Y-VOLT

NFC

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Y-VOLT

User Manual

SURGE V

ELECTRIC MOTORCYCLE

The Wider
The Wilder

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Product Overview



Technical Parameters



Pearl white



Meridian Black

Basic Parameters

Size (L*W*H)	2000X830X1170mm
Weight (With battery)	95kg

Riding Requirements

Max Load	120kg
Suitable Age	18~55 years old

Controller

Specification & Model	97V Sine Wave Vector

Main Parameters

Wheel Base	1360mm
Seat Height	900mm
Ground Clearance	300mm
Top Speed	110km/h
Peak Power	35kw@47.6PS
Torque (max)	948N.m
Max Range (km)	120km (25km/h)

Motor

Motor type	LPMSM
Encoder Type	Resolver
Rated power	15kw
Rated Voltage	97V

Battery

IP Rating	Ip67
Battery type	Ternary lithium battery Samsung-50s
Capacity	97V45Ah
Charging current	15A
Charging time	3h

Vehicle system

Frame	Triple-Beam Forged Aluminum Alloy Frame
Rim Type	WM Aluminum Allloy Rim
Tire Type	Front:80/100-19 off road tire Rear:100/90-18 off road tire
Drive System	Primary: Gearbox, Secondary: Chain
Suspension System	Front,rear air suspension
Front Rear brake	4-piston caliper, hydraulic disc
Handlebar	28.6*22.1*810 Aluminum alloy
Communication port	CAN

Others

Lighting System	Full LED high & low beams
Display Type	HD Smart Display
Tip-Over Sensor	Yes
Kickstand Sensor	Yes
NFC	Yes
Night Riding Mode	Yes

Scan to Download or Get the APP from App Stores

For Android systems: Please search for [YVOLT] in the Google Play Store to install.

For Apple iOS systems: Please search for [YVOLT] in the Apple Store to install.

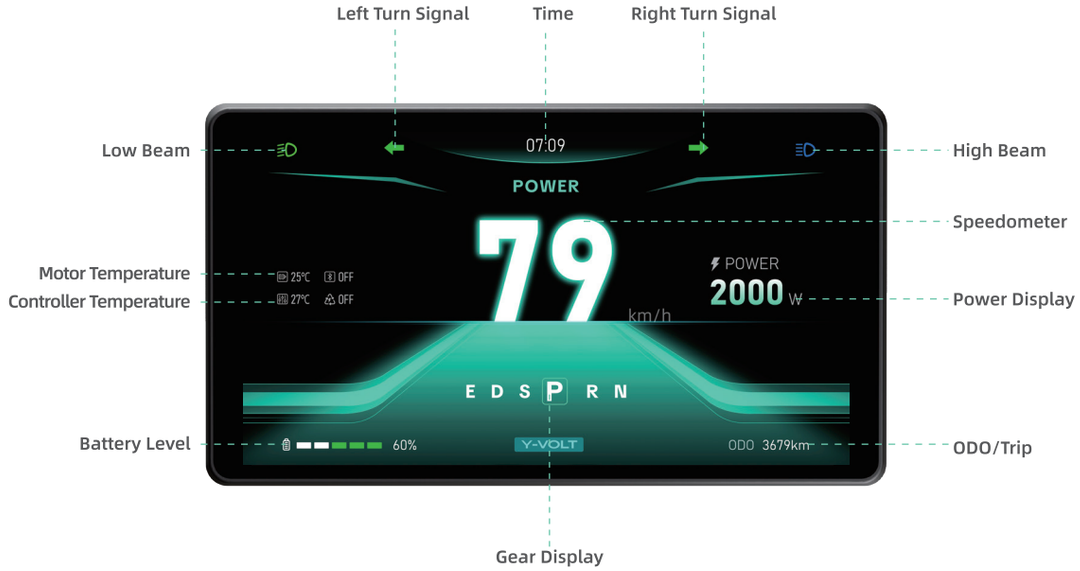
A QR code for scanning and downloading is provided inside the accessory box.

APP Pairing Process

Step 1: Open the APP and register a personal account.

Step 2: Tap "Bind Vehicle", then enter the IMEI code or scan the corresponding IMEI QR code. (The IMEI code and QR code are attached inside the accessory box.)

Step 3: Tap "Confirm" to bind the vehicle and establish the connection.

