HUAIHAI

HI-GO USER'S MANUAL



HUAIHAI GLOBAL E-COMMERCE CO., LTD.

FOREWORD

Thank you very much for choosing the Electric Passenger Tricycle developed and produced by Huaihai Global. In order to help you better use and maintain the product, we present to you this instruction manual. Please read this manual carefully before using the product. The words "**DANGER**", "**WARNING**", "**CAUTION**" and "**ADVICE**" are used in the manual to remind:

"**DANGER**" Potentially high risk of injury. Failure to follow instructions will result in personal injury or death.

"**WARNING**" Potential moderate injury hazard. Improper operation may result in personal injury and property safety.

"**CAUTION**" Potential minor injury hazard. Improper handling may result in damage to the electric tricycle.

"**ADVICE**" Follow the method by which the performance, safety and longevity of the vehicle can be guaranteed and improved.

The devices on the manual are complete configurations. There may be differences from the actual product. The specific configuration is subject to the actual vehicle configuration upon purchase. This manual introduces the basic operation, adjustment and maintenance of the Hi-Go. Proper use, care and maintenance will help reduce the occurrence of failures and prolong the life of the vehicle. In addition, the company has special maintenance spots around the world, which can provide you with technical advice and services. In view of the continuous improvement and perfection of the product, the contents of this manual may have some discrepancies with the improved product. Except for supplements and revisions, it will not reprint with further notice. Please pay attention to this series of models and you can consult our company directly.

The interpretation right and copyright of this manual belong to Huaihai Global. No part of this manual can be reproduced or stored in other texts without authorization, including the use of parts of this manual to be transcribed in other documents.

Thank you for choosing Hi-Go, and your comments and suggestions are welcome. Thanks for your cooperation!

DANGER	CAUTION
1. Follow the local traffic laws and drive safely. 2. Do not drive if you do not meet the requirements of local laws. 3. Do not borrow to people without licenses. 4. Do not drive after drinking or drugs. 5. Do not drive to participate in various competitions. In case of accidents, all the consequences shall be borne by the parties concerned. 6. People with mental illness, history of mental illness, heart disease, deaf and disabled persons are prohibited from driving this car.	1. Please check the accessories and materials according to the packing list upon unpacking. 2. Do not overload over the specified value. 3. Do not refit any parts to assure the safety, reliability and comfort of the car.

WARNING	ADVICE
1. Wear safety helmets, dust goggles, gloves and other protective equipment while driving. 2. Do not hang items on the steering handle to assure driving safety. 3. Do not wear loose clothing, slippers or other things that is easy to hook the handle and accessories which cause safety hazards. 4. Do not expose the vehicle to the sun, high temperature and high humidity. Please park in a cool, dry and ventilated place.	1. This manual is a must-have item for the vehicle. In case of usage by other people , please attach it with the vehicle. 2. During the run-in period or the warranty, please visit the service center of the dealer or our company for regular maintenance.

CONTENT

PART I. Introduction..... 6

PART II. Notice.....9

PART III. Operation Manual.....19

PART IV. Vehicle Maintenance.....24

Part I: User Instruction



Specifications of Electric Tricycle Hi-Go

Model			Hi-Go	
Overall Size	Length	Mm	2650	
	Width	Mm	1300	
	Height	mm	1720	
Wheel Base		mm	2000	
Wheel Track		mm	1150	
Min. Ground Clearance		mm	160	
Min. Turning Radius		m	< 4	
Weight	Curb Weight	kg	430±5%	With Battery
	Max. Loading Capacity	kg	900	
Motor Type		PMSM		
Motor Parameter	Rated Power	3KW		
	Peak Power	10KW		
	Max. Torque	85 N·m		
Battery Type		LFP Lithium Battery		CAN Communication & BMS Management
Battery Specification		76.8V105AH		

