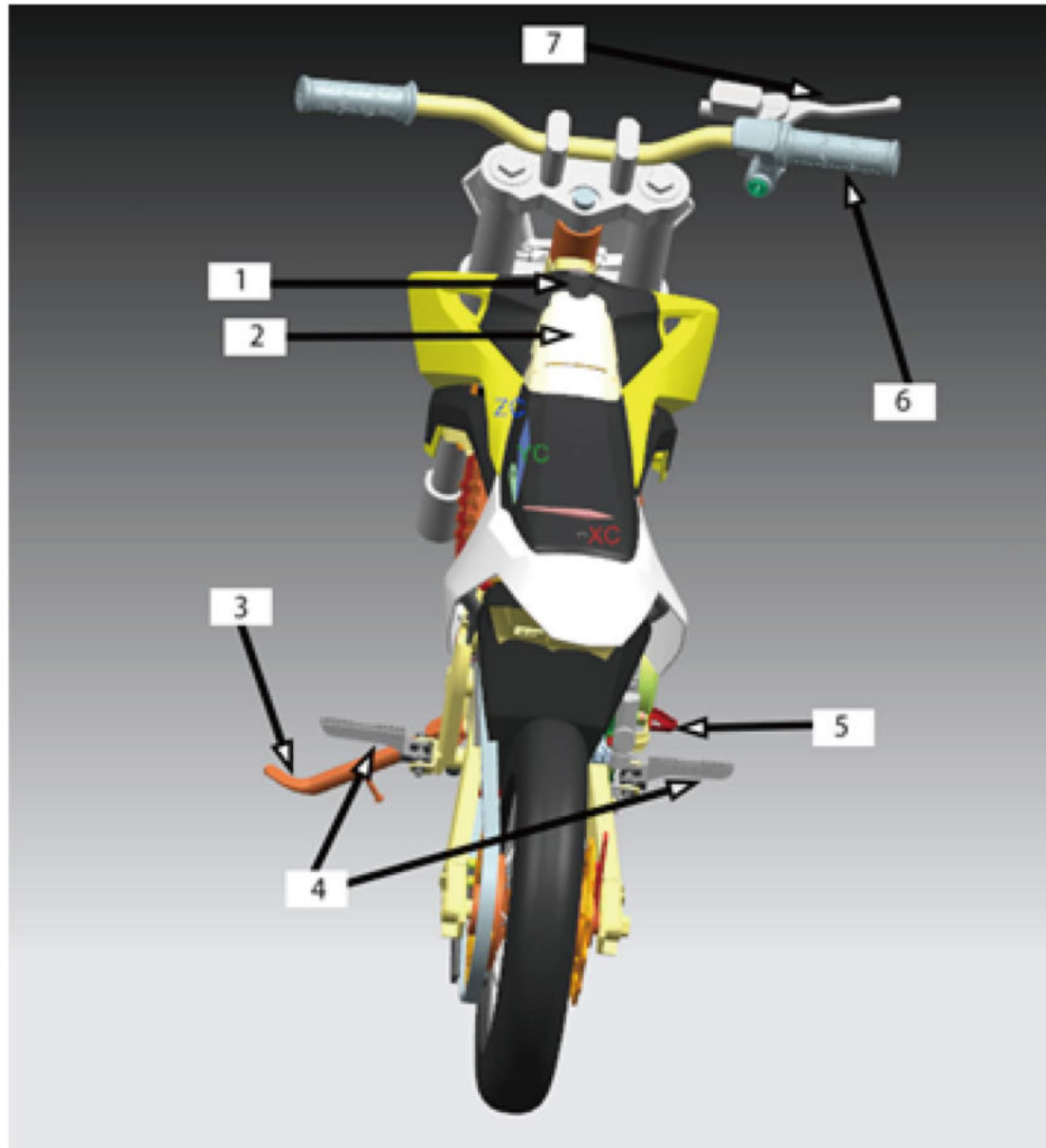
Ref. No.	1	2
Content	Frame No.	Motor No.

Parameter

KIDS BIKE		
Maximum speed	≥ 45 km/h	
Dimension		
length	1350mm	
Width	630mm	
Height	850mm	
Wheelbase	930mm	
Seat height	600mm	
Ground clearance	200mm	
vehicle running weight	51 kg	
Motor		
Motor type	Mid Permanent-magnet Synchronous Motor	
Rated voltage	60V	
Rated power / peek power	1kW/ 2kW	
Rated torque / peek torque	30 N·m / 80 N·m	
Max efficiency	≥ 90%	
Cooling mode of motor	natural coolin	
Charger		
Input voltage	100 Vac -240Vac	
Frequency	50 Hz ~ 60 Hz	
Charging current	rated current 3A	
Battery		
Battery type	Ternary lithium battery	
Total capacity	15.6 Ah	
Nominal voltage	60V	
Motor drive		
Chassis		
Tire Size	Front tire	2.75-10
	Rear tire	2.75-10
Wheel Size	Front tire	1.6-10
	Rear tire	1.6-10