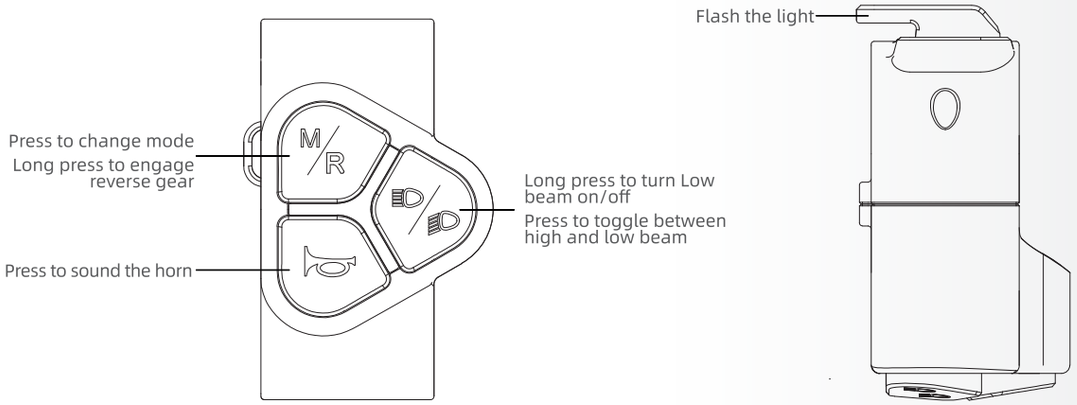


Fault Code Description

Status Code	Description
E02	Throttle Error
E03	Comm Error
E04	Hardware Over-current Protection

Status Code	Description
E05	Under-voltage
E06	Over-voltage
E07	Motor Sensor Fault

Button Guide



Gear Description

- E — Speed Limit 40km/h
- D — Speed Limit 80km/h
- S — Sport Mode
- R — Reverse mode
- P — Park mode
- N — Hold Mode

Statement

1.To the extent permitted by law, the Company reserves the right to interpret and explain the terms of this Disclaimer.

2.The Company is committed to continuously improving product functionality and performance. Consequently, product specifications and manual content may be subject to change without prior notice. We appreciate your understanding. In the event of any discrepancy between the icons, images, etc., in this manual and the physical product, the actual product shall prevail.

3.This Disclaimer shall be governed by and construed in accordance with the laws of the People's Republic of China (excluding the laws of the Hong Kong and Macao Special Administrative Regions and the Taiwan region). The Company shall not be liable for any claims, liabilities, or losses arising from or potentially arising from the consumer's violation of the above terms. Riders shall bear full responsibility for any unforeseen or unavoidable risks encountered during operation.

4.Should you decide to resell or gift your Y-VOLT Vehicle in the future, please remember to include this manual, as it is an integral part of the product. For any inquiries, our Company is pleased to assist you at any time. Once again, thank you for choosing and trusting our product.

Safety Instructions

- Always wear a helmet, elbow pads, and knee pads when riding.
- Ensure your Y-VOLT electric off-road motorcycle is fully charged and all screws are tightened before riding.
- Always be aware of and obey local road traffic laws and regulations.
- Do not ride under the influence of drugs or alcohol.
- Do not ride in heavy rain or extreme temperatures, as this may lead to skidding and injury.
- Please be mindful of the current laws in the country/region where you intend to ride

Cycling Guidelines

1.To avoid distractions, do not use mobile phones, cameras, headphones, earplugs, or similar devices while operating this product.

2.Before you eagerly experience the Y-VOLT electric off-road motorcycle, it is recommended that you do so in a closed, safe area and wear appropriate protective gear.

3.Don’t ride in public spaces or on motor vehicle lanes.

4.Avoid sudden acceleration and deceleration to conserve battery power, protect vehicle components, and increase both range and product lifespan.

5.If any abnormality occurs during operation, stop immediately. Do not use the product until the cause has been identified and resolved. Please contact after-sales service promptly.

Usage Guidelines

1.Always park the product on a flat surface and turn off the power. Or may cause the vehicle to roll away, posing a risk of injury to you and others nearby.

Do not park on slopes or soft ground to prevent the vehicle from tipping over.

2.Always use the dedicated lithium battery charger supplied with this vehicle. The charger input voltage is 110-240V. Allow the product to rest before charging. Do not charge if the charger or charging port is damp. Do not charge or park in no-parking zones. Keep the charging area away from flammable materials, and disconnect the power promptly after charging is complete.