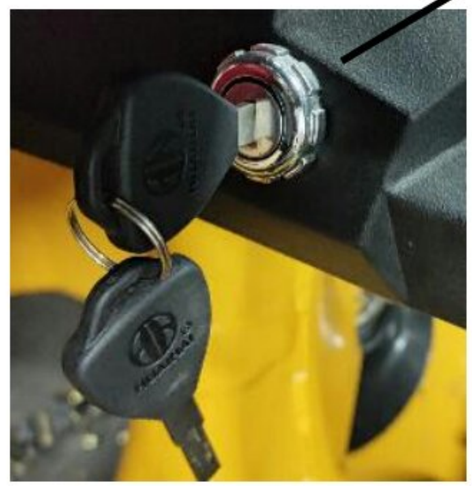
Controller Type		72V 130A	Vector Control Technology
Charging System	Max. Current	18A	Forced Air Cooling IP66 Protection
	AC Input Voltage	120~260V	
	Charging Time	7-8 h	
Transmission		Continuously variable	
Transmission Shaft		CV joint semi shaft	
Suspension system		Independent Suspension	
Steering System		Handlebar Steering	
Tire		4.00-8	
Brake System	Type	CBS	
	Service Braking	Hydraulic Drum Brake	
	Parking Braking	Mechanic Drum Brake	
Electrical System	Speedometer	Multi-Media LCD Meters	CAN Communication Technology
	Lighting System	Front Light	LED
		Rear Light	LED
		Cabin Light	LED
	Wiper		
		USB Charging port	

Part II: User Instructions

Power Lock

The power lock mainly controls the "ON" and "OFF" of the lithium battery pack, the controller and the lighting system. The operation is as follows:

State	Function Description
Status 1	In status 1 the circuit is disconnected and the vehicle can't be started, the key is removable.
Status 2	Turn the key clockwise state 2, the lighting system is connected, but the vehicle is unable to start and the key is irremovable.
Status 3	Turn the key clockwise to status 3, the controller connects the power and the vehicle can be started, the key is irremovable.





WARNING

The Vehicle must be parked in safe places and the steering lock must be locked to prevent the vehicle from theft.

Speedometer Indication

The main functions of the speedometer are as follows:

NO.	FUNCTION	NO.	FUNCTION	NO.	FUNCTION
1	Mileage	7	Steering	13	Controller Malfunction
2	Battery Voltage	8	Brake mode	14	Full Beam Headlight
3	Battery Malfunction	9	Gear		
4	Ready	10	Clearance Lamp		
5	Speed	11	Motor Malfunction		
6	Battery Level	12	Accelerator Malfunction		



Cabin Switches

The main functions of the driving control switch are as follows:







1



2



3

4





5

6

Name	Function Description
1.Four-position Switch	The combined switches are the wiper switch, the hazard warning light switch, the rear seat lock switch, and the USB charging port from left to right.
2.Gear Shifter	When changing the driving direction, turn the switch knob, the vehicle will be in forward gear if the indicated position is D. Please push N for neutral gear and R for reverse gear.
3.Combination Switch, LH	From top to bottom are the low-high beam switch, direction indicator switch, and horn switch.
4.Combination Switch, RH	From top to bottom are the speed switch, light switch, and horn switch.
5.Dashboard Storage Box	Use the key to open the storage compartment lid lock to store items inside.
6.Power Lock	The power lock has three gears: 1,off; 2,for low-voltage circuits, such as multimedia and instruments; 3,the driving status, in this status, turn the gear to D or R. , the tricycle can go forward or backward.

