This electric motorcycle can only be driven on roads, and it can only carry one driver.

Please read the instructions carefully before use. Correctly master the basic operating functions and usage directions of its model. Please understand that all the data, technical specifications, performance parameters and other contents published in this instruction manual are compiled according to the latest information of this model. We have the right to modify this instruction manual at any time without prior notice and without assuming any responsibility. Without the written permission of our company, no anyone is allowed to reprint any part of this instruction manual. We sincerely hope that you can give valuable comments on the design, manufacturing and quality of this product. If you have good suggestions and opinions, please inform us so that we can make improvements in time.

Maintenance content is not narrative in this instruction manual please see the Parts Catalog and Maintenance Manual, which will help you to learn more about part' s names, the installation structure, failure phenomenon and maintenance methods, etc, for the model. For details, please contact CSC Motorcycles to provide you with the best quality and most efficient service.

Please dispose of used batteries properly to avoid polluting the environment. The waste battery should be recycled according to government designated standards. The contents and pictures of this instruction manual are for reference only, please refer to material objects.

For best fit and performance purchase the original parts and accessories from CSC Motorcycles.

In order to ensure the safety of users and others, please follow the safety information and riding steps provided in the operation manual. Safety information will alert users to potential dangers and avoid harming themselves and others,

This instruction manual contains important safety information, please be sure to read it carefully.

Symbolic meaning of safety information in instruction manual

Indicates a potential high risk of injury. Failure to follow the instructions may result in personal injury or death

Indicates the potential for moderate injury, improper operation may lead to personal injury and property safety

Indicates the potential risk of minor injury. Improper operation may result in damage to the motorcycle

Can provide the most efficient service information, so that the warranty service is more efficient, more clear to understand

CSC Motorcycles
Address: 1331 W Foothill Blvd, Azusa, CA 91702
Customer Service Hotline: 1-800-884-4173
For more information, please visit our website: www.cscmotorcycles.com

Please read the instructions carefully before using the product

⚠ DANGER

1.STRICTLY OBEY THE TRAFFIC LAWS AND REGULATIONS AND DRIVE SAFELY
2. IT IS FORBIDDEN TO DRIVE ELECTRIC VEHICLES WITHOUT MOTOR VEHICLE DRIVING LICENSE AND VEHICLE LICENSE.
3.IT IS NOT ALLOWED TO LEND ELECTRIC VEHICLES TO PEOPLE WITHOUT DRIVING LICENSES.
4.DO NOT DRIVE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.
5.IT IS PROHIBITED TO PARTICIPATE IN ALL KINDS OF RACE ACTIVITIES.
6.ANY PATIENT WHO IS UNFIT TO DRIVE AN ELECTRIC MOTORCYCLE IS PROHIBITED FROM DRIVING AN ELECTRIC BIKE

⚠ WARNING

1. YOU MUST WEAR HELMET, DUST PROOF GLASSES, GLOVES AND OTHER PROTECTIVE EQUIPMENT WHEN DRIVING.
2. DO NOT HANG ITEMS ON THE STEERING HANDLE WHEN DRIVING.
3. USE ORIGINAL CHARGER TO CHARGE, OTHERWISE THE BATTERY WILL BE DAMAGED.
4. DO NOT WEAR LOOSE CLOTHES, SLIPPERS, ETC., OTHERWISE EASY TO HOOK THE HANDLE AND ACCESSORIES, RESULTING IN SAFETY RISKS.
5. PLEASE CLOSE THE AIR SWITCH AND ELECTRIC DOOR LOCK BEFORE UNPLUGGING THE POWER PLUG.

⚠ ATTENTION

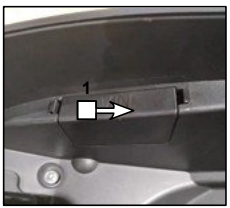
1. PLEASE CHECK THE ACCESSORIES AND OTHER MATERIALS ACCORDING TO THE PACKING LIST AFTER UNPACKING.
2. THIS MODEL CAN ONLY CARRY THE DRIVER. THE MAXIMUM PAYLOAD OF THE ELECTRIC VEHICLE IS 330 LBS, AND THE PAYLOAD OF THE TAIL IS 7 LBS.
3. IT IS FORBIDDEN TO MODIFY ANY PART OF THE ELECTRIC VEHICLE, OTHERWISE IT WILL AFFECT THE RELIABILITY, STABILITY AND COMFORT OF THE ELECTRIC VEHICLE.
4. THE BATTERY VOLTAGE MUST BE FULLY CHARGED AT ONE TIME. IT IS FORBIDDEN TO WASH THE ELECTRIC VEHICLE WITH HIGH PRESSURE WATER, SO AS TO AVOID THE POTENTIAL ACCIDENT CAUSED BY THE WETNESS OF THE INTERNAL ELECTRONIC COMPONENTS AND CIRCUITS.

⚠ SUGGESTION

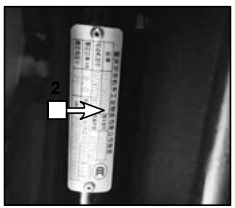
1.THIS INSTRUCTION MANUAL IS ONE OF THE NECESSARY PARTS OF THE ELECTRIC VEHICLE. WHEN THE ELECTRIC VEHICLE IS TRANSFERRED TO OTHERS, IT SHOULD BE ATTACHED WITH THE ELECTRIC VEHICLE.
2.WHEN THE ELECTRIC VEHICLE IS NOT IN USE, THE AIR SWITCH SHOULD BE TURNED OFF AND THE BATTERY SHOULD BE CHARGED ONCE A MONTH TO AVOID BATTERY ATTENUATION CAUSED BY LONG-TERM POWER LOSS
3.DURING THE RUN-IN PERIOD OR THE WARRANTY PERIOD, THE USER SHOULD REGULARLY GO TO THE DEALER OR THE COMPANY' S SERVICE STATION FOR REGULAR MAINTENANCE ADJUSTMENT.

