

BIRDIE BEAST



U-300-2WD-1.6/DL40DU OPERATIONS MANUAL



PLEASE READ THE INSTRUCTION BOOK
BEFORE USING THIS KIND OF MACHINE

Introduction

Thank you for purchasing a model from our all-terrain vehicle series and for joining our community of all-terrain vehicle users. Our company specializes in the manufacturing of both utility and recreational vehicles, with years of experience and technical expertise. We are dedicated to continuous product and technology improvements to bring you products that meet your needs and satisfaction.

This manual is an important part of your machine and should remain with the machine when you sell it. In case of loss or damage, please contact the dealer or manufacturer promptly. You can obtain a version suitable for your vehicle information or in the appropriate language.

To ensure both your enjoyment and safety while operating the vehicle, please carefully read and follow the instructions in this manual. This manual includes key specifications, basic structure, primary operating procedures, safe driving practices, and guidance on adjustment and maintenance for this model of all-terrain vehicle. Through this manual, you will gain the essential skills required to operate this vehicle safely. Additionally, using the exploded diagrams, part names, and codes provided, you can easily locate and order replacement parts as needed.

Please note that as we are constantly updating our products, there may be differences between the model you purchased and the descriptions provided in this manual; in such cases, please refer to the actual product.

Your dealer has an in-depth understanding of the vehicle you purchased, and we are also eager to gather user feedback through our dealers. Regardless of whether your vehicle is within the warranty period, you may provide quality-related feedback to your dealer at any time.

CONTACT US

BEST MART INC

ADD: 1720 DAN KIPPER DR, RIVERSIDE, CA 92507

[HTTPS://BESTMARTBRANDSSHOP.COM/](https://bestmartbrandsshop.com/)

For all warranty & technical-related matters: service@bestmartglobal.com

Email is suggested for feedback.

Table of Contents

2.Key Electrical Component Specifications 4

3.Safety Knowledge Guide 4

4.Vehicle System Description 9

5.Electrical System Description 17

6.Safety Operation Guide 19

7.Handling Emergencies 22

8.Vehicle Maintenance 23

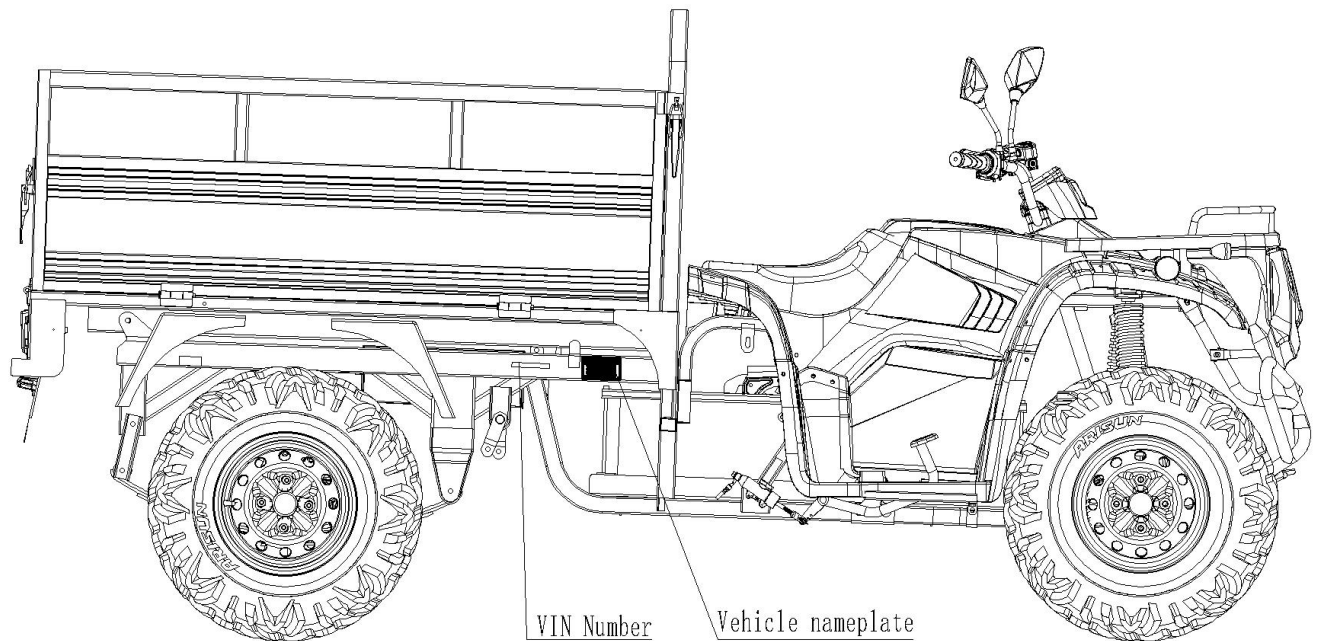
9.Vehicle Safety Disclaimer 30

10.Common Issues and Troubleshooting 33

11.Complete Vehicle Circuit Diagram 38

1.Basic Structure and Features

Vehicle information



VIN: H2JBBK01XXAXXXXXXX

Vehicle information: The location is as shown in the figure, and the content is as follows.



Purchase date:

After-sales service phone number:

Company website:

Basic Structure



Basic Features

- 1.1 The electric all-terrain vehicle's speed range can be adjusted from 0 to 43km/h.
- 1.2 The power source uses a maintenance-free, high-performance battery, allowing the vehicle to travel up to 90kilometers on a full charge.
- 1.3 This vehicle is powered by a drive motor, which is efficient, low-noise, pollution-free, maintenance-free, and has a long lifespan.
- 1.4 Both the left and right brake handles are equipped with a brake cutoff function. When braking, the power will be automatically cut off, ensuring reliable braking and safety during riding.
- 1.5 To sound the horn, press the horn switch on the left handlebar.
- 1.6 The vehicle is equipped with a night lighting system. To operate the headlights at night, simply turn on the headlight switch.
- 1.7 The vehicle has an under-voltage warning protection function. When the voltage drops below the under-voltage protection value of 66V+1V, the protection device will automatically cut off the power to protect the battery.
- 1.8 The vehicle features an over-current protection function. When riding on steep slopes, against the wind, or with excess load, the current will increase. If the current exceeds the specified value, the protection device will automatically cut off the power to protect the motor and electrical components. If this occurs, turn off the power key and rotate it fully to the right to restore normal riding.
- 1.9 The electric all-terrain vehicle uses a Hall-type throttle grip. During riding, simply turn on the power and adjust the throttle grip to control the speed smoothly. It features microcomputer control, brake cutoff, over-current protection, and under-voltage protection.

Main Technical Specifications

Main Technical Specifications of DL40DU

Vehicle Specifications			
(L×W×H) (mm)	(3130×1270×1470) ±30	Drive Type	2WD, Rear-Wheel Drive
Wheelbase (mm)	1980±20	Brake Type	Front and Rear Disc Brakes
Minimum Turning Radius (mm)	≤4000	Braking Method (Front/Rear)	Front: Hand Control, Rear: Foot Control
Minimum Ground Clearance (mm)	≥200	Seat Height (mm)	850
Max Speed (km/h)	43	Parking Brake Type	Handbrake Parking
Vehicle Weight (kg)	438	Tire Size (Front/Rear)	Front: 24*8.0-12, Rear: 24*10.0-12
Rated Load Capacity (kg)	250	Rim Type (Front/Rear)	Iron Rims, Front: 5.5*12, Rear: 8.0*12
Climbing Ability (°)	≥20		
Electrical Component Specifications (Lithium Battery)			
Battery Capacity	96Ah	Battery Voltage	76.8V
Motor Type	Permanent Magnet Synchronous	Controller	72V/150A
Motor Rated Power	4kw	Motor Rated Power	4000rpm
Maximum Output Power	8kw	Charging Voltage	87.6V DC
Range	90km	Charging Time (h)	6

2.Key Electrical Component Specifications

Battery Main Technical Specifications

Battery Type	Battery Dimensions (mm)	Battery Weight (kg)	Nominal Voltage (V)	Battery Capacity (Ah)	Charging Voltage (V)	Notes
Lithium Iron Phosphate Battery	900*275*245	64	76.8	96	87.6 DC	1/ unit

Motor Main Technical Specifications

Motor Type	Nominal Voltage	Rated Power	Peak Power	Rated Speed	Peak Speed	Maximum Torque
Maximum Torque	72V DC	4KW	8KW	4000rpm	6000rpm	70N.m

Maximum Torque

Component Name	Component Name	Rated Output Current	Maximum Output Current	Start-up Voltage	Under-voltage Protection	Over-voltage Protection
Controller	DC: 52~90V	DC: 120A	DC: 150A	DC: 52V	50V	90.7V

3.Safety Knowledge Guide

Pre-Drive Inspection

- ※ Vehicle exterior, front windshield, and seat cleanliness?
- ※ Tire pressure and wear condition; are the front and rear axle bolts securely tightened?
- ※ Is the battery box locked; is the handlebar saddle adjusted properly?
- ※ Rearview mirror angle and position; operation of the ignition switch?
- ※ Are the instrument panel indicators functioning normally; is the battery fully charged?
- ※ Is the throttle grip responsive and reliably returning to its position?
- ※ Is the brake system secure; is the motor running with normal sound?