Vehicle view

- 1: Speedometer
- 2: Charging port
- 3: Side stand
- 4: FT foot
- 5: Rear brake pedal
- 6: Electric throttle
- 7: Front brake lever

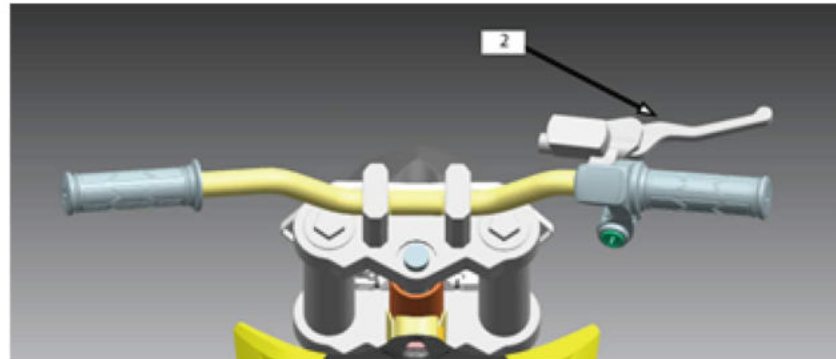
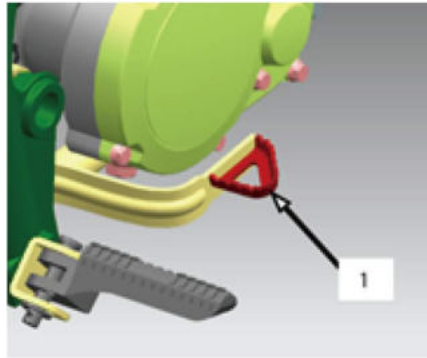


Operational part

1. Front and rear hydraulic brake lever

The rear hydraulic brake lever 1 is located on the left of vehicle body, use the rear hydraulic brake lever to perform the rear brake caliper braking action.

The front hydraulic brake lever 2 is located on the right side of the directional handle. Use the front hydraulic brake lever to perform the front brake caliper brake action.

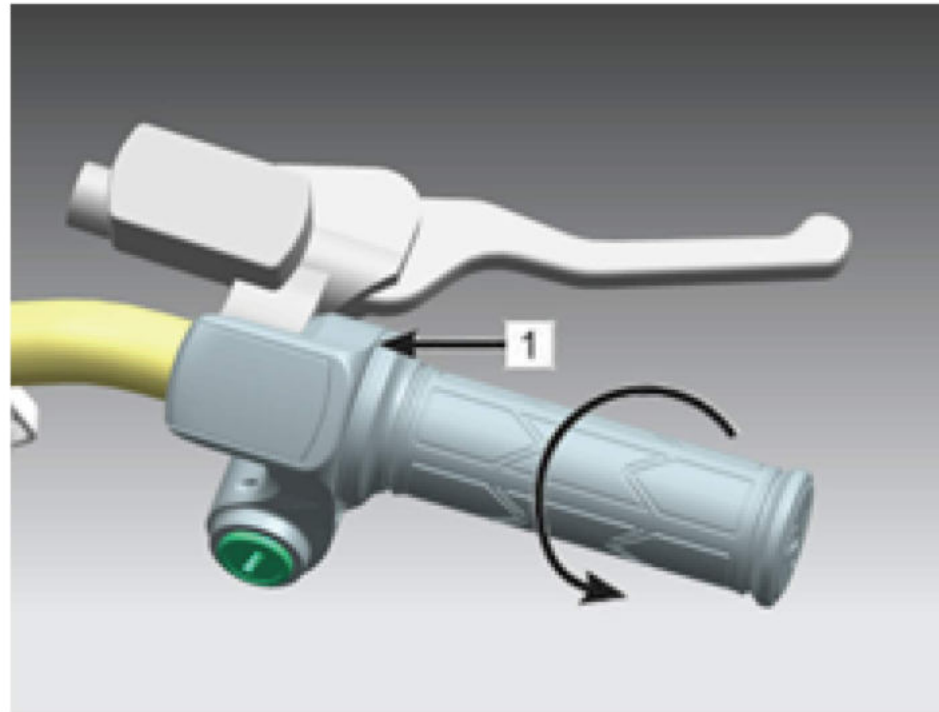


●Electronic grip assembly

The vehicle uses the electronic grip assembly 1; when the driver turns the right electronic grip, the ECU integrates information such as the handle unscrewing angle, motor speed, gear position, motor temperature, and vehicle mode to provide the best driving strategy.

When the electronic grip fails, the motor will stop driving.

When the vehicle is started, if the electronic grip is not in the initial position, the vehicle cannot be switched from "P gear" to Ready gear.

