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eA110

Service Manual

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Version Code：20230511
Version Name：eA110 Maintenance Manual

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Zhejiang Kayo Motor Co., Ltd.

May 2023

Preparation instructions

This maintenance manual provides a detailed introduction to the maintenance and adjustment procedures, disassembly and assembly essentials, inspection and maintenance points, troubleshooting methods, and maintenance technical data of the eA110 four wheel electric motorcycle (ATV), and is accompanied by detailed graphical materials to guide the operation.

Please read this manual carefully and carry out maintenance according to standard operating procedures, which can effectively extend the service life of various components, improve engine performance, and enhance the reliability of the entire vehicle.

The first chapter mainly introduces general work items, tools used, basic techniques, and maintenance parameters.

The second chapter introduces the assembly and disassembly techniques of the vehicle cover panel

The third chapter introduces the regular inspection and adjustment of the entire vehicle

The fourth chapter introduces the methods and precautions for disassembling, inspecting, repairing, and assembling the components of the three electrical systems

The fifth chapter introduces information related to vehicle chassis

The sixth chapter introduces the detection and maintenance information of the vehicle signal and lighting system

Appendix: Electrical schematic diagram

If the content involved in this manual is changed due to vehicle improvement and other reasons, no prior notice will be given. Performing maintenance should be based on the actual condition of the vehicle.

Zhejiang Kayo Motor Co., Ltd.
Research and development department

May 2023

Contents

The unit conversion table in this book

Item	Unit conversion
Pressure	1kgf/cm^2=98.0665kPa；1kPa=1000Pa
	1mmHg=133.322Pa=0.133322kPa
Torque	1kgf·m=9.80665N·m
Volume	1mL=1cm^3=1cc
	1L=1000cm^3
Force	1kgf=9.80665N
Length	1in=25.4mm

Danger/Warning/Caution

Please read the following explanations carefully, which emphasizes the special meanings of the words "Danger", "Warning" and "Caution", when repairing the three electrical systems, special attention should be paid to their prominent meanings.

Danger: means to be vigilant to high danger
Warning: means to be vigilant to moderate danger
Caution: means to pay attention to minor danger

However, Attention please the "Danger" and "Warning" contained in this maintenance manual cannot cover all potential dangers during engine use and maintenance. Therefore, in addition to the relevant provisions of "Danger" and "Warning", maintenance personnel must also have basic knowledge of mechanical safety. If you are not sure about completing the entire maintenance operation process, please consult a more experienced senior technician.

1 Maintenance information

1.1 Precautions for operation

Safety precautions

1. **Work clothes (one-piece work clothes, etc.), hats, safety boots suitable for the operation must be worn, and if necessary, dust-proof glasses, dust-proof mask, gloves and other safety protection articles should be worn to protect your body.**

2. When charging a battery, flammable and explosive hydrogen gas is generated, and there is a risk of explosion once there is an ignition source or electric spark approaching. Therefore, please charge in a well ventilated area.

3. During maintenance, be careful not to let rotating and movable parts such as the rear wheel and accelerator grip hands and clothes.

4. **When two or more people are working, they must constantly greet each other to confirm safety.**

Precautions for disassembly and assembly

1. Parts, lubricating oil and grease must use products recommended by Kayo brand.

2. The parts of each system should be sorted and kept separately, so that each part can be reinstalled in their original position.

3. Please clean the soil and dust on the vehicle before maintenance.

4. Gaskets, O-rings, piston pin retaining rings, cotter pins, etc. must be replaced with new ones after disassembly.

5. If the opening of the elastic retaining ring is too large during disassembly, it will be deformed, and it will easily fall off after reassembly. Please do not use the elastic retaining ring that has loosened its strength and lost its elasticity.

6. After the parts are disassembled and inspected, they should be cleaned before measurement and the cleaning agent should be blown off with compressed air. Lubricating oil should be applied to the moving surface before assembly.

7. When disassembling, necessary places should be inspected and relevant data should be measured so that it can be restored to the state before disassembly during assembly.

8. Fasteners such as bolts, nuts, and screws should be pre-tightened first, and then tightened according to the specified tightening torque on the diagonal according to the principle of from large to small, from inside to outside.

9. When the rubber parts are disassembled, check whether they are aging, and replace them in advance if necessary. In addition, as rubber parts are not resistant to corrosion from gasoline, kerosene, etc., try not to let volatile oils and greases attach to them.

10. According to the requirements of the maintenance manual, apply or inject the recommended grease on the designated parts.

11. Correct special tools should be used for disassembly and assembly operations.

12. Ball bearings can be rotated with fingers to confirm whether the rotation is flexible and smooth. If force is applied to the ball during disassembly, the disassembled bearing should not be used again:

- If the axial and radial clearance of the bearing is too large, replace it.
- Bearings that feel stuck when rotating should be cleaned, and those that still feel stuck after cleaning should be replaced, and those that cannot be cleaned should be replaced directly.
- It was originally a tight fit with the body or the shaft diameter, but if the fit is not tight after disassembly, the bearing should be replaced.

13. Bearings should be coated with engine oil or grease before assembly. Pay attention to the installation direction when assembling single-sided dust-proof bearings. When assembling open-type or double-sided dust-proof bearings, install the side engraved with the manufacturer's logo and size facing outward during assembly.

14. When installing the rectangular retaining ring, the chamfered side should face the direction of the force. Do not use the retaining ring that has been loosened and lost its elasticity. After assembly, turn the rectangular retaining ring to confirm that it has been firmly installed in the groove.

15. After assembly, it is necessary to check whether all fastening parts are tightened and whether the work is normal.

16. Brake fluid and coolant can damage the coating surface, plastic parts, rubber parts, etc. Do not let them adhere to these parts. In box of adhesion, rinse them with water immediately.

17. The oil seal should be installed with the side marked by the manufacturer facing outward (in the direction without oil)：

- When assembling, pay attention not to curl the lip of the oil seal or scratch the lip of the oil seal with burrs.
- Apply lubricating grease to the oil seal lip before assembly.

18. When installing rubber hose parts, insert the rubber hose to the root of the joint. If there is a pipe clip, install the pipe clip in the dent of the pipe. Replace the rubber hose that is not tight during installation.

19. Do not get dust, mud, etc. into the interior of the engine or the hydraulic system of the brake.

20. Do not twist or bend the cables excessively. A deformed or damaged cable may cause poor movement or damage.

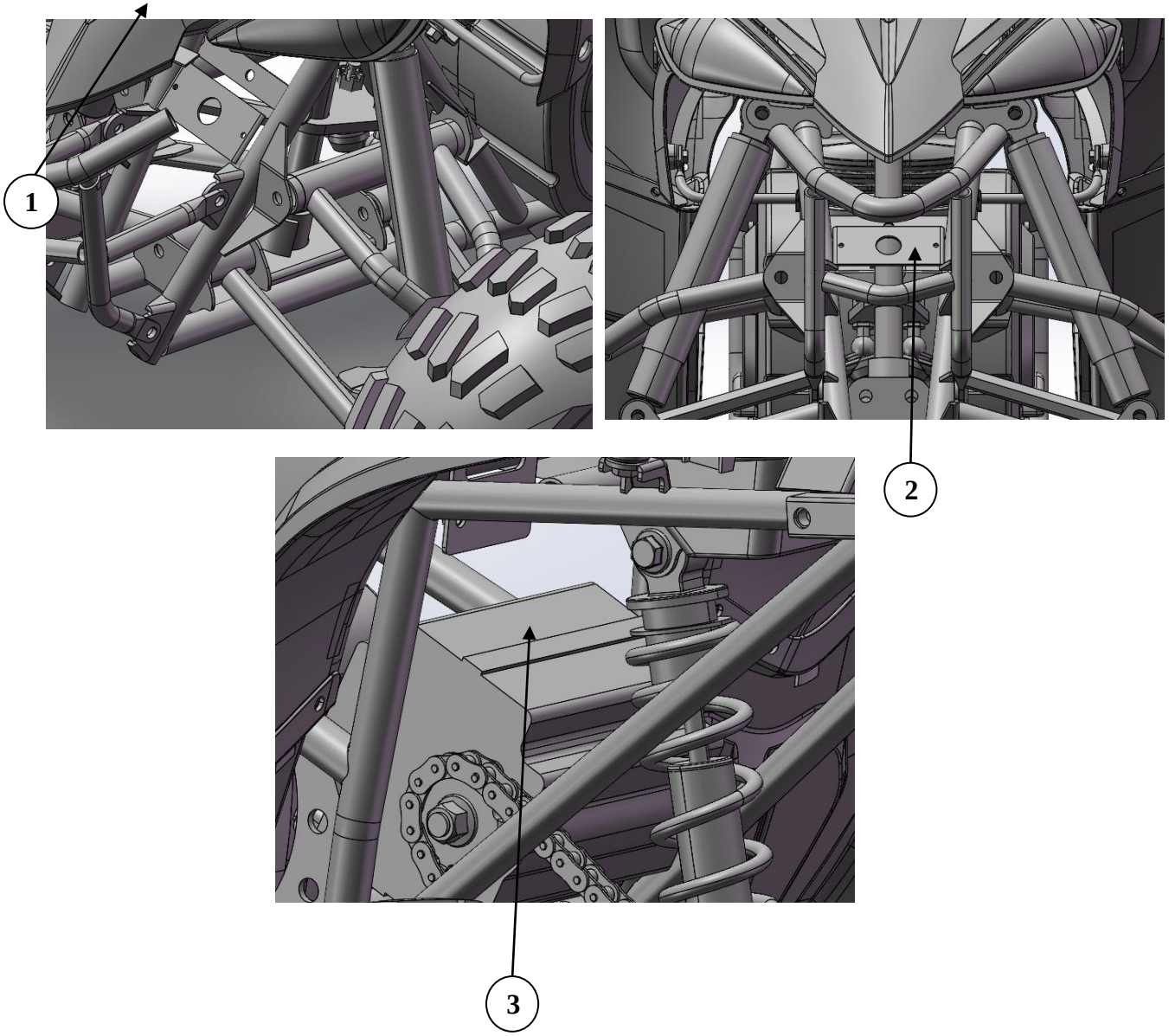
21. When assembling protective cap parts, if there is a groove, the protective cap must be inserted

into the groove.

1.2 Vehicle identification number

①Frame number
②Vehicle nameplate
③Engine number

Vehicle model	eA110
Frame number	L6JAXHLA~
Engine number	48V1000W ~



1.3 Main parameter table

Items		Parameters	
Vehicle model		eA110	
Length (mm)		1430	
Width (mm)		860	
Height (mm)		890	
Wheelbase (mm)		910	
Battery capacity (V/AH)		48V20AH lead-acid battery	
Vehicle curb weight (kg)		115	
Number of passengers		1 person	
Rated loading mass (kg)		65	
Tire specifications	Front wheel	AT19*7.0-8	
	Rear wheel	AT18*9.5-8	
Minimum ground clearance		200mm	
Turning circle radius (minimum turning radius at the closest point)		3600mm	
Dynamical system	Starting method	Electric starting	
	Motor type	Middle mounted brush motor	
	Power (w)	1000	
	Rated speed (rpm)	4100	
	Rated torque (N.m)	/	
Drive system	Shifting type	Forward/reverse gear	
	Transmission mode	Chain drive	
Steering device	Steering angle	Inner	34°
		Outer	28°
Brake device type		Front	Hydraulic disc type
		Rear	Hydraulic disc type
Buffering method	Suspension method	Non independent suspension	
Frame type		Steel pipe and steel plate welding type	

1.4 Maintenance parameter table

•Wheels (same front and rear wheels)

Items		Standards	Usage limit
Rim runout	Longitudinal	0.8mm	2.0mm
	Lateral	0.8mm	2.0mm
Tire	Residual groove	—	3mm
	Air pressure	35kPa（0.35kgf/cm^2）	—

□Braking system

Items		Standards	Usage limit
Front brake	Brake disc thickness	3.5mm	3mm
Rear brake	Brake pedal travel	2 ~ 6mm	—
	Brake disc thickness	3.5mm	3mm

•Lights/Instruments/Switches

Items		Standards
Fuses		10A
Lights, light bulbs	Front left headlight	12V
	Front right headlight	12V
	Tail/brake lights	12V—2.8W

1.5 Tightening torque

Attention：

Before installing the thread, apply anti-rust grease on the threaded part and joint surface

Tightening torques at designated parts - whole vehicle parts

Serial number	Items	Fastener code	Quantity	Tightening torque
1	Lower rocker arm bolt	GB5789 M10×1.25×70	4	55-66
2	Upper rocker arm flange shaft	Φ10*185*M10*1.25mm	2	55-66
3	Front and rear shock absorption bolts	GB5787 M10×1.25×40	6	55-66
4	Front wheel hub installation slotted nut	GB9457 M14×1.5×H18	2	49-59
5	Steering rod ball pin slotted nut	GB9457 M10×1.25	4	15-20
6	Direction handle cover screw	GB70-85 M8×25	4	25-30
7	Front brake caliper bolts	GB5789 M8×16	4	22~30
8	Front brake disc bolts	M6×1.25×16	8	25-30
9	Rear brake caliper body bolts	GB5789 M8×25	2	25-30
10	Rear brake disc mounting screws	GB70-85 M8×16	4	25~30
11	Installation bolts of the steering handle pressure block	GB5783 M10×1.5×30	2	45~59
12	Rear wheel hub installation slotted nut	GB9457 M16×1.5	2	49-59
13	Steering column installation slotted nut	GB9457 M10×1.25	1	15-20
14	Steering column clamp mounting bolts	GB5787 M8×55	2	25~30
15	Horn mounting bolt	GB5787 M6×16	1	10~12
16	Motor mounting bolts	GB5787 M8	1	25-30
17	Sprocket seat mounting screws	GB70-85 M8×16	4	25-30
18	Cross pan head Self-tapping screw	GB845-85 ST4.2	—	—
19	Cross pan head machine tooth screw	GB828-88 M5×16	2	—
20	Cross large flat head machine tooth screw	TM6	—	—
21	Rim mounting nut	GB6187-86 M8	8	49-59