Safety-related Knowledge Introduction

-Warning Stickers: The warning stickers pasted on the vehicle can prevent you from suffering accidental injuries during the use of the product. Please read them carefully and follow the instructions. When the warning content described in the manual is inconsistent with that on the warning stickers on the vehicle body, please follow the content shown on the vehicle. If the words on the warning stickers on the vehicle body are blurred or the stickers are peeled off, please ask the dealer for new stickers and replace them.



Safety Information Overview

Warning Labels: The warning labels on the vehicle are designed to prevent accidental injury while using the product. Please read them carefully and follow the instructions. If there is any discrepancy between the warnings in this manual and those on the vehicle, please follow the vehicle's labels. If the warning labels on the vehicle become faded or peel off, contact the dealer for replacement labels.

Safety Riding Gear: Please wear appropriate riding gear. Special protective equipment is necessary when riding an all-terrain vehicle. Proper gear enhances your riding experience and protects you from accidental injury.

Helmet: Always wear a helmet; it is the most important piece of protective gear. A helmet can prevent head injuries. Choose a helmet that meets national standards and has CCC certification.

Eye Protection: Please wear eye protection. Choose clear, shatter-resistant goggles or a helmet with an integrated visor that meets CCC certification. Avoid using sunglasses as eye protection.

Gloves: Choose protective gloves with knuckle padding.

Footwear: Select sturdy, calf-high, heeled boots, or off-road motorcycle boots.

Clothing: Wear long-sleeve, long-pant protective clothing with knee and shoulder padding.

Safety Training

When you purchase an all-terrain vehicle (ATV), the dealer will provide you with some safety operation training. At the same time, relevant materials on safe operation will also be provided to you. You should be familiar with and master this information. If you purchase a second-hand product through channels other than a dealer, as the user manual, warranty card, and random accessories are part of the complete machine, please ask the original owner for them. You can also request any authorized dealer to provide safety training. All-terrain vehicles are non-road vehicles. Please be familiar with the laws and regulations regarding the operation of all-terrain vehicles in your area. It is strongly recommended that you strictly follow the maintenance and servicing procedures described in the manual. These preventive maintenance procedures can regularly detect and repair problems that occur during the use of the product, and increase the service life of the product.

Please operate according to the instructions in the manual. Otherwise, it may lead to accidental injury or death.

Read the information on the manual and stickers carefully and follow the instructions.

Do not drive this machine before you have participated in any training courses or been informed of the correct operation methods.

Minors under the age of 16 are prohibited from driving.

Do not allow anyone who has not read the operation manual and all the content of the stickers and has not completed the safety training course to operate your all-terrain vehicle.

⚠ Warning

※Failure to follow the manual may result in serious injury or death.

※Familiarize yourself with the user manual before operating the vehicle.

※Drive the all-terrain vehicle with caution. The all-terrain vehicle is not a toy and is harder to control than cars or motorcycles. Improper handling when turning, driving on mountain roads, or navigating obstacles may lead to crashes or rollovers.

※Driver age limit: 16 to 65 years old.

Safety Hazard Notification

Hazard: Operating without following the instructions

Danger: If the driver does not know how to operate the vehicle correctly on different terrains and surfaces, the likelihood of accidents increases.

How to avoid: Beginners or those with insufficient experience should undergo training courses provided by the dealer and practice more.

Hazard: Inappropriate age for operation

Danger: Operating the vehicle at an inappropriate age may lead to accidents and injuries. Even within the allowed age range, a driver without the necessary skills, abilities, or judgment may cause accidents.

How to avoid: Operation is prohibited for those under 16 or over 65 years old.

Hazard: Carrying passengers

Danger: Carrying passengers severely affects the driver's balance, and since passengers have no protective equipment, it may cause harm to both the driver and the passengers.

How to avoid: Do not carry passengers. The vehicle is designed for cargo or installation of specialized equipment, not for carrying people.

Hazard: Driving on public roads

Danger: Driving on public roads may lead to collisions with other vehicles.

How to avoid: Do not drive on public roads. Follow local laws and regulations.

Hazard: Not wearing proper protective gear

Danger: Failure to wear protective gear increases the risk of injury or death in the event of an accident.

How to avoid: Always wear appropriate protective gear.

Hazard: Driving under the influence of alcohol or drugs

Danger: Alcohol and drugs impair judgment, reflexes, balance, and perception, potentially leading to accidents and injuries.

How to avoid: Do not operate the vehicle after consuming alcohol or drugs.

Hazard: Speeding

Danger: Speeding increases the risk of losing control, leading to accidents.

How to avoid: Control your speed based on the terrain, visibility, external conditions, and your experience.

Hazard: Not inspecting or maintaining the vehicle before use

Danger: Failure to inspect or maintain the vehicle may lead to accidents or equipment damage.

How to avoid: Inspect and maintain the all-terrain vehicle as per the manual before use to ensure safety.

Hazard: Taking hands off the handlebars or feet off the footrests during operation

Danger: This may cause the driver to lose balance or fail to react quickly in an emergency.

How to avoid: Keep both hands on the handlebars and both feet on the footrests during operation.

Hazard: Driving on unfamiliar terrain

Danger: Unknown road conditions can be complex, potentially causing loss of control or overturning.

How to avoid: Drive slowly and stay alert.

Hazard: Incorrect turning

Danger: This may lead to loss of control, resulting in collisions or overturning.

How to avoid: Follow the manual, practice turning techniques, and reduce speed when turning.

Hazard: Driving on steep slopes

Danger: This may lead to overturning.

How to avoid: Do not drive on steep slopes until you are proficient in operating the vehicle. Avoid slopes greater than 20 degrees.

Hazard: Incorrect uphill driving

Danger: This may cause loss of control or overturning.

How to avoid: Maintain a steady speed, avoid stopping. If the engine stalls, slides, or rolls back, follow the braking procedure in the manual, exit the vehicle from the safe side, and proceed after the danger has passed.

Hazard: Incorrect downhill driving

Danger: This may cause loss of control or overturning.

How to avoid: Shift your weight backward, reduce speed, and drive straight down the slope.

Hazard: Incorrect driving around a mountain or turning on a slope

Danger: This may lead to loss of control or overturning.

How to avoid: Do not drive on mountain roads or steep slopes until you are proficient in driving techniques.

Hazard: Incorrect dismounting when the vehicle stops or rolls back during uphill driving

Danger: This may cause the vehicle to flip.

How to avoid: Follow the braking procedure in the manual, exit from the safe side, and drive away

only after the danger has passed.

Hazard: Incorrect handling when crossing obstacles

Danger: This may cause loss of control or overturning.

How to avoid: When driving on unfamiliar terrain, check the road conditions in advance, avoid obstacles like rocks or fallen trees. Be particularly cautious if they cannot be avoided, and follow the manual.

Hazard: Sliding

Danger: This may cause loss of control, and restarting the engine after sliding may lead to overturning.

How to avoid: Drive cautiously, at low speed.

Hazard: Incorrect reverse operation

Danger: May collide with obstacles or people, causing injury.

How to avoid: Check for obstacles or people behind the vehicle before reversing. Confirm the area is clear, then reverse slowly.

Hazard: Riding through water or fast currents

Danger: Tires may lose traction due to buoyancy, leading to loss of control and accidents.

How to avoid: Avoid riding in deep water or fast currents. If unavoidable, reduce speed, maintain balance, and proceed slowly. Avoid turning, accelerating suddenly, or stopping. After exiting the water, use the brakes multiple times to dry the brake pads and restore braking function.

Hazard: Using incorrect tire specifications or improper tire pressure

Danger: This may cause loss of control and accidents.

How to avoid: Use the specified tire specifications and types, and maintain the recommended tire pressure.

Hazard: Modification

Danger: This may introduce additional safety risks.

How to avoid: Do not add vehicle accessories unless you are certain about their function and safety. All added parts or accessories must be original products from our company or specifically designed for this vehicle. Installation and usage must follow the specified instructions. For more information, please consult your local dealer.

Hazard: Overloading cargo

Danger: Overloading affects the vehicle's driving performance, stability, and braking, leading to loss of control and accidents.

How to avoid: Do not overload. Control the speed and maintain a safe braking distance.

Hazard: Riding on ice

Danger: The vehicle or rider may fall, leading to serious injury or death.

How to avoid: Do not drive on ice.

Caution:

During or immediately after use, the exhaust system components of the All-Terrain Vehicle can reach very high temperatures. Avoid contact to prevent burns.

⚠ Warning

▲ After use, please remove the key and take it with you to prevent potential safety hazards due to theft by others.