Control Part

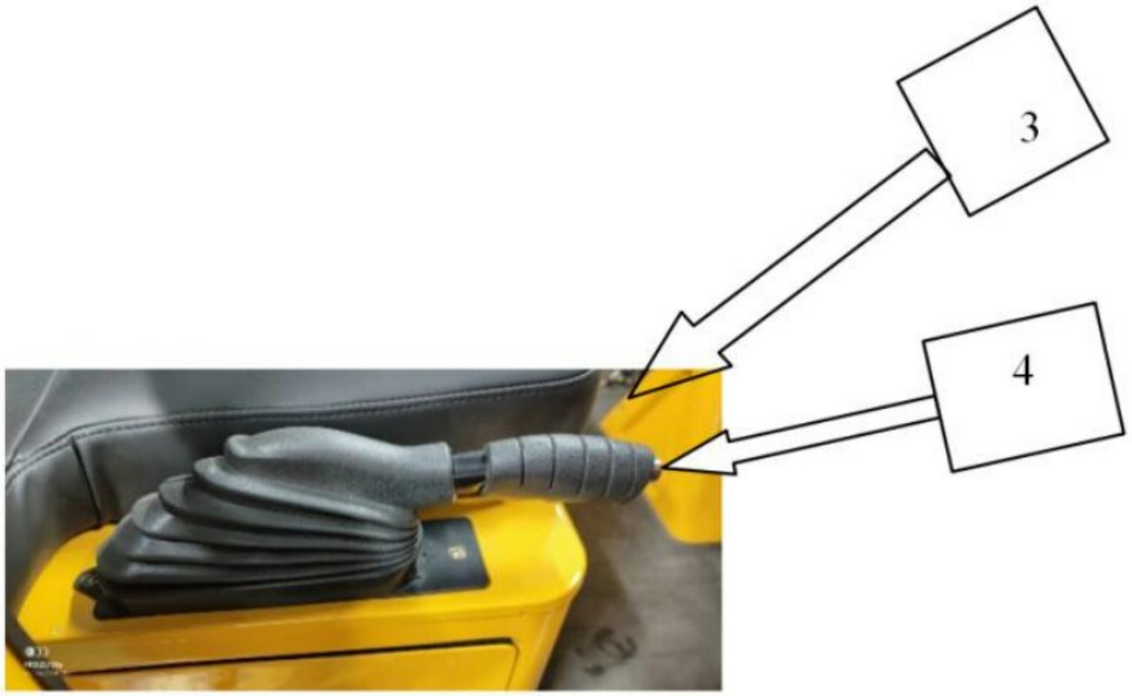




Name	Instructions for Use
1.Accelerator Components	Rotate the steering components to control the speed of the vehicle.
2.Brake Pedal	For tricycle braking.

The brake system of this model adopts front and rear self-adjusting hydraulic drum linkage braking, and this braking performance is safe and reliable. The braking system is related to personal and property safety and must be maintained normally to achieve the purpose of safe driving.

Control Part



Name	Instructions for Use
3.Parking Brake Handle	For parking brake or emergency braking.
4. Park handle unlock button	Press and release the parking brake handle to release the parking brake moving state.

NOTICE

When parking brake, the parking brake handle must be pulled up tightly to prevent the vehicle from sliding

WARNING

The parking brake must be released during vehicle startup and driving, otherwise key components such as brakes, motors, and controllers may be damaged.

Charging interface



Charging Cradle



Charging Gun



DANGER

1. The input power supply must be connected to a ground wire!

2. Before charging, you must check whether the connection between the charging gun and the charging cradle is tight, otherwise the charging gun and the charging cradle will be burned!

3. Please keep the ventilation channels clear when charging to prevent the charger and battery from overheating. Keep away from all kinds of liquids to prevent the charger from being damped and short-circuited, and any open flames and sparks are strictly prohibited!

4. After charging, please unplug the charging gun in time to prevent accidents! Cover the charging stand and the protective cover of the charging gun.

Correct use of lithium battery packs

1. The temperature range of the battery during normal use and storage is as follows (please do not use it beyond the following range)：

Charging temperature range： 0~45°C
Discharge temperature range: -20~60°C
Storage battery temperature range 10-30°C



2. If the battery needs to be stored for a long time, the battery power should be kept at 40%--70% and stored in a ventilated and dry environment;

3. When using or storing the battery, please keep it away from objects with static electricity;

4. Please do not subject the battery to collision or vibration during use;

5. After the battery is discharged and the protection power failure occurs, please charge it in time;

6. To prevent deterioration of battery performance caused by high temperature, the battery should be kept away from heat sources.