3.Do not charge the battery below 0°C, as this may cause damage to the battery. Do wait the battery temperature to rise to a suitable level before charging.

Pre-Ride Inspection

1.Check tires: Ensure there are no cracks or abnormal wear. Verify that no foreign objects such as nails, stones, or glass are embedded.

2. For proper riding performance, maintain tire pressure at 32.6 psi (225 kPa).

3. Ensure the wheel axle bolts are not loose.

4. Inspect handlebar and wheel fixation: Confirm the handlebar is secure. Check that the front and rear wheels are firmly fixed without wobble and can rotate normally.

5. Check reflectors for damage or contamination.

6. Inspect the status of the power circuit, lighting circuit, etc., to ensure normal operation.

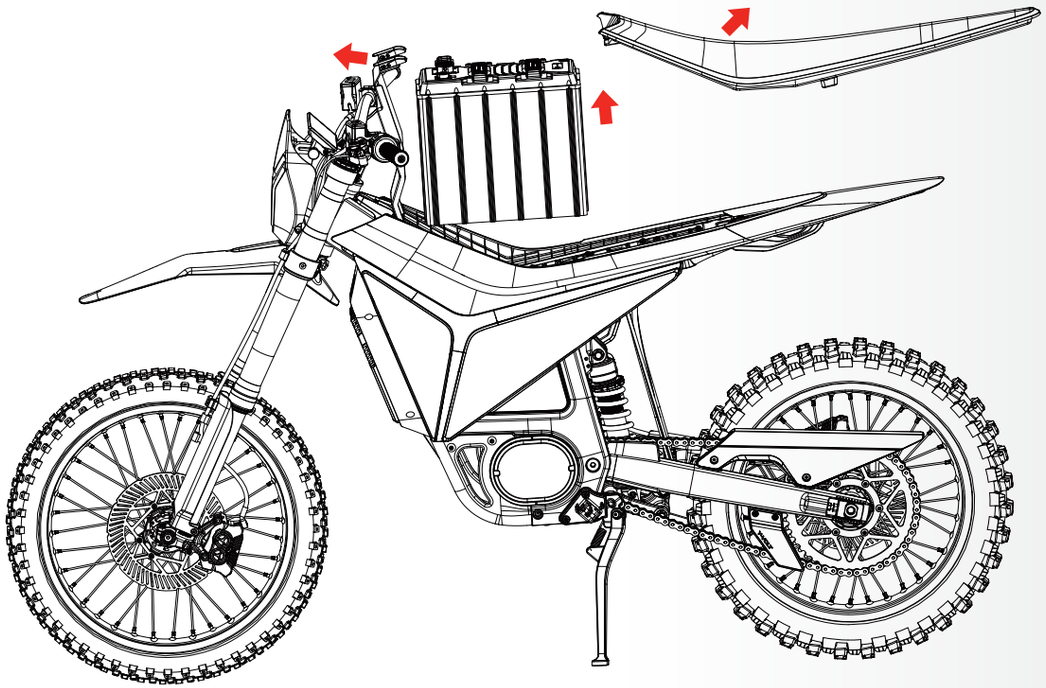
7. Check the front and rear braking systems for proper function.

8. Verify the battery level is sufficient for the intended ride.

9. Spoke tension: Tighten immediately if any are loose. Tightening torque: 4 N·m to 6 N·m.

10. Check the throttle: Ensure smooth operation without sticking and verify it returns quickly to the neutral position.

11. Inspect the chain: Under normal conditions, the chain should have 1-2 cm of play. If it's sticking, clean it of mud/sand and apply lubricant.



Battery Detailed Parameters				
Battery Type	Charging Time	Voltage	Capacity	IP Rating
Ternary Lithium Battery	3H	97V	45Ah	IP67

Charging Procedure

I. Charging Without Removing the Battery:

1. Open the charging cover on the front side of the vehicle.
2.Connect the charger output plug to the battery charging port first, then plug the other end into a power outlet.

II. Charging With Battery Removed:

1.Unlock the saddle lock on the right side .
2. Remove the saddle.
3. Release the battery cover and disconnect the charing and discharding wire to the battery
4. Lift the battery upward to remove it
5. Connect the charger output plug to the battery charging port first, then plug the other end into a power outlet.