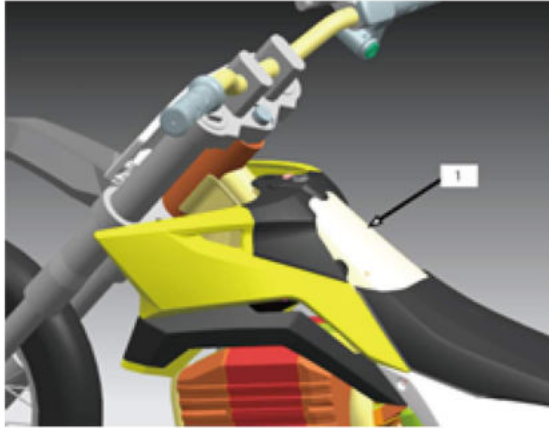


●Charger

Open the charging cover 1;

Remove the charger and place it on the level;

Connect the charging gun to the charging port and connect the charging plug to the stable 220V or 110V socket for charging.



Warning

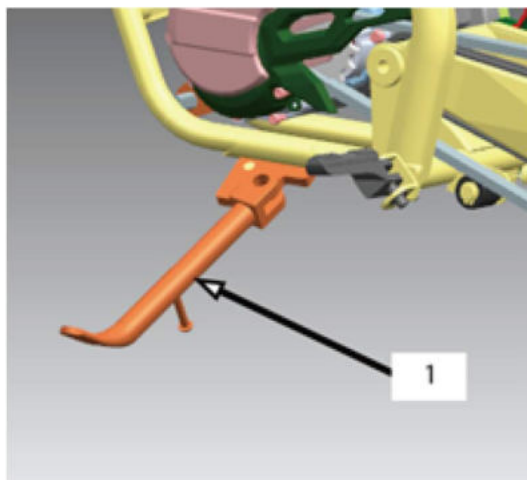
Before charging, read the sections "Battery" and "Charge" vehicle fully and be vigilant all the time.

The green light flashing	Ready mode
The red light always on	Charging
The red light flashing	Charging error
The green light always on	Charge completed

●Side stand

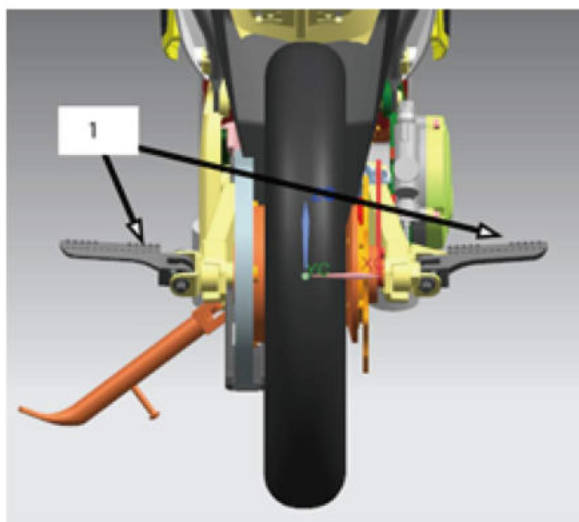
Side stand 1 is located on the left side of the vehicle for parking;
Please raise the side stand up before the vehicle runs.

Note: When the side stand is accidentally raised during driving, fold the side stand directly to bring the vehicle back to the Ready state.



●Pedal device

The pedal device is a pedal or pedal device that is fixed on the electric motorcycle and can be stepped on by the driver and passengers.



Tyre

This vehicle only uses tubeless tires, wheel and valve; Recommended tyres, wheels and valve nozzles must be used: tubeless tyres cannot be mounted on tubeless wheels; Improper tire installation may cause air leakage: Do not install inner tubes on tubeless tires.

Tyre specification

Tire specification	Front tyre	2.75-10
	Rear tyre	2.75-10
Tire pressure	Front tyre	200 kPa
	Rear tyre	200 kPa
Minimum use depth of tyre surface	Front tyre	0.8 mm ~ 1 mm
	Rear tyre	0.8 mm ~ 1 mm

Improper tire pressure or exceeding tire load limits can affect handling and vehicle performance and cause loss of control.

Use a tire gauge to regularly check fetal air pressure and make appropriate adjustments.

Too low tire pressure can lead to abnormal tire wear or overheating.

The correct tire pressure ensures optimal comfort and the longest tire life.

Please Note:

Check the tire pressure when the tire is cold.

Tire pressure is affected by changes in ambient temperature and altitude, and when the ambient temperature and altitude change relatively large during the process of driving, tire pressure must be adjusted and checked accordingly.

Most countries have their own minimum tread depth, and their regulations must be followed. Check wheel balance when installing new wheel couplings and tires.

Warning

In order to ensure the safety and stability of operation, only our recommended tires and air pressure are used. The speed of the tire should not exceed 30km/h within 24 hours after the tire is punctured and repaired, and the speed should not exceed 45km/h at any time thereafter.

The front and rear wheels use the same manufacturer of tires with the same tread pattern.