Load Limit

Please strictly follow the required load, otherwise the safety and stability of the electric tricycle will be affected. During the break-in period, the load should not exceed 80% of the rated load. The load distribution should be reasonable to ensure the balance of the vehicle. Handlebars, front shock absorbers and fenders are not allowed to carry goods，Otherwise, it may cause unstable driving or poor steering.Try to avoid driving on uneven roads, because the unevenness of the road may easily lead to control failure or damage to the structure of the body.

CAUTION

1. Please strictly follow the above instructions to load, if overloading may lead to traffic accidents, or even cause personal injury or death.

2. When the vehicle is running, the distribution of passengers should be balanced as far as possible to avoid the load being concentrated on one side and causing the vehicle to run unstable.

Check items before driving

Before driving, the following requirements should be checked to ensure the user's safe and smooth driving

No	Item	Contents	Remark
1	Battery	Check if the battery is sufficient	Regularly perform three-level maintenance on the vehicle according to the miles driven and working condition.： Level 1 maintenance： 1000Km～2000Km， focus on lubricant and fastener maintenance. Level 2 maintenance： 3000Km～6000Km， focus on inspection,adjustment, lubricant and fastener. Level 3 maintenance: 6000Km～10000Km, focus on overall inspection, adjustment, lubricant, fastener, battery maintenance, replacement of worn parts, eliminating risks. Regular three-level maintenance, it is recommended to go to the dealer for installation, debugging and maintenance.
2	Driving system	Check the LCD meter for any error messages	
3	Electrical parts	Check whether the power supply and circulation of the electrical part of the whole vehicle are normal	
4	Brake handle	Check whether the free travel is within the specified value, and whether the disengagement and engagement are normal	
5	Brake pedal	Check that the brake pedal travel is within the specified value	
6	Steering mechanism	Check the flexibility and stability of the steering mechanism	
7	Tires/wheels	Check tire pressure and wearing condition	
8	Lighting/Signal Indicators	Check that lights/signals/indicators are working properly	
9	Brake	Check the wearing condition of the brake shoes and whether the braking performance is good	
10	Oil brake fluid	Check whether the brake fluid level is lower than the lowest mark on the oil cup.	
11	Whole car fasteners	Check whether the whole vehicle fasteners are loose or fall off.	

PART III :Operation guide

Start up





Insert the key into the ignition lock, turn one gear clockwise to start the lighting and low-voltage circuit of the whole vehicle, turn two gears clockwise to turn on the power supply of the drive system, and enter the working state after the electronic control and motor self-check.

The user can select the running direction of the vehicle through the gear knobs (D, N, R) on the instrument panel.

D gear: The vehicle is in a forward state, and the D gear indication on the instrument is illuminated;

N gear： The vehicle is in neutral and the N indicator on the instrument cluster is

CAUTION

1. After the vehicle starts self-checking normally, “Ready” will be displayed on the LCD meter, indicating that the vehicle can be started normally. If the system detects a fault and cannot start, "Ready" will not be displayed and an error indicator will be displayed on the meter.
2. Open the directional lock before starting the vehicle.

Driving operation



DANGER

1. Before driving, please wear protective equipment (such as helmets, protective gloves, protective glasses, etc).
2. Turn on the turn indicators and control the speed reasonably when driving in a turn to avoid rollover and endanger the safety of life and property.

After the vehicle starts normally, release the brake, turn the gear knob to D or R, slowly rotate the right handle, and the vehicle can start. Since the power is abundant, please rotate the handle slowly to reach the speed needed.

Users can choose the driving mode according to their needs: H mode/L model.

H mode: high-speed mode, maximum speed > 50km/h;

L mode: low speed mode, maximum speed > 35km/h, longer cruising range than H mode.