▲ If any rollover or accident occurs, please have the vehicle inspected by an authorized dealer, including (but not limited to) the brake, throttle, and steering systems.

▲ Persons with physical or mental conditions, or those who are not proficient in driving skills, should not operate the all-terrain vehicle, as this could result in accidents or injuries.

4. Vehicle System Description

Vehicle Start-Up

A. Main Switch and Start Switch

Air Circuit Breaker — Located as shown in the diagram, this switch (1) controls the vehicle's power status. When set to the "off" position, the vehicle is disconnected from power and cannot be started. When set to the "on" position, the vehicle is powered, allowing the ignition key to turn the main power control switch (2), powering the vehicle and illuminating the dashboard.

Main Power Control Switch — This switch controls the vehicle's main electrical circuit. When the key of the main power control switch (2) is turned counterclockwise, the entire electrical system is powered, and all control buttons are ready for operation. When the key is turned clockwise, the electrical system is shut off, and all control buttons are disabled.



B. Unlocking and Locking

Smart Key Card (NFC) Mode

The electric vehicle comes with two smart key cards as standard. If a key is lost, please bring the proof of purchase to the original manufacturer's after-sales service center or an authorized dealer to match a new smart key card.

Unlock

Hold the key card near the NFC symbol on the electric vehicle's dashboard. The dashboard will light up and emit an unlock chime, indicating that the electric vehicle has been successfully unlocked.

Lock

When the electric vehicle is at a speed of 0, hold the key card near the NFC symbol on the vehicle's dashboard. The dashboard indicator light will turn off and emit a locking chime, signaling that the electric vehicle is successfully locked.

Password Unlock Mode

When the password unlock function is enabled and the electric vehicle is in the locked state, squeezing the brake once will cause the small digital display area on the instrument to show "0000". At this point, you can press the "P" button to select a digit, and squeeze the brake to select the digit position. Enter the 4-digit password. If the password is correct, the vehicle will be unlocked. If the password is incorrect, a prompt sound will be heard, and the vehicle will return to the locked state. (Password can be set via the mobile app.)

C, Automatic Locking

Keyless Unlock Mode

When the mobile app's keyless function is enabled and paired with the electric vehicle, the user can simply walk towards the vehicle with the phone in hand. By pressing and holding the "P" button for one second, the vehicle will unlock.

If the vehicle is equipped with a seat sensor function and this feature is activated in the mobile app, the vehicle will automatically unlock when the user sits on the seat. After the ride, when the user moves a certain distance away from the vehicle, the vehicle will automatically lock.

Add Secondary Smart Key Card (Bind to Mobile)

Users can use a standard access card or a mobile phone with NFC functionality as the key card for the electric vehicle. To set up, use the main card to unlock the vehicle and press the "P" button to switch to driving mode. Then, press and hold the multifunctional "M" button until the small digital display on the dashboard shows "bxxxx". Place the access card near the dashboard's NFC sensor area, and the dashboard will emit a confirmation sound, indicating successful card pairing. You can repeat this process to configure multiple secondary cards.

To delete a secondary smart key card (unbind mobile phone)

When the secondary key card is lost or for other reasons, users need to clear the stored secondary key cards from the vehicle. Unlock the vehicle with the main key card and switch to driving mode by pressing the "P" button. Press and hold the multifunction button "M" until the small digital display on the dashboard shows "bxxxx". Then, hold the main key card near the NFC sensor area on the dashboard. Once you hear the confirmation sound, it means the secondary key card information has been fully cleared.

·Note: This operation will also clear the binding relationship between the phone and the vehicle.

Press the "P" key to automatically lock the vehicle.

After finishing the ride and parking, press the "P" key. The dashboard will display the "P" icon, and the vehicle will automatically lock after 5 seconds.

The vehicle will automatically lock when you leave the seat.

After finishing the ride and parking, the vehicle will automatically lock 60 seconds after you leave. Note: This feature requires enabling the seat sensor function in the app.

Operation Function Instructions

Right handlebar switch 1



Headlight switch – The switch (1) is located on the right handlebar. This switch is used to turn the front headlight on and off and can switch the light from  

Note: The headlight only operates when the switch is in the [on] position.

Headlight switch – The switch is located on the right handlebar. This switch is used to turn the front headlight on and off and can switch the light from [low beam] to [high beam].

Note: The headlight only operates when the switch is in the  position.

Lighting options: Full beam |  Parking light | Lights off 

Gear shift device – The vehicle's gear is controlled by the right handlebar button (3) to switch gears. The gear selection device is located as shown in the image below: Move the switch to D for forward gear, move the switch to N for neutral, and move the switch to R for reverse gear.

Throttle – The rider controls the motor speed and the vehicle's movement speed using the throttle (2). The throttle automatically returns to the idle position; releasing the throttle will stop the motor.



Right-hand grip switch 2



Automatic/



Manual Headlights – When the light switch is in the automatic position, the instrument's automatic headlight indicator will light up. The headlights will automatically turn on whenever the external light intensity is below the preset parameters in the mobile app. When the light switch is in the manual position, the headlights will remain on continuously.

Max Speed Control Switch – The 3-position switch allows you to toggle between low, medium, and high-speed settings.

Throttle – The rider controls the motor speed and vehicle movement through the throttle. The throttle automatically returns to its neutral position, and when released, the motor stops.

M Button – Multifunction Button

Once the vehicle is unlocked and in normal driving mode.

Press the M button. The small digital display area on the instrument will cycle through the following information: time, remaining range, total mileage, and current trip mileage, along with other relevant e-vehicle details.

Double-click the M button to activate the vehicle's hazard lights. Double-click again to turn them off.

While riding, to select the desired riding speed, press and hold the M button for one second. The cruise control indicator will appear on the instrument, and the vehicle will enter cruise mode. Pull the brake or twist the throttle to cancel cruise mode.

MC Button –None

Left Handlebar Switch 1

Horn Switch – Press the horn switch to alert pedestrians when necessary.

Emergency Switch – In the event of a vehicle malfunction or other situations requiring an emergency alert, press this switch to activate the hazard lights.

Turn Signal Switch – When the vehicle needs to turn, push the lever to the left to activate the left turn signal. Push the lever to the right to activate the right turn signal. Press the switch downward to turn off the turn signals.

Headlight Distance Adjustment – Push the switch forward or backward to adjust the headlight distance.



Left Handlebar Switch 2



Horn Switch – Press the horn switch to alert pedestrians when necessary.

Turn Signal Switch – When the vehicle needs to turn, push the lever to the left to activate the left turn signal. Push the lever to the right to activate the right turn signal.

Headlight Distance Adjustment – Push the switch forward or backward to adjust the headlight distance.

P Key – Gear Shift Button

After unlocking the electric vehicle, the display will show "P." If no gear operation is made within 10 seconds in this mode, the vehicle will automatically return to the locked state.

Press the P key once to enter driving mode, and twist the throttle to start driving. Pressing the P key will cycle through three modes: parking, driving, and reverse. If the assistive push or reverse

functions are enabled in the mobile app, pressing the P key will cycle through four modes: parking, driving, pushing, and reverse.

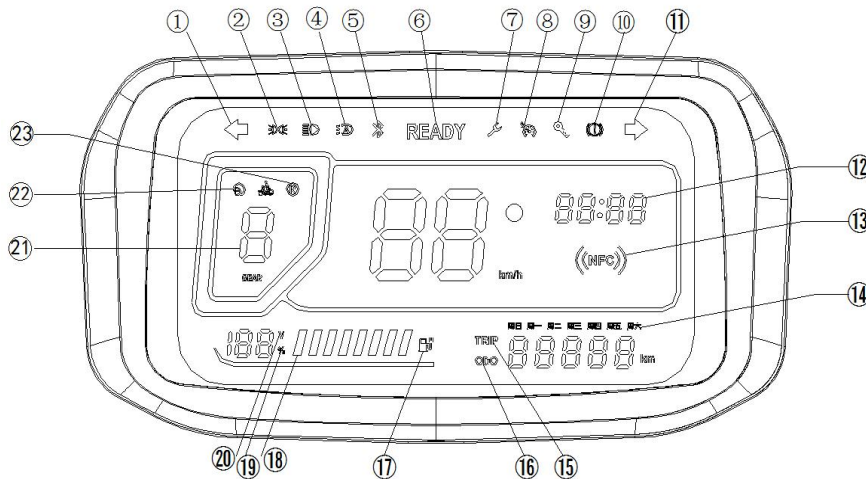
If the electric vehicle is equipped with an electronic seat lock, long press the P key for 1 second to control the seat's unlocking.

Instrument Panel 1

The gauge is the driver's information center. When the power switch is turned on, the power supply in the meter will be turned on, and the meter will start to work at this time. The meter contains the following information and functions:

- ① Motor RPM: Shows the real-time motor speed.
- ② Battery Level: Shows the battery capacity.
- ③ Reverse Gear: Lights up when in reverse.
- ④ Turn Signal: Lights up when the turn signal is on.
- ⑤ High Beam: Lights up when high beams are on.
- ⑥ Neutral: Lights up when in neutral.
- ⑦ Speed Display: Shows speed in km/h.
- ⑧ Odometer: Displays real-time and total mileage.