The surface of the new tire is smooth and can cause loss of control and injury, and the whole tread of the new tire is rubbed with the ground at different angles in a moderate driving way, and the tire surface can form a normal friction surface after a 160km run-in period. During the run-in period, avoid sudden, extreme sudden braking, extreme acceleration and sharp turns.

● Brake system

In order to ensure the performance of the vehicle and personal safety, check the braking system of the vehicle regularly to keep all parts of the braking system in good condition. If there is any malfunction with the brake system, please do not continue riding and contact your dealer to have it repaired for you.

1.Brake handle/brake pedal inspection

Use the side stands to prop up the vehicle, lightly pinch the left and right brake handles to check the free stroke of the brake handles;

Free stroke: 10 mm \pm 2 mm

Check the front brake handle for cracks, abnormal noise, etc., and replace it with a new one if found.

Warning

If the brake handle feels soft during operation, there may be air in the brake line or insufficient brake fluid. When the vehicle is in such a dangerous situation, it is forbidden to drive the vehicle, and you should immediately contact the after-sales service center authorized by VELOCIFERO to check the brakes.

2.Brake oil level check

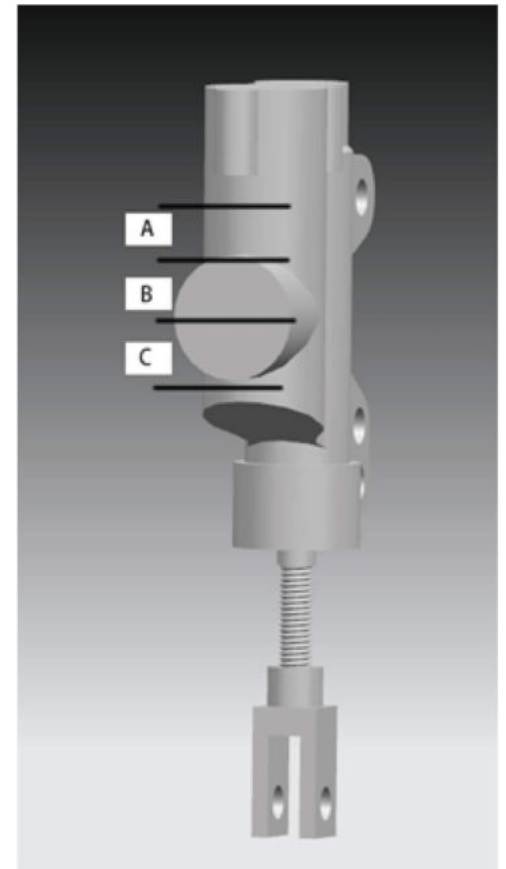
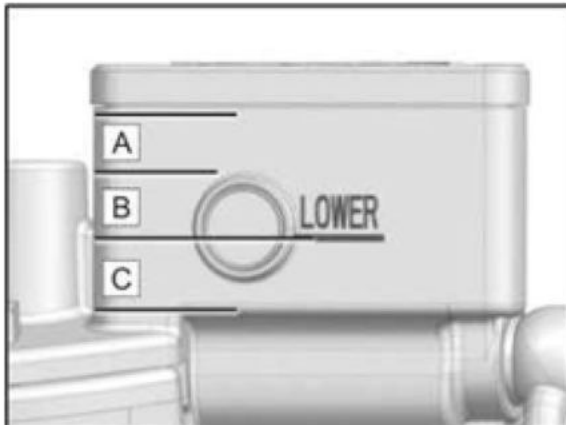
Prop up the vehicle with side stand;

Check the fluid level of the front and rear brake oil cups;

If the brake fluid level is in area A: Drain excess brake fluid to area B;

If the brake fluid level is in area B: the fluid level is appropriate;

If the brake fluid level is in area C or not visible: top up area B with the same brake fluid.



⚠ Warning

If the brake fluid level is frequently located in area C, the brake system may not be sealed or has been damaged. Contact the after-sales service center authorized by VELOCIFERO immediately.

3.Brake fluid supplement

⚠ Warning

Brake fluid can irritate the skin.

Make sure that brake fluid is stored out of the reach of children.

Do not allow brake fluid to come into contact with skin, eyes or clothing, please wear protective clothing and goggles for operation.

If brake fluid is swallowed, seek medical attention immediately.

When in contact with the skin, rinse the contact area with plenty of water immediately.

If brake fluid comes into contact with eyes, immediately flush eyes thoroughly with water and seek medical attention.

If brake fluid is spilled on clothing, change the clothing.

⚠ Warning

Brake fluid that has been used for a long time will reduce the braking effect. Please replace the brake fluid according to the maintenance cycle table. Use only the type of DOT4 brake fluid marked on the oil cup. The mixing of different brands of brake fluid may cause damage to the brake system. It is recommended to always use the original brake fluid of VELOCIFERO. If you are unsure of the original brand of brake fluid, contact your dealer for a complete replacement.