When the power of the battery is lower than 20% of the total capacity, the speed of the vehicle will be relatively reduced. It is recommended to use the L gear to extend the cruising range. When the power is lower than 10%, the driving speed will be further reduced. Please charge the vehicle in time.

Driving Operation

After purchasing a new vehicle, users should pay attention to the break-in period of the new vehicle (500km for the first drive, based on the odometer reading). The range of the new vehicle may not reach the nominal mileage in the break-in period, and the mileage will be extended as the new vehicle is driven after a certain period of break-in. The break-in period directly affects the service life of the vehicle, so the user should control the speed at about 35Km/h during this period to let the transmission gears break in. After the break-in period, an initial maintenance should be carried out to extend the service life and ensure the best performance of the vehicle. If any malfunction occurs during the break-in period, please contact your local dealer service center.

Charging

Before first charging of the battery, please use up before charging to full power upon first use.
Charging steps:
1.Before charging, please take out the charging gun from the tool box, open the charging cover, connect it to the charging base and make the charging stand protection cover stuck to the charging gun.
2.While charging, please connect the charging gun plug with the AC power supply, the charging gun indication should be kept red light. If the charging gun does not light up, it means the AC power is not connected.
3.After the charging gun is connected to the charging base and AC power supply normally, the charging system self-tests and the charging status indicator flashes red/green alternately, after which the red indication lights up for a long time and charging starts.
4.After charging, the charging indicator should be a kept green light.Charging time is 7-8 hours normally, depending on the ambient temperature, it may vary slightly.
5.After finishing charging, please disconnect the charging gun from the AC power supply, then disconnect it from the charging base, and cover the charging base and the protective cover of the charging gun.

DANGER

This charger is a specialized charging equipment, it is prohibited to modify or connect the charger with other company products!

Guidance for secure driving

1.Cautions for driving

① During driving, keep ready for urgent braking. When driving after wading or washing, use a low speed and intermittently press the brake pedal lightly to dry the front and rear brakes. After driving on swampy mud, sand dunes and roads with poor road conditions, the brake drum, brake shoe and brake disc should be cleaned in time to avoid excessive wearing and affect the braking effect.

② When parking and charging, please turn off the power lock and remove the key and pull up the parking brake to a reliable position.

③ Overloading is strictly prohibited, and the driver seat is only for driver.

④ The higher the speed of the vehicle, the longer the braking distance. Therefore, the braking should be manipulated according to the vehicle speed and the required braking distance.

2.Cautions for driving up and down slopes

① When driving up a steep slope, it is recommended to switch the driving mode to L. The vehicle has an anti-slip function, allowing the vehicle to climb the slope by simply releasing the foot brake pedal and then turning the accelerator handle when starting on the slope .

② When driving down a steep slope, it is forbidden to turn off the power lock. It can avoid damaging the electrical system and reasonably control the speed to prevent the vehicle from speeding and losing control.

③ When driving down steep or long slopes, brake according to the actual situation. Please do not depress the brake pedal for a long time or brake too frequently, otherwise it will cause the brake overheating and reduce the braking performance.

④ Avoid overloading for a long time or climbing slopes to prevent the motor from burning out.

3. Cautions for driving on wet and slippery roads(rain and fog)

When driving on rainy days or on wet roads, the adhesion coefficient between the tires and the ground is poor, and it is easy to produce floating phenomena leading to loss of control of the vehicle, so it is not advisable to drive at high speed. In this case, the following points should be noted to ensure driving safety:

① Maintain a reasonable speed and avoid sudden acceleration or braking.

② When driving on muddy roads, keep the speed as low as possible and avoid sharp starts, accelerations, steering and braking.

4. Cautions for driving on snow and ice

When driving on icy and snowy roads, install tire chains on the tires, or use anti-skid tires.

① Drive at a low speed as much as possible, sharp braking, sharp acceleration and sharp turns are prohibited. When decelerating, return the acceleration handle to decelerate the vehicle, which will help to improve the braking effect.. Do not press the brake pedal hard at one time, use spot brake.