VIN and Motor Code

VIN, motor code and vehicle certificate are used to apply for motorcycle registration.



1. VIN is printed on the right side of the frame below the seat cushion.



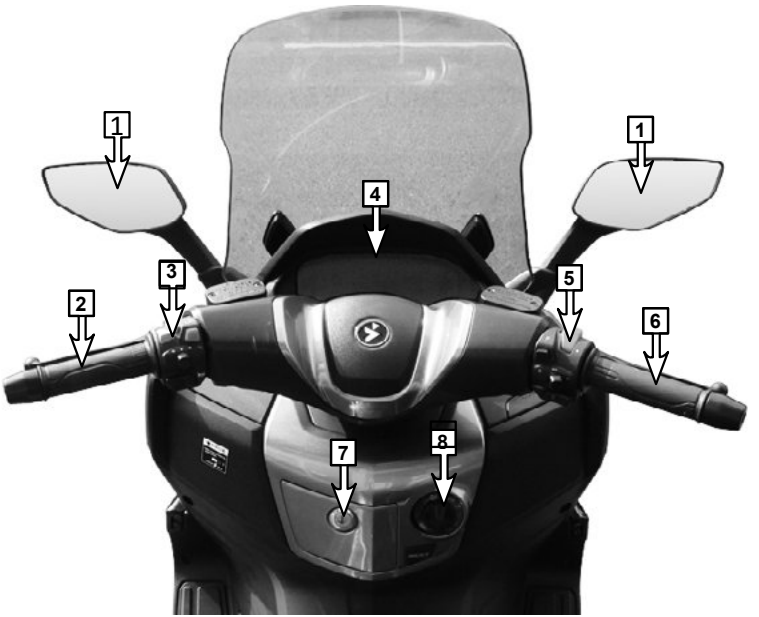
2. The nameplate is riveted under the left rear frame.

3. The motor number is engraved on the top of the motor shell under the locker.

Please fill in the corresponding number for reference:

VIN		Motor Code	

Brief Introduction



1. Rear view mirror 2. Left turn handle 3. Left combined switches 4. Gauges
5. Right combined switches 6. Speed handle 7. Storage box lock 8. Power lock

Brief Introduction

1. Rear view mirror 2. Gauges 3. Seat 4. Back handrail 5. Tail lamp
6. Front shock absorber 7. Front brake 8. Front pedal 9. Main support 10. Rear wheel

Intelligent Key

The smart key can only start the motorcycle within 1 meter.

1. Unauthorized disassembly of the smart key may cause abnormal operation and will void the warranty.
2. When the battery of the smart key runs out, it will not be able to use normally. Please replace the battery immediately.
3. When motorcycle starts, the key red sensor light flashes once.
4. Do not place the smart key near any household appliances. This may interfere with the smart key' s signal.
5. To prevent damage to the key, please place it properly and do not place the smart key in water to avoid high temperatures, direct sunlight, etc.

Smart key battery replacement

1. If the power of the smart key is low, it cannot be used normally. Please replace the battery , Battery model CR2032(3V)

2. Note: When re-configuring the key, do not damage the waterproof rubber of the key. When replacing the battery, please pay attention to the positive and negative poles of the battery to avoid burning out the internal circuit and preventing normal use. Do not disassemble the smart key rear cover randomly.

⚠ Warning

Motorcycles must be parked in a safe place, with the steering handlebar locked, and the smart key taken with you.
When the battery is not installed or the battery is low, the smart key malfunctions and the motorcycle cannot start.

Ignition Switch

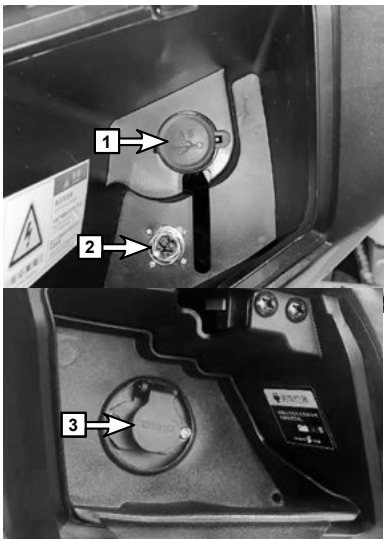
Press the ignition switch control lever to start the power supply of the whole vehicle, and turn the control lever to the ON state, the vehicle can start.

Names	Functional Specifications
1.Ignition lock (Open)	The control lever rotates to the position " ", and the circuit is connected to start the vehicle.
2. Ignition lock (Closed)	When the control lever is rotated to the position " ", the circuit is disconnected and the vehicle cannot be started.
3.Directional lock	The lever is pressed downward to position to lock the direction , You can lock the direction.

⚠ Warning

Motorcycle must be parked in a safe place, with the steering handlebar locked.