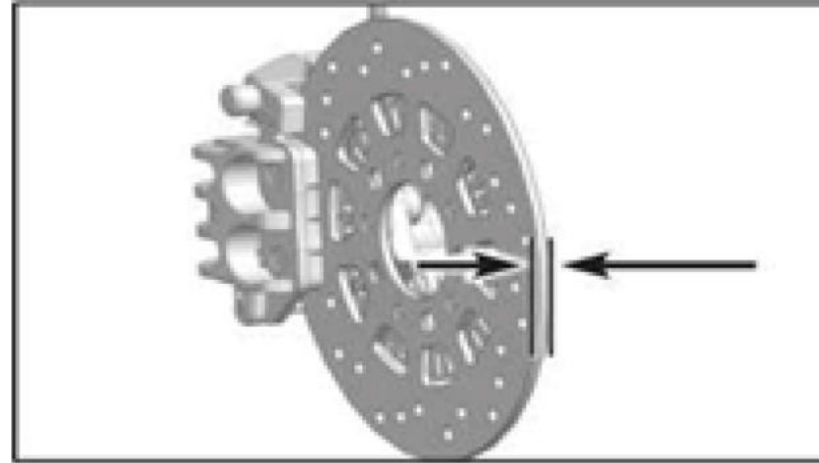
After the brake fluid drops, it will cause negative pressure in the oil cup, which may cause the oil cup pad to sag. It is necessary to remove the oil cup cover and release the pressure. After adjusting the oil cup pad, reinstall the oil cup pad and the oil cup cover.

4.Brake disc inspection

Regularly check the brake discs, check whether the brake discs are damaged, deformed, cracked or worn. Damaged brake discs may cause brake failure. Worn brake discs will reduce the braking distance. If the brake disc is found to be damaged or exceed the wear limit, contact your dealer immediately for a new brake disc.

The thickness of the front and rear brake discs is detected at several positions on the brake disc.

Brake disc wear limit: 2 mm



5.Brake caliper inspection

Before driving, check whether the brake calipers are abnormal, and regularly check the minimum thickness of the brake friction pads. If the friction pads are too thin, the brake pad brackets will rub against the brake discs, which will seriously reduce the braking effect and damage the friction pads.

Check the minimum thickness of the brake pads on all brake calipers.

Minimum friction plate thickness: 1mm

If the thickness of the brake lining is less than the minimum thickness, or the friction lining is damaged, immediately contact the dealer to replace the brake lining, and the brake lining should be replaced in pairs.

●Shock absorption

1.Rear shock absorption adjust

The rear shock absorption has been adjusted to the best state when the vehicle leaves the factory, which is suitable for most situations, please do not adjust it by yourself.

●How to drive this vehicle

1. Daily Safety Check

Check the following items before driving every day. Developing this habit can ensure the safety of your driving and the reliability of your vehicle. If any abnormalities are found, please refer to the relevant chapters or contact your dealer for repairs. If abnormalities are found and you continue to drive, it will cause serious damage to the vehicle or accidents.

Subject	Content
Front tire	Check the front tire for excessive wear, cuts, inserted foreign objects or other damage.
Front brake	Check the thickness of the front brake pads. Check the brake disc thickness and dirt.
Motor wiring	Check whether the motor wiring is loose and damaged.
Rear tire	Check the rear tire for excessive wear, cuts, inserted foreign objects or other damage. Check that if the rear tire pressure is normal.
Rear brake	Check the thickness of the rear brake pads. Check the brake disc thickness and dirt.
Luggage	Check whether the luggage is fixed securely, and whether the height and width of the luggage meet the requirements of local regulations.
Brake oil cup	Check the front brake oil cup level.
Speedometer	Check the speedometer fault display. Check whether the power battery reserve is enough.
Lights	Check whether all lamps can be turned on normally, and whether the light height of front light comply with local regulatory requirements
Executive	Check whether the steering handle, front and rear brakes, accelerator, and switches are normal and flexible.
Side/center stand	Check whether the side stand return spring is loose or broken.
kill switch	Check whether the kill switch can be used normally.

Dangerous

Check the condition of the vehicle every time before driving the vehicle.
Vehicles must be driven with a valid driver's license. Know local laws and don't drive in areas where you are not allowed

2. Start the vehicle

- ① Lift up the side stand and sit on the vehicle.
- ② Hold the brake, turn the starter switch to ON position

3. Vehicle start

Shortly press the P switch and gear switch, switch to the required driving gear and turn the electronic handle carefully.

4. Shift gear, drive

The gear position of the electric motorcycle is only used to distinguish different operating modes and match different maximum speeds and torques;
Before switching to the cart and reverse assist, the vehicle needs to be completely stopped (the vehicle is not ready and the side stands are retracted).