② When steering, reduce your speed and turn the steering handle slowly.Avoid slipping and idling or overturning of the vehicle at high speed

Part IV. Maintenance

Periodic maintenance schedule

Note：I：Inspect, fasten, clean, adjust, lubricate or replace

time / Project	Mileage (km)			
	1000km	400	8000km	12000km
Operation system	I	I	I	I
Braking system	I	I	I	I
Brake indicating switch	I	I	I	I
fastener	I	I	I	I
Trailing arm oil	Add oil	Every 2000km inspect oil level & add oil		
Front steering system	Every 2000km do lubricating			
Braking system	Every 2000km do maintenance			

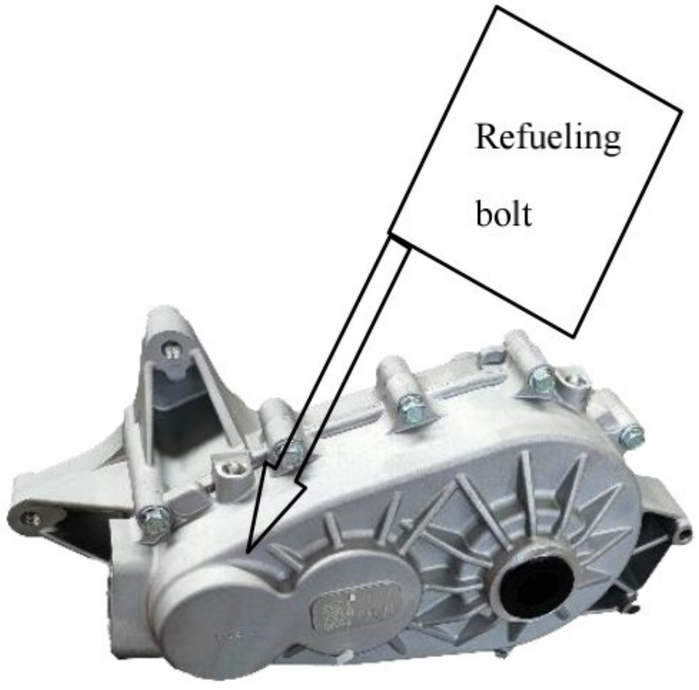
WARNING

To ensure vehicle performance and driving safety, please strictly follow the regular maintenance interval schedule.