Battery Storage

1.If the battery will not be used for an extended period, store it with a charge level between 50% and 70%.
2.For long-term storage, recharge the battery at least once a month.
3.If the temperature is below 0°C, avoid charging until the vehicle is in an environment with normal temperature.
4.Protect the vehicle from dust by covering it or using its original packaging.

NOTE

Do not charge the battery below 0°C, as this may cause damage the battery. Allow the battery temperature to rise to a suitable level before charging.
Battery Recycling & Disposal: Damaged or used batteries must not be disassembled by the user. They should be returned to the manufacturer or an authorized service point for proper recycling or repair. Do not dispose of batteries as general waste.
Long-Term Storage: If the vehicle will not be used for more than one month, ensure the main circuit breaker is turned OFF or the power plug is disconnected. Store the battery fully charged.
Charging Port Maintenance: When not charging, securely fasten the sealing cap on the charging port.

I. Under normal riding conditions, the first inspection (which can be understood as the initial maintenance) should be performed between 10 km and 300 km of usage.

1.Check chain tension.

2.Check the tension of the spokes on both the front and rear wheels.

3.Check for any play in the headset (steering stem assembly).

4. Check the tightness of all bolts on the handlebar assembly.

5.Check belt tension. (New belts may produce some friction noise. This can be eliminated by applying wax to both sides of the belt, or it can be ignored as it does not affect performance.)

6.Inspect and adjust the shock absorbers. Check for oil leaks and ensure the compression and rebound damping are set correctly. (Note: When adjusting, do not turn the adjustment knob fully to the left or right.)

NOTE

During the entire maintenance process, the vehicle must not be powered on. This means no operations should be performed while the vehicle is in the "ON" or activated state.

II. Safety During Inspection

1.Choose a wide, flat area to park the vehicle securely.

2.If a test ride is required, perform it only in a safe location, while remaining fully aware of your surroundings and conditions.

3.If any abnormality is detected during the inspection, resolve it before riding. If the issue is difficult to resolve yourself, please contact after-sales service or an authorized service center.

NOTE

Both the front and rear brakes are disc brakes. When the brake pads are severely worn, they should be replaced.
For daily use, keep the disc brake system clean. Avoid prolonged accumulation of mud and sand, and especially avoid oil contamination.

1. Inspection of Shock Absorbers

Check the shock absorbers for bending, deformation, or damage. For the front shocks, inspect for any damage, looseness, oil leaks, or other faults. Check for abnormal noises caused by front shock failure by gently rocking the handlebars up and down. If any abnormalities are found in the front shocks, please contact after-sales service or an authorized service center

2. Inspection of Brake Levers

Check the free play of the brake levers to ensure it is within the specified range (15-30 mm). If the measurement does not meet this specification, adjustment is required.

3. Inspection of Braking Effectiveness

Perform this test on a dry, flat surface at low speed. Apply the front and rear brakes separately to check their respective braking effectiveness.

4. Inspection of Tires, etc

As the vehicle's tires are in constant contact with the ground, road hazards such as stones, glass, and nails can cause damage. Pay attention to the road surface while riding and avoid areas that may harm the tires. Additionally, regularly inspect the tires for significant cracks, embedded foreign objects (stones, glass, etc.), or any abnormal and unreasonable wear.

1	Check the tread depth of the tires	2	Check the wheel spokes for any looseness
3	Inspect the tires for cracks, damage, embedded foreign objects, or abnormal wear		
4	Check the chain tension. The vertical play should be 10-20 mm		
5	With the tires in a cooled state, use a tire pressure gauge to check the air pressure		

Inspect Tire Wear and Condition， Replace the tire when wear reaches two-thirds (2/3) of the tread wear indicator block. If abnormal noise or wobbling occurs while riding, contact after-sales service or an authorized service center for inspection and repair.

Recommended Tightening Torques: Crank/Bottom Bracket Axle: 30 N·m ； Rear Axle Nut: 40 N·m； Front Axle Bolt: As specified for your fork model.

NOTE

1.The belt tension has been pre-adjusted at the factory. Do not make unauthorized adjustments.
2. If squeezing the brake lever does not provide adequate braking performance, first check the cleanliness of the brake discs. If the issue persists, contact after-sales service or an authorized service center for inspection.

NOTE

Preventive maintenance and regular inspection reduce the risk of functional issues. If additional service is required, please contact an authorized Y-VOLT dealer.