USB, Charger Port

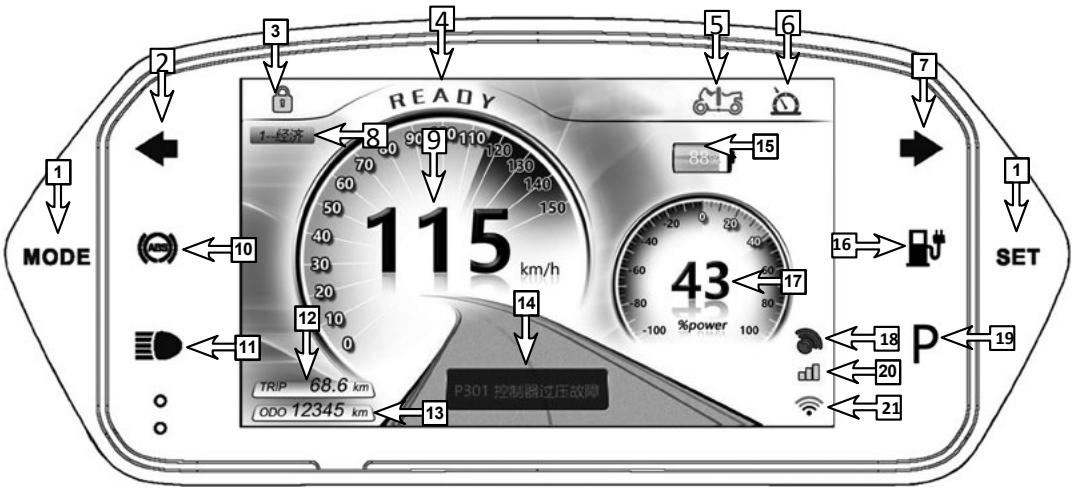


Names	Directions for use
1.USB Port	Located in the right front storage box, connected to the phone charging cable for phone charging.
2.Charging interface	Located in the right front storage box, the charging cable can be connected for battery charging.
3.quick charging interface	Located in the left front storage box, the charging cable can be connected for fast charging of the battery. (optional)

Instructions for Vehicle Modification

USB reserved port external device load power can not exceed 20W; Unauthorized modification of vehicles is prohibited, otherwise, we will not bear all the consequences

TFT Gauge Reading



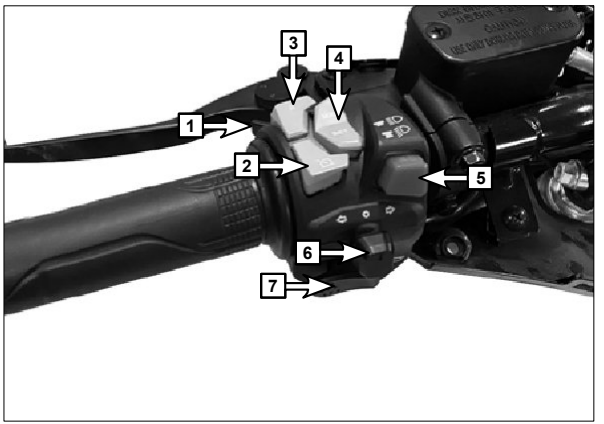
Names	Functional Specifications
1. LCD setup	Long press MODE button>2s will clear to zero for TRIP. Long press MODE+SET buttons will change odometer display from metric to the imperial system. Long press SET button to enter the clock setting. Short press SET button <2s to set hours. Short press MODE button to enter setting of minutes. Short press SET to adjust the value for 10 minutes. Short press MODE to enter the setting interface for 1 minute. Short press SET to adjust the value for 1 minute. Short press MODE to exit the clock setting. Long press COLOR button to switch the LCD backlight colors.

	Functional Specifications
2. Left turn indication	When the left turn signal is on, " ⇦ " light flashing
3. Vehicle locking indication	When the indicator light is on, the vehicle is locked and cannot ride.
4. Ready light (READY)	After the vehicle is connected to the power, the light is always on when there is no fault in the self-inspection, and the light goes out when there is a fault
5. Fault indicator light	When the motor, controller, speed handle or battery have faults, this light will be on.
6. Cruise indication	When the indicator is on, the cruise function is turned on.
7. Right turn indication	When the indicator light is on, " ⇨ " light flashing.
8. Gear display	Displays the current driving gear of the vehicle.
9. Speedometer	Displays the current speed of the vehicle
10. ABS fault light	When starting, ABS fault light is on, and it goes out when speed over 20km/h

Names	Functional Specifications
11. High beam indication	When using the high beam , this light is on
12. Single trip odometer	TRIP shows sub-mileage, which can be cleared to zero.
13.Total odometer	ODO is the accumulated mileage of the vehicle
14. Fault display	Display fault code and information, if displayed, please contact CSC Motorcycles to troubleshoot problem.
15. Battery remaining display	Displays the current battery level of the vehicle.
16. Charging reminder	When the light blinks, it indicates low power. Please charge it as soon as possible.
17.The ammeter	Displays the percentage of the maximum current.
18. GPS signal	GPS signal strong or weak displays.
19. P mode light	When the light is on, the vehicle cannot start. Press the P button on handle bar before starting the vehicle.
20. GPRS signal	GPRS mobile APP signal strong OR weak displays.
21. WIFI signal	The indicator lights up when the mobile phone signal is connected to the vehicle

Left handle switches

The main functions of the left switches are as follows:

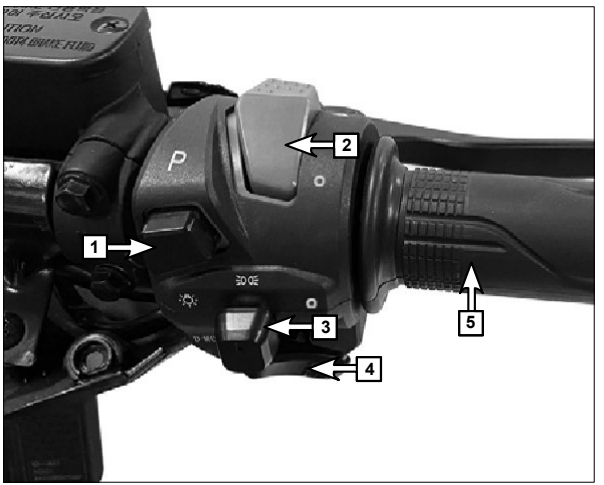


Names	Directions for use
1. Overtaking light switch	When the motorcycle needs to overtake at night, it needs to press the PASS switch to prompt the vehicle ahead
2. Cruise button	When this button is pressed during driving, it is not necessary to operate the speed handle to maintain the current speed; Exit the cruising mode when applying the brakes.
3. Reverse button	When the vehicle needs to reverse, press this button and turn the speed handle.
4. LCD setup	The operation method corresponds to the function key of the gauges
5. Dimmer switch	Press the dimmer switch to the position " " , the high beam will be turned on. When the dimmer switch is pressed to this position " " , the dipped headlight will be turned on.
6. Turn signal switch	When the turn signal button is moved to the position , the left turn signal flashes, when moved to this position , the right turn signal will flash.
7. The horn button	Press this button when the motorcycle needs to sound