Warning

Avoid sudden load changes and strong braking maneuvers, which may cause loss of vehicle control.
Adjust your speed according to the road conditions and surrounding conditions.
All adjustments to the vehicle should be made while the vehicle is parked.
Make sure passengers are seated in the passenger seat as required, with their feet on the rear footrests, wearing safety protection such as a helmet, and hugging the driver or holding onto the armrest.
Please observe the minimum age regulations for passengers in your country or region.
Please obey the traffic rules and drive preventively and carefully to identify hazards as early as possible.
When the tires are cold, grip is reduced and it is necessary to drive carefully at moderate speeds for the first few kilometers until the tires have reached their operating temperature.

Do not exceed the maximum permitted total load, which includes: ready vehicle, driver, passengers and luggage carried.

 **Warning**

The sliding of luggage will affect the driving performance. Check whether the luggage is firmly fixed on the vehicle. The width of the luggage should not exceed 0.15m in the direction of the vehicle. Damage to your vehicle from a crash can be more serious than it appears, check your vehicle thoroughly to be sure

5. Brake

When braking, the electronic grip should be released and the front and rear brakes applied simultaneously.

The braking process should be completed before starting to turn, and the vehicle speed should be reduced to an appropriate speed.

During long-distance downhill driving, use the rear wheel braking force reasonably and try to keep driving at a constant speed. Avoid using the brakes for a long time to prevent the brake pads from overheating and causing a decrease in braking force.

 **Warning**

Moisture and dirt can affect the brake system. When the brake disc is wet, the brakes should be braked carefully and repeatedly to dry the brake pads and brake disc and remove dust.

When the brake handle and brake pedal feel soft, you cannot continue to drive, and you must remove the fault before using it.

Using the brake for a long time will cause the brake friction plate to overheat and wear excessively, which will affect its service life and safety.

When carrying passengers or luggage, the braking distance may increase, please adjust the braking time according to the vehicle load.

With the help of ABS, the full braking force can be used when performing full braking and on sandy, watery or slippery roads with low adhesion, and there will be no dangerous situation of wheel locking.

6. Turn off the vehicle

Apply the brakes to stop the vehicle;

Press the P switch shortly or use the side stand to carry the vehicle to enter the P position;

Turn the handlebar 40° to the left to automatically lock the handlebar lock.

Warning

The vehicle must be parked on firm level ground;

The vehicle must be supervised while the motor is running.

Prevent others from operating the vehicle without authorization.

Lock the directional lock when leaving the vehicle.

Some parts of the vehicle are very hot after running, please do not touch the cooling system and braking system.

Do not place the vehicle near flammable and explosive materials. High temperature vehicle parts may ignite or detonate the materials.

Improper handling while parking may cause the vehicle to slide or tip over, resulting in serious injury.

● Safe driving

1. Safe driving skills

The following are common driving precautions, which must be read carefully before driving to ensure safe and correct driving.

For safety, we strongly recommend wearing goggles and helmets. You must know the traffic laws for driving electric motorcycles safely, and you must also wear gloves, suitable shoes, socks and other protective gear.

To prevent collisions with vehicles, you must wear protective clothing while driving. Failure to wear protective clothing will not guarantee your personal safety. Look to your left, right and behind for vehicles before changing lanes to ensure it is safe to pass. Don't just rely on the rear view mirror, you must judge the distance and speed of other vehicles, otherwise you are prone to accidents.

When climbing steep slopes, use Sport mode to increase motor output torque to avoid overloading the motor.

When using the brakes, the front and rear brakes are applied simultaneously. If only one is used, sudden braking can cause the vehicle to skid (skid) and lose control. When going down a long slope, release the electronic grip to control the speed of the vehicle, and use the front and rear auxiliary brakes.

When driving in wet terrain, try to use the electronic grip to control the speed of the vehicle, and use the braking force of the front and rear wheels as much as possible. The electronic grip must also be properly controlled to avoid the vehicle from skidding due to excessive acceleration or deceleration of the rear wheels.

Driving at a stable speed and avoiding unnecessary acceleration not only ensures important personal safety, but also reduces power battery consumption and prolongs the service life of the vehicle and power battery.

When driving on wet or loose roads, the maneuverability of the electric motorcycle will be reduced. Under these conditions, your entire driving action must be coordinated and flexible, such as sudden acceleration, braking or turning can cause loss of control.

Practice driving carefully in open areas, slowing down and clamping the vehicle with your knees for added stability. Avoid unnecessary braids entanglement of driver and vehicle.

2.Special precautions for high-speed driving

Braking: Braking is very important when driving at high speed, and the braking force should not be too large. Check and make appropriate adjustments for proper braking performance.

Steering: Loose controls may cause loss of vehicle control. Check such as: the steering handle should be flexible but not shaken.

Tires: Tires should be firm when driving at high speed, and keeping them in good condition is the key to safe driving. Fully check the air pressure, smooth rotation.

Power battery: ensure sufficient power when driving at high speed.

Electrical Units: Make sure all headlights, tail/brake lights, turn signals, horn, etc. are working properly.