Recommended Maintenance Schedule

Note: Aggressive riding in harsh weather conditions or a lack of cleaning will shorten the maintenance intervals.

Item / Task	Interval
Remove dust and debris from the shock(s)	After every ride
Check air pressure and set sag	After every ride
Check torque of shock mounting bolts	After every ride
Disassemble lower section, clean and inspect bushings & seals; replace oil bath if necessary	Every 50 hours
Full front fork shock service	Every 100 hours or 1 year (whichever comes first)

Disposal

For proper disposal, please return any Y-VOLT product you wish to discard to an authorized Y-VOLT dealer.

Checking Battery Level

The vehicle uses a sealed battery. To check the battery level, press the battery power button. When all the battery LEDs are illuminated, it indicates a full charge.

Inspecting Battery Exterior

Check the battery for any physical damage. Damage to the top or bottom sealing covers or the central meter can compromise the seal, leading to a risk of water ingress. If any damage is found, please contact after-sales service or an authorized service center.

1. Verify that the charger's input voltage matches your local mains supply voltage.
2. Users are strictly prohibited from disassembling the battery to avoid damage and potential hazards.
3. The charger will automatically shut off when fully charged. However, avoid leaving the charger connected to the mains for extended periods. Do not exceed 6 hours of continuous connection.
4. Only use the official charger designed for this specific model. Do not use incompatible chargers to prevent battery damage or safety risks.

NOTE

1.Always turn off the battery switch before installing or removing the battery.
2.If the battery does not fit smoothly into the compartment, do not force it. Remove the battery and check if any foreign objects are causing an obstruction.
3.For winter storage, it is recommended to store the battery indoors above 0°C and periodically check the battery level.

Motor & Controller Maintenance

1. Periodically check the fuses for any looseness.
2. Periodically check the motor mounting bolts for tightness.
3. Periodically check the motor and controller wiring connections for looseness and inspect their insulation condition.
4. Do not ride through excessively deep water to avoid affecting motor operation.

NOTE

When the motor or controller temperature is too high, or the battery level is too low, the vehicle will automatically reduce power output. This is not a malfunction.
Do not submerge the vehicle beyond the wheel hubs. Prolonged riding with the motor submerged in water may cause motor failure.

Components	Warranty Scope	Warranty Period
Motor Assembly	Coil burning, phase deficiency, demagnetization, short circuit, open circuit, abnormal noise, hub damage due to material reasons	12 months
Lithium - ion Battery	After the lithium battery is fully charged under the specified environmental conditions (the recommended charging temperature range is 0°C to 35°C, and the operating temperature range is -10°C to 45°C), the battery should be used within this environment. At low temperatures, the battery capacity may degrade to varying degrees. Specifically, the available capacity is approximately 70% at -10°C, 85% at 0°C, and 100% at 25°C. If the battery has not been subjected to external force or impact, and issues such as abnormal voltage, failure to charge, or tested capacity below 70% (as measured by a discharge tester) occur, it will be eligible for warranty service. In the case of battery replacement under warranty, the warranty period for the new battery will be calculated based on the remaining warranty period of the original battery, starting from the date of replacement.	
Controller / Charger		
Air Switch / Electric Control Lock/ Main Cable Assembly/ Battery Box Lock/ Headlight / Tail Light / Horn / Converter Assembly	Performance failures or quality problems due to product reasons that cannot be repaired	

Components	Warranty Scope	Warranty Period
Brake Assembly	Oil leakage, inability to brake effectively (brake pads are excluded from the brake part)	12 months
Front and Rear Shock Absorber Assemblies	Oil leakage, no damping	
Dashboard / USB Charging Port / Combination Switch / Speed Control Central Unit	Performance failures or quality problems due to product reasons that cannot be repaired	
Rear Swing arm / Steering Tube / Rear Frame Assembly / Frame / Steering Column / Pedal Bracket / Rear Suspension Link / Rear Suspension Assembly / Kickstand / Sprocket / Front and Rear Belt Pulley / Pedal Assembly / Bottom Bracket Assembly / Swing arm Bottom Bracket / Wheel Rim / Rear Axle / Front Axle Assembly / Front and Rear Hub Assembly / Electronic Throttle / Battery Compartment Cover	Performance failures or quality problems due to product reasons that cannot be repaired	
All Vehicle Bearings (excluding Motor Bearings) / Brake Levers / Belt / Chain / Shock Absorber Oil Seals / Inner and Outer Tires / Brake Disc / Brake Pads / Steering Headset Assembly / Fender / Handlebar Grips / Seat Cushion / Fuse / Spokes / Decorative Components / Plastic Parts / and Other Related Items	Wearing parts	Not Covered Under Warranty