User Instructions

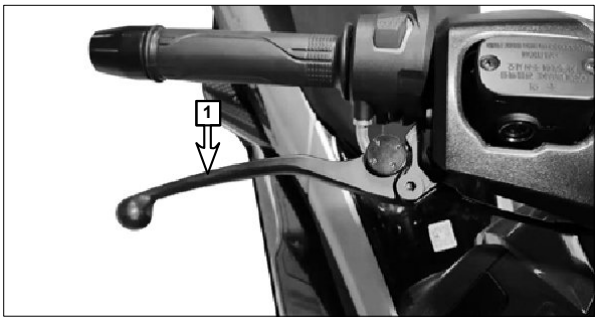
Right handle switches

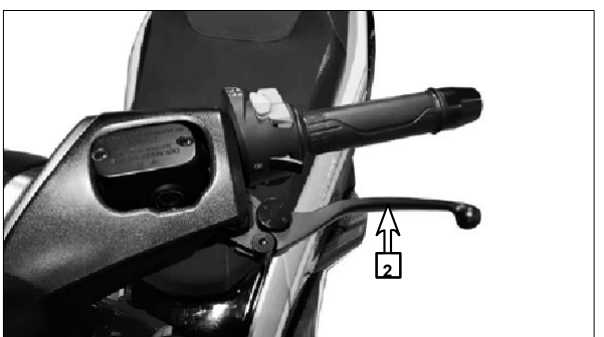
The main functions of the right switches are as follows:



Names	Directions for use
1. P mode button	When the light is on, the vehicle cannot start. Press the P button on handle bar before starting the vehicle.
2. Emergency switch	When the switch is pulled to this " △ " position, the front, back, left and right signals will flash at the same time.
3. Lighting switch	When the switch is pulled to this position , the headlight is on; When pulled to this position , the position light is on; When pulled to this position ● , turn off the vehicle lighting system.
4. Gear changing button	When riding the vehicle, according to road situation, press this button to change the driving gear and the instrument will display correspondingly.
5. Speed handle	Rotate the speed handle to control the speed of the vehicle.

Control Functions





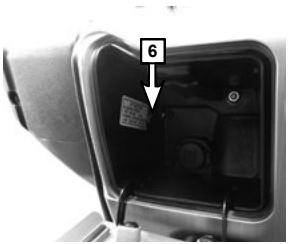
The brake of this model adopts the front and rear disc brake, the braking performance is safe and reliable, because the braking is related to the safety of personal and property, we must often adjust and maintain correctly, in order to achieve the purpose of safe driving

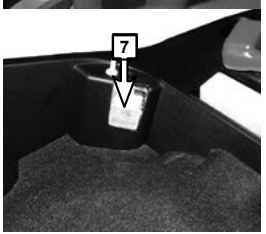
Names	Directions for use
1. Front brake handle	Control the speed of the front wheel, its free stroke is: 10mm ~ 20mm
2. Rear brake handle	Control the speed of the rear wheel, its free stroke is: 10mm ~ 20mm

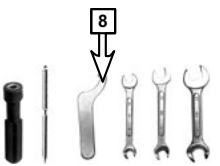
⚠ Suggestion

It is recommended to check and adjust the brake at the designated maintenance center irregularly

Control Functions







Names	Directions for use
5. Cushion switch	When the power is turned on, press this button to open the seat cushion.
6. Cushion switch	If the electronic switch cannot open the seat cushion, open the middle box to the left of the electronic switch with the key and pull the manual cable to open the seat cushion.
7. Compartment light	Open the seat cushion will turn on the compartment light under it.
8. Basic tools	Basic tools are placed in the compartment under the seat cushion. They can be used for simple adjustment and maintainance.

Load Limitation

1

This model is designed to carry only one driver and one passenger, please strictly follow the following requirements to load, otherwise affect the safety and stability of the motorcycle

The factory-set maximum weight that the vehicle can carry is 330 lbs

The storage box can hold up to 11 lbs

⚠ Danger

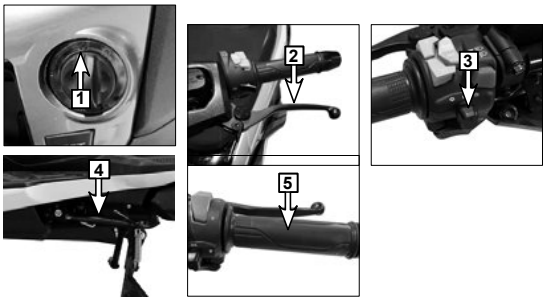
1. Strictly follow the above instructions. If a traffic accident occurs due to overloading, resulting in injury or death, the consequences shall be borne by the user.
2. Due to the user's careless operation, the luggage rack is painted off, deformed, etc., which is not within the warranty scope 3. Before riding, in order to prevent the goods from loosening and causing danger, please make sure to fix the goods firmly, try to make the weight of the goods close to the center of the motorcycle, keep both sides balanced.

Check items before riding

Before driving, please check according to the following items to ensure safe riding.