Tightening torque of specified parts

Tightening torque of fasteners in unspecified positions

Category	Torque N·m	Category	Torque N·m
5mm bolts and nuts	4.5~6	5mm screws	3.5~5
6mm bolts and nuts	8~12	6mm screws	7~11
8mm bolts and nuts	18~25	6mm raised bolts	10~14
10mm bolts and nuts	30~40	8mm raised bolts, nuts	20~30
12mm bolts and nuts	35~50	10mm raised bolts, nuts	30~40

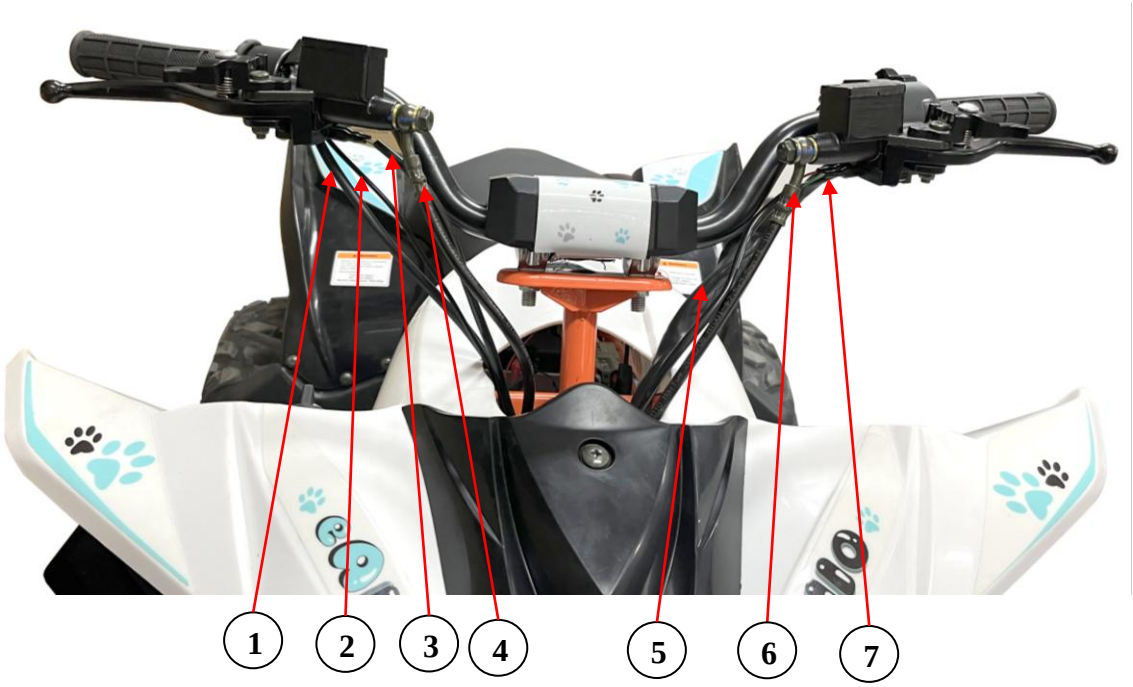
1.6 Lubricants, sealants

Coating site	Points for attention	Oils and fats
Steering bearing		Lightweight lithium soap based lubricating grease
Accelerator cable connection		
Rocker arm moving parts		
Inner peripheral surface of directional		
Active part of seat cushion lock		

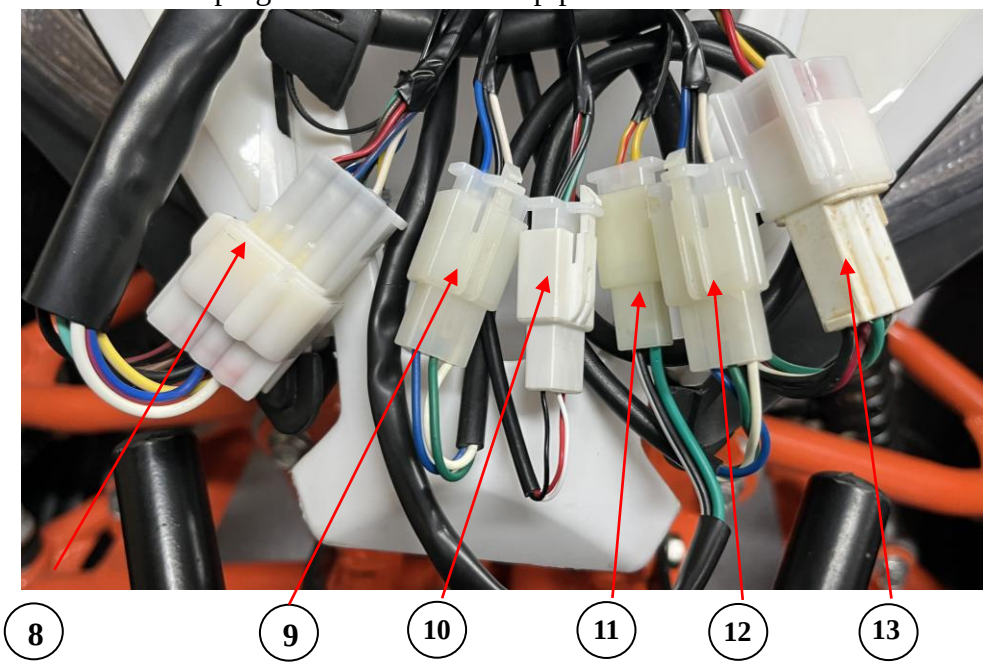
Lubrication of control cables, bearings and rotating parts

Parts	Content	Oils
Steering shaft spherical sleeve	Lubrication	General lithium based lubricating grease for automobiles GB/T5671
Rear wheel axle mount		
Front and rear shock absorber joints		
Accelerator handle shaft and cable joint		
At the rotation axis of the left and right brake handles		

1.7 Wiring diagrams for cables, hoses, and cables

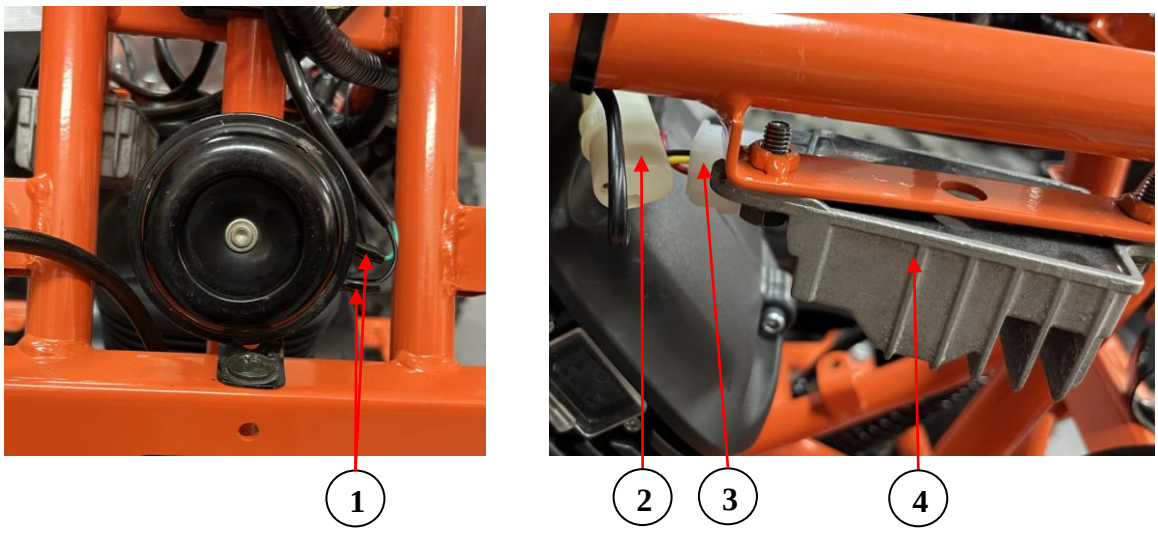


1. Plug in for flameout switch 2. Accelerator plug in 3. Front brake switch 4. Front brake oil pipe 5. Combination switch plug in 6. Rear brake oil pipe 7. Rear brake switch

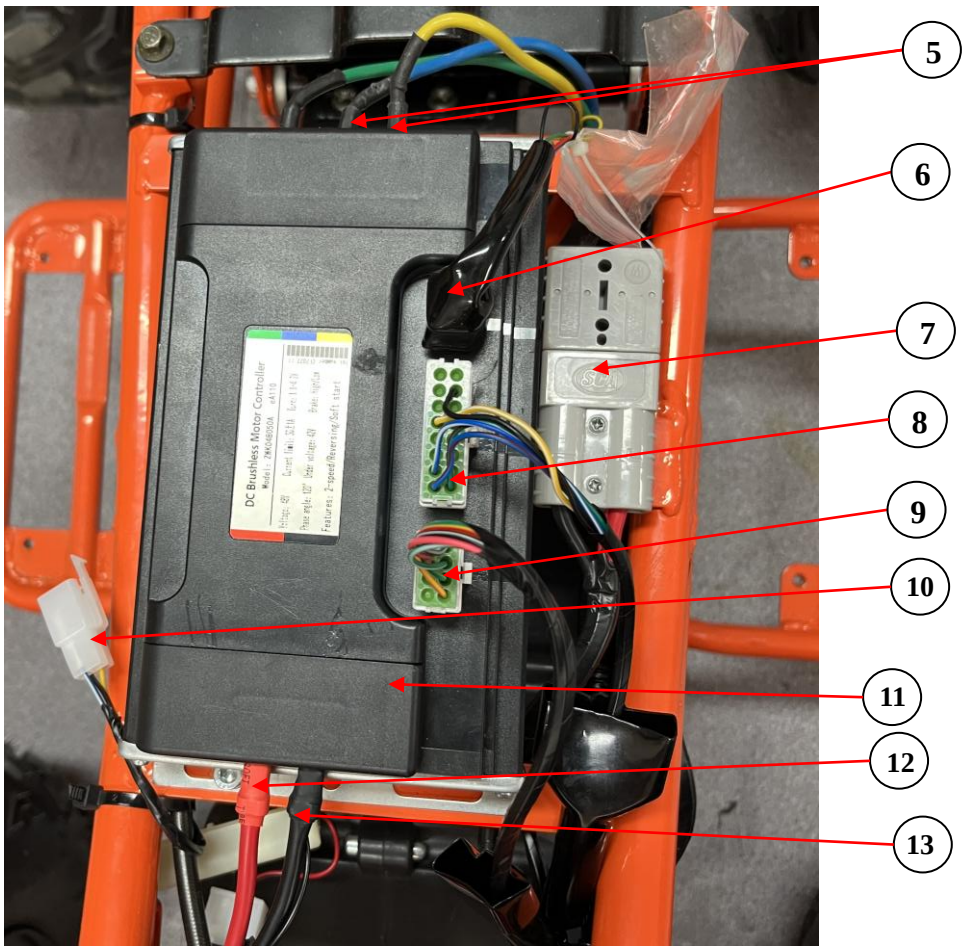


8. Combination switch plug-in 9. Front headlight plug-in 10. Accelerator plug-in 11. Flameout switch plug-in 12. Front headlight plug-in 13.Door lock plug-in

Attention: Before inspecting and repairing the above components, the hood must be removed. For specific disassembly, refer to the second chapter - Covering parts of the body of the vehicle

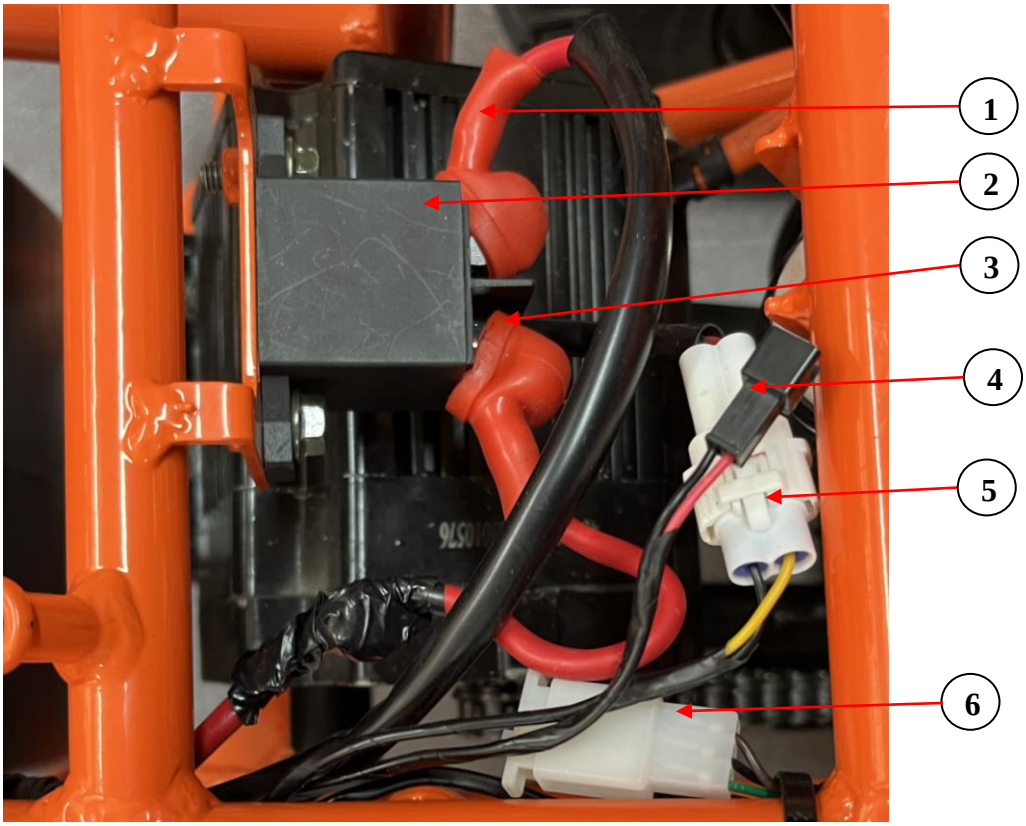


1. Horn plug in 2. Fuse 3. Converter plug in 4. Converter



5. Motor cable 6. Controller plug-in 7. Battery power plug-in 8. Controller plug-in 9. Controller plug-in10. Instrument plug-in 11.Controller 12.Controller positive pole 13. Controller negative pole

Attention: The plastic assembly must be removed before inspecting and repairing the above components. For specific disassembly, refer to the second chapter -Covering parts of the body of the vehicle



1. Relay power cord 2. Relay 3. Relay power cord 4. Release speed limit plug-in 5. Relay plug-in 6. Rear tail lamp plug-in

Attention: The plastic assembly must be removed before inspecting and repairing the above components. For specific disassembly, refer to the second chapter - Covering parts of the body of the vehicle

2 Covering parts of the body of the vehicle

2.1 Maintenance information

Precautions for operation

When replacing the covering parts with regulatory warning labels affixed or riveted on the vehicle, the corresponding labels must be correctly and completely supplemented as they are.