Fasteners: Make sure all nuts and bolts are tight and all safety-related parts are intact.

 **Dangerous**

Please do not speed on the expressway, please strictly abide by the relevant local laws and regulations, unless you have the permission of the traffic control department, and you have the relevant skills and protection conditions, you can drive on the expressway.

 **Caution**

The continuous high-speed cruising range of electric vehicles is relatively low, please plan the mileage reasonably.

● **Maintenance period**

This chapter lists the maintenance chart. In order to keep the vehicle running in good condition, you must comply with the maintenance chart and make regular maintenance and adjustments. The first maintenance is also extremely important and cannot be neglected.

Through the extensive introduction of maintenance items in this chapter, you should know the basic maintenance procedures and the correct use of tools. If you lack practical experience or doubt your ability, all adjustments, maintenance and repairs must be done by professional technicians. If you have any other questions, please contact your dealer.

Precautions

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

1.First maintenance

Subject		Hours	Months	km	Note
Electrical components					
■	Functions of the electrical components	-	■	1000	Check
	Battery	-	■	1000	
	Fuse or overload protector	-	-	1000	
Brake					
	Disk brake	-	-	1000	Check
	Brake pads	-		1000	
	Brake oil level	-	.	1000	
■	Brake tube and cable	-	.	1000	Check the brake cable for damage and whether it is sealed

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

Subject		Hours	Months	km	Note
Tire					
	Tire state			1000	Check
	Tire pressure			1000	
Suspension					
■	Front and rear shock absorption	-	-	1000	Check for oil leakage.(Maintain the front fork and rear shock absorption as required and intended)
Turning system					
■	Steering bearings	-	-	1000	Check

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

Other					
.	Fault memory			1000	Read by using the diagnostic tool
■	■ All moving parts			1000	Lubricate, and check for its flexibility
■	Screw bolt and nut		-	1000	Check whether it is firm

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

Subject	Maintenance interval (Maintenance is performed on items that have reached the maintenance interval firstly)			
	hours	Months	km	Note
Electrical components				
Functions of the electrical components	-	12M	10000	Check
Battery	-	6M	5000	
Fuse or overload protector	-	6M	5000	
Wire/cable	-	12M	10000	Check if there is cable damage or bending during laying.
Tire				
Tire state		12M	10000	Check
		24M	20000	
Tire pressure		12M	10000	
		24M	20000	
Wheel bearing			10000	
			30000	

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

Subject	Maintenance interval (Maintenance is performed on items that have reached the maintenance interval firstly)			
	hours	Months	km	Note
Brake				
Disk brake	-	12M	10000	Check
		24M	20000	
Brake pads		12M	10000	
		24M	20000	
▲ Brake oil level		12M	10000	
		24M	20000	
Brake line		12M	10000	
			20000	
■ Brake tube and cable		24M	20000	Check the brake cable for damage and whether it is sealed
		12M	10000	
■ Brake oil		24M	-	Change

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

Subject		Maintenance interval (Maintenance is performed on items that have reached the maintenance interval firstly)			
		hours	Months	km	Note
Suspension					
■	suspension system	-	-	5000	Check
		■	-	10000	
		-	-	15000	
.	Frontandrearshock absorption	-	12M	10000	Check for oil leakage.(Maintain the front fork and rear shock absorption as required and intended)
		-	24M	20000	
Frame					
	Frame	-	.	30000	Check
Turning					
■	Steering bearing	-	12M	10000	Check
		-	24M	20000	

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

Subject		Maintenance interval (Maintenance is performed on items that have reached the maintenance interval firstly)			
		hours	Months	km	Note
Others					
■	Fault diagnosis interface		12M	10000	Use the diagnostic tool to read
			24M	20000	
■	All moving parts		12M	10000	Lubricate, and check for its flexibility
			48M	30000	
■	Screw bolt and nut		12M	10000	Check whether it is firm
			48M	30000	
■	All hoses and sleeves		12M	10000	Check for cracks, tightness and correct arrangement
			48M	30000	

▲=Reduce vehicle maintenance intervals by 50% when the vehicle is badly used

■=Ask authorized dealers to repair the parts or systems involved

●Common troubles and trouble shooting

Trouble	Trouble shooting
Lithium battery overvoltage	After starting up and running, observe whether the fault is eliminated; please contact after sales customer service
Lithium battery is low voltage	It is not recommended that users solve by themselves, please contact after sales service
No SIM card fault is detected	It is not recommended that users solve by themselves, please contact after sales service
The low voltage of the hydrogen battery is faulty	After starting up and running, observe whether the fault is eliminated; Please contact customer service
The open circuit of the hydrogen battery is faulty	Do not recommend self-service solution, please contact after-sales service
ECU failure	It is not recommended that users solve the problem by themselves, please contact the customer service
ECU overtemperature alert	After stopping and cooling, observe whether the fault is eliminated; Please contact customer service
Motor fault	Do not recommend self-service solution, please contact after - sales service
Motor overtemperature warning	After stopping and cooling, observe whether the fault is eliminated; Please contact after-sales customer service
Battery pack failure	Do not recommend self-service solution, please contact after-sales service
Battery temperature fault	Do not recommend self-service solution, please contact after-sales service
Charge fault	Do not recommend self-service solution, please contact after-sales service

Listed above are the common faults of electric motorcycles. If your electric motorcycle fails please contact the "VELOCIFERO dealer" in time, and check and repair it in time.