No.	Items	Description	Remarks
1	Battery	Check whether the battery on the meter is sufficient	Depending on the driving distance and conditions, you should perform the three-level maintenance regularly: **Level 1 maintenance:** 600 miles ~ 1200 miles, mainly for lubrication and tightening. **Level 2 maintenance:** 1800 miles ~ 3600 miles, mainly for inspection, adjustment, lubrication and tightening. **Level 3 maintenance:** 3600 miles ~ 6000 miles, do a thorough check, replace worn parts to avoid potential problems. We strongly recommend that you do the regular three-level maintenance with a qualified professional.
2	Drive system	Check whether the controller and drive motor are working properly	
3	Brake oil	Check if the lubricating oil has deteriorated and is below the lower scale	
4	Brake handle	Check whether the free stroke is within the specified value	
5	Shock absorbor	Check whether the shock absorber is working properly	
6	Speed handle	Check the flexibility of the speed handle	
7	Steering mechanism	Check the flexibility and stability of steering mechanism	
8	Tires/wheels	Check tire pressure and wear	
9	illumination/signal indicators	Check whether the light/signal light/indicator light is working properly	
10	Brakes	Check the wear and tear of the brake piece to see if the brake performance is good	
11	Main support/side support	Check whether the main support/side support is bent and deformed, and whether their return positions are good	
12	All fasteners	Check whether the fasteners of the whole vehicle are loose or fall off	

Starting up and riding



1. Turn the electric door lock to " ○ " position, turn on the power.
2. Hold the front and rear brake handles to prevent the motorcycle from sliding.
3. Please turn on the left turn signal to alert pedestrians and vehicles.
4. Take back the side bracket to remove the controller protection state.
5. Release the front and rear brake handles, turn the right speed handle slightly with your right hand to make the motorcycle move slowly, and then put your feet on the pedals.

ATTENTION:

1. The vehicle is parked when the side bracket is lowered. The controller is in power off and the motorcycle cannot ride. This is to prevent the danger of unintentionally turning the throttle and rushing the motorcycle out
2. Some models have a 2-second self- inspection process, and the vehicle is ready when the working indicator light on the instrument shows green
3. Before driving, drivers and passengers should wear protective equipment (such as helmet, protective gloves, etc).
4. When the vehicle starts, please use in low gear. It is forbidden to start in high gear.

Check and adjust after break-in period

Users should be careful during the break-in period after getting a new electric motorcycle (the first 600 miles is the break-in period). The break-in of a new motorcycle directly affects its service life. The "break-in period" is when a new electric motorcycle needs some time to drive, so the parts can fit together better, smoother, and more reliably. After the break-in period is completed, a comprehensive adjustment should be made to the electric motorcycle to ensure its normal operation in the future, and also to make it travel more fast and durable. The adjustment items are as follows

1. **Bearing adjustment**

After the break-in period, under the operation of the load, the raceway surface between the steel ball, the shaft bowl and shaft stopper is more smooth and consistent. But the gap should be adjusted appropriately

2. **Adjustment of brake system**

After a period of use, the coordination of the various parts of the braking system is more perfect, especially the brake block and the brake disc surface are more consistent after break-in. In order to ride safely, the free stroke of the braking system should be adjusted appropriately3. Adjustment of fasteners

After the break-in period of driving, the vehicle is subject to turbulence and vibration, the bolts or nuts may loose. So it is necessary to check and tighten them in time.

Safe Riding Instructions

1. Precautions for riding up and down ramps

When riding on the winding, slope ups and downs mountain road, please adjust the speed according to the actual situation in order to avoid motor overload.

2. Matters needing attention when riding on wet road (rain and fog) Driving in the rainy day, or driving on the wet road, the adhesion coefficient of the tire and the ground is poor, easy to produce floating phenomenon. So it is not suitable for high speed driving, otherwise it will cause a very dangerous crash. In this case, should pay attention to the following points in order to ensure driving safety ①.Maintain a reasonable speed to avoid sudden acceleration or braking. Do not use badly worn tyres. If the tyre wear exceeds the limit value of 2mm, you must reduce the speed to avoid emergency braking ②. When driving on muddy roads, try to keep at a low speed, avoid abrupt start, abrupt acceleration, abrupt steering and abrupt braking.

3. Notes for driving on snow and ice covered ground

When driving on snow and ice covered roads, you should install tire chains on your tires or use non-skid tires.

①. Try to drive at low speed to avoid falling; No sudden acceleration, sudden braking or sharp turns are allowed. When decelerating, return the speed handle to make the vehicle decelerate, which is conducive to improving the braking efficiency. Step on the brake pedal from light to heavy, don't step on it all at once. ② .When steering, reduce the speed and slowly turn the handle to avoid wheel skidding and idling

4. Precautions for driving and braking

The higher the vehicle speed, the longer the braking distance, therefore, braking should be based on the speed and braking distance to control the brake ① .In rainy and fog days driving visibility is low, and the adhesion between the tire and the ground is poor, easy to produce floating, leading to steering mechanism and braking system problems, reduce your speed. Motorcycle is subject to lateral winds when driving through a mountain pass, overtaking or crossing a tunnel. At this point, need to properly control the speed to avoid its accident jitter When braking, first use rear brake then front brake. ②. You should put your fingers on the brake lever during driving. In wading or after washing you should use lower speed. After driving on the dunes and roads with poor pavement conditions, need to clean the brake drum, brake block, brake disc in time in order to avoid excessive wear and affecting the braking effect. ③ When driving on steep or long slopes, please do not step on the brake pedal for a long time or brake too frequently, otherwise it will cause overheating of the brake and affect the braking performance.

Electric motorcycle maintenance periodic table

Items	Odometer Reading Miles				
	500 Miles	2000 Miles	4000 Miles	7500 Miles	Remarks column
※Controller		Check	Check	Check	1.※: This can only be maintained by designated personnel 2. When driving in unusually wet or dusty areas, the regular maintenance cycle should be appropriately shortened.
Manipulation cable	Clean	Clean	Clean	Clean	
Brake handle	Adjust	Adjust	Adjust	Adjust	
※Battery	Charge according to usage				
※Brake block	Check	Check	Check	Replace	
Brake	Adjust	Check	Adjust	Adjust	
Indicator lamp	Check	Check	Check	Check	
Illuminating lamp	Check	Check	Check	Check	
※Shock Absorber	Check	Check/Lubricate	Check/Add grease	Check/Add grease	
Fasteners	Fasten	Fasten	Fasten	Fasten	
Front and rear tires	Check	Check	Check	Replace	
Steering bearing	Check	Check	Check	Check	
Front and rear wheel bearings	Check/lubricate	Check/lubricate	Check/lubricate	Check/lubricate	
Motor	Check/lubricate	Check/lubricate	Check/lubricate	Check/lubricate	

Maintenance requirements

In the course of driving, various parts of the electric vehicle will produce different degrees of loosening and mechanical wear, it is necessary to carry out correct regular maintenance of the vehicle so as to extend its service life, to reduce the maintenance cost and to achieve safe driving.