This chapter describes the disassembly and assembly sequence of vehicle body covers. When repairing internal components of the vehicle that require disassembly of relevant covers, it can be referred to in this chapter.

This chapter describes the disassembly and assembly operations of shelves, seat cushions and exterior parts.

Please pass the pipes and cables through the correct position according to the wiring diagram of cables, pipes and cables.

2.2 Installation torque

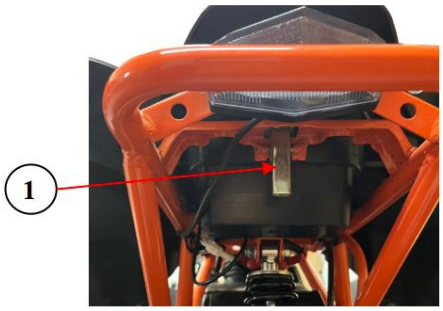
M10 bolts	45（4.5）	Torque N·m(kgf·m)
M8 bolts	22（2.2）	Torque N·m(kgf·m)
M6 bolts	10（1.0）	Torque N·m(kgf·m)
M5 bolts	5（0.5）	Torque N·m(kgf·m)
Self-tapping screws	4（0.4）	Torque N·m(kgf·m)

2.3 Disassembly and assembly of seat cushion and front protection

2.3.1 Seat cushion

Disassembly

Pull up on the seat cushion hook 1
Lift the rear of the seat cushion and pull out seat cushion 2 towards the rear
Remove the seat cushion



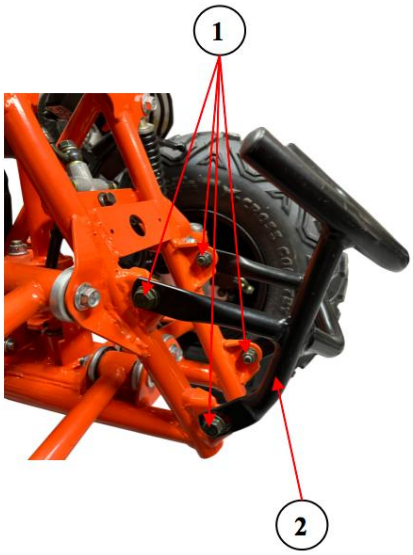
Installation

Installation is carried out in reverse order of removal

2.3.2 Front protection

Disassembly

Remove the fixing bolt 1
Remove the front guard 2



Installation

Installation is carried out in reverse order of removal

2.4 Disassembly and assembly of the hood, left and right foot pedals, front body assembly, and rear body

2.4.1 Hood

Disassembly
Remove the fixing screw 1
Push upwards (in the direction of the red arrow) to remove the hood 2

Installation
Installation is carried out in reverse order of removal

2.4.2 Left and right plastic foot pedals

Left foot pedal

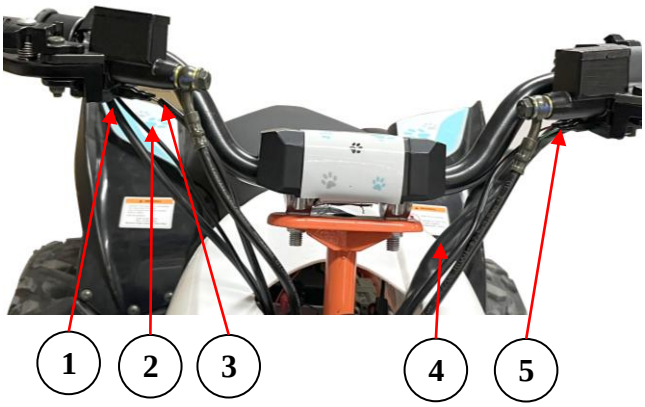
Disassembly
Remove the fixing screw 1
Remove the fixing screw 2
Remove the fixing screw 3
Remove the left foot pedal 4

Installation
Installation is carried out in reverse order of removal
Note: The removal and installation method of the right foot pedal is the same as that of the left foot pedal

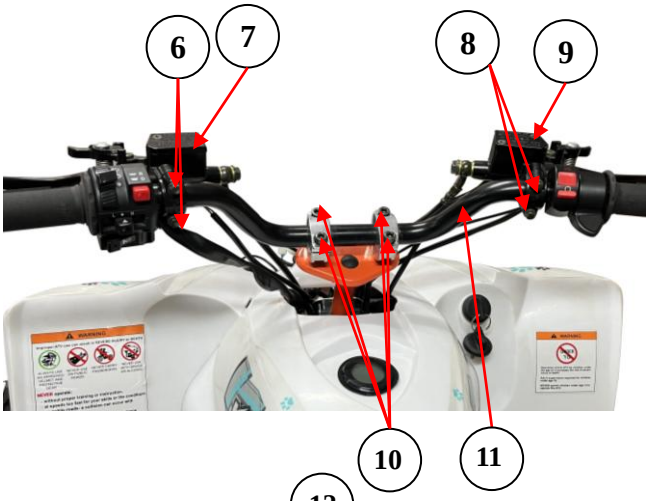
2.4.3 Front body assembly

Disassembly

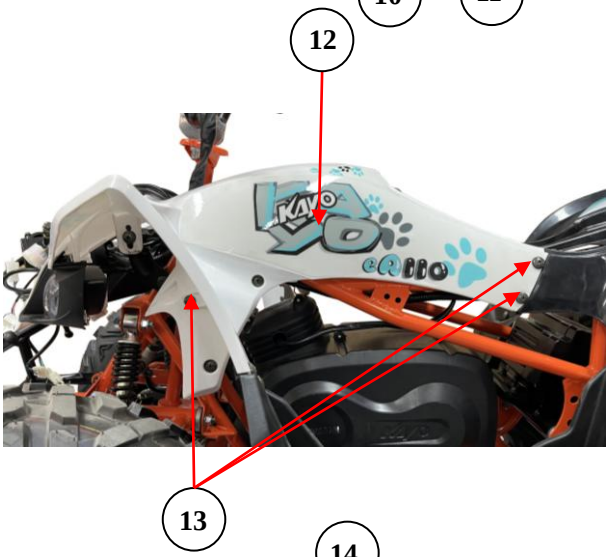
Remove the left and right foot pedals (→ 2.4.2)
Remove the hood (→ 2.4.1)
Release the flameout switch plug-in 1
Release accelerator plugin 2
Release the front brake switch 3
Release the combination switch plug-in 4
Release the rear brake switch 5



Remove the fixing screws 6 from the rear brake upper pump
Remove the rear brake upper pump 7
Remove the fixing screws 8 from the front brake upper pump
Remove the front brake upper pump 9
Remove the fixing screw 10
Remove the steering handle assembly 11



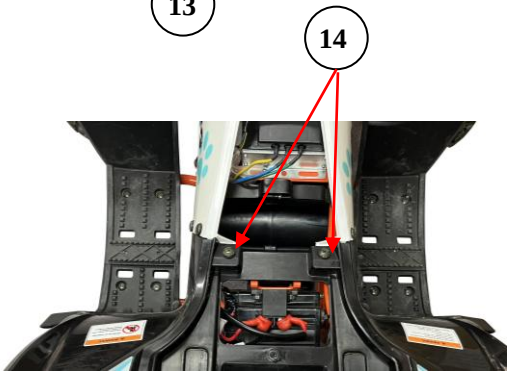
Remove the plastic fixing screws 13 (a total of 6 on the left and right)
Release the switch lock insert
Release the instrument plug-in



Remove screw 14
Remove the front body assembly 12

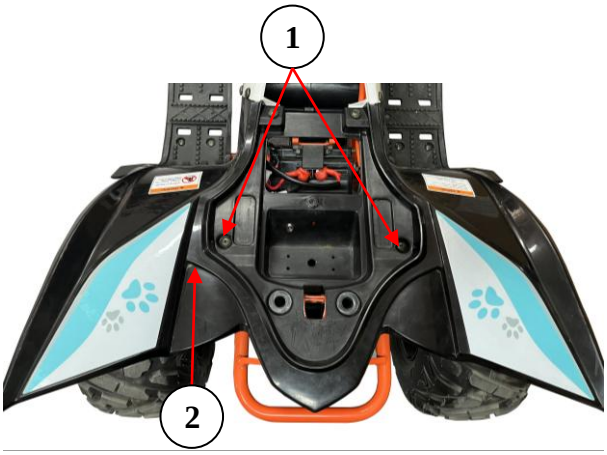
Installation

Installation is carried out in reverse order of removal



2.4.4 Rear body

Disassembly
Remove the front body assembly (→ 2.4.3)
Remove the fixing screw 1
Remove the rear body 2

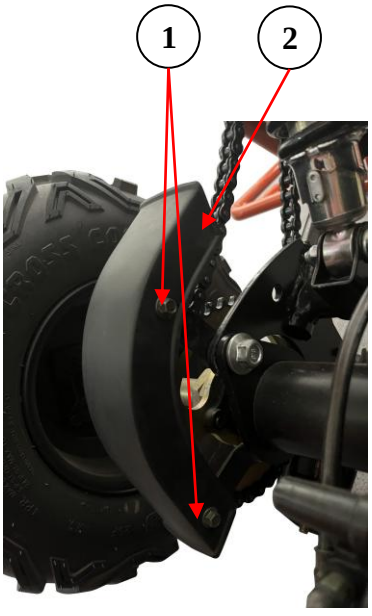


Installation
Installation is carried out in reverse order of removal

2.5 Disassembly and assembly of chain cover

2.5.1 Chain cover

Disassembly
Remove the fixing screw 1
Remove chain cover 2



Installation
Installation is carried out in reverse order of removal

3 Regular inspection and adjustment

Maintenance information

Operation precautions

Attention

- Avoid battery short circuit: When replacing the battery, it is necessary to pay attention to whether the positive and negative poles of the battery are connected correctly. If the connection is reversed, it is easy to have a short circuit, causing serious consequences.
- During the maintenance process of the vehicle, it is necessary to follow the safety operating procedures for electrical circuits. Avoid electric shock, which can cause serious consequences.

Attention

Do not let rotating components such as the drive system catch hands and clothes

Attention

The vehicle must be placed on a flat and stable surface

3.1 Inspection and maintenance methods

Inspection and maintenance items			Maintenance period			Judgment criteria
Inspection parts		Inspection items	Daily inspection	Semi-annual inspection	Annual inspection	
Steering device	Steering wheel	Operational flexibility	○			
	Steering system	Damage	○			
		Installation status of the steering system	○			
		Wag of the ball pin	○			
Braking device	Brake pedals	Handle stroke	○	○		
		Braking effect	○	○		
	Connecting rods and oil pipes	Relaxation, looseness, and damage	○		○	
	Hydraulic braking and brake discs	Wear and damage of brake discs	○	○		When the working disc thickness of the current brake disc is less than 3mm, and the working disc thickness of the rear brake disc is less than 3mm, it should be replaced in a timely manner.
	Brake pads	Wear and damage of brake discs	○	○		Minimum brake pad (friction pad) thickness ≥ 1mm; Please replace it when it is less than 1mm
Running gear	Wheels	Tire pressure	○	○		Front wheel: 35kPa (0.35kgf/cm2) (5PSI) Rear wheel: 35kPa (0.35kgf/cm2) (5PSI)
		Tire cracking and damage	○		○	
		Tire groove depth and abnormal wear	○		○	If there is no wear indication on the tire surface, the residual groove depth size should not be less than 3mm
		Loosening of wheel nuts and wheel axles	○	○		
		Shake of front wheel bearings	○		○	
		Shake of rear wheel bearings	○		○	
Buffer device	Suspension arm	Shake of the connecting part and damage to the rocker arm	○		○	
	Shock absorber	Oil leakage and damage	○		○	
		Effect			○	
Transmission device	Front axle	Transmission and lubrication	○		○	
	Rear axle					

Inspection and maintenance items			Maintenance period			
Inspection parts		Inspection items	Daily inspection	Semi-annual inspection	Annual inspection	Judgment criteria
Transmission device	Output shaft (transmission shaft)	Loose connection part	○	○		
		The shaking of the spline part			○	
Electrical device	Battery	Terminal connection status			○	
	Electrical wiring	Loose and damaged connections			○	
		The status of the throttle			○	Clearance of throttle knob: 2~6mm
Frame		Looseness and damage			○	
Other		Lubricating grease status of various parts of the frame			○	
Parts that can confirm anomalies during operation		Confirm if there are any abnormalities in the relevant parts	○			

Tighten all nuts, bolts, and nuts. It must be noted that all calibrated nuts, bolts, and lock nuts should be tightened to the specified torque.

3.2 Steering column and braking system

Place the car in a horizontal position, grip the steering handle tightly, and apply force in the direction shown in the diagram to check for any shaking.

If you feel shaking, you should confirm whether it is the steering column shaking or other shaking, and corresponding maintenance should be carried out.

If the steering column shakes, increase the locking force of the steering column locking nut or disassemble the steering column for maintenance

Place the vehicle in a horizontal position and slowly turn the steering wheel to the left and right to confirm if it can rotate smoothly and flexibly. If there is obstruction in some areas, check the main cable assembly and cables for interference. If the end position of the steering rod is not observed, confirm whether there is interference and whether the steering bearing is damaged.
Attention: It is necessary to confirm that the steering is flexible, otherwise the control handle will be unable to control the direction and accidents will occur

Front brake handle clearance:
Operate the front brake handle, check the braking effect and the action of the handle.
Check the clearance at the front brake handle

Front brake pump combination

<Liquid volume>

Check the amount of brake fluid

Remove 2 exhaust screws and check the fluid level. When the fluid level is less than 2/1, the vehicle will no longer be able to use. It is necessary to check the leakage of the brake pump, brake pipe, and various connections. If the inspection is normal, it is necessary to check the wear of the brake disc and brake pad. If there is damage or wear below the limit of use, please replace it.