 **Dangerous**

Do not handle electric motorcycle failures by yourself, otherwise it will easily cause safety hazards or safety accidents. If the user handles the failure of the electric motorcycle by himself, the user shall be responsible for the safety accident caused.

● **Vehicle cleaning and storage**

1. General preventive measures

Keeping your vehicle clean and running at peak performance will prolong the life of your vehicle. Protect your vehicle with high-quality, breathable motorcycle coveralls.

- Make sure the motor and motor controller are cool before cleaning.
- Avoid using detergents on seals, brake pads and tires.
- Manually wash the vehicle.
- Avoid cleaning your vehicle with chemicals, solvents, detergents and household cleaners such as ammonia.
- Gasoline, brake fluid and coolant will damage the surface of painted parts, if it sticks to the surface of painted parts, it should be washed with water immediately.
- Avoid wiping the vehicle with metal brushes, wire cleaning balls, or other objects that are too harsh.
- Be especially careful when cleaning windshields, headlights and all plastic parts that are easily scratched.
- Avoid using a high pressure water jet, or water may enter seals and electrical components and damage your vehicle.
- Avoid spraying water on waterproof areas, such as power batteries, electrical components, and charging ports.

2.Cleaning your vehicle

- Rinse mud off vehicle with cold water.
- Moderately mix a bucket of detergent (specialized for cleaning electric motorcycles or cars) with a bucket of clean water. Use a soft cloth or sponge to clean your vehicle. If necessary, mix a bucket of light degreaser to clean oil or grease dirt.
- After cleaning, rinse off any residue on the bike with clean water (cleaning agent residue may damage your electric motorcycle components).
- Dry your electric motorcycle with a soft cloth and check your electric motorcycle for scratches.
- Drive your vehicle carefully at low speeds and apply the brakes several times. This will help dry the brakes and restore them to normal operating performance.

Caution :

Just wash your vehicle with cold water immediately after driving on roads with high levels of salt spray or near the ocean. Do not wash with warm water, which can speed up the chemical reaction of table salt. After wiping dry, metal non-coated surfaces are protected with anti-rust and corrosion oil. When driving on a rainy day or after washing the car, there may be water mist on the inner surface of the lampshade of the headlight. Start the vehicle and turn on the headlight to remove the water vapor.

3.Decorative surface

After washing the motorcycle, use electric motorcycle or automobile special wax to polish the surface of metal and plastic parts. It must be waxed every three months or when necessary to avoid satin or dullness on the coating surface. Make sure the wax you use is a non-abrasive product and use it follow its directions.

4.Plastic parts

Use a soft cloth to gently dry the plastic surface after cleaning. When wiping dry, use the prescribed cleaning or polishing procedure for lampshades and other uncoated plastic parts.

 **Warning**

Plastic parts can deteriorate and crack if they come into contact with chemically reactive substances or household cleaning products such as gasoline, brake fluid, window washer fluid, thread fastening glue or other chemicals. If plastic parts come into contact with any reactive chemicals, wash them off immediately with water and inspect for damage. Avoid using abrasive pads or brushes to clean the surface of the plastic part as they will damage the surface gloss of the plastic part.

5.Chrome alloy and aluminum

Both chrome and unpainted aluminum are oxidized by air and the surface becomes dull and must be cleaned with a detergent and then polish. Both painted and non-painted aluminum wheels must be cleaned with a special detergent.

6.Leather, vinyl and rubber products

If your electric motorcycle has leather products, you must use a special cleaning agent for leather products. Washing leather items with detergent and water will damage them and shorten their lifespan.

Vinyl surfaces must be treated separately when washing the vehicle.

Tires and other rubber parts must use special rubber protective agents to prolong their service life.

 **Dangerous**

Special care should be taken when handling tires, and it must be sure that the rubber protector applied to the tire will not affect the function of the tire. Improper handling may affect the adhesion of the tire to the ground and cause the driver to lose control.

7.Storage

If you plan not to ride or store the vehicle for a long time (more than 30 days), it is recommended to replenish the vehicle power to more than 60%, and disconnect the charger.

During storage, the self-discharging speed of the vehicle will be very slow, but it is still necessary to check the power level once a month, if the power level is lower than 30%, please recharge it to more than 60%.

To prolong the life of your vehicle's battery pack, store your vehicle in a cool location. Storage in high temperature areas will shorten the life of the battery pack.

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