1. Keep the vehicle clean, keep the battery sufficient, no abnormal noise.
2. Ensure that the operating mechanism and transmission system are flexible, The fastening of the vehicle is not loose and the lubrication points are fully lubricated.
3. Ensure that the front and rear brake handles are flexible to operate and that the braking effect meets the requirements. The brake blocks can be automatically reset without friction sound when the brake is removed. The motorcycle has good sliding performance.
4. The front and rear shock absorbers work smoothly and reliably. The tire pressure is normal and the power supply and consumption is normal.
5. Battery connection is fixed and reliable, spare parts are complete, no wear or rust phenomenon.

Use and maintenance of charger

Charger is an important part of electric motorcycle. The quality of charger seriously affects the service life of battery. This charger has trickle function. One charge time generally can not exceed 12 hours, otherwise it will affect the life of the charger. Charging should be done in a dry and ventilated place. The fire source should be avoided when the battery is charging. The charger should not be covered with items to avoid fire. When charging, first connect the charging plug with the charging socket on the motorcycle properly, then plug into power socket on the wall. After charging, first disconnect the wall socket and then unplug the plug from the battery. Keep the charging cable properly or put it into the glove compartment.

Warning

1. The charger must be waterproof and moisture-proof and should be used or stored in a dry environment, without heavy fall.
2. Do not touch or open the charger when charging.
3. There is heat in the charging process of the charger. Should be kept in a well-ventilated place for charging, not close to flammable and explosive items in order to avoid fire or explosion accident.
4. The voltage and current of the battery must be consistent with the specification of the charger when charging. At the same time, the polarity of the charger output plug should be consistent with that of the battery output plug. Otherwise, the charger and battery will be damaged.
5. When the indicator light of the charger cannot change from red to green in a long time (more than 8 hours), it should stop charging immediately and send it to the authorized maintenance point for inspection.
6. When the charger breaks down, it must be repaired by a professional.

Use and maintenance of battery

THE BATTERY IS INSTALLED UNDER THE PEDAL. THE BATTERY HAS A LARGE CAPACITY, SMALL SELF-DISCHARGE, HIGH ENERGY, LONG SERVICE LIFE, SAFE AND RELIABLE. IT IS AN IDEAL POWER BATTERY. BEFORE USING THE BATTERY, PLEASE READ THE BATTERY INSTRUCTIONS CAREFULLY. 1. THE NEW MOTORCYCLE BATTERY IS CHARGED 40~60% AT FACTORY. IF YOU BUY IT NEAR THE FACTORY DATE (WITHIN 2 MONTHS), YOU CAN RIDE IT DIRECTLY. OTHERWISE YOU NEED TO CHARGE THE BATTERY BEFORE USING 2. The battery adopts the advanced technology of fully enclosed energy saving design, so that it is free from maintenance, safety and environmental friendly. Its service life is significantly longer than the traditional battery and the mileage is greatly increased.

3. The battery shall not be placed in a closed container, shall not be close to an open fire, shall not be thrown into the fire or immersed in water. and is strictly prohibited from direct exposure in the sun. 4. If it is found that the battery shell is broken and leaking。 The battery must be replaced. 5. When the motorcycle does not ride for a long time, check the battery level regularly every week and charge it in time to avoid the battery loss and shorten the battery life.

Attention 1 battery should be stored in a dry, cool, shaded place, up direction and avoid heavy pressure. 2. When charging, the ambient temperature should be kept between 0℃ ~ 35℃ in a good ventilation. The low temperature will affect the charging efficiency, the high temperature is easy to change the parameters of the charger. 3. Please do not discard the used batteries at will to avoid polluting the environment. The waste battery shall be recycled by the designated companies.

Drive motor maintenance

The motorcycle adopts brushless DC rear-wheel drive motor. Its efficiency is up to 85%, with the advantages of strong climbing performance, fast speed, low drive current, long mileage and good gliding.

1. Once the driving motor is flooded, its insulation performance will decrease. If it occurs, disassemble the motor and drainage it. Then dry it with a hair dryer or under the sun to. Then should test the motor resistance and position sensor, if there is damage, should be replaced.
2. Unsatisfied charging of the battery will cause short continuous driving distance and weak driving motor. Therefore, keep the battery fully charged.

Attention: The low speed brushless motor and the high speed brushless motor are not interchangeable directly.

Wheels inspection

1. Having too much or too little air in your tires can cause problems. Overinflated tires make for a bumpy ride and wear out faster. Underinflated tires create more friction, use more energy, and can lead to blowouts.
2. When the inner tube valve leaks, repair or replace the valve. When the inner tube leaks, repair or replace it.
3. CHECK AND ADJUST THE WHEELS REGULARLY AT DESIGNATED MAINTENANCE SERVICE STATIONS.