It is also necessary to inspect these items before each use of the vehicle

Remove two exhaust screws 1

Remove the oil cup cover 2

Replenish the brake fluid recommended by Kayo until it reaches the upper limit line

Attention

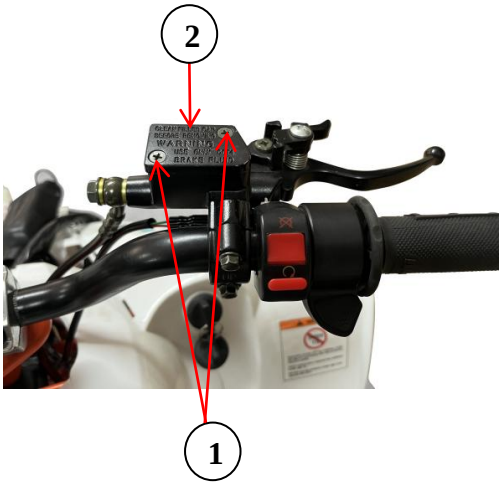
- When replenishing brake fluid, dust and water should not be mixed in
- To prevent chemical changes, please use the specified brand of brake fluid
- Because brake fluid can damage the plastic and rubber surfaces, please do not splash it onto these components

Turn the steering lever slightly to the left and right, and remove the oil cup cover after the brake pump assembly is in a horizontal state

Note: The method for checking the fluid volume of the rear brake pump combination is the same as that of the front brake pump combination

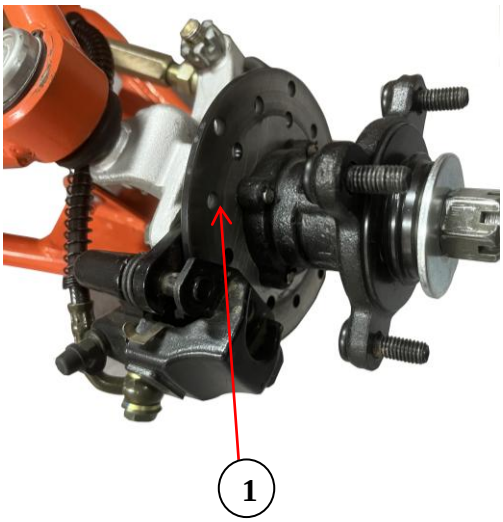
Attention: Please regularly check the brake fluid level to keep it in a safe position. Check the oil circuit and connection points for damage. If there are any, please replace them in a timely manner. Check the main pump/caliper for damage. If there are any, please replace them in time

Attention: Do not open the brake fluid cup for a long time



Front brake disc, brake pad wear
Check the wear of the brake pads
If the wear has reached the wear limit, replace the brake pads

Attention
The brake pads need to be replaced as a complete set



Inspection and replacement of brake discs
Check the sliding surface of brake disc 1 for wear or damage. If the current brake disc thickness is ⩽ 3mm, replace the brake disc

Front brake disc service limit thickness: 3mm

Check the minimum thickness of brake friction plate 2
Minimum friction plate thickness ≥ 1 mm
If it is less than the minimum friction plate thickness, please replace it with a new brake friction plate
Check if there is any damage or crack on the brake friction plate. If there is any damage or crack, please replace it with a new brake friction plate

Rear brake disc, brake pads <wear of brake pads>

Check the wear of the brake pads

If the wear has reached the wear limit, replace the brake pads

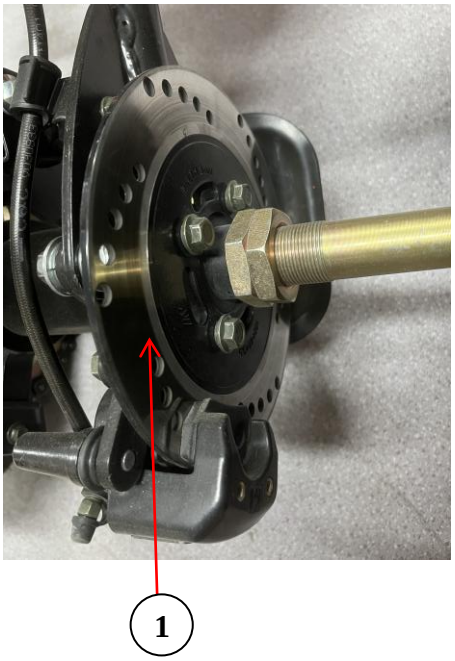
Attention

The brake pads need to be replaced as a complete set

Inspection and replacement of brake discs

Check the sliding surface of brake disc 1 for wear or damage. If the current brake disc thickness is ≤ 3.0mm, replace the brake disc

Rear brake disc service limit thickness: 3.0mm

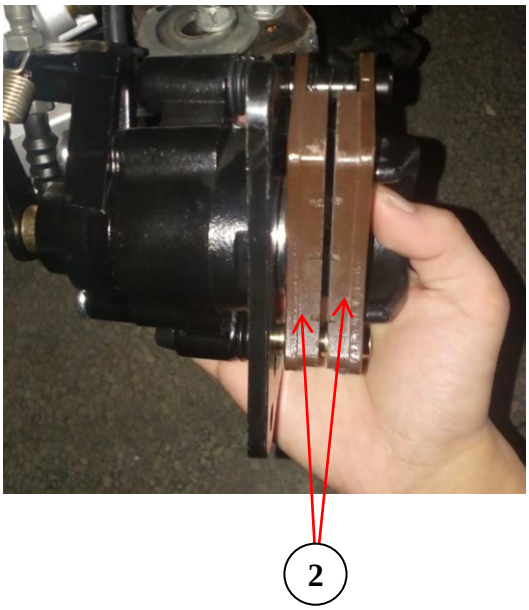


Check the minimum thickness of brake friction plate 2

Minimum friction plate thickness ≥ 1 mm

If it is less than the minimum friction plate thickness, please replace it with a new brake friction plate

Check if there is any damage or crack on the brake friction plate. If there is any damage or crack, please replace it with a new brake friction plate



Oil change <Replace the brake fluid>

Replace the brake fluid once a year

3.3 Wheels

Jack up the front wheels in a horizontal position with a tool to ensure that there is no force on the vehicle body. Shake the front wheels left and right to check if they are securely connected and if there is any shaking

If there is shaking, check and tighten the rocker arm, axle, rim bolts, and nuts.

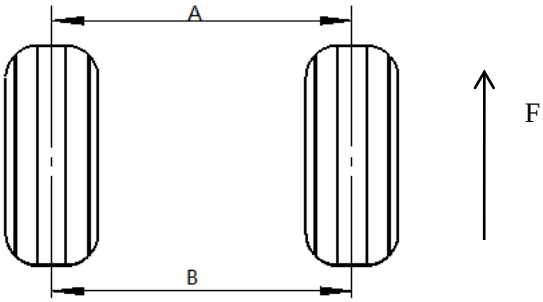
If there is still shaking, check and replace: bearings, rocker arm buffer sleeves, ball pins

Front wheel size

Place the vehicle body in a horizontal position and measure the toe in dimensions of the wheels; The front wheel is relative to the direction of forward travel of the vehicle. The front wheel is A, and the rear wheel is B

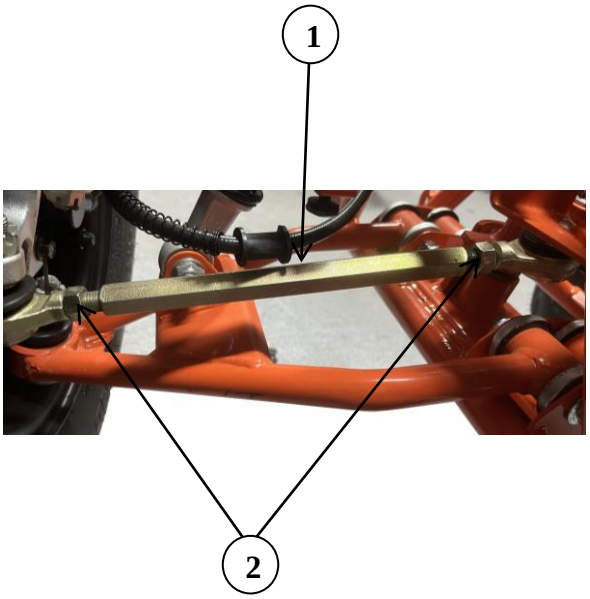
Toe in size: A-B=1.5~2.5mm

F is the forward direction



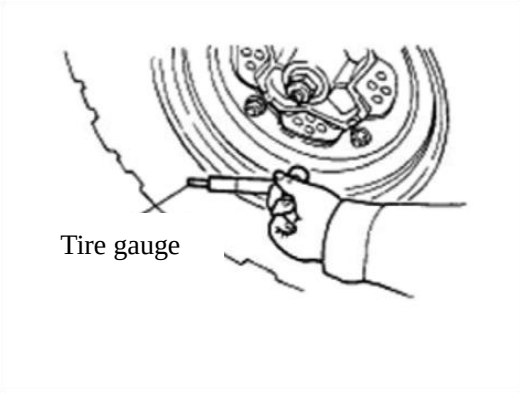
If not within this range, adjust the lock nut 2 of the steering rod 1

Attention: After adjusting the toe in size, drive the entire vehicle slowly to ensure that the handlebars can correctly constrain the direction of the vehicle body



Tire pressure

Use a pressure gauge to check the tire pressure.



Tire gauge

Attention

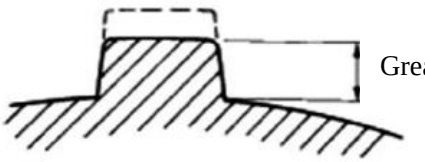
The inspection of tire pressure should be carried out while the tire is cool. If used in a state where the tire pressure is not appropriate, it will lead to poor operation and riding comfort, and cause adverse effects such as tire bias wear.

Designated air pressure/tire

	Front wheel	Rear wheel
Air pressure	35kPa（0 .35kgf/cm²）	35kPa（0.35kgf/cm²）
Tire size	See the first chapter	See the first chapter

Tire pattern

Check the tire pattern, and once the height of the pattern is less than 3mm, replace it with a new tire

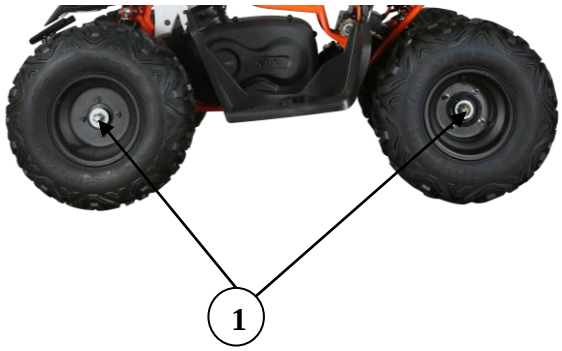


Greater than 3mm

Attention

When the tire pattern is less than 3mm, it must be replaced immediately

Wheel nuts and wheel axles
Check the looseness of the front wheel axle, rear wheel axle nut 1, and bolt
Tighten according to the specified torque when there is looseness
Torque:
Front wheel axle nut: 49N · mm~59N · mm (5.0kgf · mm~6.0kgf · mm)
Rear wheel axle nut: 49N · mm~59N · mm (5.0kgf · mm~6.0kgf · mm)



The shaking of the wheel hub
Use a tool to lift the front wheels, and when there is no force on the front wheels, shake the wheels axially to check for any shaking.

Remove the front wheel and inspect the wheel hub when there is shaking

3.4 Suspension system

Place the vehicle body in a horizontal position and compress it up and down several times according to the diagram. If there is shaking or abnormal noise, check the shock absorber for oil leakage, and check the fastening parts for damage, looseness, etc

Adjustment of shock absorbers

Use a special tool to adjust the adjustment point 1 of the shock absorber according to the load
Clockwise rotation is adjustable from high to low, and counterclockwise rotation is adjustable from low to high in both directions, which can be adjusted according to customer needs for riding comfort.

3.5 Throttle check

Battery display
When turning on the power, observe the battery level on the monitor, especially when used after long-term use

Throttle check
When turning the throttle as shown in the figure, check if it is flexible and whether it can rotate back and forth. If turning the throttle will move, then place the right handlebar upright and tighten the 1 bolt.

3.6 Instrument

Inspection instrument

When the entire vehicle system is first powered on (or after the first instrument replacement) and the motor is not working, the speed should be in the zero position. Start the engine and pay attention to whether the speed value indication has changed. If it does not change, it should be repaired in time.