Instrument Panel 2



Functional description			
①	Left turn signal	⑬	NFC indicator light
②	Low Light	⑭	Week
③	High beam	⑮	Single mileage
④	Automatic lighting	⑯	Total mileage
⑤	Bluetooth	⑰	Undervoltage indicator lamp
⑥	READY	⑱	Electricity display
⑦	Fault lights	⑲	Percentage of electricity consumption
⑧	cruise control	⑳	Battery voltage
⑨	Card mode	㉑	Gear
⑩	Brake light	㉒	Helmet light
⑪	Right turn signal	㉓	Reverse mode
⑫	Time display		

⚠ Warning

- ▲ Do not hit or scratch the instrument panel with hard objects, as this may damage it. Do not attempt to modify or repair it; if a malfunction occurs, please contact the local dealer.
- ▲ To prevent damage, clean the instrument panel with mild soapy water by hand or use a soft hose for rinsing. Do not use alcohol to clean the instrument.

Important Safety Measures

1. If the All-Terrain Vehicle is left unused for an extended period, the parking brake may loosen.

Please lock the parking handle with the parking lock and use a reliable obstacle to block the tires to prevent sliding.

2. When parking the All-Terrain Vehicle on a slope, lock the parking handle with the parking lock and use a reliable obstacle to block the tires to prevent sliding.

Warning

▲ Forcibly using the rear brake when reversing downhill with the All-Terrain Vehicle may cause it to flip backwards, leading to accidental injury or death.

▲ Use the rear brake pedal and front brake handle with caution. Improper use at high speeds may cause the All-Terrain Vehicle to skid or lose control, resulting in accidents and injuries.

▲ If skidding occurs while using the rear brake, repeatedly press and release the pedal to apply braking.

Can communication fault judgment code

61	0x0601	1537	Locked rotor
62	0x0602	1538	Under-voltage
63	0x0603	1539	Over-voltage
64	0x0604	1540	Over current
65	0x0605	1541	Over-temperature
66	0x0606	1542	Phase-to-phase short circuit
67	0x0607	1543	MOS component short circuit
68	0x0608	1544	Motor Hall sensor fault、Phase loss

Electric Winch

The electric winch is powered by an electric motor that drives the cable, operating on a 12V voltage. It can assist in vehicle recovery and towing other vehicles, with a maximum towing capacity of 2500 lbs.

Winch Installation

Using the winch naturally starts with installation. This step is not complicated, but it is the most important one, as it directly affects the subsequent steps and the overall performance of the winch. The key here is to pay attention to the condition of the winch drum and ensure the cable is wound evenly before and throughout use. The specific installation process is as follows:

- 1.Insert the Remote Control: Plug the remote control's connection into the winch.
- 2.Avoid Letting the Remote Cable Hang Loose: If you are the driver operating the remote control from the driver's seat, wrap any excess cable around the side mirror for easier handling during operation.
- 3.Pull Out the Cable: Use the remote control to release a bit of cable, then open the cable hook mounted on the side of the winch.
- 4.Engage the Clutch: Be sure to open the hook before engaging the clutch.

5. Hold the Cable Hook: While pulling the cable off the drum, hold the hook with one hand. This way, no matter how much cable you pull out, the hook will always be within reach.

6. Lock the Clutch After Pulling the Cable to the Anchor Point: Once the cable is pulled to the anchor point, lock the clutch.

Seat cushions and support staff cushions

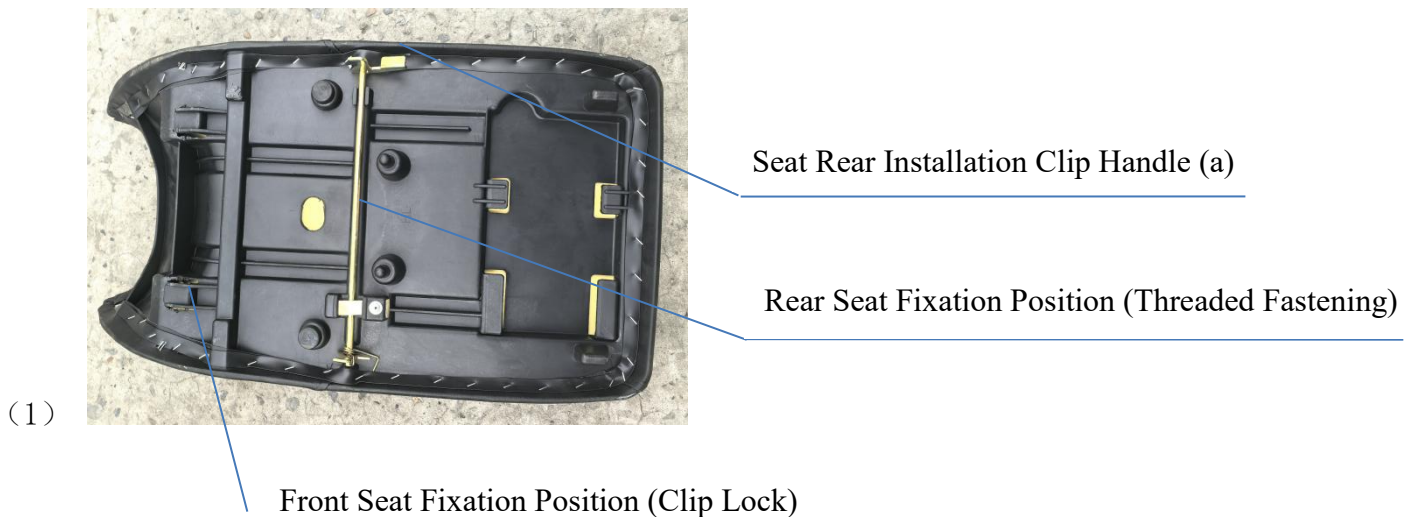
The seat is constructed with leather, foam, and a plastic base. The front fixation point clips onto the vehicle's crossbeam, and the rear end is secured with two M8 bolts on the frame. (When servicing the vehicle or replacing the seat, first remove the two M8 bolts using a socket wrench, then pull the seat backward until the clips disengage from the frame, allowing the seat to be removed. The installation process is the reverse of this.)

Note:

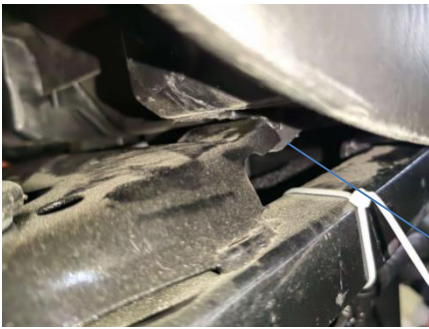
1. Before riding, always check if the seat is securely fastened and free from damage.
2. During use, ensure your body remains seated on the seat at all times.
3. Standing while operating the vehicle is strictly prohibited.

The seat removal and installation are as shown in the diagram:

(1) The seat fixation points are shown in the diagram.



(2) Front Seat Installation Position, Clipped onto the Frame



Front Seat Fixation Position (Both Clips Secured onto the Frame)

(3) After Installing the Seat, Lower the Seat and Install the Clip Handle (a)

Note:

1. When installing the seat, ensure the front clips are securely locked into the appropriate position on the frame, and check that the rear clips are properly fastened to the frame.
2. Always check the seat's installation and fastening before each ride.

Operating Instructions

- (1) Starting and Driving: Ensure the vehicle is in neutral (the neutral position is shown in Figure 1). Sit on the driver's seat, insert the ignition key, and turn it fully to the right. The display will light up, showing relevant parameters. Steady the steering, and slowly rotate the throttle grip inward with your right hand to gradually accelerate. The further the throttle is rotated inward, the higher the speed, which can be adjusted between 0-40 km/h. (Avoid sudden acceleration as it may waste battery power or even damage the battery and electrical components.)
- (2) Slowing Down and Stopping: Release the throttle to allow it to return automatically, and the vehicle will begin to slow down. Then, grip the brake lever to stop or press the brake pedal (foot brake).
- (3) Signals and Lighting: The left and right handlebars are equipped with reverse function switches, horn switch, night light, and turn signal switches.
- (4) Parking: After reaching your destination, turn the key fully to the left to the off position, remove the key, and turn off all function switches. Engage the handbrake and lock the vehicle. (Tip: Ensure the vehicle is parked on flat ground, away from potential bumps or hazards, and avoid prolonged exposure to direct sunlight or rain to protect the vehicle's safety.)

Note: When carrying a load, ensure the brakes are functioning properly for safety.

5. Electrical System Description

Battery

※ The battery is a key component for ensuring the vehicle's optimal performance. Please use it correctly and protect it properly. Develop the habit of charging it promptly to maintain and extend its lifespan, and maximize energy efficiency.