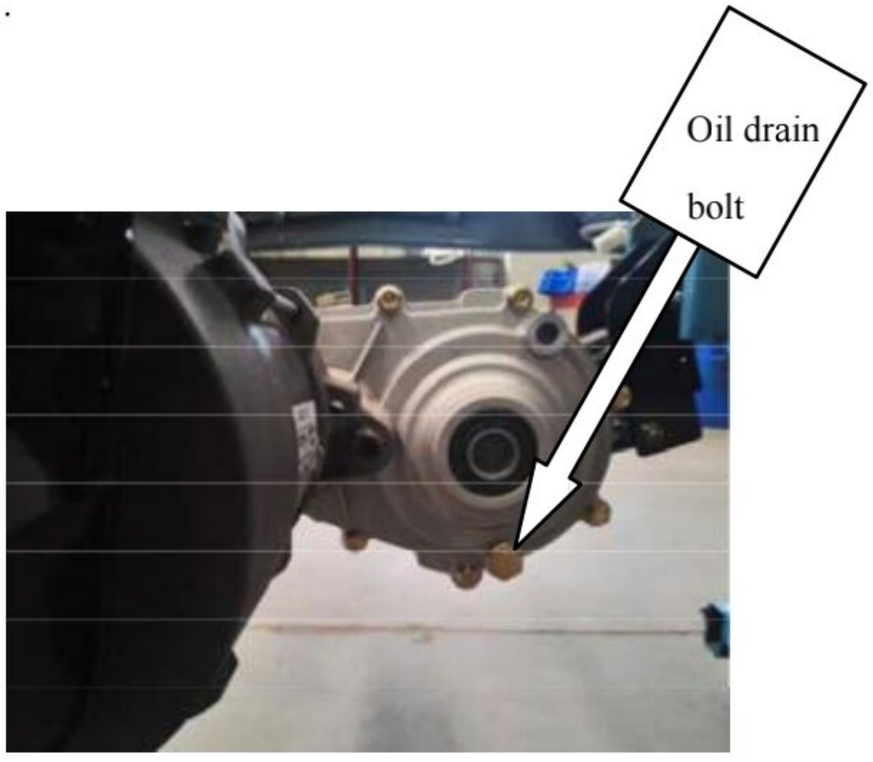
Transmission lubrication

The lubricating oil should be replaced in time every 3000 km for the vehicle.

Replacement method: Unscrew the oil drain bolt on the bottom end of the transmission, and then tighten the oil drain bolt after the gear oil is drained.Then unscrew the oiling bolt on the top and inject about 600ml of lubricating oil (recommended model for lubricating oil: GL4 75W90). NOTE: After filling the transmission fluid, tighten the oil filler bolt.



Refueling bolt



Oil drain bolt

Brake inspection and adjustment

1.When the free travel of the brake components is greater or less than the standard value, the brake body will automatically adjust in different sections.

2.When the free travel of the brake components cannot be automatically adjusted to the standard value, the front brake shoes should be replaced.

3.When the brake shoe is worn to a thickness of about 2mm, it should be replaced.



DANGER

When the current braking system needs to be adjusted and maintained, please go to a professional repair shop or dealer for adjustment and maintenance.

Suspension system inspection and adjustment

1.When the whole vehicle has passed the 500km
running-in period,the whole vehicle should be lifted and rotated side by side to check whether there is a stuck or loose situation.

2.The rear axles should be lubricated with 15ml of lithium-based grease every 3000 kilometers.

Wheel Inspection

Correct tire pressure can maintain the best driving stability, have maximum adhesion, and increase driving comfort and tire service life (recommended tire pressure refer to the tire label).

Tire wear limit

Tire wear limit	Front Tire	2.0mm
	Rear Tire	2.0mm

Wheel deflection limit

Wheel deflection limit	Axial direction	2.0mm
	Radial direction	2.0mm

DANGER

1.When there is a sticking phenomenon that cannot be improved by adding grease, you should go to a professional repair shop or dealer for inspection in time.

2.When the looseness cannot be improved by adjusting the fasteners, you should go to a professional repair shop or dealer for inspection in time.

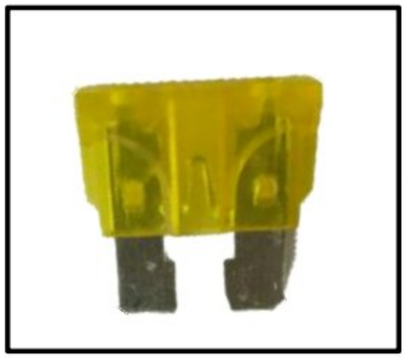
DANGER

1. If the tire pressure is too high, it will reduce the riding comfort and speed up the wear of various parts. If the tire pressure is too low, the rolling resistance of the tire will be increased, the power consumption will be increased, and in severe cases, the tire will be partially contaminated and the tire will burst.

2. When the inner tube valve core leaks, the valve core should be repaired or replaced. Repair or replace the inner tub.

Replacement of vehicle fuse

The vehicle fuse is placed in the vehicle electrical control box. When the current exceeds the specified value, the fuse will be automatically blown to protect the electrical circuit and electrical components. In the toolbox is the sub-insurance position.



Fuse System





DANGER

1. When the fuse is blown, the fuse of the same specification should be replaced, and it is strictly forbidden to replace it with a fuse of different specifications.
2. When the fuse is often blown, you should go to a professional maintenance point or dealer to find out the cause, remove the fault, and then replace the fuse of the same model and specification.

HUAIHAI