Y-VOLT Vehicles After-Sales Service & Warranty Policy

Warranty Rules

1.Full Vehicle Warranty (1 Year): Covers the motor, controller, battery, charger, and other non-consumable components. Free repair is provided for performance failures not caused by human damage, subject to the specific terms outlined in the <Three-Guarantee Parts Warranty Standards> section of this manual.

Returns or exchanges are not supported in the absence of quality issues. If a functional failure or product quality defect occurs, and an inspection by a company-authorized service center confirms it is not due to human causes, the customer may choose a return or exchange.

Warranty Start Date

The warranty period is calculated based on the following valid proofs of purchase (in order of precedence):

1.Offline Purchase: The date on the official invoice or purchase receipt (whichever is earlier).

2.Online Purchase: The date on the delivery confirmation / signed receipt. The warranty begins on the day after the customer's sign-off date.

3.Valid Proofs: The signed delivery slip and the purchase invoice serve as the primary valid documents.

4.Missing/Illegible Proofs: If valid proofs are missing, incomplete, or illegible, the warranty start date will be based on the sales date recorded in the company's system.

Non-Warranty Coverage

The following situations are not covered under the free warranty service and will require paid repairs by the user.

1	Exceeding the service period or scope specified in this instruction manual.
2	Damage to parts caused by the user using non - original factory spare parts or unauthorized modification of the circuit and line configuration.
3	The user modifies, disassembles, and damages the normal use state of the whole product and its parts by themselves.
4	The user fails to provide valid warranty proof , regular product invoices, or the number on the voucher or card does not match the product.
5	Product failures or damages caused by human factors such as collision, falling, traffic accidents, overloading (this vehicle is for a single person, carrying passengers is strictly prohibited), and over - speeding during the user's use.
6	Quality problems caused under extreme sports, for the purpose of challenging the limit or speed racing, are not covered by the warranty. It is recommended that the vertical drop be within 50cm.
7	Reasonable wear and tear during normal use.
8	The product has been fully compensated by the insurance company.
9	Failures or damages of the sold product caused by rainwater, ice and snow soaking, smoke, drugs, chemical corrosion, and force majeure (including but not limited to earthquakes, typhoons, fires, floods, social events, mass incidents, violent crimes, etc.).
10	Improper use of the user's battery, long - term storage (such as the vehicle's power plug not being closed and placed in the open for more than one month, stored alone with the initial power lower than 60% and for more than 3 months), over - discharge, failure to charge in time or failure to perform regular maintenance in time, resulting in the battery being unable to be repaired due to power loss and voltage failure; or due to the appearance of the battery being damaged and the waterproof performance being broken, and continued use without timely repair, resulting in damage to the circuit board and battery core after water ingress.

User self maintenance schedule	
Maintenance Items	**Maintenance Requirements**
Maintenance of front shock absorber/rear shock absorber, brake fluid	Once every half a year
Replacement of brake pads	<0.5mm thickness
Replacement of brake discs	The friction surface with brake pads has a thickness < 1.5mm
Replacement of all - vehicle bearings	Abnormal noise or looseness occurs
Wheel replacement	< 2/3 of the tread height of a new tire