※ The performance of nearly all types of batteries is affected by the ambient temperature. At higher temperatures, the battery's discharge (vehicle performance) is better. However, when the temperature drops below 0°C, the battery's discharge (vehicle performance) may decrease as the temperature lowers. Therefore, in winter or cold regions, it is normal for the vehicle's range to decrease after charging. Once the temperature rises above 20°C, the battery will naturally return to normal function.

※ All batteries, even if not in use, will naturally discharge. If the battery is stored with low charge (depleted), it will affect its lifespan. If the battery is not used for an extended period, make sure it is fully charged before storage and recharge it every 20-30 days.

Charging Method and Precautions:

※ The battery should be charged using the charger provided with the vehicle. Do not use other charging devices to avoid damaging the battery.

※ First, connect the charger's output plug to the battery charging socket, then connect the input plug to a 220V AC power source. If the voltage is unstable, it is recommended to use a voltage stabilizer. When the power indicator light and charging indicator light (red) on the charger light up, it indicates that the power is on and charging has started. The green indicator light means charging is complete.

※ Under normal conditions (when the battery is low), the charging time is approximately 4-8 hours. The first charge of a new battery may take longer. When the green indicator light is solid or flashing, it indicates that the battery is nearly full. However, the charging time should not exceed 12 hours to prevent overcharging, which may affect the battery's lifespan or cause other issues.

※ After charging is complete, first unplug the AC power source, then unplug the connection from the battery pack.

※ If the red light on the charger remains on after 10 hours of charging, promptly take the charger to a dealer for repair or replacement.

※ The charger contains high voltage internally. Do not attempt to open, study, or repair it yourself; any consequences will be at your own risk.

Precautions for Using the Charger (As Shown in the Diagram Below):

a. The vehicle should be charged using the specialized electronic smart charger provided by our company. 		b. Charge in a dry, well-ventilated area, away from moisture and flammable materials. 		
c. Do not disassemble or modify the dedicated charger. 	d. The charging area should be kept away from children. 	e. Keep hands dry when plugging or unplugging the power. 	f. Do not cover the charger or the battery with any objects. 	g. The charging area should be kept away from any sources of fire. 

※ The charger can be directly connected to the vehicle for charging (make sure the power switch is turned off), or the battery can be removed and charged separately.

※ Do not use chargers other than the one provided with the vehicle, nor lend the charger to others, as this may damage the battery or charger.

※ It is normal for the charger to become warm after operating for a period of time.

※ Do not carry the charger with the vehicle to avoid damage.

Drive Motor

※ The drive motor is the power unit of the electric vehicle and a key component of the entire vehicle. This model uses a three-phase asynchronous motor, which offers advantages such as long lifespan, no maintenance, and high reliability.

※ Due to the importance of the drive motor, regular cleaning and inspection of the motor's operation are necessary to maintain optimal performance.

Electrical System

※ The electrical system consists of the controller, display, throttle, brake levers, etc. It features functions such as stepless speed control, brake power cutoff protection, undervoltage protection, and overcurrent protection.

※ The controller operates with a high current and generates some heat, so ensure proper ventilation for the heat sink and avoid prolonged high-load or steep incline driving.

※ When using the throttle, rotate it gently and avoid sudden, forceful movements.

※ When using the brakes, the controller will automatically cut off power to ensure safety.

※ When parking the electric vehicle, avoid exposure to direct sunlight or rain to prevent damage to electrical components like the controller.

6.Safety Operation Guide

Vehicle Start-Up

- 1.Select Gear: Set the gear to neutral (N).
- 2.Air Circuit Breaker: Ensure the switch is in the "ON" position.
- 3.Key Switch: Sit on the vehicle and turn the key switch counterclockwise until the display lights up.
- 4.Gear Position: Set the gear to the forward gear (D) or reverse gear (R).
- 5.Parking Brake: Ensure the parking brake is released.
- 6.Throttle: Gently twist the throttle to begin moving the vehicle.

Safe Driving Guidelines

- 1.Sit upright with both feet on the footrests, and grip the handlebars tightly.
- 2.Shift gears and rotate the throttle.
- 3.Check the surrounding environment and choose a safe route.
- 4.Release the parking brake.
- 5.Slowly twist the throttle with your right hand to begin moving.
- 6.Once comfortable, continue twisting the throttle to gradually accelerate.

Safe Turning

When turning, focus your eyes on the direction of the turn. Lean your upper body towards the inside of the turn and support your body weight on the outer footrest. The same technique applies when turning in reverse.

Note: Avoid sharp or fast turns. Sharp or fast turns can cause the vehicle to overturn, leading to potential accidents or injuries.

Safe Riding on Slippery Surfaces

When riding on slippery surfaces, follow these guidelines:

1. Slow down before entering slippery areas.
2. Stay alert, observe the road conditions, and pass through slowly and smoothly. Avoid abrupt steering.

Warning

▲ Exercise caution when riding on slippery surfaces, as losing control of the ATV could lead to accidents or injuries.

▲ In the event of slipping, do not brake abruptly and avoid speeding.

Safe Riding Uphill

When riding uphill, pay attention to the following:

1. Ride straight uphill; avoid making sudden turns.
2. Keep your feet on the footrests.
3. Shift your body weight forward.
4. Maintain stable control of speed and throttle.
5. Stay alert to handle any emergencies.

▲ Exercise caution when riding on slippery surfaces, as losing control of the ATV could lead to accidents or injuries.

▲ In the event of slipping, do not brake abruptly and avoid speeding.

Safe Riding Uphill

When riding uphill, pay attention to the following:

1. Ride straight uphill; avoid making sudden turns.
2. Keep your feet on the footrests.
3. Shift your body weight forward.
4. Maintain stable control of speed and throttle.
5. Stay alert to handle any emergencies.

Warning

▲ When riding in mountainous terrain, the ATV's braking and handling performance will be greatly affected. Improper operation may lead to loss of control, causing serious injury or death.

▲ Avoid climbing steep slopes (maximum incline should not exceed 25 degrees).

▲ Exercise caution when riding in mountainous areas and strictly follow the safety guidelines in the user manual.

Safe Lateral Riding on Slopes

Improper lateral riding or turning on a slope can lead to loss of control or rollover, resulting in serious injury or death. Refer to the user manual and avoid lateral riding on slopes as much as possible.

When it is unavoidable to ride laterally on a slope, the following precautions must be observed:

1. Ride slowly.
2. Tilt your body weight towards the uphill side and keep your feet on the footrests.
3. Slightly angle your line of sight towards the uphill direction to maintain control of the vehicle's direction.

Note

If the ATV begins to tip over, if possible, quickly jump in the opposite direction of the ATV's tipping motion.

Safe Descending

When riding downhill, observe the following:

1. Ride straight downhill.
2. Lean your body weight backward.
3. Slow down.
4. Lightly apply the brakes to assist with slowing down.

 **Warning:** Excessive speed may cause the ATV to lose control and result in serious injury or death.

Safety Operation for Turning on Slopes

1. Climbing a slope in an improper manner may cause the vehicle to lose control or flip, leading to severe injury or death.
Do not drive on slopes greater than 25 degrees.
2. When climbing slopes, strictly follow the instructions in the user manual and adhere to the recommended climbing procedures.
3. If the ATV stops working while climbing, do not attempt to reverse it down the slope.
If you must make a "K-turn" while climbing uphill, follow these steps:
4. Stop the vehicle and engage the parking brake, keeping the vehicle's center facing uphill.
5. If the vehicle is facing directly uphill, exit from the front or left side of the vehicle.
6. Maintain the uphill position and turn the handlebars fully to the left.
7. While holding the handbrake, slowly release the parking brake until the vehicle passes the slope or gently begins to move downwards.
8. Engage the brake again and re-enter the vehicle from the uphill side, keeping your body weight centered uphill.
9. Slowly release the brake to control the speed until the vehicle reaches a flatter area.

Safe Water Crossing

The ATV can safely operate in water up to the height of the footrests. When crossing water, follow these guidelines:

1. Assess the depth of the water and the flow speed before crossing.
2. Choose a crossing location where both banks have gradual slopes.
3. Cross slowly, avoiding rocks and obstacles as much as possible.
4. After crossing, gently apply the brakes to ensure they return to normal operation.

5. After crossing water, refer to the vehicle maintenance schedule for proper care.

Warning

▲ If the vehicle is not thoroughly checked after crossing water, it could result in damage to the motor and battery. Follow the maintenance schedule to properly inspect the vehicle.

▲ If your vehicle has been submerged in water or crossed water levels above the footrests, take it to the dealer for maintenance before starting the engine.

▲ Do not drive in deep water or fast-flowing water conditions. If you cannot avoid driving in water levels above the maximum limit, drive slowly, keep the vehicle steady, and avoid sudden turns, acceleration, or stops. Maintain a consistent speed.

Safe Obstacle Crossing

Observe the road conditions in advance, stay alert, and pass obstacles at a consistent, slow speed. Be cautious of potential sudden appearances of people, animals, or obstacles.