3.7 Lighting installation

Attention : Before checking the lighting device, the entire vehicle system requires power on

Headlamp inspection

Push the front headlight switch 1 forward and observe if the vehicle's headlights are on. If not, please check the wiring for any errors. If the wiring is correct, please replace the turn signal in time

Tail light inspection

Hold the brake lever by hand and observe the tail lights. If the tail lights do not light up, please check if the wiring is connected incorrectly. If the wiring is correct, please replace the tail lights in time

Horn inspection

Press and hold the horn switch 4 to observe the horn. If the horn does not sound or the sound is too light, please check if the wiring is incorrect. If the wiring is correct, please replace the horn in time

4 Three electrical systems

Maintenance information

Operation precautions

- During operation and maintenance, please ensure that the vehicle is stationary for no less than 1 hour with the engine turned off. Confirm that the heating components have cooled before proceeding with maintenance to avoid injury to maintenance personnel
- Be careful not to damage the frame, motor body, bolts, and cables during operation
- When disassembling the motor, in order to protect the frame, the frame should be wrapped and protected

4.1 Fault diagnosis

Battery

Common faults	Adverse phenomena	The cause of the malfunction	Troubleshooting methods
Insufficient battery charging	1. Low static voltage 2. Low density, unable to meet specified requirements after charging 3. Short working hours	1.The voltage and current settings of the charger are too low 2.Insufficient initial charging 3.Charger failure	1.Adjust and repair the charger 2.Battery supplementary charging 3.Replace the battery
Battery overcharge	1.The liquid injection cover turns yellow and red 2. Shell deformation 3.Partition carbonization and deformation 4.Positive electrode corrosion and fracture 5.Rise, aging, and cracking of pole rubber sleeve 6.Regularly replenish water, and the electrolyte is turbid during charging 7.Active substance detachment from the electrode plate 8. Positive electrode plate tube explosion	1. The voltage and current settings of the charger are too high 2. Charging time is too long 3. Frequent charging 4. Low discharge and high charging capacity 5. Inflator malfunction	1.Adjust and repair the charger 2.Adjusting the charging system 3.Replace the battery
Battery over discharge	1. The static voltage of the battery is low 2. Low electrolyte density after charging 3. Bending and fracture of positive and negative electrode plates	1. The battery is not fully charged and continues to be used 2. Short circuit of battery pack 3. A small current long-term discharge	1.Supplementary charging 2.Vehicle maintenance 3.Replace the battery
Battery short circuit	1. Static voltage below 2V 2. The electrolyte density is too low 3. High temperature during charging 4. Short working hours of forklifts	1.Plate bending deformation short circuit 2.The partition is missing or damaged during assembly 3.Positive electrode active material detachment and bottom short circuit	Replace the battery
Open circuit	1. Abnormal and unstable voltage during external load path connection	1. Poor welding of poles or plates during assembly	1.The battery needs to be

	2. Current cannot be input during charging	2. External short circuit 3. High current discharge 4.Poor connection or disconnection 5. Plate corrosion	repaired 2.Replace the battery
Improper addition of electrolyte to the battery	When the density is high: 1. Electrolyte density after charging ≥ 1.300g/cm 2. The static voltage of the battery is high 3. The initial capacity is good, but after using it for a period of time, the capacity decreases 4. Electrolyte turbidity When the density is low: 1. After charging, the electrolyte density is lower than the specified value 2. Low battery capacity Impurity of liquid addition: 1. Low battery capacity 2. The electrolyte is turbid, with abnormal color and odor 1. 3.Severe self discharge of battery	1.The initial liquid density is too high or too low 2.The liquid level drops and there is an error in refilling. Pure water was not added as required, but other liquids were added instead 3.The initial solution is impure (containing impurities)	1.Change the electrolyte of the battery 2.Replace the battery
Plate sulfation	1.Capacity reduction during normal discharge 2.Density decrease below normal value 3. Fast voltage drop during discharge 4. Start charging with high voltage 5.Early generation of bubbles during charging 6.PbSO4 crystal coarseness	1.Insufficient initial charging 2. Under discharge state, the storage time is too long 3. Insufficient charging for a long time 4. The electrolyte density is too high 5. The liquid level is too low, and the upper part of the electrode plate is exposed outside the electrolyte 6. The electrolyte is impure 7. Internal short circuit	1.Overcharging method 2.Repeated charging method 3. Hydrotherapy
Excessive shedding of active substances	1. When charging, there is a gray brown substance rising from the bottom 2. Reduced battery capacity	1. Brown precipitate is caused by excessive charging current 2. The white precipitate is due to excessive discharge 3. The battery electrolyte is impure	1.Clean up sediment 2.Adjust density 3.Replace the battery

Battery reverse polarity	1. The voltage is negative 2. After charging, the electrolyte density should be below 1.20g/cm 3. The colors of the positive and negative poles and plates are opposite	Incorrect positive and negative connections during charging	Replace the battery
Battery leakage	1. Leakage at the injection port 2. Leakage at the sealing position of the groove and cover 3. Infiltration 4. There are scratches on the outside of the tank body	1. Poor heat sealing of groove and cover 2. Problem with pole rubber ring 3. Cracking of sealing agent 4. Inadvertently impacted by external force during use	1.Repair the battery 2.Replace the battery

Controller failure cause:

1. Caused by loose installation or vibration of components;
Solution: Lock the standard parts tightly

2. Caused by motor overload;
Solution: Replace the controller

3. The power device circuit is damaged;
Solution: Replace the controller

4. The connecting wire is worn and the contact plug-in is poor or detached;
Solution: Reinstall the plug-in after power outage, and if it fails, replace the controller

Common faults of brushed motors:

1. Motor shaft rotation is stuck or stuck: there are foreign objects inside, and the stator and rotor are in contact;
Solution: Replace the motor

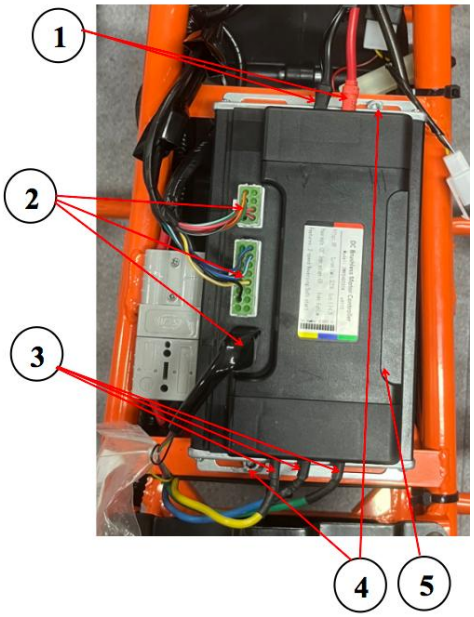
2. Abnormal noise from the motor: foreign objects inside, short circuit inside the motor, contact between the stator and rotor;
Solution: Replace the motor

3. Sprocket wear
Solution: Replace the sprocket

4. The motor does not rotate after being powered on: the brush has poor contact, the positive and negative pole terminals have poor contact, and the positive and negative pole wires are damaged
Solution: Replace the motor

4.2 Disassembly and assembly of controllers and converters

4.2.1 Controller



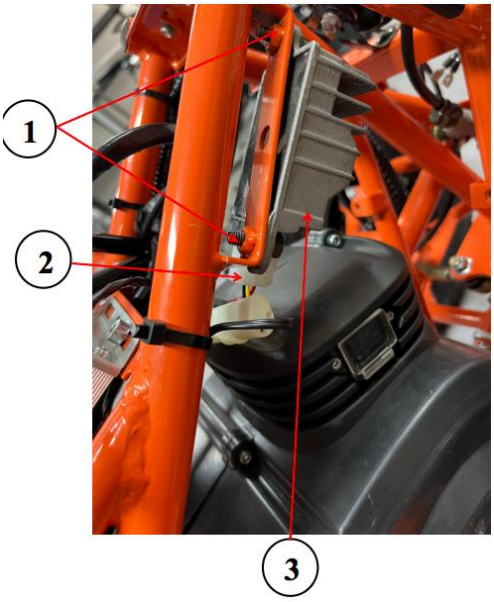
Disassembly

Remove the left and right foot pedals (→ 2.4)
Remove the steering handle and main plastic parts (→ 2
Remove the positive and negative power cables 1
Unplug controller plugin 2
Unplug plug-in 3
Remove the fixing screw 4
Removing controller 5

Installation

Installation is carried out in reverse order of removal

4.2.2 Converter



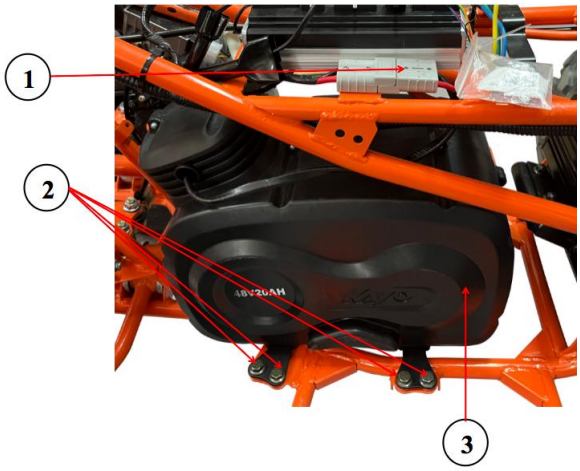
Disassembly

Unplug converter plug-in 2
Remove the fixing screw 1
Remove the converter 3

Installation

Installation is carried out in reverse order of removal

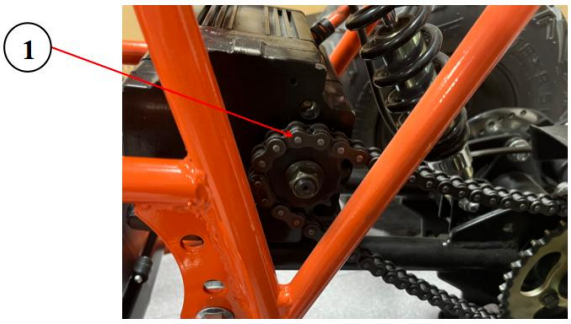
4.3 Disassembly and assembly of battery



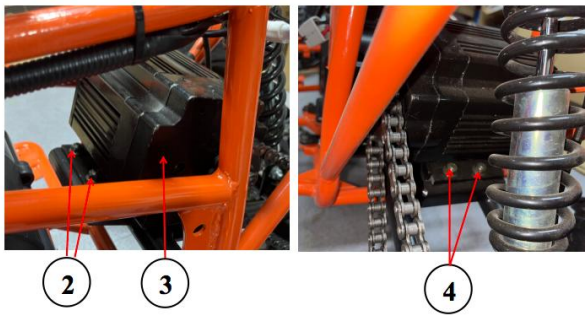
Disassembly
Unplug power plug-in 1
Remove the fixing screws 2 (4 on each side)
Remove the battery 3

Installation
Installation is carried out in reverse order of removal

4.4 Disassembly and assembly of motor



Disassembly
Remove the battery
Remove the chain 1
Remove the fixing screw 2
Remove the fixing screw 4
Remove the motor 3



Installation
Installation is carried out in reverse order of removal

5 Vehicle chassis

Maintenance information

Attention

•When conducting maintenance work on the front wheel and suspension system, the frame must be firmly supported before operation

•Do not exert excessive force on the wheels. Be careful not to damage the wheels

•When disassembling tires from the wheel rims, it is necessary to use specialized tires and wheel rim protectors to avoid damaging the wheels

Maintenance benchmark

Items		Standards	Service limit
Wheel rim	Axial runout	0.8mm	2.0mm
	Radial runout	0.8mm	2.0mm
Tires	Residual groove	—	3mm
	Pressure	35kPa(0.35kgf/cm2)	—
Front brake	Brake handle clearance	0mm	—

Tightening torque

Items	Fastener code	Tightening torque (N·m)
Lower rocker arm bolt	GB5789 M10×1.25×70	55-66
Upper rocker arm flange shaft	Φ10*185*M10*1.25mm	55-66
Front and rear shock absorption bolts	GB5787 M10×1.25×40	55-66
Front wheel hub installation slotted nut	GB9457 M14×1.5×H18	49-59
Steering rod ball pin slotted nut	GB9457 M10×1.25	15-20
Front brake disc bolts	M6×1.25×16	25-30
Rear brake disc mounting screws	GB70-85 M8×16	25~30
Rear wheel hub installation slotted nut	GB9457 M16×1.5	49-59
Steering column installation slotted nut	GB9457 M10×1.25	15-20
Steering column clamp mounting bolts	GB5787 M8×55	25~30
Motor mounting bolts	GB5787 M8	25-30
Sprocket seat mounting screws	GB70-85 M8×16	25-30
Rim mounting nut	GB6187-86 M8	49-59

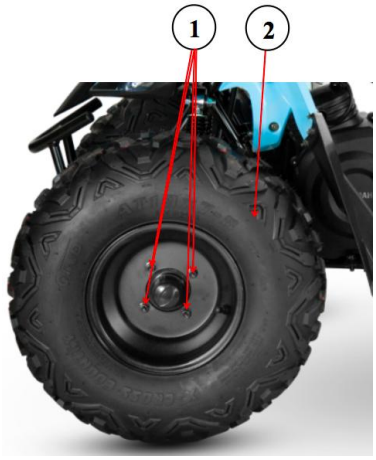
Tools

Inner hexagonal m6	Assembly tool shaft
Open end ratchet wrench s8	Pneumatic wrench s12
Open end wrench s10-s12	Pneumatic wrench s14
Open end ratchet wrench s14	Socket wrench m12
Open end wrench s17-s19	Socket wrench m14
Open end ratchet wrench s22	Socket wrench m20
Open end ratchet wrench s24	Socket wrench m24
Cross screwdriver	Needle-nose pliers

5.1 Fault diagnosis

1. Steering weight
   1) The upper bolts of the steering column are too tight
   2) The steering knuckle is too tightly locked with the frame
   3) Direction column deformation
   4) Low tire pressure
   5) Tire wear
2. Shake the steering handle
   1) Damaged and poorly tightened steering bearings
   2) Left and right shock absorbers do not match
   3) Tire skewness
   4) Frame deformation
   5) Tire wear and eccentric wear
   6) Wheel bearing shaking
3. Front wheel runout
   1) Wheel deformation
   2) Poor wheel bearings
   3) Poor tires
   4) Improper wheel balance
   5) Poor fastening around the wheel axle
4. Wheel rotation is not flexible
   1) Poor wheel bearings
   2) Improper installation of front wheels
   3) Brake oil pipe and cable are stuck
5. Rear suspension too soft
   1) Reduced elasticity of rear shock absorber
   2) Low tire pressure
6. The rear suspension is too hard
   1) Damaged rear shock absorber
   2) Excessive tire pressure
7. Abnormal noise from rear shock absorber
   1) Poor rear shock absorber
   2) Loose fastening parts of the shock absorber
8. Poor braking effect
   1) Poor brake adjustment
   2) The surface of the brake disc is dirty
   3) Brake pad wear