Tire wear limit

Tire wear limit	Front	2.0mm
	Rear	3.0mm

The limit value of yaw of a wheel

The limit value of yaw of a wheel	Axial	Chain wheel 2.0mm	Aluminum wheel0.8mm
	Radial	Chain wheel 2.0mm	Aluminum wheel0.8mm

Check and adjust brake

INSPECTION OF HYDRAULIC BRAKE

1. Check whether the free stroke of the brake handle is within the standard value range. When the stroke of the brake handle cannot be adjusted, it means that the wear of the brake disc has exceeded the maintenance limit. The brake disc needs to be replaced. 2. Check the oil level of the oil tank from the observation hole. When the oil level of the oil tank is lower than the lower limit, brake oil should be added to the upper limit. Recommended brake oil :DOT4

Standard value of free stroke of brake handle :10mm~20mm

Notes:

1. AFTER READJUSTING THE BRAKE, HOLD THE BRAKE HANDLE BACK AND FORTH WITH YOUR HAND SEVERAL TIMES, THEN RELEASE THE BRAKE HANDLE AND ROTATE THE WHEELS TO CHECK WHETHER THE WHEELS ROTATE FREELY. AFTER ADJUSTING THE REAR BRAKE, THE REAR BRAKE LIGHT SWITCH MUST BE READJUSTED.
2. WHEN ADJUSTING THE BRAKE AND REPLACING THE BRAKE DISC, YOU MUST GO TO THE DESIGNATED MAINTENANCE STATIONS TO REPLACE WITH THE ORIGINAL PARTS.
3. REGULARLY GO TO THE DESIGNATED MAINTENANCE STATION FOR INSPECTION AND ADJUSTMENT

Cleaning and Parking

1. Electric motorcycle cleaning

(1). It is forbidden to wash the electric motorcycle with high pressure water, so as to avoid the potential accident caused by the wetness of the internal electronic components and circuits.

(2). After cleaning, wipe the surface of the electric motorcycle with a clean cotton cloth.

(3). Give some wax on the surface of the paint parts and some anti-rust oil on the surface of the chrome plating.

2. Parking of electric motorcycles

(1). Long-term parking (more than 60 days), the motorcycle should be cleaned thoroughly before parking

(2). All batteries will self-discharge, long-term lack of power parking will affect the life of the battery. It is best to charge the battery every 3~4 weeks.

(3). Remove the control cable for cleaning and lubrication. After the tire pressure is charged to the specified value, the tire is raised with a wooden block so that the tire does not contact the ground.

(4). Motorcycle should be parked in ventilated, dry, clean, sunscreen place, away from harmful goods.

(5). When parking for a long time before use, it should be checked once, open the power lock, check its working condition, and charge the battery at a slow speed.

Faults diagnosis and troubleshooting

A--- Fault phenomenon: The motor does not turn.
Causes and Solutions:
1. Causes: The power supply fuse is broken or the air switch is disconnected.
Solutions: a. Replace the fuse; b. Turn on the air switch.
2. Causes: The battery voltage is too low, causing the controller to be in the under-voltage protection state. Solutions: Recharge the battery
3. Causes: The battery voltage is too high, which causes the controller to be in the over-voltage protection state; Solutions: a. Detect the causes of excessive voltage and troubleshoot them; b. Replace the battery
4. Causes: Speed handle failure. Solutions: Replace the speed handle 5. Causes: Brake failure causes the controller to be in the brake protection state.
Solutions: Check whether the brake switch and brake light are short circuit and replace the corresponding parts. 6. Causes: Anti-theft fault. When the vehicle is in a state of anti-theft, the whole circuit is connected at this time. But the controller locks the motor against theft, the motor will not run.
Solutions: Use the alarm remote control to unlock the anti-theft status.
7. Causes: The side bracket is not retracted or the side bracket switch is short-circuited, causing the motor to be in a protective state for the side bracket. Solutions: a. Retract the side bracket; b. Or replace the side bracket switch.
8. Causes: Motor phase line short circuit or open circuit, resulting in controller protection Solutions: Repair or replace the motor assembly.

B--- Fault phenomenon: The motor can run normally, but the speed is too slow.
1 . Causes: The battery voltage is low;
Solutions: Measure the battery voltage with a multi-meter. If the voltage is too low, charge the battery immediately.
2. Causes: The gear is in low gear
Solutions: Turn the gear to high gear

3. Causes: Speed handle fault, the signal output voltage is too low Solutions: Replace the speed handle.

C--- Fault phenomenon: When turning speed handle, the motor can run. But after a few seconds it stops, repeated. Causes: Low battery voltage causes floating current phenomenon, that is, when the battery voltage is not loaded, the battery voltage is relatively high. After loading the load, the battery voltage drops sharply, which will be lower than the under-voltage protection value, causing the under-voltage protection of the controller and stopping the output voltage to the motor. Solutions: Measure the battery voltage with a multi-meter. If the voltage is too low, charge the battery immediately.

D--- Fault phenomenon: When riding at the usual speed, the motor noise is relatively large and the current is also large 1. Causes: Controller MOS tube is damaged. Solutions: Replace the controller

2. Causes: Motor damaged Solutions: This fault is difficult to measure with a multi-meter. Try to replace a new motor, check whether the problem still exists. If the problem is solved, it shows that the motor has a fault.

3. Causes: The controller and the motor Hall do not match that will also cause large noise of the motor. Solutions: Replace the matched controller

E--- Fault phenomenon: the motorcycle is normal when no load. When the load is too large or the slope is too large, the rider will sometimes feel that the motor has a forward force, but the motorcycle still doesn't move forward. After a few seconds the force disappears. When the speed handle is reset and rotated again, the above phenomenon will be repeated. Causes: This phenomenon is what we often say about the locked-rotor of the electric vehicle. When the load is large, the motor does not rotate and the controller will not produce commutation action. A large current will pass through the same MOS tube and the same winding of the motor in the same set of upper and lower Bridges of the controller. If it keeps a long time that will easily burn the controller and the motor. In order to protect the controller and the motor, it is necessary to stop the motor drive output in a safe period of time, which is the locked-rotor protection of the controller. Solutions: Reduce the load or start again at a lower slope. Tips: Do not let the low-power electric vehicle run for a long time under a large load (heavy load or climbing a steep slope), so as not to affect the service life of the motor or controller

F--- Phenomenon: Electric motorcycle sometimes need to get started by the power of other. 1. Causes: Controller failure.