Warning

Not all obstacles can be detected in time; drive cautiously in unfamiliar terrain.

Safe Reversing

When driving in reverse, follow these warnings:

1. Avoid reversing downhill.
2. Reverse slowly.
3. Use the brakes effectively while reversing.
4. Avoid reversing on steep slopes.

Warning

▲ Improper reversing operations may lead to serious accidents. Before shifting into reverse, check the area behind the vehicle for obstacles or people. Only reverse when it is confirmed to be safe.

▲ Avoid reversing on slopes, and avoid turning on steep inclines.

Safe Parking on Slopes

Avoid parking on slopes whenever possible. If unavoidable, follow these steps:

1. Turn off the motor.
2. Do not leave the motor in neutral.
3. Apply the parking brake.
4. Follow the user manual's instructions and place bricks or stones under the rear wheels to prevent the vehicle from rolling back.

7. Handling Emergencies

(1) Handling Brake Failure:

If a brake suddenly fails, do not panic. While maintaining control of the steering, calmly and effectively use the other brake to ensure a safe stop. Remember: Always check the brake performance before riding, and if there is any issue, make immediate adjustments or repairs to ensure safe riding.

(2) Handling "Runaway" Condition:

If the controller fails and causes the vehicle to run away, with the brakes unable to cut off power, the rider should immediately take the following emergency measures:

A: Turn off the power lock to cut off the main power supply.

B: Apply the brake forcefully to increase the load, causing the fuse to overload and disconnect the power supply.

Note: The rider should remain calm and maintain balance to ensure that both of these methods are effective for safe riding.

8. Vehicle Maintenance

Eurostandard certified parts

The following components are special parts with European standard markings. In case of damage, please contact the dealer or the manufacturing factory for replacement. Unauthorized replacement or substitution is not allowed.

Lamp function	QTY.	Color	Tell-tale	Max. intensity	Make	Type	Approval Number
High beam / Low beam	2	white	Blue n.a.	$\geq 10000\text{cd}$	Yingxu lamps	L: YX-FG70-A-001 R: YX-FG70-A-001	E4-148R00-04-30654-00 E4-149R00-04-30654-00
Daytime running lamp	2	white	---	---			
Front position lamp	2	white	n.a.	$\geq 10000\text{cd}$	Yingxu lamps	L: YX-FG70-A-001 R: YX-FG70-A-001	E4-148R00-04-30654-00 E4-149R00-04-30654-00
Front direction indicator	2	white	green	$\geq 10000\text{cd}$	Yingxu lamps	L: YX-FG70-A-001 R: YX-FG70-A-001	E4-148R00-04-30654-00 E4-149R00-04-30654-00
Rear direction indicator	2	amber	green	---	Yingxu lamps	YX10001	E4-23R-0014724
Rear position lamp	2	red	n.a.	---	Yingxu DENGJU	YX10001	E4-6R-0114724
Stop lamp	2	red	n.a.	---	DADYW	DD500DZY-0301	E4-50R-0018517
Reversing lamp	2	red	n.a.	---	DADYW	DD500DZY-0301	E4-50R-0018517
Rear registration plate lamp	1	white	n.a.	---	JUTE	P001	E9-50R-001101
Side reflector(front)	2	amber	n.a.	---	BXJ	Φ52	IA E11 020614

Side reflector(rear)	2	amber	n.a.	---	BXJ	Φ52	IA E11 020614
Rear reflector	2	red	n.a.	---	BXJ	8531	IA E11 020613
Audible warning devices	1	/	/	/	LVEE	DL70-II	E32-28R-000002
Rear view mirror	1	/	/	/	DADYW	DD500DZY-0603	E32-81R-000003
Front Tire	2	/	/	/	ChaoYang	205/75-12(24x8-12)	E4 75R-0020085
Rear Tire	2	/	/	/	ChaoYang	255/60-12(24x10-12)	E4 75R-0020086

Regular Maintenance Knowledge

Careful periodic inspections can help keep your All-Terrain Vehicle (ATV) in the safest and most reliable condition. You can find all the periodic maintenance tasks, their cycles, and instructions in the overall maintenance schedule. Be sure to check, service, clean, adjust, and replace parts as needed, based on the maintenance schedule. For repairs and maintenance, always use genuine parts from your dealer.

Notice

- Maintenance and service schedules should be adjusted based on your vehicle's condition. If you are not familiar with your ATV's condition, contact an authorized dealer for assistance.
- The maintenance cycles in the table below are based on average driving conditions (speed 20 km/h). For more frequent or non-standard use, the maintenance cycle should be shortened.

Non-standard Use Definitions

1. Submersion in mud, water, or sand.
2. Prolonged low-speed or heavy-load driving.
3. Short trips in cold weather.

Always monitor the remaining battery charge. Battery performance can degrade in cold weather, and excessive discharge may occur. If the battery charge drops below 20%, recharge it immediately. If the charger fails to charge the battery, contact an authorized dealer for assistance.

Warning

Improper execution of the following steps (marked with ■) may lead to component failure, causing serious injuries or accidents. These steps should be performed under the guidance and training of an authorized dealer.

Daily Checks

※ After the first 500 km of driving, perform a thorough check, adjustment, and maintenance of the vehicle. Ensure that all fasteners are tightly secured, and apply appropriate lubrication to moving and transmission parts, as well as the brake system and steering column.

※ Regularly check the electrical connections, ensuring the wires are in good condition with no exposed cables or broken circuits. Check the condition of all components to ensure safe riding. Keep the vehicle dry and clean to avoid rust and prevent electrical failures from water exposure.

※ Front and rear wheels: Adjustments have been made before delivery. If the wheels are removed, check for proper clearance, alignment, and the condition of the safety lock. The front axle nuts should be tightened to at least 37Nm, and the rear axle should be tightened to at least 48Nm.

Brake System Adjustment

Front Brake Adjustment

Adjust the front brake by turning the adjustment nuts at both ends of the brake cable. The free play at the brake lever should be between 6-10mm. Effective braking should be achieved when the lever is pulled to about 2/3 of its full travel. Tighten the adjustment nut clockwise to reduce the free play or counterclockwise to increase it. Ensure that the slot on the bottom adjustment nut matches the pin. After adjustment, test the front brake by spinning the front wheel in the air. When the brake lever is applied, the wheel should stop quickly, and after releasing the brake, the wheel should rotate slightly.

Rear Brake Adjustment:

Turn the adjustment nut on the brake adjuster to adjust the free play of the brake pedal. The effective travel should be between 20-30mm. If significant adjustment is needed, adjust the nuts on both ends of the rear axle's brake arms to meet the requirement, ensuring the slot on the adjustment nut aligns with the pin. After adjustment, test the rear brake by pressing the pedal and checking if the braking effect is adequate and the rear wheels turn smoothly when the brake is released.

Rear Brake Light Switch Adjustment

Before adjusting the rear brake light switch, ensure the brake pedal free play is properly adjusted.

To adjust the rear brake light switch, follow these steps:

- (1) Turn the power switch to the "ON" position (rotate the power switch fully counterclockwise).
- (2) Adjust the nut and press the rear brake pedal until the brake light turns on. Release the brake pedal, and the brake light should turn off. If necessary, adjust the spring wire length.

Lubrication Maintenance

Apply lubricant "sH/T0386" to the front shock absorbers, rear axle, and other areas at least once a year. For the rear axle, check every 1000 km to prevent dry wear. If necessary, have a technician disassemble and inspect, then apply lubrication fluid.

Apply AN46, GB443 lubricating oil to the wheel hub bearings and steering column bearings once a month.

Rear axle assembly gear oil replacement (for 2WD/4WD):

1. Place the vehicle on a flat surface and open the oil fill hole (1).
2. Remove the drain plug (located at the bottom of the gearbox) (2).
3. Drain the oil into an appropriate container and dispose of the used oil properly.
4. Clean and reinstall the drain plug, torque to 30 N.m.
5. Add 500mL of gear oil into the gearbox through the oil fill hole (1) and check for leaks.
6. Reinstall the oil fill plug, torque to 30 N.m.



Rear axle drain plug

Lubrication oil fill hole

Vent hole

Tire Maintenance and Care

Proper tire pressure will maintain optimal driving stability, provide maximum traction, enhance riding comfort, and extend tire life.

Before driving, check the tire pressure when the tires are "cold." Inspect the tires for cuts, nails, or other sharp objects embedded in them. Check for dents or deformations in the wheels. If any damage is found, have the tire repaired or replaced at a service station.

Low tire pressure increases the rolling resistance of the electric vehicle, increases energy consumption, and may cause localized tire delamination, leading to tire blowouts in severe cases. High tire pressure can cause premature tire fatigue, reduce ride comfort, and accelerate component wear. Both high and low tire pressures will reduce the tire's lifespan.

Using excessively worn tires can affect traction and handling stability, which is very dangerous.

The tire tread is marked with a wear indicator "△" or "T.W.I." When the tire reaches the wear indicator, it should no longer be used and must be replaced with a new one.