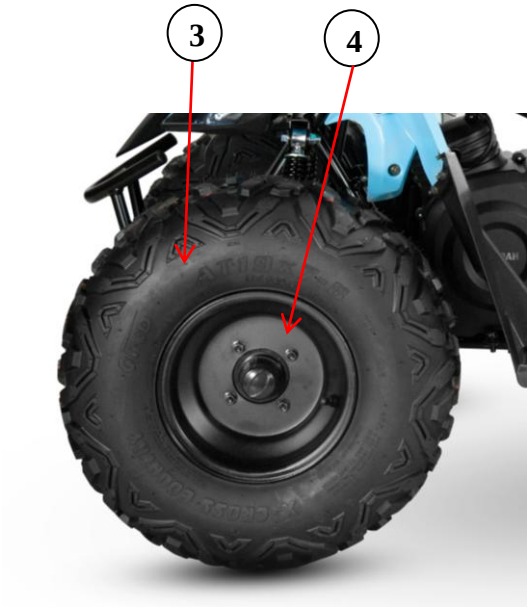
5.2 Front wheels



Disassembly

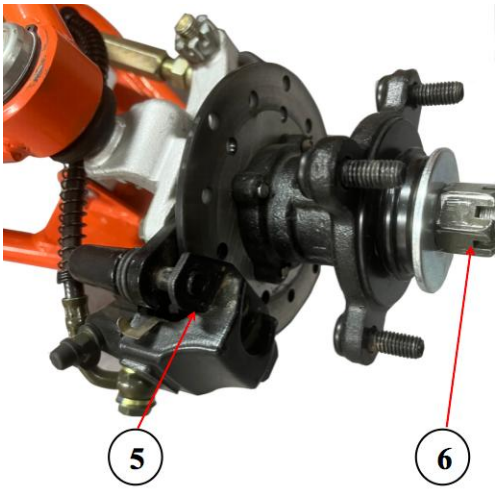
Use a tool to lift the front wheel and ensure that there is no force acting on the front wheel
Remove the fixing nut 1
Remove the front wheel 2

Inspection of wheel rims
Inspection of wheel rims
Check if the wheel rim 3 is damaged, deformed, or scratched, and replace it if there are any abnormalities. Slowly rotate the wheel and measure the runout of rim 3 using a dial gauge
Usage limit: Axial: 2.0mm
Radial: 2.0mm



Installation of wheel rims
Press rim 4 into the tire on a dedicated machine

Remove the front wheel mounting bracket
Remove the front wheel
Remove the front brake caliper body 5
Remove the split pin
Remove the rim shaft mounting nut 6
Remove the brake disc and mounting bracket together
Remove the front wheel mounting bracket



Installation
Installation is carried out in reverse order of removal
Rim shaft mounting nut torque: 49N • m~59N • m

Note: The removal and installation of the rear wheel is similar to the front wheel, please refer to the front wheel

5.3 Braking system

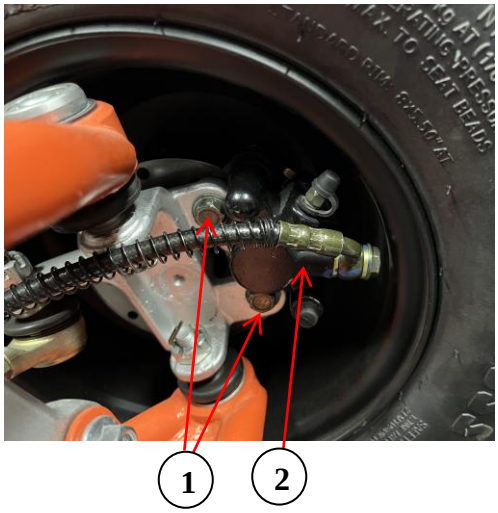
Remove the front brake caliper

Remove the front brake caliper

Remove the front wheel

Remove the 2 bolts 1 installed on the brake disc

Remove the brake caliper 4



Inspection

Observe if there are cracks in the brake caliper and if there is oil leakage at each fastening point, replace it if there is any

Installation

Brake caliper fixing bolt 2 torque: 10N • m~12N • m (coated with thread fixing agent)

Remove the brake pads

Loosen one fastening bolt

Rotate the brake caliper 3

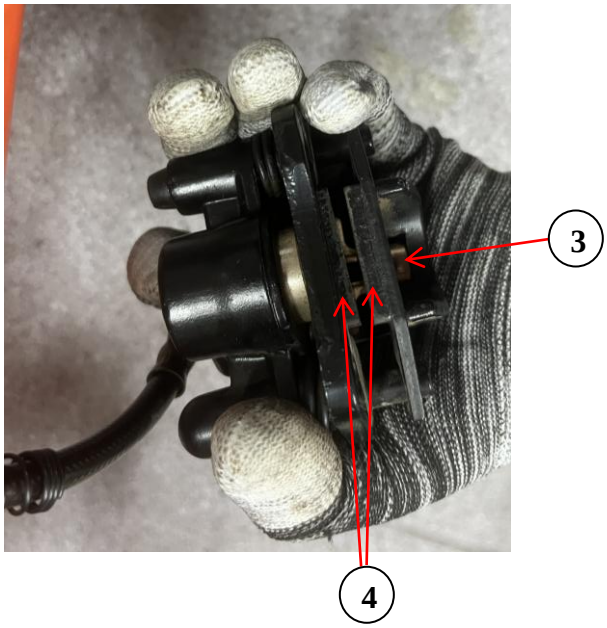
Remove the brake pads 4

Inspection

Measure the thickness of shoe block 4, when the thickness of shoe block 4 is less than or equal to 3mm, replace the two brake pads with new ones at the same time.

Installation

Installation is carried out in reverse order of removal



Remove the front brake disc

Remove the front wheel

Remove the brake caliper

Remove the brake disc 5 and front wheel bracket 6 together from the vehicle

Remove the brake disc 5

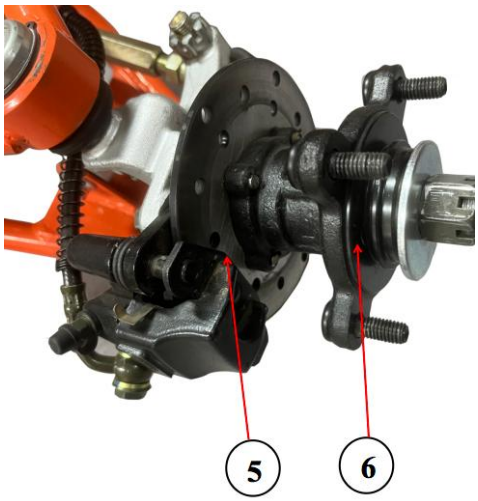
Inspection

Front brake disc thickness: If it is less than 3mm, replace it with a new brake disc

Installation

Install the brake disc

Brake disc fixing bolt torque: 10N • m~12N • m



Disassembly of the front brake pump

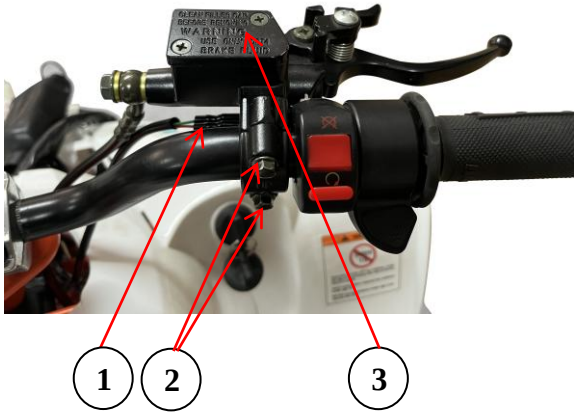
Unplug the brake switch plug-in 1

Remove bolt 2

Separate the front brake handbrake pump 3 from the steering lever, and there is no need to remove the front brake handbrake pump from the vehicle body without replacing the brake pump assembly

Installation

Installation is carried out in reverse order of removal



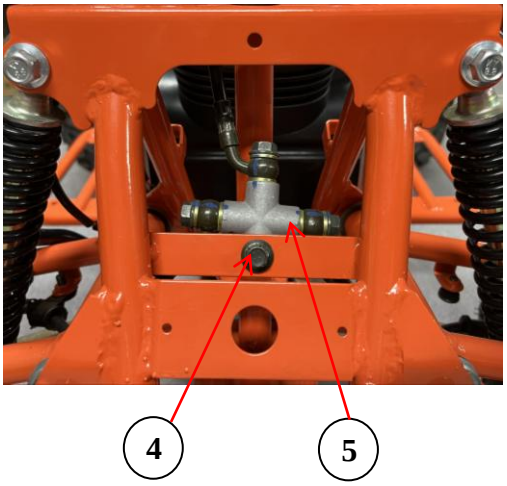
Attention：

Do not use brake oil pipes to suspend the brake pump

Due to concerns that the front brake handbrake pump may tip over and cause air to enter the hydraulic system, it is necessary to maintain the installation position while fixing it on the steering handle.

The direction of the oil pipe on the vehicle body must be arranged according to the cables and wires in the first chapter, and the smooth flow of the brake oil circuit must be ensured

When the brake system assembly is installed, the braking force must be checked.



Disassembly of the brake tee joint

Remove bolt 4

Separate the brake tee joint 5 from the vehicle body

Installation

Installation is carried out in reverse order of removal

Attention： The direction of the oil pipe on the vehicle body must be ensured to be smooth according to the cable and wire wiring diagram in the first chapter. The braking system must be checked for braking force when the assembly is installed

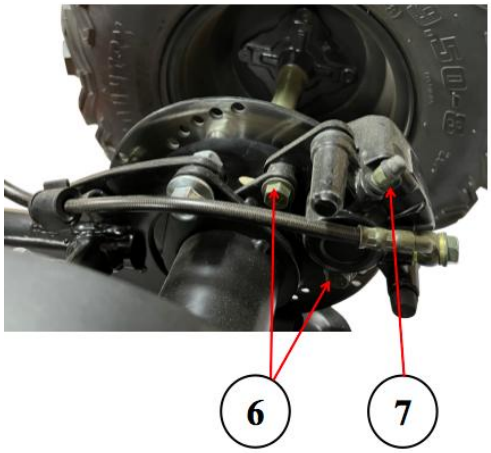
Remove the rear brake caliper body

Remove the bolt 6

Remove the rear brake caliper body 7

Installation

Installation is carried out in reverse order of removal

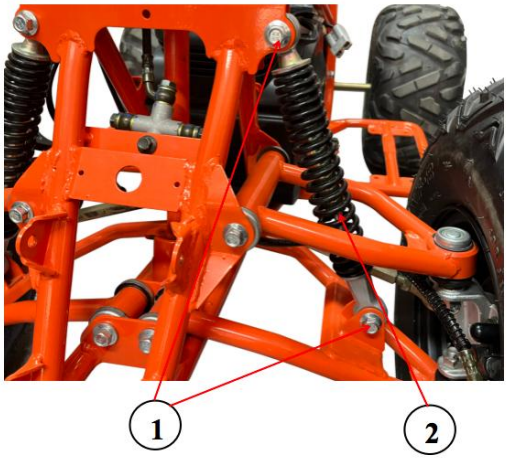


Attention： The direction of the oil pipe on the vehicle body must be ensured to be smooth according to the cable and wire routing diagram in the first chapter. When the brake system assembly is installed, the brake force must be checked. If the front and rear cannot be linked to control the brake system, check whether the joint is connected and whether the brake fluid volume in the brake oil cup is between the upper and lower limit graduation lines. If necessary, add the brake fluid recommended by Kayo between the upper and lower limit scale lines. Check whether the brake switch and brake light work normally

5.4 Front suspension system

Remove the left front suspension assembly

Attention： When repairing the suspension system, the left and right suspension systems cannot be removed simultaneously, otherwise the vehicle body will fall down due to lack of support



Park the vehicle on a level surface and use a jack to support the front of the vehicle firmly

Remove the front body

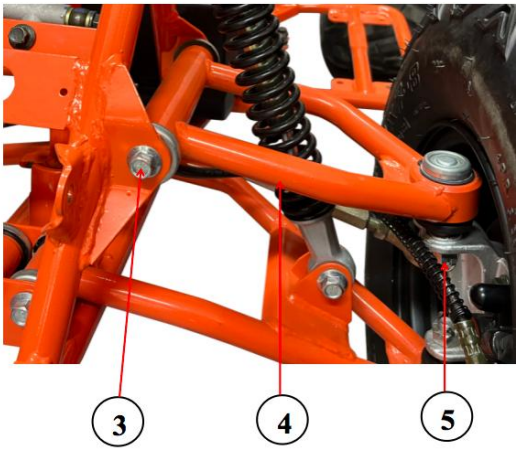
Remove the front wheel

Remove the brake caliper

Remove the front wheel hub bracket

Remove the bolt 1 that installs the left front shock absorber on the vehicle body and the left front lower rocker arm

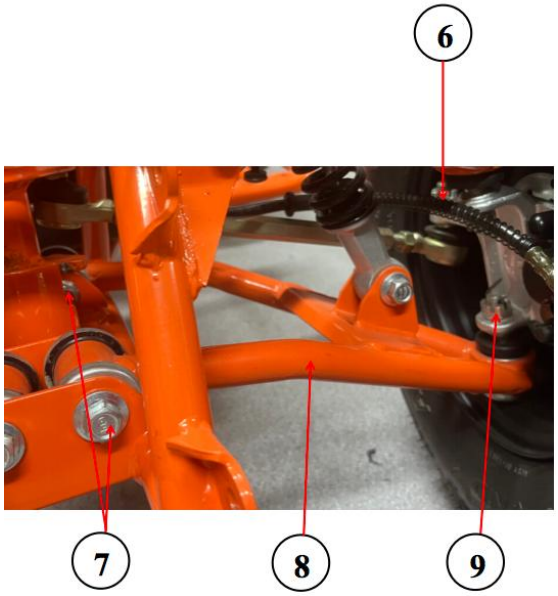
Remove the front shock absorber 2



Remove the bolt and nut 3 fastening the left front upper rocker arm installed on the frame

Remove the bolt and nut 3 fastening the left front upper rocker arm installed on the
Remove the split pin and nut 5 installed on the left front upper rocker arm ball pin and the left steering knuckle
Remove the left front upper rocker arm 4

Remove the split pin and lock nut 6 from the steering rod ball pin
Remove the bolt and nut 7 installed on the left front lower rocker arm on the frame
Remove the left front lower rocker arm ball pin locking bolt 9
Remove the left front lower rocker arm 8
Pull the steering knuckle out of the drive shaft. The suspension system of this vehicle has multiple configurations, suitable for different customer groups. The above mentioned suspension system is a basic configuration, and the maintenance methods for suspension systems in other configurations are similar. You can refer to the above methods for maintenance