NOTE

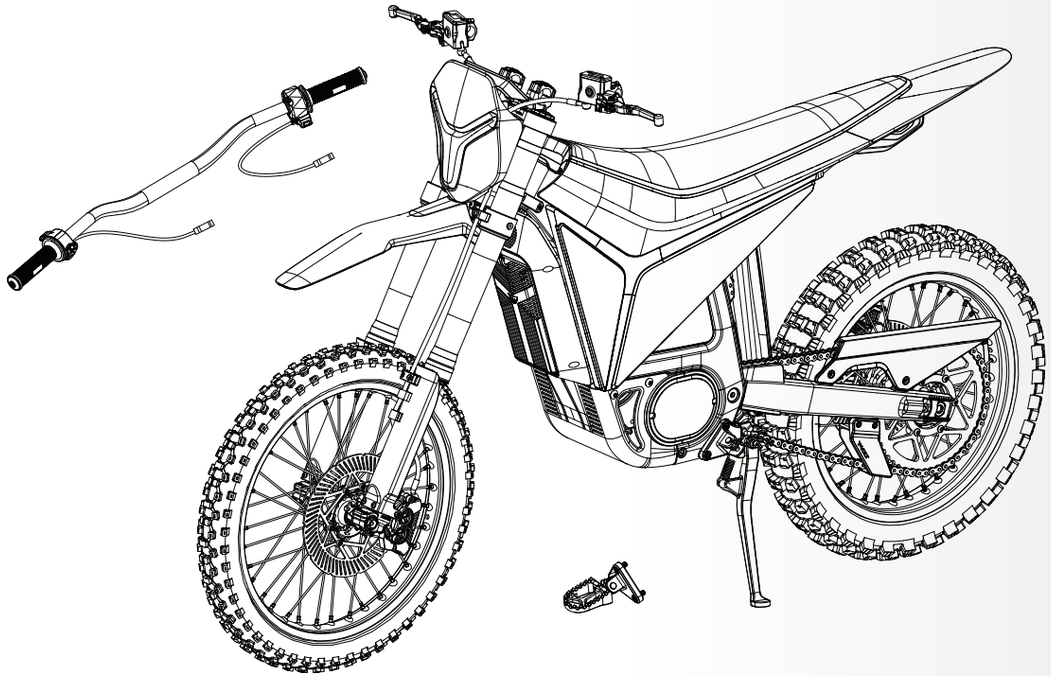
Scientific maintenance can greatly extend the service life of the vehicle. Especially after intense driving or driving on unpaved roads (off - road), a thorough inspection of the vehicle condition must be carried out to ensure that all components of the vehicle body can work normally.

Regular Maintenance Record Card		
Maintenance Period	**Maintenance Requirements**	**Maintenance personnel/ unit stamp**
300km/1 month	Check the fasteners of the whole vehicle, check the tension of the chain and belt (motor/wheel system/braking/spokes, etc.)	
1000km/3 months after the first maintenance	Check the tightening of all safety components of the whole vehicle, check the large - current circuit, check the tension of the chain and belt (motor/wheel system/braking/spokes, etc.)	
2000km/6 months	The friction surface with the brake pads has a thickness of < 1.5mm	

Warranty Record Card		
Repair Person/Unit Seal	**Repair Person/Unit Seal**	**Repair Person/Unit Seal**

Packing List

Please carefully check the contents of the package to ensure all items are present and in good condition. If any items are missing or damaged, please promptly contact your dealer or the manufacturer's after-sales department.





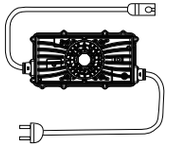
Product Manual &
Warranty Certificate



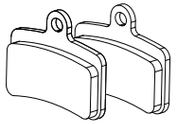
NFC card*1



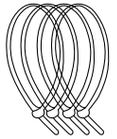
Multifunction Tool Set (1 set)



Charger



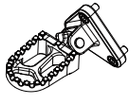
Brake Pads*2



Black Cable Ties*6



Screws*4



Right footrest



Key*1



NFC Wristband

NOTE

All maintenance must be performed with the vehicle's power turned off.
Operating on a live system can cause severe injury or equipment damage

Important Notes

1.Verify that the charger's input voltage matches your local mains supply voltage.

2.Charge the battery in a safe location, out of the reach of children.

3.Users are strictly prohibited from disassembling the battery to avoid damage and hazards.

4.For winter storage, it is recommended to store the battery indoors above 0°C and check its charge level periodically.

5.If the battery does not fit smoothly into the compartment, do not force it. Remove the battery and check for any foreign objects causing an obstruction.

6.The charger will automatically shut off when fully charged. However, avoid leaving the charger connected to the mains for extended periods; do not exceed 6 hours.

7.Do not cover the charger during use. This is an indoor-use charger; operate it in a dry, well-ventilated environment.

8.Inspect the battery for damage. If the top or bottom sealing covers or the central meter are damaged, the seal may be compromised, leading to a risk of water ingress.

9.Always use the official charger model designed for this vehicle. Using incompatible chargers may damage the battery or create safety risks.

10.If you detect an unusual odor, excessive heat, or if the battery fails to indicate a full charge after an abnormally long time during charging, stop immediately and take the unit to an authorized service center for inspection.