The ATV must be equipped with non-highway (NHS) marked tires, which are designed specifically for ATVs. We recommend a tire pressure of less than 69 kPa.

1. Shift the ATV to neutral and lock the parking brake.
2. Use a jack to lift the required side of the ATV.
3. Mount the prepared tire onto the brake, ensuring the tire's inner edge rotation arrow aligns with the forward direction, with the valve stem facing outward.
4. Install and tighten the wheel nuts.
5. Lower the ATV back to the ground using the jack.
6. Tighten the wheel nuts according to the torque specifications in the manual.

Warning

Incorrect installation of the tire may lead to abnormal tire wear and pose safety risks. Please tighten the tire according to the torque specifications. For tires with cotter pins, do not replace them yourself. If replacement is needed, please contact the dealer for assistance.

The tire tread is marked with a wear indicator "△" or "T.W.I." When the tire reaches the wear indicator, it should no longer be used and must be replaced with a new tire.



Tread wear indicator

Tire lug nut torque specifications

Regularly check the torque of the tire lug nuts, and perform maintenance if they become loose.

Category	Description
Front Wheel Nut	45-50N.m
Rear Wheel Nut	60-65N.m

Lighting Maintenance and Installation

When maintaining the lighting system, please wear gloves to avoid direct contact with oil and grease, which could cause hot spots and reduce the lifespan of the lights.

Lamp Replacement

1. Remove the headlight fastening bolts.
2. Use a cross screwdriver to remove the screws at the bottom of the bezel and gently remove the bezel.
3. Remove the waterproof gasket and light slot.
4. Press down and twist the bulb counterclockwise to remove it.
5. Apply medium oil to the light slot, then install the new bulb.



Warning

- ▲ Poor light quality during driving may lead to safety accidents.
- ▲ Regularly clean the dust from the front headlights and tail lights.
- ▲ Perform maintenance only after the lights have cooled down to avoid accidental burns.

Headlight Adjustment

The headlight beam can be adjusted both upwards and downwards. Please follow these steps for adjustment:

1. Place the vehicle on a level surface with the headlights about 10 meters from a wall.
2. Measure the distance between the floor and the center of the headlights, then mark it on the wall.
3. Turn on the main power switch, then switch on the headlights and set them to high beam.
4. Observe the light spot on the wall. The brightest point of the light should be 8 cm below the marked point on the wall.
5. Loosen the fastening bolts and adjust the beam to the correct position. Tighten the bolts once the adjustment is complete.

Note

When adjusting, a weight equivalent to the driver's weight must be placed on the seat. Failure to do so may result in inaccurate light positioning during adjustment.

Tail Light Assembly Replacement

1. Disconnect the cable connector (1) from the rear of the lamp assembly.
2. Use a cross screwdriver to remove the tail light assembly (2) by turning counterclockwise, then reinstall the new assembly.
3. Test the tail light for proper brake/reverse/turn signal functionality.

Cleaning and Maintenance

Regularly cleaning the ATV not only maintains its appearance but also extends the lifespan of its components.

Washing the ATV

Wear professional cleaning gloves and use a non-corrosive soapy water solution. Start by cleaning the upper part of the vehicle, then the lower part. Rinse with clean water and dry with oiled leather.

Note

- If any warning or safety labels are damaged during cleaning, they should be replaced at a dealer.
- High-pressure washing is not recommended for cleaning the ATV. If using, do so carefully to avoid damaging bearings, electrical systems, body panels, brake systems, or warning labels.
- After cleaning, immediately lubricate all moving parts and start the ATV.

Waxing the ATV

Use non-abrasive car wax for the ATV. Avoid using harsh cleaning tools that may scratch the body.

Warning

Chemical products like insecticides can damage the vehicle's surface. Be cautious when using such products near the vehicle.

Chrome Wheel Maintenance (if applicable)

Proper maintenance can prevent corrosion and keep the wheels looking new:

1. Use a non-corrosive cleaner to remove dust and mud from the rim. Regularly polish the cleaned rims with car polish. After polishing, apply waterproof wax to each wheel.
2. Choose a suitable waterproof wax for chrome wheels.
3. Wheels are more likely to corrode if exposed to road salts or salty coastal air. Clean the wheels frequently if exposed to such conditions.

ATV Storage

Before long-term storage, perform the following actions:

1. Check for loose bolts and nuts, and tighten as necessary.
2. Apply rust prevention oil or grease to parts prone to rust.
3. Inflate the tires to a pressure slightly higher than usual.
4. Run the engine for 5 minutes to circulate oil inside the engine.
5. Lubricate all exposed parts of the tools included with the ATV.
6. Remove the battery and store it according to battery storage instructions.
7. Store the ATV in a dry, well-ventilated area and cover it.

8. Place wooden boards under the tires to avoid moisture and direct sunlight exposure.

9. Vehicle Safety Disclaimer

Pre-Ride Instructions

Before riding, please read the user manual carefully and check all components to ensure they are in good condition for safe operation. If any issues are found, please contact your dealer promptly.

General Safety Guidelines for Vehicle Use

This product has basic waterproof capabilities, but some exposed circuits may experience minor issues due to rain. After drying, they should function normally. However, the vehicle should not be used in water. If water levels reach the motor, battery, or electrical components, it can cause short circuits and damage the internal electrical system. Please be cautious.

Do not attempt to disassemble or repair components by yourself. If replacement is necessary, please purchase standard parts from an authorized dealer or a professional repair station.

When riding in rainy or snowy weather, reduce speed and use brakes cautiously as the road may be slippery.

Unauthorized disassembly or modification of the product is prohibited. The company will not be responsible for any resulting losses, and it may void your warranty. For internal issues, please contact your local dealer or designated repair station.

Do not remove the speed limiter, as doing so may lead to overspeeding and increase the risk of accidents! (Note: Any accidents caused by this will be the responsibility of the violator.)

If you experience loss of control while riding, immediately turn off the power and apply the brakes, then take the vehicle to a dealer or repair station for servicing.

Safety Gear

It is prohibited to ride without wearing a helmet. Please also wear goggles, protective clothing, and protective boots while riding.

Do not operate the vehicle after consuming alcohol or medication.

Speed Control

Excessive speed is prohibited. Adjust your speed based on road conditions, visibility, the environment, and your riding experience.

Pre-Ride Vehicle Check

Before riding, inspect the overall condition of the vehicle. Follow the inspection and maintenance procedures outlined in the manual.

While driving, keep both hands on the handlebars and both feet on the footrests.

When riding on unfamiliar roads, control your speed and stay alert for changes in road conditions.

Prohibited Areas

Do not ride on soft, unknown, or unstable terrain.

Turning and Cornering

Follow the turning procedures outlined in the manual. Slow down and maintain body balance while turning.

Post-Accident Check

In the event of an accident, have the vehicle thoroughly checked by an authorized dealer.

Riding on Slopes

Always check the road conditions before riding on slopes. Keep your body weight forward and avoid sudden throttle or gear changes. When going downhill or braking on slopes, follow the user

manual's guidelines. Keep your body weight shifted backward, with your back against the backrest.

Do not ride downhill at high speeds or in neutral gear. When descending, always go with the slope direction; avoid riding sideways as it may cause the vehicle to overturn.

Mountain Road Riding

When riding on mountain roads, observe the road conditions ahead. Avoid riding on soft, slippery, or landslide-prone surfaces, or areas with falling rocks.

If you are not yet proficient in riding, avoid attempting to ride on mountain roads. Maintain a steady speed and avoid stopping. If the engine stalls, slides, or moves backward, follow the brake operation guidelines in the manual, dismount from the safe side, and only proceed once the danger has passed.

Riding in Unfamiliar Areas

Before riding in unfamiliar areas, inspect the road surface. Avoid attempting to overcome large obstacles such as large rocks or fallen trees.

Wet Roads

When riding on wet or slippery surfaces, remain cautious. Observe the surroundings, reduce your speed, and be vigilant.

Water and Rapid Streams

Avoid riding in deep water or fast-moving streams. If unavoidable, maintain balance and ride slowly. Do not make sudden movements, sharp turns, or abrupt braking/gear shifting.

Brake pads may lose effectiveness after being wet. Once out of the water, check the brakes and apply them several times to dry the brake pads.

Reversing

When reversing, be aware of your surroundings. Reverse slowly and avoid sharp turns if no obstacles are present.

Tires and Load

Use only tires that meet the specified standards and maintain the correct tire pressure.

Do not modify the vehicle using improper installation methods or by adding unauthorized accessories.

Overloading

Do not exceed the vehicle's load capacity. Load the cargo evenly from front to back and secure it properly. When carrying a load or towing, reduce speed and maintain a safe braking distance.

Age Restrictions

Riding is prohibited for minors under the age of 16.

Do not allow anyone who has not read the user manual or completed safety training to operate your ATV.