Installation
Installation is carried out in reverse order of removal

The removal and installation method of the right front suspension combination is the same as that of the left front suspension combination

Disassembly and assembly of the left front rocker arm assembly
Remove the left front shock absorber
Remove the bolt and nut 3 fastening the left front upper rocker arm installed on the frame (left front suspension assembly diagram)
Remove the bolts and nut 8 that secure the left front lower rocker arm to the frame (left front suspension assembly diagram)
Before removing the shock absorber, the wheels, brake calipers, and rim brackets must be removed first
Before removing each bolt, remove the steering linkage first

Before removing the left front rocker arm assembly, first pull the steering knuckle out of the front constant velocity drive shaft

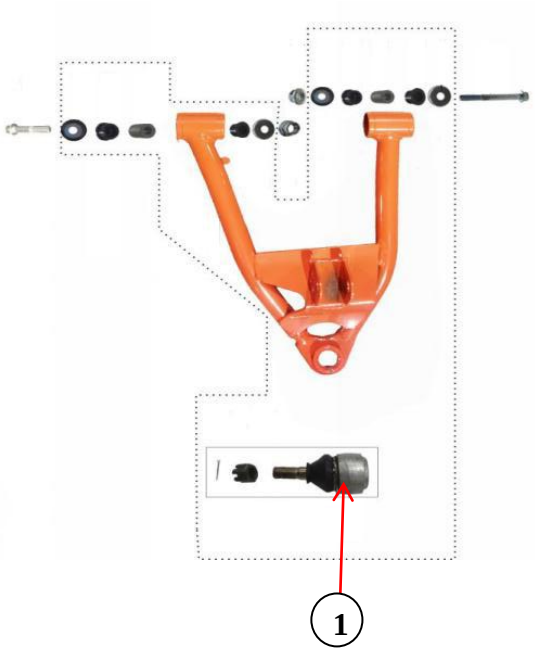
Remove the left front rocker arm assembly
Check the upper and lower rocker arms
Remove the left front upper rocker arm welding assembly 4 (left front suspension assembly diagram)
Remove the left front lower rocker arm welding assembly 9 (left front suspension assembly diagram)
Check whether the grease inside the ball pin has deteriorated (grease model: No. 2 lithium based grease GB7324-87), and whether the dust cover on the ball pin is cracked or aged. If the above problems occur, replace the ball pin with a new one.
Remove the buffer sleeve assembly inside the left front upper and lower rocker arm welding assembly, check if the buffer sleeve assembly is damaged or aged, and replace it with a new one if necessary

Installation
Use a special tool to press the ball pin into the rocker arm assembly
Installation is carried out in reverse order of removal

Attention： The upper and lower rocker arms should not shake after installation. If there is shaking, replace it with a new combination of buffer sleeves

Check the left steering knuckle
Remove the left steering knuckle
Remove the wheel hub bearing with a special tool
Check if the wheel hub bearing is damaged, rotates flexibly, and has excessive clearance. If defects occur, replace it with a new one

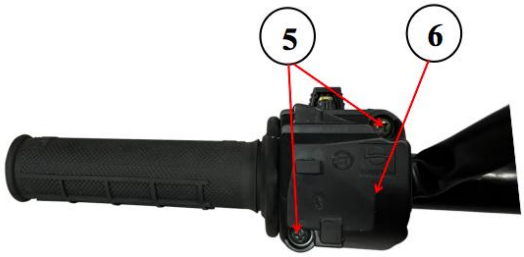
Installation
Installation is carried out in reverse order of removal



5.5 Steering system

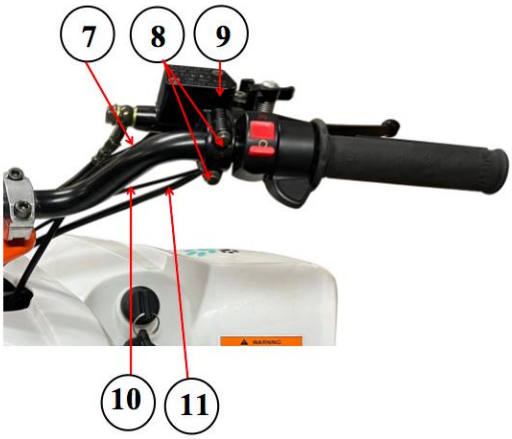
Directional handle

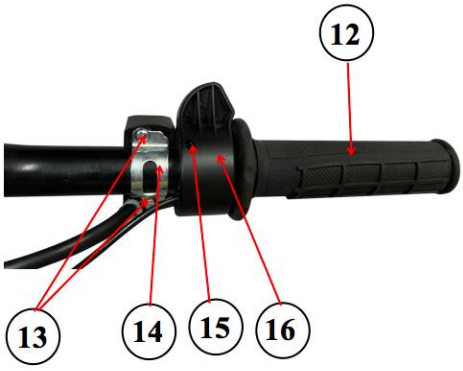
Left handlebar disassembly
Release the brake switch plug-in 3
Remove the rear brake fixing bolt 1
Remove the rear brake upper pump 2
Release the combination switch plug-in 4
Remove the combination switch fixing screw 5
Remove the combination switch 6



Installation
Installation is carried out in reverse order of removal

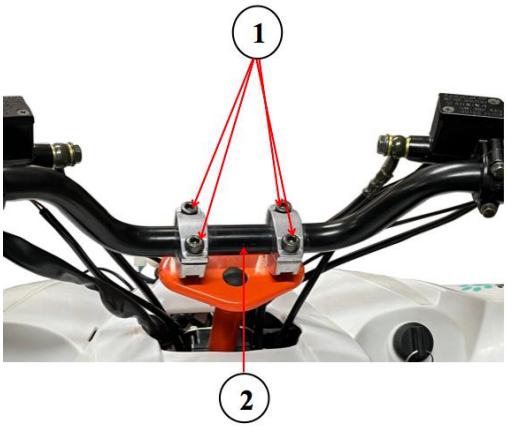
Right hand handle disassembly
Release the brake switch plug-in 7
Remove the front brake fixing screw 8
Remove the front brake upper pump 9
Release accelerator plug-in 10
Release the flameout switch plug-in 11
Remove the handle 12
Remove the fixing screw 13 of the flameout switch
Remove the flameout switch 14
Remove the accelerator fixing screw 15
Remove the accelerator 16





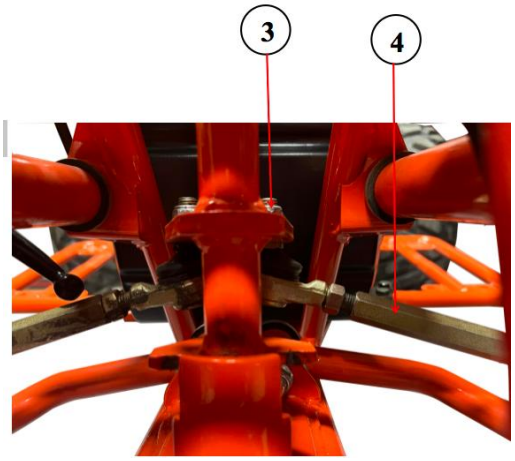
Installation
Installation is carried out in reverse order of removal

Remove the steering handle tube
Remove the left-hand handle
Remove the rear handle
Remove the fixing bolt 1 of the pressure block
Remove the steering handle tube 2

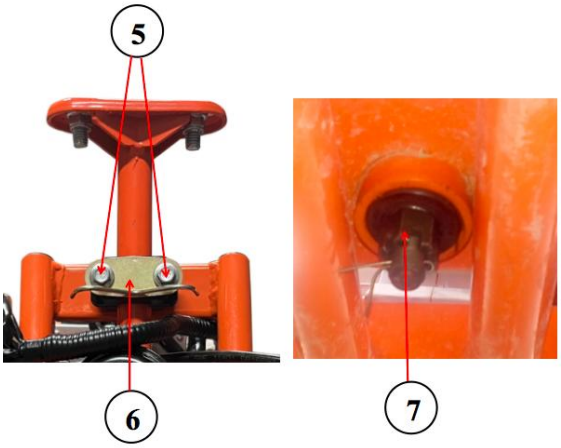


Installation
Installation is carried out in reverse order of removal

Disassembly and assembly of steering system
Steering shaft assembly
Disassembly
Remove the steering handle assembly
Remove the front body
Remove the front wheel
Loosen the locking nut 1 on the steering rod (2 on the left and 2 on the right)
Remove the steering linkage 2



Remove the steering rocker arm (1 set on the left and 1 set on the right)
Remove the fixing bolt 5
Remove the clamp block clamp plate and clamp block 6
Remove the split pin and lock nut 7
Lift the steering shaft upwards to remove the steering shaft assembly



Installation
Installation is carried out in reverse order of removal

Attention : When installing the split pin, replace it with a new one; After installation, it is necessary to check whether the steering flexibility and left and right steering angles are the same; When assembling the steering rocker arm, be sure to place it in the center before assembling the steering shaft; When assembling the steering shaft, it is necessary to be patient and ensure that the left and right steering angles are consistent before locking all

5.6 Rear suspension system

Remove the rear shock absorber

Disassembly

When repairing the suspension system, the vehicle body should be suspended first and the suspension system should be removed, otherwise the vehicle body will fall down due to lack of support

Park the vehicle on a level surface and use a jack to firmly support the rear of the vehicle

Remove the rear body

Remove the rear wheel

Remove the screw 1 that installs the rear shock absorber on the vehicle body and the flat fork assembly

Remove the rear shock absorber 2

Inspection

Check the removed shock absorber and adjust the adjustment cam 3 to the appropriate position

Installation

Installation is carried out in reverse order of removal

5.7 Rear transmission shaft assembly

Remove the rear transmission shaft assembly

Before removing the rear transmission shaft, the vehicle body should be suspended in the air, otherwise the vehicle body will fall down due to lack of support at the rear of the vehicle

Park the vehicle on a level surface and use a jack to firmly support the rear of the vehicle before starting work

Remove the rear body

Remove the rear wheel

Remove the chain cover

Remove the drive chain 4

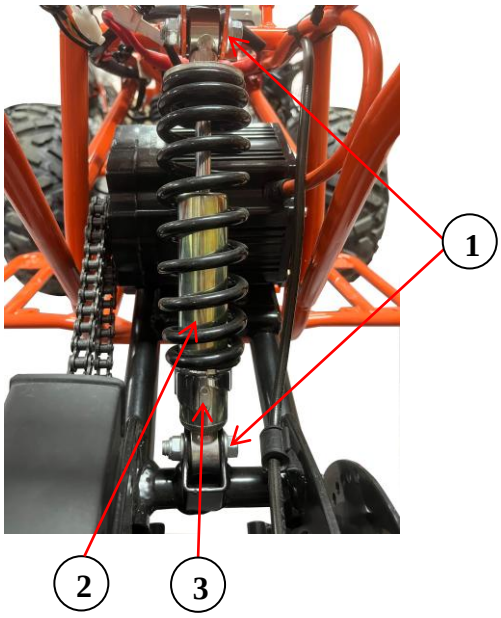
Remove the rear brake caliper

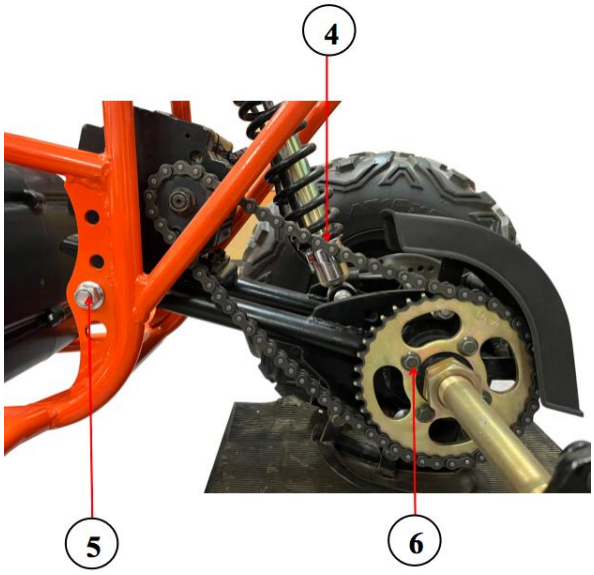
Remove the rear shock absorber

Remove the motor

Remove the connecting bolts and nuts 5 between the flat fork assembly and the frame

Remove the rear transmission shaft assembly 6





Inspection

The solution diagram of the rear transmission shaft assembly is as follows

Number	Name	Quantity	Number	Name	Quantity
1	Rear wheel axle	1	9	Rear disc brake disc	1
2	Rear sprocket seat	2	10	Spring pad GB93-87 Φ8*13*2	4
3	Steel rear sprocket	1	11	Rear fork	1
4	Outer hexagonal large head flange bolt GB5789 M8*16	8	12	Chain drag assembly	1
5	Thin nut M27*1.5*H10	4	13		
6	Rear hub assembly	2	14		
7	Flat liner Φ31*35*H5	1	15		
8	Rear axle assembly	1			

Inspection after disassembly of the rear transmission shaft

- Check if the rear wheel hub is damaged. If it is damaged, replace it with a new one
- Check the thickness of the disc brake disc. If the disc brake thickness is ≤ 3mm, a new disc brake disc should be replaced
- Check if the rear transmission shaft is bent or damaged, and if so, replace it with a new transmission shaft
- Check the flat fork assembly, and if there is any damage, replace it with a new one
- Check the rear sprocket. If there is any damage to the gear teeth, replace it with a new one
- Check if the other parts are damaged, and if there is any damage, replace them with new ones

Installation

Proceed in the reverse order of disassembling the rear drive shaft

Attention： When installing the bushing, apply lithium base grease containing molybdenum

disulfide on both ends of the flat fork shaft

6 Signal and lighting system

Maintenance instructions

When conducting inspection operations, the entire vehicle can be powered on; When carrying out disassembly and installation operations, the entire vehicle should be powered off first and both hands should be kept dry.