Solutions: Replace the same type of controller 2. Causes: Motor phase line contact is bad.

Solutions: Reconnect the motor phase line G--- Fault phenomenon: The electric motorcycle rides in the process of stop-and-go. 1. Causes: Poor contact between power cord, speed handle line, motor phase line and hall line; Solutions: Check the connection of each node to ensure that the contact parts are firm and have no bad contact.

2. Causes: Insufficient battery voltage Solutions: Check the battery voltage and replenish the power in time.

H--- Fault phenomenon: When the speed handle is not reset in the process of riding, the brake does not have the protective

effect of breaking current. 1. Causes: Brake Switch Damaged. Solutions: Replacement of brake switch (or brake handle).

2. Causes: Brake switch circuit is not connected or falls off.

Solutions: Check the circuit and troubleshoot the corresponding faults.

3. Causes: The brake input circuit in the controller is broken. Solutions: Replace the controller.

I--- Causes: Sometimes the speed adjustment has no effect after pinching the brake during riding. Causes: Brake handle malfunction or damage after long time use Solutions: Replace the brake switch

j- --Causes: Short range Failure cause analysis: Short range is related to many factors, factors related to the manufacturer of the vehicle: the efficiency characteristics of the selected motor of the vehicle, the capacity and life characteristics of the battery; Other factors related to the objective situation: the weight of the rider, often ride on the road, whether to use the brakes often, the rider's riding habits and so on.

1. Reason of the motor itself:

a. Low efficiency-the amount of electric energy converted into mechanical energy by motor is reduced, while the amount of loss used for heating is increased. This kind of motor does not run for a long time and generally has a high-temperature rise;

b. Magnetic steel demagnetization-with the increase of service time, it is certain that magnetic steel demagnetization will occur, but it is only a matter of how much. However, if the quality of the magnetic steel itself is not good and the demagnetization performance is poor, the magnetic steel will be easy to demagnetize, resulting in a significant decline in motor performance, an increase in operating current and a shortening of driving mileage.

2. Other reasons:

a. The battery quality, the battery capacity, the temperature characteristics; b. The cooperation of the controller and whether the under-voltage value of the selected controller is too high; c. Whether the selected motor specification and the support of the whole vehicle are reasonable.

3. Objective situation:

a. Vehicle load; b. The rolling resistance of the riding road is different from that of the road; c. Whether the cyclist is used to braking frequently and whether the cyclist starts frequently.

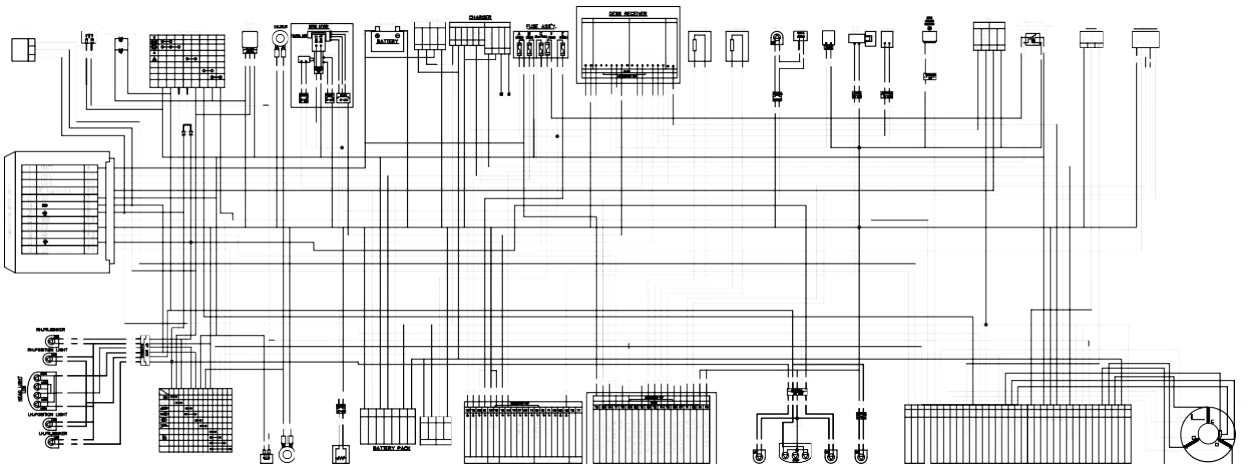
Solutions: a. Select high efficiency motor; b. Match the parameters of controller and motor and set reasonable under-voltage value; c. Select batteries with high energy density; d. Do not overload; e. Develop good riding habits.

Technical Specifications and Parameters

Items	ZS8000DT Specifications and Parameters
Dimensions L×W×H	86.25 in.×30.25 in.×55 in.
Wheel base	61 inches
Minimum ground clearance	5 inches
Curb Weight	456 lb
Payload capacity	330 lb
Max speed	74.56 mph
Range per charge	working condition method 120 miles / isokinetic method 57 miles
Type and model of motor	Air cooling, 72V/8KW
Peak power	17kW
Max torque	530N.m
Power consumption per 100km	working condition method 67 Wh/mi / isokinetic method 122Wh/mi
Controller	72V 30G Sine wave
Battery	Lithium 72V96Ah
Low-voltage protection	58±1V
Over-current protection	230A
Charger	On-board charger AC220V, output current 15A
Charging time	6-8h
Braking System	Bosch ABS, Front: Disc, Rear: Disc
Transmission method	Belt
Tires sizes /Pressure	Front 120/70-15/56S/250kpa; Rear140/60-14/64S/300kpa

Note: Mileage Per Charge refers to the distance traveled by using a fully charged battery and rated load on a flat road until the under-voltage protection function of the controller is started. In actual use, the mileage will vary with the road conditions, the number of stops and starts, load, wind resistance, temperature and other factors.

Electrical schematic diagram



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