Battery Instructions and Safety Guidelines

※The battery used in this vehicle is a safety battery, but the two contact points at the end of the battery box should never be touched simultaneously with your hands or come into contact with metal (including the two terminal posts of the three pins at the charging ports). Otherwise, a large short-circuit current may be generated, leading to accidents. Please be cautious.

※Use the battery in normal environmental conditions.

※Keep the vehicle away from heat sources and high voltage during operation. Do not drop or impact the battery.

※Only use a dedicated charger for charging the battery.

- ※Do not overcharge; disconnect the charger immediately after charging is complete.
- ※Never short-circuit the battery's positive and negative terminals. Do not modify the battery.
- ※When the vehicle is not in use for a long time, turn off the circuit breaker, and protect the positive and negative terminals with non-conductive material.
- ※Dispose of old batteries properly, do not throw them into water or fire.
- ※Do not modify the battery, which may lead to a short circuit.
- ※Do not heat or burn the battery.
- ※Do not wet the battery or damage it in any way.
- ※Do not charge the battery near fire sources or under intense sunlight.
- ※Do not perform welding or similar operations directly on the battery.
- ※Do not directly connect the battery to the power supply for charging.
- ※Do not use the battery for other devices or mix it with other types of batteries.
- ※Avoid direct contact with leaked fluid or damaged batteries.
- ※Children must not be allowed near the battery to play with or tamper with it.
- ※Avoid using the vehicle in direct sunlight for extended periods.
- ※Avoid using the vehicle in environments where static electricity is easily generated.
- ※Charging temperature range: 0°C to 50°C.
- ※Use the designated charger and charge within the recommended temperature range.
- ※Keep children away from the charger or battery while charging.
- ※Avoid contact with leaked battery fluid. If contact occurs, wash immediately with water to prevent skin irritation.
- ※If the battery emits an unusual odor or shows any abnormal symptoms, stop using it and contact the dealer.
- ※Motor Usage Instructions and Safety Guidelines

Before using the vehicle, read the user manual and the motor-related instructions carefully.

- ※Operating temperature: -20°C to 55°C.
- ※The motor must be used within the fixed current and voltage range specified on the nameplate.
- ※The motor is not allowed to be overloaded during continuous operation.
- ※The motor surface should not be covered or dirtied to prevent water ingress.
- ※Do not frequently start the motor.
- ※Operating humidity: 5% to 95%, condensation is allowed for safe operation.
- ※When the vehicle is in operation, keep the motor away from fire sources and ensure that the road surface does not impact the motor.
- ※Allowable storage temperature: -40°C to 85°C.
- ※Storage and transportation environment: Ventilated and dry.
- ※Do not collide or impact the motor.
- ※Avoid severe vibration or placing the motor upside down.
- ※Do not damage the motor.
- ※Do not modify the motor wiring.
- ※The vehicle motor is not allowed to operate above 4000m altitude.
- ※Do not remove the motor and use it for other devices.
- ※Ensure the motor is in a power-off state during vehicle charging.
- ※Before starting the vehicle, check that the motor is securely connected to the rear axle.
- ※Avoid metal conductors touching the motor terminals.

※When the vehicle is not in use for long periods, ensure the circuit breaker is in the off position.

※Controller Usage Instructions and Safety Guidelines

※

※Before using the vehicle, carefully read the user manual and controller-related instructions.

※Operating temperature: -30°C to 55°C.

※The storage temperature for the controller is: -40°C to 70°C.

※Rated output current: 120A.

※Controller start voltage: 45V.

※Storage temperature: -40°C to 70°C.

※Protection temperature for the controller: 85°C.

※Do not modify the controller.

※Do not allow the controller to short-circuit.

※Never heat or burn the controller.

※Do not rewire the controller.

※Do not use metal tools or other means to damage the controller.

※Do not perform welding or similar work above the controller, as this can cause metal sparks.

※Do not use the controller for other devices.

※Avoid using the controller in a short-circuit state.

※Do not wash the controller with water.

※Avoid metal conductors from touching the controller terminals.

※Keep children away from the controller and prevent them from touching it.

※The controller may emit sound if it malfunctions; please refer to the error code and contact the dealer for assistance.

Note: Any accidents or losses caused by the above issues are not the responsibility of our company!

10.Common Issues and Troubleshooting

No.	Fault Phenomenon	Cause	Solution
1	Throttle grip malfunction or low maximum speed	(1)Low battery voltage; (2)Loose wiring in the throttle grip; (3)Throttle grip spring jammed or faulty.	(1) Fully charge the battery; (2) Re-solder the connections; (3) Clean or replace the throttle grip.
2	Motor not working when power is on	(1)Low battery voltage; (2)Loose wiring in the throttle grip; (3)Motor connection plug loose or damaged.	(1)Fully charge the battery; (2)Re-solder and tighten connections; (3)Have a professional or service station repair it.
3	Insufficient range after a full charge	(1)Insufficient tire pressure; (2)Incomplete charging or charger malfunction; (3)Battery aging or damage.	(1)Inflate tires properly; (2)Charge fully or check for poor charger connection; (3)Replace the battery.
4	Charger not charging	(1)Charger socket loose or plug connection unstable; (2)Blown fuse in battery box or	(1)Tighten socket and connections; (2)Replace the fuse (charger 2A, battery fuse 20A);

		charger; (3) Battery pack wiring loose.	(3) Solder the connection.
5	Slow speed or difficulty riding	(1) Check if the brakes are stuck; (2) Insufficient tire pressure; (3) Low battery voltage; (4) Front and rear axle seals lack lubrication or are too tight, causing stiff	(1) Adjust the brakes; (2) Inflate tires; (3) Charge the battery fully; (4) Clean and adjust the axles.
6	Hydraulic lift not working	(1) Loose bolts, nuts, or other fasteners; (2) Electrical system failure; (3) Low hydraulic oil; (4) Oil leakage.	(1) Tighten loose bolts and nuts; (2) Check the electrical circuit; (3) Add hydraulic oil; (4) Check the pipes and seals for damage.
7	Abnormal cargo bed drop	(1) Cargo bed drops slowly or doesn't drop at all; (2) Cargo bed raises or drops too fast or too slow.	(1) New machine hasn't undergone sufficient break-in, resistance is high, usually normalizes after multiple uses; (2) Check if the battery valve is damaged or if it has been incorrectly adjusted, then send to dealer for
8	Unusual noise during riding	(1) If you encounter faults that cannot be resolved using the above instructions or the cause is unclear; (2) Internal damage to the motor, controller, charger, or battery pack.	Contact the supplier or service station for repairs. Do not open these components on your own, as it may void the warranty.

Controller Fault Code Correspondence Table

	Fault description	Number of sounds	
1	Motor Hall Failure	1	The signal wire between the controller and the motor isn't connected properly.)
2	Gas pedal malfunction	2	Throttle not returning to zero, or bad gas pedal. Note that when restarting the controller Fault will be displayed by default and will disappear when the self - test passes.
3	Current protection restart	3	Abnormal protection alarms

4	Phase current overcurrent	4	Abnormal protection alarms
5	voltage fault	5	Voltage is too low or too high, outside the controller's permissible range
6	anti - theft alarm signal	6	reservations
7	Motor over - temperature	7	Motor temperature too low or too high out of operating range
8	Controller over - temperature	8	Controller temperature is too low or too high outside the operating range
9	Phase line flow overflow	9	Abnormal protection alarms
10	Phase current zero fault	10	Controller internal Alarms
11	phase line short circuit fault	11	Phase wire short circuit, or motor failure
12	Line current zero fault	12	Controller internal Alarms
13	MOSFET upper bridge failure	13	Controller Upper Bridge Damage
14	MOSFET lower bridge failure	14	Controller lower bridge damaged
15	peak line current protection)	15	Hardware overcurrent protection alarm
仪表显示故障码			

Fault Parts	Fault Code	Fault Description
Motor Controller	1	Locked Rotor
Motor Controller	2	Undervoltage
Motor Controller	3	Overvoltage
Motor Controller	4	Overcurrent
Motor Controller	5	Motor Over-temperature
Motor Controller	6	Controller Over-temperature
Motor Controller	7	Phase Line Short Circuit
Motor Controller	8	MOS Tube Short Circuit
Motor Controller	9	Phase Loss
Motor Controller	10	Phase Current Overflow
Motor Controller	11	Phase Current Zero Point Fault
Motor Controller	12	Low Current Zero Point Fault
Motor Controller	13	MOSFET Upper Bridge Fault

Motor Controller	14	MOSFET Lower Bridge Fault
Motor Controller	15	Current Sampling Fault
Motor Controller	16	Communication Fault
Motor Controller	17	Motor NTC Fault
Motor Controller	18	Controller NTC Fault
Motor Controller	19	Hall Sensor Fault
CAN Network	21	Electronic Control Unit Offline Alarm
CAN Network	22	Rear Controller Offline Alarm
CAN Network	23	Throttle Fault
CAN Network	24	BMS Offline Alarm

11.Complete Vehicle Circuit Diagram