Specifications of each component

Name	Specifications	Quantity	Remarks
Left headlight	LED light with lamp holder	1	Replace the entire piece
Right headlight	LED light with lamp holder	1	Replace the entire piece
Rear taillight	LED/red with plug-in	1	Replace the entire piece
Instrument		1	
Electric horn	12V-1.5A EEC II-E9-00.6287	1	

6.1 Troubleshooting

1.Left headlight does not light up
1) Bulb damage
2) Poor contact of connectors
3) Damaged handlebar switch

2. Right headlight does not light up
1) Bulb damage
2) Poor contact of connectors
3) Damaged handlebar switch

3. Rear tail light does not light up
1) Bulb damage
2) Poor contact of connectors
3) Damaged handlebar switch

4. The electric horn does not sound or is too light
1) Damaged horn
2) Poor contact of connectors
3) Damaged handlebar switch

6.2 Check the headlamp

Turn the ignition switch to ON, turn the lighting switch to the lighting position, and check if the headlights are on

- Illuminated: Normal
- Not illuminated:
  - Main cable disconnection or short circuit
  - Fuse broken
  - Switch damage

If the headlights are damaged, the entire headlight should be replaced

6.3 Disassembly and assembly front headlights and rear taillight

Front headlights

Disassembly

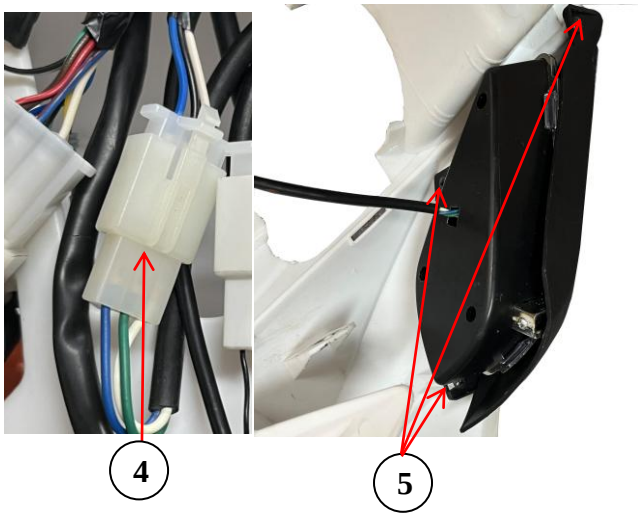
Remove the hood 1

Disconnect the front left and right headlight plugins 4

Remove the front body 2

Remove the front headlight fixing screws 5

Remove the left and right headlights 3



Installation

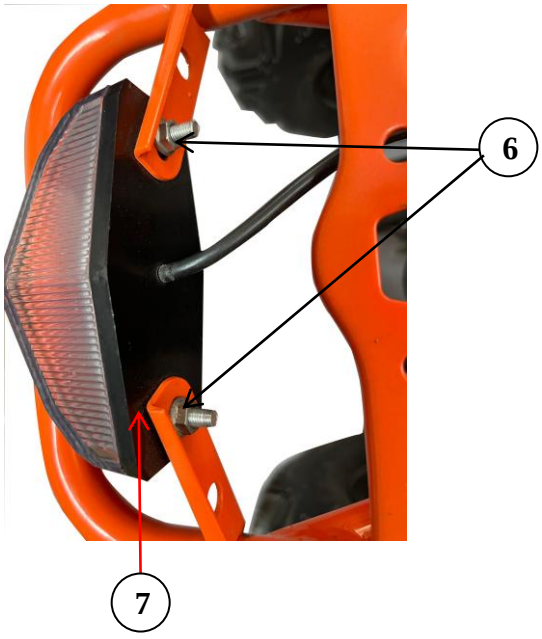
Proceed in the reverse order of disassembly

Rear taillight

Disassembly

Remove the fixing screw 6

Remove the rear tail light 7



Installation

Proceed in the reverse order of disassembly

6.4 Ignition switch

Disassembly

Remove the hood

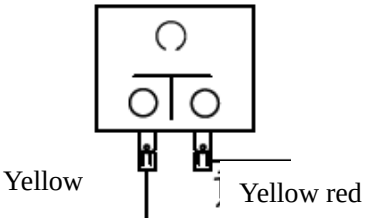
Disconnect the connection of the switch lock connector 1

Remove the switch lock 2

Inspection

Check for continuity between the terminals of each control switch connector according to the following tables

The continuity between● — ●is considered normal.

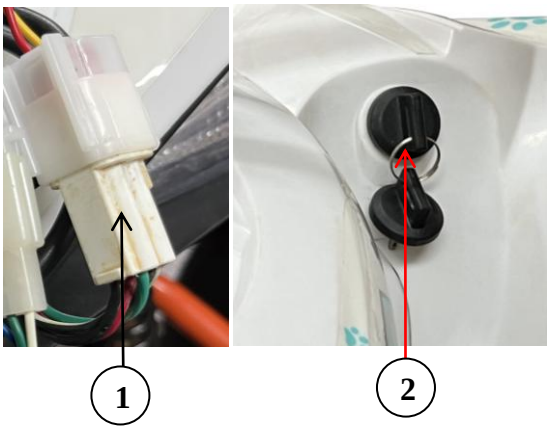


Installation

Proceed in the reverse order of disassembly

Installation

Proceed in the reverse order of disassembly



6.5 Handle switch

Disassembly

Remove the hood

Disconnect the connection of the left hand handle switch connector 3

Inspection

Check for continuity between the terminals of each control switch connector according to the following tables

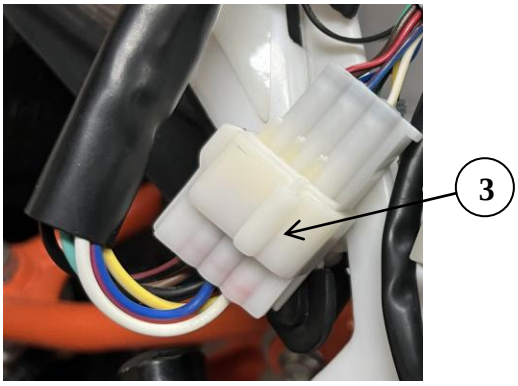
The continuity between● — ●is considered normal.

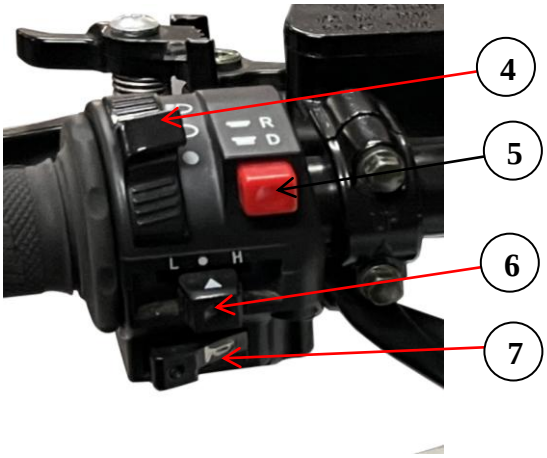
Lighting switch 4

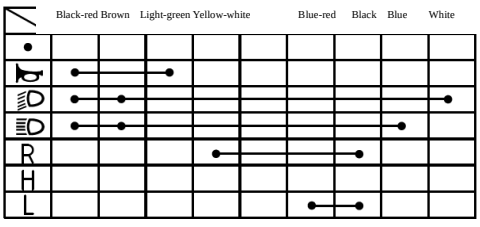
Forward and reverse shift switch 5

Gear shift switch 6

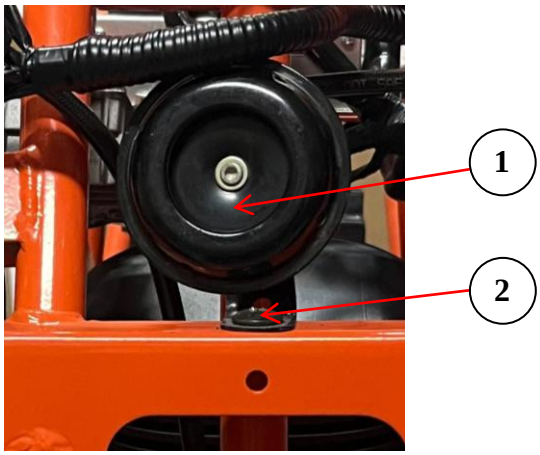
Electric horn switch 7







6.6 Brake light switch

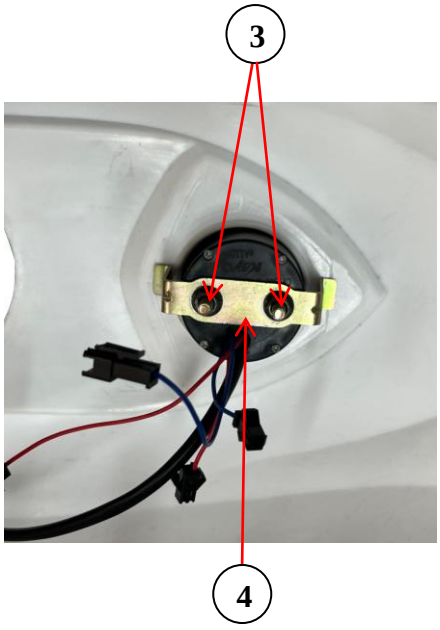


Check for continuity between terminals
It is normal for the brake handle to be conductive when holding it and not conductive when releasing it. If there are any abnormalities in the above inspection, replace the brake light switch

6.7 Electric horn

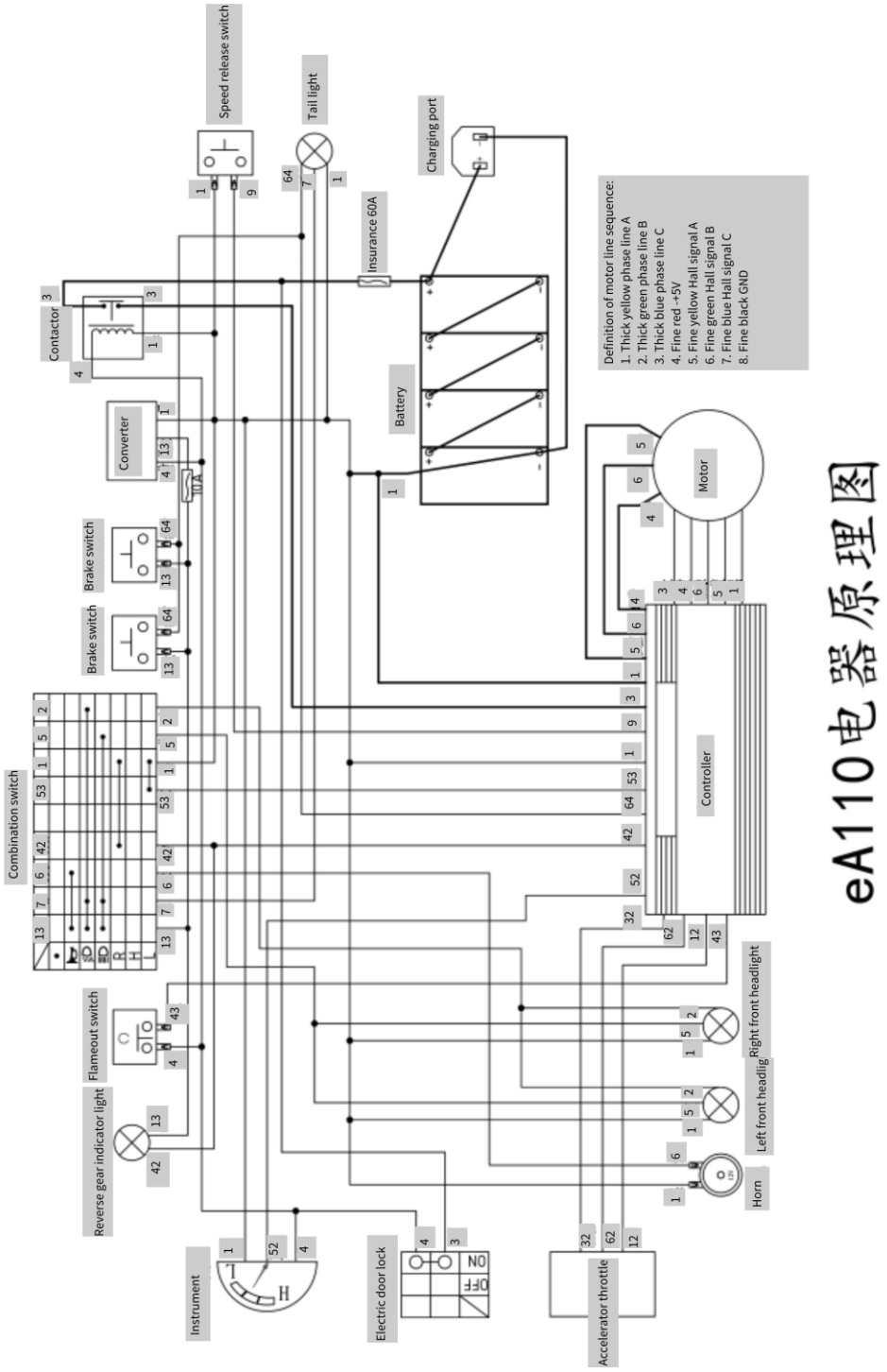
Disassembly
Remove the front body
Remove the electric horn connector
Remove the nut 1
Remove the electric horn 1
Inspection
When connecting a fully charged 12V battery, confirm that the electric horn sounds.
If there are any abnormalities in the above inspection, replace the electric horn
Installation
Proceed in the reverse order of disassembly

6.8 Instrument



Start the vehicle body, drive slowly, and confirm that the instrument display is normal. If there are any abnormalities during the above inspection, replace the instrument.
Disassembly
Remove the front body
Remove the instrument panel fastening nut 3
Disconnect the instrument cable plug connector
Remove the instrument cluster 4
Installation
Attention
The main cables and cables should be correctly assembled according to the wiring diagram of cables, pipes, and cables
Proceed in the reverse order of disassembly

Appendix



1 black, 2 white, 3 red, 4 yellow, 5 blue, 6 green, 7 brown, 8 orange, 9 pink, 10 gray, 11, purple